

Project Name: Cavanaugh & Cumberland HVAC

Project No.: 221125-020 & 030

Architect: Kingscott

Date: 12/4/2023

Bid Package No.: 2

Bid Due Date: 12/21/2023

This Addendum is issued to inform the bidders of modifications in the scope of work being bid for this project.

**A. Documents included in this Addendum and dated 11/10/23:**

- Specification section(s):  
BDN Abatement Specification – Cavanaugh  
BDN Abatement Specification – Cumberland
- Drawing(s): None

**B. Other modifications: None**

**C. Bids are due 12/21/2023.**

- **Include in your bid the increase or decrease for all materials, labor, supervision, overhead and profit required to properly and completely execute the work described in this Addendum.**
- **Acknowledge receipt of this Addendum on the Bid Proposal Form.**

The applicable provisions of the Contract Documents shall govern all work included herein unless specifically noted otherwise.

**END OF ADDENDUM NO. [ # 1 ]**



## TECHNICAL SPECIFICATION FOR ASBESTOS REMEDIATION

**Report Prepared for:**

Mark Alexa  
Plante Moran  
Lansing Public Schools  
519 West Kalamazoo Street  
Lansing, MI 48933

**Project Information:**

Cavanaugh Elementary  
300 West Cavanaugh Street  
Lansing, MI 48910

**Prepared by:**

Ken Conlin  
Senior Project Manager  
A51104  
Kconlin@bdnihc.com

**BDN Project No.:** P23-00305

11/10/2023



## Table of Contents

<b>1.0 Bidder Submittals.....</b>	<b>1</b>
<b>2.0 Contractor Submittals.....</b>	<b>2</b>
2.1 Asbestos.....	2
2.2 General (if requested) .....	3
<b>3.0 Project Conditions.....</b>	<b>3</b>
3.1 Asbestos Project Contact:.....	3
3.2 Asbestos.....	3
3.3 Contractor Responsibilities.....	5
<b>4.0 General Project Conditions.....</b>	<b>5</b>
4.1 Legal Requirements .....	5
4.2 Referenced Standards .....	6
1. OSHA:.....	6
2. EPA:.....	7
3. DOT:.....	7
4. State Requirements:.....	7
5. Local Requirements: .....	7
6. Contractor Responsibility: .....	7
4.3 Worker Protection.....	8
4.4 Worker Decontamination.....	9
4.5 Prohibited Activities .....	9
4.6 On-Site Industrial Hygienist Responsibilities.....	10
4.7 Negative Pressure Enclosure .....	10
4.8 Methods of Asbestos Removal Within the NPE .....	11
4.9 Decontamination of the NPE.....	12
4.10 Asbestos Waste Disposal Requirements .....	12
<b>5.0 Scope of Work.....</b>	<b>13</b>
5.1 Contractor Responsibilities.....	13
<b>6.0 Project Notes.....</b>	<b>16</b>

**Appendix A – Bid Forms and Unit Rates**

**Appendix B – Supplemental Information**

**Appendix C – Asbestos Building Inspection Report**

## 1.0 Bidder Submittals

- 1.1 The Contractor shall submit a base bid and any alternates and unit prices for the asbestos abatement as outlined in the scope of work section, as described in these project specifications. (Appendix A).
- 1.2 The Contractor shall provide a work schedule detailing the number of days the abatement will take, the length of shifts, and the number of workers per shift to complete the scope of work outlined within this bid specification (Appendix A).

## 2.0 Contractor Submittals

The successful bidder shall provide the following information to BDN and the owner's representative (GC/CM) prior to commencing any tasks related to this project. These tasks include area preparation, equipment mobilizing, etc. Additional submittals may be required for the Construction Manager upon award.

### 2.1 Asbestos

1. Michigan Abatement Contractor's License
2. Proof that each of the employees assigned to this project has completed a physical complete with chest X-rays and pulmonary functions testing
3. Copies of Michigan Asbestos Abatement Supervisor and Asbestos Abatement Worker Accreditation Cards as issued by the Michigan Department of Labor and Economic Opportunity. The Accreditation period shall not expire prior to the project's scheduled completion date
4. Current Proof of Asbestos Worker Training or Asbestos Supervisor Training
5. Proof that non-asbestos workers assigned to this project (for general labor, bag-out, etc.) have received 2-hour asbestos awareness training
6. Proof of employee respirator training and most recent fit test certification
7. Copies of the Environmental Protection Agency (EPA) and/or designated state agencies Notification of intent to Renovate/Demolish as required under 40 CFR 61.22 (d).
8. Detailed work plan describing the number of employees who will be assigned to the project, the schedule (start and completion dates and times for each of the floors), equipment to be used within the work area, equipment, and recyclable materials decontamination, fire prevention procedures, and methods of removal of ACM. **This**



document will be reviewed and signed off prior to work commencing.

9. Name and address of landfill proposed by Contractor.

## **2.2 General (if requested)**

1. Written HAZCOM program and proof of employee training for working around ACM
2. Written confined space entry program and proof of employee training (if appropriate)
3. Written hot work program and proof of employee training (if burning is anticipated)
4. A written respiratory protection program
5. SDSs for all materials brought on-site before they're used
6. A written silica exposure control program
7. Proof of employee Drug Testing Program.

## **3.0 Project Conditions**

### **3.1 Asbestos Project Contact:**

Ken Conlin of BDN Industrial Hygiene Consultants, Inc., will serve as the asbestos project manager for the project and can be reached at:

BDN Industrial Hygiene Consultants, Inc.  
620 South Capitol Avenue, Suite 305  
Lansing, MI 48933  
231-250-9343  
Kconlin@bdnihc.com

### **3.2 Asbestos**

Removal shall not occur until the 10-day notification has taken effect. Before asbestos abatement activities start, the Contractor **SHALL**:

1. Effectively isolate the abatement area from all other areas of the Building. The Contractor shall isolate and seal all air ducts, doors, hallways, and other openings into the abatement area.
2. Post warning signs and barrier tape at all entrances or openings to the removal area in accordance with applicable regulations.

Provide in accordance with 29 CFR 1910.1001(f) of OSHA's Asbestos standard:

**DANGER  
ASBESTOS  
MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS  
AUTHORIZED PERSONNEL ONLY**

In addition, where the use of respirators and protective clothing is required in the regulated area, the warning signs shall include the following:

**WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA**

3. Construct a decontamination area, per regulations and require that all non-emergency access to the abatement be limited through the decontamination area. The location of the decontamination area shall be determined by the Contractor with the approval of the BDN representative on site.
4. The Contractor shall supply a sufficient number of Air Filtration Devices (AFD) to provide a minimum of 4 air changes per hour and negative pressure of .02" water column in the project areas where required. The Contractor shall provide a means to measure water column pressure throughout the project (e.g., Negamaster/Monometer).
5. The Contractor shall assume full responsibility for the conduct of each of his employees, including subcontractors, while under contract for this project. Absolutely no employee will be allowed on the premises while under the influence of alcohol, controlled substances, or prescription medication, which may impair the employee in any way. This site will require additional background checks and fingerprinting prior to your first day on site.
6. The Contractor shall establish emergency and fire exit routes from the work area. Emergency response personnel (fire, police, and emergency technicians) shall have immediate access to the work area. In an emergency, preservation of life and treatment of seriously injured workers shall have priority over decontamination.
7. The Contractor shall faithfully comply with all federal, state, and local laws, standards, and regulations while carrying out this project.
8. The Contractor will provide and make all arrangements necessary to access utilities on site:
  - a) Access to sufficient electrical power shall be provided by the Owner.
  - b) Access to sufficient cold running water for decontamination and water for asbestos removal shall be provided by the Owner. The Contractor is responsible for supplying hot water for the purpose of decontamination. The Contractor shall ensure all residual water



used in abatement or worker decontamination is filtered and disposed of in the City sanitary sewer.

9. Damage to the Owner's services or property caused as a result of the Contractor's actions as a result of this project shall be repaired to the Owner's satisfaction. All expenses resulting from repairs of damage shall be at the Contractor's expense.
10. The Contractor shall ensure that the dumpsters maintained on-site are locked at all times when not attended. In addition, the dumpsters shall have a hardtop and be appropriately labeled.
11. **All waste shall be transported to the landfill approved by the Owner and Construction Manager.**

### **3.3 Contractor Responsibilities**

1. The Contractor shall provide all items, articles, materials, operations, or methods listed, required to be furnished or accomplished by reason of the plans or any other Contract Documents, including all labor, materials, equipment, and incidentals required or necessary for their completion.
2. Should any error or inconsistency be found by the Contractor in the Specifications or drawings, the Contractor shall contact BDN and the Construction Manager before proceeding with the work for proper adjustment. In no case shall proceed with the work until so authorized.
3. The Contractor shall be held to provide all labor and materials necessary for the entire completion of the work described in the Bid Documents and reasonably implied therefrom.
4. **Quantities listed in this document are for general information only and will not relieve the Contractor from the removal of all asbestos materials under their quoted price.**
5. A copy of the waste manifest shall be submitted to BDN after the completion of the project.

## **4.0 General Project Conditions**

### **4.1 Legal Requirements**

1. The Contractor shall be licensed for asbestos abatement work in the State of Michigan as required by Michigan Public Act 55, effective June 8, 1993.
2. The Contractor shall use only employees who have received health and safety training, which, as a minimum, fulfills the training required by Michigan Public Act 147 (1986) and OSHA 29 CFR 1926.62.

3. The Contractor shall furnish all labor, supervision, materials (lien-free), employee training, employee physicals, insurance, and equipment necessary to carry out asbestos abatement procedures in accordance with OSHA, EPA, MIOSHA, and other applicable federal, state, and local government regulations.
4. The Contractor shall obtain prior approval to deposit asbestos-containing wastes at an Owner approved landfill.
5. The Contractor shall provide project notification to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and Michigan Department of Labor and Economic Opportunity (MLEO), Asbestos Programs at least 10 days prior to commencement of asbestos abatement work if required.

## **4.2 Referenced Standards**

### **1. OSHA:**

U.S. Department of Labor, Occupational Safety and Health Administration,(OSHA), including but not limited to:

Occupational Exposure to Asbestos, Tremolite,  
Anthophyllite, and Actinolite; Final Rules  
Title 29, Part 1910, Section 1001 and  
Part 1926, Section 1101 of the  
Code of Federal Regulations

Respiratory Protection  
Title 29, Part 1910, Section 134 of the  
Code of Federal Regulations

Construction Industry  
Title 29, Part 1926, of the  
Code of Federal Regulations

Subpart J, Fire Prevention  
Title 29, Part 1926

Subpart T, Demolition  
Title 29, Part 1926

Access to Employee Exposure and Medical Records  
Title 29, Part 1910, Section 2 of the  
Code of Federal Regulations

Hazard Communication  
Title 29, Part 1910, Section 1200 of the

Code of Federal Regulations

Specifications for Accident Prevention Signs and Tags  
Title 29, Part 1910, Section 145 of the  
Code of Federal Regulations

## **2. EPA:**

U. S. Environmental Protection Agency (EPA), including but not limited to:

National Emission Standard for Hazardous Air Pollutants (NESHAPS)  
National Emission Standard for Asbestos  
Title 40, Part 61, Sub-part A, and Sub-part M (Revised Sub-part B) of the  
Code of Federal Regulations

## **3. DOT:**

U. S. Department of Transportation, including but not limited to:

Hazardous Substances  
Title 29, Part 171 and 172 of the  
Code of Federal Regulations

## **4. State Requirements:**

MIOSHA Rule 2205

Michigan Public Act 55

Michigan Public Act 147

Michigan Public Act 440

## **5. Local Requirements:**

Abide by all local requirements which govern asbestos abatement work or  
hauling and disposal of asbestos waste materials.

## **6. Contractor Responsibility:**

The Contractor shall assume full responsibility and liability for the compliance with all standards  
pertaining to work practices, hauling, disposal, and protection of workers, visitors to the sites,  
and persons occupying areas adjacent to the sites.

