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

for

Sandwich High School
365 Quaker Meeting House Road
Sandwich, 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)

Sandwich Public Schools

Sandwich, Massachusetts

Re-Inspection Date: February 2020

Fuss & O'Neill, Inc.
108 Myrtle Street, Suite 502
Quincy, MA 0217

Project Number: 20160762.A50

FUSS & O'NEILL

Mr. Jonathan Nelson
Director of Facilities
Sandwich Public Schools
33 Water Street
Sandwich, MA 02563

RE: Three-Year AHERA Re-Inspection & Asbestos Management Plan Update
Sandwich High School
365 Quaker Meeting House Road, Sandwich, MA
Fuss & O'Neill Project No. 20160762.A50

Dear Mr. Nelson:

Enclosed is the Three-Year AHERA Re-Inspection and Asbestos Management Plan Update report prepared by Fuss & O'Neill, Inc. for the Sandwich High School located at 365 Quaker Meeting House Road in Sandwich, Massachusetts (the "Site"). AHERA services were performed for Sandwich Public Schools (the "Client").

This report is an important document that must be kept on file at the school and 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 Sandwich High School

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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:	Sandwich Public Schools
Address:	33 Water Street Sandwich, MA 02563
Phone:	(508) 888-1054

B. Designated Person:

Designated Person:	Mr. Jonathan Nelson Director of Facilities & Grounds
Address:	33 Water Street Sandwich, MA 02563
Email:	jonathan.nelson@sandwich.k12.ma.us

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:	06/01/2020

E. Asbestos Management Planner:

Planner:	Dustin Diedricksen
MADLS Certification Number:	AP900425
Expiration Date:	04/16/2021

2 Building Description

The original Sandwich High School is a three-story building reportedly constructed in 1976. The A-Wing was added in 2001, and extensive interior renovations to the 1976 building were made at this time. The interior finishes appear homogenous within the two building vintages.

Three H.B. Smith gas-fired, hot-water boilers provide the 1st and 2nd floor's heat. These three boilers are located at the 2nd floor mechanical space. Heat is transferred throughout the 1st and 2nd floors via pipes located above suspended ceiling systems and within wall chases.

Two Cleaver Brooks gas-fired, hot-water boilers provide heat for the 3rd floor. These boilers are located at the 3rd floor mechanical space. Heat is transfer via pipes located above suspended ceiling systems and within wall chases.

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 February 27, 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 that 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 Sandwich High School 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.

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

Material	Location	Reference	Asbestos Content
Black Mastic on Structural Steel Columns	1976 Building, Exterior Walls (within masonry & beneath cork)	AMP July 2012 Prepared by Cardno ATC (Sample ID: 16A)	20% Chrysotile
Expansion-Joint Caulking	1976 Building Expansion Joints	AMP July 2012 Prepared by Cardno ATC (Sample ID: 10A)	10% Chrysotile
Tan Vinyl Sheet Flooring	Classrooms C320-C324, C336, C337, Band Practice Rooms P1, P2, & P3, Music Storage Room, & D148	AMP July 2012 Prepared by Cardno ATC (Sample ID: 08A)	30% Chrysotile
Brown Vinyl Sheet Flooring	Auditorium Projector Room & Vault	AMP July 2012 Prepared by Cardno ATC (Sample ID: 12A)	30% Chrysotile
Gray Fiber-Reinforced Cement Fume Hood Panels	Classrooms C321 & C336; Prep Rooms C321/C322, C323/C324, & C336/C337	AMP July 2012 Prepared by Cardno ATC (Sample ID: 09A)	25% Chrysotile
Pink Sink Coating	Room D154	AMP July 2012 Prepared by Cardno ATC (Sample ID: 15A)	5% Chrysotile
Red Duct Sealant	Classrooms C321 & C336; Prep Rooms C321/C322, C323/C324, & C336/C337	AMP July 2012 Prepared by Cardno ATC (Sample ID: 11A)	5% Chrysotile
White Generator Breeching Insulation	3rd Floor Mechanical Space	AMP January 2017 Prepared by Fuss & O'Neill (Sample ID: 11C-RCM-1229)	60% Chrysotile
Gray Fiber-Reinforced Table (Corrugated Panel Bottom)	Classroom C323 Greenhouse	Asbestos Inspection Report November 2016 Prepared by Fuss & O'Neill (Sample ID: 01A-RCM-1108)	18% Chrysotile

Material	Location	Reference	Asbestos Content
Gray Fiber-Reinforced Table (Side Board)	Classroom C323 Greenhouse	Asbestos Inspection Report November 2016 Prepared by Fuss & O'Neill (Sample ID: 02A-RCM-1108)	20% Chrysotile
Brown Sill-to-Wall Caulking	Classroom C323 Greenhouse	Asbestos Inspection Report November 2016 Prepared by Fuss & O'Neill (Sample ID: 06A-RCM-1108)	2% Chrysotile
Gray Screw-Head Sealant	Classroom C323 Greenhouse	Asbestos Inspection Report November 2016 Prepared by Fuss & O'Neill (Sample ID: 08A-RCM-1108)	2% Chrysotile

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
Joint Compound	A, B, C, & D-Wing Classrooms, Offices, Bathrooms, & Storage Spaces	AMP July 2012 Prepared by Cardno ATC (Sample IDs: 01A-01C)
Spray-On Fireproofing	1976 Building Ceiling Plenums	AMP July 2012 Prepared by Cardno ATC (Sample IDs 02A-02C) & AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 09A-09D-RCM-1229)
Gypsum Wallboard	A, B, C, & D-Wing Classrooms, Offices, Bathrooms, & Storage Spaces	AMP July 2012 Prepared by Cardno ATC (Sample IDs: 03A & 03B)

