efi global

BOSTON NORTH

March 22, 2024

Rick Underwood
Director of Operations & Maintenance
Lowell Public Schools
155 Merrimack Street, 4th Floor
Lowell, Massachusetts 01852

via email: runderwood@lowell.k12.ma.us

RE: AHERA 3-Year Reinspection
Riverside School
73 Woburn Street
Lowell, Massachusetts
EFI Project No. 014.07795

Dear Mr. Underwood:

EFI Global Inc. (EFI) is pleased to present this AHERA 3-Year Reinspection Report prepared for the Riverside School located at 73 Woburn Street, Lowell, Massachusetts (Site). The reinspection site visit was conducted on February 22, 2024, and the corresponding report was completed in accordance with the United States Environmental Protection Agency (USEPA) Asbestos Hazard Emergency Response Act (AHERA) regulations (40 CFR 763) and Massachusetts Department of Labor Standards "Requirements for Schools Subject to AHERA" regulations (454 CMR 28.13).

EFI relied upon previous 3-Year Inspection and Management Plan Update report from 2014 prepared by Cardo ATC, and 2017 and 2020 reinspection's prepared by EFI Global Inc. The original AHERA Management Plan and other subsequent records were not made available at the school for review. EFI relied upon the 2020 table of identified ACM along with visual assessment and bulk sampling of new materials for this reinspection. The school's Management Plan and records should be located and kept on file at the school and the administrative offices.

EFI is pleased to provide environmental consulting services to Lowell Public Schools. This report should be kept on file with the school's AHERA records. If you have any questions regarding the contents of this report, or are in need of additional information, please contact either of the undersigned at (800) 659-1202. Thank you for the opportunity to serve your environmental needs.

Sincerely,
EFI Global, Inc.

Derrick Calvario
Project Manager
MA Asbestos Inspector # AI 900703

Michael McCarter
Senior Project Manager
MA Asbestos Inspector # AI 001825
MA Asbestos Management Planner #AP 035661

AHERA 3-YEAR REINSPECTION

FOR:

RIVERSIDE SCHOOL
73 WOBURN STREET
LOWELL, MASSACHUSETTS

PREPARED BY:

efi global
BOSTON NORTH

155 WEST STREET, SUITE 6
WILMINGTON, MASSACHUSETTS 01887

EFI PROJECT NUMBER 014.07795

March 22, 2024

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INTRODUCTION

EFI Global, Inc. (EFI) was retained by Lowell Public Schools to perform a 3-Year AHERA Re-inspection in accordance with United States Environmental Protection (USEPA) Asbestos Hazard Emergency Response Act (AHERA) asbestos regulations (40 CFR 763) and Massachusetts Department of Labor Standards "Requirements for Schools Subject to AHERA" regulations (454 CMR 28.13). These regulations, commonly known as the "Asbestos in Schools Rule," require under 40 CFR 763.80 and 454 CMR 28.13(2)(b)(1) that local education agencies (LEAs) must conduct a reinspection at least once every three years of all friable and nonfriable known or assumed asbestos-containing materials (ACMs) and any not previously identified suspect ACM, regardless of whether or not these areas were included in the original inspection and management plan, in each school building that they lease, own, or otherwise use as a school building. A school building is defined in 454 CMR 28.02 as including each of the following:

- Any structure suitable for use as a classroom, including a school facility such as a library, school eating facility, or facility used in the preparation of food
- Any gymnasium or other facility which is specially designed for athletic or recreational activities for an academic course in physical education
- Any other facility used for the instruction or housing of students or for the administration of educational or research programs
- Any maintenance, storage, or utility facility, including any hallway, essential to the operation of any facility described as a school building above
- Any portico or covered exterior hallway or walkway
- Any exterior portion of a mechanical system used to condition interior space.

EFI conducted a 3-year AHERA re-inspection at the Riverside School, which involved determining the condition and hazard potential of previously identified ACMs and newly identified ACMs. The 3-year re-inspection was conducted on February 22, 2024, by Derrick Calvario an EPA accredited, and Massachusetts Department of Labor Standards (MADLS) licensed Asbestos Inspector, (license number AI-900703). EFI relied upon the 2020 table of identified ACM along with visual assessment and bulk sampling of new materials for this reinspection. The original AHERA Management Plan and subsequent records were not made available at the school for review. The recommended response actions were prepared by MADLS-licensed Asbestos Management Planner Michael McCarter (AP-035661).