### 4.3 Worker Protection

1. All individuals entering the removal area during the project must comply with OSHA standard 29 CFR 1910.134 respiratory protection, including the selection of an approved respirator with HEPA filters or an approved supplied-air respirator. The individuals must have passed a medical examination as specified in the respiratory standard, must have completed a pulmonary function test, must have their doctor's permission to engage in activities while wearing a respirator, and must have passed a respiratory fit test as specified in 29 CFR 1910.134.
2. Any facial hair that interferes with the fit of a negative pressure respirator must be removed before the individual dons the respirator.
3. The minimum respiratory protection for workers shall be a half-mask air-purifying respirator equipped with HEPA filter cartridges approved by the National Institute for Occupational Safety and Health (NIOSH).
4. The Contractor shall have established a respirator usage program as specified in 29 CFR 1910.134, and shall have proof of formal employee training in respirator usage.
5. The Contractor shall have a sufficient quantity of replacement HEPA respirator filter cartridges stored on the worksite and shall be easily accessible to workers and Consultants.
6. The Contractor shall enforce proper worker decontamination and cleaning of worker respirators each time they exit the work area.
7. The Contractor shall keep a bound, written, and dated log of employees, regulators, and any other persons who enter the work area wearing respirators. The log shall be kept on-site at or near the enclosure for periodic review or with Project documents held by the project supervisor.
8. Should air sampling indicate that the airborne asbestos fiber concentration within the restricted area is in excess of the safe allowable limits for the respiratory protection worn, the Contractor shall provide for his/her employees with respiratory protection that will allow for safe working conditions.
9. The Contractor shall communicate the results of the air sampling to his/her employees by posting the air sampling results on the job site or in writing within 24 hours.
10. In the event the results of the personal breathing zone samples exceed the Permissible Exposure Limit (PEL) of 0.10 fibers/cc for asbestos, work will be stopped until the cause can be isolated.
11. Asbestos abatement personnel shall wear a powered air-purifying respirators (PAPR) respiratory protection until sufficient data has been collected through personal breathing zone sampling to assure the method of removal does not result in airborne concentrations in excess





of the restrictive limits of the respirator. Respiratory protection requirements may be relaxed to negative pressure respirators when sufficient data has been generated and at the approval of the on-site industrial hygienist.

12. Workers shall wear disposable full-body coveralls, head covers, and appropriate footwear in the removal area. Reusable footwear (i.e., boots) may be left in the dirty room of the removal area between workdays, but must be either disposed of with other contaminated wastes or decontaminated thoroughly before removal from the dirty room.
13. The Contractor shall provide gloves, hard hats, goggles or safety glasses, and other personal protective equipment as may be appropriate for use by workers on the project site.

#### **4.4 Worker Decontamination**

1. The Contractor shall construct and isolate a decontamination area in accordance with 29 CFR 1926 Appendix F.
2. **Contractor's employees shall remove street clothes in the clean/changing room**, and dress in disposable coveralls, head covers, foot covers, and respiratory protection prior to entering negative pressure enclosure work areas.
3. When workers leave the work area, they shall remove their head coverings, disposable coveralls, and foot coverings in the "dirty" or "equipment" room, and while wearing a respirator, proceed to the shower. Respirators shall be removed while showering with Soap and water.
4. Because cold water showers discourage thorough worker decontamination, the Contractor must provide showers with water of at least 70 degrees Fahrenheit with independently adjustable hot and cold water controls for worker decontamination. The Contractor shall provide a portable water heater.
5. Workers shall shower as a minimum:
  - a. before lunch
  - b. at the end of each workday
  - c. at any other time, the worker leaves the contaminated area.

#### **4.5 Prohibited Activities**

Smoking, drinking, eating, or chewing gum or tobacco inside the contaminated area and surrounding work areas are prohibited. The Contractor shall immediately release any individual of the privilege of working on the project if the individual is smoking, eating, drinking, or chewing tobacco or gum inside the work area.



#### 4.6 On-Site Industrial Hygienist Responsibilities

1. The Owner will contract with an industrial hygiene company, such as BDN, as the neutral third party to conduct air monitoring and assure Contractor compliance with applicable asbestos abatement standards, regulations, and procedures. Air monitoring procedures shall follow the NIOSH 7400 A method (third revision of May 19, 1989) and Appendix A of 29 CFR 1926.1101 (Construction standard) for asbestos. Air samples shall be collected, as stated below.
  - a. Background, baseline, or pre-abatement samples may be collected prior to the start of area preparation.
  - b. General (clean) area samples will be collected outside the restricted area to verify that the engineering controls established on this project are effective in preventing the spread of airborne asbestos fibers to uncontaminated areas. In the event that general area samples obtained outside the enclosure but in the regulated area are equal to or exceed 0.05 fiber/cc, work inside the removal area will cease. The cause will be identified and corrected before allowing the Contractor to resume the asbestos abatement activities.
  - c. Personal breathing zone samples from personnel performing representative work activities/tasks within restricted areas will be collected. Verification of personal breathing zone samples can be taken at its discretion. Sample results shall be displayed within 24 hours of collection. If the airborne fiber concentration is in excess of the PEL, the Contractor shall document the steps taken to control and minimize the levels of airborne asbestos fibers. This monitoring does not relieve the Contractor of their OSHA responsibilities.
  - d. Clearance samples shall be collected only after the on-site IH, and a representative of the Contractor has performed a visual examination on the removal area. If asbestos is detected subsequent to clearance sampling, the ACM shall be removed. Additional clearance samples may be required.

#### 4.7 Negative Pressure Enclosure

1. The Contractor shall isolate the project areas from the remainder of the Building. Each area shall be pre-cleaned, and any suspect ACM and/or ACM debris found on ceilings, floors, or ledges shall be wetted and removed with the use of a HEPA vacuum prior to erecting the enclosure. The on-site IH shall inspect the integrity of the Contractor's barriers prior to the start of abatement in each area. The Contractor shall isolate work areas for the duration of the project by completely sealing off all openings to the area. Sealing of openings and fixtures of the work area shall include, but not be limited to, heating and ventilation ducts and openings, attic ventilation ducts extending downward into the floor, doors, windows, skylights, and lighting, electrical panels, and conduit openings. Sealing shall be accomplished with **6 mil polyethylene sheeting** or equivalent, taped, or glued into place. Enclosure walls shall be constructed of two layers of polyethylene sheeting taped into place. The floors of the enclosures shall be constructed of two layers of 6-mil polyethylene sheeting, or equivalent,



taped, or glued into place. The Contractor is responsible for cleaning any glue or tape residue from any surface following the completion of the work.

2. If contaminated, movable objects are located within the removal area, the Contractor shall, while setting up the restricted area, vacuum, clean, and remove these from the removal area.
3. Airlocks for entrance in and out of the work area shall be constructed of 6 mil polyethylene sheeting and wooden or metal framing. The airlocks from the work area, to the equipment (dirty) room, to the shower area, to the clean (change) room shall be contiguous.
4. The Contractor shall provide ventilation controls that facilitate the movement of airborne fibers away from the worker in all removal areas. The equipment used for such ventilation controls shall have HEPA filters for filtering exhaust air that shall be exhausted to the outdoors unless otherwise directed by the Owner. In each restricted area, ventilation controls shall operate continuously throughout the project until final clearance sampling levels are attained.
5. The Contractor shall post lawfully required notification of asbestos removal, Contractor license, and training certificate of the Contractors personnel trained in the requirements of the NESHAP standard adjacent to the entrance of the removal area, and to any other points of access to the work area.
6. It is the Contractor's responsibility for site security unless otherwise stated. The Contractor will follow all requirements of the Ingham County Jail's security program.

#### **4.8 Methods of Asbestos Removal Within the NPE**

1. Removal of all asbestos shall be with wet methods. All asbestos surfaces shall be sprayed with water and an acceptable wetting agent. A fine spray of this solution shall be applied to prevent fiber liberation preceding removal; fine spraying of surfaces shall be continued to minimize employee exposure.
2. Asbestos-containing materials shall be removed and placed into 6 mil, labeled bags while still wet. Bags will be labeled with legally required hazard warnings, sealed, washed, and placed into a second 6 mil, labeled, polyethylene bag, and must be labeled and sealed in accordance with federal and state regulations. (See asbestos waste disposal requirements)
3. Asbestos-containing material shall not be removed with power tools unless attached to a HEPA filtration unit.
4. All equipment used during removal shall be properly decontaminated prior to removal from the work area.
5. All plastic sheeting, cleaning materials, clothing, and other disposable materials used during removal shall be double-bagged in the same manner as asbestos-containing materials.



6. All transportation of asbestos-containing materials to the landfill shall be in vehicles with hard roofs. Transportation of asbestos-containing wastes in open pickup trucks or in pickup trucks with tarpaulins is expressly prohibited.

#### **4.9 Decontamination of the NPE**

1. The Contractor shall clean all surfaces in the work area with water and/or a HEPA-filter equipped vacuum. After the work area has been cleaned, the Contractor and the industrial hygienist shall conduct a thorough visual examination to certify the removal of all ACM. Upon completion of the visual inspection and approval of the industrial hygienist, the Contractor shall apply a sealant (encapsulant) to all potentially contaminated surfaces inside the removal area.
2. If after final clearance air sampling, the industrial hygienist finds the work area is not sufficiently decontaminated, the Contractor shall repeat the cleaning and encapsulation. This shall continue until no asbestos is found during the area inspection.
3. After the work area is found to be in compliance, all barriers, plastic sheeting, tape, and other wastes and debris shall be removed and disposed of as asbestos-containing wastes.

Remote decontamination may be proposed by the Abatement Trade Contractor as part of their Abatement Plan. Where a Mini Enclosure (ME) is specified, a pressure differential containment with a minimum two-stage decontamination facility concurrent with the containment will be constructed as outlined in these specifications prior to the removal of asbestos-containing materials or any other preparatory work which may involve disturbing the asbestos-containing material. A shower facility shall be located nearby pursuant to OSHA regulations 29 CFR 1926.1101. and must be equipped with Hot and Cold adjustable water, disposable towels, Soap, and shower facilities must comply with 29 CFR 1910.141(d)(3).

Any other removal method or practice that the Contractor intends to use should be described in their written work plan and approved by BDN prior to proceeding with the work. These work practices include but are not limited to; glove bag removal operations, regulated area set-up, whole structure removal, etc.

#### **4.10 Asbestos Waste Disposal Requirements**

The Contractor shall dispose of the asbestos-containing materials in disposal bags labeled as follows:

**First Label:**

Provide in accordance with 29 CFR 1910.1001(f) of OSHA's Asbestos standard:

**DANGER**  
**CONTAINS ASBESTOS FIBERS**



**MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS  
DO NOT BREATHE DUST  
AVOID CREATING DUST**

**Second Label:**

Provide in accordance with U. S. Department of Transportation regulation on hazardous waste marking. 49 CFR parts 106, 107, 171 to 180. Published December 21, 1990.

**RQ, ASBESTOS, NA 2212  
CLASS 9**

**Third Label:**

**Lansing Public Schools**  
Cavanaugh Elementary  
300 West Cavanaugh Street  
Lansing, MI 48910

Labels shall be applied to bags before bags are loaded onto vehicles or dumpsters to be transported to the landfill.

All waste shall be transported to the landfill in hard-roofed trucks, and all waste shipment records shall be submitted to BDN following their receipt from the landfill.

## **5.0 Scope of Work**

The project consists of removing all identified asbestos-containing materials within the scope of work. This includes removal of sections of floor tile in classrooms and removal of window panels to facilitate installation of climate control systems.

### **5.1 Contractor Responsibilities**

1. These project specifications are the responsibilities of the abatement Contractor. The Construction Manager or Consultant will approve **in writing**, prior to starting the project, any proposed deviations from these specifications. The information, which may be used to assist the Contractor in formulating his/her bid, is presented for informational purposes only and shall be verified by the Contractor or his/her representative at the time of the site inspection.



2. The Contractor will be responsible for removing all ACM within the work areas as identified in these specifications or found during abatement and demolition.
3. The Contractor is responsible for all selective demolition that may be required to access known asbestos-containing materials.
4. The Contractor is required to coordinate any Lock out/ Tag out activities with the Construction Manager, if applicable.
5. The Owner will provide electrical power for the Contractor to connect to his electrical panel to power equipment. It shall be the Contractor's responsibility to ensure all equipment and circuits are properly isolated prior to the commencement of work.
6. All equipment used on this project shall be in good repair with no exposed wires or insulation. All plugs shall be equipped with a ground. Extension cords shall be rated for "hard surface" and shall have watertight connectors.
7. Temporary light fixtures shall be general service, incandescent lamps of sufficient power for adequate illumination. Guard cages or tempered glass shall be used to protect the lamps. Exterior fixtures shall be used if exposed to moisture.
8. The Owner will provide a source of water for the duration of the project. The Contractor is responsible for the proper disposal of all wastewater generated on-site during the project to the sanitary sewer. All wastewater shall be properly filtered prior to disposal.

#### ASBESTOS-CONTAINING MATERIALS IDENTIFIED IN CAVANAUGH ELEMENTARY

Cavanaugh Elementary Positive Materials		
Material Description	Location of Material	Total Quantity
Floor Tile – 9” – Various Colors and Patterns Mastic is Negative	Throughout	17,204 Sq. Ft.
Sink Undercoating - Black	Throughout, classroom Sinks	70 sq. ft.
Caulk - Interior - Tan - Associated w/ Window Panel	Room 24, window panel with A/C unit	1 sq. ft.
Caulk - Interior - Gray - Brittle	Main Lobby display	1 sq. ft.
Glazing - Interior Window - White - Powdery	Rooms 1, 1A, 1B, 2, 3, 6, 10, 11	22 sq. ft.
Caulk - Exterior - Metal Chase - Gray	Exterior	27 sq. ft.
Glazing - Exterior - Window - White - Brittle	Exterior Window Systems	112 sq. ft.
Insulation - Exterior Window Panel - Yellow	Exterior Window Systems	3,360 sq. ft.

