Geotechnical • Construction Materials • Environmental • Facilities

July 19, 2022

Mr. John Contreras Director, Safety & Security Services Alexandria City Public Schools (ACPS) 1340 Braddock Place Alexandria, VA 22314

ECS Project No. 47:11652-E

Dear Mr. Contreras:

ECS Mid-Atlantic was tasked with performing three-year Asbestos Hazard Emergency Response Act (AHERA) asbestos re-inspections to determine if asbestos-containing building materials (ACBMs) are present on the subject building that had not been previously identified, to account for the ACMs previously identified with regards to their general location and condition, and finally to generally identify if any of the previously noted ACMs had been abated. The survey was performed within interior areas of the subject building. Exterior and roofing materials were not included in these surveys. These surveys are intended to provide a supporting document for the AHERA management plan for the school.

US EPA AHERA regulations requires all public and private schools to survey school buildings and associated support school buildings for ACMs, and to prepare management plans for identified ACMs. ECS has provided this summarization of ACBMs found within the schools during the AHERA surveys. This document is a summary only and the full reports should be referenced.

Sincerely,

**ECS MID-ATLANTIC, LLC** 

Lauren E. Kesslak, CIH, CSP

**Environmental Senior Project Manager** 

Christopher J. Chapman, CIH Director of Industrial Hygiene

## Asbestos-containing and Non-asbestos containing Building Lists

- 1) No asbestos-containing materials were found within the following schools/buildings.
  - Alexandria City High School (T.C. Williams)
  - ACPS Central Office
  - Ferdinand T. Day Elementary School
  - Jefferson-Houston PreK-8 IB School
  - Patrick Henry K-8 School
  - Samuel Tucker Elementary School

ECS notes however that assumed asbestos containing materials (not accessible for testing) maybe present in the schools listed above.

- 2) Based on the laboratory analysis of the bulk samples collected during the recent AHERA surveys performed at the below-referenced school buildings (throughout 2021-2022), the documented data collected from previous asbestos survey reports prior to that time period, and other data listed in the management plans, the following school buildings noted below are considered to contain identified ACMs.
  - Charles Barrett Elementary School
  - Cora Kelly School for Math, Science, and Technology
  - Douglas MacArthur School
  - Francis C. Hammond Middle School
  - George Mason Elementary School
  - George Washington Middle School
  - James K. Polk Elementary School
  - John Adams Elementary School
  - Lyles-Crouch Traditional Academy
  - ACPS Maintenance Shop
  - Minnie Howard High School
  - Mount Vernon High School
  - Naomi Brooks Elementary School
  - Dee Campbell Rowing Facility
  - ACPS Transportation Facility
  - William Ramsay Elementary School

#### **Suspect ACMs**

Based upon our experience in the identification of ACMs in similarly constructed buildings, the following additional suspect ACMs may also be present in both lists:

- HVAC Components such as vibration dampers
- Pipe and/or duct insulation behind solid walls/above solid ceilings

- Kiln Components present in the Art Room
- Boilers Components in boilers (gasket, fire brick, etc.)
- Vermiculite Filler associated with Concrete Masonry Unit (Blocks/Walls).
- Duct Pin Mastic associated with the HVAC Units
- Electrical Panels Asbestos Cement Components in electrical systems
- Fire Door and associated Casing Insulation in locations requiring a rated fire door and door casing
- Mastics or Cement Boards associated with Baseboard Heaters/Radiator Components/Wall Mounted Fan Coil Units in and/or behind Radiators/Baseboards
- Mastics behind/under mirrors and dry-erase/chalk boards
- Water Fountain Components in water fountains (mastics, pipe cloth, etc.)
- Waterproofing Membrane/Mastics/Vapor Barriers/Sub-grade Pipe Conduit within exterior wall cavities, behind interior finishes, exterior veneer and/or subgrade walls
- Thermal System Insulation (TSI) on pipes within chases behind solid walls, within the inaccessible regions of crawl spaces, above the visible ductwork, or below subgrade
- Pipe Flange Gaskets in heating and plumbing systems
- Air Handler Components in the air handlers (interior components)
- Freezer Components and insulation
- Vibration Dampener Cloth associated with HVAC Systems
- Roofing Materials including caulk, flashing, membranes
- Felt Paper and Leveling Compound associated with hardwood floors
- Asbestos-Cement Pipe Conduit encased in duct banks and/or below sub-grade
- Cement Boards associated with kitchen or laboratory hoods, windows, or exterior panels
- Laboratory Bench Tops
- Terrazzo Stairs, Floors, Sinks, and Windowsills
- **Exterior Materials** including but not limited to: soffit materials, roofing materials, caulks, sealants, cementitious panels, and HVAC equipment
- Spray-On Fireproofing above ceilings and behind walls
- Gym floors
- Light shields