A summary of known and assumed ACM within the Riverside School is presented in the AHERA Summary Table in **Attachment A**. Site Plans showing buildings and locations referenced in this report are presented in **Attachment B.**

The Designated Person for the Lowell Public Schools is Rick Underwood. Rick's contact information is:

Rick Underwood
Director of Operations & Maintenance
Lowell Public Schools
155 Merrimack Street, 4th Floor
Lowell, Massachusetts 01852
978-674-4328
runderwood@lowell.k12.ma.us

AHERA 3-YEAR REINSPECTION

A. AHERA Records Review

As part of this 3-year reinspection, EFI reviewed available AHERA records for the school, in accordance with the AHERA regulation and 454 CMR 28.13(5)(f). A summary of records reviewed is provided in the table below.

Review of AHERA Documentation Riverside School 73 Woburn Street, Lowell, Massachusetts		
Document/Record	**Present?**	**Comment**
Asbestos Management Plan (on hand at school and available for review)	No	No records available at the school or administrative offices for review. The Cardo ATC 2014 3-Year Reinspection and Updated Management Plan is posted on the school web site. EFI also relied upon in-house records from the 2017 and 2020 reinspections.
Designated Person (Rick Underwood) Training Records	No	No records available at the school or administrative offices for review. Designated Person should receive formal designated person training or review the Designated Person Self Study Guide (available at https://www.epa.gov/sites/default/files/2015-01/documents/dp_study_guide_0.pdf).
Custodial Personnel 2-hour Awareness Training Records	No	No records available at the school or administrative offices for review.
Annual Parental Notification Records	No	No records available at the school or administrative offices for review. Annual notification letters should be sent, and copies kept on file with the AHERA records.
Abatement/Response Action Records (includes abatement, special cleaning activities & small-scale short duration (SSSD) activities and associated monitoring reports and work plans)	No	No records available at the school or administrative offices for review.
Designated Person True and Correct Statement	No	No records available at the school or administrative offices for review.
6-month Surveillance Inspection Records	No	No records available at the school or administrative offices for review.
Previous 3-Year Reinspection Records	Yes	No records available at the school or administrative offices for review.
Asbestos Labels present (required in routine maintenance areas)	No	No labels observed. Labels should be placed immediately adjacent to ACM present in routine maintenance areas (i.e., boiler rooms, utility closets, etc.)

B. ACM Application Types

ACMs are divided into the following application types:

Thermal system insulation (TSI): Insulation applied to mechanical, heating, and cooling systems such as pipes, boilers, flue breechings, ducts, tanks and fittings.

Surfacing Materials: Material that is spray-applied or trowel-applied to walls, ceilings or structural components (i.e. plasters, acoustical finishes and fireproofing).

Miscellaneous Materials: All other asbestos materials, including but not limited to floor tiles and mastic, ceiling tiles, vinyl cove base and mastic, gypsum board and joint compound, and asbestos-cement board, etc.

C. ACM Assessment Criteria

The assessment is divided into two categories - the physical assessment and the hazard potential assessment.

Physical Assessment

The physical assessment is divided into the following seven categories and describes the material condition at the time of the inspection:

Physical Condition #1 - Damaged or significantly damaged thermal system ACM.
Physical Condition #2 - Damaged friable surfacing ACM.
Physical Condition #3 - Significantly damaged friable surfacing ACM.
Physical Condition #4 - Damaged or significantly damaged miscellaneous ACM.
Physical Condition #5 - ACM with potential for damage.
Physical Condition #6 - ACM with potential for significant damage.
Physical Condition #7 - Any remaining friable ACM or friable suspected ACM.

Hazard Assessment

The hazard assessment is a combination of the physical assessment combined with the potential for disturbance (i.e., physical contact, vibration air movement) as follows:

Hazard Rank #1 – Good condition/Low potential for disturbance
Hazard Rank #2 – Good condition/ Moderate potential for disturbance
Hazard Rank #3 – Good condition/ High potential for disturbance
Hazard Rank #4 – Damaged condition/Low potential for disturbance
Hazard Rank #5 – Damaged condition/Moderate potential for disturbance
Hazard Rank #6 – Damaged condition/High potential for disturbance
Hazard Rank #7 – Significantly damaged condition

The following is the Assessment Criteria used during the inspection:

1. Homogeneous Areas (An area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in size, color and texture and was applied at approximately the same time) were quantified by location and assessed by condition. Materials are listed as friable or non-friable. Note: friable materials are materials that can be crushed and pulverized to dust by hand pressure. A general condition description for suspect materials used in this inspection is as follows:

    a. Damaged Surfacing ACM: That material which has deterioration, delamination, water damage, lacks cohesion, is blistered, crumbling, gouged, marred heavily, abraded, or in any way has lost its structural integrity over more than 1% but less than 10 % of the total surface area if the damage is evenly distributed or less than 25%, if the damage is localized in one area of the homogeneous area.

