Three-Year Asbestos Hazard Emergency Response Act Re-Inspection & Asbestos Management Plan Update

for

School Administration Building
230 South Street
Hyannis, Massachusetts

For Compliance with
Commonwealth of Massachusetts Department of Labor Standards (MADLS)
Asbestos Containing Materials in Schools Regulation (453 CMR 6.00)
and
EPA Asbestos Hazard Emergency Response Act
(Title 40 CFR, Part 763, Subpart E)

Barnstable Public Schools

Barnstable, Massachusetts

August 2020

Fuss & O'Neill, Inc.
108 Myrtle Street, Suite 502
Quincy, MA 02171

Project Number: 20071311.A80

FUSS & O'NEILL

November 9, 2020

Mr. David Kanyock
Director of Facilities
Barnstable Public Schools
835 Falmouth Road
Barnstable, MA 02601

RE: Three-Year AHERA Re-Inspection & Asbestos Management Plan Update
School Administration Building
230 South Street, Hyannis, MA
Fuss & O'Neill Reference No. 20150090.C90

Dear Mr. Kanyock:

Enclosed is the Three-Year AHERA Re-Inspection and Asbestos Management Plan Update report prepared by Fuss & O'Neill, Inc. for the School Administration Building located at 230 South Street in Hyannis, Massachusetts (the "Site"). AHERA services were performed for Barnstable Public Schools (the "Client").

This report is an important document that must be kept on file at the school as well as at a central location where the Asbestos Management Plans are maintained.

If you should have any questions regarding this report, please do not hesitate to contact me. Thank you for this opportunity to have served your environmental needs.

Sincerely,

Dustin A. Diedricksen
Associate / Department Manager

DD/rs

Enclosure

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Three-Year Asbestos Hazard Emergency Response Act Re-Inspection & Asbestos Management Plan Update School Administration Building

FUSS & O'NEILL

1 Introduction

1.1 Background

The Clean Air Act required the United States Environmental Protection Agency (EPA) to develop standards to address the potential health risks associated with adverse effects of asbestos exposure as an indoor contaminant. In October 1986, the EPA promulgated the Asbestos Hazard Emergency Response Act (AHERA) located at Title 40 CFR, Part 763, Subpart E.

The AHERA regulations require that local education agencies (LEAs) conduct inspections of each school building that they lease, own, or otherwise use as a school building to identify friable (easily crumbled or crushed to powder by hand pressure) and non-friable asbestos-containing building materials (ACBM) locations. The original inspections were required to have been completed prior to October 12, 1988.

AHERA also requires that buildings leased or acquired on or after October 12, 1988 that are to be used as a school building, shall be inspected for friable and non-friable ACBM prior to use as a school building. In the event of an emergency use of a building that has not been inspected for ACBM, the building shall be inspected within 30 days after commencement of such use.

The regulatory requirements remain in effect for a private or public school system, a church-affiliated school of any denomination, a school dedicated to the education of children with special needs, or a charter school. In the Commonwealth of Massachusetts, the Department of Labor Standards (MADLS) is responsible for AHERA regulation enforcement.

1.2 Local Education Agency (LEA) Responsibilities

The LEA is responsible for compliance with the AHERA regulation. The following responsibilities must be followed:

1. The LEA must designate a person to ensure that all AHERA requirements are properly implemented. The LEA's Designated Person must receive adequate training to perform their duties.

2. The LEA must ensure that the Asbestos Management Plan(s) (AMP) are maintained in a central location and at each facility. AMP and pertinent documentation shall be available for inspection or review at all times.

3. The LEA must inform all workers, building occupants, and legal representatives (as appropriate) in writing at least once per school year about asbestos-related activities and the availability of the AMP for each school building.

4. The LEA must ensure proper accreditation for all persons who perform asbestos inspections, asbestos re-inspections, AMP development/updates, Asbestos Work Plan (AWP) development, and response actions that may disturb asbestos; this includes operations and maintenance (O&M) activities.

5. The LEA must provide training for all custodial and maintenance staff who regularly perform building maintenance where ACBM are present. The training must be provided upon initial hire, and refresher training must be completed annually.

