

**THE SCHOOL DISTRICT OF PHILADELPHIA
SCHOOL REFORM COMMISSION
Department of Design and Construction Services
440 North Broad Street
Philadelphia, 19130**

**DESIGN AND CONSTRUCTION SERVICES
TELEPHONE: (215) 400-4730**

Addendum No. 1

SUBJECT: Asbestos Abatement in 2nd and 3rd Floor Classroom Pods and Stairways at Motivation High School located at 5900 Baltimore Avenue Philadelphia, Pennsylvania 19143.

REFERENCE: Bid Proposal SDP Contract No. B-022C of 2017-2018

This Addendum No. 1, dated March 07, 2018 shall modify and become part of the proposed Contract Documents of the work of this project. Any items not mentioned herein, or affected by, shall be performed strictly in accordance with the original documents.

This *Synertech Incorporated* Addendum No. 1 is intended to address revisions to the Asbestos Abatement Technical Specification and Scope of Work Document:

I. REVISED SPECIFICATION FOR THE ASBESTOS ABATEMENT

All bidders shall **delete** from this project any and all reference to the Specification for Asbestos Abatement prepared by Synertech, Inc. dated December 23, 2017 that were included in the B-022C of 2017-2018 bid documents.

All bidders shall **add** to this project any and all reference to the Specification for Asbestos Abatement prepared by Synertech, Inc. dated January 8, 2018. ***This document is included as part of Addendum No. 1.***

The following notable revisions have been made to the original Asbestos Abatement Technical Specification and Scope of Work Document:

1. Sections 1.06 and 1.07 have been revised:

1.06 The Work Scope Summarization (*Section 1.07*) beginning on the following page consists of the following tasks in the On-Site Room Names listed:

- a. relocation of movable items;
- b. temporary removal of lighting;
- c. removal of asbestos containing textured ceiling paint under asbestos-abatement conditions;
- d. repainting of the ceiling surfaces in which textured ceiling paint was removed;
- e. reinstallation of light fixtures;
- f. moving of all furniture and educational materials back to their original locations.

2. Section 3.01 has been revised:

- 3.01** All work and disposal shall be performed in compliance with all applicable Federal, State, and local regulations including, but not limited to:
- a. 29 CFR 1926.1101 (OSHA);
 - b. 29 CFR 1926.501 (OSHA);
 - c. 40 CFR Part 61 (NESHAP);
 - d. 40 CFR Part 763 (AHERA);
 - e. 40 CFR 761 (PCB Regulations);
 - f. Resource Conservation and Recovery Act (RCRA);
 - g. 40 CFR 300-399, EPA Comprehensive Environmental Response Compensation & Liability Act
 - h. 40 CFR 745, EPA Toxic Substances Control Act; LBP Poisoning Prevention
 - i. EPA Renovation, Repair, and Painting (RRP) rule under the Toxic Substances Control Act
 - j. 49 CFR 171-180, DOT Hazardous Material Regulations
 - k. 42 CFR Part 84 & 30 CFR Part 11 (NIOSH/DHHS respirator standards);
 - l. the Asbestos Control Regulation (Philadelphia Department of Public Health);
 - m. Act 194 & Act 161 (Pennsylvania Department of Labor and Industry);
 - n. Section F-315.8 (R) of the Philadelphia Fire Prevention Code;
 - o. NADCA ACR 2006 (HVAC System cleaning standards);
 - p. this Specification.

3. Section 6.04 has been revised:

- 6.04** The Owner shall be responsible to remove all computers, monitors, printers, all other computer related components and/or items deemed too valuable or sensitive to be handled by the AAC in all scheduled abatement work areas listed.

4. Section 7.02 has been revised:

- 7.02** The AAC shall provide a schedule for all work areas listed with all abatement and repainting work completed within the required eight (8) week time period. Project phasing, start and completion dates are subject to change at the discretion of the Owner.

5. Section 7.03 has been revised:

- 7.03** The AAC shall provide all labor, tools, materials and scaffold necessary to complete the project safely, in a timely fashion, and in accordance with the specification and all applicable regulations.
- a. All tools, ladders, equipment, etc. shall arrive at the project site in good condition and free of any visual residual asbestos contamination.

6. Section 7.04 has been revised:

- 7.04** The AAC shall be responsible for the removal of all furniture and educational materials in all scheduled abatement work areas listed.

- a. All movable items remaining in the scheduled work areas at the time of the mobilization shall be removed by the AAC. All furniture and educational materials shall be labeled with the Room Numbers or Areas in which they originated from prior to relocation.
 - 1. The AAC shall coordinate with the Owner to establish temporary storage locations for movable items removed from the abatement work areas.
 - 2. The Owner shall be responsible to remove all computers, monitors, printers, all other computer related components and/or items deemed too valuable or sensitive to be handled by the AAC.
- b. Returning items back to the work area rooms shall be the responsibility of the AAC.

7. Section 7.13 has been revised:

7.13 As required by the Asbestos Control Regulation, the AAC shall provide a minimum 18” square transparent viewing window consisting of shatterproof material greater than or equal to 1/8” in thickness located at a height appropriate for accessible viewing and in such a manner as to maximize visibility of the abatement work area.

8. Section 15.10 has been revised:

15.10 Using wet-wipe and HEPA-vacuum techniques, pre-clean all movable objects and relocate to a site outside the work area. All fixed, unmovable objects shall be pre-cleaned and sealed with one (1) layer of six-mil polyethylene sheeting.

- a. Remove all items (furniture, tools, supplies, equipment, etc.) after properly pre-cleaning these items.
- b. All furniture and educational materials shall be labeled with the Room Numbers or Areas in which they originated from prior to relocation.
 - 1. The AAC shall coordinate with the Owner to establish temporary storage locations for movable items removed from the abatement work areas.

9. Section 15.18 has been revised:

15.18

- a. Removal of the asbestos containing textured ceiling paint shall be initiated only after the material has been treated with a solution of water and wetting agent. This wetting shall be repeated at such intervals as to prevent the asbestos from drying out. Removal shall be performed in a manner, which minimizes the release of asbestos fibers.
 - 1. No standing water shall be tolerated inside of the work area. Standing water would have the potential of leaking to spaces below the work area. The AAC shall designate a worker to constantly monitor the work area and vacuum or mop up any standing water resulting from the pre-wetting or air misting procedures.
 - 2. All wastewater generated in the decontamination chamber shower shall be retrieved and added to packaged asbestos waste materials or pumped through a five (5) micron filter element prior to discharging it to the sanitary sewer or floor drains.
 - 3. All wastewater generated in the abatement work area shall be retrieved and added to packaged asbestos waste materials and/or placed in plastic lined leak-tight drums for disposal in accordance with VI.C.7 of the Asbestos Control Regulation.

10. Section 19.01 has been revised:

19.01 After achieving acceptable air sample clearance and dismantling the work area, the AAC shall be released after the following items are completed:

- a.** Removal of all temporary signs, labels, tape and glue/tape adhesive residue.
- b.** Removal of all temporary devices, facilities, and equipment.
- c.** Cleaning the project site and storage areas of trash, etc.
- d.** Replacement/repair of any damage.
- e.** SDP deems the repair work is acceptable.
- f.** SDP deems caulking and repainting is acceptable.
- g.** Moving of all furniture and educational materials back to their original locations.
- h.** Removal of all waste containers (asbestos, scrap, and construction debris) from site and proper disposal of waste.

Attached is corrected MBE/WBE Participation Form

End of Addendum 001

SCHOOL DISTRICT OF PHILADELPHIA
OFFICE OF PROCUREMENT SERVICES

MINORITY/WOMAN-OWNED BUSINESS ENTERPRISE (MWBE) PARTICIPATION PLAN FORM

I. Information in this section refers to the Prime Contractor/Vendor.

Company Name _____ Contact Person: _____
Address: _____ Phone: _____
City: _____ State: _____ Zip: _____
Fax: _____ E-mail: _____
Owner: ___ African-American, ___ Hispanic, ___ Asian, ___ Native American, ___ Woman, ___ Non-Profit, ___ Caucasian, ___ Other
Federal Tax ID _____ Certifying Agency: _____ Certification No.: _____
Bid Number or Subject of Resolution: _____

II. Information in this section refers to MWBE firms to be used in the performance of this contract.

Company Name: _____ Owner: _____
Address: _____ Phone: _____
City: _____ State: _____ Zip: _____
Fax: _____ E-mail: _____
Owner: ___ African-American, ___ Hispanic, ___ Asian, ___ Native American, ___ Woman, ___ Non-Profit, ___ Caucasian, ___ Other
Federal Tax ID _____ Certifying Agency: _____ Certification No.: _____
Description of Work: _____
Dollar Value \$ _____ Percentage of Total Contract _____
Vendor Signature _____

If no commitment, give reasons and supporting documentation (e.g., evidence of contacting MWBEs).

I certify that the information provided is true and correct _____ Date: _____
Authorized Representative

SPECIFICATION
for the
REMOVAL OF ASBESTOS CONTAINING TEXTURED CEILING PAINT
and
REPAINTING
at the
MOTIVATION HIGH SCHOOL/KIPP WEST PHILADELPHIA
5900 Baltimore Avenue
Philadelphia, Pennsylvania 19143

prepared for:

THE SCHOOL DISTRICT OF PHILADELPHIA
OFFICE OF ENVIRONMENTAL MANAGEMENT
440 North Broad Street
3rd Floor, Room 3053
Philadelphia, Pennsylvania 19130

prepared by:

SYNERTECH INCORPORATED
228 Moore Street
Philadelphia, Pennsylvania 19148
Project # 010-4272

January 8, 2018



Bernard J. Bryson
Certified Pennsylvania Asbestos Project Designer
No. 037636

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1.00 INTRODUCTION

- .01** This specification outlines the required tasks and procedures involved in the removal of asbestos containing textured ceiling paint and repainting of ceilings in Stairwells, Pod Classrooms, and Hallways outside of the Pod Classrooms at the Motivation High School/KIPP West Philadelphia school building. Asbestos containing material (ACM) removal and associated decontamination cleaning procedures shall be accomplished under asbestos-abatement conditions.
- .02** **The Asbestos Abatement Contractor (AAC) must demonstrate they have the necessary personnel, equipment, materials, and experience to complete a project of this nature in the required eight (8) week time period.**
- a.** The AAC shall submit a work plan to the School District of Philadelphia Office of Environmental Services (OEMS) ten (10) days prior to beginning the project. The work plan shall include a schedule for all work areas listed in *Section 1.07*. The schedule shall be approved by OEMS and the Asbestos Project Designer prior to the commencement of work. The schedule shall include dates and timelines for the completion of all work areas listed in addition to proposed crew sizes. Refer to *Section 18.00 - Work Scope Progress Schedule Template*.
- b.** The AAC shall be a current pre-qualified contractor by the School District of Philadelphia and must demonstrate they have the necessary personnel, equipment, materials, and experience to complete a project of this nature in the required time period.
- .03** Asbestos containing textured ceiling paint is applied to concrete ceilings in all Pod Classrooms and Stairwells listed in this Specification. Hallways outside of the Classroom Pods on the 2nd and 3rd floors have both concrete ceilings and suspended plaster ceilings/soffits.
- a.** Care shall be taken not to gouge the concrete ceilings in all Pod Classrooms & Stairwells and plaster ceilings/soffits in hallways outside of the Classroom Pods on the 2nd and 3rd floors during the removal of textured ceiling paint.
- b.** Damage to the concrete and/or plaster ceilings shall be repaired by the AAC prior to repainting.
- .04** The AAC shall be responsible for the disassembly, removal and cleaning of surface-mounted, pendant and recessed light fixtures in all locations of asbestos-containing textured ceiling paint removal. This includes the removal of the entire light fixture assembly (bulbs, ballasts, housing, mechanical fasteners). The AAC shall remove light fixtures in a manner that allows re-use of the conduit in place. Twist-on wire connectors shall be applied to the individual wires after disassembly. The wires shall be covered/sealed according to 'fixed object' protocols.
- a.** Light fixtures scheduled to be temporarily removed shall first be de-energized by the AAC.
- .05** The AAC must utilize a licensed electrician to provide a separate temporary electric panel, receptacles, and lights, all with ground fault interruption and current-overload protection.

