

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

for  
**Bourne High School**  
75 Waterhouse Road  
Bourne, 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)

**Bourne Public Schools**  
Bourne, Massachusetts

January 2021



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



March 29, 2021

Mr. Jordan Geist  
Director of Business Services  
Bourne Public Schools  
36 Sandwich Road  
Bourne, MA 02532

**RE: Three-Year AHERA Re-Inspection & Asbestos Management Plan Update  
Bourne High School  
75 Waterhouse Road, Bourne, MA**  
Fuss & O'Neill Reference No. 20121141.D40

Dear Mr. Geist:

Enclosed is the Three-Year AHERA Re-Inspection and Asbestos Management Plan Update report prepared by Fuss & O'Neill, Inc. for the Bourne High School located at 75 Waterhouse Road in Bourne, Massachusetts (the "Site"). AHERA services were performed for Bourne 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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# 1 Introduction

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## 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.

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## 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.

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### 1.3 Key Personnel

A. Local Education Agency (LEA):

LEA: Bourne Public Schools  
Address: 36 Sandwich Road  
Bourne, MA 02532  
Phone: (508) 759-0660

B. Designated Person:

Designated Person: Mr. Jordan Geist  
Address: Director of Business Services  
36 Sandwich Road  
Bourne, Massachusetts 02532  
Phone: (508) 759-0660

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: Lou Dias  
MADLS Certification Number: AI900440  
Expiration Date: 01/24/2021

E. Asbestos Management Planner:

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

## 2 Building Description

Bourne High School is a two-story, concrete and masonry structure with a partial basement level. The building was reportedly constructed in 1959, and it has undergone several renovation phases. An addition was reportedly constructed in 1990; it included the auditorium, the library, and several classrooms.

Three hot-water, gas-fired boilers provide heat to the building. Hot water is transferred through pipes via pipe tunnels to unit ventilators.

## 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 December 30, 2020, Fuss & O'Neill, Inc. (Fuss & O'Neill) representative, Mr. Lou Dias, 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.

No bulk samples were collected during this re-inspection. Previous Bulk sampling results and assumed materials can be found in Table 1 and Table 2. Refer to *Appendix D* for the previously sampled materials laboratory report.

Using EPA protocol and criteria, the following materials existing in the Bourne 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.

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

<b>Material</b>	<b>Location</b>	<b>Reference</b>	<b>Asbestos Content</b>
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	A-Wing, B-Wing, & C-Wing Pipe Tunnels	Initial AMP prepared by EnviroScience Consultants (1988) (Sample ID: SDH-0811-88-01); Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample ID: 721JH-07A)	70 % Chrysotile; 50% Chrysotile & 2% Amosite
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	Graphic Arts Room (near AHU in back), Chemical Storage in Graphic Arts Room, Art Room (at AHU above Kiln & in Closet by Classroom Door), Basement Electrical Vault, Basement Storage Room across from Art Room, Materials Storage Room across from Basement Exit, Basement Janitor's Closet (with slop sink), & Room 17C		
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	Kitchen Storage (near AHU), Gymnasium, Duct Vault across from Gymnasium, Men's Bathroom Closet across from Cafeteria, & Girl's Locker Room Storage Closet		
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	Janitor's Closet in Boy's Bathroom across from Classroom 14C		
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	Concealed above Splined Ceilings in A, B, & C-Wings		
Gray Roof Drain Mudded-Fitting Insulation	2 <sup>nd</sup> Floor Custodian's Closet (across from elevator)		
Gray Roof Drain Mudded-Fitting Insulation	Faculty Lunch Room		



<b>Material</b>	<b>Location</b>	<b>Reference</b>	<b>Asbestos Content</b>
Gray Fiber-Reinforced Cement Exhaust Duct	Classrooms 22C & 24C	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample ID: 721JH-08A)	25% Chrysotile
Gray Fiber-Reinforced Cement Exhaust Duct	Concealed within Laboratory Benches in Classrooms 22C & 24C	Assumed ACBM	Assumed ACBM
Gray Fiber-Reinforced Cement Fume Hood	Storage Room between Classrooms 22A & 24A	Assumed ACBM	Assumed ACBM
Gray Fiber-Reinforced Cement Panel	Duct Vault across from Gymnasium	Assumed ACBM	Assumed ACBM
Gray Fiber-Reinforced Cement Panel	Above Splined Ceilings at Fire Doors in Hallways	Assumed ACBM	Assumed ACBM

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)**

<b>Material</b>	<b>Location</b>	<b>Reference</b>
2' x 2' White Fissured Suspended Ceiling Tile	Cafeteria, Hallway between Cafeteria & Gymnasium, & Hallway between Gymnasium & Main Offices	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-11A -11C)
1' x 1' White Fissured Splined Ceiling Tile	A, B, & C-Wing Hallways & Classrooms (except Classrooms 11A, 13A, & 15A)	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-09A -09C)
1' x 1' White Pin Hole Splined Ceiling Tile		Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-10A -10C)
2' x 4' White Fissure & Dot Suspended Ceiling Tile	D-Wing Hallways & Classrooms, Auditorium, Library, & Classrooms: 11A, 13A, & 15A	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-12A -12C)

<b>Material</b>	<b>Location</b>	<b>Reference</b>
Black Mastic associated with 12" x 12" Floor Tile	Throughout School (Classrooms, Offices, & Hallways)	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-18A -18D)
Small Boiler Insulation - Top Gray Layer	C-Wing Boiler Room	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-01A -01C)
Smaller Boiler Insulation - Bottom White Layer	C-Wing Boiler Room	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-02A -02C)
White/Gray Boiler Breaching	C-Wing Boiler Room	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-03A -03C)
White/Gray Boiler Breaching	A-Wing Boiler Room	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-04A -04C)
White/Gray Hot Water Heater Breaching	Pipe Tunnel (Art Wing)	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-05A -05C)
12" x 12" Brown with Brown & White Speckles Floor Tile	A, B, C, & D-Wing Hallways	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-13A -13C)
12" x 12" White with Gray & Tan Speckles Floor Tile	Room 13A, Math Department Office, & Main Office	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-14A -14C)
12" x 12" White with Tan Speckles Floor Tile	Room 14A	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-15A -15C)
12" x 12" Gray with White Speckles Floor Tile	Language Arts Department Office and Room 20D	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-16A -16C)

<b>Material</b>	<b>Location</b>	<b>Reference</b>
12" x 12" Tan with Brown & White Speckles Floor Tile	Room 26D	Limited Asbestos Inspection Report prepared by Fuss & O'Neill (2009) (Sample IDs: 721JH-17A -17C)

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 – 1 Gray Roof Drain Mudded-Fitting Insulation at 2<sup>nd</sup> Floor Custodian's Closet & 1 White Mudded Pipe-Fitting Insulation at Room 17C**
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.

