Addendum No. 1
December 5, 2023

To Contract Documents for

CURTIS HALL RENOVATIONS
Castine, ME

Maine Maritime Academy
1 Pleasant Street, Castine, ME 04421

CHA Project Number 076982

BGS Project Number 3397

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Curtis Hall Renovations
Maine Maritime Academy
1 Pleasant Street, Castine, Maine 04421
Addendum #1
Date: December 5, 2023

This Addendum modifies, amends and supplements designated parts of the Contract Documents, Project Manual and Drawings for

Curtis Hall Renovations at Maine Maritime Academy, dated **November 22, 2023**

and is hereby made a part thereof by reference and shall be as binding as though inserted in its entirety in the locations specified herein. It shall be the responsibility of the Contractor to notify all Subcontractors and Suppliers they propose to use for the various parts of the work of any changes or modifications contained in this Addendum.

INDEX

GENERAL INFORMATION

1. Note: The original Project Manual posted on the BGS website was a draft specification and was replaced with the correct full Project Manual on Nov. 29, 2023.

PART I- ADDENDUM FOR CIVIL SPECIFICATIONS AND DRAWINGS:

1. None

PART II- ADDENDUM FOR STRUCTURAL SPECIFICATIONS AND DRAWINGS:

1. **CHANGES TO THE SPECIFICATIONS**
   - **a.** NONE
2. **CHANGES TO THE DRAWINGS**
   - a. Drawing S000 Structural – General Information: Added masonry Notes.
   - b. Drawing S101.1Phase 1 First Floor Structural Plans: Minor notes and Plan Reference Modifications
   - c. Drawing S101.2Phase 1 Second Floor Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
   - d. Drawing S101.3Phase 1 Third Floor Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
   - e. Drawing S101.4 Phase 1 Fourth Floor Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
   - f. Drawing S101.5 Phase 1 Roof Level Structural Plans: Added note regarding no access or available information relative to existing roof framing, deck removal and putback, masonry demo and put back modifications, finalized dunnage member sizing and detail callouts, and Plan Reference Modifications.
   - g. Drawing S101.G Phase 1 First Floor Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
   - h. Drawing S102.1 Phase 2 First Floor Structural Plans: Existing Framing sizes annotated, minor notes and Plan Reference Modifications

i. Drawing S102.2 Phase 2 Second Floor Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
j. Drawing S102.3 Phase 2 Third Floor Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
k. Drawing S102.4 Phase 2 Roof Level Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
l. Drawing S102.5 Phase 2 Added note regarding no access or available information relative to existing roof framing, masonry demo and put back modifications, finalized dunnage member sizing and detail callouts, and Plan Reference Modifications.
m. Drawing S103.1 Phase 3 First Floor Structural Plans: Existing Framing sizes annotated, Floor Hatch location identified, Slab demo extents revised, minor notes and Plan Reference Modifications
n. Drawing S103.2 Phase 3 Second Floor Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
o. Drawing S103.3 Phase 3 Third Floor Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
p. Drawing S103.4 Phase 3 Roof Level Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
q. Drawing S103.5 Phase 3 Roof Level Structural Plan: Added note regarding no access or available information relative to existing roof framing, deck removal and putback, masonry demo and put back modifications, finalized dunnage member sizing and detail callouts, and Plan Reference Modifications.
r. Drawing S104.2 Phase 4 Second Floor Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
s. Drawing S104.3 Phase 4 Third Floor Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
t. Drawing S104.4 Phase 4 Fourth Level Structural Plans: Existing Framing sizes annotated, masonry demo and put back modifications, and Plan Reference Modifications.
u. Drawing S104.5 Phase 4 Roof Level Structural Plan: Added note regarding no access or available information relative to existing roof framing, deck removal and putback, masonry demo and put back modifications, finalized dunnage member sizing and detail callouts, and Plan Reference Modifications.
v. Drawing S202 DELETE in its entirety.
w. Drawing S401 Enlarged Structural Framing Part Plans: Completed annotation and section callouts for roof and condenser dunnage configurations.
x. Drawing S402 Entry Canopy Structural Framing Plan: Updated detailing.
y. Drawing S500 Structural Details: Revised details.
z. Drawing S501 Structural Details: Completed annotation and section callouts for roof and condenser dunnage configurations, added details.

PART III- ADDENDUM FOR ARCHITECTURAL PROJECT MANUALS AND DRAWINGS:

1. CHANGES TO THE SPECIFICATIONS

a. Section 017400 – CONSTRUCTION WASTE MANAGEMENT with revised version attached with changes noted in **Bold. REPLACE** the section in its entirety.
b. Section 028210-ASBESTOS ABATEMENT - **ADD** the section in its entirety.
c. Section 00110-TABLE OF CONTENTS changes indicated in Bold adding Asbestos Abatement - **REPLACE** the section in its entirety.
d. Appendix 1 – Hazardous Materials Assessment for Curtis Hall - **ADD** the section in its entirety.
e. Appendix 2 – Supplemental ACM Roof Sample Results for Curtis Hall - **ADD** the section in its entirety.

2. CHANGES TO THE DRAWINGS

a. Drawing COVER SHEET - **REPLACE** the sheet in its entirety. Includes additions and deletions to the drawing list.
b. Drawing A000.1 – GENERAL - **REPLACE** the sheet in its entirety. includes updates to general notes, keynote legends, and alternate language.
c. Drawing A203 -EXTERIOR ELEVATIONS – LOBBY - **REPLACE** the sheet in its entirety. Includes updates to sheet title, storefront tags placed, mullion added to window, exterior elevation view adjusted to show windows.
d. Drawing A210 – INTERIOR ELEVATIONS, **REPLACE** the sheet in its entirety. includes updates to notes added to views
e. Drawing A401 – TYPICAL ENLARGED PLANS – BATHROOMS. **REPLACE** the sheet in its entirety.
f. Drawing H100 – GROUND FLOOR IDENTIFIED ASBESTOS-CONTAINING MATERIALS. **ADD** the sheet in its entirety
g. Drawing H101-FIRST FLOOR IDENTIFIED ASBESTOS-CONTAINING MATERIALS. **ADD** the sheet in its entirety
h. Drawing H102-SECOND FLOOR IDENTIFIED ASBESTOS-CONTAINING MATERIALS. **ADD** the sheet in its entirety
i. Drawing H103-THIRD FLOOR IDENTIFIED ASBESTOS-CONTAINING MATERIALS. **ADD** the sheet in its entirety
j. Drawing H104-FOURTH FLOOR IDENTIFIED ASBESTOS-CONTAINING MATERIALS. **ADD** the sheet in its entirety

PART IV- ADDENDUM FOR MECHANICAL SPECFICATIONS AND DRAWINGS:

1. CHANGES TO THE SPECIFICATIONS

a. Section 211000 – Fire-Suppression Sprinkler System: **ADD** the section in its entirety.

2. CHANGES TO THE DRAWINGS

Revised Mechanical drawings: pipe sizes, duct sizes, keyed notes, refrigerant piping layouts, expansion joints, view scale, schedules, etc.

a. MEP000
b. M101.G
c. M101.0
d. MH101.1
e. MP101.1
f. M101.2
g. M101.3
h. M101.4
i. M101.5
j. MH102.1
k. MP102.1
l. M102.2
m. M102.3
n. M102.4
o. M102.5
p. MH103.1
q. MP103.1
r. M103.2
s. M103.3
t. M103.4
u. M103.5
v. M104.G

w. MH104.1
x. MP104.1
y. M104.2
z. M104.3
aa. M104.4
bb. M104.5
cc. M601
dd. M603

a. Revised Fire Protection drawings: hatched soffit callouts, notes, etc.
    a. FP100.0
    b. FP100.1
    c. FP100.2
    d. FP100.3
    e. FP100.4

PART V- ADDENDUM FOR ELECTRICAL SPECIFICATIONS AND DRAWINGS:

1. CHANGES TO SPECIFICATIONS

a. None

2. CHANGES TO DRAWINGS

a. All EL- series drawings:
b. updated keynotes for clarity; updated stairwell layouts; updated various missing keynotes on plans; added missing EBUs; revised fixture types
c. EP101.5, EP102.5, EP103.5, EP104.5 – added service receptacles at equipment
d. EP101.0 – updated view title for consistency
e. EP102.1 – updated courtyard horn/strobe candela rating
f. EP103.1 – updated main entry fire alarm, door operator, and card reader
g. EP104.3 – removed duplicate panel
h. E400 – updated typical room layouts
i. E600 – added technology matrix symbology
j. E601 – updated mechanical equipment schedule
k. E602, E603 – updated panel schedules

END OF ADDENDUM

PROJECT MANUAL

TABLE OF CONTENTS

DIVISION 21 – FIRE SUPPRESSION

DIVISION 22 – PLUMBING

DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

DIVISION 26 – ELECTRICAL

END OF TABLE OF CONTENTS

SECTION 017400

CONSTRUCTION WASTE MANAGEMENT

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS, which are hereby made a part of this Section of the Specifications.

1.2 SUMMARY

A. This Section includes requirements for the Contractor's implementation of waste management controls and systems for the duration of the Work.

B. Develop a waste management plan, quantifying material diversion by either weight or volume to recycle and/or salvage non-hazardous construction and demolition debris.

1.3 INTENT

A. The Owner and Architect have established that this Project shall generate the least amount of waste practical and that processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors shall be employed.

B. With regard to these goals the Contractor shall develop, for the Architect's review, a Construction Waste Management Plan (CWMP) for this Project.

C. Each Subcontractor shall be responsible for segregating his own waste into different dumpsters as directed by the Contractor.

D. Contractor shall be responsible for ensuring that debris will be disposed of at appropriately designated licensed solid waste disposal facilities, as defined by MGL Chapter 111, Section 150A.

1.4 SUBMITTALS

A. Waste Management Plan (WMP): Submit within 21 calendar days after receipt of Notice to Proceed, in a format acceptable to the Owner.

1. Analysis of the proposed jobsite waste to be generated, including types and rough quantities.
2. Landfill Options: The name of the landfills where trash and building debris will be disposed of, the applicable landfill tipping fees, and the projected cost of disposing of all Project waste in the landfills.
3. Landfill Certification: Contractor’s statement of verification that landfills proposed for use are licensed for types of waste to be deposited and have sufficient capacity to receive waste from this project.

4. Alternatives to Landfilling: A list of each material proposed to be salvaged or recycled during the course of the Project. Include the following and any additional items proposed:
   a. Cardboard and paper products.
   b. Clean dimensional wood.
   c. Beverage containers.
   d. Concrete.
   e. Slurry wall materials.
   f. Bricks and masonry.
   g. Asphalt.
   h. Metals from framing, banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
   i. Mechanical and electrical equipment.
   j. Building components which can be removed relatively intact from existing construction.
   k. Packaging materials, including cardboard, boxes, plastic sheet and film, polystyrene packaging, wood crates, plastic pails.
   l. Glass.
   m. Scraps from new gypsum wall board.
   n. Carpet and pad.
   o. Acoustical ceiling panels.
   p. Plastics.

5. Meetings: A description of the regular meetings to be held to address waste management.
6. Materials Handling Procedures: A description of the means by which any waste materials identified above will be protected from contamination, and a description of the means to be employed in recycling the above materials consistent with requirements for acceptance by designated facilities.
7. Transportation: A description of the means of transportation of the recyclable materials (whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site) and destination of materials.

B. Waste Management Progress Reports: Concurrent with each Application for Payment, submit a written Waste Management Progress Report in the same format as required for Final Report.

C. Waste Management Final Report: Prior to Substantial Completion, submit a written Waste Management Final Report summarizing the types and quantities of materials recycled and disposed of under the Waste Management Plan. Include the name and location of disposal facilities.

1. Material category.
2. Generation point of waste.
3. Total quantity of waste, by weight.

D. Other Submittals:

1. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
2. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.

3. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, and/or receipts.
4. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, and/or receipts.
5. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.
6. **Bills of lading, manifests, and/or certificates of recycling and/or recovery of Universal Wastes as defined by EPA and Maine Department of Environmental Protection (MDEP) regulations.**

1.5 CONTRACTORS

A. Contractor may subcontract work of this Section to a sub-contractor specializing in recycling and salvaging of construction waste.

B. Gypsum Wallboard Recycling: New, paper-faced gypsum wallboard scrap (cuts from construction - not demolition waste) generated at project shall be recycled. Keep scrap dry.

C. Acoustical Ceiling Panel Recycling: Demolition and construction waste pulpable mineral fiber ceiling panels may be recycled by Armstrong World Industries and US Gypsum. Contact Armstrong at 1-877-ARMSTRONG (1-877-276-7876) or www.armstrong.com or contact USG at 1-800-USG-4YOU or www.usg.com, to coordinate recycling efforts, apply for product approvals, and receive reclamation procedure requirements.

D. Carpet Recycling: Demolition and construction waste carpet and carpet padding may be recycled by Carpet America Recovery Effort (CARE). Visit www.carpetrecovery.org to locate carpet reclaimers in local project area and reclamation procedure requirements.

PART 2 - PRODUCTS [Not Used]

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

A. General: Implement Waste Management Plan as approved by the Architect. Provide containers, storage, signage, transportation, and other items as required to implement WMP for the entire duration of the Contract.

3.2 WASTE MANAGEMENT PLAN IMPLEMENTATION

A. Manager: The Contractor shall designate an on-site person responsible for instructing workers and overseeing and documenting results of the Waste Management Plan for the Project.

B. Distribution: The Contractor shall distribute copies of the Waste Management Plan to the Job Site Foreman, each Subcontractor, the Owner and the Architect.

C. Instruction: The Contractor shall provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the Project.

D. Separation Facilities: The Contractor shall lay out and label a specific area to facilitate separation of materials for recycling, salvage, reuse, and return. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials. Location shall be acceptable to the Architect.

E. Hazardous Wastes: Any unforeseen hazardous wastes shall be separated, stored, and disposed of according to local regulations and as directed by the Owner.

END OF SECTION

SECTION 028210 - ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 GENERAL REQUIREMENTS and DIVISION 02 EXISTING CONDITIONS which are hereby made a part of this Section of the Specifications.

1.2 SUMMARY

A. This Section includes furnishing labor, materials, equipment, supplies, and performing all operations necessary to complete the removal of asbestos-containing materials (ACM) by a qualified ASBESTOS ABATEMENT SUBCONTRACTOR with competent persons willing, trained, knowledgeable and qualified in the techniques of asbestos abatement, handling and disposal of ACM and asbestos-contaminated materials and the subsequent cleaning of contaminated areas, and complying with all applicable federal, state, and local regulations in accordance with the attached drawings and these specifications.

1.3 SCOPE OF WORK

A. Remove identified and similar ACM impacted by the planned phased renovation work at Curtis Hall located on the Maine Maritime Academy (MMA) campus in Castine, Maine as identified in Figures H100, H101, H102, H103 and H104. These figures provide general coordination of information only, are schematic in nature, and do not identify individual items to be removed as required by the phased renovation project. ASBESTOS ABATEMENT SUBCONTRACTOR is responsible for confirming actual quantities of ACM and non-ACM building materials to be removed under this Contract.

B. The work to be performed under this Contract consists of the removal and disposal of ACM present on the interior and exterior of the building impacted by the planned phased renovation of the building as described in Section 1.4 - Summary of Materials, **Table 1**: *Summary of Identified Asbestos Containing Materials (ACM) and Estimated Quantities, Curtis Hall, Maine Maritime Academy, Castine, Maine.* The ASBESTOS ABATEMENT SUBCONTRACTOR is responsible for identifying and confirming the actual quantities of ACM to be removed as part of the phased renovations prior to submission of a proposal or bid.

C. The ASBESTOS ABATEMENT SUBCONTRACTOR shall be responsible for the preparation of a site-specific asbestos abatement project design and work plan for each work area. An Asbestos Abatement Design Consultant licensed by the Maine Department of Environmental Protection (MDEP) will prepare the design. The site-specific asbestos abatement project design and work plan will be signed by the licensed Asbestos Abatement Design Consultant prior to approval to proceed with work.

D. The ASBESTOS ABATEMENT SUBCONTRACTOR shall be responsible for the submission of all appropriate Federal, State and local notifications and fees.

E. The ASBESTOS ABATEMENT SUBCONTRACTOR shall be responsible for providing a MDEP licensed independent air monitor for all visual evaluations and air clearances.

The ASBESTOS ABATEMENT SUBCONTRACTOR shall be responsible for conducting personal exposure monitoring on their employees during abatement activities.

1.4 SUMMARY OF MATERIALS

A. See **TABLE 1**: *Summary of Identified Asbestos Containing Materials (ACM) and Estimated Quantities, Curtis Hall, Maine Maritime Academy, Castine, Maine.*

TABLE 1 | SUMMARY OF IDENTIFIED ASBESTOS CONTAINING MATERIALS (ACM) AND ESTIMATED QUANTITIES
CURTIS HALL, MAINE MARITIME ACADEMY, CASTINE, MAINE

Room Section/Number	Sample #:	Pipe Insulation and Associated Mud Pipe Fittings (LF)	Tank Insulation (SF)	Mud Pipe Fittings Insulation on Fiberglass-insulated lines (EA)	Gasket on stored equipment (SF)	Asphalt Vapor Barrier (SF)	Floor Tile Adhesive beneath Non-ACM Floor Tile (SF)	Floor Tile and associated ACM adhesive (SF)	Exterior Caulk Associated with Window Frames (EA)	Comment
GROUND FLOOR										
Boiler Room - Mezzanine	PH1-002C PH1-003A	30								
	PH1-004A			25						
	PH1-005A		50							
Boiler Room	PH1-004A			26						
Electrical Room	PH1-004A			7						
Armory Chase	PH1-004A			10						
	PH2-043A					40				
Armory	PH2-043A					60				
Rifle Range (B34)	PH2-043A					180				
	PH2-041A				2					
Hallway (B10)	PH1-012A			4						Above ceiling tiles
The Bilge (G1)	PH4-047A						625			
Kitchen (G2)	PH4-047A						55			
Men's Room (G4)	PH!-012A			20						Chase inaccessible
Women (G5)	PH1-012A			5						located within a pipe enclosure
Bookstore Storage (G17)	PH1-012A			10						
Bookstore (G106)	PH1-012A			7						
FIRST FLOOR										
Tele Equip TE001	PH1-016A							60		
Storage S111	PH1-016A							50		
Conf Dept Office (F115)	PH1-016A							180		

TABLE 1 | SUMMARY OF IDENTIFIED ASBESTOS CONTAINING MATERIALS (ACM) AND ESTIMATED QUANTITIES
CURTIS HALL, MAINE MARITIME ACADEMY, CASTINE, MAINE

Room Section/Number	Sample #:	Pipe Insulation and Associated Mud Pipe Fittings (LF)	Tank Insulation (SF)	Mud Pipe Fittings Insulation on Fiberglass-insulated lines (EA)	Gasket on stored equipment (SF)	Asphalt Vapor Barrier (SF)	Floor Tile Adhesive beneath Non-ACM Floor Tile (SF)	Floor Tile and associated ACM adhesive (SF)	Exterior Caulk Associated with Window Frames (EA)	Comment
Hallway near F107	PH1-012A			15						
Anchor Lounge (R101)	PH1-012A			4						
SECOND FLOOR										
H203	PH1-012A			2						
Hallway outside T235/T236	PH1-012A			4						
T202	PH1-012A			3						
Hallway outside T204	PH1-012A			2						
Hallway outside S203	PH1-012A			2						
S207	PH1-012A			2						
THIRD FLOOR										
T319				4						
H303				1						
Hall outside T338				4						
FOURTH FLOOR										
Hall outside L404				2						
EXTERIOR										
Exterior	PH1-030A								475	
TOTALS:		**30**	**50**	**159**	**2**	**280**	**680**	**290**	**475**	

1.5 RELATED REQUIREMENTS

A. Drawings, Project Manual, and general provisions of the Contract, including, without limitation, General Conditions of the Contract, additional General Conditions of the Contract, and Division 00 and Division 01 specification sections, apply to this Section.

B. 024100 Demolition

1.6 REFERENCES

A. Applicable Code of Federal Regulations (CFR):
1. 29 CFR 1910.1001 - General Industry Standard for Asbestos
2. 29 CFR 1926.1101 - Construction Standard for Asbestos
3. 29 CFR 1910.134 - General Industry Standard for Respiratory Protection
4. 29 CFR 1910.1200 - Hazard Communication.
5. 40 CFR 61 - Subpart M National Emission Standards for Hazardous Air Pollutants - Asbestos

B. Applicable Code of Maine Rules (C.M.R.):
1. 06-096 C.M.R.Ch. 425 - Asbestos Management Regulations
2. 06-096 C.M.R.Ch. 411 - Non-Hazardous Waste Transporter Licensing Regulations
3. 06-096 C.M.R.Ch. 405 - Solid Waste Management Regulations

1.7 SUBMITTALS

A. Submittals will be received by the OWNER in accordance with this section before material or equipment is purchased or work is performed. The ASBESTOS ABATEMENT SUBCONTRACTOR shall submit to the OWNER, for review, two copies of the information required herein. The adequacy and accuracy of submittals and their compliance with contract documents are the responsibility of the ASBESTOS ABATEMENT SUBCONTRACTOR. All reviewing actions taken by the OWNER will in no way relieve the ASBESTOS ABATEMENT SUBCONTRACTOR of quality control requirements.