.06 The Work Scope Summarization (*Section 1.07*) beginning on the following page consists of the following tasks in the On Site Room Names listed:

- a.** relocation of movable items;
- b.** temporary removal of lighting;
- c.** removal of asbestos containing textured ceiling paint under asbestos-abatement conditions;
- d.** repainting of the ceiling surfaces in which textured ceiling paint was removed;
- e.** reinstallation of light fixtures;
- f.** moving of all furniture and educational materials back to their original locations.

		School District of Philadelphia		Survey Type					
		Section 1.07		6 Month Surveillance					
		Motivation High School/KIPP West Philadelphia		Three- Year Re Inspection IX					
		Preparatory Charter School @ Turner (1160)		X AIR/EIE					
		5900 Baltimore Avenue, Philadelphia, PA 19143		Asbestos Abatement Activity					
		Prepared by: Bernard J. Bryson (010-4272)		Bulk Sampling Event					
		Certification # 0437 Date: 1/08/2018							
		Work Scope Summarization							
<i>F l o o r</i>	<i>Space #</i>	<i>On Site Room Name</i>	<i>Material Description</i>	<i>Confirmed/Assumed/ NAD Non Suspect ACM</i>	<i>Type (Code 1)</i>	<i>Amount of Material</i>	<i>SF LF EA</i>	<i>Action (Code 3)</i>	<i>Comments/Description/Notes</i>
1	S18	Stairwell # 2 beside Classroom 103	Textured Ceiling Paint	Confirmed	FRI	400	SF	See Section 1.06	
1	S17	Stairwell # 3 beside Kitchen	Textured Ceiling Paint	Confirmed	FRI	170	SF	See Section 1.06	
1	S19	Stairwell # 1 beside Main Lobby and Administration Suite	Textured Ceiling Paint	Confirmed	FRI	400	SF	See Section 1.06	
1	S14	Stairwell # 4 beside KIPP Music Studio	Textured Ceiling Paint	Confirmed	FRI	170	SF	See Section 1.06	
2	201	Classroom 201	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	202	Classroom 202	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	203	Classroom 203	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	204	Classroom 204	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	205	Classroom 205	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	201A	Hallway outside of Classrooms 202 - 205	Textured Ceiling Paint	Confirmed	FRI	610	SF	See Section 1.06	
2	S28	Stairwell # 2 beside Suite 206	Textured Ceiling Paint	Confirmed	FRI	170	SF	See Section 1.06	
2	207	Classroom 207	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	208	Classroom 208	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	209	Classroom 209	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	210	Classroom 210	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	211	Classroom 211	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	207A	Hallway outside of Classrooms 208 - 211	Textured Ceiling Paint	Confirmed	FRI	610	SF	See Section 1.06	
2	S27	Stairwell # 3 beside Computer Lab 212	Textured Ceiling Paint	Confirmed	FRI	170	SF	See Section 1.06	
2	213	Classroom 213	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	214	Classroom 214	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	215	Classroom 215	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Window Valances may extend up to Textured Ceiling Paint. Wood Wall Cabinets and Plaster/Sheetrock Soffits have been removed. Textured Ceiling Paint is present behind.

		School District of Philadelphia		Survey Type					
		Section 1.07		6 Month Surveillance					
		Motivation High School/KIPP West Philadelphia		Three- Year Re Inspection IX					
		Preparatory Charter School @ Turner (1160)		X AIR/EIE					
		5900 Baltimore Avenue, Philadelphia, PA 19143		Asbestos Abatement Activity					
		Prepared by: Bernard J. Bryson (010-4272)		Bulk Sampling Event					
		Certification # 0437 Date: 1/08/2018							
		Work Scope Summarization							
F l o o r	Space #	On Site Room Name	Material Description	Confirmed/Assumed/ NAD Non Suspect ACM	Type (Code 1)	Amount of Material	SF LF EA	Action (Code 3)	Comments/Description/Notes
	2	216	Classroom 216	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06
2	217	Classroom 217	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	213A	Hallway outside of Classrooms 214 - 217	Textured Ceiling Paint	Confirmed	FRI	610	SF	See Section 1.06	
2	S24	Stairwell # 4 beside Suite 218	Textured Ceiling Paint	Confirmed	FRI	170	SF	See Section 1.06	
2	219	Classroom 219	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	220	Classroom 220	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	221	Classroom 221	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	222	Classroom 222	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	223	Classroom 223	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
2	221A	Hallway outside of Classrooms 220 - 223	Textured Ceiling Paint	Confirmed	FRI	610	SF	See Section 1.06	
2	S29	Stairwell # 1 beside Multipurpose Classroom 200	Textured Ceiling Paint	Confirmed	FRI	170	SF	See Section 1.06	
3	301	Classroom 301	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	302	Classroom 302	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	303	Computer Lab 303	Textured Ceiling Paint	Confirmed	FRI	1640	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	305	Classroom 305	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	302A	Hallway outside of Classrooms 302 - 305	Textured Ceiling Paint	Confirmed	FRI	610	SF	See Section 1.06	
3	S38	Stairwell # 2 beside Suite 306	Textured Ceiling Paint	Confirmed	FRI	300	SF	See Section 1.06	
3	307	Classroom 307	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	308	Classroom 308	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	309	Classroom 309	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	310	Classroom 310	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint

		School District of Philadelphia		Survey Type					
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		Certification # 0437 Date: 1/08/2018							
Work Scope Summarization									
F l o o r	Space #	On Site Room Name	Material Description	Confirmed/Assumed/ NAD Non Suspect ACM	Type (Code 1)	Amount of Material	SF LF EA	Action (Code 3)	Comments/Description/Notes
3	311	Classroom 311	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	307A	Hallway outside of Classrooms 308 - 311	Textured Ceiling Paint	Confirmed	FRI	610	SF	See Section 1.06	
3	S37	Stairwell # 3 beside Classroom 312	Textured Ceiling Paint	Confirmed	FRI	300	SF	See Section 1.06	Cyclone Fence Extends up to Textured Ceiling Paint
3	313	Classroom 313	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	314	Classroom 314	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	315	Classroom 315	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Window Valances may extend up to Textured Ceiling Paint. Wood Wall Cabinets and Plaster/Sheetrock Soffits have been removed. Textured Ceiling Paint is present behind.
3	316	Classroom 316	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	317	Classroom 317	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	317A	Hallway outside of Classrooms 314 - 317	Textured Ceiling Paint	Confirmed	FRI	610	SF	See Section 1.06	
3	H34	Stairwell # 4 beside Suite 318	Textured Ceiling Paint	Confirmed	FRI	300	SF	See Section 1.06	
3	319	Classroom 319	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	320	Classroom 320	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	321	Classroom 321	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	322	Classroom 322	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	323	Classroom 323	Textured Ceiling Paint	Confirmed	FRI	820	SF	See Section 1.06	Wood Wall Cabinets, Plaster/Sheetrock Soffits and Window Valances extend up to Textured Ceiling Paint
3	319A	Hallway outside of Classrooms 320 - 323	Textured Ceiling Paint	Confirmed	FRI	610	SF	See Section 1.06	
3	S39	Stairwell # 1 beside Multipurpose Classroom 324	Textured Ceiling Paint	Confirmed	FRI	300	SF	See Section 1.06	

- .08 Stated quantities are approximate. By submitting a bid, the AAC signifies they have visited the site, examined conditions that may affect the work, verified quantities of materials, and is informed as to the extent and character of the project. Any discrepancies from stated footages **shall not** be cause for a contract cost adjustment.

- .09 The AAC shall furnish all labor, materials, employee training, services, permits, fees, insurance and equipment necessary to carry out the asbestos removal, decontamination operations and disposal in accordance with EPA, OSHA, and all other applicable Federal, State, and local government regulations, and this Specification.

2.00 GENERAL ABATEMENT PROJECT CONDITIONS

- .01** The asbestos abatement work areas listed in *Section 1.07* are Major Projects as defined by the Philadelphia Asbestos Control Regulation (ACR) and shall comply with all requirements therein.
- a.** The AAC shall have a PA licensed Supervisor on site at all times during asbestos abatement activities. The AAC shall not perform any abatement activities, including prep, bag-out, and teardown unless a City of Philadelphia certified API is on site.
 - b.** The AAC shall provide a schedule for all work areas listed. The schedule shall be approved by the Owner and API prior to the commencement of work. The schedule shall include dates and timelines for the completion of all work areas listed in addition to proposed crew sizes. Refer to *Section 18.00 - Work Scope Progress Schedule Template*.
- .02** If the AAC seeks a change in the procedures and/or methods for accomplishing a certain asbestos abatement task, the AAC may submit a written request to the Asbestos Project Designer for an alternative method, identifying the procedure for which an alternative is being sought, and the reason for seeking a change. The Asbestos Project Designer shall review the request along with the Owner and render a decision within twenty-four (24) hours of receipt of the written request.
- .03** The Owner, API, and AAC shall conduct an inspection for existing damages prior to the commencement of work. All parties shall agree in writing on building conditions and list all damaged materials, furnishings, etc.
- .04** AAC access shall be confined to the work areas indicated in this Contract. The Contract may be proceeding concurrently with others in the building. The AAC shall cooperate fully with the other Contractors in expediting the work of all trades, and avoid damage to the work of the other Contractors.
- .05** The AAC shall be served with a Stop Work Order by the Project Designer and/or API when they are in non-compliance with this Contract Specification and/or other pertinent regulations (Refer to *Section 3.01.a-p*).
- a.** The project shall remain halted until all matters identified in the Stop Work Order are corrected.

- .06** If it is determined that airborne asbestos contamination has occurred "outside the work area" adjacent to an active asbestos abatement work area, the AAC shall contain and clean the affected premises under the direction of the API at no additional cost to the Owner. Causes for "outside the work area" airborne asbestos contamination include, but are not limited to:
- a.** The loss of a negative pressure differential inside any active asbestos abatement work area;
 - b.** A breach of containment into any active asbestos abatement work area;
 - c.** Improper maintenance of AFDs/HEPA vacuums (Refer to *Section 14.07.a-c.1-2*)
 - d.** Improper worker decontamination procedures;
 - e.** Negligence of the AAC;
 - f.** Any other poor work practices of the AAC.
- .07** The Owner reserves the right to require asbestos abatement and associated work is performed at times when the building is unoccupied.

3.00 QUALITY ASSURANCE

- .01** All work and disposal shall be performed in compliance with all applicable Federal, State, and local regulations including, but not limited to:
- a.** 29 CFR 1926.1101 (OSHA);
 - b.** 29 CFR 1926.501 (OSHA);
 - c.** 40 CFR Part 61 (NESHAP);
 - d.** 40 CFR Part 763 (AHERA);
 - e.** 40 CFR 761 (PCB Regulations);
 - f.** Resource Conservation and Recovery Act (RCRA);
 - g.** 40 CFR 300-399, EPA Comprehensive Environmental Response Compensation & Liability Act
 - h.** 40 CFR 745, EPA Toxic Substances Control Act; LBP Poisoning Prevention
 - i.** EPA Renovation, Repair, and Painting (RRP) rule under the Toxic Substances Control Act
 - j.** 49 CFR 171-180, DOT Hazardous Material Regulations
 - k.** 42 CFR Part 84 & 30 CFR Part 11 (NIOSH/DHHS respirator standards);
 - l.** the Asbestos Control Regulation (Philadelphia Department of Public Health);
 - m.** Act 194 & Act 161 (Pennsylvania Department of Labor and Industry);
 - n.** Section F-315.8 (R) of the Philadelphia Fire Prevention Code;
 - o.** NADCA ACR 2006 (HVAC System cleaning standards);
 - p.** this Specification.
- .02** The AAC has the responsibility of informing themselves fully of the requirements of these agencies and shall satisfy completely this Specification and all referenced regulations. All other applicable federal state and local regulations are incorporated by reference.
- .03** The AAC must be a City of Philadelphia Licensed Asbestos Abatement Contractor as well as a Pennsylvania Licensed Asbestos Contractor and employ asbestos workers certified to work in the state of Pennsylvania.
- .04** The Philadelphia Federation of Teacher's (PFT) Environmental Consultant shall have the option to conduct side by side final clearance air samples within 24 hours of notice of work area completion with the API. Samples will be collected, analyzed, and addressed, in accordance with all applicable, Federal, State, and local regulations.
- a.** For Major Projects, samples shall be collected and analyzed via TEM. Results shall be evaluated in accordance with the ACR and AHERA.
 - b.** Acceptable airborne fiber concentrations for individual "outside the work area" air samples shall be < 0.010 f/cc for PCM and < 0.010 s/cc for TEM.