    b. Significantly Damaged ACM: That material which has deterioration, delamination, water damage, lacks cohesion, is blistered, crumbling, gouged, marred heavily, abraded, or in any way has lost its structural integrity over at least 10% of the surface area if the damage is evenly distributed or at least 25% if the damaged is localized.

    c. Good Condition ACM: ACM with no visible damage or deterioration in less than one percent of the material and/or coverings.

    d. ACM with potential for damage: Pertains to circumstances in which:

        i. Friable ACM is in an area regularly used by building occupants, including maintenance workers, currently in intact (good) condition.

        ii. There are indications that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated or delaminated due to factors such as changes in building use, changes in O&M practices, changes in occupancy or recurrent damage.

Note: All ACM in good condition is still considered to have a potential for damage, and in certain instances, has the potential for significant damage.

    e. ACM with potential for significant damage: Pertains to circumstances in which:

        i. Friable ACM is in an area regularly used by building occupants, including maintenance personnel.

        ii. Indications show that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated, or delaminated due to factors such as changes in building use, changes in O&M practices, changes in occupancy or re-occurring damage.

        iii. The material is subject to major or continuing disturbance, due to factors including, but not limited to, accessibility or under certain circumstances, vibration or air erosion.

D. Response Actions – General Recommendations

Specific response actions for each known and assumed ACM located at the Riverside School are located in **Attachment A**. The following are general recommendations for response actions associated with managing ACMs at the school.

1. Damaged materials in the school should be repaired, if feasible, or removed in order to maintain compliance with the AHERA regulations. Damaged ACMs of any quantity listed in the report should be repaired or removed by a Massachusetts licensed asbestos abatement contractor following all applicable regulations, in accordance with a work plan design, and final clearance air testing performed in accordance with the AHERA regulations. It is the policy of the Lowell Public Schools to use licensed asbestos contractors for all response action work.

2. AHERA regulations state that the response actions chosen for other than small scale/short duration repairs (less than 3 square or linear feet), must be designed and conducted by persons accredited to design and conduct response actions. MADLS Regulation 454 CMR 28.00 requires the services of licensed Project Designers who meet the requirements set forth in 454 CMR 28.00, as well as Massachusetts licensed Asbestos Contractors.

3. Damaged ACMs that involve small scale/short duration repairs can only be conducted by 16-hour asbestos-trained personnel or by a licensed asbestos abatement contractor. EFI understands that small scale/ short duration projects will not be performed by in house personnel, and that all work will be conducted by an outside licensed Asbestos Contractor.

4. Each known and assumed ACM should be monitored for any changes in condition during the six-month periodic surveillance.

5. If known or suspect ACMs are to be impacted by planned renovation or demolition activities, the ACM must be removed by a Massachusetts licensed Asbestos Contractor. Note that AHERA inspections do not meet the EPA NESHAP and Commonwealth of Massachusetts Department of Environmental Protection (MADEP) requirements for a comprehensive pre-renovation or demolition survey. Prior to any planned renovation or demolition project, all renovation/demolition areas must be thoroughly surveyed to meet the requirements of EPA NESHAP and MADEP 310 CMR 7.15(4) Survey Requirements. LEA Designated Persons should make sure that pre-renovation/demolition surveys are performed in each instance that ACM may be disturbed.

E. AHERA Licensing & Training Documentation

The AHERA 3-year Reinspection report for the Riverside School was performed by the following individuals who have received appropriate training and who are MADLS licensed personnel:

Derrick Calvario
Project Manager
MA Asbestos Inspector # AI 900703

Michael McCarter
Senior Project Manager
MA Asbestos Management Planner #AP 035661

F. Asbestos Bulk Sampling

Asbestos bulk sampling of suspect ACM was performed for various suspect ACMs not previously identified as ACM in portions of the building included in the AHERA program. The bulk sampling was performed by USEPA-accredited, and MADLS licensed Asbestos Inspector Derrick Calvario. A total of 43 bulk samples of suspect ACMs were collected and transported under chain of custody protocol to EMSL Analytical, Inc., of Woburn, Massachusetts, a Massachusetts-licensed laboratory. EMSL is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos fiber analysis, which is administered by the National Institute of Standards and Testing (NIST).

Samples were analyzed with a standard 3-day turnaround time using polarized light microscopy (PLM) in accordance with United States Environmental Protection Agency (USEPA) Method 600/R-93/116. The PLM/DS analytical method is modeled after 40 CFR Part 763, Subpart F, Attachment A: "Interim Method for the Determination of Asbestos in Bulk Insulation Samples." MADEP asbestos regulations define an ACM as any material containing greater than or equal to one percent asbestos. The findings of this report are based upon observations of accessible materials and the analysis of representative bulk samples collected. **Attachment B** contains site plans indicating locations of samples collected and analyzed as part of this reinspection. A copy of the asbestos laboratory reports is presented in **Attachment C**.