B. General

The ASBESTOS ABATEMENT SUBCONTRACTOR shall submit:

1. A list of proposed subcontractors with their addresses, specialties, and qualifications.
2. Certificate(s) of Insurance indicating coverage for asbestos abatement work.

C. Work Practices and Procedures:

1. Design and Work Plan: The ASBESTOS ABATEMENT SUBCONTRACTOR shall be responsible for the preparation of a site-specific asbestos abatement project design and work plan for each work area. An Asbestos Abatement Design Consultant licensed by the MDEP will prepare and sign the design.

   The ASBESTOS ABATEMENT SUBCONTRACTOR shall submit a written work plan and sketches of the work procedures to be used in the removal, disposal and replacement of materials. The abatement plan will, at a minimum, include location of

asbestos control area, decontamination area, equipment decontamination enclosure, interface of trades involved in the construction, sequencing of asbestos-related work, disposal plan, type of wetting agent and sealant to be used, site specific air monitoring plan, personal air monitoring program and a description of the method to be employed to reduce fiber releases. For each work area, the abatement plan will show the point of controlled access to the building for transporting ACM from the regulated area to the exterior of the building. The abatement plan will show auxiliary make-up air points, location of HEPA exhaust ventilation units, location of HEPA exhaust, and location of pressure differential monitors.

2. Project Log: The ASBESTOS ABATEMENT SUBCONTRACTOR shall maintain a Project Log throughout the project. The log will contain notes concerning accidents that may happen and deviation from standard work procedures and project information. At project completion, the original log will be submitted to the OWNER.
3. Waste Disposal: The ASBESTOS ABATEMENT SUBCONTRACTOR shall identify the proposed waste disposal landfill for the project and provide a copy of the state approval certification Permits. The ASBESTOS ABATEMENT SUBCONTRACTOR shall provide a list of all permits, licenses, or manifests to be applied for, including notification of the MDEP.
4. The ASBESTOS ABATEMENT SUBCONTRACTOR shall prepare, for signature by the OWNER, an MDEP *Project Monitoring Disclosure Form.*
5. The ASBESTOS ABATEMENT SUBCONTRACTOR shall prepare for signature by the OWNER, an MDEP Asbestos Consultant Independent Business Relationship Disclosure Form.

D. Product and Equipment Data

1. Submit manufacturers' literature, catalog cuts, and product data sheets for products and equipment to be used in the asbestos abatement project. Attach Safety Data Sheets (SDS) to Product Data Sheets.
2. Submit SDS for products containing chemicals the ASBESTOS ABATEMENT SUBCONTRACTOR may be using on the project.
3. The ASBESTOS ABATEMENT SUBCONTRACTOR shall submit to the CONTRACTOR AND OWNER, two copies of the SDS attached to the Product Data sheet for new products brought on site for which an SDS has not been previously submitted. These submissions do not relieve the ASBESTOS ABATEMENT SUBCONTRACTOR of the OSHA requirements or ASBESTOS ABATEMENT SUBCONTRACTOR responsibilities with reference to the SDS nor does it relieve the ASBESTOS ABATEMENT SUBCONTRACTOR of responsibility for the subsequent proper use of the product.

E. Personnel, Training, Medical, and Respiratory Fit Test Documentation

The ASBESTOS ABATEMENT SUBCONTRACTOR shall submit the following:

1. Experience Summary: Submit name and experience summary of project supervisors and foremen.
2. Personnel: Submit copies of Personnel Training Certificates, Medical Examinations, Medical Questionnaires, and Respirator Fit Tests:

    a. Summary Sheet: Submit a summary sheet of employees, listed in alphabetical order, to include name, social security number, classification, MDEP certificate number, and dates of training, medical examinations, medical questionnaires and respirator fit tests.

F. ASBESTOS ABATEMENT SUBCONTRACTOR's License: Submit a copy of the ASBESTOS ABATEMENT SUBCONTRACTOR's MDEP license and the name of the ASBESTOS ABATEMENT SUBCONTRACTOR's project Contract Representative.

G. Independent Asbestos Abatement Project Monitor (APM): Submit the name, associated firm and copy of MDEP license of the independent APM.

1.8 QUALITY ASSURANCE

A. Job Site References: The ASBESTOS ABATEMENT SUBCONTRACTOR shall have on site, at all times, at least one copy of each of the following:

1. Project Manual including Drawings and Specifications.
2. Guidance for Controlling Asbestos Containing Materials in Building (EPA 560/5-85-024), June 1985.
3. Asbestos Waste Management Guidance (EPA/530-SW-85-007) May 1985.
4. A Guide to Respiratory Protection for the Asbestos Abatement Industry (EPA-560-OPTS-86-001), September 1986.
5. OSHA Workplace Safety Standards, (29 CFR Parts 1910 and 1926).
6. NESHAPs Asbestos Regulations (40 CFR Part 61 Subpart M).
7. MDEP Asbestos Management Regulations (06-096 C.M.R. Chapter 425 (2011)).

B. Safety Compliance: The ASBESTOS ABATEMENT SUBCONTRACTOR shall, in addition to detailed requirements of this specification:

1. Comply with laws, ordinances, rules and regulations of federal, state, regional and local authorities regarding handling, storing, transporting ,and disposing of asbestos waste materials.
2. Comply with the applicable requirements of the current issue of 29 CFR 1910.1001; 40 CFR 61, Subparts M and 29 CFR 1926.1101.
3. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification and referenced documents vary, the most stringent requirement will apply.

C. Respirator Program: The ASBESTOS ABATEMENT SUBCONTRACTOR shall establish a respirator program as required by 29 CFR 1910.1001 and 1926.1101. This program will comply with all paragraphs of 29 CFR 1910.134.

1.9 AUTHORITY TO STOP WORK

A. The OWNER has the authority to stop the abatement work at any time that conditions are not within the specifications and applicable regulations. The stoppage of work will continue until conditions have been corrected and corrective steps have been taken to the satisfaction of the OWNER. The standby time required for the ASBESTOS ABATEMENT SUBCONTRACTOR's personnel and the APM to resolve violations will be at the ASBESTOS ABATEMENT SUBCONTRACTOR's expense.

B. Stop-Work Airborne Fiber Levels will be as follows:

1. Inside Contained Work Area (Removal): 0.5 f/cc (with wet methods).
2. Outside Contained Work Area: 0.01 f/cc as measured in clean room and/or the HEPA exhaust.

C. Stop work orders will be issued for, but not be limited, to the following:

1. Excessive airborne fiber concentrations inside and/or outside the work area.
2. Breaks in containment barriers.
3. Loss of negative air pressure (0.02 inches of water – minimum negative pressure to be maintained).
4. Failure of workers to wear appropriate respiratory protection.

PART 2 - PRODUCTS

2.1 MATERIALS

A. The ASBESTOS ABATEMENT SUBCONTRACTOR shall furnish materials as necessary to perform the work specified herein and to comply with current MDEP Asbestos Management Regulations, 06-096 C.M.R. Chapter 425 (2011).

2.2 GENERAL EQUIPMENT TO BE PROVIDED BY ASBESTOS ABATEMENT SUBCONTRACTOR

A. The ASBESTOS ABATEMENT SUBCONTRACTOR shall furnish equipment, including personnel protective equipment, as necessary to perform the work specified herein and to comply with current MDEP Asbestos Management Regulations, 06-096 C.M.R. Chapter 425 (2011).

B. Workers and authorized visitors exposed to airborne concentrations of asbestos fibers will be provided with disposable, protective, whole-body clothing, head coverings, gloves, and foot coverings, and use of tape. Protective clothing will be provided to all workers and authorized visitors in sizes adequate to accommodate movement without tearing. Goggles will be provided in accordance with ANSI Z87.1 to personnel engaging in certain asbestos operations when a full-face respirator is not required.

C. The ASBESTOS ABATEMENT SUBCONTRACTOR shall provide connections to existing water and electrical service provided by the OWNER as necessary to perform asbestos abatement related activities.

2.3 ENCAPSULANTS

A. Encapsulants will not be used on this project. Should it be determined that encapsulation is necessary, a spray type encapsulant will be used as a lockdown of exposed surfaces and piping, only if previously approved by the OWNER. Any encapsulant used must be able to withstand heat and have the capacity to be applied pre-heated.

2.4 ELECTRICAL

A. Electrical installations or modifications (including de-energization for the purposes of demolition of electrical components) are the responsibility of the ASBESTOS ABATEMENT SUBCONTRACTOR. The ASBESTOS ABATEMENT SUBCONTRACTOR shall coordinate all electrical work with the CONTRACTOR AND OWNER.

B. Ground default circuit interrupters (GFCI) will be provided for all electrical equipment to be installed outside the work area so that there is no live GFCI-protected electrical wiring inside the work area. The ASBESTOS ABATEMENT SUBCONTRACTOR shall furnish and install a portable GFCI Power Supply Board and receptacles including the following:

1. All circuits individually GFCI-protected.
2. Weatherproof enclosure NEMA 3 (rain-tight) with receptacle covers.
3. Construction durable, 16-gauge steel construction.
4. At least two 20-amp circuits (for APM).
5. Main circuit breaker.
6. Components UL listed.

C. The Decontamination Facility will be furnished with a power supply board with one 20-amp circuit for the APM.

PART 3 - EXECUTION

3.1 WORKER PROTECTION

A. General:

1. Asbestos abatement work will be performed in accordance with current OSHA standards 29 CFR 1910.1001, 29 CFR 1926.1101, and current MDEP Asbestos Management Regulations, 06-096 C.M.R. Chapter 425 (2011), and as specified herein.
2. The ASBESTOS ABATEMENT SUBCONTRACTOR shall provide all authorized visitors with protective clothing, headgear, eye protection, footwear, and hard hats as in the procedures described herein and afford them the use of all facilities to hold them free of contamination of asbestos fibers.
3. All authorized visitors shall be responsible for providing their own respirators with current copies of their medical clearance and fit test records prior to being allowed to enter the containment.
4. The ASBESTOS ABATEMENT SUBCONTRACTOR shall provide the decontamination and work procedures to be followed by workers, as well as the results of the personal air monitoring. This information must be posted outside of the clean room.

B. Respiratory Protection:

1. Respiratory protection will be worn by all persons potentially exposed to asbestos from the initiation of the asbestos abatement project until all areas have been given clearance. Clearance will be obtained by visual observation and air monitoring conducted by the APM.
2. Personal samples will be collected within the worker’s breathing zone. Personal sampling will be the responsibility of the ASBESTOS ABATEMENT SUBCONTRACTOR. Personal sampling results will be available on site no later than 24 hours after sampling.
3. The filters provided for respirators used during this work will be NIOSH approved for asbestos fibers.

C. Protective Clothing:

1. The ASBESTOS ABATEMENT SUBCONTRACTOR shall provide to all workers, foreman and superintendents, protective disposable clothing consisting of full body coveralls, head covers, gloves and 18-inch-high boot-type covers, and reusable footwear.
2. The ASBESTOS ABATEMENT SUBCONTRACTOR shall provide eye protection and hard hats as required by job conditions and safety regulations.

3. Reusable footwear, hard hats, and eye protection devices will be left in the "contaminated equipment room" until the end of the asbestos abatement work.
4. Upon completion of asbestos abatement, the footwear will be disposed of as contaminated waste or cleaned thoroughly inside and out using soap and water before removing it from the work area or from the equipment and access area.
5. All disposable protective clothing will be discarded and disposed of as asbestos waste when the wearer exits from the workspace to the outside through the decontamination facilities.
6. The color of the disposable clothing worn outside the work area will be a different color than the disposable clothing worn inside the work area.

3.2 DECONTAMINATION FACILITY

A. For each abatement area the ASBESTOS ABATEMENT SUBCONTRACTOR shall provide decontamination facilities located in an area established in the Asbestos Abatement Design.

B. The decontamination facility will be constructed and maintained as specified herein and in compliance with current MDEP Asbestos Management Regulations, 06-096 C.M.R. Chapter 425 (2011)

3.3 MAINTENANCE OF THE WORK AREA

A. The ASBESTOS ABATEMENT SUBCONTRACTOR shall maintain the work area as specified herein and in compliance with current MDEP Asbestos Management Regulations, 06-096 C.M.R. Chapter 425 (2011).

3.4 ASBESTOS CONTROL AREA CONSTRUCTION

A. The ASBESTOS ABATEMENT SUBCONTRACTOR shall prepare and maintain the asbestos control area (e.g., the Containment Area) as necessary to perform the work specified herein and in compliance with current MDEP Asbestos Management Regulations, 06-096 C.M.R. Chapter 425 (2011).

B. The ASBESTOS ABATEMENT SUBCONTRACTOR shall prepare and maintain the asbestos control area (e.g., the Containment Area) as necessary to perform the work specified herein and in compliance with current MDEP Asbestos Management Regulations, 06-096 C.M.R. Chapter 425 (2011).

3.5 ACM ABATEMENT METHODS

A. ACM Removal:

1. The ASBESTOS ABATEMENT SUBCONTRACTOR shall conduct ACM removal as specified herein and in compliance with current MDEP Asbestos Management Regulations, 06-096 C.M.R. Chapter 425 (2011).
2. The ASBESTOS ABATEMENT SUBCONTRACTOR shall be responsible for obtaining work practice variances from MDEP as necessary to complete the work.

3.6 FINAL CLEANUP AND INSPECTION PROCEDURE

A. Each work area will be evaluated for completion following the removal of visible residue from surfaces of equipment, floors and walls, and the removal of containers and equipment. Waste containers (except those containers necessary for waste from final

cleanup) will be packed, cleaned, and removed from the work area prior to final cleanup and monitoring. This evaluation will be completed by the ASBESTOS ABATEMENT SUBCONTRACTOR's Supervisor, subsequent to the completion of successful asbestos abatement clearance inspection, sampling, and analysis for each work area.

Visual evaluation protocol will include:

1. Entering the work area where the abatement/clean-up/remediation activity was performed.
2. Inspection of the surfaces from which ACM and associated residue was removed.
3. Examination of the permanent features within the work area such as walls, floors, ceilings, conduits, pipes, tanks, etc., and attempting to determine whether residual materials or visible debris is present.
4. Examination of the decontamination and waste-load out facilities and observe whether residual material or visible debris is present. The waste will be evaluated to determine proper containerization and labeling.

B. The ASBESTOS ABATEMENT SUBCONTRACTOR shall re-clean if necessary and the area re-inspected.

C. The ASBESTOS ABATEMENT SUBCONTRACTOR is responsible for providing final asbestos abatement clearance inspection, sampling, and analysis for each work area. Clearance inspections, sampling, and analysis will be performed in accordance with MDEP regulations by an independent, MDEP licensed APM.

D. After an area passes the clearance inspection, sampling, and analysis, the work area may be deregulated.

3.7 WASTE DISPOSAL

A. All waste material shall be properly handled, wetted, containerized, and disposed of in accordance with current MDEP Asbestos Management Regulations, 06-096 C.M.R. Chapter 425 (2011). The ASBESTOS ABATEMENT SUBCONTRACTOR shall count or measure the volume of each filled container leaving the work area and will maintain a written record of such.

B. Warning labels, having waterproof print and permanent adhesive, will be affixed to the sides of all waste bags or transfer containers. Warning labels will be conspicuous and legible and in accordance with 29 CFR 1926.1101.

C. Removal of waste (both asbestos and non-asbestos wastes) from the work area will be completed prior to the end of each work shift. Project related waste will not be allowed to accumulate in the work area.

D. Once a dumpster or waste container is full, the ASBESTOS ABATEMENT SUBCONTRACTOR shall arrange for transportation to the landfill, or to a pre-designated and approved off-site temporary location. Waste will not remain on-site longer than five days following completion of asbestos abatement activities.

E. Waste Transportation and Disposal Regulations:

1. It is the responsibility of the ASBESTOS ABATEMENT SUBCONTRACTOR to determine and ensure compliance with the current waste handling regulations applicable to the work site and the current regulations for waste transportation to and

disposal at each ultimate landfill. The ASBESTOS ABATEMENT SUBCONTRACTOR shall comply fully with these regulations and with all U.S. Department of Transportation (DOT) and U.S. Environmental Protection Agency (USEPA) requirements.

2. If required, the ASBESTOS ABATEMENT SUBCONTRACTOR (or Subcontractor), at no additional cost, will maintain a valid hazardous waste transporter's permit and identification number, and will document and fully comply with any hazardous waste manifesting requirements.
3. The ASBESTOS ABATEMENT SUBCONTRACTOR shall provide legal transportation of this waste to the ultimate disposal landfill and will have the waste hauler and landfill owner complete all other required manifests, dump slips, or other forms. The completed original of the Waste Shipment Record and copies of the other forms will be sent to the OWNER within five calendar days.
4. Waste may be transported to and temporarily stored at a pre-approved off-site storage area owned by the ASBESTOS ABATEMENT SUBCONTRACTOR, but it must ultimately be disposed of at the specified landfill before any payments are made.

F. Waste Disposal Fees: All contaminated waste handling costs, such as waste packaging, on-site/off-site storing and handling, transport and disposal, permitting, recordkeeping, and non-contaminated waste handling, must be included in the ASBESTOS ABATEMENT SUBCONTRACTOR'S proposal or bid as applicable to removal of asbestos materials and/or performance of the related abatement activities.

END OF SECTION

SECTION 211000

FIRE-SUPPRESSION SPRINKLER SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. The fire protection system scope shall provide extensions and alterations to the existing automatic sprinkler system as required to facilitate the renovations. The revisions and alterations shall include but not necessarily be limited to the following:

1. Revisions to the existing head layout at the exterior soffit area to facilitate removal of the existing soffit and installation of a new insulated soffit.
2. Revisions to the sprinkler routing and head placement as required to facilitate the addition of interior soffits to accommodate duct routing, refer to Fire Protection and Architectural drawings for soffit locations.
3. Extend sprinkler coverage within the former Rifle Range (currently Housekeeping Storage) to provide complete coverage throughout the space.
4. Add supervised valves with tamper switches as noted on the Fire Protection Drawings to facilitate zoned sprinkler shutdown in construction areas while maintaining full sprinkler protection throughout the occupied sections of the facility.

B. All work shall be completed in a manner that maintains complete protection for the facility, in accordance with NFPA 13, local, and State requirements.

C. Sprinkler coverage shall be maintained at owner occupied sections of the facility at all times, except for limited shutdowns as strictly scheduled with Maine Maritime Academy, limited to one half of one floor at a time, as required to complete alterations within the construction area as specified herein.

D. This Section includes fire-suppression sprinklers, piping, and equipment.

E. The Sprinkler Contractor shall place the sprinkler system in service and hand over the sprinkler system to the General Contractor for care and maintenance.

F. Performance and Design Criteria: Provide products and systems complying with specific performance and design criteria indicated.

1.3 SYSTEM PERFORMANCE REQUIREMENTS

A. Design sprinklers and obtain approval from authorities having jurisdiction. The design of the automatic sprinkler system shall be complete with all necessary accessories for proper operation.

B. The system shall be hydraulically calculated in accordance with all provisions of the Contract Documents and any authority having jurisdiction.

C. The contract documents do not include a fire pump. Provide over-sized piping as required to meet required system hydraulics. Contractor shall review the civil plans, the existing site and existing fire flow data. If the contractor or authority with jurisdiction determines that a fire pump is required: Provide in accordance with NFPA 20, "Stationary Pumps for Fire Protection," for fire pumps, drivers, controllers, accessories, and their installation.

D. Design sprinkler piping according to the following and obtain approval from authorities having jurisdiction:

1. Include a 5 percent margin of safety for available water flow and pressure.
2. Include losses through water-service piping, valves, and backflow preventers.

E. Sprinkler Occupancy Hazard Classifications:

1. Light Hazard:

a. Office and Public Areas
b. Corridors
c. Residential living areas

2. Ordinary Hazard, Group 1:

a. General Storage Areas
b. Mechanical Equipment Rooms
c. Building Service Areas.
d. Electrical Equipment Rooms
e. Laundry areas

F. Minimum Density for Automatic-Sprinkler Piping Design shall be in accordance with NFPA 13. Maximum Protection Area per Sprinkler shall be in accordance with NFPA 13.

1.4 GENERAL REQUIREMENTS

A. Components and Installation: Capable of producing piping systems with 175-psig minimum working-pressure rating, unless otherwise indicated.

B. Seismic Performance: If required by the authority with jurisdiction, fire-suppression piping shall be capable of withstanding the effects of earthquake motions determined according to NFPA 13.

C. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with fire stop materials. Refer to Division 7 for materials. Seal all penetrations through fire-or smoke-rated wall, partition, ceiling, or roof

assemblies with firestopping system. Refer to Architectural plans for location of rated assemblies.

D. Contractor shall obtain and pay for required permits.

E. Any hot work operations that are performed during this project shall be permitted by use of the FM Global Hot Work Permit System. The FM Global Hot Work Permit System shall be used to supervise all hot work operations (cutting, welding, brazing, grinding, soldering, etc.,) performed outside of any designated welding areas. A written policy statement shall specify who has the authority to issue permits on all shifts. In addition, a constant fire watch shall be continued for 1 hr. after work is completed and the area shall be monitored for an additional 3 hrs. after that.

1.5 SUBMITTALS

A. Shop Drawings: Submit working plans, prepared according to NFPA 13, and hydraulic calculations with cross reference to applicable drawings, water supply data, and equipment schedule with ratings for the system to the Owner's Representative, Insurance Underwriter, and other authorities having jurisdiction.

B. Product Data: Catalog sheets, specifications, and installation instructions. Indicate UL or FM approval for each product. Include the following additional information:

1. Pipe and fitting materials and methods of joining for sprinkler piping.
2. Pipe hangers and supports.
3. Piping seismic restraints.
4. Valves, including specialty valves, accessories, and devices.
5. Alarm devices. Include electrical data.
6. Electrical Devices: Complete description of intended use, wiring diagrams, data plate information and, in the case of switching devices, whether normally on or normally off. Include motor test data.
7. Mechanical Devices: Complete description of intended use, including normal operating capacities and working pressures.
8. Enclosures: Dimensions, materials, gages of metals; type of door hinges and locks, and methods of securing the enclosure members to the building construction.
9. Hose Threads: Verify that hose threads on fire department connections match threads on equipment used by the local or servicing fire department.

C. Design Data: The portions of the sprinkler system not sized on the Contract Drawings shall be sized in accordance with NFPA requirements for Hydraulically Designed Systems. Submit drawings and hydraulic calculations for approval.

D. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit three copies of a statement, signed and sealed by the responsible sprinkler system design professional. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Certification: Submit Contractor's NICET certification and number or PE license number.

E. Field Test Reports and Certificates: Indicate and interpret test results for compliance with performance requirements and as described in NFPA 13. Include "Contractor's Material and Test Certificate for Aboveground Piping" and "Contractor's Material and Test Certificate for Underground Piping."

F. Maintenance Data: For each type of sprinkler specialty to include in maintenance manuals specified in Division 1.

1.6 QUALITY ASSURANCE

A. Sprinkler Contractor

1. Installer Qualifications: An experienced installer who has designed and installed fire-suppression piping similar to that indicated for this Project and obtained design approval and inspection approval from authorities having jurisdiction.
2. Engineering Responsibility: Preparation of working plans, calculations, and field test reports by a qualified sprinkler designer. Sprinkler designer shall be legally qualified and licensed to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of fire-suppression piping that are similar to those indicated for this Project in material, design, and extent.
3. Contractor shall be a licensed fire sprinkler contractor.

B. Manufacturer Qualifications:

1. Firms whose equipment, specialties, and accessories are listed by product name and manufacturer in UL's "Fire Protection Equipment Directory" and FM's "Fire Protection Approval Guide" and that comply with other requirements indicated.
2. Sprinkler Components: Listing/approval stamp, label, or other marking by a testing agency acceptable to authorities having jurisdiction.
3. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
4. Factory Mutual Engineering Corporation (FM) Approval Guide

C. NFPA Requirements: Year edition per authority of jurisdiction.

1. NFPA #1: Fire Prevention Code
2. NFPA #13: Standard for the Installation of Sprinkler Systems
3. NFPA #101: Life Safety Code

1.7 COORDINATION

A. Arrange for pipe spaces, chases, slots, and openings in building structure during progress of construction, to allow for fire-suppression installations.

B. Coordinate installation of required supporting devices and set sleeves in poured-in-place concrete and other structural components as they are constructed.

C. Coordinate requirements for access panels and doors for fire-suppression items requiring access that are concealed behind finished surfaces. Access panels and doors are specified in Division 8.

D. Coordinate sprinkler head layout with all other trades.

1.8 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Sprinkler Cabinets: Finished, wall-mounting steel cabinet and hinged cover, with space for a minimum of six spare sprinklers plus sprinkler wrench. Include the number of sprinklers required by

NFPA 13 and wrench for sprinklers. Include separate cabinet with sprinklers and wrench for each type of sprinkler on Project.

PART 2 - PRODUCTS

2.1 PIPING

A. Pipe and fittings shall conform to the requirements of NFPA 13. Pipe shall be listed by UL and be FM approved, and installed per its listing and approval.

B. Wet sprinkler piping shall be:

1. Black steel Schedule 40 for 1 inch and smaller, and Schedule 10 for 1-½ inch and larger.

C. System piping shall be substantially supported to the building structure. The installation of hangers and supports shall adhere to the requirements set forth in N.F.P.A. 13. Materials used in the installation or construction of hangers and supports shall be listed and approved for such application.

D. Provide joining materials in accordance with NFPA 13.

E. Transition Couplings: AWWA C219, sleeve type, or other manufactured fitting the same size as, with pressure rating at least equal to, and with ends compatible with piping to be joined.

2.2 SPRINKLERS

A. Fire sprinklers shall be of one manufacturer throughout the building. No mixing of sprinkler brands shall be permitted. Sprinklers shall be of all brass frame construction with a quick response frangible bulb type fusible element.

B. Automatic Sprinklers: With U.L. listed heat-responsive elements.

C. Sprinkler Types and Categories: Provide per NFPA 13.

D. Provide quick response sprinklers.

E. Institutional Semi-Recessed or "Vandal-Resistant" sprinkler heads as required by application.

F. Sprinkler Escutcheons: Materials, types, and finishes of sprinklers. Escutcheons for concealed, flush, and recessed-type sprinklers are specified with sprinklers.

G. Sprinkler Guards: Wire-cage type, including fastening device for attaching to sprinkler.

2.3 SPRINKLER SPECIALTY FITTINGS

A. Sprinkler specialty fittings shall be UL listed or FMG approved, with 175-psig minimum working-pressure rating, and made of materials compatible with piping.

B. Sprinkler Drain and Alarm Test Fittings: Cast- or ductile-iron body; with threaded or locking-lug inlet and outlet, test valve, and orifice and sight glass.

C. Sprinkler Branch-Line Test Fittings: Brass body with threaded inlet, capped drain outlet, and threaded outlet for sprinkler.

D. Sprinkler Inspector's Test Fitting: Cast- or ductile-iron housing with threaded inlet and drain outlet and sight glass.

E. Drop-Nipple Fittings: UL 1474, adjustable with threaded inlet and outlet, and seals.

F. Contractor Option: Provide flexible sprinkler hose with fittings intended for use in sprinkler systems between the branch line and sprinkler. Provide in accordance with NFPA 13 and the manufacturer's installation instructions. Length: 38".

1. U.L. 2443 listed for sprinkler hose application.
2. Flexible Hose: Corrugated Stainless Steel AISI 304
3. Slip Nuts: Brass C3771BC
4. Reducer Fitting: Yellow Zinc/Steel SPPS
5. Special Shoulder Nipple (Inlet): Yellow Zinc/Steel SPPS
6. Reducing Nipple Clamp & Bolt: Galvanized Steel SS41
7. Maximum Working Pressure of Flexible Connection: 200 PSI
8. Test Pressure of Flexible Connection: 400 PSI
9. Maximum Temperature Rating of Flexible Connection: 300 °F
10. Provide ceiling bracket.

2.4 VALVES

A. Valves shall be UL listed and FMG approved

B. An NFPA-13 compliant setup including a backflow device, system control valve, flow switch, inspectors test, drain, and pressure gauge may be provided in lieu of an alarm valve.

2.5 WATERFLOW ALARMS

A. Flow of water equal to or greater than that from a single automatic sprinkler (smallest orifice in system) shall result in an audible alarm on the premises within 5 minutes after such flow begins and until such flow stops.

B. The alarm apparatus shall consist of a listed alarm check valve or other listed waterflow-indicating device with the necessary attachments to give an alarm.

C. The apparatus for a dry pipe system shall consist of alarm attachments to the dry pipe valve.

PART 3 - EXECUTION

3.1 EXISTING SYSTEMS

A. Refer to Division 1 demolition requirements and procedures. Disconnect, demolish, and remove fire-suppression systems, equipment, and components indicated to be removed.

B. Existing Sprinkler System Shutdown: Follow NFPA 13 and NFPA 25 recommendations. Before shutting down the sprinkler system to perform the Work, notify the Owner's Representative in

writing, the local fire department, and the alarm company, that the system is to be shut down temporarily. Give schedule which states date and time of proposed shut down and the approximate length of time that the system will be out of service. Request instructions for precautions that should be taken during the shutdown period. Do not shut down the system until schedule is approved by the Owner's Representative. Return the existing system to pre-shutdown operation immediately after the Work has been completed. Give written notice to the Director's Representative that the system has been returned to pre-shutdown operation.

3.2 PREPARATION

A. The nature of the work requires coordination with other trades. Shop fabrication shall be done at the Contractor's risk. Relocation of piping and components to avoid obstructions may be necessary. Relocation, if required, shall be done at the Contractor's expense. The installation shall be performed in a workmanlike manner as determined by the Owner's Representative and in accordance with the Contract Documents, manufacturer's printed installation instructions, and submitted and Owner's Representative reviewed drawings.

3.3 SPRINKLER APPLICATIONS

A. General: Use sprinklers according to the following applications:

1. Rooms/spaces without Ceilings: Upright sprinklers.
2. All occupied rooms with Finished Ceilings: Recessed Pendent.
3. Provide sprinkler guards for heads in mechanical and storage spaces, less than 8 ft. above finished floor subject to mechanical damage.
4. Low ceilings (under 8 feet): Concealed
5. Electrical or Data Rooms with finished ceilings: Concealed
6. Electrical or Data Rooms without ceilings: Provide guard.
7. Wall Mounting: Sidewall sprinklers.
8. Special Applications: Use extended-coverage, flow-control, and quick-response sprinklers where indicated.

B. Finishes

a. Unfinished spaces not exposed to view: rough bronze.
b. Recessed Sprinklers: White
c. Provide escutcheons with matching color for finished spaces.

3.4 SYSTEM INSTALLATIONS

A. Earthquake Protection: Provide piping according to NFPA 13 to protect from earthquake damage.

B. Water supply control valves shall be electrically supervised and mechanically locked for proper position. Water flow and supervisory circuits shall be in accordance with the requirements of electrical specifications. Electric connections to sprinkler system shall be by Division 26. Furnish wiring diagrams for all equipment.

C. A sprinkler head wrench of each style and model installed shall be provided to the owner at the completion of the project. A representative sampling of each sprinkler head style and model

shall be provided to the owner and housed in a sprinkler head cabinet at or near the sprinkler riser. The number of sprinkler heads provided to the owner shall be in accordance with NFPA 13.

D. Provide "Inspector's Test Connections" in sprinkler system piping, complete with shutoff valve, sized and located according to NFPA 13

E. Provide a vent near a high point in the system to allow air to be removed from that portion of the system.

3.5 SPRINKLER INSTALLATION

A. Provide sprinklers in suspended ceiling in center of all ceiling tiles.

B. Do not install pendent or sidewall, wet-type sprinklers in areas subject to freezing. Use dry-type sprinklers with water supply from heated space per NFPA 13.

C. Provide sprinkler piping with drains for complete system drainage.

D. Hangers and Supports: Comply with NFPA 13 for hanger materials.

3.6 LABELING AND IDENTIFICATION

A. Provide labeling and pipe markers on equipment and piping according to requirements in NFPA 13.

3.7 FIELD QUALITY CONTROL

A. Flush, test, and inspect sprinkler piping according to NFPA 13, "System Acceptance" Chapter.

B. Verify that specialty valves, trim, fittings, controls, and accessories are installed and operate correctly.

C. Verify that specified tests of piping are complete.

D. Verify that damaged sprinklers and sprinklers with paint or coating not specified are replaced with new, correct type.

E. Verify that sprinklers are correct types, have correct finishes and temperature ratings, and have guards as required for each application.

F. Verify that potable-water supplies have correct types of backflow preventers.

G. Verify that fire department connections have same type compatible with local fire department equipment.

H. Replace piping system components that do not pass test procedures and retest to demonstrate compliance. Repeat procedure until satisfactory results are obtained.

I. Fill wet-pipe sprinkler piping with water.

J. Energize circuits to electrical equipment and devices.

K. Coordinate with fire alarm tests. Operate as required.

3.8 CLEANING

A. Clean dirt and debris from sprinklers.

B. Remove and replace sprinklers having paint other than factory finish.

C. Clean and disinfect fire-suppression water-service piping as follows:

1. Purge new piping systems and parts of existing systems that have been altered, extended, or repaired before use.
2. Use purging and disinfecting procedure prescribed by authorities having jurisdiction or, if method is not prescribed by authorities having jurisdiction, use procedure described in NFPA 24 for flushing of piping. Flush piping system with clean, potable water until dirty water does not appear at points of outlet.
3. Use purging and disinfecting procedure prescribed by authorities having jurisdiction or, if method is not prescribed by authorities having jurisdiction, use procedure described in AWWA C651.
4. Prepare reports.

3.9 PAINTING

A. Painting of fire-suppression systems, equipment, and components is specified in Division 9.

B. Damage and Touchup: Repair marred and damaged factory-painted finishes with materials and procedures to match original factory finish.

3.10 PROTECTION

A. Protect sprinklers from damage until Substantial Completion.

END OF SECTION

Appendix 1

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

HAZARDOUS MATERIALS ASSESSMENT

FOR

MAINE MARITIME ACADEMY
CURTIS HALL
CASTINE, MAINE

Prepared For: CHA Architecture, P.C.
49 Dartmouth Street
Portland, Maine 04101

SEPTEMBER 19, 2023
JN: 13150.007

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HALEYWARD.COM

EXECUTIVE SUMMARY

Haley Ward, Inc. (Haley Ward) completed a limited Hazardous Materials Assessment (HMA) on August 25, 2023, to identify and assess hazardous materials on or within Curtis Hall located on the Maine Maritime Academy campus in Castine, Maine.

This assessment was completed to identify and assess Asbestos-Containing Materials (ACM), Lead-Based Paint (LBP)/lead-containing surface coatings, and Potential Universal Wastes/hazardous materials which would require special handling and disposal or would be regulated prior to or during the planned renovations of the structure as identified on CHA Architecture, P.C. (CHA) Demolition Floor Plans, dated March 24, 2023.

Previously-identified ACM included the following:

- Twelve-inch by twelve-inch (12x12) white floor tile and associated adhesive.

Additional ACM identified during this limited renovation impact survey includes;

- Pipe insulation and associated mud pipe fittings (Boiler room)
- Mud pipe fitting insulation on fiberglass-insulated lines
- Tank insulation (Boiler room)
- 12x12 dark brown mottled floor tile and associated adhesive
- Exterior caulk associated with windows
- Rope gasket
- Vapor barrier
- Floor tile adhesive beneath non-ACM floor tile

LBP/Lead-Containing Surface Coatings

LBP/Lead-containing surface coatings were identified on the interior of the building including:

- Structural steel

LBP/lead-containing surface coatings present on interior surfaces of the building were observed to be in fair condition.

Potential Hazardous Materials/Wastes and Universal Wastes

The following potential Hazardous Materials/Wastes and Universal Wastes were identified on the interior of the building:

- Fluorescent light bulbs
- Fluorescent light ballasts
- Emergency exit signs/batteries
- Mercury-containing thermostats

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APPENDICES

1.0 INTRODUCTION

Haley Ward, Inc. (Haley Ward) completed a limited Hazardous Materials Assessment (HMA) on August 25, 2023, to identify and assess hazardous materials on or within Curtis Hall located on the Maine Maritime Academy (MMA) campus in Castine, Maine. Curtis Hall is a five-story residence hall, constructed of masonry and steel, with dormitory rooms, student lounges, laundry facilities, bathrooms, and utility closets on the upper four floors. The ground floor contains the bookstore, recreation facilities and utility rooms with the first floor supporting the Administrative Offices and student and health services. The building includes an Ethylene Propylene Diene Monomer (EPDM) membrane roof system.

The HMA was completed to identify and assess Asbestos-Containing Materials (ACM), Lead-Based Paint (LBP)/lead-containing surface coatings, and Potential Universal Wastes/hazardous materials which would require special handling and disposal or would be regulated prior to or during the planned renovations of the structure as identified on CHA Architecture, P.C. (CHA) Demolition Floor Plans, dated March 24, 2023. The scope of the planned renovation work includes upgrades to mechanical, plumbing, electrical, fire protection, and heating systems and improvements to the building envelope including the roof, windows, and exterior cladding.

Curtis Hall was partially occupied by residents at the time of the survey. Haley Ward coordinated with MMA to identify unoccupied residential units and evaluated approximately twenty five percent of the residential units within the building. Haley Ward also evaluated accessible ceiling plenums, sink enclosures, and access panels in hallways, restrooms, utility closets, and mechanical spaces on each of the floors to determine the existence of suspect ACM.

Haley Ward observed the following:

- Heating and plumbing piping were visible from the ceiling plenums. The piping was observed to be uninsulated or covered with fiberglass insulation.
- In some cases, plumbing piping extended into concrete masonry unit (CMU) most of which was uninsulated or covered with fiberglass. The piping extends approximately one foot into the CMU block and is sealed with concrete.
- Elbows within the ceiling plenum are either uninsulated, covered with vinyl fitting covers, or mud fitting insulation. Based on the analytical results, mud fitting insulation, sampled in various locations throughout the facility, was identified as asbestos-containing. The mud fitting insulation should be assumed as ACM unless proven otherwise through additional sampling and analysis.
- Haley Ward accessed the enclosures beneath the sinks in the restrooms and observed uninsulated piping.

- Fiberglass-insulated piping extends out into the plaster-covered soffit, running adjacent to the building frame.

2.0 ASBESTOS-CONTAINING MATERIALS

2.1 Asbestos Renovation Impact Survey

An asbestos renovation impact survey was conducted in accordance with the Maine Department of Environmental Protection (MDEP) Asbestos Management Regulations (06-096 C.M.R. Chapter 425, 2011) to provide information regarding the presence of ACM within the interior and on the exterior of the building. Ms. Suzanne Yerina and Ms. Deborah Kasik, licensed MDEP Asbestos Inspectors, performed the field survey. A copy of Ms. Yerina's and Ms. Kasik's Asbestos Inspector certifications is included in **Appendix A**.

Completion of the asbestos renovation impact survey included:

- Visual identification of suspect ACM on the interior and/or exterior of the building.
- Assignment of room numbers for sample and identified ACM location(s).
- Collection of 160 bulk samples of suspected ACM in accordance with MDEP regulations.
- Quantification of ACM identified by laboratory analysis.

As with any scientific study, an asbestos renovation impact survey is subject to a variety of limitations. Limitations to be considered when interpreting the results of the survey performed on the structure include the following:

- An asbestos renovation impact survey may not be able to identify all ACM present throughout a facility.
- Variations in building materials used during construction and subsequent renovations.
- Inaccessible rooms and areas within wall cavities, under floors, and above solid ceilings.
- Sampling of the EPDM roof systems was not included in the scope of work for the property, due to accessibility, roof system type (EPDM), and repair requirements. Haley Ward could not determine if the original roof system was removed prior to the installation of the EPDM roof system. Typically, flat, asphalt built-up roof systems are considered suspect ACM. Should the roof system be impacted by future renovations, the presence of the original roof should be identified and, if present, should be sampled to determine if ACM.

A total of one hundred sixty (160) samples of identified suspect ACM were collected from the interior and exterior of the building, including:

- Plaster ceiling material
- Gypsum wall and ceiling material
- Mud pipe fitting insulation on fiberglass-insulated lines
- Pipe insulation and associated mud pipe fittings
- Tank insulation
- Twelve types of floor tiles and associated adhesives
- Flooring adhesive
- Two types of sheet flooring
- Five types of ceiling tiles
- Wall panel adhesive
- Glue daubs
- Carpet adhesive
- Rope gasket
- Firestop caulk
- Vapor barrier
- Joint compound used as surfacing material
- Exterior soffit ceiling plaster
- Exterior column skim coat
- Exterior window glazing
- Exterior caulk associated with windows

The number of samples collected was determined by the number of homogeneous sampling areas identified by the inspector. A homogeneous area is an area which, based on the inspector's judgment, contains materials that are uniform in color and texture and are present on similar building or utility components.