6. The LEA must provide information (disclosure) to any workers who may perform work and may come into contact with asbestos in school buildings where ACBM or presumed ACBM are present.

7. The LEA must ensure that known ACBM or presumed ACBM are provided with warning labels in routine maintenance areas.

8. The LEA must ensure that periodic surveillance is performed at least once every six months, after AMP implementation, in all school buildings that it leases, owns, or otherwise uses that contains ACBM or presumed ACBM.

9. The LEA must ensure that once every three years, after an AMP is implemented, a re-inspection is performed at each school building that it leases owns or otherwise uses that contains ACBM or presumed ACBM.

Refer to above-mentioned regulation for full requirements and responsibilities.

1.3 Key Personnel

A. Local Education Agency (LEA):

LEA:	Barnstable Public Schools
Address:	230 South Street Hyannis, MA 02601
Phone:	(508) 862-4953

B. Designated Person:

Designated Person:	Mr. Michael Lambros Deputy Director of Facilities
Address:	835 Falmouth Road Barnstable, Massachusetts 02601
Phone:	(508) 790-6490

C. Asbestos Consultant:

Firm:	Fuss & O'Neill, Inc.
Address:	108 Myrtle Street, Suite 502 Quincy, MA 02171
Phone:	(617) 282-4675

D. Asbestos Inspector:

Inspector:	Robert Mallett
MADLS Certification Number:	AI900557
Expiration Date:	06/01/2021

E. Asbestos Management Planner:

Planner:	Dustin Diedricksen
MADLS Certification Number:	AP900425
Expiration Date:	04/05/2021

2 Building Description

The School Administration Building is a three-and-a-half story, concrete-and-brick structure that includes a partially finished basement. Interior finishes include carpet and resilient floor coverings (on concrete) and (original) plaster and (newer) gypsum wallboard walls & ceilings. The hip roof and the dormers are covered with slate shingles.

3 Three Year Re-Inspection

3.1 Re-Inspection Procedures

This three-year AHERA re-inspection was conducted in accordance with EPA requirements of the AHERA regulation, Title 40 CFR, Part 763, Section 763.85 (b).

On August 26, 2020, Fuss & O'Neill, Inc. (Fuss & O'Neill) representative, Mr. Robert Mallett, performed the re-inspection.

During the re-inspection, Fuss & O'Neill conducted the following required tasks:

1. A visual re-inspection and reassessment of all known friable or Assumed ACBM.

2. A visual re-inspection of ACBM that was previously considered non-friable to determine if the present condition of the material has become friable.

3. Identification and assessment of any newly identified homogeneous area that contains friable ACBM since the last inspection or re-inspection.

4 Re-Inspection Report

4.1 Review of Existing Records

An important part of this AHERA re-inspection involved researching prior documentation, which is required to be present at the school as well as at the central recordkeeping location where AMP and pertinent documentation are stored.

Refer to *Appendix A* for the existing records checklist.

4.2 Re-Inspection Summary

The on-site portion of the re-inspection was documented on forms modeled after examples provided by the EPA and reviewed with the MADLS. The first form, **Re-Inspection Form 1**, identifies previous inspection data gathered during the initial AHERA inspection and subsequent re-inspection (refer to *Appendix B*). This form is useful to reference response actions (if any), which have been performed since the last inspection, as well as identifies the last known conditions of ACBM in the building. It additionally provides the inspector a "quick glance" reference when performing the re-inspection.

The second EPA form, **Re-Inspection Form 2**, is used to provide information and justification regarding re-assessment of the ACBM (refer to *Appendix C*). This form also provides response action recommendations, including a tentative schedule for completing response actions that recommend removal or repair.

Previous bulk sampling results can be found in Table 1 and Table 2. Refer to *Appendix D* for previously sampled materials laboratory reports.

Using EPA protocol and criteria, the following materials existing in the School Administration Building at the time of this three-year re-inspection have been determined and/or assumed to be **ACBM**. Please refer to the above-mentioned re-inspection forms for specific ACBM locations.