Bulk samples representing individual homogenous areas of suspect ACM, (materials that are determined to be uniform in color and texture and installed in the same construction period) were collected in a randomly distributed manner, in accordance with the EPA sampling protocol outlined in 40 CFR 763.

The following suspect ACMs sampled by EFI during the 2024 reinspection were reported by EMSL as containing no detectable concentration of asbestos:

Summary of Non-ACMs per 2024 3-Year Reinspection

Material Description	Location(s)
Plaster Skim Coat	Social Studies/ Science Room, ELA Room, Community Room 1st Floor, 1st Floor Hallways, 2nd Floor Hallways, 2nd Floor Hallways
Plaster Base Coat	Social Studies/ Science Room, ELA Room, Community Room 1st Floor, 1st Floor Hallways, 2nd Floor Hallways, 2nd Floor Hallways
1’ x 1’ Tan Floor Tile with Fleck	Office/ Special Programming 1st Floor
Yellow Mastic associated with all 1’ x 1’ Floor Tile	Office/ Special Programming 1st Floor
Black Mastic associated with 1’ x 1’ Floor Tile Under all 1’ x 1’ Floor Tile	Office/ Special Programming 1st Floor
1’ x 1’ Tan Floor Tile with Fleck	Bathroom 1st Floor
2’ x 4’ Ceiling Tile Pinhole	Bathroom 1st Floor, 2nd Floor Recreational Room
2’ x 4’ Ceiling Tile Large Fissure	Bathroom 1st Floor, 2nd Floor Recreational Room
Cove Base	1st Floor off ELA Room

Material Description	Location(s)
Yellow Mastic associated with Cove Base	1st Floor off ELA Room
Gypsum Board	1st Floor Staircase, 1st Floor Bathroom off Hallway
Joint Compound	1st Floor Hallway, 1st Floor Bathroom off Hallway, 2nd Floor rear Hallway
White Caulking	Exterior Windows

G. ACM Hazard Assessment & Recommended Response Actions

Accessible locations were inspected and assessed to determine the presence and condition of ACM. A Summary Table of known and assumed ACMs present at the school, the physical and hazard assessments and the recommended response action for each ACM, is presented in **Attachment A.** It should be noted that EFI did not conduct destructive evaluations of the school building to identify suspect ACM. Per USEPA NESHAP and MADEP asbestos regulations, a thorough "path of construction" survey should be conducted prior to any renovation or repair activities that may impact suspect ACM, regardless of the date of installation.

H. Cost Estimate and Schedule for Recommended Response Actions

The confirmed and assumed ACMs outlined in the summary table in **Attachment A** that were in good condition at the time of the assessment must be maintained in place in accordance with the Operations and Maintenance Plan. Estimated costs associated with managing ACMs at the school are summarized below.

Cost Estimate of AHERA Considerations Riverside School 73 Woburn Street, Lowell, Massachusetts	
Training Costs	
Item	**Approximate Cost**
2-hour asbestos awareness training (New Hires, within 60 days of hire)	$500/person
Designated Person Training	$250
Maintenance Costs	
Item	**Approximate Cost**
Asbestos labeling (Place/maintain labels adjacent to ACM in routine maintenance areas)	$500
6-month surveillance inspections (Per schedule below)	$500/event
3-year re-inspection (Per schedule below)	$2,000
Response Action Costs	
Item	**Approximate Cost**
No Recommended response actions	

A proposed schedule of events between this 3-Year reinspection and the 2027 3-Year reinspection is provided for your use:

Schedule of AHERA-Related Actions Riverside School 73 Woburn Street, Lowell, Massachusetts	
Event	**Completion Date**
6 Month Surveillance Inspection	August 22, 2024
Annual Parental Notification Letter	September 1, 2024
6 Month Surveillance Inspection	February 22, 2025
6 Month Surveillance Inspection	August 22, 2025
Annual Parental Notification Letter	September 1, 2025
6 Month Surveillance Inspection	February 22, 2026
6 Month Surveillance Inspection	August 22, 2026
Annual Parental Notification Letter	September 1, 2026
3 Year Reinspection	February 22, 2027

ATTACHMENT A

AHERA SUMMARY TABLE

AHERA 3 Year Re-Inspection Summary Table
Riverside School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
73 Woburn Street, Lowell, MA
Dates of Inspection: 2/22/2024