Bulk samples of suspect ACM collected during the survey of the building were submitted to EMSL Analytical, Inc. (EMSL) of South Portland, Maine for analysis. Bulk samples were analyzed using the MDEP required analytical methods: "PLM-EPA 600/R-93/116" (for surfacing, thermal system insulation, and cementitious materials), and "PLM NOB-EPA 600/R-93/116" (for non-friable organically bound materials (NOBs)) (e.g., floor tile, adhesives, and roofing) with "gravimetric reduction." EMSL's laboratory is certified to perform asbestos analysis by both the National Voluntary Laboratory Accreditation Program (NVLAP) and the American Industrial Hygiene Association (AIHA). EMSL is a MDEP licensed Asbestos Analytical Laboratory. Copies of EMSL's laboratory certifications are included as **Appendix B**. Laboratory analytical results and chain of custodies are included as **Appendix C**.

2.2 Asbestos Sampling Results

According to MDEP regulations, locations and occurrences of materials that tested positive and are homogenous in nature (similar in color and texture) are considered as ACM provided the material contains greater than or equal to (≥) one percent asbestos based on laboratory analysis. A material can only be considered negative for asbestos if analytical results from all bulk samples in a group of samples representing that material indicate an asbestos content of less than one percent (<1%).

ACM identified by laboratory analysis included:

- Pipe insulation and associated mud pipe fitting insulation
- Mud pipe fitting insulation on fiberglass-insulated lines
- Tank insulation
- 12x12 dark brown mottled floor tile and associated adhesive
- Flooring adhesive
- Exterior caulk
- Rope gasket
- Vapor barrier

A summary of identified asbestos and locations are included in **Table 1**. Sample locations and locations of identified ACM are included in **Figures H100 through H104.**

3.0 LEAD-BASED PAINT/LEAD-CONTAINING SURFACE COATING DETERMINATION

An LBP/lead-containing surface coating determination was conducted by Ms. Deborah A. Kasik, a MDEP certified Lead Risk Assessor. A copy of Ms. Kasik's Lead Risk Assessor certification is included in **Appendix A**. The purpose of the determination was to identify LBP/lead-containing surface coatings, if present, on the interior and/or exterior surfaces of the building. The LBP determination was performed in accordance with the established protocols outlined in the MDEP Lead Management Regulation (06-096 C.M.R. Chapter

424 § 7, 2021) and as applicable to this project. The testing provides information on the lead content and an assessment of the condition of the surfaces tested.

The LBP/lead-containing surface coating testing was conducted using a portable X-Ray Fluorescence (XRF) Lead Paint Analyzer (RMD LPA-1), which non-destructively tests for the presence of LBP or other lead-containing surface coatings. The XRF analyzer is licensed with the Maine Department of Human Services Radiation Control Program and operated in accordance with all applicable regulations and conditions of licensure. The determination as to whether a component contains lead is based upon the MDEP Lead Management Regulations. The MDEP defines a component as lead-containing if the XRF result is ≥ 1.0 milligrams per square centimeter (mg/cm^2). A visual assessment of the existing condition of the identified LBP was also completed at the time of the determination.

LBP/lead-containing surface coatings were identified on the structural steel supports of the building. A summary of the XRF results, by building material and including all floors, is outlined below.

SUMMARY OF XRF RESULTS BY BUILDING COMPONENT
CURTIS HALL, MAINE MARITIME ACADEMY, CASTINE, MAINE

BUILDING COMPONENTS	XRF READING CLASSIFICATION
Ceilings (sheetrock)	Negative
Walls (sheetrock, CMU block	Negative
Floors	Negative
Doors and associated trim	Negative
Window units (brown) and associated trim	Negative
Piping	Negative
Window units (tan) and associated trim	Negative
Structural Steel Supports	Positive
Access panels	Negative
Ceramic tile walls	Negative
Baffles	Negative
Walls (concrete)	Negative
Exterior plaster ceiling	Negative
Exterior columns	Negative

4.0 POTENTIAL UNIVERSAL AND/OR HAZARDOUS MATERIALS/WASTES

The following potential Hazardous Materials/Wastes and Universal Wastes were identified within the building:

- Fluorescent light bulbs and associated light ballasts
- Emergency exit signs/batteries
- Mercury-containing thermostats

An estimated hazardous materials inventory and the associated removal costs is presented in **Table 3**.

5.0 CONCLUSIONS AND RECOMMENDATIONS

This investigation revealed the following relevant information:

ACM

ACM identified by laboratory analysis included:

- Pipe insulation and associated mud pipe fitting insulation (boiler room)
- Mud pipe fitting insulation on fiberglass-insulated lines
- Tank insulation (boiler room)
- 12x12 dark brown mottled floor tile and associated adhesive
- Exterior Caulk associated with windows
- Rope gasket
- Vapor barrier
- Floor tile adhesive beneath non-ACM floor tile

Previously-identified ACM included the following:

- 12x12 white floor tile and associated adhesive

Current state regulations require that identified ACM which may be impacted by planned renovation/demolition activity be removed by a MDEP licensed asbestos abatement contractor in accordance with applicable state and federal regulations prior to disturbance of ACM by such planned activities. In accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 61), and MDEP Asbestos Management Regulations, a contractor conducting a renovation and/or demolition activity that would disturb regulated ACM must: (1) notify the U.S. Environmental Protection Agency (USEPA) Administrator and the MDEP of such activities, (2) use proper removal procedures, (3) use proper engineering controls to limit emissions of asbestos

fibers, and (4) utilize proper waste disposal. If any hidden suspect ACM (behind walls, in chases, above permanent ceilings, etc.) is uncovered during renovation or demolition activities, work must be stopped, and the material tested for asbestos content. All ACM must be disposed of in accordance with all applicable state and federal requirements.

The building is constructed with a flat EPDM roof system and information as to whether the original roof system was removed or covered over by the EPDM roof system is not available. Should the roof system be impacted by future renovations, the presence of the original roof should be identified and, if present, should be sampled to determine if it's asbestos-containing.

Lead-Based Paint (LBP)/Lead-Containing Surface Coatings

LBP/lead-containing surface coatings were identified on the interior of Curtis Hall property including:

- Structural steel supports

LBP/lead-containing surface coatings present on interior surfaces of the building were observed to be in fair condition.

Potential Hazardous Materials/Wastes and Universal Wastes

The following potential Hazardous Materials/Wastes and Universal Wastes were identified within the building:

- Fluorescent light bulbs and associated light ballasts
- Mercury-containing thermostats
- Emergency exit signs/batteries

When removed from fixtures for disposal, fluorescent light bulbs are considered a Universal Waste and must be properly handled, packaged, and disposed of under current MDEP Universal Waste Rules (06-096 C.M.R. Chapter 858, 2018). Fluorescent light ballasts contain capacitors that may be filled with PCB-containing dielectric fluid. However, it is unknown whether such PCB-containing ballasts, considered a Universal Waste, are present in the building.

The recommended Best Management Practice (BMP) is to individually remove each light fixture and have individual ballasts evaluated to confirm the presence or absence of PCBs. Non-PCB light ballasts will be clearly labeled as not containing PCBs and may be disposed of as solid waste. If no such labeling is present, the ballast should be treated as PCB-containing and be segregated and handled as Universal Waste.

Emergency exit signs, light batteries, and mercury-containing thermostats should be removed and recycled or disposed of properly.

6.0 REPORT CERTIFICATION

This report was prepared and reviewed by Haley Ward for the use of CHA Architecture, P.C., and should not be reproduced without their full, written authorization.

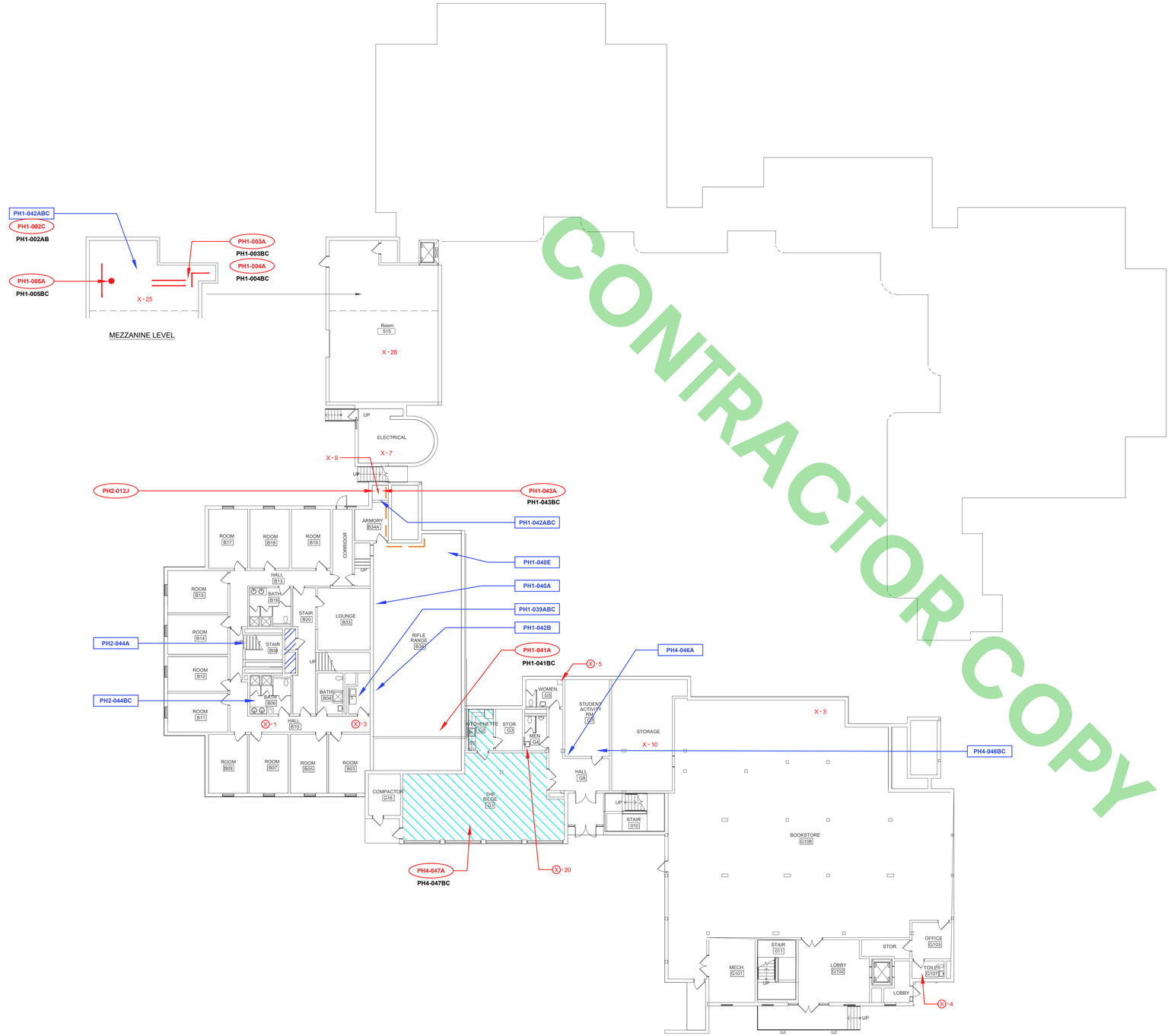
Deborah A. Kasik
Project Scientist II
MDEP Certified Asbestos Inspector License No. AI-0177
MDEP Certified Lead Risk Assessor License No. LR-0003

Suzanne Yerina, L.G., P.G.
Senior Project Geologist
MDEP Certified Asbestos Inspector License No. AI-0451

Michael D. Sauda, MPH, CSP
Senior Project Manager

DAK/SLY/MDS/lmb
Attachments

FIGURES



PLAN REFERENCE:

FLOOR PLAN DERIVED FROM DRAWINGS BY OTHERS PROVIDED TO HALEY WARD, INC AND ARE NOT WARRANTED AS TO ACCURACY AND ARE INTENDED TO BE SCHEMATIC.

ASBESTOS LEGEND

- PH1-001A — SAMPLE NUMBER AND LOCATION TESTING POSITIVE FOR ASBESTOS
- PH-002A — SAMPLE NUMBER AND LOCATION TESTING NEGATIVE FOR ASBESTOS
- PH-001B — SAMPLE NUMBER AND LOCATION NOT ANALYZED (POSITIVE STOP)
- NON-ACM FLOOR TILE WITH ASSOCIATED ACM ADHESIVE
- ACM FLOOR TILE WITH ASSOCIATED ACM ADHESIVE
- ACM INSULATED PIPE EXPOSED
- X-1 — ACM INSULATED PIPE FITTING ABOVE CEILING
- X-3 — ACM INSULATED PIPE FITTING
- ACM ASPHALT VAPOR BARRIER
- ACM TANK INSULATION

NOTE:
ALL EXTERIOR WINDOWS HAVE ASBESTOS CONTAINING CAULKING. (REFER TO SAMPLE PH1-030A)

GROUND FLOOR PLAN

SCALE: 1/16"=1'-0"

REV.	DATE	DESCRIPTION	BY	CHK.

DRAWING ISSUE STATUS

NOT FOR CONSTRUCTION

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
One Merchants Plaza, Suite 701
Bangor, Maine 04401
207.989.4824
WWW.HALEYWARD.COM

PROJECT

CURTIS HALL
Maine Maritime Academy, Castine, Maine 04421

TITLE

GROUND FLOOR PLAN
HAZARDOUS MATERIAL ASSESSMENT

DATE	SCALE
2023.09.14	AS NOTED

DRAWN BY	DESIGNED BY	CHECKED BY
MEB	DAK	DAK

PROJECT No. 13150.007

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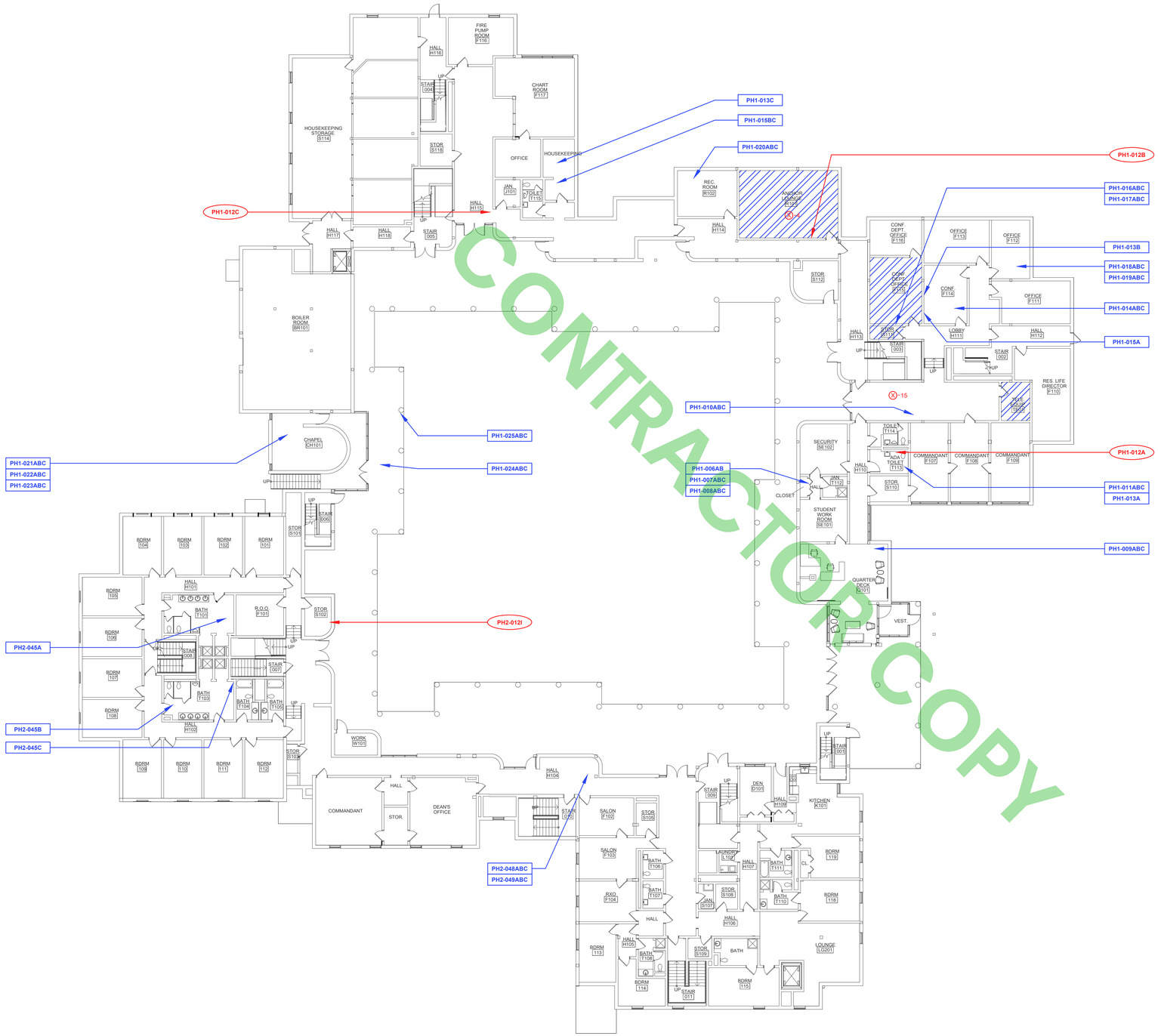

PLAN REFERENCE:

FLOOR PLAN DERIVED FROM DRAWINGS BY OTHERS PROVIDED TO HALEY WARD, INC AND ARE NOT WARRANTED AS TO ACCURACY AND ARE INTENDED TO BE SCHEMATIC.

ASBESTOS LEGEND

- PH1-001A — SAMPLE NUMBER AND LOCATION TESTING POSITIVE FOR ASBESTOS
- PH-002A — SAMPLE NUMBER AND LOCATION TESTING NEGATIVE FOR ASBESTOS
- ACM FLOOR TILE WITH ASSOCIATED ACM ADHESIVE
- X-1 — ACM INSULATED PIPE FITTING ABOVE CEILING

NOTE:
ALL EXTERIOR WINDOWS HAVE ASBESTOS CONTAINING CAULKING. (REFER TO SAMPLE PH1-030A)

FIRST FLOOR PLAN

SCALE: 1/16"=1'-0"

REV.	DATE	DESCRIPTION	BY	CHK.

DRAWING ISSUE STATUS

NOT FOR CONSTRUCTION

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PROJECT

MMA CURTIS HALL
Maine Maritime Academy, Castine, Maine 04421

TITLE

FIRST FLOOR PLAN
HAZARDOUS MATERIAL ASSESSMENT

DATE	SCALE
2023.09.14	AS NOTED

DRAWN BY	DESIGNED BY	CHECKED BY
MEB	DAK	DAK

PROJECT No. 13150.007

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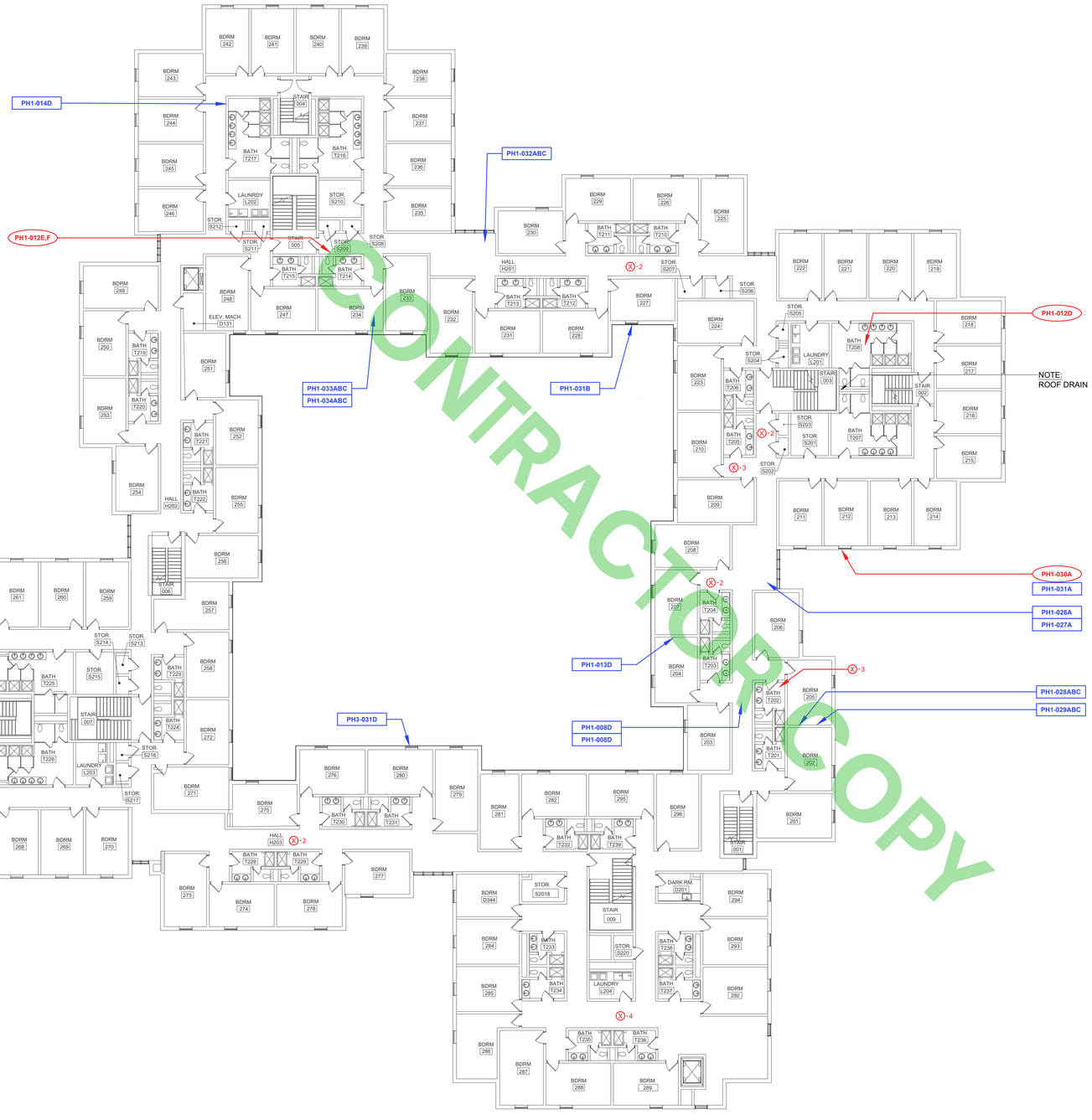

PLAN REFERENCE:

FLOOR PLAN DERIVED FROM DRAWINGS BY OTHERS PROVIDED TO HALEY WARD, INC AND ARE NOT WARRANTED AS TO ACCURACY AND ARE INTENDED TO BE SCHEMATIC.