4.00 NOTIFICATIONS

- .01** The AAC shall notify all applicable agencies including the EPA, DEP, and Philadelphia Air Management Services, using the appropriate form(s), ten (10) days prior to the commencement of asbestos abatement projects.
- .02** The AAC shall submit written notification of the asbestos abatement project schedule to the local police and fire departments ten (10) days prior to beginning the project.
- .03** The Owner shall provide a minimum of ten (10) calendar days advance notification of intended asbestos abatement to all occupants. This notice shall conform to the Philadelphia ACR, *Section VI.B.2* and shall remain posted until the re-occupancy standard is met.

5.00 MANDATORY MEETINGS/SUBMITTALS

- .01 Pre-construction meeting** - The AAC shall attend a pre-construction meeting scheduled by the Owner. The AAC shall submit to the Owner the following, if not already submitted:
- a. Copies of required notifications, insurance, and bonds.
 - b. Progress schedule
 - 1. The AAC shall provide a schedule for all work areas listed with all abatement and repainting work completed within the required eight (8) week time period. The schedule shall be approved by the Owner and API prior to the commencement of work. The schedule shall include the number of active abatement work areas at any given time, proposed crew sizes, and waiting periods following the delivery of the work area to the API for final visual inspections and clearance testing.
 - c. Work plan delineating phasing and preparation of the work site, including intended locations of water and electrical sources, and the intended storage locations for furniture and ceiling mounted light fixtures and other ceiling mounted items. Description of decontamination sequence, removal methods to be used and waste handling.
 - d. Supervisor credentials and delineation of responsibility for work site supervision, including name, telephone number and pager number for both the project manager and the on-site supervisor.
 - e. Worker qualifications, current licenses, fit tests, and medicals. These may be submitted as the crew is selected or changed, however, no workers will be permitted to remain on site without submission and approval of qualifications.
 - f. Material Safety Data Sheets (MSDS) for the materials to be used on the job:
 - 1. Asbestos abatement encapsulant (only encapsulants approved by the Department of Public Health may be used);
 - 2. Heavy-duty polyethylene tape used for sealing fixed objects, the construction of critical barriers, decontamination chambers and floor/wall containments;
 - 3. Paintable caulk and expansion foam intended to be used between building materials that butt against the existing concrete ceiling;
 - 4. Paint to be used for repainting subsequent to asbestos abatement and encapsulation.
 - g. Name of Waste Hauler(s) and disposal site with EPA/DEP identification numbers;
 - h. Name of the firm or competent person performing the AACs OSHA required personnel monitoring and the laboratories PAT Certification and Philadelphia Laboratory Certification;
 - i. A detailed *written* description of emergency procedures to be followed in the event of injury or fire. This submittal must include execution procedures, source of emergency assistance (including telephone numbers), and access procedures to be used by emergency personnel.
- .02 Progress meetings** - Meetings shall be held at the job site at the discretion of the Owner/API to discuss the progress of the work, phasing and other Contractor coordination, work schedule, and any conflicts or problems. The representative of the AAC must have authorization to speak for and make commitments for the AAC.

6.00 OWNER'S RESPONSIBILITIES

- .01** The Owner shall employ the services of an Independent Asbestos Project Inspector (API) who is licensed by the City of Philadelphia to perform asbestos project inspection as defined by the Asbestos Control Regulation (ACR).
- .02** The Owner shall ensure the work areas will be unoccupied prior to abatement activity commencing.
- .03** The Owner shall make water and electricity available at the site at no cost to the AAC. The Owner shall notify the AAC of scheduled system shut downs to ensure no interruptions to the project's engineering controls.
- .04** The Owner shall be responsible to remove all computers, monitors, printers, all other computer related components and/or items deemed too valuable or sensitive to be handled by the AAC in all scheduled abatement work areas listed.

7.00 ASBESTOS ABATEMENT CONTRACTOR'S (AAC) RESPONSIBILITIES

- .01** The AAC is responsible for visiting the site and verifying quantities of asbestos containing textured ceiling paint, repainting, locations of utilities, and waste out routes *prior to* submitting a bid.
- a.** No work shall be performed if the AAC believes the work to be performed is a change and/or addition to the work scope outlined in these construction documents without first obtaining a Notice To Proceed (NTP) from the Owner.
 - 1.** The Owner shall not be responsible for compensating the AAC for work performed that is considered a change and/or addition to the construction documents without the issuance of a NTP and/or a written work directive.
- .02** The AAC shall provide a schedule for all work areas listed with all abatement and repainting work completed within the required eight (8) week time period. Project phasing, start and completion dates are subject to change at the discretion of the Owner.
- .03** The AAC shall provide all labor, tools, materials and scaffold necessary to complete the project safely, in a timely fashion, and in accordance with the specification and all applicable regulations.
- a.** All tools, ladders, equipment, etc. shall arrive at the project site in good condition and free of any visual residual asbestos contamination.
- .04** The AAC shall be responsible for the removal of all furniture and educational materials in all scheduled abatement work areas listed.
- a.** All movable items remaining in the scheduled work areas at the time of the mobilization shall be removed by the AAC. All furniture and educational materials shall be labeled with the Room Numbers or Areas in which they originated from prior to relocation.
 - 1.** The AAC shall coordinate with the Owner to establish temporary storage locations for movable items removed from the abatement work areas.
 - 2.** The Owner shall be responsible to remove all computers, monitors, printers, all other computer related components and/or items deemed too valuable or sensitive to be handled by the AAC.
 - b.** Returning items back to the work area rooms shall be the responsibility of the AAC.
- .05** The AAC shall supply, at their own expense, all construction materials, supplies, and all electrical, water, and waste connections, tie-ins, or extensions. Temporary service lines shall be installed to prevent tripping, slipping or falling. The AAC must utilize a licensed electrician to provide a separate temporary electric panel, receptacles, and lights, all with ground fault interruption and current-overload protection. All temporary electrical set-ups shall be in accordance with OSHA regulation and NEMA standards.
- a.** The AAC shall utilize the licensed electrician to perform the connection of the AACs temporary electrical supply panel to the building Owners' electrical supply source.

1. The temporary electrical panel and the building's electrical supply source shall be enclosed, concealing all potential contact points in order to avoid electrocution hazard and potential arcing to nearby or passing conductor materials.
 2. Installation of the temporary electric panel shall occur within the ten (10) day waiting period prior to the start of this asbestos abatement project, after submission of the Asbestos Abatement Notification to the EPA, DEP, and Philadelphia Air Management Services.
 - b. All water connections utilized throughout the performance of this asbestos abatement project shall be disconnected at the source before leaving the site AFTER ALL shifts, and all hoses shall be drained to prevent unexpected water leaks after the AAC and API are offsite.
 - c. When temporary service lines are no longer required, they shall be removed by the AACs licensed electrician.
 - d. Any parts of the permanent service lines, grounds and buildings, disturbed or damaged by the installation and/or removal of the temporary service lines, shall be restored to their original condition by the AAC as approved by the Owner.
- .06** The AAC shall maintain current copies of certifications for workers on-site, and shall keep copies of all pertinent specifications and regulations on-site. The API retains the right to prohibit work by employees without current certifications.
- .07** The AAC shall maintain a detailed sign-in/sign-out log, which must be filled out by every person entering the work area. All entries shall be complete and legible.
- .08** The AAC shall be responsible for security of the work site, fire/smoke detection, and maintenance of existing utility systems as it relates to the performance of this project.
- .09** The AAC shall provide fire protection in accordance with all State and Local codes. This includes, but is not limited to:
- a. Providing a written fire prevention and emergency action plan.
 - b. Providing multi-purpose ABC rated fire extinguishers, insuring that on-site personnel are aware of the location and proper use of all fire extinguishers and other safety equipment.
 - c. Performing a fire watch of the overall work area.
 - d. Designating a safety coordinator to implement the above actions. The AACs safety coordinator shall be responsible for:
 1. Fire/life safety entries shall be entered into the AACs log daily and shall be submitted with the AAC's final report.
 2. Daily entries shall include names, dates, duration, problems & corrective actions taken by the fire watch - must be signed by the safety coordinator.
- .10** The AAC shall submit to the API the number of AFDs projected to obtain a negative pressure differential sufficient to provide a minimum of four (4) air changes of the work area per hour for all Major Projects along with the calculations used to determine this. The AAC shall install a manometer to confirm the differential, which should read minimum of -0.02 inches of water column.

- a.** Manometer(s) shall be installed by the AAC around the work area before the start of the performance of asbestos abatement activities until the receipt of acceptable clearance air sample results to record and verify adequate negative pressure differential is maintained throughout the project.

- .11** Assure protection of AFD exhaust ducts from damage during asbestos abatement activities.

- .12** The AAC Supervisor and API shall perform a visual inspection of the entire floor immediately below all active abatement work areas at the end of each 8 hour shift to verify that no water leaks, fallen material, or any other type of damage has occurred.
 - a.** If water leaks, fallen material, or any other type of damage has occurred:
 - 1.** all asbestos abatement work shall be halted;
 - 2.** the API shall immediately notify the Project Manager and Owner for direction and input;
 - 3.** the source of the leak or damage shall be determined;
 - 4.** the containment breach issue shall be rectified before any asbestos abatement work will be permitted to continue.

- .13** As required by the Asbestos Control Regulation, the AAC shall provide a minimum 18” square transparent viewing window consisting of shatterproof material greater than or equal to 1/8” in thickness located at a height appropriate for accessible viewing and in such a manner as to maximize visibility of the abatement work area.

8.00 ASBESTOS PROJECT INSPECTOR'S (API) RESPONSIBILITIES

- .01** The API shall act as the Owner's representative on the work site.
- .02** The API shall be responsible to see that required information and notifications are posted and are accessible for review by all concerned parties.
- .03** The API shall keep a daily log documenting the progress and performance of the AAC over the course of the project.
- .04** The API shall perform continuous inspections to monitor the performance of the AAC and to assure and document compliance with this Specification and applicable regulations. Inspections shall be performed during all phases of the project including verifying compliance with standard operating procedures, checking engineering controls, personal protection and decontamination systems, and handling and disposition of the resulting asbestos waste materials.
- .05** The API shall be responsible for performing all project sampling and analysis required by the Philadelphia ACR and AHERA.
 - a.** The API shall also perform representative personal air sampling on themselves during the project as defined within OSHA 1926.1101 and 1910.1001. Personal air samples shall be collected to establish a time weighted average (TWA) and a short term excursion limit (STEL). Such air samples shall be collected within the breathing zone and used to:
 - 1.** initially determine the level of respiratory protection;
 - 2.** subsequently to assure that such protections remain adequate throughout the project.
- .06** The API shall routinely perform smoke testing at all critical barriers throughout the performance of asbestos abatement activities until the receipt of acceptable clearance air sample results to verify the integrity of critical barriers and presence of an adequate negative pressure differential.
- .07** In addition to manometers required by the AAC, manometer(s) may be installed by the API around the work area before the start of the performance of asbestos abatement activities until the receipt of acceptable clearance air sample results to record and verify adequate negative pressure differential is maintained throughout the project.
- .08** The API shall notify the Owner and Air Management Services of the City of Philadelphia if the AAC is found to be in non-compliance with the technical specifications or those Municipal, State or Federal regulations applicable to this project.
 - a.** The API shall serve written notice to the AAC for all AAC non-compliance actions.