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## 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.

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## 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**

<b>Material</b>	<b>Location</b>	<b>Estimated Quantity</b>	<b>Estimated Contractor Cost</b>
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	A, B, & C-Wing Pipe Tunnels, Graphic Arts Room (near AHU in back), Chemical Storage in Graphic Arts Room, Art Room (at AHU above Kiln & in Closet by Classroom Door), Basement Electrical Vault, Basement Storage Room across from Art Room, Materials Storage Room across from Basement Exit, Basement Janitor's Closet (with slop sink), Kitchen Storage (near AHU), Gymnasium, Duct Vault across from Gymnasium, Men's Bathroom Closet across from Cafeteria, Girl's Locker Room Storage Closet, Janitor's Closet in Boy's Bathroom across from Classroom 14C, & Concealed above Splined Ceilings in A, B, & C-Wings	525 EA	\$26,250
Gray Roof Drain Mudded-Fitting Insulation	2 <sup>nd</sup> Floor Custodian's Closet (across from elevator) & Faculty Lunch Room	2 EA	\$100
Gray Fiber-Reinforced Cement Exhaust Duct	Classrooms 22C & 24C & Concealed within Laboratory Benches in Classrooms 22C & 24C	160 SF	\$2,400
Gray Fiber-Reinforced Cement Fume Hood	Storage Room between Classrooms 22A & 24A	1 EA	\$2,500
Gray Fiber-Reinforced Cement Panel	Duct Vault across from Gymnasium & above Splined Ceilings at Fire Doors in Hallways	200 SF	\$3,000

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**

<b>Training Course</b>	<b>Estimated Cost</b>
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	\$5,000 - 8,000

## 6 EPA Accreditation Requirements

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

Reviewed by:



Dustin A. Diedricksen  
Associate / Department Manager

## **Appendix A**

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### Existing Records Checklist



## Existing Records Checklist

Local Education Agency (LEA): Bourne Public Schools  
36 Sandwich Road  
Bourne, MA 02532

School Building: Bourne 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	Yes (Digital Copy) 1988	Yes (Digital Copy) 1988
2	Three Year Re-Inspection (First and All Subsequent Inspections)	1994, 1998, 2001, 2004, 2011, 2014, & 2017	1994, 1998, 2001, 2004, 2011, 2014, & 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	No	No
7	Outside Vendor Awareness Notification	No	No
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)	Yes	Yes

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

Inspector (LEA Office): Lou Dias

Date: December 30, 2020

Inspector (School): Lou Dias

Date: December 30, 2020

## **Appendix B**

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### Re-Inspection Form 1

School: Bourne High School  
 Address: 75 Waterhouse Road, Bourne, MA

 Date(s) of Original Inspection: 1988  
 Date(s) of Subsequent Re-Inspections: 1994, 1998, 2001, 2004, 2007, 2011, 2014, 2017, & 2021

Homogeneous Material			Material Category	Friability	Assessment Category (1-7)	Recorded Locations	Response Actions Taken/Renovations/Other Comments
Sample Number	Asbestos Content	Material Description					
SDH-0811-88-01 & 721JH-07A	70% Chrysotile & 50% Chrysotile 2% Amosite	White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	TSI	F	5	A-Wing, B-Wing, & C-Wing Pipe Tunnels	Damaged fittings removed Fall 2017; abatement documented
SDH-0811-88-01 & 721JH-07A	70% Chrysotile & 50% Chrysotile 2% Amosite	White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	TSI	F	6	Graphic Arts Room (near AHU in back), Chemical Storage in Graphic Arts Room, Art Room (at AHU above Kiln & in Closet by Classroom Door), Basement Storage Room across from Art Room, Materials Storage Room across from Basement Exit, & Basement Janitor's Closet (with slop sink)	
SDH-0811-88-01 & 721JH-07A	70% Chrysotile & 50% Chrysotile 2% Amosite	White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	TSI	F	1	Room 17C	1 out of 10 fittings damaged

School: Bourne High School  
 Address: 75 Waterhouse Road, Bourne, MA

 Date(s) of Original Inspection: 1988  
 Date(s) of Subsequent Re-Inspections: 1994, 1998, 2001, 2004, 2007, 2011, 2014, 2017, & 2021

Homogeneous Material			Material Category	Friability	Assessment Category (1-7)	Recorded Locations	Response Actions Taken/Renovations/Other Comments
Sample Number	Asbestos Content	Material Description					
SDH-0811-88-01 & 721JH-07A	70% Chrysotile & 50% Chrysotile 2% Amosite	White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	TSI	F	6	Kitchen Storage (near AHU), Gymnasium, Men's Bathroom Closet across from Cafeteria, & Girl's Locker Room Storage Closet	
SDH-0811-88-01 & 721JH-07A	70% Chrysotile & 50% Chrysotile 2% Amosite	White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	TSI	F	5	Duct Vault across from Gymnasium & Basement Electrical Vault	
SDH-0811-88-01 & 721JH-07A	70% Chrysotile & 50% Chrysotile 2% Amosite	White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	TSI	F	5	Janitor's Closet in Boy's Bathroom across from Classroom 14C	

School: Bourne High School  
 Address 75 Waterhouse Road, Bourne, MA

Date(s) of Original Inspection: 1988  
 Date(s) of Subsequent Re-Inspections: 1994, 1998, 2001, 2004, 2007, 2011, 2014, 2017, & 2021

Homogeneous Material			Material Category	Friability	Assessment Category (1-7)	Recorded Locations	Response Actions Taken/Renovations/Other Comments
Sample Number	Asbestos Content	Material Description					
SDH-0811-88-01 & 721JH-07A	70% Chrysotile & 50% Chrysotile 2% Amosite	White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	TSI	F	5	Concealed above Splined Ceilings in A, B, & C-Wings	
721JH-06A	40% Chrysotile 5% Amosite	Gray Roof Drain Mudded-Fitting Insulation	TSI	F	1	2 <sup>nd</sup> Floor Custodian's Closet (across from elevator)	1 damaged fitting
721JH-06A	40% Chrysotile 5% Amosite	Gray Roof Drain Mudded-Fitting Insulation	TSI	F	5	Faculty Lunch Room	Above ceiling
721JH-06A	40% Chrysotile 5% Amosite	Gray Roof Drain Mudded-Fitting Insulation	TSI	N/A	N/A	2 <sup>nd</sup> Floor Hallways above Ceilings	Removed Summer 2020; abatement documented & remove from next AMP
721JH-06A	40% Chrysotile 5% Amosite	Gray Roof Drain Mudded-Fitting Insulation	TSI	N/A	N/A	2 <sup>nd</sup> Floor A-Wing Hallway	Removed Summer 2020; abatement documented & remove from next AMP