ASBESTOS LEGEND

PH1-001A	SAMPLE NUMBER AND LOCATION TESTING POSITIVE FOR ASBESTOS
PH-002A	SAMPLE NUMBER AND LOCATION TESTING NEGATIVE FOR ASBESTOS
X-1	ACM INSULATED PIPE FITTING ABOVE CEILING

NOTE:
ALL EXTERIOR WINDOWS HAVE ASBESTOS CONTAINING CAULKING. (REFER TO SAMPLE PH1-030A)

SECOND FLOOR PLAN

SCALE: 1/16"=1'-0"

REV.	DATE	DESCRIPTION	BY	CHK.

DRAWING ISSUE STATUS

NOT FOR CONSTRUCTION

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PROJECT

CURTIS HALL
Maine Maritime Academy, Castine, Maine 04421

TITLE

SECOND FLOOR PLAN
HAZARDOUS MATERIAL ASSESSMENT

DATE	SCALE
2023.09.14	AS NOTED

DRAWN BY	DESIGNED BY	CHECKED BY
MEB	DAK	DAK

PROJECT No. 13150.007

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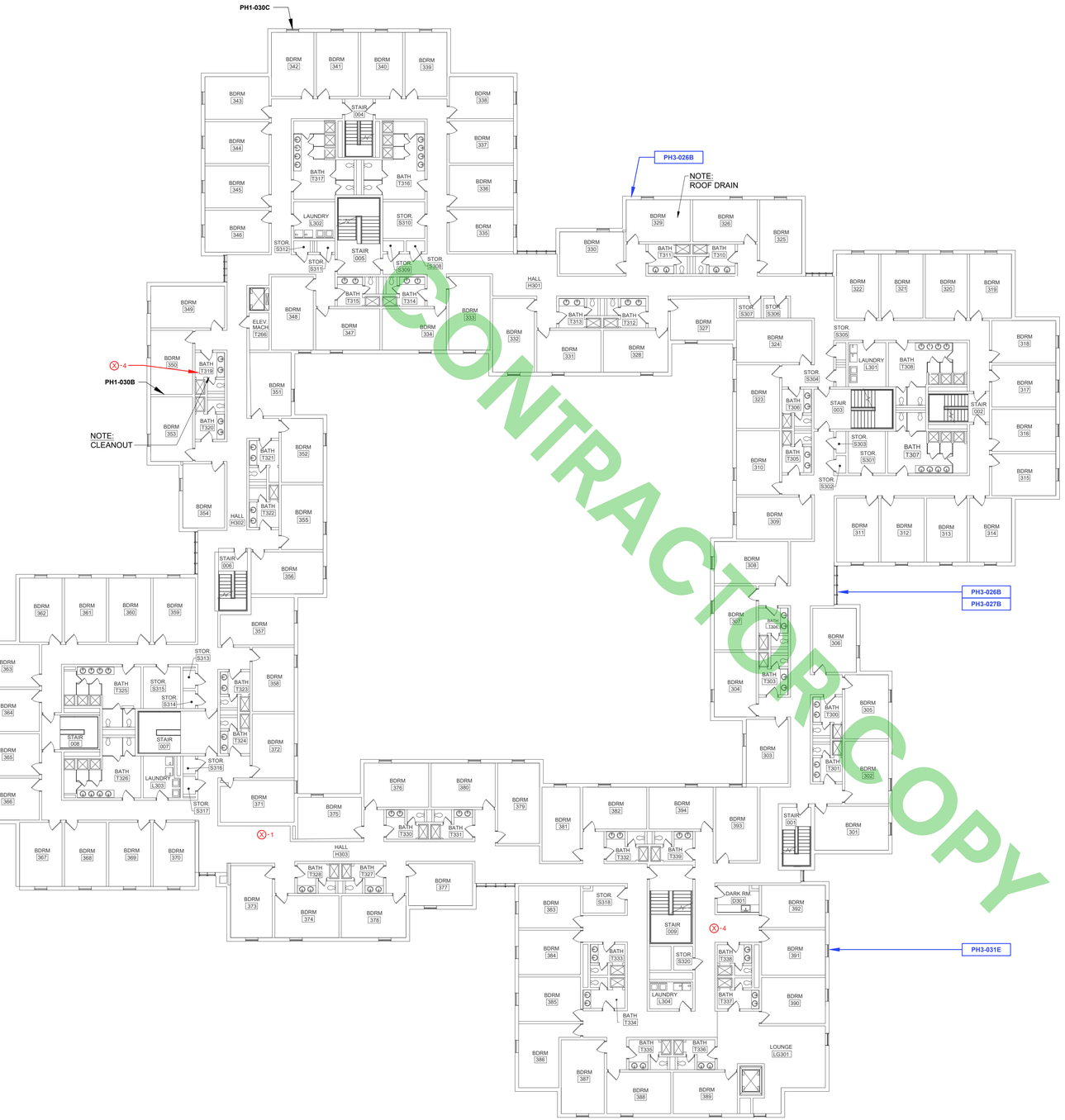

PLAN REFERENCE:

FLOOR PLAN DERIVED FROM DRAWINGS BY OTHERS PROVIDED TO HALEY WARD, INC AND ARE NOT WARRANTED AS TO ACCURACY AND ARE INTENDED TO BE SCHEMATIC.

ASBESTOS LEGEND

PH-002A	SAMPLE NUMBER AND LOCATION TESTING NEGATIVE FOR ASBESTOS
PH-001B	SAMPLE NUMBER AND LOCATION NOT ANALYZED (POSITIVE STOP)
X-1	ACM INSULATED PIPE FITTING ABOVE CEILING

NOTE:
ALL EXTERIOR WINDOWS HAVE ASBESTOS CONTAINING CAULKING. (REFER TO SAMPLE PH1-030A)

THIRD FLOOR PLAN

SCALE: 1/16"=1'-0"

REV.	DATE	DESCRIPTION	BY	CHK.

DRAWING ISSUE STATUS

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PROJECT

CURTIS HALL
Maine Maritime Academy, Castine, Maine 04421

TITLE

THIRD FLOOR PLAN
HAZARDOUS MATERIAL ASSESSMENT

DATE	SCALE
2023.09.14	AS NOTED

DRAWN BY	DESIGNED BY	CHECKED BY
MEB	DAK	DAK

PROJECT No. 13150.007

DRAWING No. **H103** REV.

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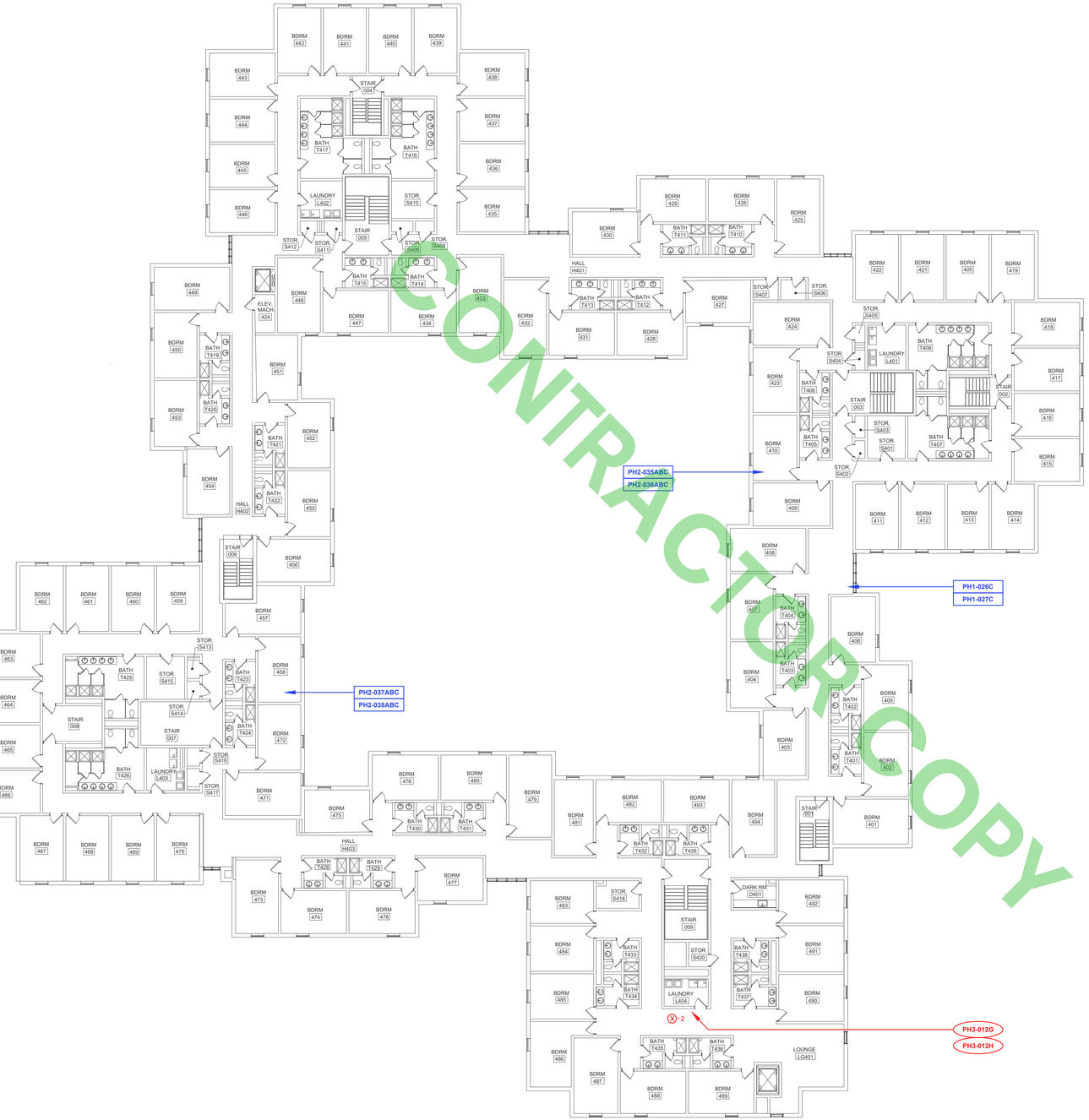

PLAN REFERENCE:

FLOOR PLAN DERIVED FROM DRAWINGS BY OTHERS PROVIDED TO HALEY WARD, INC AND ARE NOT WARRANTED AS TO ACCURACY AND ARE INTENDED TO BE SCHEMATIC.

ASBESTOS LEGEND

PH1-001A	SAMPLE NUMBER AND LOCATION TESTING POSITIVE FOR ASBESTOS
PH-002A	SAMPLE NUMBER AND LOCATION TESTING NEGATIVE FOR ASBESTOS
X-1	ACM INSULATED PIPE FITTING ABOVE CEILING

NOTE:
ALL EXTERIOR WINDOWS HAVE ASBESTOS CONTAINING CAULKING. (REFER TO SAMPLE PH1-030A)

FOURTH FLOOR PLAN

SCALE: 1/16"=1'-0"

REV.	DATE	DESCRIPTION	BY	CHK.

DRAWING ISSUE STATUS

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PROJECT

MMA CURTIS HALL
Maine Maritime Academy, Castine, Maine 04421

TITLE

FOURTH FLOOR PLAN
HAZARDOUS MATERIAL ASSESSMENT

DATE	SCALE
2023.09.14	AS NOTED

DRAWN BY	DESIGNED BY	CHECKED BY
MEB	DAK	DAK

PROJECT No.: 13150.007

DRAWING No.: **H104** REV.:

TABLES

TABLE 1 | SUMMARY OF IDENTIFIED ASBESTOS CONTAINING MATERIALS (ACM) AND ESTIMATED QUANTITIES
CURTIS HALL, MAINE MARITIME ACADEMY, CASTINE, MAINE

Room Section/Number	Sample #:	Pipe Insulation and Associated Mud Pipe Fittings (LF)	Tank Insulation (SF)	Mud Pipe Fittings Insulation on Fiberglass-insulated lines (EA)	Gasket on stored equipment (SF)	Asphalt Vapor Barrier (SF)	Floor Tile Adhesive beneath Non-ACM Floor Tile (SF)	Floor Tile and associated ACM adhesive (SF)	Exterior Caulk Associated with Window Frames (EA)	Comment
GROUND FLOOR										
Boiler Room - Mezzanine	PH1-002C PH1-003A	30								
	PH1-004A			25						
	PH1-005A		50							
Boiler Room	PH1-004A			26						
Electrical Room	PH1-004A			7						
Armory Chase	PH1-004A			10						
	PH2-043A					40				
Armory	PH2-043A					60				
Rifle Range (B34)	PH2-043A					180				
	PH2-041A				2					
Hallway (B10)	PH1-012A			4						Above ceiling tiles
The Bilge (G1)	PH4-047A						625			
Kitchen (G2)	PH4-047A						55			
Men's Room (G4)	PH1-012A			20						Chase inaccessible
Women (G5)	PH1-012A			5						located within a pipe enclosure
Bookstore Storage (G17)	PH1-012A			10						
Bookstore (G106)	PH1-012A			7						
FIRST FLOOR										
Tele Equip TE001	PH1-016A							60		
Storage S111	PH1-016A							50		
Conf Dept Office (F115)	PH1-016A							180		

TABLE 1 | SUMMARY OF IDENTIFIED ASBESTOS CONTAINING MATERIALS (ACM) AND ESTIMATED QUANTITIES
CURTIS HALL, MAINE MARITIME ACADEMY, CASTINE, MAINE

Room Section/Number	Sample #:	Pipe Insulation and Associated Mud Pipe Fittings (LF)	Tank Insulation (SF)	Mud Pipe Fittings Insulation on Fiberglass-insulated lines (EA)	Gasket on stored equipment (SF)	Asphalt Vapor Barrier (SF)	Floor Tile Adhesive beneath Non-ACM Floor Tile (SF)	Floor Tile and associated ACM adhesive (SF)	Exterior Caulk Associated with Window Frames (EA)	Comment
Hallway near F107	PH1-012A			15						
Anchor Lounge (R101)	PH1-012A			4						
SECOND FLOOR										
H203	PH1-012A			2						
Hallway outside T235/T236	PH1-012A			4						
T202	PH1-012A			3						
Hallway outside T204	PH1-012A			2						
Hallway outside S203	PH1-012A			2						
S207	PH1-012A			2						
THIRD FLOOR										
T319				4						
H303				1						
Hall outside T338				4						
FOURTH FLOOR										
Hall outside L404				2						
EXTERIOR										
Exterior	PH1-030A								475	
TOTALS:		**30**	**50**	**159**	**2**	**280**	**680**	**290**	**475**	

TABLE 2
HAZARDOUS MATERIALS INVENTORY
CURTIS HALL, MAINE MARITIME ACADEMY, CASTINE, MAINE

Identified Hazardous Materials	Estimated Quantity (Each)
Fluorescent Light Tubes - 2 foot*	240
Fluorescent Light Tubes - 4 foot	3,200
Suspect PCB-Containing Light Ballasts	2,000
Mercury-containing Thermostat	10
Exit Light Signs/Batteries	5

APPENDIX A

ASBESTOS INSPECTOR CERTIFICATION
LEAD RISK ASSESSOR CERTIFICATION

State of Maine

Asbestos Abatement Program

Suzanne L. Yerina

Inspector

Cert No. AI-0451

Trn.Exp.Date 11/10/2023

Expiration Date 11/30/2023

This is not a legal form of official identification

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

December 4, 2022

Haley Ward, Inc.
1 Merchants Plaza, Suite 701
Bangor, Maine 04401

Dear Licensee:

Asbestos application(s) for individual certification of the **two** employee(s) listed below have been received and **approved**. Individual certification numbers are listed below and wallet card(s) are enclosed. Card(s) are property of the individual to whom each is issued. Your responsibility as a licensee is to ensure delivery of the cards to persons in your employment. This letter should be retained for your company files as record of certification. **Please attach 1 updated passport size photo with every application.**

Remember, in Maine all **certified employees** working on an asbestos abatement project, whether conducting removal/repair, air monitoring, design, inspection, or analysis functions, **must work for a State of Maine licensed asbestos firm** and carry his/her wallet card(s) on the job site.

As a reminder, prior to renewing your asbestos certification, the State of Maine **requires** an annual refresher course to be taken before submitting a renewal application. A certificate shall expire one year from the last day of the month from the date of issuance, **or on the last day of the month that the training certificate expires**, whichever is sooner.

All our asbestos forms can be found at https://www.maine.gov/dep/waste/asbestos/forms.html
Thank you for your cooperation and your completed application(s).

Name	Category	Certification #	Exp. Date
Deborah A. Kasik	Inspector	AI-0177	11/30/2023
Dennis B. Kingman, Jr.	Inspector	AI-0034	11/30/2023

Sincerely,

Sandra J. Moody, Environmental Specialist
Division of Remediation
Bureau of Remediation and Waste Management

State of Maine
Asbestos Abatement Program

Deborah A. Kasik

[redacted]
Inspector
Cert No. AI-0177
Trn.Exp.Date 11/10/2023
Expiration Date **11/30/2023**
This is not a legal form of official identification

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROA
PORTLAND, MAIN
(207) 822-6300 FAX: (207) 822-6303

(207) 764-0477 FAX: (207) 760-3143

website: www.maine.gov/dep

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

January 28, 2023

Attn.: Deborah A. Kasik
Haley Ward, Inc.
1 Merchant's Plaza, 7th Floor
Bangor, Maine 04401

Dear Ms. Kasik,

Your lead application for certification has been received and **approved**. You have been granted certification as a **Lead Risk Assessor LR-0003**. Enclosed is your wallet card, with an expiration date of **January 05, 2024**. All employees working on a lead abatement project must carry this photo ID wallet card. The card is property of the individual to whom it is issued. Your responsibility as a licensee is to ensure delivery of the card to person in your employment. This letter should be retained for your company files as record of certification. Please attach 1 updated passport size photo with every application.

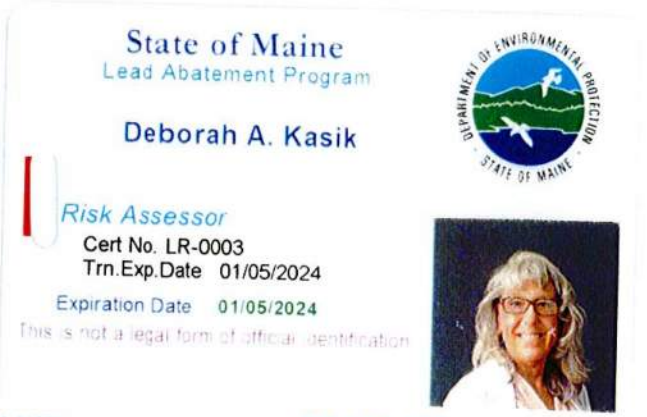
Thank you for your cooperation and your completed application(s). Applications can now be found on our DEP webpage at the following:
https://www.maine.gov/dep/waste/lead/forms/index.html

If you have any questions on this certification or on any other aspect of DEP's lead abatement licensing program, please call Sandy Moody (207) 242-0877 or email sandy.j.moody@maine.gov

Sincerely,

Sandra J. Moody, Environmental Specialist
Division of Remediation
Bureau of Remediation and Waste Management

Enclosure



AUGUSTA
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AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

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PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

website: www.maine.gov/dep

APPENDIX B

ASBESTOS ANALYTICAL LABORATORY CERTIFICATIONS

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

September 14, 2022

Attn: Lorie Dennis,| Quality Assurance Administrative Assistant
EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077

Dear Ms. Dennis,

This is to confirm that the Maine Department of Environmental Protection is in receipt of your request to add the following labs to your licensing of Analytical Laboratories: Boston, MA., South Portland, Maine and Wallingford, CT.