- .09** The AAC Supervisor and API shall perform a visual inspection of the entire floor immediately below all active abatement work areas at the end of each 8 hour shift to verify that no water leaks, fallen material, or any other type of damage has occurred.
- a.** If water leaks, fallen material, or any other type of damage has occurred:
- 1.** all asbestos abatement work shall be halted;
 - 2.** the API shall immediately notify the Project Manager and Owner for direction and input;
 - 3.** the source of the leak or damage shall be determined;
 - 4.** the containment breach issue shall be rectified before any asbestos abatement work will be permitted to continue.

9.00 AIR MONITORING BY THE OWNER

- .01 The Owner shall employ the services of an API who is in licensed by the City of Philadelphia to perform air monitoring and quality assurance of the AACs work practices.
- .02 The API shall collect pre-test and project air samples in accordance with the Philadelphia Asbestos Control Regulations and AHERA. Project air monitoring during abatement activities shall include samples inside and outside the work area to ensure airborne fiber concentrations remain at acceptable levels. Acceptable airborne fiber concentrations outside the work area shall be < 0.010 f/cc for PCM and < 0.010 s/cc for TEM. The API may also perform discretionary random personnel monitoring. Pre-test and project samples shall be analyzed via Phase Contrast Microscopy (PCM), NIOSH Method 7400.
 - a. Transmission Electron Microscopy (TEM) sampling may be performed in locations outside the containment work areas at the owner/consultants discretion throughout the abatement project. Results shall be evaluated in accordance with AHERA and/or the ACR.
- .03 The API shall provide clearance air sampling:
 - a. For Major Projects, five (5) clearance samples shall be collected and analyzed via TEM. Results shall be evaluated in accordance with the ACR.
 - b. For Minor Projects, five (5) clearance samples shall be collected and analyzed via Phase Contrast Microscopy (PCM). Results shall be evaluated in accordance with the ACR.
 - c. For Non-Friable Category II Projects, no clearance sampling shall be required following the completion of non-friable work provided that the adjacent clean area samples collected during the non-friable abatement < 0.010 f/cc via PCM. If clean area samples exceeded 0.010 f/cc during the non-friable abatement tasks, five (5) clearance samples shall be collected and analyzed via PCM.
 - d. Clearance air sampling shall be performed using aggressive techniques. Sampling procedures and clearance criteria shall follow all requirements of the Philadelphia ACR and AHERA.
- .04 The Owner shall be responsible for costs incurred for the initial required laboratory work. Any subsequent testing required due to limits exceeded during abatement or any clearance sampling shall be paid by the AAC. These costs include both labor and analysis.
 - a. The API shall invoice the Owner, on a separate invoice, for all costs relating to labor and analyses resulting from additional testing required due to limits exceeded during abatement or failure of first round clearance sampling.
 - b. The AACs contract amount shall be reduced by an amount equal to the costs for labor and analyses resulting from additional testing required due to limits exceeded during abatement or failure of first round clearance sampling.
 - c. The Owner shall retain possession and ownership of all air sampling data and documentation.

10.00 AIR MONITORING BY THE ASBESTOS ABATEMENT CONTRACTOR (AAC)

- .01** The AAC shall perform representative personal air sampling as defined within OSHA 1926.1101 and 1910.1001. Personal air samples shall be collected to establish a time weighted average (TWA) and a short term excursion limit (STEL). Such air samples shall be collected within the breathing zone and used to:

 - a.** initially determine the level of respiratory protection;
 - b.** subsequently to assure that such protections remain adequate throughout the project.
- .02** Sampling strategy and protocols shall be determined by a competent sampling professional according to NIOSH 7400 method. The AAC shall have a competent person collect personal air samples.
- .03** Personal air sample results must be posted within 24 hours of sample collection.
- .04** AAC personnel shall comply with the personal air sampling of the competent person and shall not interfere with or alter sampling protocol.

11.00 SCAFFOLDING/WALKWAYS/HOISTS/LADDERS

- .01** The AAC shall use appropriate ladders, scaffolds, lifts, and/or hoists to provide safe access for the temporary removal of light fixtures, removal of asbestos containing textured ceiling paint, repainting and reinstallation of lighting. Personnel safety lines and harnesses are required where appropriate.

 - a.** Fall protection equipment and guidelines shall comply with OSHA Regulation Standards *29 CFR 1926.501*.
- .02** All scaffolding shall be of sound condition and assembled per OSHA requirements on a level, secure base. Scaffolding shall not be overloaded. The scaffolding shall be secured or tied into the building whenever possible. Guardrails consisting of top and mid-rails and toe boards shall always be installed. A post set-up inspection and daily inspections shall be conducted. Scaffold work platforms shall comply with OSHA Regulation Standards *29 CFR 1926.451*.
- .03** All stairs, platforms, catwalks and walking surfaces shall be kept, as is practical, free from obstructions, accumulation of water, and tripping hazards, and where elevated, be protected by OSHA specified top-rails, mid-rails, and toe boards.
- .04** Ladders of sufficient quantity and of suitable length or height shall be provided. Only electrically non-conductive materials, such as wood or fiberglass, shall be used. Ladders shall be kept in good repair and inspected regularly. Personnel shall be instructed in the proper use of ladders. No structural alterations shall be made to any ladder.
- .05** All ladders, scaffolds, lifts, and/or hoists shall arrive at the project site in good condition and free of any visual residual asbestos contamination.

12.00 RESPIRATORY AND PERSONAL PROTECTIVE EQUIPMENT

- .01** The AAC shall provide approved respirators and protective clothing to all workers. Authorized representatives of the Owner, State or other Government entity who arrive to inspect the work site shall be permitted access to the work area provided the visitor arrives with their own approved respirator. Protective clothing shall be provided to these visitors by the AAC.
- a.** The AAC shall provide approved respirators to all visitors that can provide proof that a Pulmonary Function Test, Medical exam and chest x-ray has been performed on the visitor, **and** that a doctor has performed a pulmonary evaluation of the visitor indicating that the visitor has been deemed able to safely wear a respirator.
- .02** The AAC shall require that each person entering the work area shall wear an approved respirator and protective clothing. There shall be no exceptions to this rule.
- .03** Respiratory protection shall be in compliance with:
- a.** OSHA regulations 29 CFR 1910.1001, 1926.1101, and 1910.134;
- b.** ANSI Z88.2-1980;
- c.** NIOSH 30 CFR Part 11 for type B and C respiratory protection;
- d.** NIOSH and DHHS 42 CFR Part 84 for non-powered, air-purifying particulate-filter respirators.
- .04** At a minimum, the respiratory protection at the start of the project shall be Type B (PAPR). After the initial exposure assessment establishes the expected airborne asbestos concentrations during removal, the respiratory protection shall be:
- a.** .01-1.0 f/cc - Dual Cartridge, Air Purifying respirator, Type A.
- b.** 1.0-2.5 f/cc - Powered Air Purifying Respirators - Type B (PAPR).
- c.** >2.5 f/cc- - Supplied Air with Constant Flow - Type C.
- .05** All persons performing asbestos abatement work requiring respiratory protection (including Type B) shall be clean shaven and have an unobstructed face mask seal. Only mustaches that do not exceed the corners of the upper lip and sideburns that do not extend below the earlobes are permitted.
- .06** For containments with an attached three (3) stage decontamination unit, asbestos workers shall wear a single disposable suit including hood and footwear. Before exiting the work area, the workers shall remove their respirator filters and disposable suit in the shower after appropriate wetting. These shall be disposed of as asbestos waste.
- .07** For containments utilizing a remote decontamination unit, asbestos workers shall wear two (2) disposable Tyvec-type suits. Before exiting the work area, the worker shall remove both suits and change into a clean disposable suit in the one-stage chamber. The worker shall immediately proceed to the remote centralized, decontamination chamber, equipped with a shower and clean room. Dispose of clean suit and respirator cartridges in the centralized decontamination chamber.

- a.** The use of a remote decontamination FOR MAJOR PROJECTS requires the submission of an Alternative Method Request to the City of Philadelphia's Air Management Services, Asbestos Division, and receipt of approval by that office.

13.00 DECONTAMINATION FACILITIES

- .01** For Major Projects described in this Specification, the AAC shall construct and place a three-stage decontamination unit at the entrance to the work area. For Minor Projects, a one-stage decontamination unit shall be constructed and placed at the entrance to the work area, with a two-stage centralized decontamination unit/shower constructed prior to work in any Minor Project areas. Decontamination units shall have a sturdy frame comprised of studs or equivalent.
- .02** Decontamination units shall be constructed as described below:
- a.** Three-stage unit (clean room, shower room, equipment room):
 - 1.** Interior of the chamber shall be covered with two layers of six (6) mil polyethylene with triple flap airlocks installed between each chamber;
 - 2.** Shall have a sturdy frame comprised of studs and 3/8" plywood.
 - 3.** Entrance shall be equipped with a secure, lockable plywood door with louver system;
 - 4.** Shall have danger signs posted at the entrance;
 - 5.** Shall be provided with hot and cold water for use in the shower room;
 - 6.** Shower water shall be added to waste materials or pumped through a five (5) micron filter element prior to discharging it to the sanitary sewer or floor drains.
 - b.** One-stage unit:
 - 1.** Interior of the chamber shall be covered with two layers of six (6) mil polyethylene and triple flap airlocks shall be placed at entrance and exit;
 - 2.** Shall have a sturdy frame comprised of studs or an approved equivalent.
 - 3.** Shall have danger signs posted at the entrance;
 - 4.** Workers shall wear double suits while in the work area. Prior to exiting a contaminated work area, the worker shall change into a clean Tyvek suit prior to proceeding to the centralized, two stage, decontamination chamber, equipped with a shower, provided with hot and cold water, and a clean room. Dispose of suit and respirator cartridges in the centralized decontamination chamber.
 - 5.** Shall be accompanied with a two-stage remote decontamination unit that provides hot and cold water for use in the shower room;
 - 6.** Shower water shall be added to waste materials or pumped through a five (5) micron filter element prior to discharging it to the sanitary sewer or floor drains.
 - c.** The AAC shall provide one decontamination chamber for every eight (8) workers.
- .03** The use of a remote decontamination unit for MAJOR PROJECTS requires the submission of an Alternative Method Request to the City of Philadelphia's Air Management Services, Asbestos Division, and receipt of approval by that office.
- .04** Asbestos abatement shall not commence until the AAC can demonstrate to the API that the shower unit is fully operational.

14.00 GENERAL PREPARATION FOR ALL ASBESTOS ABATEMENT ACTIVITIES

- .01** The AAC shall confine their apparatus, the storage of materials, tools, supplies and the activities of their workman to the limits established by the Owner and local ordinances.
- .02** The AAC shall assure that building exits are not obstructed and that appropriate safety barriers are established to prevent access by unauthorized persons. The works areas are to be kept neat, clean and safe.
- .03** The AAC shall post OSHA specified, asbestos specific danger signs at the entrance to each work area. Such signs shall also be posted when applicable to decontamination chambers, bagout chambers, critical and separation barriers, and waste storage containers.
- .04** All building occupants shall be removed from the work area floors during this project.
- .05** All necessary building occupants remaining in the building during the asbestos abatement project shall be denied access to the asbestos abatement work area(s) by isolation barriers and/or locked doors.
- .06** All moveable objects shall be removed from the work area. Movable objects shall be wet wiped & HEPA vacuumed prior to their relocation to a clean area.
- .07** AFDs and HEPA vacuums require different maintenance schedules and attention depending on the model. Check the user's manual to determine and comply with the maintenance, filter replacement, and cleaning requirements of each AFD and HEPA vacuum being used.

 - a.** At no time shall an AFD be dismantled and the inner HEPA filter replaced while onsite at the Motivation High School/KIPP West Philadelphia. Removal and replacement of HEPA filters shall be performed offsite.
 - b.** At no time shall a HEPA vacuum be opened for cleaning/emptying outside an active asbestos abatement work area of the Motivation High School/KIPP West Philadelphia.
 - c.** Cleaning/emptying a HEPA vacuum shall be performed **INSIDE** an active asbestos abatement work area with a minimum negative pressure differential of - 0.02 inches of water column.