**ASSUMED ASBESTOS-CONTAINING MATERIALS IDENTIFIED IN CAVANAUGH ELEMENTARY**

Cavanaugh Elementary Assumed Materials		
Material Description	Location of Material	Total Quantity
Floor Tile w/ Mastic - 9" - Tan Mottled	Rooms 19, 20, 21, 22 Patch	80 sq. ft.
Visual Display Boards w/ Adhesive	Throughout	3,706 sq. ft.
Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Throughout Classroom Restrooms	420 sq. ft.
Adhesive - Associated w/ Marble Windowsill	Throughout	495 sq. ft.
Door - Interior - Wood	Throughout	65 ct.
Floor Tile w/ Mastic - 12" - Black	Room 24 Patch	4 sq. ft.
Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Throughout Classroom Restrooms	195 sq. ft.
Floor Tile w/ Mastic - 12" - Purple Mottled	Rooms 20 & 21 Patch	4 sq. ft.
Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Throughout Classroom Restrooms	130 sq. ft.
Flooring - Terrazzo	Hallways Throughout	5,375 sq. ft.
Door - Exterior - Metal	Exterior	13 ct.
Drywall - Wall	Rooms 13 & 13A	230 sq. ft.
Joint Compound - Associated w/ Drywall - Wall	Rooms 13 & 13A	230 sq. ft.
Door - Interior - Metal	Rooms ME1A Mechanical and 101	4 ct.
Vibration Dampener - Cloth - White	Room 101S Storage	5 sq. ft.
Adhesive - Associated w/ Countertops and Backsplash	Throughout, Classroom Sink Areas	100 sq. ft.
Ceramic Tile w/ Grout and Bedding - Floor - 2" - Yellow	Room 1B Restroom	45 sq. ft.
Ceramic Tile w/ Grout and Bedding - Floor - 2" - Teal	Room 1A Restroom	25 sq. ft.
Floor Tile w/ Mastic - 9" - Green w/ Black and White Streaks	Room 1	100 sq. ft.
Floor Tile w/ Mastic - 9" - Red w/ Gray Streaks	Room 1	10 sq. ft.
Roofing Materials	Roof	35,000 sq. ft.

## 6.0 Project Notes

1. Remove all Asbestos Containing Materials per the scope of work.
2. Remove floor tiles to facilitate installation of HVAC equipment.
3. Remove window panels to facilitate installation of HVAC equipment.
4. All painted surfaces are assumed to be lead-containing, lead-safe work practices should be utilized during your work.

Please refer to the asbestos building inspection report provided in Appendix C for further detail regarding sampling results, locations, identified materials, etc.

These project specifications have been prepared by BDN Industrial Hygiene Consultants, Inc., located in Portage, Michigan. We appreciate the opportunity to be of service on this project. If you have any questions concerning this report, please do not hesitate to call me at 231-250-9343.

A handwritten signature in black ink, appearing to read "K. Conlin", with a horizontal line underneath.

Ken Conlin  
Michigan Asbestos Project Designer A-51104





# BID FORM

Project Title: Cavanaugh Elementary Heating & Air Conditioning

Project Location: 300 West Cavanaugh Road, Lansing, MI 48910

BDN Project No. P23-00305

Bid Due Date: MM/DD/YYYY at HH:MM

The undersigned, having carefully reviewed the specification for the above-named project; and become thoroughly familiar with all conditions affecting the work required by those specifications, prepared by BDN Industrial Hygiene Consultants dated 11/10/2023 hereby proposed to provide all materials, labor, services, etc., required thereby for the following base bid items:

## Base Bid 1 (1.1 – 1.2), Cavanaugh Elementary

<i>Cost Written Out (Words)</i>	<i>Cost in Figures</i>

TAXES, PERMITS, BONDS, AND FEES: bid sum includes all applicable taxes, permits, bonds and fees, required by all legal authorities at the location of work.

## Base Bids Lansing Public Schools Cavanaugh Elementary

### Base Bid 1.1 – Floor Tile – 850 Sq. Ft. (17 areas ~ 50 Sq. Ft. each)

<i>Cost Written Out (Words)</i>	<i>Cost in Figures</i>

### Base Bid 1.2 – Window Panels – 425 Sq. Ft. (17 4x6 panels ~ 25 Sq. Ft. each)

<i>Cost Written Out (Words)</i>	<i>Cost in Figures</i>

## Cavanaugh Elementary Base Bid Totals

<b>Total Cost to Complete ALL Base Bids 1.1 – 1.2</b>	
<i>Cost Written Out (Words)</i>	<i>Cost in Figures</i>

## Schedule

The contractor agrees to complete the work within the dates specified by the schedule laid out by the General Contractor / Construction Manager. Please provide below the specific duration of the abatement scope of work at each location.

Total Duration to complete ALL Base Bids 1.1 – 1.2		
Estimated Project Duration:		Days
Shift duration:		Hours
Crew size:		Members

## Alternates 1.0

The contractor agrees that prices quoted for requested alternates (quoted below) shall be accepted as full compensation or credit for work described in the drawings, specifications, and instructions to bidders.

### Alternates – Cavanaugh Elementary

Item No.	Description	Add	Amount
A 1.1			

Total Duration Alternate A 1.1		
Estimated Project Duration:		Days
Shift duration:		Hours
Crew size:		Members

## Voluntary Alternates

The contractor agrees that voluntary alternates for materials, methods, and/or equipment specified if accepted by the Owner, will be added to or deducted from the base bid. Attached additional information on letterhead if needed. Label clearly as Lansing Public Schools Cavanaugh Elementary.

Description	Add or Deduct?	Amount

## Addendum Acknowledgment

Please acknowledge that the following addenda(s) have been received, are hereby acknowledged, and their execution is included in sums listed herein.

Addendum No.	Description	Date

## Performance & Payment Bonds

The additional cost to provide Performance and Payment Bonds, if required, will be \$\_\_\_\_\_ for the Base Bid plus \_\_\_\_\_% of any accepted requested or voluntary alternate(s)

## Agreement

Undersigned agree(s) that this proposal shall remain open during such sixty (60) days after the due date of the opening. Undersigned further agrees that this proposal shall remain open during such a sixty (60) day period. The signature below serves as an acknowledgement that Bidder understands the Bid Documents and Appendices, and Bidder assumes full responsibility for the cost impact of same. Undersigned also acknowledges that Owner reserves right to accept or reject any and all bids with or without cause and/or to waive informalities in bidding.

## Non-Collusive Certification

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief.

- A. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or any competitor;
- B. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor;
- C. No attempt has been made or will be made by the bidder to insure any other person, partnership, or corporation to submit or not to submit a bid for the purpose of restricting competition;
- D. The person signing this bid or proposal certifies that he has fully informed themselves regarding the accuracy of the statements contained in this certification, and under the penalties of

perjury, affirms the truth thereof, such penalties being applicable to the bidder as well as to the person signing in its behalf.

## Unit Rates

In order to increase or decrease the project amount, all prospective bidders shall be required to provide unit price costs for potential items that may require removal.

#	Description of Material	Amount	Units
1.	Straight pipe insulation (glove bag)	\$	ln. ft.
2.	Straight pipe insulation (inside containment)	\$	ln. ft.
3.	Pipe joint / fitting insulation (inside containment)	\$	fitting
4.	Pipe joint / fitting insulation (one glove bag)	\$	glove bag
5.	Pipe insulation and fitting removal (non-asbestos)	\$	ln. ft.
6.	Asbestos-containing debris clean-up and disposal	\$	sq. ft.
7.	Fire doors (tagged or untagged)	\$	door
8.	Door system removal w/ frame (fire door, window glazing, and/or transite)	\$	each
9.	Floor tile removal and mastic (inside containment)	\$	sq. ft.
10.	Floor tile removal without mastic	\$	sq. ft.
11.	Removal of carpet adhered to floor tile	\$	sq. ft.
12.	Removal of floor mastic only (non-asbestos)	\$	sq. ft.
13.	Removal of carpet only (non-asbestos)	\$	sq. ft.
14.	Exterior building caulk	\$	sq. ft.
15.	Interior building caulk	\$	sq. ft.
16.	Window glazing	\$	sq. ft.
17.	Removal of existing window (non-asbestos)	\$	each
18.	Removal of suspend ceiling tiles and gridwork	\$	sq. ft.
19.	Removal of acoustical ceiling tile and adhesive	\$	sq. ft.
20.	Ceramic tile & grout	\$	sq. ft.
21.	Cove base & adhesive	\$	sq. ft.
22.	Vibration dampener	\$	sq. ft.
23.	Sink undercoating	\$	each
24.	Mobilization charges once Contractor off site	\$	per call out

The owner may choose to conduct additional work utilizing a time and material hourly rate.

**Hourly Rate (Abatement Contractor):** \_\_\_\_\_

**Hourly Rate (General Laborer):** \_\_\_\_\_

The Contractor may add any qualifying statements or explanations for the above-proposed unit costs.

I hereby certify that all pricing is reasonably accurate at the time of this proposal and that cost is reflective of the scope of work as outlined in the bid specification, site walk, RFI's, and addenda's.

Company Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

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



# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	22	2	Floor Tile w/ Mastic - 9" - Brown w/ Tan Stripes	Yes	960	s.f.	NF	U	
1st	22	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	22	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	22	6	Floor Tile w/ Mastic - 9" - Tan Mottled	Assumed	20	s.f.	NF	U	Patch
1st	22	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	22	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	60	s.f.	NF	U	two 6x5 restrooms
1st	22	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	22	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	22	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	24	17	Floor Tile w/ Mastic - 9" - Light Blue Green w/ Black and White Streaks	Yes	960	s.f.	NF	U	
1st	24	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	24	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	24	18	Floor Tile w/ Mastic - 12" - Black	Assumed	4	s.f.	NF	U	Patch
1st	24	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	24	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	two 6x5 restrooms
1st	24	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	24	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	24	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	24	19	Caulk - Interior - Tan - Associated w/ Window Panel	Yes	1	s.f.	NF	U	window panel with AC unit
1st	24	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	30	s.f.	NF	U	boys restroom
1st	23	21	Floor Tile w/ Mastic - 12" - Gray Mottled	Yes	960	s.f.	NF	U	
1st	23	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	23	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	23	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	23	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	60	s.f.	NF	U	two 6x5 restrooms
1st	23	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	23	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	23	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	21	22	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	Yes	960	s.f.	NF	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	21	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	21	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	21	6	Floor Tile w/ Mastic - 9" - Tan Mottled	Assumed	20	s.f.	NF	U	Patch
1st	21	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	21	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	60	s.f.	NF	U	two 6x5 restrooms
1st	21	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	21	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	21	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	21	23	Floor Tile w/ Mastic - 12" - Purple Mottled	Assumed	2	s.f.	NF	U	Patch
1st	20	22	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	Yes	960	s.f.	NF	U	
1st	20	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	20	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	20	6	Floor Tile w/ Mastic - 9" - Tan Mottled	Assumed	20	s.f.	NF	U	Patch
1st	20	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	20	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	two 6x5 restrooms
1st	20	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	20	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	20	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	20	23	Floor Tile w/ Mastic - 12" - Purple Mottled	Assumed	2	s.f.	NF	U	Patch
1st	20	24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	30	s.f.	NF	U	
1st	19	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	19	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	19	6	Floor Tile w/ Mastic - 9" - Tan Mottled	Assumed	20	s.f.	NF	U	Patch
1st	19	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	19	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	two 6x5 restrooms
1st	19	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	19	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	19	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	19	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	30	s.f.	NF	U	boys restroom

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	18	27	Floor Tile w/ Mastic - 9" - Tan Green w/ Cream Streaks	Yes	960	s.f.	NF	U	
1st	18	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	18	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	18	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	18	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	two 6x5 restrooms
1st	18	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	18	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	18	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	18	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	30	s.f.	NF	U	boys restroom
1st	17	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	17	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	17	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	17	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	60	s.f.	NF	U	two 6x5 restrooms
1st	17	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	17	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	17	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	16	22	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	Yes	960	s.f.	NF	U	
1st	16	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	16	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	16	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	16	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	6x5 restrooms
1st	16	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	16	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	16	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	16	24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	30	s.f.	NF	U	6x5 restrooms
1st	15	29	Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks	Yes	960	s.f.	NF	U	
1st	15	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	15	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	



# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	15	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	15	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	6x5 restrooms
1st	15	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	15	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	15	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	12	24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	30	s.f.	NF	U	6x5 restrooms
1st	12	29	Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks	Yes	1225	s.f.	NF	U	
1st	12	3	Deck Panels - Metal	Assumed	1225	s.f.	NF	U	
1st	12	4	Ceiling Panel - Metal	Assumed	1225	s.f.	NF	U	
1st	12	10	Visual Display Boards w/ Adhesive	Assumed	90	s.f.	NF	U	3 5x6 boards
1st	12	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	12	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	
1st	12	30	Mastic - Associated w/ Blue Carpet	Assumed	1225	s.f.	NF	U	carpet over tile
1st	100V	3	Deck Panels - Metal	Assumed	1225	s.f.	NF	U	
1st	100V	31	Flooring - Terrazzo	Assumed	1225	s.f.	NF	U	
1st	100V	4	Ceiling Panel - Metal	Assumed	1225	s.f.	NF	U	
1st	100V	33	Caulk - Interior - Silicone - Clear	Assumed	2	s.f.	NF	U	
1st	100V	34	Caulk - Interior - Gray - Brittle	Yes	1	s.f.	NF	U	
1st	100V	36	Door - Exterior - Metal	Assumed	4	ct.	NF	U	two double doors
1st	100A	3	Deck Panels - Metal	Assumed	2250	s.f.	NF	U	
1st	100A	31	Flooring - Terrazzo	Assumed	2250	s.f.	NF	U	
1st	100A	4	Ceiling Panel - Metal	Assumed	2250	s.f.	NF	U	
1st	14	3	Deck Panels - Metal	Assumed	300	s.f.	NF	U	
1st	14	3	Deck Panels - Metal	Assumed	300	s.f.	NF	U	
1st	14	14	Adhesive - Associated w/ Marble Windowsill	Assumed	6	s.f.	NF	U	
1st	14	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	
1st	14	38	Floor Tile w/ Mastic - 9" - Tan	Yes	300	s.f.	NF	U	
1st	14	24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	15	s.f.	NF	U	
1st	14	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	
1st	13A	3	Deck Panels - Metal	Assumed	77	s.f.	NF	U	
1st	13A	3	Deck Panels - Metal	Assumed	77	s.f.	NF	U	
1st	13A	40	Drywall - Wall	Assumed	110	s.f.	NF	U	1 wall

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	13A	41	Joint Compound - Associated w/ Drywall - Wall	Assumed	110	s.f.	NF	U	1 wall
1st	13A	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	
1st	13	3	Deck Panels - Metal	Assumed	144	s.f.	NF	U	
1st	13	3	Deck Panels - Metal	Assumed	144	s.f.	NF	U	
1st	13	40	Drywall - Wall	Assumed	120	s.f.	NF	U	
1st	13	41	Joint Compound - Associated w/ Drywall - Wall	Assumed	120	s.f.	NF	U	
1st	13	38	Floor Tile w/ Mastic - 9" - Tan	Yes	144	s.f.	NF	U	under carpet
1st	13	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	
1st	11	38	Floor Tile w/ Mastic - 9" - Tan	Yes	240	s.f.	NF	U	under carpet
1st	11	14	Adhesive - Associated w/ Marble Windowsill	Assumed	6	s.f.	NF	U	
1st	11	3	Deck Panels - Metal	Assumed	240	s.f.	NF	U	
1st	11	3	Deck Panels - Metal	Assumed	240	s.f.	NF	U	
1st	11	42	Glazing - Interior Window - White - Powdery	Yes	3	s.f.	NF	U	three 4x6 windows
1st	11	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	11	14	Adhesive - Associated w/ Marble Windowsill	Assumed	6	s.f.	NF	U	
1st	10	38	Floor Tile w/ Mastic - 9" - Tan	Yes	240	s.f.	NF	U	
1st	10	14	Adhesive - Associated w/ Marble Windowsill	Assumed	240	s.f.	NF	U	
1st	10	3	Deck Panels - Metal	Assumed	240	s.f.	NF	U	
1st	10	3	Deck Panels - Metal	Assumed	240	s.f.	NF	U	
1st	10	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	10	42	Glazing - Interior Window - White - Powdery	Yes	1	s.f.	NF	U	one 4x6 window
1st	10	14	Adhesive - Associated w/ Marble Windowsill	Assumed	2	s.f.	NF	U	
1st	9	44	Floor Tile w/ Mastic - 9" - Orage Brown Mottled	Yes	160	s.f.	NF	U	
1st	9	3	Deck Panels - Metal	Assumed	160	s.f.	NF	U	
1st	9	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	101	3	Deck Panels - Metal	Assumed	2160	s.f.	NF	U	
1st	101	4	Ceiling Panel - Metal	Assumed	2160	s.f.	NF	U	
1st	101	46	Door - Interior - Metal	Assumed	2	ct.	NF	U	
1st	101	36	Door - Exterior - Metal	Assumed	2	ct.	NF	U	
1st	101S	48	Deck - Corrugated - Metal	Assumed	525	s.f.	NF	U	
1st	101S	47	Floor Tile w/ Mastic - 9" - Dk Brown w/ Confetti Speckles	Yes	525	s.f.	NF	U	
1st	101S	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	
1st	101S	50	Vibration Dampener - Cloth - White	Assumed	5	s.f.	NF	U	1 obseved
1st	8	3	Deck Panels - Metal	Assumed	100	s.f.	NF	U	
1st	8	4	Ceiling Panel - Metal	Assumed	100	s.f.	NF	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	8	51	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	Yes	100	s.f.	NF	U	
1st	8	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	no windows
1st	8	52	Adhesive - Associated w/ Countertops and Backsplash	Assumed	100	s.f.	NF	U	Assumed present, not observed
1st	100W	3	Deck Panels - Metal	Assumed	100	s.f.	NF	U	
1st	100W	31	Flooring - Terrazzo	Assumed	100	s.f.	NF	U	
1st	100W	4	Ceiling Panel - Metal	Assumed	100	s.f.	NF	U	
1st	100W	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	100M	3	Deck Panels - Metal	Assumed	100	s.f.	NF	U	
1st	100M	31	Flooring - Terrazzo	Assumed	100	s.f.	NF	U	
1st	100M	4	Ceiling Panel - Metal	Assumed	100	s.f.	NF	U	
1st	100M	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	7	3	Deck Panels - Metal	Assumed	432	s.f.	NF	U	
1st	7	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	7	36	Door - Exterior - Metal	Assumed	1	ct.	NF	U	no window
1st	5	3	Deck Panels - Metal	Assumed	396	s.f.	NF	U	
1st	5	54	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	Yes	396	s.f.	NF	U	
1st	5	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	6	3	Deck Panels - Metal	Assumed	300	s.f.	NF	U	
1st	6	4	Ceiling Panel - Metal	Assumed	300	s.f.	NF	U	
1st	6	51	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	Yes	300	s.f.	NF	U	
1st	6	14	Adhesive - Associated w/ Marble Windowsill	Assumed	6	s.f.	NF	U	
1st	6	42	Glazing - Interior Window - White - Powdery	Yes	3	s.f.	NF	U	three 4x6 windows
1st	6	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	with window
1st	6	10	Visual Display Boards w/ Adhesive	Assumed	56	s.f.	NF	U	2 boards
1st	6S	3	Deck Panels - Metal	Assumed	50	s.f.	NF	U	
1st	6S	4	Ceiling Panel - Metal	Assumed	50	s.f.	NF	U	
1st	6S	54	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	Yes	50	s.f.	NF	U	
1st	6S	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	4	3	Deck Panels - Metal	Assumed	1080	s.f.	NF	U	
1st	4	4	Ceiling Panel - Metal	Assumed	1080	s.f.	NF	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	4	51	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	Yes	1080	s.f.	NF	U	
1st	4	4	Ceiling Panel - Metal	Assumed	930	s.f.	NF	U	
1st	4	55	Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks	Yes	150	s.f.	NF	U	
1st	4	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	
1st	4	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	single sink
1st	4	14	Adhesive - Associated w/ Marble Windowsill	Assumed	10	s.f.	NF	U	
1st	4	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	1 with window
1st	4	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	25	s.f.	NF	U	5x5 bathroom
1st	3	3	Deck Panels - Metal	Assumed	1080	s.f.	NF	U	
1st	3	4	Ceiling Panel - Metal	Assumed	1080	s.f.	NF	U	
1st	3	51	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	Yes	1080	s.f.	NF	U	
1st	3	4	Ceiling Panel - Metal	Assumed	930	s.f.	NF	U	
1st	3	22	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	Yes	150	s.f.	NF	U	
1st	3	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	
1st	3	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	single sink
1st	3	14	Adhesive - Associated w/ Marble Windowsill	Assumed	10	s.f.	NF	U	
1st	3	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	1 with window
1st	3	24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	25	s.f.	NF	U	5x5 bathroom
1st	3	42	Glazing - Interior Window - White - Powdery	Yes	1	s.f.	NF	U	on couple smaller windows
1st	2	3	Deck Panels - Metal	Assumed	1530	s.f.	NF	U	
1st	2	4	Ceiling Panel - Metal	Assumed	1530	s.f.	NF	U	
1st	2	4	Ceiling Panel - Metal	Assumed	1530	s.f.	NF	U	
1st	2	10	Visual Display Boards w/ Adhesive	Assumed	200	s.f.	NF	U	6 boards
1st	2	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	single sink
1st	2	14	Adhesive - Associated w/ Marble Windowsill	Assumed	12	s.f.	NF	U	
1st	2	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	1 with window
1st	2	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	40	s.f.	NF	U	restroom
1st	2	42	Glazing - Interior Window - White - Powdery	Yes	5	s.f.	NF	U	five 4x6 windows

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	100B	3	Deck Panels - Metal	Assumed	900	s.f.	NF	U	
1st	100B	31	Flooring - Terrazzo	Assumed	900	s.f.	NF	U	
1st	100B	4	Ceiling Panel - Metal	Assumed	900	s.f.	NF	U	
1st	100B	10	Visual Display Boards w/ Adhesive	Assumed	280	s.f.	NF	U	seven 5x8 boards
1st	100C	48	Deck - Corrugated - Metal	Assumed	800	s.f.	NF	U	
1st	100C	31	Flooring - Terrazzo	Assumed	800	s.f.	NF	U	
1st	100C	4	Ceiling Panel - Metal	Assumed	800	s.f.	NF	U	
1st	100C	10	Visual Display Boards w/ Adhesive	Assumed	400	s.f.	NF	U	ten 5x8 boards
1st	100C	36	Door - Exterior - Metal	Assumed	2	ct.	NF	U	single exit doors
1st	1	3	Deck Panels - Metal	Assumed	1530	s.f.	NF	U	
1st	1	4	Ceiling Panel - Metal	Assumed	1530	s.f.	NF	U	
1st	1	56	Floor Tile w/ Mastic - 9" - Light Blue w/ Confetti Speckles	Yes	1100	s.f.	NF	U	multiple other patch tiles
1st	1	76	Floor Tile w/ Mastic - 9" - Green w/ Black and White Streaks	Assumed	100	s.f.	NF	U	
1st	1	77	Floor Tile w/ Mastic - 9" - Red w/ Gray Streaks	Assumed	10	s.f.	NF	U	
1st	1	4	Ceiling Panel - Metal	Assumed	1530	s.f.	NF	U	
1st	1	10	Visual Display Boards w/ Adhesive	Assumed	280	s.f.	NF	U	7 boards
1st	1	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	single sink
1st	1	14	Adhesive - Associated w/ Marble Windowsill	Assumed	12	s.f.	NF	U	
1st	1	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	1 with window
1st	1	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	40	s.f.	NF	U	restroom
1st	1	42	Glazing - Interior Window - White - Powdery	Yes	4	s.f.	NF	U	four 4x6 windows
1st	1	54	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	Yes	64	s.f.	NF	U	storage room
1st	1	55	Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks	Yes	300	s.f.	NF	U	
1st	1B	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	1B	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	1B	57	Floor Tile w/ Mastic - 9" - Tan w/ White Streaks	Yes	960	s.f.	NF	U	
1st	1B	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	1B	10	Visual Display Boards w/ Adhesive	Assumed	240	s.f.	NF	U	6 boards
1st	1B	14	Adhesive - Associated w/ Marble Windowsill	Assumed	10	s.f.	NF	U	
1st	1B	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	one with window
1st	1B	42	Glazing - Interior Window - White - Powdery	Yes	3	s.f.	NF	U	three 4x6 windows