#### **Recommendation Summary**

As required under AHERA, 6 month surveillance of all identified ACMs is required to be performed (and documented) by trained staff within the entire school system. Under this program, it is recommended that the school system review this data periodically to monitor the condition of ACMs within the individual school buildings.

As standard practice, prior to performing any renovations or demolition work at the school buildings, a full asbestos review is recommended to be performed by a licensed asbestos inspector focusing on the scope of the planned project. The intent will be to identify any potential concealed or missed suspect ACMs.

For any school project disturbing ACMs, it is required under AHERA to prepare an abatement planed by a licensed asbestos abatement designer. In compliance with this requirement, ECS recommends that a project specification be prepared to delineate and quantify known and suspect asbestos-containing materials and materials containing trace amounts of asbestos in the project areas for each school project and to outline proper procedures for the abatement. This may help protect the owner's liability in better defining the scope of work and abatement contractors' roles and responsibilities in the abatement process and holding the abatement contractor accountable for the performance of the project. The specification typically defines the abatement contractor's scope of work and outline requirements and procedures that must be followed for the project. The intent of the specification is to give performance requirements for the abatement contractor so that the project can be completed safely and in compliance with applicable federal and state regulations. Typically, the specification document serves as part of the site owner's contract with the contractor.

As required by AHERA, clearance testing is required following any response action within a school where ACM is removed. ECS recommends that the school system retain a Virginia licensed project monitor directly to monitor any asbestos abatement project within the school systems.

The results of these surveys should be added to the schools' management plans.

#### **Limitation Summary**

The conclusions and recommendations presented within this report are based upon a reasonable level of assessment within normal bounds and standards of professional practice for a site in this geographic setting. ECS is not responsible or liable for the discovery and elimination of hazards that may potentially cause damage, accidents, or injuries.

During this study, samples were submitted for analysis at an accredited laboratory via polarized light microscopy. As with any similar survey of this nature, actual conditions exist only at the precise locations from which samples were collected. Certain inferences are based on the results of this sampling and related testing to form a professional opinion of conditions in areas beyond those from which the samples were collected. No warranty, expressed or implied, is made.

The observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are necessarily limited to conditions observed, and/or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and recommendations presented within this report. This report is provided for the exclusive use of the client. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties without the written consent of ECS and the client.

Our recommendations are in part based on federal, state, and local regulations and guidelines. ECS does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies, any conditions at the site that may present a potential danger to public health, safety, or the environment. Under this scope of services, ECS assumes no responsibility regarding any response actions initiated as a result of these findings. General compliance with regulations and response actions are the sole responsibility of the Client and should be conducted in accordance with local, state, and/or federal requirements.

## **Charles Barrett Elementary School**

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on November 4, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- Clear Mastic Associated with 12" x 12" Light Blue Floor Tile present in the Kindergarten Hall outside Room 107 and observed in other areas throughout the building.
- 12" x 12" White Floor Tile with Tan Streaks and Black Mastic located in the 1st Floor Elevator Lobby Area.
- Black Mastic Associated with 12" x 12" White Floor Tile with Gray Streaks located in the 1st Floor Elevator Lobby Area.
- 2' x 2' White Pinhole Fissure Ceiling Tile located in Pre-K Hallway.
- 1" Black Exterior Window Sealant located in the Exterior Window of the IT Server Room.
- Brown Ceiling Mastic observed throughout the building (Above Drop Ceiling Tiles in some Areas).
- 9" x 9" Maroon Floor Tiles and associated Mastic located in the Janitor's Closets (Assumed in other Areas.
- 9" x 9" Light Brown Floor Tiles and associated Mastic (assumed under 12" x 12" Floor Tile) located in the Auditorium Stage Area (Assumed under 12" x 12" Floor Tiles in other Areas).
- 9" x 9" Brown Floor Tiles and associated Mastic (assumed under 12" x 12" Floor Tile) located in the cafeteria. Stairwell (Assumed under 12" x 12" Floor Tiles in other Areas).
- TSI-3" OD Pipe Run located in the Kitchen Area (Storage Room and Bathroom); Note Additional TSI is assumed to be present in other areas of the building.
- Fire Door Insulation located in the Hallways; Fire doors are assumed to be present throughout the building.