Material	Location	Reference
Yellow Mastic Associated with Vinyl Sheet Flooring	Classrooms C320-C324, C336, & C337; Band Practice Rooms P1, P2, & P3; Music Storage Room; Chorus Room; & Auditorium Projector Room & Vault	AMP July 2012 Prepared by Cardno ATC (Sample IDs: 05A & 05B)
12" x 12" Tan Mottled Floor Tile	A, B, C, & D-Wing Classrooms, Offices, Bathrooms, & Storage Spaces (Except Classrooms C320-C324, C336, & C337; Band Practice Rooms P1, P2, & P3; Music Storage Room; Chorus Room; & Auditorium Projector Room & Vault)	AMP July 2012 Prepared by Cardno ATC (Sample IDs 06A & 06B) & AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 04A & 04B-RCM-1229)
12" x 12" Purple Mottled Floor Tile	Classrooms 1 - 3	AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 02A & 02B-RCM-1229)
12" x 12" Yellow Mottled Floor Tile	1st & 2nd Floor Classrooms	AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 03A & 03B-RCM-1229)
12" x 12" Blue Mottled Floor Tile	Classrooms 11, 13, & 15	AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 07A & 07B-RCM-1229)
12" x 12" Green Mottled Floor Tile	Gymnasium	AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 08A & 08B-RCM-1229)
Yellow Mastic Associated with 12" x 12" Floor Tile	Classrooms & Hallways	AMP July 2012 Prepared by Cardno ATC (Sample IDs: 07A & 07B)
Tan Mastic Associated with 12" x 12" Floor Tile	A, B, C, & D-Wing Classrooms, Offices, Bathrooms, & Storage Spaces (Except Classrooms C320-C324, C336, & C337; Band Practice Rooms P1, P2, & P3; Music Storage Room; Chorus Room; & Auditorium Projector Room & Vault)	AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 06A & 06B-RCM-1229)

Material	Location	Reference
White Sink Coating	A, B, C, & D-Wing Classrooms	AMP July 2012 Prepared by Cardno ATC (Sample IDs: 13A & 13B)
Black Sink Coating	C205	AMP July 2012 Prepared by Cardno ATC (Sample IDs: 14A & 14B)
Black Lab Counter Top	Classrooms C320-C337	AMP July 2012 Prepared by Cardno ATC (Sample IDs: 17A & 17B)
Brown Cove Base Mastic	A, B, C, & D-Wing Classrooms, Offices, Bathrooms, & Storage Spaces	AMP July 2012 Prepared by Cardno ATC (Sample IDs: 18A & 18B)
Gray Duct Sealant	A, B, C, & D-Wing Classrooms, Offices, Bathrooms, & Storage Spaces	AMP July 2012 Prepared by Cardno ATC (Sample IDs: 19A & 19B)
2' x 4' White (Faux 2' x 2') Suspended Ceiling Tile	A, B, C, & D-Wing Classrooms, Offices, Bathrooms, & Storage Spaces	AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 01A & 01B-RCM-1229)
2' x 4' White Gypsum Suspended Ceiling Tile	Woodshop & Kitchens 1 & 2	AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 05A & 05B-RCM-1229)
White Textured Ceiling Material	Boys & Girls Locker Room Showers	AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 10A & 10E-RCM-1229)
White Joint Compound	Boys & Girls Locker Room Ceilings	AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 12A & 12B-RCM-1229)
White Gypsum Ceiling Panel	Boys & Girls Locker Room Ceilings	AMP January 2017 Prepared by Fuss & O'Neill (Sample IDs: 13A & 13B-RCM-1229)

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) 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
Black Mastic on Structural Steel Columns	1976 Building, Exterior Walls (within masonry & beneath cork)	Unknown	$20.00/LF
Gray Expansion-Joint Caulking	1976 Building Expansion Joints	Unknown	$12.00/LF
Tan Vinyl Sheet Flooring	Classrooms C320-C324, C336, C337, Band Practice Rooms P1, P2, & P3, Music Storage Room, & D148	5,500 SF	$27,500.00
Brown Vinyl Sheet Flooring	Auditorium Projector Room & Vault	250 SF	$1,250.00
Gray Fiber-Reinforced Cement Fume Hood Panel	Classrooms C321 & C336; Prep Rooms C321/C322, C323/C324, & C336/C337	9 EA @ ~75 SF	$6,750.00
Pink Sink Coating	Room D154	1 EA	$250.00
Red Duct Sealant	Classrooms C321 & C336; Prep Rooms C321/C322, C323/C324, & C336/C337	60 LF	$900.00
White Generator Breeching Insulation	3rd Floor Mechanical Space	25 LF	$625.00
Gray Fiber-Reinforced Table (Corrugated Panel Bottom)	Classroom C323 Greenhouse	250 SF	$4,250.00
Gray Fiber-Reinforced Table (Side Board)	Classroom C323 Greenhouse	100 SF	$1,700.00
Brown Sill-to-Wall Caulking	Classroom C323 Greenhouse	5 LF	$40.00
Gray Screw-Head Sealant	Classroom C323 Greenhouse	25 EA	$375.00

EA=Each; LF = Linear Feet; 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): Sandwich Public Schools
33 Water Street
Sandwich, MA