School: Bourne High School  
 Address 75 Waterhouse Road, Bourne, MA

Date(s) of Original Inspection: 1988  
 Date(s) of Subsequent Re-Inspections: 1994, 1998, 2001, 2004, 2007, 2011, 2014, 2017, & 2021

Homogeneous Material			Material Category	Friability	Assessment Category (1-7)	Recorded Locations	Response Actions Taken/Renovations/Other Comments
Sample Number	Asbestos Content	Material Description					
721JH-08A	25% Chrysotile	Gray Fiber-Reinforced Cement Exhaust Duct	Misc.	NF	5	Classrooms 22C & 24C	
Assumed ACBM	Assumed ACBM	Gray Fiber-Reinforced Cement Exhaust Duct	Misc.	NF	5	Concealed within Laboratory Benches in Classrooms 22C & 24C	
Assumed ACBM	Assumed ACBM	Gray Fiber-Reinforced Cement Fume Hood	Misc.	NF	5	Storage Room between Classrooms 22A & 24A	
Assumed ACBM	Assumed ACBM	White Vibration Isolator	Misc.	N/A	N/A	Storage Room between Classrooms 22A & 24A (associated with fume hood ventilation)	Removed Summer 2020; abatement documented & remove from next AMP
Assumed ACBM	Assumed ACBM	Gray Fiber-Reinforced Cement Panel	Misc.	NF	5	Duct Vault across from Gymnasium & above Splined Ceilings at Fire Doors in Hallways	

Information abstracted by: Lou Dias Date: December 30, 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**

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### Re-Inspection Form 2

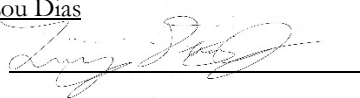
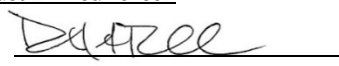


School: Bourne High School

Date of Re-Inspection: December 30, 2020

Homogeneous Material: White Mudded Pipe-Fitting Insulation  
 (associated with fiberglass pipe insulation)

Sample ID Number: SDH-0811-88-01 & 721JH-07A

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
A-Wing, B-Wing, & C-Wing Pipe Tunnels, Duct Vault across from Gymnasium, & Basement Electrical Vault	F	~125 EA	5	ACBM with potential for damage	Routine cleaning is not recommended within pipe tunnels (with dirt floor), duct vault across from the gymnasium, and basement electrical vault. Restricted access to these areas shall continue.  No damaged, friable TSI or suspect debris was observed at the time of this re-inspection in the pipe tunnels, duct vault across from gymnasium, and basement electrical vault.  Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: <u>March 25, 2021</u>	
Inspector's Name: <u>Lou Dias</u> Inspector Signature:  Accreditation #/State: <u>AI900440/MA</u> Expiration Date: <u>01/24/2021</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature:  Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2021</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____ Date: _____						



School: Bourne High School

 Date of Re-Inspection: December 30, 2020

 Homogeneous Material: White Mudded Pipe-Fitting Insulation

 Sample ID Number: SDH-0811-88-01 & 721JH-07A

(associated with fiberglass pipe insulation)

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
Graphic Arts Room (near AHU in back), Chemical Storage in Graphic Arts Room, Art Room (at AHU above Kiln & in Closet by Classroom Door), Basement Storage Room across from Art Room, Materials Storage Room across from Basement Exit, Basement Janitor's Closet (with slop sink), Kitchen Storage (near AHU), Gymnasium, Duct Vault across from Gymnasium, Men's Bathroom Closet across from Cafeteria, & Girl's Locker Room Storage Closet	F	39 EA	6	ACBM with potential for significant damage	<p>No damaged, friable TSI or suspect debris was observed at the time of this re-inspection. It is recommended that periodic cleaning shall be performed at least semiannually at these locations. 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.</p> <p>Maintain under O&amp;M Program</p>	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: <u>March 25, 2021</u>	

School: Bourne High SchoolDate of Re-Inspection: December 30, 2020Inspector's Name: Lou Dias

Inspector Signature: \_\_\_\_\_

Accreditation #/State: AI900440/MAExpiration Date: 01/24/2021Management Planner Name: Dustin Diedricksen

Management Planner Signature: \_\_\_\_\_

Accreditation #/State: AP900425/MAExpiration Date: 04/05/2021

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

Date: \_\_\_\_\_

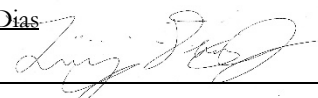
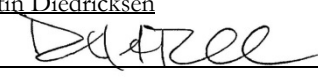
School: Bourne High School

 Date of Re-Inspection: December 30, 2020

 Homogeneous Material: White Mudded Pipe-Fitting Insulation

 Sample ID Number: SDH-0811-88-01 & 721JH-07A

(associated with fiberglass pipe insulation)

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 17C	F	10 EA (1 damaged)	1	Damaged or significantly damaged TSI ACM	Damaged fitting should be repaired/made intact by a Licensed Asbestos Contractor or Asbestos Operations & Maintenance Worker (16 hours)  Periodic cleaning should start immediately following fitting repair and performed at least semiannually at these locations. 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	Fall 2021
Were additional samples of this ACBM collected? No					Date of Management Planner Review: <u>March 25, 2021</u>	
Inspector's Name: <u>Lou Dias</u> Inspector Signature:  Accreditation #/State: <u>AI900440/MA</u> Expiration Date: <u>01/24/2021</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature:  Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2021</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____ Date: _____						



School: Bourne High School

 Date of Re-Inspection: December 30, 2020

 Homogeneous Material: White Mudded Pipe-Fitting Insulation

 Sample ID Number: SDH-0811-88-01 & 721JH-07A

(associated with fiberglass pipe insulation)



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
Janitor's Closet in Boy's Bathroom across from Classroom 14C	F	2 EA	5	ACBM with potential for damage	No damaged, friable TSI or suspect debris was observed at the time of this re-inspection. It is recommended that periodic cleaning shall be performed at least semiannually at this locations. 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: <u>March 25, 2021</u>	
Inspector's Name: <u>Lou Dias</u> Inspector Signature:  Accreditation #/State: <u>A1900440/MA</u> Expiration Date: <u>01/24/2021</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature:  Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2021</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