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

## Cora Kelly School for Math, Science, and Technology

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on October 28, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- Black "Transite" Windowsills present throughout classrooms and building
- Various size and color vinyl floor tiles and their associated mastics; ECS does not have documentation of abatement, and due to the non-destructive means of this survey, the materials were not able to be uncovered or located and are still assumed present.
- "Air-o-cell" Pipe insulation that was not observed and assumed to be concealed behind interior walls.
- Door caulks that may be concealed by newer applications.
- Gray Drywall Joint Compound behind Plaster Wall in Room 32 of which ECS does not have documentation of its abatement. Assumed to be present in other areas throughout the building.

#### **Recommendations/ Actions Needed:**

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

#### **Douglas MacArthur School**

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on November 23, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- 9" x 9" green floor tile and associated mastic located in 1027B-Kiln Closet and 1025A-Office. This material may be in other areas of the building but are concealed or were inaccessible during the time of the survey.
- 9" x 9" dark gray/ green floor tile (second layer) with residual yellow mastic and associated black mastic in 1030 Classroom Closet. This material may be in other

areas of the building but are concealed or were inaccessible during the time of the survey.

- Mixed Mastic associated with 2' x 2' brown with gray and beige vinyl sheet floor tile located at the Ramp to North Wing. This mastic may be concealed under other flooring applications throughout the building.
- Interior Beige Glass Block Window Glazing observed in classrooms.
- White Acoustical Plaster Ceiling observed throughout the hallways.
- Various color floor tiles and/or associated mastics previously sampled as asbestos containing in areas with new flooring applications, deeming them inaccessible due to the non-destructive means of this survey.
- White Interior Door Caulk present in the Recreation Center Hallway and may be concealed in other areas by newer caulking applications.
- Joint compound associated with Drywall on the Stage area.

## **Recommendations/ Actions Needed:**

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

#### Francis C. Hammond Middle School

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on December 17, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- Boiler Insulation and old boiler components present in the boiler room
- 9" x 9" Vinyl Floor Tiles present in select closets, and possibly under new flooring applications
- Roofing components such as flashing, sealants, and caulks
- Gray sink undercoated assumed to still be present in Room 223B
- Pipe insulation and duct insulation components such as mastics, muds, and sealants are assumed to be present in concealed areas throughout the building

#### **Recommendations/ Actions Needed:**

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

## **George Mason Elementary School**

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on January 31, 2022, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- 1'x 1' Ceiling Tile Mastic present in the Copy Room, Cafeteria Supply Room, Cafeteria Closet on 1st Floor; and Art Room on 2nd Floor, and other areas throughout the building. However This material has been analyzed as a non-asbestos containing material within the cafeteria and conference room #5.
- Shingles present on the pitched roof.
- Black and gray Vinyl Floor Tiles and associated mastics concealed under newer flooring applications.
- Joint compound associated with Wall Plaster located in areas throughout the building.
- 12" x 12" Beige Mottle Floor Tile and associated Mastic present in Gym Storage Room and possibly other areas.
- Fire Door Insulation observed throughout the building.

#### **Recommendations/ Actions Needed:**

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

#### **George Washington Middle School**

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on November 2, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- Tan interior door caulks assumed present throughout building which may still be concealed under newer applications.
- Dot mastics associated with ceiling tile systems abated in certain areas but assumed to still be present in select areas throughout the building.
- Drywall Wallboard Joint Compound present in the Kitchen Hallway to Locker Rooms and Kitchen (assumed to be in other areas throughout the building).
- Mudded pipe insulation located in the boiler room as well as concealed or inaccessible areas throughout the building.
- · Roofing components present throughout the roof system.