LA-0038 for Asbestos Analytical Laboratory (Air), expires on 10/31/2023
LB-0039 for Asbestos Analytical Laboratory (Bulk), expires on 10/31/2023

Remember each laboratory must have certified individual(s) within the lab to perform analyses.

If you need any further assistance please feel free to contact me at (207) 242-0877 or e-mail at sandy.j.moody@maine.gov.

Sincerely,

Sandra J. Moody

Sandra J. Moody, Environmental Specialist
Division of Remediation
Bureau of Remediation and Waste Management

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PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

State of Maine
Department of Environmental Protection

LICENSE

EMSL Analytical, Inc.

Asbestos Analytical Laboratory
(Bulk)

License Number: LB-0039 **Expiration Date: 10/31/2023**

State of Maine
Department of Environmental Protection

LICENSE

EMSL Analytical, Inc.

Asbestos Analytical Laboratory
(Air)

License Number: LA-0038

Expiration Date: 10/31/2023

S. PORTLAND - INDIVIDUAL ANALYST CERTIFICATIONS

State of Maine

May 12, 2023

Employee Name	*Lab Location*	*State Certified*	*Certification No.*	*Type of Cert.*	*Exp. Date*
Stephen Severn	S. Portland	Maine	AA-0497	Air Asbestos Analyst	11/30/2023
Stephen Severn	S. Portland	Maine	BA-0178	Bulk Asbestos Analyst	11/30/2023
Stefan Reis	S. Portland	Maine	BA-0233	Bulk Asbestos Analyst	5/31/2024

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 500094-0

EMSL Analytical, Inc.

South Portland, ME

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2022-10-01 through 2023-09-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EMSL Analytical, Inc.
161 John Roberts Road
South Portland, ME 04106
Ms. Samantha Voigt
Phone: 207-517-6921
Email: svoigt@emsl.com
http://www.emsl.com

ASBESTOS FIBER ANALYSIS **NVLAP LAB CODE 500094-0**

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

Code	*Description*
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program

APPENDIX C

ASBESTOS LABORATORY ANALYTICAL RESULTS

EMSL Analytical, Inc.

161 John Roberts Road South Portland, ME 04106
Phone/Fax: (207) 517-6921 / (207) 517-6922
http://www.EMSL.com / portlandlab@emsl.com

EMSL Order ID: 622300938
Customer ID: CESI62
Customer PO:
Project ID:

Attn: Deb Kasik
Haley Ward
1 Merchant's Plaza
7th Floor
Bangor, ME 04401

Proj: 13150.007

Phone: (207) 989-4824
Fax: (207) 989-4881
Collected:
Received: 8/28/2023
Analyzed: 9/05/2023

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH1-001A ***Lab Sample ID:*** **622300938-0001**
Sample Description: Boiler Rm/Ceiling Plaster - Ceiling Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/28/2023	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: PH1-001B ***Lab Sample ID:*** **622300938-0002**
Sample Description: Boiler Rm/Ceiling Plaster - Ceiling Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/28/2023	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: PH1-001C ***Lab Sample ID:*** **622300938-0003**
Sample Description: Boiler Rm/Ceiling Plaster - Ceiling Plaster

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/28/2023	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: PH1-002A ***Lab Sample ID:*** **622300938-0004**
Sample Description: Boiler Rm (Mezz)/Mud Fittings - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/28/2023	White	35.0%	65.0%	None Detected	

Client Sample ID: PH1-002B ***Lab Sample ID:*** **622300938-0005**
Sample Description: Boiler Rm (Mezz)/Mud Fittings - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/28/2023	White	40.0%	60.0%	None Detected	

Client Sample ID: PH1-002C ***Lab Sample ID:*** **622300938-0006**
Sample Description: Boiler Rm (Mezz)/Mud Fittings - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/28/2023	Gray/White	0.0%	50.0%	**50% Chrysotile**	

Client Sample ID: PH1-003A ***Lab Sample ID:*** **622300938-0007**
Sample Description: Boiler Rm (Mezz)/Pipe Insulation - Pipe Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray	0.0%	88.0%	**12% Amosite**	

EMSL Analytical, Inc.

161 John Roberts Road South Portland, ME 04106
Phone/Fax: (207) 517-6921 / (207) 517-6922
http://www.EMSL.com / portlandlab@emsl.com

EMSL Order ID: 622300938
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH1-003B **Lab Sample ID:** **622300938-0008**
Sample Description: Boiler Rm (Mezz)/Pipe Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH1-003C **Lab Sample ID:** **622300938-0009**
Sample Description: Boiler Rm (Mezz)/Pipe Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH1-004A **Lab Sample ID:** **622300938-0010**
Sample Description: Boiler Rm (Mezz)/Mud Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Tan/White	70.0%	30.0%	None Detected	

Client Sample ID: PH1-004B **Lab Sample ID:** **622300938-0011**
Sample Description: Boiler Rm (Mezz)/Mud Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/White	18.0%	82.0%	None Detected	

Client Sample ID: PH1-004C **Lab Sample ID:** **622300938-0012**
Sample Description: Boiler Rm (Mezz)/Mud Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray/White	70.0%	30.0%	None Detected	

Client Sample ID: PH1-005A **Lab Sample ID:** **622300938-0013**
Sample Description: Boiler Rm (Mezz)/Tank Insulation - Tank Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/Orange	0.0%	60.0%	**40% Chrysotile**	

Client Sample ID: PH1-005B **Lab Sample ID:** **622300938-0014**
Sample Description: Boiler Rm (Mezz)/Tank Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH1-005C **Lab Sample ID:** **622300938-0015**
Sample Description: Boiler Rm (Mezz)/Tank Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023				Positive Stop (Not Analyzed)	

EMSL Analytical, Inc.

161 John Roberts Road South Portland, ME 04106
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http://www.EMSL.com / portlandlab@emsl.com

EMSL Order ID: 622300938
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH1-006A ***Lab Sample ID:*** **622300938-0016**

Sample Description: PH1-1st Security/12" Orange Mottled - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Red	0.0%	100%	None Detected	

Client Sample ID: PH1-006B ***Lab Sample ID:*** **622300938-0017**

Sample Description: PH1-1st Security/12" Orange Mottled - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Red	0.0%	100%	None Detected	

Client Sample ID: PH1-006C ***Lab Sample ID:*** **622300938-0018**

Sample Description: PH1-1st Security/12" Orange Mottled - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Red	0.0%	100%	None Detected	

Client Sample ID: PH1-007A ***Lab Sample ID:*** **622300938-0019**

Sample Description: PH1-1st Security/Brown/Black Adh - Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH1-007B ***Lab Sample ID:*** **622300938-0020**

Sample Description: PH1-1st Security/Brown/Black Adh - Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH1-007C ***Lab Sample ID:*** **622300938-0021**

Sample Description: PH1-1st Security/Brown/Black Adh - Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH1-008A ***Lab Sample ID:*** **622300938-0022**

Sample Description: PH1-1st Security/CT1 4x2 Pinhole Groove - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/White	70.0%	30.0%	None Detected	

Client Sample ID: PH1-008B ***Lab Sample ID:*** **622300938-0023**

Sample Description: PH1-1st Security/CT1t 4x2 Pinhole Groove - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/Tan	80.0%	20.0%	None Detected	

EMSL Analytical, Inc.

161 John Roberts Road South Portland, ME 04106
Phone/Fax: (207) 517-6921 / (207) 517-6922
http://www.EMSL.com / portlandlab@emsl.com

EMSL Order ID: 622300938
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH1-008C ***Lab Sample ID:*** **622300938-0024**

Sample Description: PH1-1st Security/CT1 4x2 Pinhole Groove - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/Tan	75.0%	25.0%	None Detected	

Client Sample ID: PH1-008D ***Lab Sample ID:*** **622300938-0025**

Sample Description: 2nd Floor by Bedroom 203/CT1 - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray/White	70.0%	30.0%	None Detected	

Client Sample ID: PH1-009A ***Lab Sample ID:*** **622300938-0026**

Sample Description: Quarter Deck by Security/CT2 2x2 Pinhole - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/White	55.0%	45.0%	None Detected	

Client Sample ID: PH1-009B ***Lab Sample ID:*** **622300938-0027**

Sample Description: Quarter Deck by Security/CT2 2x2 Pinhole - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/White	55.0%	45.0%	None Detected	

Client Sample ID: PH1-009C ***Lab Sample ID:*** **622300938-0028**

Sample Description: Quarter Deck by Security/CT2 2x2 Pinhole - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/White	68.0%	32.0%	None Detected	

Client Sample ID: PH1-010A ***Lab Sample ID:*** **622300938-0029**

Sample Description: Hallway by Security/CT3 2x2 Text w/ Pinhole - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/White	65.0%	35.0%	None Detected	

Client Sample ID: PH1-010B ***Lab Sample ID:*** **622300938-0030**

Sample Description: Hallway by Security/CT3 2x2 Text w/ Pinhole - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/White	58.0%	42.0%	None Detected	

Client Sample ID: PH1-010C ***Lab Sample ID:*** **622300938-0031**

Sample Description: Hallway by Security/CT3 2x2 Text w/ Pinhole - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/White	50.0%	50.0%	None Detected	

EMSL Analytical, Inc.

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EMSL Order ID: 622300938
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH1-010D ***Lab Sample ID:*** **622300938-0032**
Sample Description: 2nd Floor by Bedroom 203/CT3 - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/Tan/White	45.0%	55.0%	None Detected	

Client Sample ID: PH1-011A ***Lab Sample ID:*** **622300938-0033**
Sample Description: Bathroom by Security/CT4 2x2 Pinhole Groove - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/White	80.0%	20.0%	None Detected	

Client Sample ID: PH1-011B ***Lab Sample ID:*** **622300938-0034**
Sample Description: Bathroom by Security/CT4 2x2 Pinhole Groove - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray/White	55.0%	45.0%	None Detected	

Client Sample ID: PH1-011C ***Lab Sample ID:*** **622300938-0035**
Sample Description: Bathroom by Security/CT4 2x2 Pinhole Groove - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray/White	60.0%	40.0%	None Detected	

Client Sample ID: PH1-012A ***Lab Sample ID:*** **622300938-0036**
Sample Description: Bathroom by Security/Mudded Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray	40.0%	52.0%	**8% Chrysotile**	

Client Sample ID: PH1-012B ***Lab Sample ID:*** **622300938-0037**
Sample Description: Anchor Lounge/Mudded Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	9/05/2023	Gray	40.0%	54.0%	**6% Chrysotile**	

Client Sample ID: PH1-012C ***Lab Sample ID:*** **622300938-0038**
Sample Description: Janitor/Mudded Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	9/05/2023	Gray/Tan	60.0%	30.0%	**10% Chrysotile**	

Client Sample ID: PH1-012D ***Lab Sample ID:*** **622300938-0039**
Sample Description: Bath T208/Mudded Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	9/05/2023	Gray	60.0%	35.0%	**5% Chrysotile**	

EMSL Analytical, Inc.

161 John Roberts Road South Portland, ME 04106
Phone/Fax: (207) 517-6921 / (207) 517-6922
http://www.EMSL.com / portlandlab@emsl.com

EMSL Order ID: 622300938
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH1-012E ***Lab Sample ID:*** **622300938-0040**
Sample Description: Bath T214/Mudded Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray	50.0%	45.0%	**5% Chrysotile**	

Client Sample ID: PH1-012F ***Lab Sample ID:*** **622300938-0041**
Sample Description: Bath T214/Mudded Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	9/05/2023	Gray/White	40.0%	57.0%	**3% Chrysotile**	

Client Sample ID: PH3-012G ***Lab Sample ID:*** **622300938-0042**
Sample Description: Outside 4th Laundry by 490/Mudded Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/Tan/White	55.0%	45.0%	None Detected	

Client Sample ID: PH3-012H ***Lab Sample ID:*** **622300938-0043**
Sample Description: Outside 4th Laundry by 490/Mudded Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray	43.0%	57.0%	None Detected	

Client Sample ID: PH2-012I ***Lab Sample ID:*** **622300938-0044**
Sample Description: S102/Mudded Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/Black	60.0%	40.0%	None Detected	

Client Sample ID: PH2-012J ***Lab Sample ID:*** **622300938-0045**
Sample Description: Rifle Range/Mudded Fitting - Mud Fitting

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray	50.0%	50.0%	None Detected	

Client Sample ID: PH1-013A ***Lab Sample ID:*** **622300938-0046**
Sample Description: Storage by Security/Carpet Mastic - Carpet Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH1-013B ***Lab Sample ID:*** **622300938-0047**
Sample Description: Conference Room F114/Carpet Mastic - Carpet Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Yellow	0.0%	100%	None Detected	

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Client Sample ID: PH1-013C ***Lab Sample ID:*** **622300938-0048**
Sample Description: Housekeeping B64/Carpet Mastic - Carpet Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH1-013D ***Lab Sample ID:*** **622300938-0049**
Sample Description: R204/Carpet Adhesive - Carpet Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH1-014A ***Lab Sample ID:*** **622300938-0050**
Sample Description: Conference Room F114/2x2 Phole CT - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray/White	45.0%	55.0%	None Detected	

Client Sample ID: PH1-014B ***Lab Sample ID:*** **622300938-0051**
Sample Description: Conference Room F114/2x2 Phole CT - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray/White	40.0%	60.0%	None Detected	

Client Sample ID: PH1-014C ***Lab Sample ID:*** **622300938-0052**
Sample Description: Conference Room F114/2x2 Phole CT - Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray/White	55.0%	45.0%	None Detected	

Client Sample ID: PH1-014D ***Lab Sample ID:*** **622300938-0053**
Sample Description: By 243/2x2 Pin Groove

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM					Not Submitted	

Client Sample ID: PH1-015A ***Lab Sample ID:*** **622300938-0054**
Sample Description: Conference Room F114 above CT/Sheetrock - Sheetrock

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray	11.0%	89.0%	None Detected	

Client Sample ID: PH1-015B ***Lab Sample ID:*** **622300938-0055**
Sample Description: Housekeeping B64 Above CT/Sheetrock - Sheetrock

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/Tan	18.0%	82.0%	None Detected	

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Client Sample ID: PH1-015C ***Lab Sample ID:*** **622300938-0056**

Sample Description: Housekeeping B64 Above CT/Sheetrock - Sheetrock

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/Tan	19.0%	81.0%	None Detected	

Client Sample ID: PH1-016A ***Lab Sample ID:*** **622300938-0057**

Sample Description: Storage S111/dk brown mottled FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Black	0.0%	98.6%	**1.4% Chrysotile**	

Client Sample ID: PH1-016B ***Lab Sample ID:*** **622300938-0058**

Sample Description: Storage S111/dk brown mottled FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH1-016C ***Lab Sample ID:*** **622300938-0059**

Sample Description: Storage S111/dk brown mottled FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH1-017A ***Lab Sample ID:*** **622300938-0060**

Sample Description: Storage S111/Mastic 016A - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Black	0.0%	95.3%	**4.7% Chrysotile**	

Client Sample ID: PH1-017B ***Lab Sample ID:*** **622300938-0061**

Sample Description: Storage S111/Mastic 016B - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH1-017C ***Lab Sample ID:*** **622300938-0062**

Sample Description: Storage S111/Mastic 016C - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH1-018A ***Lab Sample ID:*** **622300938-0063**

Sample Description: Room F112/Light Green Mottled FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Green	0.0%	100%	None Detected	

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Client Sample ID: PH1-018B ***Lab Sample ID:*** **622300938-0064**
Sample Description: Room F112/Light Green Mottled FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Green	0.0%	100%	None Detected	

Client Sample ID: PH1-018C ***Lab Sample ID:*** **622300938-0065**
Sample Description: Room F112/Light Green Mottled FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Green	0.0%	100%	None Detected	

Client Sample ID: PH1-019A ***Lab Sample ID:*** **622300938-0066**
Sample Description: Room F112/Mastic 018A - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Various	0.0%	100%	None Detected	

Client Sample ID: PH1-019B ***Lab Sample ID:*** **622300938-0067**
Sample Description: Room F112/Mastic 018B - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Various	0.0%	100%	None Detected	

Client Sample ID: PH1-019C ***Lab Sample ID:*** **622300938-0068**
Sample Description: Room F112/Mastic 018C - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Various	0.0%	100%	None Detected	

Client Sample ID: PH1-020A ***Lab Sample ID:*** **622300938-0069**
Sample Description: Rec Room/Wall Glue - Wall Glue

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Tan	0.0%	100%	None Detected	

Client Sample ID: PH1-020B ***Lab Sample ID:*** **622300938-0070**
Sample Description: Rec Room/Wall Glue - Wall Glue

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/30/2023	Tan	0.0%	100%	None Detected	

Client Sample ID: PH1-020C ***Lab Sample ID:*** **622300938-0071**
Sample Description: Rec Room/Wall Glue - Wall Glue

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Tan	0.0%	100%	None Detected	

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Client Sample ID: PH1-021A ***Lab Sample ID:*** **622300938-0072**
Sample Description: Chapel/White 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	White	0.0%	100%	None Detected	

Client Sample ID: PH1-021B ***Lab Sample ID:*** **622300938-0073**
Sample Description: Chapel/White 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	White	0.0%	100%	None Detected	

Client Sample ID: PH1-021C ***Lab Sample ID:*** **622300938-0074**
Sample Description: Chapel/White 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	White	0.0%	100%	None Detected	

Client Sample ID: PH1-022A ***Lab Sample ID:*** **622300938-0075**
Sample Description: Chapel/Black 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Black	0.0%	100%	None Detected	

Client Sample ID: PH1-022B ***Lab Sample ID:*** **622300938-0076**
Sample Description: Chapel/Black 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Black	0.0%	100%	None Detected	

Client Sample ID: PH1-022C ***Lab Sample ID:*** **622300938-0077**
Sample Description: Chapel/Black 12x12 FT - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH1-023A ***Lab Sample ID:*** **622300938-0078**
Sample Description: Chapel/Mastic 021A-022A - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH1-023B ***Lab Sample ID:*** **622300938-0079**
Sample Description: Chapel/Mastic 021B-022B - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

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Client Sample ID: PH1-023C ***Lab Sample ID:*** **622300938-0080**

Sample Description: Chapel/Mastic 021C-022C - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH1-024A ***Lab Sample ID:*** **622300938-0081**

Sample Description: Exterior Chapel/Ceiling Exterior Skimcoat - Skimcoat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: PH1-024B ***Lab Sample ID:*** **622300938-0082**

Sample Description: Exterior Chapel/Ceiling Exterior Skimcoat - Skimcoat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: PH1-024C ***Lab Sample ID:*** **622300938-0083**

Sample Description: Exterior Chapel/Ceiling Exterior Skimcoat - Skim Coat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: PH1-025A ***Lab Sample ID:*** **622300938-0084**

Sample Description: Exterior Chapel/Column Skimcoat - Skimcoat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray	0.0%	100.0%	None Detected	

Client Sample ID: PH1-025B ***Lab Sample ID:*** **622300938-0085**

Sample Description: Exterior Chapel/Column Skimcoat - Skimcoat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/Green	8.0%	92.0%	None Detected	

Client Sample ID: PH1-025C ***Lab Sample ID:*** **622300938-0086**

Sample Description: Exterior Chapel/Column Skimcoat - Skimcoat

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Gray/Tan/Green	0.0%	100.0%	None Detected	

Client Sample ID: PH1-026A ***Lab Sample ID:*** **622300938-0087**

Sample Description: 2nd Floor by 206/Grey 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

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Client Sample ID: PH1-026B ***Lab Sample ID:*** **622300938-0088**
Sample Description: 3rd Floor by 306/Grey 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH1-026C ***Lab Sample ID:*** **622300938-0089**
Sample Description: 4th Floor by 406/Grey 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH1-027A ***Lab Sample ID:*** **622300938-0090**
Sample Description: 2nd Floor by 206/Mastic 26A - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH1-027B ***Lab Sample ID:*** **622300938-0091**
Sample Description: 3rd Floor by 306/Mastic 26B - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH1-027C ***Lab Sample ID:*** **622300938-0092**
Sample Description: 4th Floor by 406/Mastic 26C - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH1-028A ***Lab Sample ID:*** **622300938-0093**
Sample Description: Room 205/Grey Swirl 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH1-028B ***Lab Sample ID:*** **622300938-0094**
Sample Description: Room 205/Grey Swirl 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH1-028C ***Lab Sample ID:*** **622300938-0095**
Sample Description: Room 205/Grey Swirl 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