Table 1
Asbestos-Containing Building Materials (ACBM)
(Previous & Current Re-Inspections)

Material	Location	Reference	Asbestos Content
Black Slater's Mud*	Slate Roof	2014 Initial AMP (Sample ID: 49DD-01A)	15% Chrysotile
Older (Black) Sealant on Copper Flashing*	4th Floor Dormers	2014 Initial AMP (Sample ID: 49DD-02A)	10% Chrysotile
Concealed (White) Caulking at Brick Molding Beneath Aluminum Frames*	C-Side Louver at Basement Level	2014 Initial AMP (Sample ID: 49DD-05 A)	9.5% Chrysotile
Bottom (Tan) Caulking at Aluminum Dormer Frame & Slate*	4th Floor Dormers	2014 Initial AMP (Sample ID: 49DD-06 A)	10.8% Chrysotile
Exterior (White) Door Caulking*	B-Side & D-Side Exterior Doors	2014 Initial AMP (Sample ID: 49DD-07 A)	19.5% Chrysotile
Exterior (Brown) Window Caulking*	Typical Window at 4th Floor Dormers	2014 Initial AMP (Sample ID: 49DD-08A)	3% Chrysotile
Exterior (Brown) Louver Caulking*	C-Side Louver at Basement Level	2014 Initial AMP (Sample ID: 49DD-09A)	5% Chrysotile
Old (Black) Perimeter Flashing (Bottom Layer)*	Mechanical Roof	2014 Initial AMP (Sample ID: 49DD-10A)	10% Chrysotile
Black Roof-Drain Sealant*	Mechanical Roof	2014 Initial AMP (Sample ID: 49DD-11A)	10% Chrysotile

Material	Location	Reference	Asbestos Content
Newer (Black) Perimeter Flashing (Top Layer)*	Mechanical Roof	2014 Initial AMP (Sample ID: 49DD-12A)	5% Chrysotile
White Door System Window Glazing Compound*	D-Side Door	2014 Initial AMP (Sample ID: 49DD-15A)	2% Chrysotile
Brown Window Frame Outer Trim Caulking*	Exterior	2014 Initial AMP (Sample ID: 909LD-01)	3% Chrysotile
Brown Window Frame Inner Assembly Caulking*	Exterior	2014 Initial AMP (Sample ID: 909LD-02)	3% Chrysotile
White Floor Paper	Assumed beneath All Original Hardwood Flooring	Previously Identified as ACBM (Referenced in EnviroScience's Limited Hazardous Building Materials Inspection Report dated January 7, 2013; Sample ID: F3)	33% Chrysotile

***Denotes material type is not applicable to AHERA requirements; samples collected as part of a NESHAP inspection prior to building envelope renovations. Results included for informational purposes, only.**

Using the EPA protocol, samples of the following suspect materials were collected and analyzed. The analytical results indicated that these materials are **non-ACBM**:

Table 2
Non-Asbestos-Containing Building Materials
(Previous & Current Re-Inspections)

Material	Location	Reference
Black Patch-Sealant on Copper Flashing	4th Floor Dormers	2014 Initial AMP (Sample ID: 49DD-03 A-C)
Black Roofing Felt beneath Slate	Slate Roof	2014 Initial AMP (Sample ID: 49DD-04 A-C)
Black Top-Layer Built-Up Roofing (Tar/Gravel)	Mechanical Roof	2014 Initial AMP (Sample ID: 49DD-13 A-B)
Black Felt Layers Associated with Built-Up Roofing	Mechanical Roof	2014 Initial AMP (Sample ID: 49DD-14 A-B)
Wall Plaster (White Skim & Gray Rough Coats)	Boiler Room; 1st, 2nd, & 3rd Floor Stairwells	2014 Initial AMP (Sample ID: 711DD-01D-G); (Sample ID: 711DD-02D-G)
White Wall & Ceiling Plaster Skim Coat	4th Floor Open Area	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-01A – 01C)
Gray Wall & Ceiling Plaster Rough Coat	4th Floor Open Area	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-02A – 02C)
Gray Gypsum Wallboard	4th Floor Open Area	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-03A & 03B)
White Joint Compound	4th Floor Open Area	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-04A – 04C)
Black Felt Mastic beneath Carpet Glue & Leveling Compound	4th Floor Hallway	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-05A & 05B)
Gray Leveling Compound	4th Floor Open Area	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-06A & 06B)
Yellow Carpet Adhesive	4th Floor Open Area	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-07A & 07B)
White Flue Patch Cement	Boiler Room	2014 Initial AMP (Sample ID: 711DD-16)