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

## James K. Polk Elementary School

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on November 12, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- Black mastic on fiberglass 6" pipe insulation (above ceiling tiles) historically present in the stage storage closet and observed in a switch gear closet; The material is assumed to be present throughout the school.
- Black pipe insulation in the mechanical room and assumed to be present throughout the school.
- Boiler components like boiler breeching, brick, and gaskets in the Boiler room.
- White Mastic on Fiberglass Insulation in the Boiler room (also assumed to be potentially located throughout the school).
- Various Vinyl Floor Tiles and their associated Mastics concealed under new flooring applications - located throughout the school.
- Black sink undercoat in the Art Classroom
- Fire doors observed throughout the building
- Wall Dividers present throughout the building

## **Recommendations/ Actions Needed:**

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

#### John Adams Elementary School

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on November 19, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- 12"x 12" Olive Green Specked Floor Tile and associated Mastic- Observed as present in room 229, custodial closets, as well as select hallways throughout the building that have yet to be renovated.
- 12"x 12" Dark Gray with White Specks Floor Tile and associated Black Mastic-Observed to be present in the media center break room and may be located in other inaccessible areas of the building.
- Residual Brown Mastic associated with a removed Cove Base- Observed to be present throughout the hallway in front of the media center and may be concealed under a new cove base application throughout the building.
- Gray Fireproofing in East, West and South Hallways Not observed during survey but may be in inaccessible areas.
- Sink Undercoating- Observed in the Art Classroom.
- Vibration Cloth Not observed during survey but may be in inaccessible areas.
- Window Caulk- Observed to be present in the South Hallway but may be in inaccessible or concealed (due to caulk re-application) areas throughout the building.

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

#### **Lyles-Crouch Traditional Academy**

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on November 16, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- 9" x 9" Vinyl Floor Tiles may be concealed in other areas of the school that were not included in previous abatements or renovations, notably, the cafeteria.
- Fire Door Insulation throughout the building
- Black Windowsills present in the kitchen, and throughout classrooms.
- Roofing Components
- Vibration Cloth present in Room 007. Materia; may be present throughout the system in other concealed areas.

## **Recommendations/Actions Needed:**

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

## **ACPS Maintenance Shop**

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced building on October 12, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- Drywall Wallboard Joint Compound located in Bay 6.
- Pipe Jacket and Associated Beige Mastic on Fiberglass Pipe Insulation in the Warehouse

### **Recommendations/ Actions Needed:**

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

## **Minnie Howard High School**

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on May 27, 2021, June 11, 2021, and March 10, 2022, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

ECS observed the following asbestos-containing flooring materials within the school:

- Floor Tile Associated with 12"x12" Peach Floor Tile and Yellow Mastic in the Office Copy Room
- 9"x9" Gray and Brown Floor Tile and associated Black Mastic in the Custodial Closet North Hallway/Under Tile in North Hallway
- Gray Tile under 12"x12" White with Gray Streaks Floor Tile in Room 143
- 12"x12" Darker Navy Floor Tile Patch and Associated Yellow Mastic (Tile) outside Room 141
- 9" x 9" Brown Floor Tile in Art Room 155
- 9" x 9" Red Floor Tile and associated Black Mastic in Room 175
- 9"x9" Gray Floor Tile under Carpet with associated Black Mastic in Room 175
- Gray Mastic associated with 12"x12" White with Brown and Red Flecks Floor Tile in the Locker Room Foyer
- Unknown Sized Tile under 12"x12" White with Brown and Red Flecks Floor Tile in the Locker Room Foyer
- Gray Boiler Breeching/Insulation in South Boiler Room

- 4" Paper Pipe Wrap and White Insulation in South Boiler Room
- Mudded Elbow on 4" Return Pipe in the South Boiler Room, Laundry Room, and Crawlspaces
- Gray Cardboard Insulation on Vertical Steam Line in Room 38
- 10" Paper Pipe Wrap and White Insulation in the South Boiler Room
- 4" Paper Pipe Wrap and White Insulation in the South Boiler Room
- Interior Cream Window Caulk in the Hallway by the Office
- Red/White Exterior Window Caulk in the Exterior Courtyard
- Vent Caulk on the exterior of the building