Item	Material Description	Location	Quantity	Friability (F/NF)	Sample Results	Assessment Category	Condition	Response Actions/ Notes	Recommended Completion Date
1	Pipe Elbow Insulation	Basement – Storage Behind Gated Area Under Rear Stair	2 Elbows	NF	Positive per Management Plan records	6	Good	Manage in place in accordance with the Asbestos O&M Program. Avoid storing items near the pipe fitting insulation. Routine inspections of ACM for physical damages due to contact or other factors can be performed more frequently such as every three months.	
2	Pipe Insulation	Basement – Storage Behind Gated Area Under Rear Stair	5 LF	NF	Positive per Management Plan records	5	Good	Manage in place in accordance with the Asbestos O&M Program. Avoid storing items near the pipe fitting insulation. Routine inspections of ACM for physical damages due to contact or other factors can be performed more frequently such as every three months.	
3	Fire Brick	Basement – Boiler Room	960 SF – Not observed 2024	NF	Assumed Positive per Management Plan records	5	NA	Not observed. Possibly inside boiler. Manage in place in accordance with the Asbestos O&M Program. Collect bulk samples to determine asbestos content prior to any disturbance.	
4	1’ x 1’ White w/ Fleck Floor Tile (material added in 2024)	Spiegel’s Office/ Special Programming	300 SF	NF	5% Chrysotile asbestos, (associated mastic is non-ACM per bulk sample results from 2024)	6	Good condition overall with minor cracking. Tile is intact.	Good condition overall with minor cracking. Monitor to determine condition does not worsen. Manage in place in accordance with the Asbestos O&M Program. Floor tile should be maintained in accordance with EPA and OSHA guidelines. Strip floors when wet using low abrasive pads and low speed buffers (175- 300 rpm), and regularly clean and maintain flooring with wax coating to maximize longevity. Lastly, consider using chair glides to minimize potential for gauging or scratching tile.	
5	1’ x 1’ Brown w/ Fleck Floor Tile (material added in 2024)	Spiegel’s Office/ Special Programming	100 SF	NF	5% Chrysotile asbestos, (associated mastic is non-ACM per bulk sample results from 2024)	6	Good	Manage in place in accordance with the Asbestos O&M Program. Floor tile should be maintained in accordance with EPA and OSHA guidelines. Strip floors when wet using low abrasive pads and low speed buffers (175- 300 rpm), and regularly clean and maintain flooring with wax coating to maximize longevity. Lastly, consider using chair glides to minimize potential for gauging or scratching tile.	
6	1’ x 1’ Floor Tile under 1’ x 1’ Floor Tile (material added in 2024)	Spiegel’s Office/ Special Programming	400 SF	NF	5% Chrysotile asbestos, (associated mastic is non-ACM per bulk sample results from 2024)	6	Good	Manage in place in accordance with the Asbestos O&M Program. Floor tile should be maintained in accordance with EPA and OSHA guidelines. Strip floors when wet using low abrasive pads and low speed buffers (175- 300 rpm), and regularly clean and maintain flooring with wax coating to maximize longevity. Lastly, consider using chair glides to minimize potential for gauging or scratching tile.	

LF = Linear Feet

SF = Square Feet

NA = Not Applicable

AHERA 3 Year Re-Inspection Summary Table
Riverside School
Summary Table of Identified and Assumed Asbestos-Containing Building Materials
73 Woburn Street, Lowell, MA
Dates of Inspection: 2/22/2024

Assumed ACM = This material was not identified in the Management Plan records and was not sampled during the 2024 Re-inspection. Prior to any planned disturbance by maintenance, renovation, or demolition activities, EFI recommends bulk sampling and analysis to determine asbestos content.

For all recommended response actions, the work should be conducted by a Massachusetts licensed Asbestos Contractor and a work plan for the specific repair or removal activity should be prepared by a Massachusetts licensed Asbestos Designer.

Physical Assessment Category
1 – Damaged or Significantly Damaged Thermal System ACM
2 – Damaged Friable Surfacing ACM
3 – Significantly Damaged Surfacing ACM
4 – Damaged or Significantly Damaged Friable Miscellaneous ACM
5 – ACM with Potential for Damage
6 – ACM with Potential for Significant Damage
7 – Any Remaining friable ACM or friable suspect ACM