 - 1.** Cleaning/emptying of HEPA vacuums shall be performed directly beside an operating AFD exhausting to the exterior.
 - 2.** HEPA vacuums shall be cleaned/emptied only during gross removal of asbestos and/or equipment demolition. No HEPA vacuums shall be cleaned/emptied, or opened for any other reason, during final cleaning and/or encapsulation.
- .08** Assure HVAC systems associated with, or that pass through any abatement work areas are shut down. Provide appropriate lock and tag out devices at the shut off point of the fan.
- .09** De-energize the work areas and all conduit running through the work areas.

- a. Appropriate lock and tag out devices shall be installed at the breakers.
 - b. The AAC shall provide a temporary electric panel with ground fault interruption.
 - c. The AAC shall supply sufficient temporary lighting to illuminate the work areas during asbestos abatement, equipment demolition, paint stabilization and HVAC cleaning. All active work areas shall be lighted to not less than the minimum illumination intensities listed in OSHA Regulation 29 CFR 1926.56(a), Table D-3 for Indoors: warehouses, corridors, hallways, and exit ways (e.g. - 5 foot candles).

- .10** Only approved noncombustible or flame resistant materials shall be used for work area preparation. Polyethylene sheeting shall be certified to conform to NFPA 701.

- .11** The dropping, lowering, transporting or otherwise moving any open or packaged waste through any shaft during this project is strictly prohibited. When the asbestos abatement work area IS a shaft, asbestos waste must be packaged and lowered in a controlled fashion to the base of the shaft. No dropping of waste in any shaft shall be permitted at any time.

**15.00 PREPARATION & ABATEMENT – REMOVAL OF ASBESTOS CONTAINING TEXTURED
CEILING PAINT**

- .01** This section is intended to specify the acceptable methods for the removal of asbestos containing textured ceiling as listed in the table in *Section 1.07*. Assure that the tasks specified in *Sections 14.01 – 14.11* have been completed and/or are being implemented.
- .02** The AAC shall assure that exits from the building are not obstructed. The work areas are to be kept neat, clean, and safe.
- .03** Only approved noncombustible or flame resistant materials shall be used in the construction of temporary enclosures. Polyethylene sheeting shall be certified to conform to NFPA 701.
- .04** Post OSHA specified, asbestos specific danger signs at the entrance to the work area. Such signs shall also be posted when applicable to decons, bagout chambers, critical and separation barriers, and waste storage containers.
- .05** Construct isolation barriers with lockable doors to completely isolate the abatement work areas from other areas of the building.

 - a.** Isolation barriers shall be eight (8) feet high and shall be constructed of minimum $\frac{3}{8}$ " fire-rated plywood supported by 2'x3' stud framing, or equivalent, placed on sixteen inch (16") centerlines. Appropriate footings and bracings shall be installed to provide proper support.
- .06** Unit-ventilators and/or HVAC systems shall be shut down and de-energized.
- .07** The AACs licensed electrician shall de-energize the work area and all conduit running through the work area. The AACs licensed electrician shall de-energize all light fixtures throughout the work area.

 - a.** Appropriate lock and tag out devices shall be installed at the circuit breakers.
- 08.** The AAC shall provide a temporary electric panel with ground fault interruption outside the work area containments. All electrical power shall be brought into the work areas via ground fault interrupters (GFIs).

 - a.** The AAC shall utilize a licensed electrician to perform the connection of the AACs temporary electrical supply panel to the building Owners' electrical supply source.

 - 1.** The temporary electrical panel and the building's electrical supply source shall be enclosed, concealing all potential contact points in order to avoid electrocution hazard and potential arcing to nearby or passing conductor materials.
 - 2.** Installation of the temporary electric panel shall occur within the ten (10) day waiting period prior to the start of this asbestos abatement project, after submission of the Asbestos Abatement Notification to the EPA, DEP, and Philadelphia Air Management Services.

- .09** The AAC shall supply sufficient temporary lighting to illuminate the work area during asbestos abatement.
- a.** All active work areas shall be lighted to not less than the minimum illumination intensities listed in OSHA Regulation 29 CFR 1926.56(a), Table D-3 for Indoors: warehouses, corridors, hallways, and exit ways (e.g. - 5 foot candles).
- .10** Using wet-wipe and HEPA-vacuum techniques, pre-clean all movable objects and relocate to a site outside the work area. All fixed, unmovable objects shall be pre-cleaned and sealed with one (1) layer of six-mil polyethylene sheeting.
- a.** Remove all items (furniture, tools, supplies, equipment, etc.) after properly pre-cleaning these items.
- b.** All furniture and educational materials shall be labeled with the Room Numbers or Areas in which they originated from prior to relocation.
- 1.** The AAC shall coordinate with the Owner to establish temporary storage locations for movable items removed from the abatement work areas.
- .11** Install critical barriers consisting of two (2) separate independent layers of six-(6) mil polyethylene over all windows, louvers, doors, and other critical openings inside the work area. Small cracks, penetrations, gaps, etc. shall be sealed with expansion foam.
- a.** Critical ‘containment’ barriers shall be erected to cover perimeter work area openings, greater than six (6) feet in width, utilizing two (2) separate identifiable layers of six-mil polyethylene. These areas shall include the opening extending from the top of the eight (8) foot high isolation barrier to the ceiling deck. This wall sheeting shall be supported by studs or equivalent. Note: these are considered critical barriers, and application of two additional layers of wall coverings shall be required.
- b.** Areas where critical barriers are to be installed shall first be pre-cleaned via wet wipe and HEPA vacuum techniques.
- .12** Construct a three-stage decontamination unit at the work area entrance. Exact decontamination unit placements shall be at the discretion of the AAC with approval from the on-site API. Refer to *Section 13.00 - Decontamination Facilities*.
- .13** A two-stage bagout chamber shall also be constructed, if practical. This chamber shall be of similar construction to decontamination unit. The chamber shall be sealed when not in active use. The decontamination chamber shall be sealed when the bagout chamber is in use.
- .14** Install floor and wall coverings utilizing two (2) separate independent layers of six (6) mil polyethylene sheeting throughout the work area containment.
- a.** Polyethylene wall and floor sheeting shall be installed in such a manner as to cause minimal damage to underlying surfaces. The AAC shall ensure proper adhesion of the sheeting to problem areas, such as walls with peeling paint.
- b.** Wall coverings shall extend from the ceiling deck to floor level and overlap the floor sheeting (floor coverings shall extend twelve inches (12”) up behind the wall coverings). All seams shall be staggered as to overlap a minimum of twelve inches and be sealed with duct tape.

- .15** Approved high quality HEPA equipped air filtration devices (AFDs) shall be placed so as to develop and hold a negative differential air pressure. Each AFD shall be equipped with a magnehelic gauge or manometer to measure pressure drop across the filters, indicating overload and a need to change filters. An automatic shutdown system shall be provided in the event of an improper filter fit, a rupture in the HEPA filter, or a blocked air discharge. AFD exhaust shall be vented outside of the building.
- a.** The negative differential air pressure shall be sufficient to provide a minimum of four (4) air changes of the work area per hour. The AAC shall submit to the API the number of AFDs projected to obtain this differential and the calculations used to determine this. The AAC shall install a manometer to confirm the differential, which should read minimum of -0.02 inches of water column. Due to the large size of the Pod Classroom combined work areas, more than one manometer may be required.
 - b.** Negative differential air pressure shall be continuously maintained, 24 hours a day, in all enclosed work areas from the time the isolation barrier is first established until final clearance air sampling is completed, and the AAC is released by the API.
- .16** Light fixtures scheduled to be temporarily removed shall first be de-energized by the Owner.
- a.** The AAC shall be responsible for the disassembly, removal and pre-cleaning of surface-mounted, pendant and recessed light fixtures in all locations of asbestos containing textured ceiling paint removal. This includes the removal of the entire light fixture assembly (bulbs, ballasts, housing, mechanical fasteners).
 - b.** The AAC shall carefully remove light fixtures in a manner that allows re-use of the fixtures, bulbs and electrical conduit in place.
 - c.** Twist-on wire connectors shall be applied to the individual wires after disassembly. Wires/junction boxes shall be temporarily covered/sealed according to 'fixed object' protocols.
- .17** Upon completion of the specified preparation tasks above, and following approval by the on-site API, begin the removal of all ceiling mounted lighting.
- a.** Carefully remove the existing ceiling mounted lighting, pre-clean any/all visible asbestos containing textured ceiling paint debris adhering to each item using wet-wipe and HEPA-vacuum techniques, and relocate to the proposed storage location(s) identified in the bid submission, as stipulated in *Section 5.01.c*.
 - 1.** Ceiling mounted fluorescent lighting fixtures will be reinstalled subsequent to the performance of asbestos containing textured ceiling paint removal and repainting. The condition of the ceiling mounted lighting fixtures, fluorescent light bulbs, and all associated electrical wiring shall be maintained during all stages of removal and storage.
- .18** Upon completion of work area preparation and approval by the on-site API, commence removal of the asbestos containing textured ceiling paint.

- a. Removal of the asbestos containing textured ceiling paint shall be initiated only after the material has been treated with a solution of water and wetting agent. This wetting shall be repeated at such intervals as to prevent the asbestos from drying out. Removal shall be performed in a manner, which minimizes the release of asbestos fibers.
 1. No standing water shall be tolerated inside of the work area. Standing water would have the potential of leaking to spaces below the work area. The AAC shall designate a worker to constantly monitor the work area and vacuum or mop up any standing water resulting from the pre-wetting or air misting procedures.
 2. All wastewater generated in the decontamination chamber shower shall be retrieved and added to packaged asbestos waste materials or pumped through a five (5) micron filter element prior to discharging it to the sanitary sewer or floor drains.
 3. All wastewater generated in the abatement work area shall be retrieved and added to packaged asbestos waste materials and/or placed in plastic lined leak-tight drums for disposal in accordance with VI.C.7 of the Asbestos Control Regulation.
 - b. The removal of the asbestos containing textured ceiling paint will require scraping the material down to the concrete deck in MOST locations (refer to *Subsection 15.18.c* below). Care must be taken to thoroughly remove all asbestos containing material, as well as to preserve the integrity of the non-asbestos concrete substrate.
 - c. The removal of the asbestos containing textured ceiling paint in portions of the hallways outside the Classroom Pods will require scraping the material down to the plaster skim coat. Care must be taken to thoroughly remove all of the asbestos containing material, as well as to preserve the integrity of the non-asbestos plaster skim coat.
 - d. Asbestos-containing textured ceiling paint applied to the upper portions of walls, pipe work, ductwork, metal conduit, fiberglass pipe insulation, and any other component shall be removed during the removal of asbestos-containing textured ceiling paint. Fiberglass with textured paint applied shall be removed in its entirety.
- .19** All asbestos containing textured paint shall be bagged as removal occurs. No accumulations of asbestos containing material shall be permitted to remain in the work area. Asbestos containing textured paint removed at a height greater than ten (10) feet shall be bagged at that time or lowered to the ground in a controlled manner and then bagged. No dropping of the asbestos containing textured ceiling paint at a height greater than ten (10) feet shall be permitted.
- .20** Upon completing removal of all asbestos containing textured paint, perform final cleaning of all surfaces and the work area. Any residues shall be removed using a stiff nylon brush or scraper. Surfaces shall then be HEPA vacuumed and/or wet wiped to remove any visible debris.
- .21** Remove the top layer of polyethylene sheeting and dispose as asbestos waste.
- .22** The AAC shall again, clean all surfaces in the work area, including polyethylene sheeting, via wet-wipe and HEPA-vacuum techniques.