Material	Location	Reference
Tan Adhesive Associated with Cork Insulation Board	Coal Room adjacent to Boiler	2014 Initial AMP (Sample ID: 711DD-17 A-B)
Yellow Carpet Adhesive	Basement Hallway	2014 Initial AMP (Sample ID: 711DD-07C)
Gray Rough Dot 2' x 2' ACT	Basement Conference Room	2014 Initial AMP (Sample ID: 711DD-18 A-B)
White Drywall	1st Floor Front Stairway, 2nd Floor School Attorney Office, & 2nd Floor Partition	2014 Initial AMP (Sample ID: 711DD-03 D-F)
White Joint Compound	Basement Hallway, 1st Floor Stairwell, 2nd Floor School Attorney Office, & 2nd Floor Partition	2014 Initial AMP (Sample ID: 711DD-04 D-G)
White Fissure & Dot 2' x 4' ACT	3rd Floor B/C Corner Office	2014 Initial AMP (Sample ID: 711DD-19 A-B)
Tan/White Ceiling Drywall with Battens	2nd Floor Hall	2014 Initial AMP (Sample ID: 711DD-20 A-B)
Brown Stone-Pattern Linoleum Flooring	Basement Closet & Men's and Women's Restrooms in Basement, 1st, & 2nd Levels	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-08A & 08B)
Light Brown Mastic Associated with Brown Stone-Pattern Linoleum Flooring	Basement Closet & Men's and Women's Restrooms in Basement, 1st, & 2nd Levels	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-09A & 09B)
4" Tan Vinyl Baseboard	Basement Closet & Men's and Women's Restrooms in Basement, 1st, & 2nd Levels	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-10A & 10B)
Yellow Mastic Associated with 4" Tan Vinyl Baseboard	Basement Closet & Men's and Women's Restrooms in Basement, 1st, & 2nd Levels	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-11A & 11B)
12" x 12" White with Tan Streak Floor Tile	4th Floor Room B/C & Room C/D	Laboratory Report Dated 12/8/2012 (Sample ID: 1205-JH-12A & 12B)

Mr. Dustin Diedricksen reviewed the information obtained during this re-inspection. Mr. Diedricksen is an EPA-accredited and MADLS-Certified Asbestos Management Planner.

4.3 Newly Identified or Re-sampled ACBM Materials

No newly identified suspect ACBM were identified in the building during this re-inspection.

AHERA regulations pertain to interior identified or Assumed ACBM and limited exterior ACBM. AHERA regulations do include ACBM located on exterior porticos, covered walkways, and mechanical equipment used to condition interior building air.

Any suspect ACBM encountered during renovation/demolition/maintenance activities that is not specifically identified in the AMP as a non-ACBM should be assumed to contain asbestos unless sample results indicate otherwise.

Safety Data Sheets (SDS) should be obtained and kept with the AHERA documentation for any newly installed materials in order to meet AHERA requirements. These SDS must demonstrate that asbestos-containing materials (ACM) were not installed in the building. We recommend that SDS for newly installed materials be inserted into *Appendix E*.

4.4 Physical Assessment of ACBM

During inspection, suspect ACBM were separated into three EPA categories: Thermal System Insulation (TSI), Surfacing ACBM, and Miscellaneous ACBM. TSI includes all materials used to prevent heat loss/ gain or water condensation on mechanical systems. Examples of TSI are pipe and fitting insulations, boiler insulation, and duct insulation. Surfacing ACBM is commonly used for fireproofing, decorative, and acoustical applications. Miscellaneous ACBM include all ACBM not listed in TSI or surfacing, such as sheet flooring, vinyl asbestos flooring, ceiling tiles, and construction mastics/adhesives.

Finally, ACBM were quantified in linear feet or square feet, depending on the nature of the material.