ATTACHMENT B

SITE PLAN AND 2024 REINSPECTION ASBESTOS BULK SAMPLE LOCATION PLANS

REAR STAIRS 1

REAR STAIRS 2

STORAGE

STORAGE

REAR HALLWAY

CUSTODIAN OFFICE

STORAGE

BOILER ROOM

3

2

1

CLOSETS

STORAGE

RESOURCE SPACE

CATIE'S CLOSET

BIKE RACK

FRONT HALLWAY

STORAGE

FRONT` STAIRS 1

FRONT STAIRS 2

EXIT PLAN

14A

EXIT

16A
16B

01A
02A

03A 06A
03b 06B
04A 10A
04B 10B
05A 11A
05B 11B

MS. SPIEGEL'S OFFICE

MATH CLASSROOM

ALARM

REAR HALLWAY

Social Studies CLASSROOM

SPECIAL PROGRAMING

07A
07B

BATHROOM

KITCHEN

ALARM

HALLWAY

02C
01D
02D
15A

08A
09A
14B
15B

BATHROOM

1

2

SKILLS CLASSROOM

ALARM

01B 12A
02B 13B
12A
12B

ELA CLASSROOM

FRONT HALLWAY

FIRST FLOOR

FIRE EXTINGUISHER

FILE CABINETS

SCIENCE CLASSROOM

ALARM

REAR HALLWAY

1

08B
09B

01E
02E

RECREATION ROOM

COUNSELING OFFICE

01F
02F
01G
02G
15C

MIDDLE HALLWAY

2

BATHROOM

STEM CLASSROOM

ALARM

FRONT HALLWAY

COMMUNITY ROOM

01C

FIRE EXTINGUISHER

SECOND FLOOR

ATTACHMENT C

2024 REINSPECTION ASBESTOS BULK SAMPLE REPORTS

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

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

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

EMSL Order:	132401073
Customer ID:	EAFI66
Customer PO:	
Project ID:	

Attention:	Derrick Calvario	**Phone:**	(978) 688-3736
	EFI Global, Inc.	**Fax:**	(978) 688-5494
	155 West Street	**Received Date:**	02/23/2024 11:50 AM
	Suite 6	**Analysis Date:**	02/27/2024
	Wilmington, MA 01887	**Collected Date:**	02/22/2024
Project:	014.0 - Riverside; 73 Woburn Street; Lowell, MA		

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**
01A *132401073-0001*	Social Studies/Science Room - Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01B *132401073-0002*	ELA Room 1st Floor - Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01C *132401073-0003*	Community Room 1st Floor - Plaster Skim Coat	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01D *132401073-0004*	1st Floor Hallways - Plaster Skim Coat	Tan/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01E *132401073-0005*	2nd Floor Staircase - Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01F *132401073-0006*	2nd Floor Hallway Left - Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
01G *132401073-0007*	2nd Floor Hallway Right - Plaster Skim Coat	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02A *132401073-0008*	Social Studies/Science Room - Plaster Base Coat	Gray Fibrous Homogeneous	3% Hair	97% Non-fibrous (Other)	None Detected
02B *132401073-0009*	ELA Room 1st Floor - Plaster Base Coat	Gray/White Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
02C *132401073-0010*	Community Room 1st Floor - Plaster Base Coat	Gray/White Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
02D *132401073-0011*	1st Floor Hallways - Plaster Base Coat	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
02E *132401073-0012*	2nd Floor Staircase - Plaster Base Coat	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
02F *132401073-0013*	2nd Floor Hallway Left - Plaster Base Coat	Gray Non-Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
02G *132401073-0014*	2nd Floor Hallway Right - Plaster Base Coat	Gray Fibrous Homogeneous	2% Hair	98% Non-fibrous (Other)	None Detected
03A *132401073-0015*	Office/Special Programming 1st Floor - 12x12 White Tile w. Flec	Tan Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile

Initial report from: 02/29/2024 06:14:58

EMSL Analytical, Inc.
5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132401073
Customer ID: EAFI66
Customer PO:
Project ID:

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**
03B *132401073-0016*	Office/Special Programming 1st Floor - 12x12 White Tile w. Flec				Positive Stop (Not Analyzed)
04A *132401073-0017*	Office/Special Programming 1st Floor - 12x12 Brown Tile w. Flec	Brown Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
04B *132401073-0018*	Office/Special Programming 1st Floor - 12x12 Brown Tile w. Flec				Positive Stop (Not Analyzed)
05A *132401073-0019*	Office/Special Programming 1st Floor - 12x12 Tan Tile w. Flec	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05B *132401073-0020*	Office/Special Programming 1st Floor - 12x12 Tan Tile w. Flec	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06A *132401073-0021*	Office/Special Programming 1st Floor - Yellow 12x12 Tile Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06B *132401073-0022*	Office/Special Programming 1st Floor - Yellow 12x12 Tile Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07A *132401073-0023*	1st Floor Bathroom - 1st Floor - Beige 12x12 Floor Tile w. Flec	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07B *132401073-0024*	1st Floor Bathroom - 1st Floor - Beige 12x12 Floor Tile w. Flec	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08A *132401073-0025*	1st Floor BR Off Hallway - 2x4 CT Pinhole	Gray/White Fibrous Homogeneous	50% Cellulose 35% Min. Wool	15% Non-fibrous (Other)	None Detected
08B *132401073-0026*	2nd Floor Rec Room - 2x4 CT Pinhole	Gray/White Fibrous Homogeneous	50% Cellulose 35% Min. Wool	15% Non-fibrous (Other)	None Detected
09A *132401073-0027*	1st Floor BR Off Hallway - 2x4 CT Large Fissure	Gray/White Fibrous Homogeneous	50% Cellulose 35% Min. Wool	15% Non-fibrous (Other)	None Detected
09B *132401073-0028*	2nd Floor Rec Room - 2x4 CT Large Fissure	Gray/White Fibrous Homogeneous	50% Cellulose 35% Min. Wool	15% Non-fibrous (Other)	None Detected
10A *132401073-0029*	Office/Special Programming 1st Floor - 12x12 Tile under 12x12 Tile	Brown Non-Fibrous Homogeneous		95% Non-fibrous (Other)	5% Chrysotile
10B *132401073-0030*	Office/Special Programming 1st Floor - 12x12 Tile under 12x12 Tile				Positive Stop (Not Analyzed)

Initial report from: 02/29/2024 06:14:58

EMSL Analytical, Inc.
5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132401073
Customer ID: EAFI66
Customer PO:
Project ID:

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**
11A *132401073-0031*	Office/Special Programming 1st Floor - Assoc. Black Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11B *132401073-0032*	Office/Special Programming 1st Floor - Assoc. Black Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12A *132401073-0033*	1st Floor ff ELA Room - Cove Base	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12B *132401073-0034*	1st Floor ff ELA Room - Cove Base	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13A *132401073-0035*	1st Floor ff ELA Room - Assoc. Yellow Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13B *132401073-0036*	1st Floor ff ELA Room - Assoc. Yellow Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14A *132401073-0037*	1st Floor Staircase - Gypsum Board	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
14B *132401073-0038*	1st Floor BR Off Hallway - Gypsum Board	Brown/Gray Fibrous Homogeneous	12% Cellulose	88% Non-fibrous (Other)	None Detected
15A *132401073-0039*	1st Floor Hallway - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15B *132401073-0040*	1st Floor BR Off Hallway - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
15C *132401073-0041*	2nd Floor Rear Hallway - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16A *132401073-0042*	Exterior - White Window Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
16B *132401073-0043*	Exterior - White Window Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)
John McCarthy (40)

Steve Grise, Laboratory Manager
or Other Approved Signatory

Initial report from: 02/29/2024 06:14:58

OrderID: 132401073

efi global

132401073

BOSTON NORTH

155 West Street | Suite 6 | Wilmington, MA 01887 | PHONE 978.688.3736 | FAX 978.688.5494 | FREE 800.659.1202

BULK SAMPLE CHAIN OF CUSTODY FORM

Report to (Inspector Name):	Derrick Calvario	**Bill To:**	Accounts Payable
Company:	EFI Global, Inc.	**Address:**	Same
Address:	155 West Street	**City, State, Zip:**	Same
	Suite 6	**Telephone:**	800-659-1202
City, State, Zip:	Wilmington, MA 01887	**Email:**	US-EFIGlobal-BostonEnviroPC@efiglobal.com
Inspector Cell:	781-825-5012		

Project Information

Project No./ Description:	014.0 – Riverside – 73 Woburn St. Lowell, MA
Email Report to:	Derrick.Calvario@efiglobal.com
Alternate:	

Requested Turnaround Time:

☐ RUSH (6hr)	☐ 1 day (24hr)	☐ 2 day (48hr)	☒ 3 day (72hr)	☐ 5 day

Media and Methodology

Type of Analysis:	PLM	**Check for Positive Stop:**	☒
Notes:	Analyze all plaster and joint compound samples	**Date Collected:**	2-22-24

Sample ID	Type of Material	Location
01A	Plaster Skim Coat	Social Studies / Science rm
01B	" "	ELA rm 1st fl
01C	" "	Community room 1st fl
01D	" "	1st fl hallways
01E	" "	2nd fl Staircase
01F	" "	2nd fl hallway left
01G	" "	" " right
02A	Plaster base Coat	Social Studies / Science rm
02B	" "	ELA rm 1st fl
02C	" "	Community rm 1st fl

Total Number of Samples Submitted: 43

Samplers Name: Derrick Calvario Samplers Signature [signature]