- .23** Upon completion of cleaning activities, the API shall conduct a detailed visual inspection prior to the performance of caulking, encapsulation and repainting. The API shall approve the area for caulking, encapsulation and repainting when no visible dust or debris is evident on any surfaces.
- .24** Utilize paintable caulk or expansion foam between the following building materials that butt against the existing concrete ceiling. The sealant(s) are intended to completely encapsulate any remaining asbestos containing textured paint that could not be accessed for removal.
- a.** Seal between electrical conduit lengths that butt against the concrete ceilings;
 - b.** Seal all seams between the concrete ceilings and sheetrock walls, sheetrock soffits, concrete block walls, metal walls, window valances, wall cabinets, etc. that have been installed prior to and subsequent to the application of the asbestos-containing textured ceiling paint.
- .25** Upon approval by the on-site API, encapsulate all surfaces in the work area and the polyethylene sheeting used in work area preparation. The sealant/encapsulant shall be tinted to provide a visual confirmation of uniformity and completeness of application.
- a.** The AAC must deliver the encapsulant in the manufacturer's original sealed and labeled containers and store encapsulant in compliance with manufacturer's printed instructions. A copy of manufacturer's printed instructions shall be available on site at all times.
 - b.** The AAC shall encapsulate the work area with an encapsulant whose manufacturer's instructions indicate that the encapsulant is approved for use on the intended surfaces following asbestos abatement tasks.
 - c.** Encapsulation shall not be performed with any packaged ACM or objectionable equipment remaining in the work area.
- .26** The API shall inspect the sealant/encapsulant to confirm adequate and proper application. After the encapsulant has dried, the AAC shall remove the last layer of polyethylene floor and wall sheeting, leaving only the critical and containment barriers.
- .27** The API shall conduct a detailed final inspection to ensure that no visible dust or debris remains on any surfaces. If any suspect or objectionable material is evident, the AAC shall clean the material and sufficient surrounding area to the satisfaction of the API, via wet-wipe and HEPA-vacuum techniques.

- .28** Following an acceptable final inspection, the API shall perform clearance air sampling. Refer to *Section 9.00 - Air Monitoring by the Owner*.
- a.** The AAC shall include in his progress schedule a 24 hour waiting period, following the delivery of the work area to the API for clearance testing. The waiting period shall be allotted to provide an opportunity for the Philadelphia Federation of Teacher's (PFT) environmental representative to schedule and conduct side by side final clearance testing with the API.
 - 1.** Samples shall be collected and analyzed via TEM. Results shall be evaluated in accordance with the ACR and AHERA.
 - 2.** Acceptable airborne fiber concentrations for individual "outside the work area" air samples shall be < 0.010 f/cc for PCM and < 0.010 s/cc for TEM.
 - b.** Abatement will not be permitted above or below another containment receiving final clearance air sampling. The AAC shall temporarily perform preparation activities in a different corner/section of the building or another stairwell during the collection of final clearance air samples.
- .29** If the results of clearance samples are unacceptable according to Philadelphia ACR and AHERA requirements, the AAC shall re-clean the work area via wet-wipe and HEPA-vacuum techniques. Following an acceptable inspection, the API shall again perform clearance sampling. This sequence shall be repeated until receipt of acceptable air sample results according to Philadelphia ACR and AHERA requirements.
- .30** Upon receipt of acceptable final visual inspections and acceptable air sample clearance results, carefully dismantle materials used in the work area containment. These materials shall be disposed of in sealable plastic bags as asbestos contaminated waste.

16.00 ACM WASTE DISPOSAL

- .01 The dropping, lowering, transporting or otherwise moving any open or packaged waste through any shaft during this project is strictly prohibited!** When the asbestos abatement work area IS a shaft, asbestos waste must be packaged and lowered in a controlled fashion to the base of the shaft. No dropping of waste in any shaft shall be permitted at any time.
- .02** Approval must be obtained from the API prior for temporary storage of any asbestos waste containers or construction debris on site, prior to being loaded into appropriate dumpsters. The waste shall be appropriately packaged according to the type of waste. A polyethylene drop cloth and covering shall be provided and the storage areas restricted by barrier tape and appropriate signage. Asbestos waste containers must be distinctly stored separately from other waste. No long term storage may occur in these areas.
- .03** The loading, transportation, and disposal of asbestos waste at the landfill shall occur in accordance with regulatory requirements of NESHAPS and applicable state and local guidelines and regulations.
- .04** Waste disposal containers shall conform to one of the following. Waste with sharp edges shall not be disposed of solely in polyethylene bags. **All six-mil polyethylene bags shall be transparent so that when filled, the contents of the bag are readily visible.**
- a.** Two (2) six-mil polyethylene bags, one placed inside the other, separately sealed. The bags shall be carefully closed to minimize dead air space and taped shut.
 - 1.** Six-mil polyethylene disposal bags containing asbestos and asbestos contaminated materials shall be placed into a second six-mil polyethylene bag inside an approved bag-out chamber or decontamination chamber while being removed from the work area. **The second bag shall not be applied inside the work area.**
 - b.** Material first shall be placed into burlap bags or equivalent to prevent edges/corners from tearing or penetrating polyethylene waste bags. The encased material may then be placed in two (2) six mil polyethylene bags, as per *Subsection a* above.
 - c.** One (1) six mil polyethylene sealed bag inside an air and water tight drum.
- .05** The AAC shall label asbestos waste with the name of the generator and the location from which the waste was generated.
- .06** The container used for transporting and disposing of ACM waste shall be clearly and properly labeled as specified in EPA and DOT regulations. In addition to generator labels, containers must carry the following labels:

**DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD**

-and-

DOT labels requirement: (Easily readable in sharp relief)

CAUTION
Contains Asbestos Fibers
Avoid Opening or Breaking Container
Breathing Asbestos is Hazardous
to your Health
RQ ASBESTOS
9,NA2212,PG III
(ASBESTOS)

- .07** During waste load out, post asbestos specific danger signs along the waste disposal route, and on and around the vehicle or dumpster being used to transport the waste off site.
- a.** Polyethylene drop cloths shall be utilized along routes in which bagged ACM waste is passed through the building. Proposed waste removal route shall be presented to the API and Project Manager/Designer for approval prior to performing delivery of asbestos waste material to the intended waste container. The API must document the proposed route and the APIs subsequent approval in an activity log.
- .08** Waste routes must be approved by the Owner and on-site API prior to the commencement of work. All waste being transported through the building must be placed in covered/enclosed containers bearing proper warning signs. The waste route must be kept clean.
- a.** The rolling of waste drums or the dropping of waste bags down stairs is strictly prohibited!
- b.** After transport of waste through the building is completed, the AAC shall wet mop the waste removal route to assure continued cleanliness and removal of any debris associated with the waste transport tasks.
- .09** All documentation of transportation and disposal transactions such as dump receipts, trip tickets and waste manifests shall be completed and delivered to the Owner for their records.
- .10** Should the Owner not receive a receipt of the waste shipment record within 35 days, the Owner shall contact the AAC to determine the status/disposition of the waste.
- .11** Should the Owner not receive a receipt of the waste shipment record within 45 days, the Owner shall notify the EPA.

17.00 REPAINTING/REINSTALLATION OF LIGHT FIXTURES

.01 Repainting:

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on interior substrates.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product.
- C. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- D. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. VOC content.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.
 - 2. Coating Maintenance Manual: Upon conclusion of the project, the Contractor or paint manufacturer/supplier shall furnish a coating maintenance manual, such as Sherwin-Williams "Custodian Project Color and Product Information" report or

equal. Manual shall include an Area Summary with finish schedule, Area Detail designating where each product/color/finish was used, product data pages, Material Safety Data Sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

1.5 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Architect will select one surface to represent surfaces and conditions for application of each paint system specified in Part 3.
 - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft.
 - b. Other Items: Architect will designate items or areas required.
 - 2. Final approval of color selections will be based on mockups.
 - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
 - 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, products by Sherwin Williams are the basis of design and set the standard of quality required.
 - 1. Sherwin-Williams Company (The) Basis of Design.

2.2 PAINT, GENERAL

- A. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. Colors: As selected by Architect from manufacturer's full range.
- C. Total VOC content will not be increased by tints and colorants required.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Concrete: 12 percent.
 - 2. Masonry (Clay and CMU): 12 percent.
 - 3. Wood: 15 percent.
 - 4. Gypsum Board: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Spray-Textured Ceiling Substrates: Verify that surfaces are dry.
- E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

- F. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceed that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer.
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- I. Aluminum Substrates: Remove loose surface oxidation.
- J. Wood Substrates:
 - 1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
 - 2. Sand surfaces that will be exposed to view, and dust off.
 - 3. Prime edges, ends, faces, undersides, and backsides of wood.

4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions.
 1. Use applicators and techniques suited for paint and substrate indicated.
 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
 1. Paint the following work where exposed in equipment rooms:
 - a. Equipment, including panelboards.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Tanks that do not have factory-applied final finishes.
 - h. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 2. Paint the following work where exposed in occupied spaces:
 - a. Equipment, including panelboards.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.

- d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 - h. Other items as directed by Architect.
3. Paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.

3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
1. Contractor shall touch up and restore painted surfaces damaged by testing.
 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 SCHEDULE - INTERIOR SURFACES - LATEX

- A. Total VOC content will not be increased by tints and colorants required.
- B. Shop Primed Ferrous Metal: Semi-Gloss Finish:
1. Sherwin-Williams:
 - a. Primer: Pro Industrial Pro-Cryl Universal primer.
 - b. Finish: Two coats Pro Industrial High Performance Acrylic, semi-gloss.

- C. Ferrous Metal and Galvanized Metals: Semi-Gloss Finish:
 - 1. Sherwin-Williams:
 - a. Primer: Pro Industrial Pro-Cryl Universal primer.
 - b. Finish: Two coats Pro Industrial High Performance Acrylic, semi-gloss.

- D. Concrete Masonry Units (CMU): Semi-Gloss Finish:
 - 1. Sherwin-Williams:
 - a. Filler: One coat PrepRite Interior/Exterior Block Filler B25W25.
 - b. Finish: Two coats ProMar 200 Zero VOC with anti-microbial, semi-gloss.

- E. Exposed Metal Deck & Joists: Flat Acrylic:
 - 1. Sherwin-Williams:
 - a. Finish: One coat Low VOC Waterborne DryFall, Flat.

- F. Gypsum Board: Flat Finish:
 - 1. Sherwin-Williams:
 - a. Primer: One coat. ProMar 200 Zero VOC Primer.
 - b. Finish: Two coats. ProMar 200 Zero VOC with anti-microbial, Flat.

- G. Gypsum Board: Eggshell Finish:
 - 1. Sherwin-Williams:
 - a. Primer: One coat ProMar 200 Zero VOC Primer.
 - b. Finish: Two coats ProMar 200 Zero VOC with anti-microbial, Eg-Shel.

- H. Gypsum Board: Semi-Gloss Finish:
 - 1. Sherwin-Williams:
 - a. Primer: One coat ProMar 200 Zero VOC Primer.
 - b. Finish: Two coats ProMar 200 Zero VOC with anit-microbial, semi-gloss.

- I. Gypsum Board Under Vinyl Wall Covering: Latex Primer:
 - 1. Sherwin-Williams:
 - a. One coat: Multi-Purpose Primer.

J. Wood: Semi-Gloss Finish – 100% acrylic:

1. Sherwin-Williams:

- a. Primer: Not required.
- b. Finish: Two coats Solo 100% Acrylic, semi-gloss.

K. Concrete: clear penetrating sealer with VOC less than 50/g/l

1. Sherwin-Williams:

- a. Primer: Not required.
- b. Finish: Single flood coat Loxon 7%

.02 Reinstallation of Light Fixtures:

- a. The AAC shall reinstall all surface-mounted, pendant and recessed light fixtures in all locations where asbestos-containing textured ceiling paint was removed and the ceilings repainted.
- b. Utilize appropriate fasteners to install light fixtures to their original locations.