School: Bourne High School

 Date of Re-Inspection: December 30, 2020

 Ho Homogeneous Material: White Mudded Pipe-Fitting Insulation  
 (associated with fiberglass pipe insulation)

 Sample ID Number: SDH-0811-88-01 & 721JH-07A


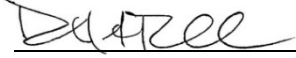
ACBM RE-INSPECTION FINDINGS					MANAGEMENT PLANNER RECOMMENDATIONS	
ACBM Location(s) by Assessment Category	Friability	Estimated Quantity	Assessment Category	Physical Description	Recommended Response Action(s)	Date Action Completed
Concealed above Splined Ceilings in A, B, & C-Wings	F	Unknown	5	ACBM with potential for damage	Routine cleaning is not recommended at concealed locations.  Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: <u>March 25, 2021</u>	
Inspector's Name: <u>Lou Dias</u> Inspector Signature:  Accreditation #/State: <u>AI900440/MA</u> Expiration Date: <u>01/24/2021</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature:  Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2021</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

School: Bourne High School

 Date of Re-Inspection: December 30, 2020

 Homogeneous Material: Gray Roof Drain Mudded-Fitting Insulation

 Sample ID Number: 721JH-06A



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
2nd Floor Custodian's Closet (across from elevator)	F	2 EA (1 damaged)	1	Damaged or significantly damaged TSI ACM	Damaged fitting should be repaired/made intact by a Licensed Asbestos Contractor or Asbestos Operations & Maintenance Worker (16 hours)  Periodic cleaning should start immediately following fitting repair and performed at least semiannually at these locations. 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	Fall 2021
Were additional samples of this ACBM collected? No					Date of Management Planner Review: <u>March 25, 2021</u>	
Inspector's Name: <u>Lou Dias</u> Inspector Signature:  Accreditation #/State: <u>A1900440/MA</u> Expiration Date: <u>01/24/2021</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature:  Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2021</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

School: Bourne High School

 Date of Re-Inspection: December 30, 2020

 Homogeneous Material: Gray Roof Drain Mudded-Fitting Insulation

 Sample ID Number: 721JH-06A

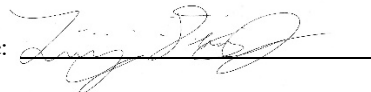

ACBM RE-INSPECTION FINDINGS					MANAGEMENT PLANNER RECOMMENDATIONS	
ACBM Location(s) by Assessment Category	Friability	Estimated Quantity	Assessment Category	Physical Description	Recommended Response Action(s)	Date Action Completed
Above Splined Ceiling in Faculty Lunch Room	F	Unknown	5	ACBM with potential for damage	Routine cleaning is not recommended at concealed locations.  Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: <u>March 25, 2021</u>	
Inspector's Name: <u>Lou Dias</u> Inspector Signature:  Accreditation #/State: <u>AI900440/MA</u> Expiration Date: <u>01/24/2021</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature:  Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2021</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

School: Bourne High School

 Date of Re-Inspection: December 30, 2020

 Homogeneous Material: Gray Fiber-Reinforced Cement Exhaust Duct

 Sample ID Number: 721JH-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 22C & 24C	NF	56 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: <u>March 25, 2021</u>	
Inspector's Name: <u>Lou Dias</u> Inspector Signature:  Accreditation #/State: <u>AI900440/MA</u> Expiration Date: <u>01/24/2021</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature:  Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2021</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						


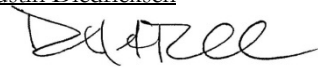


School: Bourne High School

 Date of Re-Inspection: December 30, 2020

 Homogeneous Material: Gray Fiber-Reinforced Cement Exhaust Duct

 Sample ID Number: Assumed ACBM



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
Concealed within Laboratory Benches in Classrooms 22C & 24C	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: <u>March 25, 2021</u>	
Inspector's Name: <u>Lou Dias</u> Inspector Signature:  Accreditation #/State: <u>AI900440/MA</u> Expiration Date: <u>01/24/2021</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature:  Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2021</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

School: Bourne High School

 Date of Re-Inspection: December 30, 2020

 Homogeneous Material: Gray Fiber-Reinforced Cement Fume Hood

 Sample ID Number: Assumed ACBM



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
Storage Room between Classrooms 22A & 24A	NF	1 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: <u>March 25, 2021</u>	
Inspector's Name: <u>Lou Dias</u> Inspector Signature: <u></u> Accreditation #/State: <u>AI900440/MA</u> Expiration Date: <u>01/24/2021</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature: <u></u> Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2021</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

School: Bourne High School

 Date of Re-Inspection: December 30, 2020

 Homogeneous Material: Gray Fiber-Reinforced Cement Panel

 Sample ID Number: Assumed ACBM

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
Duct Vault across from Gymnasium & above Splined Ceilings at Fire Doors in Hallways	NF	200 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: <u>March 25, 2021</u>	
Inspector's Name: <u>Lou Dias</u> Inspector Signature:  Accreditation #/State: <u>AI900440/MA</u> Expiration Date: <u>01/24/2021</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature:  Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2021</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

## **Appendix D**

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### Previously Sampled Materials Laboratory Report



**EMSL Analytical, Inc.**  
 307 West 38th Street, New York, NY 10018

Phone: (212) 290-0051 Fax: (212) 290-0058 Email: manhattanlab@emsl.com

Attn: **Fuss & O' Neill EnviroScience, LLC**  
**50 Redfield Street**  
**Boston, MA 02122**

Fax: (413) 647-0018 Phone: (617) 282-4675  
 Project: 20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL

Customer ID: ENVI54C  
 Customer PO:  
 Received: 07/24/09 9:00 AM  
 EMSL Order: 030918763  
 EMSL Proj:  
 Analysis Date: 7/26/2009

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
721JH-01A 030918763-0001	C WING BOILER ROOM/ SMALL BOILER INSULATION GRAY	Gray Fibrous Homogeneous	20%	Glass	60% Ca Carbonate 20% Non-fibrous (other) None Detected
721JH-01B 030918763-0002	C WING BOILER ROOM/ SMALL BOILER INSULATION GRAY	Gray Fibrous Homogeneous	25%	Glass	60% Ca Carbonate 15% Non-fibrous (other) None Detected
721JH-01C 030918763-0003	C WING BOILER ROOM/ SMALL BOILER INSULATION GRAY	Gray Fibrous Homogeneous	25%	Glass	60% Ca Carbonate 15% Non-fibrous (other) None Detected
721JH-02A 030918763-0004	C WING BOILER ROOM/ SMALL BOILER INSULATION WHITE	White Fibrous Homogeneous	10%	Glass	80% Ca Carbonate 10% Non-fibrous (other) None Detected
721JH-02B 030918763-0005	C WING BOILER ROOM/ SMALL BOILER INSULATION WHITE	White Fibrous Homogeneous	10%	Glass 3% Synthetic	80% Ca Carbonate 7% Non-fibrous (other) None Detected

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager  
 or other approved signatory

Samples analyzed by EMSL Analytical, Inc. New York 307 West 38th Street, New York NY NVLAP Lab Code 101048-9, AIHA IHLAP 102581, NYS ELAP 11506, CT PH-0170, MA AA000170



EMSL Analytical, Inc.