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	1B	58	Ceramic Tile w/ Grout and Bedding - Floor - 2" - Yellow	Assumed	45	s.f.	NF	U	restrooms
1st	1A	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	1A	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	1A	57	Floor Tile w/ Mastic - 9" - Tan w/ White Streaks	Yes	960	s.f.	NF	U	
1st	1A	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	1A	10	Visual Display Boards w/ Adhesive	Assumed	240	s.f.	NF	U	6 boards
1st	1A	14	Adhesive - Associated w/ Marble Windowsill	Assumed	10	s.f.	NF	U	
1st	1A	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	one with window
1st	1A	42	Glazing - Interior Window - White - Powdery	Yes	2	s.f.	NF	U	two 4x6 windows
1st	1A	60	Ceramic Tile w/ Grout and Bedding - Floor - 2" - Teal	Assumed	25	s.f.	NF	U	restrooms
1st	ME1A	3	Deck Panels - Metal	Assumed	630	s.f.	NF	U	
1st	ME1A	46	Door - Interior - Metal	Assumed	2	ct.	NF	U	
Exterior	Exterior	69	Caulk - Exterior - Metal Chase - Gray	Yes	27	s.f.	NF	U	
Exterior	Exterior	70	Glazing - Exterior - Window - White - Brittle	Yes	112	s.f.	NF	U	some covered w/ clear silicone
Exterior	Exterior	3	Deck Panels - Metal	Assumed	300	s.f.	NF	U	
Exterior	Exterior	79	Insulation - Exterior Window Panel - Yellow	Yes	3360	s.f.	F	U	assumed present in all panels
Roof	Roof	78	Roofing Materials	Assumed	35000	s.f.	NF	U	
1st	98T	3	Deck Panels - Metal	Assumed	36	s.f.	NF	U	
1st	98T	36	Door - Exterior - Metal	Assumed	1	ct.	NF	U	no window
1st	99T	3	Deck Panels - Metal	Assumed	36	s.f.	NF	U	
1st	99T	36	Door - Exterior - Metal	Assumed	1	ct.	NF	U	no window
1st	97S	3	Deck Panels - Metal	Assumed	132	s.f.	NF	U	
1st	97S	36	Door - Exterior - Metal	Assumed	2	ct.	NF	U	



Marc Alexa  
Plante Moran  
Lansing Public Schools  
519 West Kalamazoo Street  
Lansing, MI 48933

Date: 10/25/2023  
BDN Project No. P23-00305

RE: Asbestos Building Inspection Performed at 300 West Cavanaugh

Dear Mr. Alexa,

BDN Industrial Hygiene Consulting (BDN) is pleased to submit this Limited-Scope NESHAP Asbestos Inspection for the above-referenced address. This work was performed in accordance with our accepted proposal CP23-00207 dated 8/15/2023.

Enclosed is the inspection report, which summarizes and documents our inspection procedures, findings, and conclusions. This report is for the explicit use of Lansing School District, and other use is strictly prohibited without written consent from BDN or Lansing School District.

Thank you for giving us the opportunity to work with you on this project. Please contact us if there are any questions concerning this report. We look forward to working with you again soon.

Sincerely,

A handwritten signature in black ink, reading "Nick Donaldson", with a stylized flourish at the end.

Nick Donaldson  
Project Manager  
BDN Industrial Hygiene Consultants, Inc.

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# INSPECTION REPORT

**Report Prepared for:**

Lansing Public Schools  
Marc Alexa  
Plante Moran  
519 West Kalamazoo Street  
Lansing, MI 48933

**Project Information**

Lansing Public Schools – Cavanaugh Inspection  
Cavanaugh Elementary  
300 West Cavanaugh  
Lansing, MI 48910

**Project Dates:** 10/3/2023 – 10/5/2023

**BDN Project No.:** P23-00305





# Cavanaugh Elementary

## Limited-Scope NESHAP Asbestos Inspection



Report prepared by:

A handwritten signature in black ink, reading "Nick Donaldson".

Nick Donaldson  
Project Manager  
Accreditation No.: A56406  
BDN Industrial Hygiene Consultants

Project managed by:

A handwritten signature in black ink, consisting of the letters "K" and "C" followed by a dot.

Ken Conlin  
Senior Project Manager  
Accreditation No.: A51104  
BDN Industrial Hygiene Consultants

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## TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY .....	2
2.0	INTRODUCTION .....	2
3.0	ASBESTOS .....	3
3.1	Inspection and Sampling Procedures.....	3
3.2	Findings and Conclusions .....	3
4.0	REGULATORY COMPLIANCE AND OBLIGATIONS .....	6
5.0	LIMITATIONS .....	7
6.0	CONCLUSIONS AND RECOMMENDATIONS.....	8

## LIST OF APPENDICES

Appendix A:	CAD Diagrams
Appendix B:	Room by Room Material Inventory – Asbestos
Appendix C:	Asbestos Bulk Sample Log
Appendix D:	Building Materials Summary – Asbestos
Appendix E:	Digital Photo Log
Appendix F:	Analytical Results – Asbestos



## 1.0 EXECUTIVE SUMMARY

BDN Industrial Hygiene Consultants, Inc. of Lansing, Michigan was retained by Lansing School District to conduct a Limited-Scope NESHAP Asbestos Inspection at 300 West Cavanaugh, Lansing, Michigan. The inspection was conducted on October 3, 2023.

A total of one hundred eleven (111) samples were collected of suspect asbestos-containing materials. The samples collected were from seventy-nine (79) homogeneous area materials identified as part of this inspection. Of the homogeneous area identified, twenty-three (23) were found to be asbestos containing.

A table of the identified asbestos-containing and assumed asbestos-containing materials can be found in the tables of this report, as well as **Appendix D – Building Materials Summary – Asbestos**.

A map of functional spaces and sample locations can be found in **Appendix A – CAD Diagrams** of this report. A digital photograph log can be found in **Appendix E – Digital Photograph Log** of this report.

The asbestos-containing materials identified in this inspection that may be disturbed during demolition or renovation activities are required to be removed prior to the commencement of such activities. If suspect Asbestos-Containing Materials (ACMs) not identified within the report are encountered during demolition activities for which no analytical data exists, BDN recommends the material(s) remain undisturbed until the asbestos content of the material(s) is determined in accordance with the United States Environment Protection Act (USEPA) and Occupational Safety and Health Administration (OSHA) regulations.

BDN recommends that an asbestos abatement project design be developed by a State of Michigan accredited Asbestos Project Designer prior to any abatement or demolition activities begin. Additionally, BDN recommends the building owner hire an industrial hygiene consultant to perform on-site third-party asbestos air monitoring and clearance inspections throughout the duration of the abatement process.

## 2.0 INTRODUCTION

BDN Industrial Hygiene Consultants, Inc. of Lansing, Michigan was retained by Lansing School District to conduct a Limited-Scope NESHAP Asbestos Inspection of the building located at 300 West Cavanaugh Road, Lansing MI. The intent of the inspection was to identify asbestos-containing building materials that may be disturbed during upcoming renovation/demolition activities. Prior to any demolition or renovation, an inspection is required by the USEPA under the National Emission Standard for Hazardous Air Pollutants (NESHAP) standard and enforced by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) in the State of Michigan. The inspection was conducted by Nick Donaldson (A56406) a State of Michigan Accredited Asbestos Inspector on October 3, 2023.

## 3.0 ASBESTOS

### 3.1 Inspection and Sampling Procedures

On October 3, 2023, BDN conducted a visual assessment and identified and estimated quantities of suspect ACMs associated with the building and assigned a unique homogenous area number to each suspect ACM observed. A homogenous area, as defined by USEPA's Asbestos Hazard Emergency Response Act (AHERA, 40 CFR Part 763), is an area of thermal system insulation (TSI), surfacing material, or miscellaneous material that appears uniform in color and texture.

Following the assessment, a total of one hundred eleven (111) samples were collected from the seventy-nine (79) homogenous areas of identified suspect ACMs in accordance with the AHERA assessment protocol (40 CFR Part 763), which is also referenced by the OSHA regulations.

All collected asbestos bulk samples were submitted to Eurofins which is an accredited laboratory by the National Voluntary Laboratory Program (NVLAP), for asbestos analysis of the bulk samples via Polarized Light Microscopy (PLM). Results of the submitted asbestos bulk samples are presented in the following subsection.

### 3.2 Findings and Conclusions

The building is located at 300 West Cavanaugh Road, Lansing MI, is a commercial building which was built in 1965. The single-story structure consists of a concrete foundation, Concrete Masonry Unit (CMU) walls with steel reinforcements and exterior brick veneer. The interior walls were a mix of painted CMU and non-load bearing partition walls constructed of wood stud and drywall. Floors consisted of bare concrete, various shapes and sizes of ceramic tile and associated bedding compound, various sizes of vinyl floor tile, and vinyl sheet goods and associated glues. The roof was a built-up rubber roof.

Laboratory descriptions of materials analyzed by Polarized Light Microscopy (PLM) method for asbestos content were based upon the microscopists' visual observations of bulk samples that were homogenized and prepared for analysis. Due to the preparation of the sampled materials and the minute level of observation by the laboratory personnel, the descriptions in the analytical report may not match the sample descriptions recorded by BDN in the field. BDN's sample descriptions and locations should be used to identify materials that were sampled, and BDN's sample numbers should be used to correlate analytical results for the sampled materials.



A list of asbestos-containing materials is presented in the following table:

Asbestos-Containing Materials			
HA #	Materials Description	Asbestos Results / Layers	Qty
2	Floor Tile w/ Mastic - 9" - Brown w/ Tan Stripes	Floor Tile = 5% Chrysotile Mastic = Not Detected	960 sq. ft.
12	Sink Undercoating - Black	6% Chrysotile	70 sq. ft.
17	Floor Tile w/ Mastic - 9" - Light Blue Green w/ Black and White Streaks	Floor Tile = 5% Chrysotile Mastic = Not Detected	960 sq. ft.
19	Caulk - Interior - Tan - Associated w/ Window Panel	3% Chrysotile	1 sq. ft.
21	Floor Tile w/ Mastic - 12" - Gray Mottled	Floor Tile = Not Detected Mastic = 2% Chrysotile	960 sq. ft.
22	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	Floor Tile = 3% Chrysotile Mastic = Not Detected	3,030 sq. ft.
27	Floor Tile w/ Mastic - 9" - Tan Green w/ Cream Streaks	Floor Tile = 4% Chrysotile	960 sq. ft.
29	Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks	Floor Tile = 5% Chrysotile Mastic = Not Detected	2,185 sq. ft.
34	Caulk - Interior - Gray - Brittle	2% Chrysotile	1 sq. ft.
38	Floor Tile w/ Mastic - 9" – Tan	Yellow Mastic = Not Detected Gray Float = Not Detected Floor Tile = 5% Chrysotile Mastic = Not Detected	924 sq. ft.
42	Glazing - Interior Window - White - Powdery	2% Chrysotile	22 sq. ft.
44	Floor Tile w/ Mastic - 9" - Orange Brown Mottled	Floor Tile = 5% Chrysotile Mastic = Not Detected	160 sq. ft.
47	Floor Tile w/ Mastic - 9" - Dk Brown w/ Confetti Speckles	Floor Tile = 5% Chrysotile Mastic = Not Detected	525 sq. ft.
51	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	Floor Tile = 5% Chrysotile Mastic = Not Detected	2,560 sq. ft.

Asbestos Containing Materials cont.			
HA #	Materials Description	Asbestos Results / Layers	Qty
54	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	Floor Tile = 5% Chrysotile Mastic = Not Detected	510 sq. ft.
55	Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks	Floor Tile = 5% Chrysotile Mastic = Not Detected	450 sq. ft.
56	Floor Tile w/ Mastic - 9" - Light Blue w/ Confetti Speckles	Floor Tile = 5% Chrysotile Mastic = Not Detected	1,100 sq. ft.
57	Floor Tile w/ Mastic - 9" - Tan w/ White Streaks	Floor Tile = 5% Chrysotile Mastic = Not Detected	1,920 sq. ft.
69	Caulk - Exterior - Metal Chase - Gray	2% Chrysotile	27 sq. ft.
70	Glazing - Exterior - Window - White - Brittle	2% Chrysotile	112 sq. ft.
79	Insulation - Exterior Window Panel - Yellow	Beige Insulation = Not Detected Black Foam = Not Detected Black Mastic = 4% Chrysotile	3,360 sq. ft.

The following materials are assumed to be asbestos containing:

Assumed Asbestos-Containing Materials			
HA #	Materials Description	Asbestos Results / Layers	Qty
6	Floor Tile w/ Mastic - 9" - Tan Mottled	Not Sampled	80 sq. ft.
10	Visual Display Boards w/ Adhesive	Not Sampled	3,706 sq. ft.
11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Not Sampled	420 sq. ft.
14	Adhesive - Associated w/ Marble Windowsill	Not Sampled	495 sq. ft.
15	Door - Interior - Wood	Not Sampled	65 ct.
18	Floor Tile w/ Mastic - 12" - Black	Not Sampled	4 sq. ft.
20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Not Sampled	195 sq. ft.
23	Floor Tile w/ Mastic - 12" - Purple Mottled	Not Sampled	4 sq. ft.
24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Not Sampled	130 sq. ft.
31	Flooring - Terrazzo	Not Sampled	5,375 sq. ft.
36	Door - Exterior - Metal	Not Sampled	13 ct.