The ACBM identified during the inspection (and still remaining in the school building) were re-assessed using the MADLS and AHERA guidelines for assessment of ACBM. The following assessment categories are listed:

1 Damaged or significantly damaged TSI ACM
2 Damaged friable surfacing ACM
3 Significantly damaged friable surfacing ACM
4 Damaged or significantly damaged friable miscellaneous ACM
5 ACBM with potential for damage
6 ACBM with potential for significant damage
7 Any remaining friable ACBM or friable suspected ACBM

Material locations, assessments, and recommended response actions are listed in the re-inspection forms.

5 Management Plan Update

5.1 Recommended Response Actions

Based on the inspection report, the physical walk-through inspection, and the existing ACBM conditions, the following response actions are recommended:

1. Removal – Not Applicable

2. Repair - Not Applicable

3. Enclosure – Not Applicable

4. Encapsulation – Not Applicable

5. Operations and Maintenance (O & M) - All remaining ACBM

A successful O & M Program includes the following elements:

A. Cleaning: All areas of the school where friable ACBM or assumed friable ACBM are present should be cleaned at least once after completion of this re-inspection. Additional cleaning may be necessary if the Asbestos Management Planner makes a written recommendation indicating the methods and frequency of such cleaning.

B. O & M Activities: The LEA shall ensure that the procedures described below are followed to protect building occupants from O & M activities that may disturb known or Assumed ACBM:

    1. Restrict entry into the area either by physically isolating or by scheduling.
    2. Post asbestos warning signs to prevent entry by unauthorized persons.
    3. Deactivate or temporarily shut off or divert the air-handling system to the area.
    4. Use proper work practices and engineering controls, such as wet methods, protective clothing, High Efficiency Particulate Air (HEPA) vacuums, mini-enclosures/glove bags, etc. to inhibit fiber migration.
    5. Place asbestos debris and other contaminated materials into a sealed, leak-tight container for disposal.

C. Minor Fiber Release Episode: The LEA shall ensure that the procedures described below are followed in the event of a minor fiber release episode (i.e., disturbance of less than or equal to 3 linear/square feet of friable ACBM):

    1. Saturate the debris using wet methods.
    2. Place the debris in a sealed, leak-tight container and clean the area.

3. Repair the area of damaged ACBM with materials such as asbestos-free spackling, plaster or insulation or seal with an encapsulant.

D. Major Fiber Release Episode: The LEA shall ensure that the procedures described below are followed in the event of a major fiber release episode (i.e., disturbance of greater than 3 linear/square feet of friable ACBM):

1. Restrict entry into the area and post asbestos warning signs.
2. Deactivate or temporarily shut off or divert the air handling system from the area to prevent fiber migration.
3. The response action for any major fiber release episode must be prepared by EPA-accredited Asbestos Project Designers and conducted by EPA-accredited personnel.
4. The LEA shall notify the MADLS of any major fiber release episode within twenty-four hours of its occurrence and, if necessary, provide written notification as required by applicable federal and/or state regulations.

5.2 Periodic Surveillance

At least once every six months after an AMP is implemented, the LEA will conduct periodic surveillance in the school that contains ACBM or Assumed ACBM. The person conducting periodic surveillance will visually inspect all areas in the school where ACBM have been identified in the AMP, and record the date of surveillance, their name, and any changes in the ACBM condition; this information shall then be submitted to the LEA's Designated Person for inclusion in the AMP.

Refer to *Appendix F* for the Sample 6-Month Periodic Surveillance Form that may be used for conducting periodic surveillance.

5.3 Preventive Measures

The LEA shall institute appropriate preventive measures to eliminate the reasonable likelihood that ACBM will become damaged, deteriorated, and/or delaminated.

Refer to *Appendix G* for preventive measures designed for various types of ACBM that may exist in the school.