School Building: Sandwich High School

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	No
2	Three Year Re-Inspection (First and All Subsequent Inspections)	2015 2017	2012, 2015, 2017
3	Parents and Teachers Notifications (Annually Since Last Re-Inspection)	Yes (In Student Handbook & Website)	Yes (In Student Handbook & Website)
4	Designated Person Identification and Proper Training	Yes	Yes
5	Designated Person Periodic Surveillance (Once Every Six Months)	Yes	Yes
6	Maintenance Staff Awareness Training Records	Yes	Yes
7	Outside Vendor Awareness Notification	Yes	Yes
8	Asbestos Warning Signs and Labels (Required Posting in Boiler Rooms and Mechanical Spaces Only)	Yes	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: February 27, 2020

Inspector (School): Robert Mallett Date: February 27, 2020

Appendix B

Re-Inspection Form 1

School: Sandwich High School

Address 33 Water Street, Sandwich, MA

Date(s) of Original Inspection: 1989

Date(s) of Subsequent Re-Inspections: 2009, 2012, 2015, 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					
16A	20% Chrysotile	Black Mastic on Structural Steel Columns	Misc.	NF	5	1976 Building, Exterior Walls (within masonry & beneath cork)	
10A	10% Chrysotile	Expansion-Joint Caulking	Misc.	NF	5	1976 Building Expansion Joints	
08A	30% Chrysotile	Tan Vinyl Sheet Flooring	Misc.	NF	5	Classrooms C320-C324, C336, C337, Band Practice Rooms P1, P2, & P3, Music Storage Room, & D148	
12A	30% Chrysotile	Brown Vinyl Sheet Flooring	Misc.	NF	5	Auditorium Projector Room & Vault	
09A	25% Chrysotile	Gray Fiber-Reinforced Cement Fume Hood Panel	Misc.	NF	5	Classrooms C321 & C336; Prep Rooms C321/C322, C323/C324, & C336/C337	
15A	5% Chrysotile	Pink Sink Coating	Misc.	NF	5	Room D154	
11A	5% Chrysotile	Red Duct Sealant	Misc.	NF	5	Classrooms C321 & C336; Prep Rooms C321/C322, C323/C324, & C336/C337	
11C-RCM-1229	60% Chrysotile	White Generator Breeching Insulation	TSI	F	6	3rd Floor Mechanical Space	
01A-RCM-1108	18% Chrysotile	Gray Fiber-Reinforced Table (Corrugated Panel Bottom)	Misc.	NF	5	Classroom C323 Greenhouse	
02A-RCM-1108	20% Chrysotile	Gray Fiber-Reinforced Table (Side Board)	Misc.	NF	5	Classroom C323 Greenhouse	

School: Sandwich High School Date(s) of Original Inspection: 1989

Address 33 Water Street, Sandwich, MA Date(s) of Subsequent Re-Inspections: 2009, 2012, 2015, 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					
06A-RCM-1108	2% Chrysotile	Brown Sill-to-Wall Caulking	Misc.	NF	5	Classroom C323 Greenhouse	
08A-RCM-1108	2% Chrysotile	Gray Screw-Head Sealant	Misc.	NF	5	Classroom C323 Greenhouse	

Information abstracted by: Robert Mallett Date: February 27, 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

School: Sandwich High School
Date of Re-Inspection: February 27, 2020
Homogeneous Material: Black Mastic on Structural Steel Columns
Sample ID Number: 16A

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**
1976 Building, Exterior Walls (within masonry & beneath cork)	NF	Unknown	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature: _____ Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature: _____ Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____ Date: 12/15/2020						

School: Sandwich High School Date of Re-Inspection: February 27, 2020

Homogeneous Material: Gray Expansion-Joint Caulking Sample ID Number: 10A

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**
1976 Building Expansion Joints	NF	Unknown	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature: _____ Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature: _____ Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____ Date: 12/15/2020						

School: Sandwich High School
Homogeneous Material: Tan Vinyl Sheet Flooring

Date of Re-Inspection: February 27, 2020
Sample ID Number: 08A

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**
Classrooms C320-C324, C336, C337, Band Practice Rooms P1, P2, & P3, Music Storage Room, & D148	NF	5,500 SF	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature: _____ Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature: _____ Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	

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

Date: 12/15/2020

School: Sandwich High School
Homogeneous Material: Brown Vinyl Sheet Flooring

Date of Re-Inspection: February 27, 2020
Sample ID Number: 12A

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**
Auditorium Project Room & Vault	NF	250 SF	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature: _____ Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature: _____ Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____ Date: 12/15/2020						

School: Sandwich High School
Date of Re-Inspection: February 27, 2020
Homogeneous Material: Gray Fiber-Reinforced Cement Fume Hood Panel
Sample ID Number: 09A

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**
Classrooms C321 & C336, Prep Rooms C321/C322, C323/C324, & C336/C337	NF	9 EA	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature: _____ Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature: _____ Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	

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

Date: 12/15/2020

School: Sandwich High School
Homogeneous Material: Pink Sink Coating

Date of Re-Inspection: February 27, 2020
Sample ID Number: 15A

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**
Room D154	NF	1 EA	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? Yes					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature: _____ Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature: _____ Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	