18.00 WORK SCOPE PROGRESS SCHEDULE TEMPLATE

The AAC shall complete and submit the following Asbestos Abatement Schedule Template to the School District of Philadelphia Office of Environmental Services (SDP OEMS) for review and approval:

Asbestos Abatement/Repainting and Reinstallation of Lighting Progress Schedule Template				
	To Be Completed by the Asbestos Abatement Contractor			
Abatement/ Repainting and Reinstallation of Lighting Location	Begin Prep Date	Begin Abatement Date	Complete Abatement/ Test Date	Complete Repainting and Reinstallation of Lighting Date
Phase 1A				
Phase 1B				
Phase 2A				
Phase 2B				

continued

Asbestos Abatement Schedule Template to be completed by the AAC and submitted to the SDP OEMS for review and approval (*continued*):

Asbestos Abatement/Repainting and Reinstallation of Lighting Progress Schedule Template				
	To Be Completed by the Asbestos Abatement Contractor			
Abatement/ Repainting and Reinstallation of Lighting Location	Begin Prep Date	Begin Abatement Date	Complete Abatement/ Test Date	Complete Repainting and Reinstallation of Lighting Date
Phase 3A				
Phase 3B				
Phase 4A				
Phase 4B				

continued

Asbestos Abatement Schedule Template to be completed by the AAC and submitted to the SDP OEMS for review and approval (*continued*):

Asbestos Abatement/Repainting and Reinstallation of Lighting Progress Schedule Template				
	To Be Completed by the Asbestos Abatement Contractor			
Abatement/ Repainting and Reinstallation of Lighting Location	Begin Prep Date	Begin Abatement Date	Complete Abatement/ Test Date	Complete Repainting and Reinstallation of Lighting Date
Stairwell 1 – First, Second and Third Floors				
Stairwell 2 – First, Second and Third Floors				
Stairwell 3 – First, Second and Third Floors				
Stairwell 4 – First, Second and Third Floors				

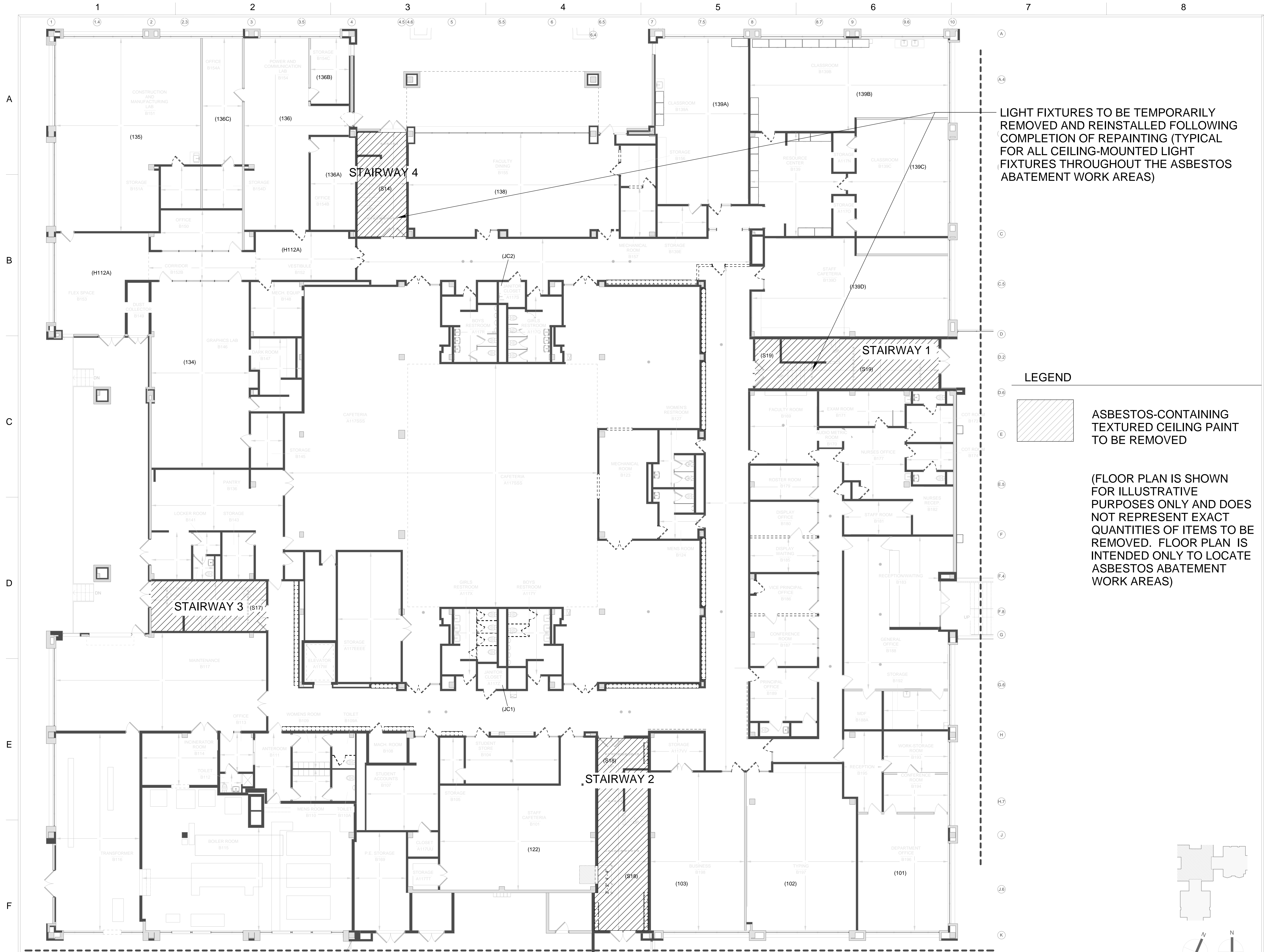
19.00 PROJECT CLOSEOUT

- .01** After achieving acceptable air sample clearance and dismantling the work area, the AAC shall be released after the following items are completed:
- a.** Removal of all temporary signs, labels, tape and glue/tape adhesive residue.
 - b.** Removal of all temporary devices, facilities, and equipment.
 - c.** Cleaning the project site and storage areas of trash, etc.
 - d.** Replacement/repair of any damage.
 - e.** SDP deems the repair work is acceptable.
 - f.** SDP deems caulking and repainting is acceptable.
 - g.** Moving of all furniture and educational materials back to their original locations.
 - h.** Removal of all waste containers (asbestos, scrap, and construction debris) from site and proper disposal of waste.
- .02** Upon completion of the project, the AAC shall submit final documentation to the Owner, including but not limited to, all waste handling/shipping documentation/manifests.

END OF SPECIFICATION

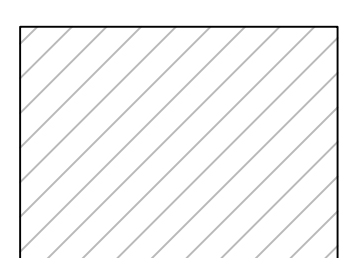
Attachment 1

Floor Plan Drawings ASB-1, ASB-2 & ASB-3



LIGHT FIXTURES TO BE TEMPORARILY REMOVED AND REINSTALLED FOLLOWING COMPLETION OF REPAINTING (TYPICAL FOR ALL CEILING-MOUNTED LIGHT FIXTURES THROUGHOUT THE ASBESTOS ABATEMENT WORK AREAS)

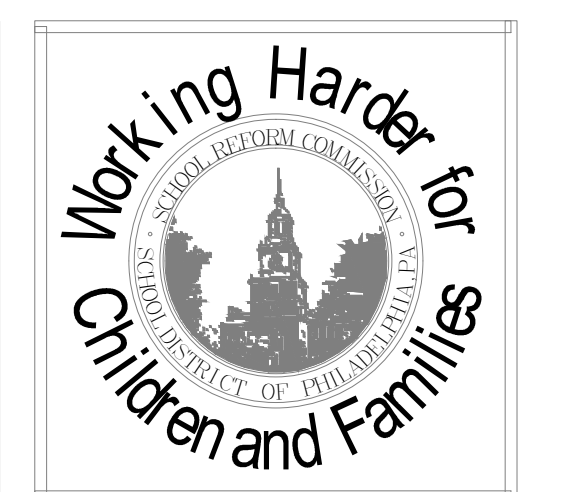
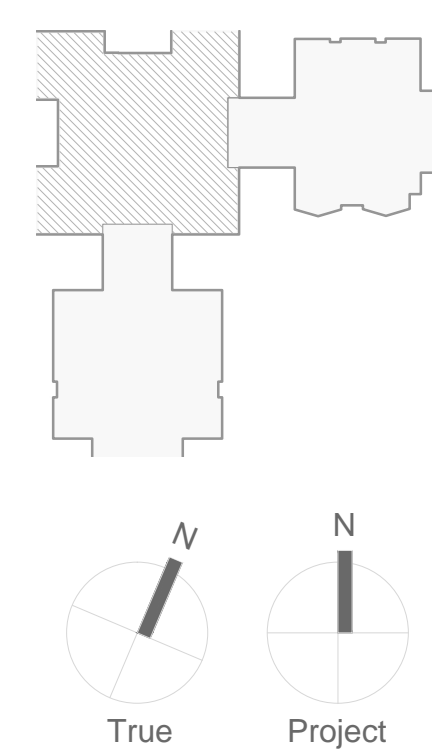
LEGEND



ASBESTOS-CONTAINING TEXTURED CEILING PAINT TO BE REMOVED

(FLOOR PLAN IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND DOES NOT REPRESENT EXACT QUANTITIES OF ITEMS TO BE REMOVED. FLOOR PLAN IS INTENDED ONLY TO LOCATE ASBESTOS ABATEMENT WORK AREAS)

1 | FIRST FLOOR PLAN BLDG B
ASB-1 SCALE: NTS



SEAL

CONSULTANTS
Syrtech Incorporated
275 Locust Street, Philadelphia PA 19148
215.758.2305

SCHOOL & LOCATION
5900 Baltimore Avenue, Philadelphia PA 19143
PROJECT TITLE
Renovations to Motivation High School
BUILDING TITLE
BUILDING F FIRST FLOOR - ASBESTOS-CONTAINING TEXTURED CEILING PAINT REMOVAL LOCATIONS
APPROVED BY

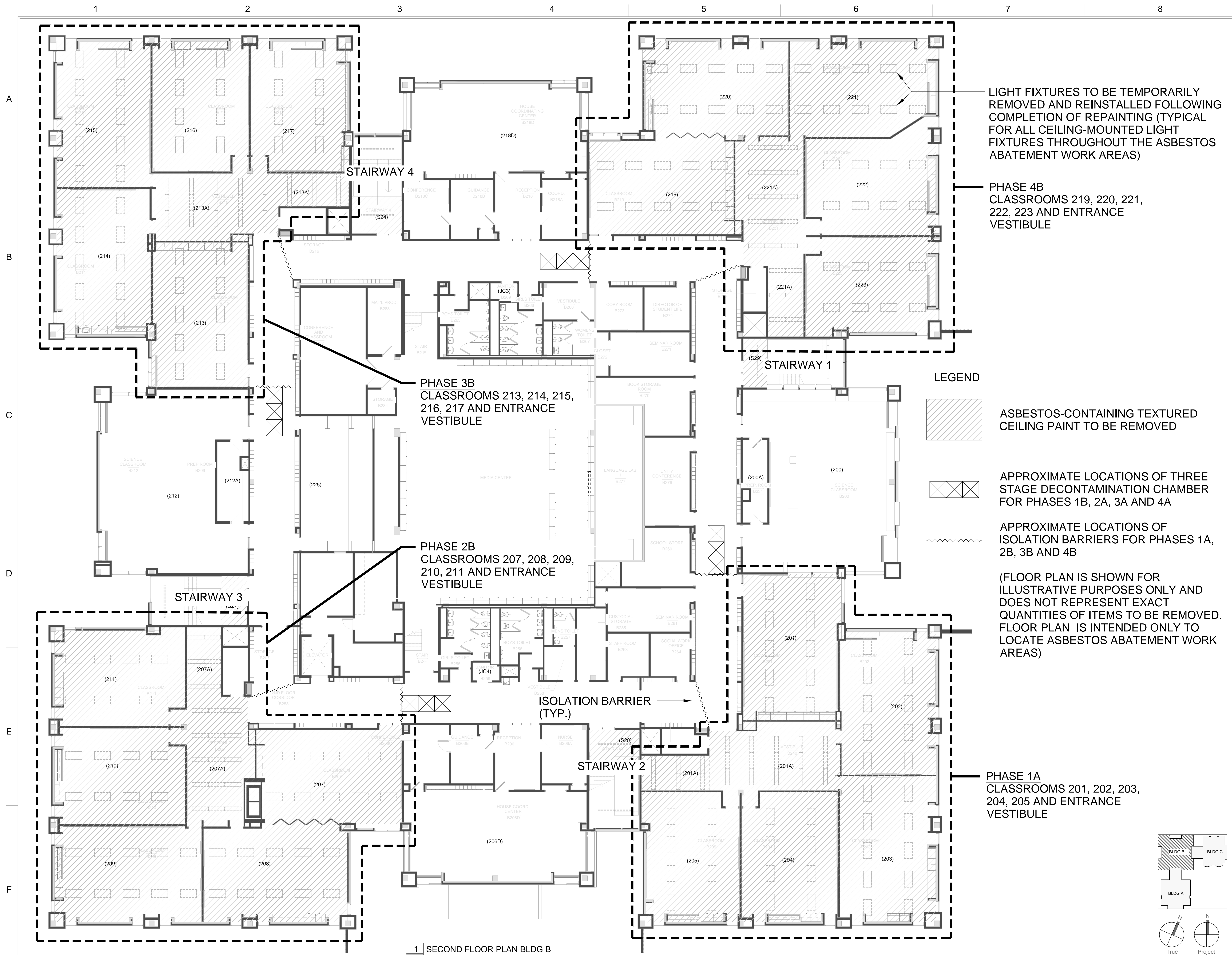
SCHOOL DISTRICT OF PHILADELPHIA
THE SCHOOL REFORM COMMISSION
DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES
440 NORTH BROAD STREET
PHILADELPHIA, PA 19106
215.400.4230 FAX 215.400.4231
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NO.	DATE	REVISION
1		
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7		
8		

SPEC NO. DATE
NO SCALE LOCATION NO.
DRAWN BY TYPE NO.
CHECKED BY FILE NO.