Assumed Asbestos-Containing Materials cont.			
HA #	Materials Description	Asbestos Results / Layers	Qty
40	Drywall - Wall	Not Sampled	230 sq. ft.
41	Joint Compound - Associated w/ Drywall - Wall	Not Sampled	230 sq. ft.
46	Door - Interior - Metal	Not Sampled	4 ct.
50	Vibration Dampener - Cloth - White	Not Sampled	5 sq. ft.
52	Adhesive - Associated w/ Countertops and Backsplash	Not Sampled	100 sq. ft.
58	Ceramic Tile w/ Grout and Bedding - Floor - 2" - Yellow	Not Sampled	45 sq. ft.
60	Ceramic Tile w/ Grout and Bedding - Floor - 2" - Teal	Not Sampled	25 sq. ft.
76	Floor Tile w/ Mastic - 9" - Green w/ Black and White Streaks	Not Sampled	100 sq. ft.
77	Floor Tile w/ Mastic - 9" - Red w/ Gray Streaks	Not Sampled	10 sq. ft.
78	Roofing Materials	Not Sampled	35,000 sq. ft.

All assumed materials should be sampled prior to them being removed from the building or impacted by the renovation. To sample some materials, destructive sampling methods will be deployed so the sampling should be carried out when the building is no longer occupied and is turned over for renovation.

Quantities in these tables represent materials that were accessible at the time of the inspection. Additional quantities and materials may exist that were not accessible at the time of the inspection based on our project scope. Refer to the tables and appendices herein for further details.

## 4.0 REGULATORY COMPLIANCE AND OBLIGATIONS

The OSHA Asbestos Standard for Construction, (29 CFR 1926.1101), MIOSHA Part 305, and the OSHA Asbestos Standard for General Industry, (29 CFR 1910.1001), requires that all building facilities (excluding owner-occupied residential homes) constructed prior to 1981, where employees may enter, work, or contact building materials must be inspected for asbestos-containing building materials (ACBM). Also, all such buildings scheduled for renovation or demolition must have an asbestos building inspection completed prior to the start of the renovation or demolition. The inspection must adhere to the Asbestos Hazard Emergency Response Act (AHERA) inspection protocol and be performed by a Michigan accredited asbestos building inspector or Certified Industrial Hygienist (CIH). The building inspection must also include the presence, location, and quantity of all suspected ACBM. Additionally, laboratory analysis information should be a part of the building inspection document.



The Michigan Asbestos Abatement Contractors Licensing Act (i.e., Act 135, P.A. 1986, as amended) requires asbestos abatement contractors and exempt trade groups to notify the Michigan Labor and Economic Opportunity (MLEO) Asbestos Program of any asbestos abatement project exceeding 10 linear feet or 15 square feet, or both, of friable asbestos materials. This requires a 10-calendar day notice.

The Notification of Intent to Renovate/Demolish form required by the USEPA NESHAP regulations must be prepared and submitted to EGLE at least 10 working days prior to demolition of a building, regardless of whether or not ACMs are present in the building. If ACM is present and included for removal and the quantity is greater than 260 linear feet and/or 160 square feet, a 10 working-day notice is required.

## 5.0 LIMITATIONS

At the time this inspection was conducted, BDN was faced with the following limitations:

- The flat roof above the building was not inspected at the time of the inspection. Therefore, quantities of asbestos-containing materials present were assumed and estimated based on what could be seen. BDN recommends sampling this material prior to disturbance to identify the true asbestos content. Following the sample collection, BDN recommends trained and professional contractors perform the roofing or building envelope repairs.
- At the time of the inspection, BDN assumed all fire doors as asbestos-containing due to the unknown demolition scope of work and/or doors being re-purposed. BDN noted within the inspection if any suspect material was observed but did not disturb the integrity of the fire door(s) by performing destructive sampling techniques to confirm the fire door(s) as asbestos-containing or not.
- The building was occupied at the time of the inspection, so BDN could not perform destructive investigation measures to search for the presence of hidden ACM. BDN utilized non-destructive methods to the best of our ability. BDN recommends further demolition activities once the building is ready for demolition to identify the presence of hidden materials. BDN recommends materials uncovered during demolition for which no analytical data exists to be treated as ACM and handled accordingly.
- Energized electrical components were not evaluated as part of this inspection for safety reasons. Examples of potential asbestos-containing electrical components are switchgear, high-voltage transmission lines, breaker boxes, and other electrical components with insulators and backer boards.
- The building envelope/exterior was not evaluated or inspected as part of this inspection as it was still in use, and sampling can compromise the integrity of the building and lead to water infiltration if not professionally repaired.





## 6.0 CONCLUSIONS AND RECOMMENDATIONS

BDN recommends that an asbestos abatement project design be developed by a State of Michigan accredited Asbestos Project Designer prior to any abatement or demolition/renovation activities begin. Additionally, BDN recommends the building owner hire an on-site consultant and hygienist to perform third-party asbestos air monitoring and perform clearance inspections throughout the duration of the abatement process.

BDN recommends the additional sampling of assumed asbestos-containing materials to determine their actual asbestos content.

If suspect ACMs not identified within the report are encountered during demolition activities for which no analytical data exists, BDN recommends the material(s) remain undisturbed until the asbestos content of the material(s) is determined in accordance with USEPA and OSHA regulations.

**BDN's quantities are intended to be "Order of Magnitude" estimates, and the estimated quantities and other information in this report should not be used as an exclusive source of information for bid formulation or for notification to regulatory agencies.**

BDN recommends that any contractor performing work within the building have adequate and up-to-date asbestos and lead awareness training. The building owner is obligated to inform any contractors that heavy metals were detected at the projected work site and provide them with a copy of the analytical report. The employer of any construction trade that may be impacting materials containing heavy metals must perform exposure monitoring on their employees to comply with the OSHA construction standard.

The asbestos-containing materials identified in this inspection that may be disturbed during demolition activities are required to be removed prior to the commencement of those activities by a State of Michigan accredited asbestos abatement contractor.

The asbestos-containing materials identified in this inspection that remain must be included as part of a Hazard Communication Program as required by OSHA Standard 29CFR1910.1101. It is also recommended that an asbestos Operations and Maintenance (O&M) plan be implemented to prevent the disturbance of these materials.

Materials categorized as universal waste must be handled appropriately prior to disturbance and must be disposed of properly following all federal, state, and local laws regarding the disposal of hazardous materials.

If there are any questions regarding this report, please contact us.

**End of report**



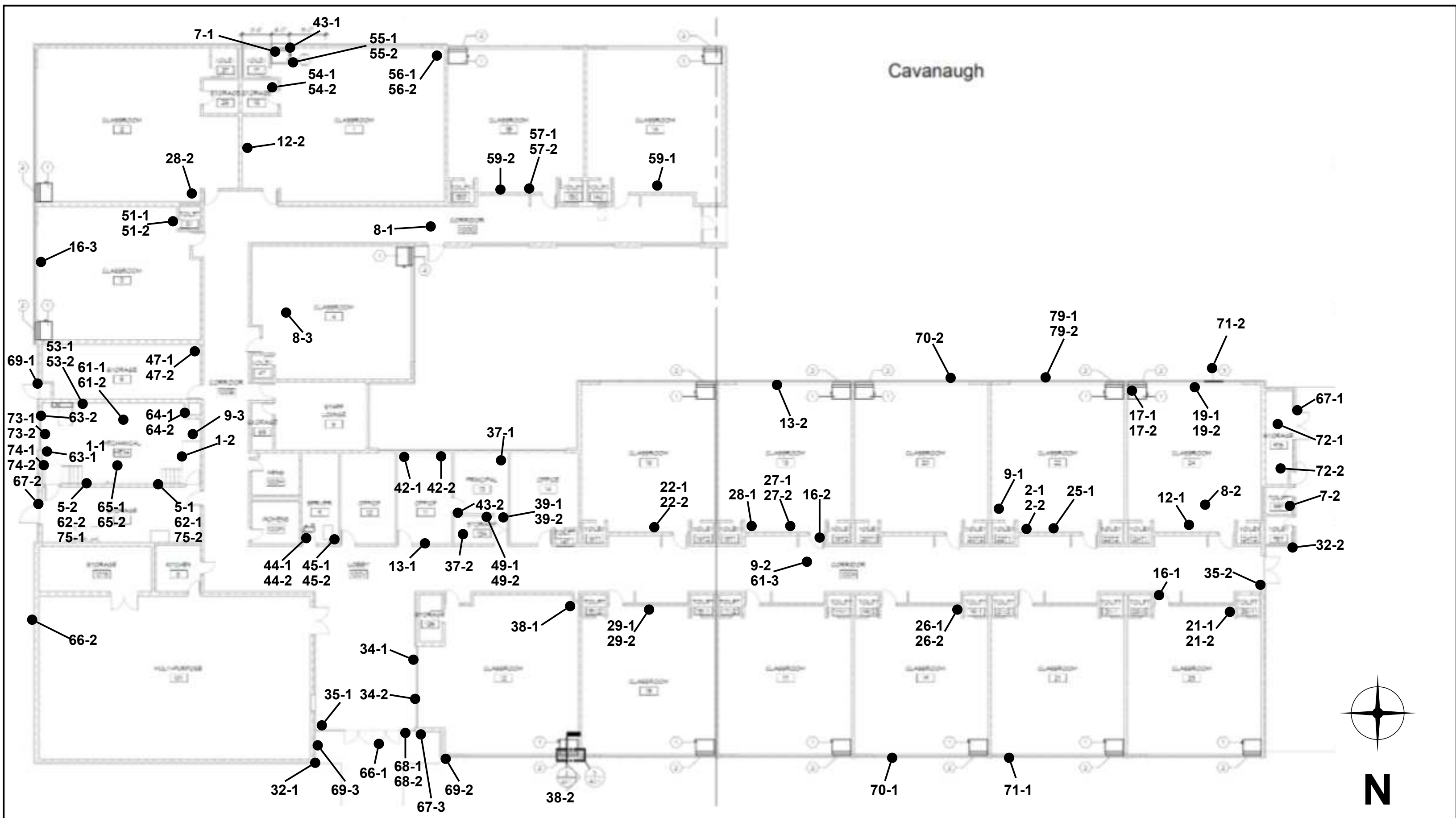
# **Appendix A**

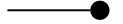
## **CAD Diagrams**

BDN Project No.: P23-00305

**Cavanaugh Elementary Limited Scope NESHAP**

October 2023



 <p>BDN Industrial Hygiene Consultants 8105 Valleywood Lane, Portage, MI Contact us: 269-329-1237   www.bdnihc.com</p>	<b>LEGEND</b>  Sample Location <b>FS: XX</b> Functional Space Identifier	<b>PROJECT NAME:</b> Lansing Public Schools - Cavanaugh Inspection  <b>DRAWING TITLE:</b> ASBESTOS SAMPLE LOCATION MAP	<b>Cavanaugh Elementary School</b>  300 West Cavanaugh Road Lansing, MI 48910	SHEET NUMBER 1 of 1
				BDN PROJECT NUMBER P23-00305
				<b>APPENDIX A</b>



# **Appendix B**

## **Room by Room Inventory**

BDN Project No.: P23-00305

**Cavanaugh Elementary Limited Scope NESHAP**

October 2023

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	22	1	Concrete - Floor	No	960	s.f.	NF	U	32x30
1st	22	2	Floor Tile w/ Mastic - 9" - Brown w/ Tan Stripes	Yes	960	s.f.	NF	U	
1st	22	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	22	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	22	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	22	6	Floor Tile w/ Mastic - 9" - Tan Mottled	Assumed	20	s.f.	NF	U	Patch
1st	22	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	
1st	22	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	22	9	Pipe Insulation - Fiberglass - Fabric Wrapped	No	130	l.f.	F	U	
1st	22	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	22	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	60	s.f.	NF	U	two 6x5 restrooms
1st	22	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	22	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	22	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	22	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	22	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door
1st	22	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	24	1	Concrete - Floor	No	960	s.f.	NF	U	32x30
1st	24	17	Floor Tile w/ Mastic - 9" - Light Blue Green w/ Black and White Streaks	Yes	960	s.f.	NF	U	
1st	24	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	24	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	24	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	24	18	Floor Tile w/ Mastic - 12" - Black	Assumed	4	s.f.	NF	U	Patch
1st	24	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	
1st	24	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	24	9	Pipe Insulation - Fiberglass - Fabric Wrapped	No	250	l.f.	F	U	
1st	24	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	24	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	24	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	two 6x5 restrooms
1st	24	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	24	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	24	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	24	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	24	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door
1st	24	19	Caulk - Interior - Tan - Associated w/ Window Panel	Yes	1	s.f.	NF	U	window panel with AC unit
1st	24	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	30	s.f.	NF	U	boys restroom
1st	23	1	Concrete - Floor	No	960	s.f.	NF	U	32x30
1st	23	21	Floor Tile w/ Mastic - 12" - Gray Mottled	Yes	960	s.f.	NF	U	
1st	23	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	23	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	23	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	23	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	
1st	23	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	23	9	Pipe Insulation - Fiberglass - Fabric Wrapped	No	120	l.f.	F	U	
1st	23	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	23	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	60	s.f.	NF	U	two 6x5 restrooms
1st	23	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	23	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	23	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	23	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	23	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	23	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door
1st	21	1	Concrete - Floor	No	960	s.f.	NF	U	32x30
1st	21	22	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	Yes	960	s.f.	NF	U	
1st	21	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	21	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	21	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	21	6	Floor Tile w/ Mastic - 9" - Tan Mottled	Assumed	20	s.f.	NF	U	Patch
1st	21	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	21	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	21	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	130	l.f.	F	U	
1st	21	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	21	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	60	s.f.	NF	U	two 6x5 restrooms
1st	21	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	21	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	21	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	21	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	21	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door
1st	21	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	21	23	Floor Tile w/ Mastic - 12" - Purple Mottled	Assumed	2	s.f.	NF	U	Patch
1st	20	1	Concrete - Floor	No	960	s.f.	NF	U	32x30
1st	20	22	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	Yes	960	s.f.	NF	U	
1st	20	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	20	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	20	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	20	6	Floor Tile w/ Mastic - 9" - Tan Mottled	Assumed	20	s.f.	NF	U	Patch
1st	20	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	
1st	20	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	20	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	90	l.f.	F	U	
1st	20	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	20	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	two 6x5 restrooms
1st	20	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	20	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	20	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	20	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	20	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door
1st	20	23	Floor Tile w/ Mastic - 12" - Purple Mottled	Assumed	2	s.f.	NF	U	Patch
1st	20	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	



# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	20	24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	30	s.f.	NF	U	
1st	19	1	Concrete - Floor	No	960	s.f.	NF	U	32x30
1st	19	26	Floor Tile w/ Mastic - 12" - Blue Mottled	No	960	s.f.	NF	U	
1st	19	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	19	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	19	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	19	6	Floor Tile w/ Mastic - 9" - Tan Mottled	Assumed	20	s.f.	NF	U	Patch
1st	19	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	
1st	19	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	19	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	90	l.f.	F	U	
1st	19	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	19	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	two 6x5 restrooms
1st	19	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	19	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	19	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	19	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	19	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door
1st	19	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	30	s.f.	NF	U	boys restroom
1st	19	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	18	1	Concrete - Floor	No	960	s.f.	NF	U	32x30
1st	18	27	Floor Tile w/ Mastic - 9" - Tan Green w/ Cream Streaks	Yes	960	s.f.	NF	U	
1st	18	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	18	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	18	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	18	28	Floor Tile w/ Mastic - 12" - Light Blue Mottled	No	20	s.f.	NF	U	Patch
1st	18	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	
1st	18	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	18	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	120	l.f.	F	U	
1st	18	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards



# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	18	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	two 6x5 restrooms
1st	18	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	18	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	18	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	18	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	18	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door
1st	18	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	30	s.f.	NF	U	boys restroom
1st	18	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	17	1	Concrete - Floor	No	960	s.f.	NF	U	32x30
1st	17	26	Floor Tile w/ Mastic - 12" - Blue Mottled	No	960	s.f.	NF	U	
1st	17	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	17	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	17	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	17	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	17	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	
1st	17	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	17	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	120	l.f.	F	U	
1st	17	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	17	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	60	s.f.	NF	U	two 6x5 restrooms
1st	17	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	17	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	17	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	17	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	17	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door
1st	16	1	Concrete - Floor	No	960	s.f.	NF	U	32x30
1st	16	22	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	Yes	960	s.f.	NF	U	
1st	16	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	16	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	16	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	16	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	16	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	
1st	16	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	16	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	150	l.f.	F	U	
1st	16	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	16	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	6x5 restrooms
1st	16	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	16	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	16	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	16	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	16	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door
1st	16	24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	30	s.f.	NF	U	6x5 restrooms
1st	15	1	Concrete - Floor	No	960	s.f.	NF	U	32x30
1st	15	29	Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks	Yes	960	s.f.	NF	U	
1st	15	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	15	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	15	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	15	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	15	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	
1st	15	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	15	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	165	l.f.	F	U	
1st	15	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	four 5x8 boards
1st	15	11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	30	s.f.	NF	U	6x5 restrooms
1st	15	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	
1st	15	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	15	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	15	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	2 bathroom and main
1st	15	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	12	24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	30	s.f.	NF	U	6x5 restrooms
1st	12	1	Concrete - Floor	No	1225	s.f.	NF	U	35x35 library
1st	12	29	Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks	Yes	1225	s.f.	NF	U	
1st	12	3	Deck Panels - Metal	Assumed	1225	s.f.	NF	U	
1st	12	4	Ceiling Panel - Metal	Assumed	1225	s.f.	NF	U	
1st	12	5	Concrete Block w/ Mortar	No	1400	s.f.	NF	U	
1st	12	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	12	7	Concrete Block w/ Mortar 8"x8"	No	200	s.f.	NF	U	
1st	12	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	480	s.f.	F	U	
1st	12	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	70	l.f.	F	U	
1st	12	10	Visual Display Boards w/ Adhesive	Assumed	90	s.f.	NF	U	3 5x6 boards
1st	12	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	12	14	Adhesive - Associated w/ Marble Windowsill	Assumed	15	s.f.	NF	U	
1st	12	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	
1st	12	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	main class door
1st	12	30	Mastic - Associated w/ Blue Carpet	Assumed	1225	s.f.	NF	U	carpet over tile
1st	100V	1	Concrete - Floor	No	1225	s.f.	NF	U	30x22 Lobby
1st	100V	3	Deck Panels - Metal	Assumed	1225	s.f.	NF	U	
1st	100V	31	Flooring - Terrazzo	Assumed	1225	s.f.	NF	U	
1st	100V	4	Ceiling Panel - Metal	Assumed	1225	s.f.	NF	U	
1st	100V	7	Concrete Block w/ Mortar 8"x8"	No	300	s.f.	NF	U	
1st	100V	32	Brick w/ Mortar - Red	No	300	s.f.	NF	U	
1st	100V	33	Caulk - Interior - Silicone - Clear	Assumed	2	s.f.	NF	U	
1st	100V	34	Caulk - Interior - Gray - Brittle	Yes	1	s.f.	NF	U	
1st	100V	35	Caulk - Interior - Door System Frame - Brown	No	1	s.f.	NF	U	
1st	100V	36	Door - Exterior - Metal	Assumed	4	ct.	NF	U	two double doors
1st	100A	1	Concrete - Floor	No	2250	s.f.	NF	U	225x10 Hallway
1st	100A	3	Deck Panels - Metal	Assumed	2250	s.f.	NF	U	
1st	100A	31	Flooring - Terrazzo	Assumed	2250	s.f.	NF	U	
1st	100A	4	Ceiling Panel - Metal	Assumed	2250	s.f.	NF	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	100A	61	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	No	400	l.f.	F	U	
1st	100A	9	Pipe Insulation - Fiberglass - Fabric Wrapped	No	600	l.f.	F	U	
1st	100A	7	Concrete Block w/ Mortar 8"x8"	No	4500	s.f.	NF	U	
1st	14	1	Concrete - Floor	No	300	s.f.	NF	U	20x15
1st	14	3	Deck Panels - Metal	Assumed	300	s.f.	NF	U	
1st	14	37	Ceiling Tile - 2x4 - Pinholes and Gouges	No	300	s.f.	F	U	
1st	14	3	Deck Panels - Metal	Assumed	300	s.f.	NF	U	
1st	14	5	Concrete Block w/ Mortar	No	500	s.f.	NF	U	3 walls
1st	14	7	Concrete Block w/ Mortar 8"x8"	No	50	s.f.	NF	U	
1st	14	13	Glazing - Interior Window - Black - Rubbery	No	3	s.f.	NF	U	three 4x6 windows
1st	14	14	Adhesive - Associated w/ Marble Windowsill	Assumed	6	s.f.	NF	U	
1st	14	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	
1st	14	38	Floor Tile w/ Mastic - 9" - Tan	Yes	300	s.f.	NF	U	
1st	14	39	Mastic - Carpet - Yellow	No	300	s.f.	NF	U	
1st	14	24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	15	s.f.	NF	U	
1st	14	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	
1st	13A	1	Concrete - Floor	No	77	s.f.	NF	U	7x11
1st	13A	3	Deck Panels - Metal	Assumed	77	s.f.	NF	U	
1st	13A	37	Ceiling Tile - 2x4 - Pinholes and Gouges	No	77	s.f.	F	U	
1st	13A	3	Deck Panels - Metal	Assumed	77	s.f.	NF	U	
1st	13A	5	Concrete Block w/ Mortar	No	110	s.f.	NF	U	1 wall
1st	13A	7	Concrete Block w/ Mortar 8"x8"	No	15	s.f.	NF	U	
1st	13A	40	Drywall - Wall	Assumed	110	s.f.	NF	U	1 wall
1st	13A	41	Joint Compound - Associated w/ Drywall - Wall	Assumed	110	s.f.	NF	U	1 wall
1st	13A	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	
1st	13	1	Concrete - Floor	No	144	s.f.	NF	U	12x12 Principal
1st	13	3	Deck Panels - Metal	Assumed	144	s.f.	NF	U	
1st	13	37	Ceiling Tile - 2x4 - Pinholes and Gouges	No	144	s.f.	F	U	
1st	13	3	Deck Panels - Metal	Assumed	144	s.f.	NF	U	
1st	13	5	Concrete Block w/ Mortar	No	100	s.f.	NF	U	
1st	13	7	Concrete Block w/ Mortar 8"x8"	No	50	s.f.	NF	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	13	40	Drywall - Wall	Assumed	120	s.f.	NF	U	
1st	13	41	Joint Compound - Associated w/ Drywall - Wall	Assumed	120	s.f.	NF	U	
1st	13	13	Glazing - Interior Window - Black - Rubbery	No	3	s.f.	NF	U	three 4x6 windows
1st	13	38	Floor Tile w/ Mastic - 9" - Tan	Yes	144	s.f.	NF	U	under carpet
1st	13	39	Mastic - Carpet - Yellow	No	144	s.f.	NF	U	over tile
1st	13	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	
1st	13	43	Cove Base w/ Adhesive - 4" - Black	No	4	s.f.	NF	U	
1st	11	1	Concrete - Floor	No	240	s.f.	NF	U	20x12
1st	11	38	Floor Tile w/ Mastic - 9" - Tan	Yes	240	s.f.	NF	U	under carpet
1st	11	14	Adhesive - Associated w/ Marble Windowsill	Assumed	6	s.f.	NF	U	
1st	11	39	Mastic - Carpet - Yellow	No	240	s.f.	NF	U	over tile
1st	11	3	Deck Panels - Metal	Assumed	240	s.f.	NF	U	
1st	11	37	Ceiling Tile - 2x4 - Pinholes and Gouges	No	240	s.f.	F	U	
1st	11	3	Deck Panels - Metal	Assumed	240	s.f.	NF	U	
1st	11	5	Concrete Block w/ Mortar	No	100	s.f.	NF	U	
1st	11	7	Concrete Block w/ Mortar 8"x8"	No	50	s.f.	NF	U	
1st	11	13	Glazing - Interior Window - Black - Rubbery	No	3	s.f.	NF	U	windows to hallway
1st	11	42	Glazing - Interior Window - White - Powdery	Yes	3	s.f.	NF	U	three 4x6 windows
1st	11	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	11	14	Adhesive - Associated w/ Marble Windowsill	Assumed	6	s.f.	NF	U	
1st	10	1	Concrete - Floor	No	240	s.f.	NF	U	20x12 teacher lounge
1st	10	38	Floor Tile w/ Mastic - 9" - Tan	Yes	240	s.f.	NF	U	
1st	10	14	Adhesive - Associated w/ Marble Windowsill	Assumed	240	s.f.	NF	U	
1st	10	39	Mastic - Carpet - Yellow	No	240	s.f.	NF	U	
1st	10	3	Deck Panels - Metal	Assumed	240	s.f.	NF	U	
1st	10	37	Ceiling Tile - 2x4 - Pinholes and Gouges	No	240	s.f.	F	U	
1st	10	3	Deck Panels - Metal	Assumed	240	s.f.	NF	U	
1st	10	5	Concrete Block w/ Mortar	No	400	s.f.	NF	U	2 walls
1st	10	7	Concrete Block w/ Mortar 8"x8"	No	50	s.f.	NF	U	
1st	10	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	10	42	Glazing - Interior Window - White - Powdery	Yes	1	s.f.	NF	U	one 4x6 window
1st	10	14	Adhesive - Associated w/ Marble Windowsill	Assumed	2	s.f.	NF	U	
1st	9	1	Concrete - Floor	No	160	s.f.	NF	U	8x20 server book room