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Client Sample ID: PH1-029A ***Lab Sample ID:*** **622300938-0096**
Sample Description: Room 205/Mastic 028A - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH1-029B ***Lab Sample ID:*** **622300938-0097**
Sample Description: Room 205/Mastic 028B - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH1-029C ***Lab Sample ID:*** **622300938-0098**
Sample Description: Room 205/Mastice 028C - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH1-030A ***Lab Sample ID:*** **622300938-0099**
Sample Description: Room 212/Window Caulk - Caulk

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	97.6%	**2.4% Chrysotile**	

Client Sample ID: PH1-030B ***Lab Sample ID:*** **622300938-0100**
Sample Description: Room 353/Window Caulk - Caulk

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH1-030C ***Lab Sample ID:*** **622300938-0101**
Sample Description: Room 342/Window Caulk - Caulk

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH1-031A ***Lab Sample ID:*** **622300938-0102**
Sample Description: Room 212/Window Glaze - Glaze

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH1-031B ***Lab Sample ID:*** **622300938-0103**
Sample Description: Room 228/Window Glaze - Glaze

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	99.6%	**0.35% Chrysotile**	

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Client Sample ID: PH1-031C **Lab Sample ID:** **622300938-0104**
Sample Description: Room 329/Window Glaze - Glaze

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH3-031D **Lab Sample ID:** **622300938-0105**
Sample Description: Room 280/Window Glaze - Glaze

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	**<0.25% Chrysotile**	

Client Sample ID: PH3-031E **Lab Sample ID:** **622300938-0106**
Sample Description: Room 391/Window Glaze - Glaze

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/31/2023	Gray	0.0%	100%	**<0.25% Chrysotile**	

Client Sample ID: PH1-032A **Lab Sample ID:** **622300938-0107**
Sample Description: By Room 230/Five Stop Caulk - Caulk

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Red	0.74%	99.3%	None Detected	

Client Sample ID: PH1-032B **Lab Sample ID:** **622300938-0108**
Sample Description: By Room 230/Five Stop Caulk - Caulk

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Red	0.88%	99.1%	None Detected	

Client Sample ID: PH1-032C **Lab Sample ID:** **622300938-0109**
Sample Description: By Room 230/Five Stop Caulk - Caulk

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Red	0.49%	99.5%	None Detected	

Client Sample ID: PH1-033A **Lab Sample ID:** **622300938-0110**
Sample Description: Room 234/Green Swirl 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Green	0.0%	100%	None Detected	

Client Sample ID: PH1-033B **Lab Sample ID:** **622300938-0111**
Sample Description: Room 234/Green Swirl 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Green	0.0%	100%	None Detected	

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Client Sample ID: PH1-033C ***Lab Sample ID:*** **622300938-0112**

Sample Description: Room 234/Green Swirl 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Green	0.0%	100%	None Detected	

Client Sample ID: PH1-034A ***Lab Sample ID:*** **622300938-0113**

Sample Description: Room 234/Mastic 33A - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH1-034B ***Lab Sample ID:*** **622300938-0114**

Sample Description: Room 234/Mastic 33B - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH1-034C ***Lab Sample ID:*** **622300938-0115**

Sample Description: Room 234/Mastic 33C - Mastic from Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH1-035A ***Lab Sample ID:*** **622300938-0116**

Sample Description: Room 410/White 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	White	0.0%	100%	None Detected	

Client Sample ID: PH1-035B ***Lab Sample ID:*** **622300938-0117**

Sample Description: Room 410/White 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	White	0.0%	100%	None Detected	

Client Sample ID: PH1-035C ***Lab Sample ID:*** **622300938-0118**

Sample Description: Room 410/White 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	White	0.0%	100%	None Detected	

Client Sample ID: PH1-036A ***Lab Sample ID:*** **622300938-0119**

Sample Description: Room 410/Mastic 35A - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Yellow	0.0%	100%	None Detected	

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EMSL Order ID: 622300938
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH1-036B ***Lab Sample ID:*** **622300938-0120**

Sample Description: Room 410/Mastic 35B - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH1-036C ***Lab Sample ID:*** **622300938-0121**

Sample Description: Room 410/Mastic 35C - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH2-037A ***Lab Sample ID:*** **622300938-0122**

Sample Description: Room 458/Tan 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Beige	0.0%	100%	None Detected	

Client Sample ID: PH2-037B ***Lab Sample ID:*** **622300938-0123**

Sample Description: Room 458/Tan 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Beige	0.0%	100%	None Detected	

Client Sample ID: PH2-037C ***Lab Sample ID:*** **622300938-0124**

Sample Description: Room 458/Tan 12x24 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Beige	0.0%	100%	None Detected	

Client Sample ID: PH2-038A ***Lab Sample ID:*** **622300938-0125**

Sample Description: Room 458/Mastic 37A - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH2-038B ***Lab Sample ID:*** **622300938-0126**

Sample Description: Room 458/Mastic 37B - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH2-038C ***Lab Sample ID:*** **622300938-0127**

Sample Description: Room 458/Mastic 37C - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Brown	0.0%	100%	None Detected	

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EMSL Order ID: 622300938
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH2-039A **Lab Sample ID:** **622300938-0128**
Sample Description: L001/Grey Mottled SF - SF

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH2-039B **Lab Sample ID:** **622300938-0129**
Sample Description: L001/Grey Mottled SF - SF

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH2-039C **Lab Sample ID:** **622300938-0130**
Sample Description: L001/Grey Mottled SF - SF

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Gray	0.0%	100%	None Detected	

Client Sample ID: PH2-040A **Lab Sample ID:** **622300938-0131**
Sample Description: Rifle Range/Glue Daubs - Glue Daubs

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH2-040B **Lab Sample ID:** **622300938-0132**
Sample Description: Rifle Range/Glue Daubs - Glue Daubs

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH2-040C **Lab Sample ID:** **622300938-0133**
Sample Description: Rifle Range/Glue Daubs - Glue Daubs

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Brown	0.0%	100%	None Detected	

Client Sample ID: PH2-041A **Lab Sample ID:** **622300938-0134**
Sample Description: Rifle Range/Gasket - Rope - Gasket Rope

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	White	55.0%	5.0%	**40% Chrysotile**	

Client Sample ID: PH2-041B **Lab Sample ID:** **622300938-0135**
Sample Description: Rifle Range/Gasket - Rope

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023				Positive Stop (Not Analyzed)	

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Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH2-041C ***Lab Sample ID:*** **622300938-0136**
Sample Description: Rifle Range/Gasket - Rope

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023			Positive Stop (Not Analyzed)		

Client Sample ID: PH2-042A ***Lab Sample ID:*** **622300938-0137**
Sample Description: Rifle Range/Blown In Insulation - Blown in Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray/Tan	80.0%	20.0%	None Detected	

Client Sample ID: PH2-042B ***Lab Sample ID:*** **622300938-0138**
Sample Description: Rifle Range/Blown In Insulation - Blown in Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray	95.0%	5.0%	None Detected	

Client Sample ID: PH2-042C ***Lab Sample ID:*** **622300938-0139**
Sample Description: Rifle Range/Blown In Insulation - Blown in Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	Brown/Gray	98.0%	2.0%	None Detected	

Client Sample ID: PH2-043A ***Lab Sample ID:*** **622300938-0140**
Sample Description: Rifle Range/Vapor Barrier - Vapor Barrier

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Black	0.0%	93.4%	**6.6% Chrysotile**	

Client Sample ID: PH2-043B ***Lab Sample ID:*** **622300938-0141**
Sample Description: Rifle Range/Vapor Barrier - Vapor Barrier

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023			Positive Stop (Not Analyzed)		

Client Sample ID: PH2-043C ***Lab Sample ID:*** **622300938-0142**
Sample Description: Rifle Range/Vapor Barrier - Vapor Barrier

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023			Positive Stop (Not Analyzed)		

Client Sample ID: PH2-044A ***Lab Sample ID:*** **622300938-0143**
Sample Description: By B06/Joint Compound - Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	White	0.0%	100.0%	None Detected	

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Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH2-044B ***Lab Sample ID:*** **622300938-0144**
Sample Description: By B06/Joint Compound - Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	White	0.0%	100.0%	None Detected	

Client Sample ID: PH2-044C ***Lab Sample ID:*** **622300938-0145**
Sample Description: By B06/Joint Compound - Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	8/29/2023	White	0.0%	100.0%	None Detected	

Client Sample ID: PH2-045A ***Lab Sample ID:*** **622300938-0146**
Sample Description: T101/Tan Sheet Flooring - Sheet Flooring

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Tan	<0.25%	100%	None Detected	

Client Sample ID: PH2-045B ***Lab Sample ID:*** **622300938-0147**
Sample Description: T103/Tan Sheet Flooring - Sheet Flooring

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Tan	0.74%	99.3%	None Detected	

Client Sample ID: PH2-045C ***Lab Sample ID:*** **622300938-0148**
Sample Description: T103/Tan Sheet Flooring - Sheet Flooring

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Tan	0.47%	99.5%	None Detected	

Client Sample ID: PH3-046A ***Lab Sample ID:*** **622300938-0149**
Sample Description: G7 Bilge/Tan 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Tan	0.0%	100%	None Detected	

Client Sample ID: PH3-046B ***Lab Sample ID:*** **622300938-0150**
Sample Description: G7 Bilge/Tan 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Tan	0.0%	100%	None Detected	

Client Sample ID: PH3-046C ***Lab Sample ID:*** **622300938-0151**
Sample Description: G7 Bilge/Tan 12x12 FT - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Tan	0.0%	100%	None Detected	

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EMSL Order ID: 622300938
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH3-047A ***Lab Sample ID:*** **622300938-0152**
Sample Description: G7 Bilge/Black Mastic 46A - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Black	0.0%	95.3%	**4.7% Chrysotile**	

Client Sample ID: PH3-047B ***Lab Sample ID:*** **622300938-0153**
Sample Description: G7 Bilge/Black Mastic 46B - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH3-047C ***Lab Sample ID:*** **622300938-0154**
Sample Description: G7 Bilge/Black Mastic 46C - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023				Positive Stop (Not Analyzed)	

Client Sample ID: PH2-048A ***Lab Sample ID:*** **622300938-0155**
Sample Description: H104/FT Cream w/ Green - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Beige	0.0%	100%	None Detected	

Client Sample ID: PH2-048B ***Lab Sample ID:*** **622300938-0156**
Sample Description: H104/FT Cream w/ Green - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Beige	0.0%	100%	None Detected	

Client Sample ID: PH2-048C ***Lab Sample ID:*** **622300938-0157**
Sample Description: H104/FT Cream w/ Green - Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Beige	0.0%	100%	None Detected	

Client Sample ID: PH2-049A ***Lab Sample ID:*** **622300938-0158**
Sample Description: H104/Mastic 048A - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Yellow	0.0%	100%	None Detected	

Client Sample ID: PH2-049B ***Lab Sample ID:*** **622300938-0159**
Sample Description: H104/Mastic 048B - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Yellow	0.0%	100%	None Detected	

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EMSL Order ID: 622300938
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: PH2-049C ***Lab Sample ID:*** **622300938-0160**

Sample Description: H104/Mastic 048C - Mastic on Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	9/01/2023	Yellow	0.0%	100%	None Detected	

PLM: ME CERT # BA-0233

PLM EPA NOB: ME CERT # BA-0233

Analyst(s):

Stefan Reis PLM (54)
PLM Grav. Reduction (89)

Reviewed and approved by:

Stephen Severn, Technical Manager
or Other Approved Signatory

Samples analyzed by EMSL Analytical, Inc. South Portland, ME NVLAP Lab Code 500094-0, VT AL197271, ME LM-0039, CT PH-0346, AZ AZ-0959, MA AA000236

Initial report from: 09/05/202315:23:15

OrderID: 622300938

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Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only: 622300938

EMSL Analytical, Inc.
161 John Roberts Road
South Portland, ME 04106
PHONE (207) 517-6921
EMAIL portlandlab@emsl.com

Customer Information		Billing Information	
Customer ID		Billing ID	
Company Name	Haley Ward	Company Name	Haley Ward
Contact Name	Deb Kasik	Billing Contact	Deb Kasik
Street Address	1 Merchant's Plaza 7th Floor	Street Address	1 Merchant's Plaza, 7th Floor
City, State, Zip	Bangor ME 0440	City, State, Zip	Bangor ME
Country	US	Country	US
Phone	207-989-4824	Phone	207-989-4824
Email(s) for Report	dkasik@haleyward.com	Email(s) for Invoice	

Project Information

Project Name/No.: 13150.~~000~~.007
Purchase Order:
EMSL LIMS Project ID (if applicable, EMSL will provide):
US State where samples collected: ME
State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-Taxable)
Sampled By Name: S. Yerina/Deborah A Kasik
Sampled By Signature: S.Yerina/D.Kasik
Date Sampled:
No. of Samples in Shipment: 160

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☑ 96 Hour ☐ 1 Week ☐ 2 Week

Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only, samples must be submitted by 11:30am

Test Selection

PLM - Bulk (reporting limit)
- ☑ PLM EPA 600/R-93/116 (<1%)
- ☑ PLM EPA NOB (<1%)
- ☐ POINT COUNT
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ POINT COUNT w/ GRAVIMETRIC
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ NIOSH 9002 (<1%)
- ☐ NYS 198.1 (Friable - NY)
- ☐ NYS 198.6 NOB (Non-Friable - NY)
- ☐ NYS 198.8 (Vermiculite SM-V)

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (Non-Friable - NY)
- ☐ TEM EPA 600/R-93/116 w Milling Prep (0.1%)

Other Tests (please specify)

- ☑ Positive Stop - Clearly Identified Homogeneous Areas (HA)

Sample Number	HA Number	Sample Location	Material Description
PHL-001A		Boiler Rm	Ceiling Plaster
B		"	"
C		"	"
PHL-002A		Boiler Rm (Mezz)	Mud Fittings on Pi
B		(Mezz)	"
C		(Mezz)	"
003A		Boiler Rm (Mezz)	Pipe insulation
B		"	"
C		"	"
004A		"	Mud fittings on Pipe

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

NOB per MEDEP
PLEASE ANALYZE ALL 012A→5

Method of Shipment: Fed Ex.		Sample Condition Upon Receipt:	
Relinquished by: Deborah Kasik	Date/Time: 8/25/23 3:55 pm	Received by:	Date/Time: 8/28/23 10:00am
Relinquished by:	Date/Time:	Received by:	Date/Time:

Controlled Document - Asbestos Bulk R7 3/14/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

RECEIVED
AUG 28 2023
BY: SR

OrderID: 622300938

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Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only: 622300938

EMSL Analytical, Inc.
161 John Roberts Road
South Portland, ME 04106
PHONE: (207) 517-6921
EMAIL: portlandlab@emsl.com

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name:	Haley Ward	Company Name:	Haley Ward
Contact Name:	Deb Kasik	Billing Contact:	Deb Kasik
Street Address:	1 Merchant's Plaza 7th Floor	Street Address:	1 Merchant's Plaza, 7th Floor
City, State, Zip:	Bangor ME 0440[illegible] Country: US	City, State, Zip:	Bangor ME Country: US
Phone:	207-989-4824	Phone:	207-989-4824
Email(s) for Report:	dkasik@haleyward.com	Email(s) for Invoice:	

Project Information

Project Name/No: 13150.006 | Purchase Order:

EMSL LIMS Project ID: (If applicable, EMSL will provide) | US State where samples collected: ME | State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-Taxable)

Sampled By Name: S. Ferreira/Deborah A Kasik | Sampled By Signature: S. Ferreira/D. Kasik | Date Sampled: | No. of Samples in Shipment: 160

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☑ 96 Hour ☐ 1 Week ☐ 2 Week

Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

Test Selection

PLM - Bulk (reporting limit)

- ☑ PLM EPA 600/R-93/116 (<1%)
- ☑ PLM EPA NOB (<1%)
- ☐ POINT COUNT
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ POINT COUNT w/ GRAVIMETRIC
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ NIOSH 9002 (<1%)
- ☐ NYS 198.1 (Friable - NY)
- ☐ NYS 198.6 NOB (Non-Friable - NY)
- ☐ NYS 198.8 (Vermiculite SM-V)

TEM - Bulk

- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (Non-Friable - NY)
- ☐ TEM EPA 600/R-93/116 w Milling Prep (0.1%)

Other Tests (please specify)

RECEIVED
AUG 28 2023
BY: AR

☑ Positive Stop - Clearly Identified Homogeneous Areas (HA)

Sample Number	HA Number	Sample Location	Material Description
PHI-001A		Boiler Rm	Ceiling Plaster
B		"	"
C		"	"
PHI-002A		Boiler Rm (Mezz)	Mud Fittings on PG
B		(Mezz)	"
C		"	"
003A		Boiler Rm (Mezz)	P.P. Insulation
B		"	
C		"	
004A		"	Mud fittings on Acc

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

NOB per MEDEP
PLEASE ANALYZE ALL 012A→J

Method of Shipment: Fed Ex.

Relinquished by: Deborah Kasik	Date/Time: 8/25/23 3:55 pm	Received by: AR	Date/Time: 8/28/23 10:00
Relinquished by:	Date/Time:	Received by:	Date/Time

Sample Condition Upon Receipt:

Controlled Document - Asbestos Bulk R7 9/14/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

FedEx #7913 8573 6260

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Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only

622300938

EMSL Analytical, Inc.
161 John Roberts Road
South Portland, ME 04106
PHONE: (207) 517-6921
EMAIL: portlandlab@emsl.com

RECEIVED
AUG 28 2023

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

BY: AR

Sample Number	HA Number	Sample Location	Material Description
004 B		Boiler Rm / Mezz	Mud fitting on CM
C		"	"
005A		Boiler Rm / Mezz	Tank insulation
B		"	"
C		"	"
006A		PH1 - (5th Security)	12" orange mottled
B		"	(5102) "
C		"	"
007A		"	Brown/Black Adh
B		"	"
C		"	"
008A		"	CT 4x2 pinhole groove
B		"	"
C		"	"
009A		Quarter Deck ~~Entry~~ by Security	CT 2x2 pinhole
B		"	"
C		"	"
010A		Hallway by Security	CT 3 2x2 textured/ Pinhole
B			"
C			"
011A		bathroom by Security	CT 4 2x2 pinhole groove
B		"	"
C		"	"
012A		bathroom by Security	Mud Fitting on Fiberglass
012B		Anchor Lounge	"

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time:	Received by: AA	Date/Time: 8/28/23 10:00
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - Asbestos Bulk R7 09/14/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

OrderID: 622300938

EMSL ANALYTICAL, INC.
LABORATORY•PRODUCTS•TRAINING

Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only

622300938

EMSL Analytical, Inc.
161 John Roberts Road
South Portland, ME 04106
(207) 517-6928
portlandlab@emsl.com

RECEIVED AUG 28 2023 BY: AR

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Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Sample Number	HA Number	Sample Location	Material Description
012C	√	Janitor	
013A		Storage by security	Carpet mastic
013B		Conference room F114	"
013C	√	Housekeeping B64	"
014A		conference room F114	2x4 hole CT
014B		"	"
014C		"	"
015A		" above CT	Sheetrock
015B	√	Housekeeping B64 above CT	"
015C	√	" "	"
016A		Storage S111	dk brown mottled FT
016B		"	"
016C		"	"
017A		"	mastic 016A
017B		"	" 016B
017C		"	" 016C
018A		Room F112	Light green mottled FT
018B		"	"
018C		"	"
019A		"	mastic 018A
019B		"	018B
019C ~~[illegible]~~		"	018C
020A ~~020B~~		Rec Room	wall glue ~~018E~~
020B ~~020C~~		"	"
020C		"	"

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time:	Received by: AR	Date/Time: 8/28/23 10:00
Relinquished by:	Date/Time:	Received by:	Date/Time:

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Asbestos Bulk Building Materials - Chain of Custody

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BY: AR

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Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Sample Number	HA Number	Sample Location	Material Description
021A		Chapel	White 12x12 FT
021B		"	"
021C		"	"
022A		"	Black 12x12 FT
022B		"	"
022C		"	"
023A		"	mastic 021A-022A
023B		"	" 021B-022B
023C		"	" 021C-022C
024A		exterior Chapel	ceiling exterior skimcoat
024B		"	"
024C		"	"
~~025~~ 025A		"	column skimcoat
025B		"	"
025C		"	"
026A		2nd Floor by 206	grey 12 FT
026B		3rd Floor by 306	"
026C		4th Floor by 406	"
027A		2nd Floor by 206	mastic 26A
027B		3rd Floor by 306	26B
027C		4th Floor by 406	26C
008D		2nd Floor by Bedroom 203	CT1
010D		" "	CT3
013D		R ~~205~~ 204	carpet adhesive- brown
012D		Bath T208	mudded fitting