DRAWING NO.
ASB-1

SHEET OF



LIGHT FIXTURES TO BE TEMPORARILY REMOVED AND REINSTALLED FOLLOWING COMPLETION OF REPAINTING (TYPICAL FOR ALL CEILING-MOUNTED LIGHT FIXTURES THROUGHOUT THE ASBESTOS ABATEMENT WORK AREAS)

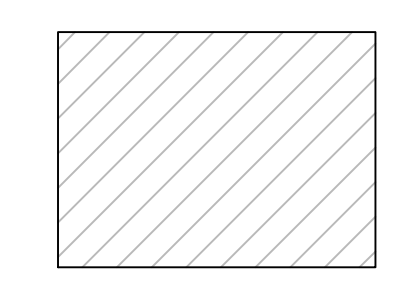
PHASE 4B CLASSROOMS 219, 220, 221, 222, 223 AND ENTRANCE VESTIBULE

PHASE 3B CLASSROOMS 213, 214, 215, 216, 217 AND ENTRANCE VESTIBULE

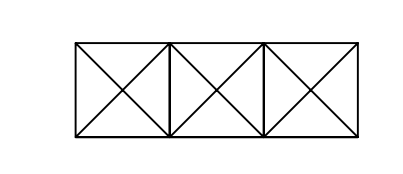
PHASE 2B CLASSROOMS 207, 208, 209, 210, 211 AND ENTRANCE VESTIBULE

PHASE 1A CLASSROOMS 201, 202, 203, 204, 205 AND ENTRANCE VESTIBULE

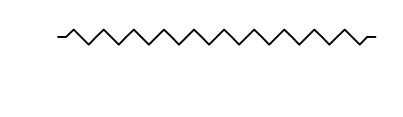
LEGEND



ASBESTOS-CONTAINING TEXTURED CEILING PAINT TO BE REMOVED

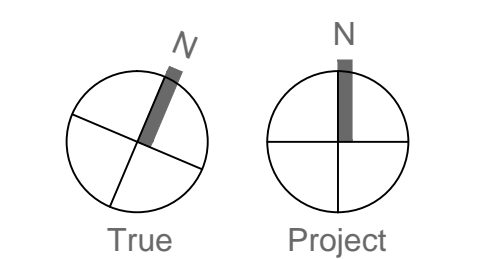
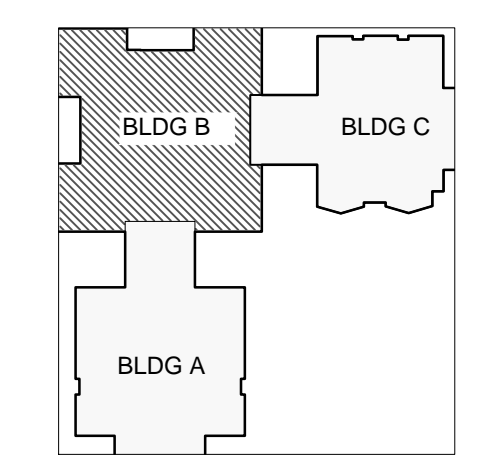


APPROXIMATE LOCATIONS OF THREE STAGE DECONTAMINATION CHAMBER FOR PHASES 1B, 2A, 3A AND 4A



APPROXIMATE LOCATIONS OF ISOLATION BARRIERS FOR PHASES 1A, 2B, 3B AND 4B

(FLOOR PLAN IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND DOES NOT REPRESENT EXACT QUANTITIES OF ITEMS TO BE REMOVED. FLOOR PLAN IS INTENDED ONLY TO LOCATE ASBESTOS ABATEMENT WORK AREAS)



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SCHOOL & LOCATION
5900 Baltimore Avenue, Philadelphia PA 19143
PROJECT TITLE
Renovations to Motivation High School
BUILDING TITLE
BUILDING B SECOND FLOOR - ASBESTOS-CONTAINING TEXTURED CEILING PAINT REMOVAL LOCATIONS
APPROVED BY

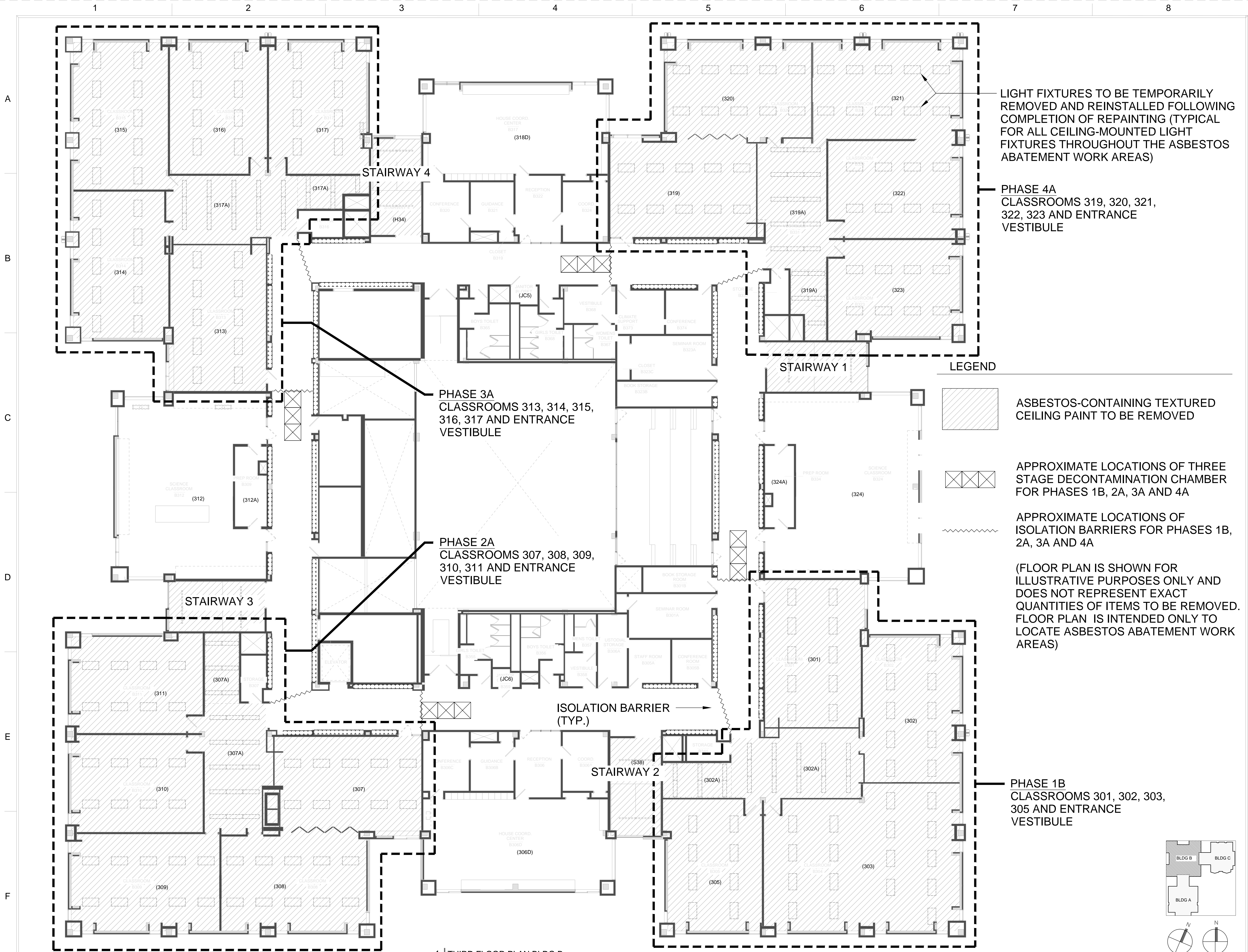
SCHOOL DISTRICT OF PHILADELPHIA
THE SCHOOL REFORM COMMISSION
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NO.	DATE	REVISION

SPEC NO. DATE 01/09/2018
SCALE NO SCALE LOCATION NO.
DRAWN BY TYPE NO. BJB
CHECKED BY FILE NO. BJB

DRAWING NO.
ASB-2

SHEET OF OF



LIGHT FIXTURES TO BE TEMPORARILY REMOVED AND REINSTALLED FOLLOWING COMPLETION OF REPAINTING (TYPICAL FOR ALL CEILING-MOUNTED LIGHT FIXTURES THROUGHOUT THE ASBESTOS ABATEMENT WORK AREAS)

PHASE 4A CLASSROOMS 319, 320, 321, 322, 323 AND ENTRANCE VESTIBULE

PHASE 3A CLASSROOMS 313, 314, 315, 316, 317 AND ENTRANCE VESTIBULE

PHASE 2A CLASSROOMS 307, 308, 309, 310, 311 AND ENTRANCE VESTIBULE

ASBESTOS-CONTAINING TEXTURED CEILING PAINT TO BE REMOVED

APPROXIMATE LOCATIONS OF THREE STAGE DECONTAMINATION CHAMBER FOR PHASES 1B, 2A, 3A AND 4A

APPROXIMATE LOCATIONS OF ISOLATION BARRIERS FOR PHASES 1B, 2A, 3A AND 4A

(FLOOR PLAN IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND DOES NOT REPRESENT EXACT QUANTITIES OF ITEMS TO BE REMOVED. FLOOR PLAN IS INTENDED ONLY TO LOCATE ASBESTOS ABATEMENT WORK AREAS)

PHASE 1B CLASSROOMS 301, 302, 303, 305 AND ENTRANCE VESTIBULE



SEAL

CONSULTANTS
 Environment
 Syntech Incorporated
 1000 Locust Street, Philadelphia PA 19148
 215.758.2305

SCHOOL & LOCATION
 5900 Baltimore Avenue, Philadelphia PA 19143

PROJECT TITLE
 Renovations to Motivation High School

ISSUANCE TITLE
 BUILDING B THIRD FLOOR - ASBESTOS-CONTAINING TEXTURED CEILING PAINT REMOVAL LOCATIONS

APPROVED BY

SCHOOL DISTRICT OF PHILADELPHIA
 THE SCHOOL REFORM COMMISSION

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 440 NORTH BROAD STREET
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CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS AT SITE

NO.	DATE	REVISION

SPEC NO. DATE
 NO SCALE LOCATION NO.

DRAWN BY TYPE NO.
 BJB

CHECKED BY FILE NO.
 BJB

DRAWING NO.
ASB-3

SHEET OF

1 | THIRD FLOOR PLAN BLDG B
 ASB-3 SCALE: NTS