307 West 38th Street, New York, NY 10018

Phone: (212) 290-0051 Fax: (212) 290-0058 Email: manhattanlab@emsl.com

Attn: Fuss & O' Neill EnviroScience, LLC
50 Redfield Street
Boston, MA 02122

Customer ID: ENVI54C
Customer PO:
Received: 07/24/09 9:00 AM
EMSL Order: 030918763
EMSL Proj:
Analysis Date: 7/26/2009

Fax: (413) 647-0018 Phone: (617) 282-4675
Project: 20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL

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

Table with 7 columns: Sample, Description, Appearance, % Fibrous, % Non-Fibrous, Asbestos % Type. Contains 8 rows of analysis data for various boiler room/breaching samples.

Analyst(s)

Alexander Balter (46)

Handwritten signature of James Hall

James Hall, Laboratory Manager
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. New York 307 West 38th Street, New York NY NVLAP Lab Code 101048-9, AIHA IHLAP 102581, NYS ELAP 11506, CT PH-0170, MA AA000170



**EMSL Analytical, Inc.**  
 307 West 38th Street, New York, NY 10018

Phone: (212) 290-0051 Fax: (212) 290-0058 Email: manhattanlab@emsl.com

Attn: **Fuss & O' Neill EnviroScience, LLC**  
**50 Redfield Street**  
**Boston, MA 02122**

Fax: (413) 647-0018 Phone: (617) 282-4675  
 Project: **20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL**

Customer ID: ENVI54C  
 Customer PO:  
 Received: 07/24/09 9:00 AM  
 EMSL Order: 030918763  
 EMSL Proj:  
 Analysis Date: 7/26/2009

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
721JH-05A 030918763-0013	PIPE TUNNEL (ART WING)/ HOT WATER HEATER BREECHING	White Fibrous Homogeneous	7% Glass 3% Synthetic	80% Ca Carbonate 10% Non-fibrous (other)	None Detected
721JH-05B 030918763-0014	PIPE TUNNEL (ART WING)/ HOT WATER HEATER BREECHING	White Fibrous Homogeneous	15% Glass 5% Synthetic	65% Ca Carbonate 15% Non-fibrous (other)	None Detected
721JH-05C 030918763-0015	PIPE TUNNEL (ART WING)/ HOT WATER HEATER BREECHING	White Fibrous Homogeneous	15% Glass 3% Synthetic	70% Ca Carbonate 12% Non-fibrous (other)	None Detected
721JH-06A 030918763-0016	MUSIC ROOM/ ROOF DRAIN MUDDERED FITTINGS	White Fibrous Homogeneous		50% Ca Carbonate 5% Non-fibrous (other)	5% Amosite 40% Chrysotile
721JH-06B 030918763-0017	BIOLOGY LAB/ ROOF DRAIN MUDDERED FITTINGS				Not Analyzed

POSITIVE STOP

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager  
 or other approved signatory

Samples analyzed by EMSL Analytical, Inc. New York 307 West 38th Street, New York NY NVLAP Lab Code 101048-9, AIHA IHLAP 102581, NYS ELAP 11506, CT PH-0170, MA AA000170



**EMSL Analytical, Inc.**

307 West 38th Street, New York, NY 10018

Phone: (212) 290-0051 Fax: (212) 290-0058 Email: [manhattanlab@emsl.com](mailto:manhattanlab@emsl.com)

Attn: **Fuss & O' Neill EnviroScience, LLC**  
**50 Redfield Street**  
**Boston, MA 02122**

Customer ID: ENVI54C  
Customer PO:  
Received: 07/24/09 9:00 AM  
EMSL Order: 030918763  
EMSL Proj:  
Analysis Date: 7/26/2009

Fax: (413) 647-0018 Phone: (617) 282-4675  
Project: 20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
721JH-06C 030918763-0018	WOMEN'S LOCKER ROOM/ ROOF DRAIN MUDDED FITTINGS				Not Analyzed
POSITIVE STOP					
721JH-07A 030918763-0019	JANITOR'S CLOSET 1ST FLOOR B WING/ MUDDED FITTINGS	Brown Fibrous Homogeneous		40% Ca Carbonate 8% Non-fibrous (other)	2% Amosite 50% Chrysotile
721JH-07B 030918763-0020	C WING PIPE TUNNEL/ MUDDED FITTINGS				Not Analyzed
POSITIVE STOP					
721JH-07C 030918763-0021	A WING PIPE TUNNEL/ MUDDED FITTINGS				Not Analyzed
POSITIVE STOP					
721JH-07D 030918763-0022	A WING PIPE TUNNEL/ MUDDED FITTINGS				Not Analyzed
POSITIVE STOP					

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager  
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. New York 307 West 38th Street, New York NY NVLAP Lab Code 101048-9, AIHA IHLAP 102581, NYS ELAP 11506, CT PH-0170, MA AA000170





**EMSL Analytical, Inc.**  
307 West 38th Street, New York, NY 10018

Phone: (212) 290-0051 Fax: (212) 290-0058 Email: [manhattanlab@emsl.com](mailto:manhattanlab@emsl.com)

Attn: **Fuss & O' Neill EnviroScience, LLC**  
**50 Redfield Street**  
**Boston, MA 02122**

Fax: (413) 647-0018 Phone: (617) 282-4675  
Project: 20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL

Customer ID: ENVI54C  
Customer PO:  
Received: 07/24/09 9:00 AM  
EMSL Order: 030918763  
EMSL Proj:  
Analysis Date: 7/26/2009