5.4 Abatement (Removal) Cost Estimates

Costs for abatement (removal) of all ACBM in the building are as follows:

Table 3
Abatement Cost Estimates

Material	Location	Estimated Quantity	Estimated Contractor Cost
White Floor Paper (concealed beneath hardwood flooring)	Assumed beneath All Original Hardwood Flooring	Unknown	$8/SF

SF=Square Feet

Asbestos training costs for custodial and maintenance workers (under O&M Program) are as follows:

Table 4
Asbestos Training Cost Estimates

Training Course	Estimated Cost
Two-Hour Asbestos Awareness Training (Annual)	$75/Person/Year
Asbestos Coordinator/LEA Designated Person Initial Training	$250/Person
Asbestos Coordinator/LEA Designated Person Annual Refresher Training	$200/Person/Year
Asbestos Operations & Maintenance Initial Training	$300/Person
Asbestos Operations & Maintenance Annual Refresher Training	$150/Person/Year
Three-Year Re-Inspections & AMP Updates	$3,000 - 3,500

6 EPA Accreditation Requirements

EPA accreditations and MADLS Asbestos Inspector and Asbestos Management Planner certifications for Mr. Mallett and Mr. Diedricksen are provided in *Appendix H.*

Report prepared by Environmental Analyst, Robert Mallett.

Reviewed by:

Dustin A. Diedricksen
Associate / Department Manager

Appendix A

Existing Records Checklist

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Existing Records Checklist

Local Education Agency (LEA): Barnstable Public Schools
835 Falmouth Road
Barnstable, MA 02601

School Building: School Administration Building

The following documentation is required to be present at both the LEA's office and at a centralized location in the school administrative office. The information included in this checklist will be verified to be present and complete as part of three-year re-inspection.

DOCUMENTATION		LOCATION	
		School	LEA Office
1	Original AHERA Operations and Maintenance Plan/Inspection Report	No	Yes
2	Three Year Re-Inspection (First and All Subsequent Inspections)	No	2014 2017
3	Parents and Teachers Notifications (Annually Since Last Re-Inspection)	Yes (In Student Handbook)	Yes (In Student Handbook)
4	Designated Person Identification and Proper Training	Yes	Yes
5	Designated Person Periodic Surveillance (Once Every Six Months)	No	Yes
6	Maintenance Staff Awareness Training Records	No	Yes
7	Outside Vendor Awareness Notification	Yes	Yes
8	Asbestos Warning Signs and Labels (Required Posting in Boiler Rooms and Mechanical Spaces Only)	N/A	N/A
9	Response Action Records (Includes Any Abatement Conducted Since Last 3-Year Re-Inspection)	N/A	N/A

Comments: Items marked "***No***" indicate not present/available at the time of this inspection.

Inspector (LEA Office): Robert Mallett Date: August 26, 2020

Inspector (School): Robert Mallett Date: August 26, 2020

Appendix B

Re-Inspection Form 1

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School: School Administration Building
Address 230 South Street, Hyannis, MA

Date(s) of Original Inspection: 2014
Date(s) of Subsequent Re-Inspections: 2017, 2020

Homogeneous Material			Material Category	Friability	Assessment Category (1-7)	Recorded Locations	Response Actions Taken/Renovations/Other Comments
Sample Number	Asbestos Content	Material Description					
F3	33% Chrysotile	White Floor Paper	Misc.	NF	5	Assumed beneath All Original Hardwood Flooring	Exploratory investigations required to determine extent of (concealed) floor paper beneath hardwood flooring prior to potential disturbance (e.g., flooring replacement, coring, etc.)

Information abstracted by: Robert Mallett Date: August 26, 2020

Material Category: TSI = Thermal System Insulation, Surf. = Surfacing, Misc. = Miscellaneous

Friability: F = Friable, NF = Non-Friable

AHERA Assessment Categories:

1 = Damaged or significantly damaged TSI ACM; 2 = Damaged friable surfacing ACM; 3 = Significantly damaged friable surfacing ACM; 4 = Damaged or significantly damaged friable miscellaneous ACM; 5 = ACBM with potential for damage; 6 = ACBM with potential for significant damage; 7 = Any remaining friable ACBM or friable suspected ACBM

Appendix C

Re-Inspection Form 2

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Re-Inspection Form 2. Re-Inspection of ACBM: Findings and Management Planner Recommendations

School: School Administration Building
Date of Re-Inspection: August 26, 2020
Homogeneous Material: White Floor Paper
Sample ID Number: F3