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

Date: 12/15/2020

School: Sandwich High School
Homogeneous Material: Red Duct Sealant

Date of Re-Inspection: February 27, 2020
Sample ID Number: 11A

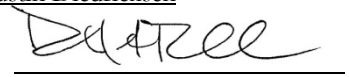
ACBM RE-INSPECTION FINDINGS					MANAGEMENT PLANNER RECOMMENDATIONS	
ACBM Location(s) by Assessment Category	**Friability**	**Estimated Quantity**	**Assessment Category**	**Physical Description**	**Recommended Response Action(s)**	**Date Action Completed**
Classrooms C321 & C336, Prep Rooms C321/C322, C323/C324, & C336/C337	NF	60 LF	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature: _____ Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature: _____ Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	

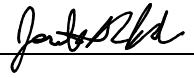
I, the LEA's Designated Person, have read and understood the recommendations made above: _____

Date: 12/15/2020

School: Sandwich High School
Homogeneous Material: White Generator Breeching Insulation

Date of Re-Inspection: February 27, 2020
Sample ID Number: 11C-RCM-1229

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**
3rd Floor Mechanical Space	F	25 LF	6	ACBM with potential for significant damage	No damaged, friable TSI was observed at the time of re-inspection. It is recommended that periodic cleaning shall be performed at least semiannually within the 3rd Floor Mechanical Space. All cleaning must be performed by a person who is at least qualified as an Asbestos-Associated Project Worker and HEPA-vacuuming and wet-cleaning methods are required. Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature:  Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature:  Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	

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

Date: 12/15/2020

School: Sandwich High School
Date of Re-Inspection: February 27, 2020
Homogeneous Material: Gray Fiber Reinforced Table (Corrugated Bottom)
Sample ID Number: 01A-RCM-1108

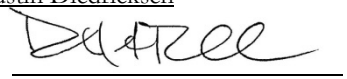
ACBM RE-INSPECTION FINDINGS					MANAGEMENT PLANNER RECOMMENDATIONS	
ACBM Location(s) by Assessment Category	**Friability**	**Estimated Quantity**	**Assessment Category**	**Physical Description**	**Recommended Response Action(s)**	**Date Action Completed**
Classroom C323 Greenhouse	NF	250 SF	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature: _____ Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature: _____ Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____ Date: 12/15/2020						

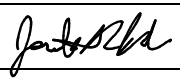
School: Sandwich High School
Date of Re-Inspection: February 27, 2020
Homogeneous Material: Gray Fiber-Reinforced Table (Side Board)
Sample ID Number: 02A-RCM-1108

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**
Classroom C323 Greenhouse	NF	100 SF	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature: _____ Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature: _____ Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____ Date: 12/15/2020						

School: Sandwich High School
Homogeneous Material: Brown Sill-to-Wall Caulking

Date of Re-Inspection: February 27, 2020
Sample ID Number: 06A-RCM-1108

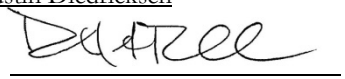
ACBM RE-INSPECTION FINDINGS					MANAGEMENT PLANNER RECOMMENDATIONS	
ACBM Location(s) by Assessment Category	**Friability**	**Estimated Quantity**	**Assessment Category**	**Physical Description**	**Recommended Response Action(s)**	**Date Action Completed**
Classroom C323 Greenhouse	NF	5 LF	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature:  Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature:  Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	

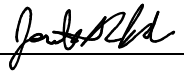
I, the LEA's Designated Person, have read and understood the recommendations made above: 

Date: 12/15/2020

School: Sandwich High School
Homogeneous Material: Gray Screw-Head Sealant

Date of Re-Inspection: February 27, 2020
Sample ID Number: 08A-RCM-1108

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**
Classroom C323 Greenhouse	NF	25 EA	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: April 15, 2020	
Inspector's Name: Robert Mallett Inspector Signature:  Accreditation #/State: AI900557/MA Expiration Date: 06/01/2020					Management Planner Name: Dustin Diedricksen Management Planner Signature:  Accreditation #/State: AP900425/MA Expiration Date: 04/05/2020	

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

Date: 12/15/2020

Appendix D

Previously Sampled Materials Laboratory Reports

ProScience Analytical Services, Inc.

Client Name: ATC Associates, Inc., Woburn
PO #: N/A
Client Project #: 60.43378.0001
Client Reference: Sandwich High School, Sandwich, MA
Method: EPA/600/R-93/116

Batch: B82498
Date Sampled: 7/19/2012
Date Received: 7/27/2012
Date Analyzed: 7/29/2012
Date of Report: 7/31/2012

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
01A	White	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Joint Compound
Location: 323
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
01B	White	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Joint Compound
Location: A209
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
01C	White	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Joint Compound
Location: Library
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
02A	Gray	0	0	0	0	0	0	0	60	0	0	0	0	40

Description: Spray-on Fireproofing
Location: Library
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
02B	Gray	0	0	0	0	0	0	0	20	60	0	5	0	15

Description: Spray-on Fireproofing
Location: 3rd Fl., Mechanical Rm.
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
02C	Gray	0	0	0	0	0	0	0	60	0	0	0	0	40

Description: Spray-on Fireproofing
Location: 3rd Fl., Mechanical Rm.
Comments:
Is asbestos present? No. Analyzed: Yes

ProScience Analytical Services, Inc.