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
721JH-08A 030918763-0023	ROOM BETWEEN ROOMS 22C & 24C/ TRANSITE FUME HOOD	Gray Fibrous Homogeneous		65% Ca Carbonate 10% Non-fibrous (other)	25% Chrysotile
721JH-08B 030918763-0024	ROOM BETWEEN ROOMS 22C & 24C/ TRANSITE FUME HOOD				Not Analyzed
POSITIVE STOP					
721JH-08C 030918763-0025	ROOM BETWEEN ROOMS 22C & 24C/ TRANSITE FUME HOOD				Not Analyzed
POSITIVE STOP					
721JH-09A 030918763-0026	ROOM 14C/ 1 X 1 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	5% Cellulose 60% Glass	35% Non-fibrous (other)	None Detected
721JH-09B 030918763-0027	C WING HALL/ 1 X 1 FISSUSED CEILING TILE	Gray Fibrous Homogeneous	10% Cellulose 60% Glass	30% Non-fibrous (other)	None Detected
721JH-09C 030918763-0028	C WING MEN'S ROOM/ 1 X 1 FISSUSED CEILING TILE	Gray Fibrous Homogeneous	10% Cellulose 55% Glass	35% Non-fibrous (other)	None Detected

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager  
or other approved signatory

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**50 Redfield Street**  
**Boston, MA 02122**

Fax: (413) 647-0018 Phone: (617) 282-4675  
Project: **20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL**

Customer ID: ENVI54C  
Customer PO:  
Received: 07/24/09 9:00 AM  
EMSL Order: 030918763  
EMSL Proj:  
Analysis Date: 7/26/2009

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
721JH-10A 030918763-0029	A-WING HALL/ 1 X 1 PIN HOLE CEILING TILE	Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
721JH-10B 030918763-0030	B-WING HALL/ 1 X 1 PIN HOLE CEILING TILE	Brown/White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (other)	None Detected
721JH-10C 030918763-0031	ROOM 13B/ 1 X 1 PIN HOLE CEILING TILE	Brown/White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
721JH-11A 030918763-0032	CAFÉ HALL/ 2 X 2 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	45% Cellulose 25% Glass	30% Non-fibrous (other)	None Detected
721JH-11B 030918763-0033	CAFÉ HALL/ 2 X 2 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	40% Cellulose 30% Glass	30% Non-fibrous (other)	None Detected
721JH-11C 030918763-0034	A-WING HALL/ 2 X 2 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	50% Cellulose 20% Glass	30% Non-fibrous (other)	None Detected
721JH-12A 030918763-0035	MAIN LOBBY/ 2 X 4 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	50% Cellulose 20% Glass	30% Non-fibrous (other)	None Detected

Analyst(s)

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James Hall, Laboratory Manager  
or other approved signatory

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**Boston, MA 02122**

Fax: (413) 647-0018 Phone: (617) 282-4675  
 Project: **20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL**

Customer ID: ENVI54C  
 Customer PO:  
 Received: 07/24/09 9:00 AM  
 EMSL Order: 030918763  
 EMSL Proj:  
 Analysis Date: 7/26/2009

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
721JH-12B 030918763-0036	MAIN OFFICE/ 2 X 4 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	45% Cellulose 20% Glass	35% Non-fibrous (other)	None Detected
721JH-12C 030918763-0037	ROOM 14A/ 2 X 4 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	40% Cellulose 20% Glass	40% Non-fibrous (other)	None Detected
721JH-13A 030918763-0038	2ND FLOOR D-WING HALL/ BROWN W/ BROWN & WHITE	Brown Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (other)	None Detected
721JH-13B 030918763-0039	1ST FLOOR D-WING CUSTODIAN CLOSET/ 12 X 12 FLOOR	Brown Non-Fibrous Homogeneous		85% Ca Carbonate 15% Non-fibrous (other)	None Detected
721JH-13C 030918763-0040	LOBBY HALL/ 12 X 12 FLOOR TILE	Brown Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (other)	None Detected
721JH-14A 030918763-0041	ROOM 13A/ WHITE W/ GRAY AND TAN SPECKLES	Gray/White Non-Fibrous Heterogeneous		80% Ca Carbonate 20% Non-fibrous (other)	None Detected

Analyst(s)

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**Boston, MA 02122**

Fax: (413) 647-0018 Phone: (617) 282-4675  
 Project: **20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL**

Customer ID: ENVI54C  
 Customer PO:  
 Received: 07/24/09 9:00 AM  
 EMSL Order: 030918763  
 EMSL Proj:  
 Analysis Date: 7/26/2009

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
721JH-14B 030918763-0042	MATH DEPARTMENT OFFICE/ 12 X 12 FLOOR TILE	Gray/White Non-Fibrous Heterogeneous		80% Ca Carbonate 20% Non-fibrous (other)	None Detected
721JH-14C 030918763-0043	MAIN OFFICE/ 12 X 12 FLOOR TILE	Gray/White Non-Fibrous Heterogeneous		85% Ca Carbonate 15% Non-fibrous (other)	None Detected
721JH-15A 030918763-0044	ROOM 14A/ WHITE W/ TAN SPECKLES 12 X 12 FLOOR TILE	White Non-Fibrous Homogeneous		90% Ca Carbonate 10% Non-fibrous (other)	None Detected
721JH-15B 030918763-0045	ROOM 14A/ WHITE W/ TAN SPECKLES 12 X 12 FLOOR TILE	White Non-Fibrous Homogeneous		90% Ca Carbonate 10% Non-fibrous (other)	None Detected
721JH-16A 030918763-0046	LANGUAGE ARTS DEPARTMENT OFFICE/ GRAY W/ WHITE	Gray Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (other)	None Detected
721JH-16B 030918763-0047	ROOM 20D/ GRAY W/ WHITE SPECKLES 12 X12 FLOOR TILE	Gray Non-Fibrous Homogeneous		85% Ca Carbonate 15% Non-fibrous (other)	None Detected

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager  
 or other approved signatory

Samples analyzed by EMSL Analytical, Inc. New York 307 West 38th Street, New York NY NVLAP Lab Code 101048-9, AIHA IHLAP 102581, NYS ELAP 11506, CT PH-0170, MA AA000170



**EMSL Analytical, Inc.**

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Attn: **Fuss & O' Neill EnviroScience, LLC**  
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**Boston, MA 02122**

Fax: (413) 647-0018 Phone: (617) 282-4675  
Project: **20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL**

Customer ID: ENVI54C  
Customer PO:  
Received: 07/24/09 9:00 AM  
EMSL Order: 030918763  
EMSL Proj:  
Analysis Date: 7/26/2009