ACBM RE-INSPECTION FINDINGS					MANAGEMENT PLANNER RECOMMENDATIONS	
ACBM Location(s) by Assessment Category	**Friability**	**Estimated Quantity**	**Assessment Category**	**Physical Description**	**Recommended Response Action(s)**	**Date Action Completed**
Assumed beneath All Original Hardwood Flooring	NF	Unknown	5	ACBM with potential for damage	Exploratory investigations required to determine extent of (concealed) floor paper beneath hardwood flooring prior to potential disturbance (e.g., flooring replacement, coring, etc.). Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: November 9, 2020	
Inspector's Name: Robert Mallett Inspector Signature: _____ Accreditation #/State: AI900557/MA Expiration Date: 06/01/2021					Management Planner Name: Dustin Diedricksen Management Planner Signature: _____ Accreditation #/State: AP900425/MA Expiration Date: 04/05/2021	

I, the LEA's Designated Person, have read and understood the recommendations made above: _____

Date: _____

Appendix D

Previously Sampled Materials Laboratory Reports

Appendix E

Newly Installed Materials Safety Data Sheets

To be Provided by LEA

Appendix F

Sample 6-Month Periodic Surveillance Form

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Sample 6- Month Periodic Surveillance Form

Local Education Agency (LEA): Barnstable Public Schools

Facility Name: School Administration Building

Date of Surveillance: _____

ACBM Damage Report

Asbestos-Containing Building Material	Location	Previous Condition	Present Condition	Change in Condition (Yes/No)	Estimated Damaged Quantity	Comments
White Floor Paper	Assumed beneath All Original Hardwood Flooring	IA				

Conditions: D = Damaged; F = Fair; G = Good; IA = Inaccessible; N/A = Not Applicable; SD = Significant Damage; SF = Square Feet

Surveillance conducted by: _____ _____

(print name) (signature)

I, the LEA's Designated Person, have read and understood the findings noted above: _____

Date: _____

Appendix G

Preventive Measures

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Preventive Measures
for Various Asbestos-Containing Building Materials

A. Surfacing Materials

"Surfacing Materials" means materials in a school building that are applied by spray, trowel, or otherwise applied to surfaces. These include sprayed-applied fireproofing materials on structural members, ceiling and wall plasters, or other materials applied to surfaces for acoustical, fireproofing, or other purposes.

Surfacing Materials are generally considered friable and can release asbestos fibers if damaged by impact, air erosion, vibration, and/or water intrusion. When properly implemented, the following procedures will reduce the potential for fiber release:

1. Sprayed-Applied Fireproofing

    a) Identify the materials and post warning signs on the laid-in or glued-in ceiling tile. If the decking is not covered, place the sign on the wall.
    b) Maintain the materials in intact state and undamaged condition. During winter, pigeons, squirrels and other rodents tend to roost in boiler/machine rooms and dislodge sprayed-applied fireproofing on the decking. Prevent such possibilities.
    c) Prevent water leakage. If the material is significantly damaged, removal is the best option. For minor damage, enclosure is a temporary solution. Encapsulation of damaged sprayed-on fireproofing material is not recommended.
    d) Train the custodial people who are responsible for care and maintenance of surfacing materials. Please note that the repair/removal can only be performed by a licensed abatement contractor.

2. Ceiling and Wall Plasters

    a) Identify the materials and post asbestos warning signs.
    b) Maintain the materials in intact state and undamaged condition. Avoid storing/stacking on/near the materials to reduce contact damage.
    c) Prevent water leakage. If the material is significantly damaged, removal is the best option. For minor damage, repair or enclosure is a temporary solution.
    d) Train the custodial people who are responsible for care and maintenance of surfacing materials.

B. Thermal System Insulation (TSI)

"Thermal System Insulation (TSI)" means insulating materials applied to pipes, pipe fittings, boilers, breechings, tanks, ducts, or other components to prevent process heat loss or gain, water condensation, or for other purposes (e.g., fire door insulation core).