Client Name: ATC Associates, Inc., Woburn
PO #: N/A
Client Project #: 60.43378.0001
Client Reference: Sandwich High School, Sandwich, MA
Method: EPA/600/R-93/116

Batch: B82498
Date Sampled: 7/19/2012
Date Received: 7/27/2012
Date Analyzed: 7/29/2012
Date of Report: 7/31/2012

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
03A	White	0	0	0	0	0	0	0	0	2	0	0	0	98

Description: Sheetrock
Location: Comp. Rm. B220
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
03B	Multi	0	0	0	0	0	0	0	0	5	0	0	0	95

Description: Sheetrock
Location: Library
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
04A	Yellow	30	0	0	0	0	0	0	0	0	0	0	0	70

Description: Yellow Linoleum
Location: Training Rm.
Comments:
Is asbestos present? Yes. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
04B		0	0	0	0	0	0	0	0	0	0	0	0	0

Description: Yellow Linoleum
Location: Training Rm.
Comments:
Analyzed: No

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
05A	Yellow	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Yellow Mastic on Yellow Linoleum
Location: Training Rm.
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
05B	Yellow	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Yellow Mastic on Yellow Linoleum
Location: Training Rm.
Comments:
Is asbestos present? No. Analyzed: Yes

ProScience Analytical Services, Inc.

Client Name: ATC Associates, Inc., Woburn
PO #: N/A
Client Project #: 60.43378.0001
Client Reference: Sandwich High School, Sandwich, MA
Method: EPA/600/R-93/116

Batch: B82498
Date Sampled: 7/19/2012
Date Received: 7/27/2012
Date Analyzed: 7/29/2012
Date of Report: 7/31/2012

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
06A	Tan	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Tan 12" Floor Tile
Location: Guidance Storage
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
06B	Tan	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Tan 12" Floor Tile
Location: Elec. Rm. A216
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
07A	Yellow	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Yellow Mastic on Tan 12" Floor Tile
Location: Guidance Storage
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
07B	Yellow	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Yellow Mastic on Tan 12" Floor Tile
Location: Elec. Rm. A216
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
08A	Tan	30	0	0	0	0	0	0	0	0	0	0	0	70

Description: Tan Sheet Floor
Location: C320
Comments:
Is asbestos present? Yes. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
08B		0	0	0	0	0	0	0	0	0	0	0	0	0

Description: Tan Sheet Floor
Location: C337
Comments:
Analyzed: No

ProScience Analytical Services, Inc.

Client Name: ATC Associates, Inc., Woburn
PO #: N/A
Client Project #: 60.43378.0001
Client Reference: Sandwich High School, Sandwich, MA
Method: EPA/600/R-93/116

Batch: B82498
Date Sampled: 7/19/2012
Date Received: 7/27/2012
Date Analyzed: 7/29/2012
Date of Report: 7/31/2012

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
09A	Black	25	0	0	0	0	0	0	0	0	0	0	0	75

Description: Red Transite Hood
Location: 322 Prep
Comments:

Is asbestos present? Yes. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
09B		0	0	0	0	0	0	0	0	0	0	0	0	0

Description: Red Transite Hood
Location: 322 Prep
Comments:

Analyzed: No

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
10A	Tan	10	0	0	0	0	0	0	0	0	0	0	0	90

Description: Expansion Joint Caulking
Location: Elec. Rm. by B129 Office
Comments:

Is asbestos present? Yes. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
10B		0	0	0	0	0	0	0	0	0	0	0	0	0

Description: Expansion Joint Caulking
Location: Elec. Rm. by B129 Office
Comments:

Analyzed: No

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
11A	Red	5	0	0	0	0	0	0	0	0	0	0	0	95

Description: Red Duct Sealant
Location: G Wing - 3rd Floor
Comments:

Is asbestos present? Yes. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
11B		0	0	0	0	0	0	0	0	0	0	0	0	0

Description: Red Duct Sealant
Location: G Wing - 3rd Floor
Comments:

Analyzed: No

ProScience Analytical Services, Inc.

Client Name: ATC Associates, Inc., Woburn
PO #: N/A
Client Project #: 60.43378.0001
Client Reference: Sandwich High School, Sandwich, MA
Method: EPA/600/R-93/116

Batch: B82498
Date Sampled: 7/19/2012
Date Received: 7/27/2012
Date Analyzed: 7/29/2012
Date of Report: 7/31/2012

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
12A	Brown	30	0	0	0	0	0	0	0	2	0	0	0	68

Description: Brown Sheet Floor
Location: Auditorium Projection Rm.
Comments:
Is asbestos present? Yes. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
12B		0	0	0	0	0	0	0	0	0	0	0	0	0

Description: Brown Sheet Floor
Location: Vault D151
Comments:
Analyzed: No

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
13A	White	0	0	0	0	0	0	0	0	20	0	0	0	80

Description: White Sink Coating
Location: D145
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
13B	White	0	0	0	0	0	0	0	0	20	0	0	0	80

Description: White Sink Coating
Location: Prep Off C228
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
14A	Black	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Black Sink Coating
Location: 2nd Fl., Library
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
14B	Black	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Black Sink Coating
Location: 334 Prep Room
Comments:
Is asbestos present? No. Analyzed: Yes

ProScience Analytical Services, Inc.

Client Name: ATC Associates, Inc., Woburn
PO #: N/A
Client Project #: 60.43378.0001
Client Reference: Sandwich High School, Sandwich, MA
Method: EPA/600/R-93/116

Batch: B82498
Date Sampled: 7/19/2012
Date Received: 7/27/2012
Date Analyzed: 7/29/2012
Date of Report: 7/31/2012

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
15A	Pink	5	0	0	0	0	0	0	0	0	0	0	0	95

Description: Pink Sink Coating
Location: D154
Comments:
Is asbestos present? Yes. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
15B		0	0	0	0	0	0	0	0	0	0	0	0	0

Description: Pink Sink Coating
Location: D154
Comments:
Analyzed: No

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
16A	Black	20	0	0	0	0	0	0	0	0	0	0	0	80

Description: Black Mastic on Struc. Steel Column behind Cork
Location: 3rd Fl. Mech. Rm.
Comments:
Is asbestos present? Yes. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
16B		0	0	0	0	0	0	0	0	0	0	0	0	0

Description: Black Mastic on Struc. Steel Column behind Cork
Location: 3rd Fl. Mech. Rm.
Comments:
Analyzed: No

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
17A	Multi	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Lab Table Top
Location: 323
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
17B	Multi	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Lab Table Top
Location: 324
Comments:
Is asbestos present? No. Analyzed: Yes

ProScience Analytical Services, Inc.