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time:	Received by: AR	Date/Time: 8/28/23 10:00
Relinquished by:	Date/Time:	Received by:	Date/Time:

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Page 4 of 8

OrderID: 622300938

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Asbestos Bulk Building Materials - Chain of Custody

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Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Sample Number	HA Number	Sample Location	Material Description
PH1 028A		Room 205	12x24 grey swirl 12x24 FT
028B		"	"
028C		"	"
029A		"	mastic 028A
029B		"	028B
029C		"	028C
030A		Room 212	window caulk
030B		353	"
030C		342	"
031A		Room 212	window glaze
031B		Room 228	
031C		Room 329	
032A		By Room 230	Firestop caulk
032B		"	
032C		"	
033A		Room 234	green swirl 12x24 FT
033B		"	"
033C		"	"
034A		"	mastic 33A
034B		"	33B
034C		"	33C
012E		Bath T214	mudded elbow
012F		" "	mudded elbow
014D		By 243	2x4 pin grove

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time:	Received by: AR	Date/Time: 8/28/23 10:00
Relinquished by:	Date/Time:	Received by:	Date/Time:

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OrderID: 622300938

Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only: 622300938

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EMAIL: portlandlab@emsl.com

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	Sample Number	HA Number	Sample Location	Material Description
PH1	035A		Room 410	white 12x24 FT
	035B		↓	↓
	035C			
	036A			mastic 035A
	036B			035B
	036C		↓	035C
PH3	031D		Room 280	window glaze
PH3	031E		" 391	"
PH2	037A		Room 458	tan 12x24 FT
	037B		↓	↓
	037C			
	038A			mastic 37A
	038B			37B
	038C		↓	37C
PH3	012G		outside 4th laundry by 490	mudded fitting
PH3	012H		" " " "	mudded fitting
PH2	012I		S102	mudded fitting
PH2	039A		L001	grey mottled SF
PH2	039B		"	"
PH2	039C		"	"
PH2	040A		rifle range	glue daubs
PH2	040B		"	"
PH2	040C		"	"
PH2	012J		rifle range	mudded fitting

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time:	Received by: AR	Date/Time: 8/28/23 10:00
Relinquished by:	Date/Time:	Received by:	Date/Time:

Controlled Document - COC-01 Asbestos Bulk R6 05/05/2021

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Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only

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Sample Number	HA Number	Sample Location	Material Description
PH2 041A		R. Fle Range	gasket - rope
PH2 041B		"	"
PH2 041C		"	"
PH2 042A		"	Blown In insulation
PH2 042B		"	"
PH2 042C		"	"
PH2 043A		|	vaporbarrier
PH2 043B		|	"
PH2 043C		|	"
PH2 044A		By Bob	Joint Compound (Sealos Surface
PH2 044B		"	"
PH2 044C		"	"
PH2 045A		T101	tan Sheetflooring
PH2 045B		T103	"
PH2 045C		T103	"
PH3 046A		A7 Bilge	tan 12x12 FT
PH3 046B		|	"
PH3 046C		|	"
PH3 047A		|	Black mastic 46A
PH3 047B		|	" 46B
PH3 047C		|	" 46C
PH2 048A		A104	FT cream w/green
PH2 048B		"	"
PH2 048C		"	"

Method of Shipment		Sample Condition Upon Receipt	
Relinquished by	Date/Time	Received by: AR	Date/Time 8/28/23 16:00
Relinquished by	Date/Time	Received by	Date/Time

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Page 7 of 9

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LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only

622300938

EMSL Analytical, Inc.
161 John Roberts Road
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EMAIL portlandlab@emsl.com

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Sample Number	HA Number	Sample Location	Material Description
PH2 049A		A104	Mastic 048A
049B		"	" 048B
049C		"	" 048C

Method of Shipment			Sample Condition Upon Receipt	
Relinquished by	Date/Time		Received by: AR	Date/Time 8/28/23 10:00
Relinquished by	Date/Time		Received by	Date/Time

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Page 8 of 8

APPENDIX D

PHOTOGRAPHIC LOG

Photo No. 1 **Photo Date:** August 24, 2023 **Site Location:** Maine Maritime Academy Curtis Hall **Description:** Fiberglass-insulated piping beneath sinks in restrooms. Mud fitting insulation was not observed. **Photo By:** DAK	

Photo No. 2 **Photo Date:** August 24, 2023 **Site Location:** Maine Maritime Academy Curtis Hall **Description:** Mud pipe fitting insulation located in ceiling plenum near restrooms. **Photo By:** DAK	

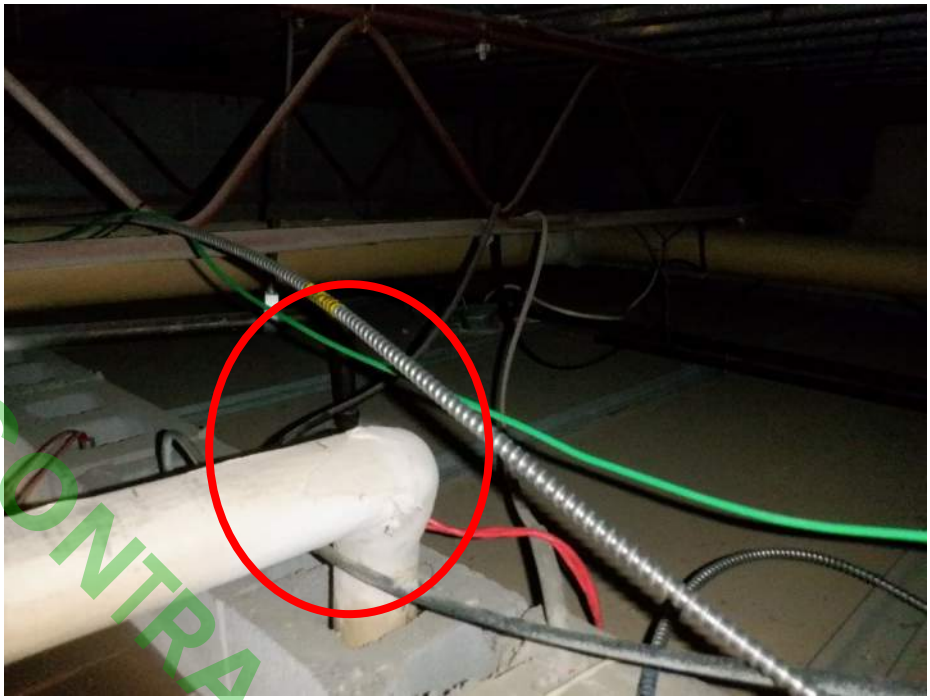
Photo No. 3 **Photo Date:** August 24, 2023 **Site Location:** Maine Maritime Academy Curtis Hall **Description:** Mud pipe fitting insulation located in ceiling plenum. **Photo By:** DAK	

Photo No. 4 **Photo Date:** August 24, 2023 **Site Location:** Maine Maritime Academy Curtis Hall Mud pipe fitting insulation located in ceiling plenum. **Photo By:** DAK	

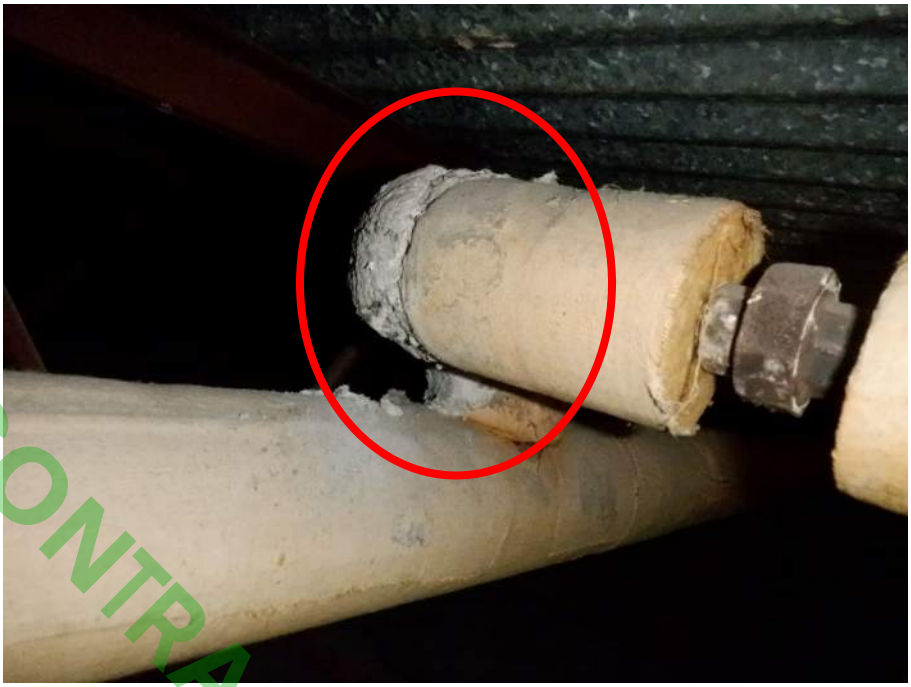
Photo No. 5 **Photo Date:** August 25, 2023 **Site Location:** Maine Maritime Academy Curtis Hall **Description:** Mud pipe fitting insulation on fiberglass-insulated piping. **Photo By:** DAK	

Photo No. 6 **Photo Date:** August 25, 2023 **Site Location:** Maine Maritime Academy Curtis Hall **Description:** Pipe chase located in Ground Floor Armory. **Photo By:** DAK	

Photo No. 7 **Photo Date:** August 25, 2023 **Site Location:** Maine Maritime Academy Curtis Hall **Description:** Pipe chase in Men's Room located off the Bilge on the Ground Floor. **Photo By:** DAK	

Photo No. 8 **Photo Date:** August 24, 2023 **Site Location:** Maine Maritime Academy Curtis Hall **Description:** Exterior caulk associated with the windows. **Photo By:** DAK	

Photo No. 9 **Photo Date:** August 24, 2023 **Site Location:** Maine Maritime Academy Curtis Hall **Description:** Non lead-containing interior and exterior windowsills. **Photo By:** DAK	

Photo No. 10 **Photo Date:** August 24, 2023 **Site Location:** Maine Maritime Academy Curtis Hall **Description:** Non Asbestos-containing Window Glazing **Photo By:** DAK	

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

November 17, 2023

Mr. Nathaniel A. Cram, AIA, LEED AP
CHA Consulting, Inc.
49 Dartmouth Street
Portland, Maine 04101
ncram@chacompanies.com

Re: Supplemental ACM Roof Sample Results | Curtis Hall Roof | Maine Maritime Academy | Castine, Maine

Dear Mr. Cram:

At your request, Haley Ward, Inc. (Haley Ward) received on October 23, 2023, at our Bangor office, four "roof core" samples from Curtis Hall located at the Maine Maritime Academy (MMA) in Castine, Maine. The roof core samples were collected by a qualified roofing contractor and delivered by Mr. Carl Olson, Facilities Operations Manager for MMA. Haley Ward reviewed, packaged, and submitted the roof core samples for to a Maine Department of Environmental Protection (MDEP) licensed laboratory for analysis.

A total of four roof core bulk samples of suspect ACM were received. MMA provided a site map with the approximate locations where the roof samples were collected and notes describing the samples. The notes are summarized, as follows:

- Sample 1 – high end of insulation (wet)
- Sample 2 – low end of insulation; (location changed due to puddle in the proposed location)
- Sample 3 – middle depth of insulation
- Sample 4 – middle depth of insulation.

The received bulk samples were submitted to EMSL Analytical, Inc. (EMSL) of South Portland, Maine for analysis. Bulk samples were analyzed using the MDEP required analytical method: PLM NOB-EPA 600/R-93/116 (for Non-Friable Organically Bound Materials (NOBs)). EMSL's laboratory is certified to perform asbestos analysis by both the National Voluntary Laboratory Accreditation Program (NVLAP) and the American

One Merchants Plaza, Suite 701, Bangor, ME 04401
T: 207.989.4824 | HALEYWARD.COM

Industrial Hygiene Association (AIHA). EMSL is a MDEP licensed Asbestos Analytical Laboratory. Laboratory analytical results and chain of custodies are included as **Attachment A.**

Laboratory analytical results did not identify the received roof bulk samples as asbestos-containing.

If you have any questions or if additional services are needed, please feel free to contact either of the undersigned at (207) 989-4824.

Sincerely,
Haley Ward, Inc.

Deborah A. Kasik
Project Scientist II
MDEP Asbestos Inspector (AI-0177)

Michael D. Sauda, MPH, CSP
Senior Project Scientist

DAK/MDS/
Attachments

ATTACHMENT A

LABORATORY ANALYTICAL RESULTS

EMSL Analytical, Inc.

161 John Roberts Road South Portland, ME 04106

Tel/Fax: (207) 517-6921 / (207) 517-6922

http://www.EMSL.com / portlandlab@emsl.com

EMSL Order:	622301177
Customer ID:	CESI62
Customer PO:	
Project ID:	

Attention:	Deb Kasik	**Phone:**	(207) 989-4824
	Haley Ward	**Fax:**	(207) 989-4881
	1 Merchant's Plaza	**Received Date:**	10/25/2023 4:30 PM
	7th Floor	**Analysis Date:**	10/30/2023
	Bangor, ME 04401	**Collected Date:**	
Project:	10955.016 ROOF CORE SAMPLES		

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1-Foam *622301177-0001*	SAMPLE #1 - HIGH END OF INSULATION (WET)	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
1-Foam Backing *622301177-0001A*	SAMPLE #1 - HIGH END OF INSULATION (WET)	Gray Fibrous Homogeneous	70% Cellulose 20% Glass	10% Non-fibrous (Other)	None Detected
1-Fiberboard *622301177-0001B*	SAMPLE #1 - HIGH END OF INSULATION (WET)	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
2-Foam *622301177-0002*	SAMPLE #2 - LOW END OF INSULATION - PROPOSED LOCATION REMOVED DUE TO PUDDLE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2-Foam Backing *622301177-0002A*	SAMPLE #2 - LOW END OF INSULATION - PROPOSED LOCATION REMOVED DUE TO PUDDLE	Gray Non-Fibrous Homogeneous	70% Cellulose 20% Glass	10% Non-fibrous (Other)	None Detected
2-Fiberboard *622301177-0002B*	SAMPLE #2 - LOW END OF INSULATION - PROPOSED LOCATION REMOVED DUE TO PUDDLE	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
3-Foam *622301177-0003*	SAMPLE #3 - MIDDLE DEPTH OF INSULATION	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-Foam Backing *622301177-0003A*	SAMPLE #3 - MIDDLE DEPTH OF INSULATION	Gray Fibrous Homogeneous	70% Cellulose 20% Glass	10% Non-fibrous (Other)	None Detected
3-Fiberboard *622301177-0003B*	SAMPLE #3 - MIDDLE DEPTH OF INSULATION	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
4-Foam *622301177-0004*	SAMPLE #4 MIDDLE DEPTH OF INSULATION	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-Foam Backing *622301177-0004A*	SAMPLE #4 MIDDLE DEPTH OF INSULATION	Gray Fibrous Homogeneous	70% Cellulose 20% Glass	10% Non-fibrous (Other)	None Detected
4-Fiberboard *622301177-0004B*	SAMPLE #4 MIDDLE DEPTH OF INSULATION	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected

Report Comment: **ME CERT # BA-0178**

Initial report from: 10/30/2023 16:02:13

EMSL Analytical, Inc.

161 John Roberts Road South Portland, ME 04106

Tel/Fax: (207) 517-6921 / (207) 517-6922

http://www.EMSL.com / portlandlab@emsl.com

EMSL Order:	622301177
Customer ID:	CESI62
Customer PO:	
Project ID:	

Analyst(s)

Stephen Severn (12)

Stephen Severn, Technical Manager
or Other Approved Signatory

Initial report from: 10/30/2023 16:02:13

OrderID: 622301177

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only: 622301177

EMSL Analytical, Inc.
161 John Roberts Road
South Portland, ME 04106
PHONE: (207) 517-6921
EMAIL: portlandlab@emsl.com

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name:	Haley Ward	Company Name:	Haley Ward
Contact Name:	Deb Kasik	Billing Contact:	Deb Kasik
Street Address:	1 Merchant's Plaza 7th Floor	Street Address:	1 Merchant's Plaza, 7th Floor
City, State, Zip:	Bangor ME 044[illegible]	City, State, Zip:	Bangor ME
Country:	US	Country:	US
Phone:	207-989-4824	Phone:	207-989-4824
Email(s) for Report:	dkasik@haleyward.com	Email(s) for Invoice:	

Project Information

Project Name/No:	10955.016 (Roof core samples)	Purchase Order:	
EMSL LIMS Project ID: (If applicable, EMSL will provide)		US State where samples collected:	ME
State of Connecticut (CT) must select project location:	☐ Commercial (Taxable) ☐ Residential (Non-Taxable)		
Sampled By Name:	Deborah A Kasik	Sampled By Signature:	Deborah A Kasik
Date Sampled:		No. of Samples in Shipment:	4

Delivered to: Deborah A Kasik

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☑ 96 Hour ☐ 1 Week ☐ 2 Week

Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only, samples must be submitted by 11:30am.

Test Selection

PLM - Bulk (reporting limit)

- ☑ PLM EPA 600/R-93/116 (<1%)
- ☑ PLM EPA NOB (<1%)
- ☐ POINT COUNT
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ POINT COUNT w/ GRAVIMETRIC
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ NIOSH 9002 (<1%)
- ☐ NYS 198.1 (Friable - NY)
- ☐ NYS 198.6 NOB (Non-Friable - NY)
- ☐ NYS 198.8 (Vermiculite SM-V)

TEM - Bulk

- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (Non-Friable - NY)
- ☐ TEM EPA 600/R-93/116 w Milling Prep (0.1%)

Other Tests (please specify)

☑ Positive Stop - Clearly Identified Homogeneous Areas (HA)

Sample Number	HA Number	Sample Location	Material Description
1		Sample #1 - High End of insulation (WET);	Roof Insulation
2		Sample #2 - Low End of insulation; Proposed location moved due to puddle	"
3		Sample #3 - Middle depth of insulation	"
4		Sample #4 - Middle depth of insulation	"

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

NOB per MDEP Asphalt Paper

RECEIVED
OCT 24 2023
BY:

Method of Shipment:	FedEx	Sample Condition Upon Receipt:	
Relinquished by:	Deborah A Kasik	Date/Time: 10/23/23 2pm	Received by:
Relinquished by:		Date/Time:	Received by:
			Date/Time: 10/24/23 9:30

Controlled Document - Asbestos Bulk R7 9/14/2021

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Page 1 of 1

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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

September 2, 2023

Attn: Lorie Dennis,| QA Certification Coordinator
EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077

Dear Ms. Dennis,

This is to confirm that the Maine Department of Environmental Protection is in receipt of your request to add the following labs to your licensing of Analytical Laboratories: Boston, MA., South Portland, Maine, Wallingford, CT and Carle Place, NY.

LA-0038 for Asbestos Analytical Laboratory (Air), expires on 10/31/2024
LB-0039 for Asbestos Analytical Laboratory (Bulk), expires on 10/31/2024

Remember each laboratory must have certified individual(s) within the lab to perform analyses.

If you need any further assistance please feel free to contact me at (207) 242-0877 or e-mail at sandy.j.moody@maine.gov.

Sincerely,

Sandra J. Moody, Environmental Specialist
Division of Remediation
Bureau of Remediation and Waste Management

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

S. PORTLAND - INDIVIDUAL ANALYST CERTIFICATIONS

State of Maine

October 30, 2023

Employee Name	*Lab Location*	*State Certified*	*Certification No.*	*Type of Cert.*	*Exp. Date*
Stephen Severn	S. Portland	Maine	AA-0497	Air Asbestos Analyst	10/31/2024
Stephen Severn	S. Portland	Maine	BA-0178	Bulk Asbestos Analyst	10/31/2024
Stefan Reis	S. Portland	Maine	BA-0233	Bulk Asbestos Analyst	5/31/2024

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 500094-0

EMSL Analytical, Inc.

South Portland, ME

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2023-10-01 through 2024-09-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EMSL Analytical, Inc.
161 John Roberts Road
South Portland, ME 04106
Stephen Severn
Phone: 207-517-6921
Email: ssevern@emsl.com
http://www.emsl.com

ASBESTOS FIBER ANALYSIS — NVLAP LAB CODE 500094-0

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Laboratory ID: LAP-100194

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA LAP), LLC accreditation to the ISO/IEC 17025:2017 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

LABORATORY ACCREDITATION PROGRAMS

☑	**INDUSTRIAL HYGIENE**	Accreditation Expires: January 01, 2025
☑	**ENVIRONMENTAL LEAD**	Accreditation Expires: January 01, 2025
☑	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires: January 01, 2025
☐	**FOOD**	Accreditation Expires:
☐	**UNIQUE SCOPES**	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Cheryl O. Morton

Cheryl O Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision20: 06/07/2022

Date Issued: 01/01/2023