ECS recommends cleaning the asbestos-containing debris on the floor in the South Boiler Room. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

## **Mount Vernon High School**

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on January 28, 2022, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- 2' x 4' White Pinhole Ceiling Tile present in Rooms 101-105, the stairwell outside of room 105, 201-217, as well as used in select spots throughout the second-floor hallways.
- Gray Leveling Compound present in Cafeteria and Hall by Room 209.
- Black Mudded Pipe Elbows above drop ceilings.
- Black Mastic on Fiberglass Duct Wrap above drop ceilings.
- Mudded Pipe Elbows present in custodial closets and above drop ceilings.
- Brown Ceiling Mastic above drop ceilings.
- Various vinyl floor tiles and their associated mastics may be concealed under newer floor applications.

#### **Recommendations/ Actions Needed:**

ECS recommends the abatement of the asbestos-containing ceiling tiles. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

## Naomi Brooks Elementary School

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on January 27, 2022, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- Beige Interior Door Caulk- Observed to be present in the cafeteria but may be in inaccessible or concealed (due to caulk re-application) in various areas throughout the building.
- Black Tar Paper/Waterproofing in the Basement Storage Room-Not observed during survey but may be in inaccessible areas.
- White Interior Window Glazing present in the Storage Room in the Basement at Exit Door 11- May be present on other older windows.
- Various applications of pipe insulations and sealants reported as ACM prior to this survey but were not observed; Likely material still present in concealed and inaccessible areas of the building throughout pipe and duct systems.

## **Recommendations/ Actions Needed:**

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

#### **Dee Campbell Rowing Facility**

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on October 12, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- Interior White Door Caulk present in 1st Floor Stairwell and 2nd Floor Gym Area
- Interior White Expansion Joint Caulk present in 2nd Floor Gym Area, and 1st Floor Warehouse

## **Recommendations/Actions Needed:**

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

## **ACPS Transportation Facility**

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on November 25, 2021, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

• 12" x 12" Brown with Brown and White Flecks Floor Tile and Black Mastic present in the First-Floor East office as well as well as the lower-level custodial closet.

### **Recommendations/ Actions Needed:**

No immediate actions are required at this time. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.

## William Ramsay Elementary School

Based on the laboratory analysis of the bulk samples collected during the recent AHERA survey performed at the above-referenced school building on March 28, 2022, and the documented data collected from previous asbestos survey reports and management plans, the following materials noted below are considered asbestos-containing materials (ACMs) and were observed in the following locations:

- 12" x 12" Old/damaged Off-White Floor Tile and associated Brown Mastic present in a residual application within the Cafeteria Kitchen.
- Black Sink Undercoat associated with the Kiln Closet Sink in the Art Room. Also observed and sampled in the Library Office.
- Black Unknown Size Floor Tile present in the 2nd Floor Trash Room and observed under carpet throughout Rooms 10-20.
- 1' x 1' White Ceiling Tiles Large Pinhole Pattern present in the Book Storage Room on the 1st Floor.
- TSI-Mudded Elbows/Joints present in the Crawl Spaces in the 1<sup>st</sup> Floor Boiler Room and Ground Floor (Assumed in other Areas).
- 1' x 1' Ceiling Tiles present in Food Storage and offices in the Kitchen on the 1st Floor
- 9" x 9" Gray with White Flecks and associated Black Mastic present in the Stage Stair Landing on the 1st Floor.
- 12" x 12" Brown Floor Tiles and Associated Mastic present in the Art Room.
- Older wiring and lighting components present in closets.
- Various colors and sizes of asbestos containing floor tile and/or associated mastics
  that were previously reported in areas that have since been concealed with newer
  flooring applications, deeming them inaccessible due to the non-destructive means of
  this survey

ECS recommends the abatement of the asbestos-containing ceiling tile and the clean-up of the damaged off-white 12" x 12" floor tile and associated brown mastic within the cafeteria/kitchen area. Should asbestos-containing materials or suspect asbestos-containing materials be disturbed during renovation or maintenance activities appropriately trained professionals should be consulted.