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
721JH-17A 030918763-0048	ROOM 26D/ TAN W/ BROWN AND WHITE SPECKLES 12 X 12	Gray Non-Fibrous Heterogeneous		80% Ca Carbonate 20% Non-fibrous (other)	None Detected
721JH-17B 030918763-0049	ROOM 26D/ TAN W/ BROWN AND WHITE SPECKLES 12 X 12	Gray Non-Fibrous Homogeneous		85% Ca Carbonate 15% Non-fibrous (other)	None Detected
721JH-18A 030918763-0050	LOBBY HALL/ BLACK MASTIC A/W BRWN W/ BROWN & WHITE	Brown/Black Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
721JH-18B 030918763-0051	1ST FLOOR D-WING HALL/ BLACK MASTIC A/W BROWN W/	Gray Fibrous Heterogeneous	20% Cellulose	50% Non-fibrous (other) 30% Quartz	None Detected
721JH-18C 030918763-0052	2ND FLOOR D-WING HALL/ BLACK MASTIC A/W BROWN W/	Black Non-Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
721JH-18D 030918763-0053	MATH DEPARTMENT OFFICE/ BLACK MASTIC A/W WHITE W/	Black Non-Fibrous Heterogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager  
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. New York 307 West 38th Street, New York NY NVLAP Lab Code 101048-9, AIHA IHLAP 102581, NYS ELAP 11506, CT PH-0170, MA AA000170



FUSS & O'NEILL  
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53

030918763

www.fando.com

50 Redfield Street, Suite 100 Boston, MA 02122

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

09 JUL 24 AM 9:57

SAMPLE LOG FOR ASBESTOS BULKS

Sheet 1 of 5

Project Name: Dourne Public Schools

Project No. 20070914.A2R

Building: High School

Project Manager: Bob May

Sample ID	Sample Location	Material	Result (%)
7215H-01A	C wing Boiler Room	Small Boiler insulation grey Top layer	
-01B	↓	↓	
-01C	↓	↓	
7215H-02A		Small Boiler Insulation white Bottom Layer	
-02B	↓	↓	
-02C	↓	↓	
7215H-03A		Boiler Breeching	
-03B	↓	↓	
-03C	↓	↓	
7215H-04A	A wing Boiler Room		
-04B	↓	↓	

Analysis Method:  PLM  Other \_\_\_\_\_

Turnaround Time 46 hrs

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date:  
EnviroScience Laboratory at (860) 953-2700 if analyses will be late.

#792097962462

RECEIVED  
Please call the  
JUL 23 2009  
By SA 0940

Fax Results To: EnviroScience Consultants, Inc. Laboratory at 413-647-0018

Special Instructions: Step @ list positive in each

Samples Collected By: JH Date: 7/21/09 Time: AM

Samples [Rec'd][Sent By]: [ ] [JH] Date: [ ] [7/21/09] Time: [ ] [PM]

Samples Received By: Katy Cox Date: 7/24/09 Time: 9:52 am

Shipped To:  EMSL (State)  Other \_\_\_\_\_

Method of Shipment:  Fed Ex  UPS Overnight  UPS Ground  Other \_\_\_\_\_



**FUSS & O'NEILL**  
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**SAMPLE LOG FOR ASBESTOS BULK**

Sheet 2 of 5

Project Name: Dourne Public Schools Project No. 20070914.A2R

Building: High School Project Manager: Bob May

Sample ID	Sample Location	Material	Result (%)
-04C	↓	↓	
721 JH-05A	Pipe tunnel (Art wing)	Hot water heater Breeching Insulation	
-05B	↓	↓	
-05C	↓	↓	
721 JH-06A	Music Room	Roof drain mudded fittings	
-06B	Biology lab	↓	
-06C	Women's Locker Room	↓	
721 JH-07A	Janitor's closet 1st Floor B wing	mudded fittings	
-07B	E-wing pipe tunnel	↓	
-07C	A-wing pipe tunnel	↓	
-07D	↓	↓	

Analysis Method:  PLM  Other \_\_\_\_\_ Turnaround Time 48 hr

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: \_\_\_\_\_. Please call the EnviroScience Laboratory at (860) 953-2700 if analyses will be late.

Fax Results To: EnviroScience Consultants, Inc. Laboratory at 413-647-0018

Special Instructions: Step @ 1st positive in each set

Samples Collected By: JH Date: 7/21/09 Time: AM

Samples [Rec'd][Sent By]: JH Date: 7/21/09 Time: PM

Samples Received By: Kex Date: 7/24 Time: 9:52 am

Shipped To:  EMSL (State)  Other \_\_\_\_\_

Method of Shipment:  Fed Ex  UPS Overnight  UPS Ground  Other \_\_\_\_\_



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**SAMPLE LOG FOR ASBESTOS BULKS**

Sheet 3 of 5

Project Name: Bourne Public Schools Project No. 20070914.AZF

Building: High School Project Manager: Bob May

Sample ID	Sample Location	Material	Result (%)
721JH-08A	Room Between Rooms 22C + 24C	Transite Fume Hood	
-08B	↓	↓	
-08C	↓	↓	
721JH-09A	Room 14C	1x1 Fissured Ceiling Tile	
-09B	C-wing Hall	↓	
-09C	C-wing men's Room	↓	
721JH-10A	A-wing Hall	1x1 pin hole ceiling tile	
-10B	B-wing Hall	↓	
-10C	Room 13B	↓	
721JH-11A	Cafe Hall	2x2 Fissured ceiling tile	
-11B	↓	↓	

Analysis Method:  PLM  Other \_\_\_\_\_ Turnaround Time 48 hr

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: \_\_\_\_\_. Please call the EnviroScience Laboratory at (860) 953-2700 if analyses will be late.

Fax Results To: EnviroScience Consultants, Inc. Laboratory at 413-647-0018

Special Instructions: Stop @ lit positive in each set

Samples Collected By: JH Date: 7/21/09 Time: AM

Samples [Rec'd][Sent By]: [ ] [ JH ] Date: [ ] [ 7/22/09 ] Time: [ ] [ PM ]

Samples Received By: Ⓟ Date: 7/24 Time: 9:52am

Shipped To:  EMSL (State) \_\_\_\_\_  Other \_\_\_\_\_

Method of Shipment:  Fed Ex  UPS Overnight  UPS Ground  Other \_\_\_\_\_





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09 JUL 24 AM 9:52  
SAMPLE LOG FOR ASBESTOS BULKS

Sheet 4 of 5

Project Name: Bourne Public Schools Project No. 20070914.A2F2

Building: High School Project Manager: Bob Mny

Sample ID	Sample Location	Material	Result (%)
-11C	A-wing Hall	↓	
7215H-12A	Main Lobby	2x4 fissured ceiling tile	
-12B	main OFF:ce	↓	
-12C	Room 14A	↓	
7215H-13A	2nd Floor D-wing Hall	Brown w/ Brown white speckles	
-13B	1st Floor D-wing custodian closet	12x12 Floor Tile	
-13C	Lobby Hall	↓	
7215H-14A	Room 13A	white w/ grey tan speckles	
-14B	Math Department OFF:ce	12x12 Floor tile	
-14C	main OFF:ce	↓	
7215H-15A	Room 14A	white w/ Tan speckles 12x12 Floor tile	

Analysis Method:  PLM  Other \_\_\_\_\_ Turnaround Time 46 hr

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: \_\_\_\_\_. Please call the EnviroScience Laboratory at (860) 953-2700 if analyses will be late.