Relinquished By (Client): [signature] Date: 2/23/24 Time: –

Received By (Lab): SM 1150 walkin REC'D EMSL-BOSTON FEB 23 2024 Date: ______ Time: ______

1 of 2

efi global

132401073

Sample ID	Type of Material	Location
02D	plaster base Coat	1st fl hallways
02E	" "	2nd fl Staircase
02F	" "	2nd fl hallway left
02G	" "	2nd fl hallway right
03A	12X12 white tile w/flec	office / Special Programming 1st fl
03B	" "	" "
04A	12x12 brown tile w/ flec	" "
04B	" "	" "
05A	12x12 tan tile w/ flec	" "
05B	" "	" "
06A	Yellow 12x12 tile mastic	" "
06B	" "	" "
07A	Beige 12x12 floor tile w/flec	~~2nd~~ 1st fl bathroom - ~~2nd~~ 1st fl
07B	" "	" " ↓
~~08A~~	~~Mastic~~	~~2nd~~
~~08B~~	~~" "~~	~~" "~~
08A	2X4 Ct Pinhole	~~2nd~~ 1st fl ~~pinhole~~ BR off hallway
08B	" "	2nd fl rec rm
09A	2X4 Ct large fissure	1st fl ~~large fissure~~ BR off hallway
09B	" "	2nd fl rec rm
10A	12x12 tile under 12x12 tile	office / Special Programming ~~2nd~~ 1st fl
10B	" "	" "
11A	associated black mastic	" "
11B	" "	" "
12A	Cove base	~~2nd~~ 1st fl BR off ELA rm
12B	" "	" "
13A	Yellow associated mastic	" "
13B	" "	" "
14A	gXPSwa board	~~2nd~~ 1st fl Staircase
14B	"	~~2nd~~ 1st fl BR off hallway

REC'D FEB 23 2024
EMSL-BOSTON

efi global 132401073

Sample ID	Type of Material	Location
1SA	Joint Compound	2nd fl hallway
1SB	" "	2nd fl BR of Hallway
1SC	" "	2nd fl rear hallway
16A	White window Caulk	exterior
16B	" "	" "

REC'D EMSL-BOSTON FEB 23 2024

ATTACHMENT D

LICENSES AND TRAINING CERTIFICATES OF ASBESTOS INSPECTOR & MANAGEMENT PLANNER

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Michael Flanagan
Director

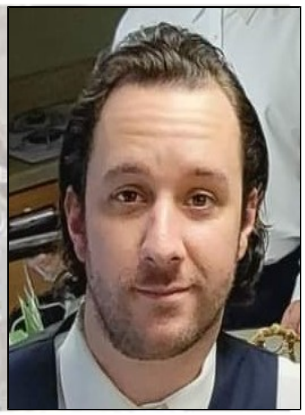
ASBESTOS INSPECTOR

DERRICK W. CALVARIO

Eff.Date: 11/03/2023
Exp.Date: 11/02/2024
AI900703

Member C.O.N.E.S.
WB - NEW

24



This is to certify that

Derrick W. Calvario

39 Valleywood Road, Hopkinton, MA 01748
MA DLS Asbestos Inspector License# AI900703

has completed requisite training by Video Conference, and has passed an examination for reaccreditation as:

Asbestos Inspector Refresher

pursuant to Title II of the Toxic Substance Control Act, 15 U.S.C. 2646

Course Location
Zoom Video Conference
Institute for Environmental Education 16 Upton Drive Wilmington, MA 01887

August 3, 2023
Course Dates

August 03, 2023
Examination Date

23-4811-106-265405
Certificate Number

August 03, 2024
Expiration Date

Training Director

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Michael Flanagan
Director

ASBESTOS MANAGEMENT PLANNER

MICHAEL MCCARTER

Eff.Date: 09/08/2023
Exp.Date: 09/07/2024
AP035661

Member C.O.N.E.S.

24

This is to certify that

Michael L McCarter

7 Millstone Road, Windham, NH 03087

MA DLS Asbestos Management Planner License# AP035661

has completed the requisite training by Video Conference, and has passed an examination for reaccreditation

Asbestos Management Planner Refresher

pursuant to Title II of the Toxic Substance Control Act, 15 U.S.C. 2646

Course Location

Zoom Video Conference

Institute for Environmental Education 16 Upton Drive Wilmington, MA 01887

April 21, 2023
Course Dates

23-4930-136-219102
Certificate Number

April 21, 2023
Examination Date

April 21, 2024
Expiration Date

Training Director

16 Upton Drive, Wilmington, MA 01887 Telephone 978.658.5272 www.ieetrains.com

INSTITUTE FOR ENVIRONMENTAL EDUCATION