Client Name: ATC Associates, Inc., Woburn
PO #: N/A
Client Project #: 60.43378.0001
Client Reference: Sandwich High School, Sandwich, MA
Method: EPA/600/R-93/116

Batch: B82498
Date Sampled: 7/19/2012
Date Received: 7/27/2012
Date Analyzed: 7/29/2012
Date of Report: 7/31/2012

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
18A	Dk. Brown	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Brown Cove Base Mastic
Location: 323 Teacher/Lab Station
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
18B	Dk. Brown	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Brown Cove Base Mastic
Location: 324 - Tall Cabinet
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
19A	Gray	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Gray Duct Sealant
Location: Library
Comments:
Is asbestos present? No. Analyzed: Yes

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
19B	Gray	0	0	0	0	0	0	0	0	0	0	0	0	100

Description: Gray Duct Sealant
Location: 3rd Fl., Mechanical Rm.
Comments:
Is asbestos present? No. Analyzed: Yes

Asbestos Codes: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite
Non-Asbestos Codes: FBG = Fiberglass MNW = Mineral Wool CEL = Cellulose HAR = Hair SYN = Synthetic OTH = Other NON = Non-Fibrous Minerals

Note: To create a unique lab sample ID, use the Batch # and the Sample ID (example: [Batch #] - [Sample ID]).

* All results are in percentage.

Analyst: Dan Pine

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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: 131700081
Customer ID: ENVI54
Customer PO: 20160762.A1E-15
Project ID:

Attention: Dustin Diedricksen
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (617) 778-3750
Fax: (888) 838-1160
Received Date: 12/30/2016 9:17 AM
Analysis Date: 01/09/2017
Collected Date: 12/29/2016

Project: 20160762.A1E Task 15 / Sandwich Public Schools, 3-Yr AHERA Re-Inspections / Sandwich High School - 365 Quaker Meeting House Road, Sandwich, MA

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
01A-RCM-1229 *131700081-0001*	Classroom C320 - 2'x4' White Faux 2'x2' Suspended Ceiling Tile	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
01B-RCM-1229 *131700081-0002*	B-Wing Hallway - 2'x4' White Faux 2'x2' Suspended Ceiling Tile	Gray/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
02A-RCM-1229 *131700081-0003*	Classroom C325 - 12"x12" Purple Mottled Floor Tile	Purple Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02B-RCM-1229 *131700081-0004*	Classroom C329 - 12"x12" Purple Mottled Floor Tile	Purple Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
03A-RCM-1229 *131700081-0005*	Classroom C325 - 12"x12" Yellow Mottled Floor Tile	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
03B-RCM-1229 *131700081-0006*	Classroom C329 - 12"x12" Yellow Mottled Floor Tile	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
04A-RCM-1229 *131700081-0007*	Classroom C325 - 12"x12" Tan Mottled Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
04B-RCM-1229 *131700081-0008*	Classroom C329 - 12"x12" Tan Mottled Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05A-RCM-1229 *131700081-0009*	Woodshop - 2'x4' White Gypsum Suspended Ceiling Tile	Brown/White Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
05B-RCM-1229 *131700081-0010*	Kitchen #1 - 2'x4' White Gypsum Suspended Ceiling Tile	Brown/White Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
06A-RCM-1229 *131700081-0011*	Classroom C325 - Tan Mastic Associated with 12"x12" Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06B-RCM-1229 *131700081-0012*	Classroom C329 - Tan Mastic Associated with 12"x12" Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07A-RCM-1229 *131700081-0013*	A/V Storage - 12"x12" Blue Mottled Floor Tile	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07B-RCM-1229 *131700081-0014*	2nd Floor C-Wing Hallway - 12"x12" Blue Mottled Floor Tile	Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Report amended: 01/09/2017 12:09:20 Replaces initial report from: 01/09/2017 11:08:36 Reason Code: Data Entry-Results Changed

EMSL Analytical, Inc.
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http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 131700081
Customer ID: ENVI54
Customer PO: 20160762.A1E-15
Project ID:

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
08A-RCM-1229 *131700081-0015*	2nd Floor D-Wing Computer Classroom - 12"x12" Green Mottled Floor Tile	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08B-RCM-1229 *131700081-0016*	Classroom D263 - 12"x12" Green Mottled Floor Tile	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
09A-RCM-1229 *131700081-0017*	2nd Floor Mechanical Space - Gray Spray-Applied Fireproofing	Gray Fibrous Homogeneous	25% Min. Wool 10% Glass	65% Non-fibrous (Other)	None Detected
09B-RCM-1229 *131700081-0018*	3rd Floor Mechanical Space - Gray Spray-Applied Fireproofing	Gray Fibrous Homogeneous	25% Min. Wool 10% Glass	65% Non-fibrous (Other)	None Detected
09C-RCM-1229 *131700081-0019*	Woodshop - Gray Spray-Applied Fireproofing	Gray Fibrous Homogeneous	25% Min. Wool 10% Glass	65% Non-fibrous (Other)	None Detected
09D-RCM-1229 *131700081-0020*	Stage Storage - Gray Spray-Applied Fireproofing	Gray Fibrous Homogeneous	25% Min. Wool 10% Glass	65% Non-fibrous (Other)	None Detected
10A-RCM-1229 *131700081-0021*	Boys Locker Room Showers - White Textured Ceiling Material	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10B-RCM-1229 *131700081-0022*	Boys Locker Room Showers - White Textured Ceiling Material	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10C-RCM-1229 *131700081-0023*	Boys Locker Room Showers - White Textured Ceiling Material	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10D-RCM-1229 *131700081-0024*	Girls Locker Room Showers - White Textured Ceiling Material	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10E-RCM-1229 *131700081-0025*	Girls Locker Room Showers - White Textured Ceiling Material	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11A-RCM-1229 *131700081-0026*	3rd Floor Mechanical Space - White Generator Breeching Insulation	White Fibrous Homogeneous	20% Cellulose 10% Synthetic 2% Glass	68% Non-fibrous (Other)	<1% Chrysotile
11B-RCM-1229 *131700081-0027*	3rd Floor Mechanical Space - White Generator Breeching Insulation	White Fibrous Homogeneous	20% Cellulose 10% Synthetic 2% Glass	68% Non-fibrous (Other)	None Detected
11C-RCM-1229 *131700081-0028*	3rd Floor Mechanical Space - White Generator Breeching Insulation	White Fibrous Homogeneous	20% Synthetic	20% Non-fibrous (Other)	60% Chrysotile
12A-RCM-1229 *131700081-0029*	Boys Locker Room (Ceiling) - White Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Report amended: 01/09/2017 12:09:20 Replaces initial report from: 01/09/2017 11:08:36 Reason Code: Data Entry-Results Changed

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EMSL Order: 131700081
Customer ID: ENVI54
Customer PO: 20160762.A1E-15
Project ID:

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
12B-RCM-1229 *131700081-0030*	Boys Locker Room (Ceiling) - White Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13A-RCM-1229 *131700081-0031*	Boys Locker Room (Ceiling) - White Gypsum Ceiling Panel	Brown/Gray Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
13B-RCM-1229 *131700081-0032*	Boys Locker Room (Ceiling) - White Gypsum Ceiling Panel	Gray Fibrous Homogeneous	3% Cellulose 2% Glass	95% Non-fibrous (Other)	None Detected

Analyst(s)
Michael Mink (32)

Steve Grise, Laboratory Manager
or Other Approved Signatory

Report amended: 01/09/2017 12:09:20 Replaces initial report from: 01/09/2017 11:08:36 Reason Code: Data Entry-Results Changed

OrderID: 131700081

131700081

FUSS & O'NEILL
EnviroScience, LLC

EMSL Customer No. ENVI54

www.fando.com

50 Redfield Street, Suite 100, Boston, MA 02122

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

Asbestos Bulk Sample Chain-of-Custody

Sheet 1 of 1

Project Name: Sandwich Public Schools, 3-Yr AHERA Re-Inspections **Project No.:** 20160762.A1E **Task:** 15

Building Name/Number: Sandwich High School **Project Manager:** D Diedricksen

Site Address: 365 Quaker Meeting House Road, Sandwich, MA **Total # of Samples:** 32

Sample ID (#-Initials-Date)	Material Type (Size, Color, Description, Material)	Sample Location	Comments/ Quantities
01A-RCM-1229	2' x 4' White Faux 2' x 2' Suspended Ceiling Tile	Classroom C320	
01B-RCM-1229	2' x 4' White Faux 2' x 2' Suspended Ceiling Tile	B-Wing Hallway	
02A-RCM-1229	12" x 12" Purple Mottled Floor Tile	Classroom C325	
02B-RCM-1229	12" x 12" Purple Mottled Floor Tile	Classroom C329	
03A-RCM-1229	12" x 12" Yellow Mottled Floor Tile	Classroom C325	
03B-RCM-1229	12" x 12" Yellow Mottled Floor Tile	Classroom C329	
04A-RCM-1229	12" x 12" Tan Mottled Floor Tile	Classroom C325	
04B-RCM-1229	12" x 12" Tan Mottled Floor Tile	Classroom C329	
05A-RCM-1229	2' x 4' White Gypsum Suspended Ceiling Tile	Woodshop	
05B-RCM-1229	2' x 4' White Gypsum Suspended Ceiling Tile	Kitchen # 1	
06A-RCM-1229	Tan Mastic Associated with 12" x 12" Floor Tile	Classroom C325	
06B-RCM-1229	Tan Mastic Associated with 12" x 12" Floor Tile	Classroom C329	
07A-RCM-1229	12" x 12" Blue Mottled Floor Tile	A/V Storage	
07B-RCM-1229	12" x 12" Blue Mottled Floor Tile	2nd Floor C-Wing Hallway	
08A-RCM-1229	12" x 12" Green Mottled Floor Tile	2nd Floor D-Wing Computer Classroom	
08B-RCM-1229	12" x 12" Green Mottled Floor Tile	Classroom D263	
09A-RCM-1229	Gray Spray-Applied Fireproofing	2nd Floor Mechanical Space	
09B-RCM-1229	Gray Spray-Applied Fireproofing	3rd Floor Mechanical Space	
09C-RCM-1229	Gray Spray-Applied Fireproofing	Woodshop	
09D-RCM-1229	Gray Spray-Applied Fireproofing	Stage Storage	
10A-RCM-1229	White Textured Ceiling Material	Boys Locker Room Showers	
10B-RCM-1229	White Textured Ceiling Material	Boys Locker Room Showers	
10C-RCM-1229	White Textured Ceiling Material	Boys Locker Room Showers	
10D-RCM-1229	White Textured Ceiling Material	Girls Locker Room Showers	