Fax Results To: EnviroScience Consultants, Inc. Laboratory at 413-647-0018

Special Instructions: Step @ 1st positive in each set

Samples Collected By: JH Date: 7/21/09 Time: AM

Samples [Rec'd][Sent By]: [ JH ] Date: [ 7/22/09 ] Time: [ PM ]

Samples Received By: D Date: 7/24 Time: 9:52 AM

Shipped To:  EMSL (State)  Other \_\_\_\_\_

Method of Shipment:  Fed Ex  UPS Overnight  UPS Ground  Other \_\_\_\_\_



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09 JUL 21 AM 9:52  
SAMPLE LOG FOR ASBESTOS BULKS

Sheet 5 of 5

Project Name: Bourne Public Schools Project No. 20070914.A2B

Building: High School Project Manager: Bob May

Sample ID	Sample Location	Material	Result (%)
-15B	↓	↓	
7215H-16A	Language Arts Department Office	grey w/ white speckles 12x12 Floor Tile	
-16B	Room 20D	↓	
7215H-17A	Room 26D	Tan w/ Brown white speckles 12x12 Floor Tile	
-17B	↓	↓	
7215H-18A	Lobby Hall	Black mastic A/w Brown w/ Brown & white speckles 12x12 Floor Tile	
-18B	1 <sup>st</sup> Floor Hall	↓	
-18C	2nd Floor D-wing Hall	↓	
-18D	Math Department Office	Black mastic A/w white w/ grey & Tan speckles 12x12 Floor tile	

Analysis Method:  PLM  Other \_\_\_\_\_ Turnaround Time 46 hr

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: \_\_\_\_\_. Please call the EnviroScience Laboratory at (860) 953-2700 if analyses will be late.

Fax Results To: EnviroScience Consultants, Inc. Laboratory at 413-647-0018

Special Instructions: Stop @ 1st positive in each set

Samples Collected By: JH Date: 7/21/09 Time: AM

Samples [Rec'd][Sent By]: [ ] [ JH ] Date: [ ] [ 7/22/09 ] Time: [ ] [ 11 AM ]

Samples Received By: @ Date: 7/24 Time: 9:57A

Shipped To:  EMSL (State)  Other \_\_\_\_\_

Method of Shipment:  Fed Ex  UPS Overnight  UPS Ground  Other \_\_\_\_\_

## **Appendix E**

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### Newly Installed Materials Safety Data Sheets

**To be Provided by LEA**

## Appendix G

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### Sample 6-Month Periodic Surveillance Form

### Sample 6- Month Periodic Surveillance Form

Local Education Agency (LEA): Bourne Public Schools

Facility Name: Bourne 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
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	A-Wing, B-Wing, & C-Wing Pipe Tunnels	G				
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	Graphic Arts Room (near AHU in back), Chemical Storage in Graphic Arts Room, Art Room (at AHU above Kiln & in Closet by Classroom Door), Basement Electrical Vault, Basement Storage Room across from Art Room, Materials Storage Room across from Basement Exit, & Basement Janitor's Closet (with slop sink)	G				2 EA @ Graphic Arts AHU 8 EA @ Chemical Storage 2 EA @ Art Room Kiln/AHU 4 EA @ Art Room Closet 2 EA @ Electrical Vault 4 EA @ Materials Storage 3 EA @ Janitor's Closet
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	Room 17C	D			1 EA	1 out of 10 fittings damaged
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	Kitchen Storage (near AHU), Gymnasium, Duct Vault across from Gymnasium, Men's Bathroom Closet across from Cafeteria, & Girl's Locker Room Storage Closet	G				4 EA @ Kitchen Storage 5 EA @ Gymnasium 3 EA @ Duct Vault 8 EA @ Men's Bathroom 5 EA @ Girl's Storage
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	Janitor's Closet in Boy's Bathroom across from Classroom 14C	G				2 EA

Asbestos-Containing Building Material	Location	Previous Condition	Present Condition	Change in Condition (Yes/No)	Estimated Damaged Quantity	Comments
White Mudded Pipe-Fitting Insulation (associated with fiberglass pipe insulation)	Concealed above Splined Ceilings in A, B, & C-Wings	G				
Gray Roof Drain Mudded-Fitting Insulation	2 <sup>nd</sup> Floor Custodian's Closet (across from elevator)	D			1 EA	1 out of 2 fittings damaged
Gray Fiber-Reinforced Cement Exhaust Duct	Classrooms 22C & 24C	G				
Gray Fiber-Reinforced Cement Exhaust Duct	Concealed within Laboratory Benches in Classrooms 22C & 24C	G				
Gray Fiber-Reinforced Cement Fume Hood	Storage Room between Classrooms 22A & 24A	G				2 EA
Gray Fiber-Reinforced Cement Panel	Above Splined Ceilings at Fire Doors in Hallways	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**

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### Preventive Measures

## 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 ACM 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**

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### 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**  
**LUIZ C. DIAS, JR.**  
Eff. Date 01/14/20  
Exp. Date 01/24/21  
**AI900440**  
Member of C.O.N.E.S.  
BOSR BOS-RENEW

**21**





*This is to certify that*

**Lou C. Dias Jr.**

*has completed 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

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

October 5, 2020

Course Dates

October 05, 2020

Examination Date

20-2976-106-207949

Certificate Number

October 05, 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

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 by Video Conference, and has passed an examination for reaccreditation*

## Asbestos Management Planner Refresher

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

Course Location

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

December 17, 2020

Course Dates

20-2993-136-208040

Certificate Number

December 17, 2020

Examination Date

December 17, 2021

Expiration Date

Training Director

16 Upton Drive, Wilmington, MA 01887

Telephone 978.658.5272

www.ieetrains.com

**INSTITUTE FOR ENVIRONMENTAL EDUCATION**