TSI are generally considered friable ACBM. This means they can be easily damaged, increasing the potential for fiber release. When properly implemented, the following procedures will reduce the potential for fiber release:

1. Boiler and Breeching Insulation

   a) Identify the locations and label the boiler. Warning signs should be posted outside the boiler room.
   b) Reduce the likelihood of fiber release by ensuring that the insulation is not damaged. Avoid storing/stacking on/near the boiler to reduce contact damage.
   c) Maintain the insulation in intact state and undamaged condition. Repair damaged areas as soon as possible to prevent further deterioration. If repair is not feasible due to extensive damage/deterioration, remove the material.
   d) Train the custodial people who are responsible for care and maintenance of TSI. Please note that the repair/removal can only be performed by a licensed abatement contractor.

2. Pipe, Pipe Fitting, Tank, Duct & Breeching Insulations

   a) Identify the locations and label the materials. Warning signs should be posted outside of rooms that have TSI materials.
   b) Reduce the likelihood of fiber release by ensuring that the materials are not damaged. Avoid storing/stacking near the materials to reduce contact damage.
   c) Maintain all TSI materials in intact state and undamaged condition. Inspect the protective jackets for damage. Repair damaged areas as soon as possible to prevent further deterioration. If repair is not feasible due to extensive damage/deterioration, remove the material.
   d) Train the custodial people who are responsible for care and maintenance of TSI. Please note that the repair/removal can only be performed by a licensed abatement contractor.

C. Miscellaneous Materials

"Miscellaneous Materials" are the other ACBM in a school building that are not categorized as Surfacing Materials or TSI. These include floor tiles, floor tile and carpet mastics, gypsum wallboard and joint compound, ceiling tiles, glue daubs, asbestos cement panels, cove base and associated glue, window/door caulking and glazing compounds, etc. The following maintenance procedures are recommended for these materials:

1. Vinyl Asbestos Floor Tiles (VAT)

Vinyl Asbestos Floor Tiles (VAT) are considered non-friable, however routine maintenance procedures such as spray-buffing, burnishing, wet scrubbing, and stripping can generate asbestos fibers. Following procedures, when properly implemented, will reduce the potential of fiber release:

a) Do not sand, grind, or abrade the tiles. Stripping of VAT should be done as infrequently as possible. When stripping becomes necessary, follow the appropriate work practices. Never perform dry stripping.
b) During spray-buffing or burnishing the floor, operate the machine at the lowest workable speed and use the least abrasive pad. Use a wet mop for routine cleaning whenever possible.
c) Routinely check whether chair and desk glides are in good condition and replace when necessary. Worn glides can gouge the floor and cause fiber release.
d) Place carpets/floor mats in all entrances to reduce abrasion of floor tiles by sand and pebbles. During winter, have parking lots and walkways swept to the extent possible to avoid the tracking of salt and ice-melting compounds into the school by the students.
e) Train the custodial people who are responsible for care and maintenance of VAT. Please note that the repair/removal can only be performed by a licensed abatement contractor.

2. Wallboard and Joint Compound Assembly

a) Since a number of different homogeneous assemblies may exist in a building, sheetrock/joint compound must be assumed to be ACBM unless sample results prove otherwise. If any specific areas are going to be disturbed, samples of the material in that area should be collected and analyzed.
b) Reduce the likelihood of fiber release by avoiding cutting or drilling holes through the sheetrock panels.

3. Ceiling Tile and Glue Daubs

a) Reduce the likelihood of fiber release by limiting access to the space above the ceiling tiles. Maintain the ceiling tiles in undamaged condition. Replace any damaged or water-stained tile.
b) If the ceiling tiles are non-asbestos, collect samples and analyze the glue daubs to identify asbestos-content before disturbing the tiles.

4. Asbestos Cement Panels, Window/Door Caulking and Glazing Compounds

a) Maintain asbestos cement panels and window/door caulking and glazing compounds in undamaged condition.

5. Carpet Glue, Blackboard/Tack Board Glue, Floor Tile Mastic, Cove Base, and Mastic

a) Reduce the likelihood of fiber release by leaving materials in place.
b) Maintain materials in good condition. Collect samples and analyze to identify asbestos-content before disturbing.

Appendix H

Fuss & O'Neill Asbestos Accreditations & Certifications