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7952 1926 1570

131700081

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EnviroScience, LLC

EMSL Customer No. ENVI54

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50 Redfield Street, Suite 100, Boston, MA 02122

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

10E-RCM-1229	White Textured Ceiling Material	Girls Locker Room Showers	
11A-RCM-1229	White Generator Breeching Insulation	3rd Floor Mechanical Space	
11B-RCM-1229	White Generator Breeching Insulation	3rd Floor Mechanical Space	
11C-RCM-1229	White Generator Breeching Insulation	3rd Floor Mechanical Space	
12A-RCM-1229	White Joint Compound	Boys Locker Room (Ceiling)	
12B-RCM-1229	White Joint Compound	Boys Locker Room (Ceiling)	
13A-RCM-1229	White Gypsum Ceiling Panel	Boys Locker Room (Ceiling)	
13B-RCM-1229	White Gypsum Ceiling Panel	Boys Locker Room (Ceiling)	

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time: 1-week

Please call EnviroScience at (617) 282-4675 if analyses will not be completed for requested turnaround time listed above.

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

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

Samples Collected by: _____ **Date:** 12/29/16

Samples Sent by: RM **Date:** 12/29/16 **Time:** PM

Shipped To: ☒ EMSL MA ☐ Other _____

Method of Shipment: ☒ Fed Ex ☐ Lab Drop Off ☐ Other _____

RECEIVED
DEC 30 2016
By _____

Appendix E

Newly Installed Materials Safety Data Sheets

To be Provided by LEA

Appendix F

Sample 6-Month Periodic Surveillance Form

FUSS & O'NEILL

Sample 6- Month Periodic Surveillance Form

Local Education Agency (LEA): Sandwich Public Schools

Facility Name: Sandwich High School

Date of Surveillance: _____

ACBM Damage Report

Asbestos-Containing Building Material	Location	Previous Condition	Present Condition	Change in Condition (Yes/No)	Estimated Damaged Quantity	Comments
Black Mastic on Structural Steel Columns	1976 Building, Exterior Walls (within masonry & beneath cork)	IA				
Expansion-Joint Caulking	1976 Building Expansion Joints	G/IA				
Tan Vinyl Sheet Flooring	Classrooms C320-C324, C336, C337, Band Practice Rooms P1, P2, & P3, Music Storage Room, & D148	G				
Brown Vinyl Sheet Flooring	Auditorium Projector Room & Vault	G				
Gray Fiber-Reinforced Cement Fume Hood Panel	Classrooms C321 & C336; Prep Rooms C321/C322, C323/C324, & C336/C337	G				
Pink Sink Coating	Room D154	G				
Red Duct Sealant	Classrooms C321 & C336; Prep Rooms C321/C322, C323/C324, & C336/C337	G				
White Generator Breeching Insulation	3rd Floor Mechanical Space	G				
Gray Fiber-Reinforced Table (Corrugated Panel Bottom)	Classroom C323 Greenhouse	G				

Asbestos-Containing Building Material	Location	Previous Condition	Present Condition	Change in Condition (Yes/No)	Estimated Damaged Quantity	Comments
Gray Fiber-Reinforced Table (Side Board)	Classroom C323 Greenhouse	G				
Brown Sill-to-Wall Caulking	Classroom C323 Greenhouse	G				
Gray Screw-Head Sealant	Classroom C323 Greenhouse	G				

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

FUSS & O'NEILL

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

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

William D. McKinney,
Director

Asbestos Inspector

ROBERT C. MALLETT

Eff. Date 06/01/19

Exp. Date 06/01/20

20

AI900557

Member of C.O.N.E.S.

BOSR BOS-RENEW

This is to certify that

Robert C Mallett

has completed the requisite training, 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

Institute for Environmental Education
16 Upton Drive Wilmington, MA 01887

January 6, 2020
Course Dates

20-2958-106-402379
Certificate Number

January 06, 2020
Examination Date

January 06, 2021
Expiration Date

Training Director

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

INSTITUTE FOR ENVIRONMENTAL EDUCATION

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

William D. McKinney,
Director

Asbestos Management Planner

DUSTIN A. DIEDRICKSEN

Eff. Date 04/05/19
Exp. Date 04/05/20

20

AP900425

Member of C.O.N.E.S.

BOSR **BOS-RENEW**

This is to certify that

Dustin A Diedricksen

has completed the requisite training, 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
Institute for Environmental Education
16 Upton Drive Wilmington, MA 01887

December 18, 2019
Course Dates

19-2404-136-402162
Certificate Number

December 18, 2019
Examination Date

December 18, 2020
Expiration Date

Training Director

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

INSTITUTE FOR ENVIRONMENTAL EDUCATION

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

Michael Flanagan
Interim Director

Asbestos Management Planner

DUSTIN A. DIEDRICKSEN

Eff. Date 04/16/20
Exp. Date 04/16/21
AP900425
Member of C.O.N.E.S.
BOSR **BOS-RENEW**

21

This is to certify that

Dustin A Diedricksen

has completed the requisite training, 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
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