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	9	44	Floor Tile w/ Mastic - 9" - Orage Brown Mottled	Yes	160	s.f.	NF	U	
1st	9	3	Deck Panels - Metal	Assumed	160	s.f.	NF	U	
1st	9	39	Mastic - Carpet - Yellow	No	160	s.f.	NF	U	
1st	9	45	Ceiling Tile - 2x4 - Smooth	No	160	s.f.	F	U	
1st	9	5	Concrete Block w/ Mortar	No	560	s.f.	NF	U	
1st	9	7	Concrete Block w/ Mortar 8"x8"	No	56	s.f.	NF	U	
1st	9	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	101	1	Concrete - Floor	No	2160	s.f.	NF	U	60x36 multi-purpose
1st	101	3	Deck Panels - Metal	Assumed	2160	s.f.	NF	U	
1st	101	4	Ceiling Panel - Metal	Assumed	2160	s.f.	NF	U	
1st	101	28	Floor Tile w/ Mastic - 12" - Light Blue Mottled	No	2160	s.f.	NF	U	
1st	101	5	Concrete Block w/ Mortar	No	3840	s.f.	NF	U	18' ceiling
1st	101	7	Concrete Block w/ Mortar 8"x8"	No	1152	s.f.	NF	U	
1st	101	46	Door - Interior - Metal	Assumed	2	ct.	NF	U	
1st	101	36	Door - Exterior - Metal	Assumed	2	ct.	NF	U	
1st	101	35	Caulk - Interior - Door System Frame - Brown	No	1	s.f.	NF	U	double exterior doors
1st	101S	1	Concrete - Floor	No	525	s.f.	NF	U	21x25 storage
1st	101S	48	Deck - Corrugated - Metal	Assumed	525	s.f.	NF	U	
1st	101S	47	Floor Tile w/ Mastic - 9" - Dk Brown w/ Confetti Speckles	Yes	525	s.f.	NF	U	
1st	101S	5	Concrete Block w/ Mortar	No	1840	s.f.	NF	U	20' ceiling
1st	101S	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	
1st	101S	49	Cove Base w/ Adhesive - 4" - Brown	No	7	s.f.	NF	U	1 wall
1st	101S	50	Vibration Dampener - Cloth - White	Assumed	5	s.f.	NF	U	1 obseved
1st	8	1	Concrete - Floor	No	100	s.f.	NF	U	10x10 kitchen
1st	8	3	Deck Panels - Metal	Assumed	100	s.f.	NF	U	
1st	8	4	Ceiling Panel - Metal	Assumed	100	s.f.	NF	U	
1st	8	51	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	Yes	100	s.f.	NF	U	
1st	8	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	no windows
1st	8	7	Concrete Block w/ Mortar 8"x8"	No	400	s.f.	NF	U	
1st	8	52	Adhesive - Associated w/ Countertops and Backsplash	Assumed	100	s.f.	NF	U	Assumed present, not observed

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	100W	1	Concrete - Floor	No	100	s.f.	NF	U	10x10 Women's
1st	100W	3	Deck Panels - Metal	Assumed	100	s.f.	NF	U	
1st	100W	7	Concrete Block w/ Mortar 8"x8"	No	400	s.f.	NF	U	
1st	100W	31	Flooring - Terrazzo	Assumed	100	s.f.	NF	U	
1st	100W	4	Ceiling Panel - Metal	Assumed	100	s.f.	NF	U	
1st	100W	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	100M	1	Concrete - Floor	No	100	s.f.	NF	U	10x10 Men's
1st	100M	3	Deck Panels - Metal	Assumed	100	s.f.	NF	U	
1st	100M	7	Concrete Block w/ Mortar 8"x8"	No	400	s.f.	NF	U	
1st	100M	31	Flooring - Terrazzo	Assumed	100	s.f.	NF	U	
1st	100M	4	Ceiling Panel - Metal	Assumed	100	s.f.	NF	U	
1st	100M	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	7	1	Concrete - Floor	No	432	s.f.	NF	U	36x12 storage roof access
1st	7	3	Deck Panels - Metal	Assumed	432	s.f.	NF	U	
1st	7	5	Concrete Block w/ Mortar	No	1152	s.f.	NF	U	12' ceiling
1st	7	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	7	36	Door - Exterior - Metal	Assumed	1	ct.	NF	U	no window
1st	7	35	Caulk - Interior - Door System Frame - Brown	No	1	s.f.	NF	U	exterior door
1st	7	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	10	l.f.	F	U	plastic elbows
1st	7	53	Caulk - Interior - Firestop - Red	No	1	s.f.	NF	U	on 4 pipes
1st	5	1	Concrete - Floor	No	396	s.f.	NF	U	33x12 storage
1st	5	3	Deck Panels - Metal	Assumed	396	s.f.	NF	U	
1st	5	54	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	Yes	396	s.f.	NF	U	
1st	5	5	Concrete Block w/ Mortar	No	1080	s.f.	NF	U	12' ceiling
1st	5	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	6	1	Concrete - Floor	No	300	s.f.	NF	U	20x15
1st	6	3	Deck Panels - Metal	Assumed	300	s.f.	NF	U	
1st	6	4	Ceiling Panel - Metal	Assumed	300	s.f.	NF	U	
1st	6	51	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	Yes	300	s.f.	NF	U	
1st	6	5	Concrete Block w/ Mortar	No	700	s.f.	NF	U	



# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	6	7	Concrete Block w/ Mortar 8"x8"	No	45	s.f.	NF	U	bottom perimeter
1st	6	14	Adhesive - Associated w/ Marble Windowsill	Assumed	6	s.f.	NF	U	
1st	6	42	Glazing - Interior Window - White - Powdery	Yes	3	s.f.	NF	U	three 4x6 windows
1st	6	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	with window
1st	6	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	
1st	6	10	Visual Display Boards w/ Adhesive	Assumed	56	s.f.	NF	U	2 boards
1st	6	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	
1st	6S	1	Concrete - Floor	No	50	s.f.	NF	U	5x10 storage
1st	6S	3	Deck Panels - Metal	Assumed	50	s.f.	NF	U	
1st	6S	4	Ceiling Panel - Metal	Assumed	50	s.f.	NF	U	
1st	6S	54	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	Yes	50	s.f.	NF	U	
1st	6S	5	Concrete Block w/ Mortar	No	300	s.f.	NF	U	
1st	6S	7	Concrete Block w/ Mortar 8"x8"	No	20	s.f.	NF	U	
1st	6S	15	Door - Interior - Wood	Assumed	1	ct.	NF	U	no window
1st	4	1	Concrete - Floor	No	1080	s.f.	NF	U	36x30
1st	4	3	Deck Panels - Metal	Assumed	1080	s.f.	NF	U	
1st	4	4	Ceiling Panel - Metal	Assumed	1080	s.f.	NF	U	
1st	4	51	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	Yes	1080	s.f.	NF	U	
1st	4	4	Ceiling Panel - Metal	Assumed	930	s.f.	NF	U	
1st	4	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	360	s.f.	F	U	
1st	4	55	Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks	Yes	150	s.f.	NF	U	
1st	4	5	Concrete Block w/ Mortar	No	1320	s.f.	NF	U	
1st	4	7	Concrete Block w/ Mortar 8"x8"	No	396	s.f.	NF	U	bottom 3 feet
1st	4	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	
1st	4	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	4	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	single sink
1st	4	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	4	14	Adhesive - Associated w/ Marble Windowsill	Assumed	10	s.f.	NF	U	
1st	4	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	1 with window
1st	4	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	



# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	4	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	25	s.f.	NF	U	5x5 bathroom
1st	4	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	120	l.f.	F	U	
1st	3	1	Concrete - Floor	No	1080	s.f.	NF	U	36x30 music room
1st	3	3	Deck Panels - Metal	Assumed	1080	s.f.	NF	U	
1st	3	4	Ceiling Panel - Metal	Assumed	1080	s.f.	NF	U	
1st	3	51	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	Yes	1080	s.f.	NF	U	
1st	3	4	Ceiling Panel - Metal	Assumed	930	s.f.	NF	U	
1st	3	8	Insulation - Fiberglass Batt - Unfaced - Pink	No	360	s.f.	F	U	
1st	3	22	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	Yes	150	s.f.	NF	U	
1st	3	5	Concrete Block w/ Mortar	No	1320	s.f.	NF	U	
1st	3	7	Concrete Block w/ Mortar 8"x8"	No	396	s.f.	NF	U	bottom 3 feet
1st	3	10	Visual Display Boards w/ Adhesive	Assumed	160	s.f.	NF	U	
1st	3	13	Glazing - Interior Window - Black - Rubbery	No	5	s.f.	NF	U	five 4x6 windows
1st	3	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	single sink
1st	3	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	3	14	Adhesive - Associated w/ Marble Windowsill	Assumed	10	s.f.	NF	U	
1st	3	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	1 with window
1st	3	16	Glazing - Interior - Door Window - Tan	No	2	s.f.	N/A	U	
1st	3	24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	25	s.f.	NF	U	5x5 bathroom
1st	3	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	100	l.f.	F	U	plastic elbows
1st	3	42	Glazing - Interior Window - White - Powdery	Yes	1	s.f.	NF	U	on couple smaller windows
1st	2	1	Concrete - Floor	No	1530	s.f.	NF	U	34x45
1st	2	3	Deck Panels - Metal	Assumed	1530	s.f.	NF	U	
1st	2	4	Ceiling Panel - Metal	Assumed	1530	s.f.	NF	U	
1st	2	28	Floor Tile w/ Mastic - 12" - Light Blue Mottled	No	1530	s.f.	NF	U	
1st	2	4	Ceiling Panel - Metal	Assumed	1530	s.f.	NF	U	
1st	2	5	Concrete Block w/ Mortar	No	1580	s.f.	NF	U	
1st	2	7	Concrete Block w/ Mortar 8"x8"	No	475	s.f.	NF	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	2	10	Visual Display Boards w/ Adhesive	Assumed	200	s.f.	NF	U	6 boards
1st	2	13	Glazing - Interior Window - Black - Rubbery	No	1	s.f.	NF	U	one 4x6 window
1st	2	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	single sink
1st	2	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	2	14	Adhesive - Associated w/ Marble Windowsill	Assumed	12	s.f.	NF	U	
1st	2	15	Door - Interior - Wood	Assumed	2	ct.	NF	U	1 with window
1st	2	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	
1st	2	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	40	s.f.	NF	U	restroom
1st	2	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No		l.f.	F	U	not observed
1st	2	42	Glazing - Interior Window - White - Powdery	Yes	5	s.f.	NF	U	five 4x6 windows
1st	100B	1	Concrete - Floor	No	900	s.f.	NF	U	90x10 hallway
1st	100B	3	Deck Panels - Metal	Assumed	900	s.f.	NF	U	
1st	100B	31	Flooring - Terrazzo	Assumed	900	s.f.	NF	U	
1st	100B	4	Ceiling Panel - Metal	Assumed	900	s.f.	NF	U	
1st	100B	7	Concrete Block w/ Mortar 8"x8"	No	1800	s.f.	NF	U	
1st	100B	61	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	No	200	l.f.	F	U	
1st	100B	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	200	l.f.	F	U	
1st	100B	10	Visual Display Boards w/ Adhesive	Assumed	280	s.f.	NF	U	seven 5x8 boards
1st	100C	1	Concrete - Floor	No	800	s.f.	NF	U	
1st	100C	48	Deck - Corrugated - Metal	Assumed	800	s.f.	NF	U	
1st	100C	31	Flooring - Terrazzo	Assumed	800	s.f.	NF	U	
1st	100C	4	Ceiling Panel - Metal	Assumed	800	s.f.	NF	U	
1st	100C	7	Concrete Block w/ Mortar 8"x8"	No	2000	s.f.	NF	U	
1st	100C	10	Visual Display Boards w/ Adhesive	Assumed	400	s.f.	NF	U	ten 5x8 boards
1st	100C	36	Door - Exterior - Metal	Assumed	2	ct.	NF	U	single exit doors
1st	100C	35	Caulk - Interior - Door System Frame - Brown	No	1	s.f.	NF	U	1 exit door system
1st	100C	61	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	No	300	l.f.	F	U	
1st	100C	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	300	l.f.	F	U	
1st	100C	13	Glazing - Interior Window - Black - Rubbery	No	9	s.f.	NF	U	nine 4x6 windows
1st	1	1	Concrete - Floor	No	1530	s.f.	NF	U	34x45

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	1	3	Deck Panels - Metal	Assumed	1530	s.f.	NF	U	
1st	1	4	Ceiling Panel - Metal	Assumed	1530	s.f.	NF	U	
1st	1	56	Floor Tile w/ Mastic - 9" - Light Blue w/ Confetti Speckles	Yes	1100	s.f.	NF	U	multiple other patch tiles
1st	1	76	Floor Tile w/ Mastic - 9" - Green w/ Black and White Streaks	Assumed	100	s.f.	NF	U	
1st	1	77	Floor Tile w/ Mastic - 9" - Red w/ Gray Streaks	Assumed	10	s.f.	NF	U	
1st	1	4	Ceiling Panel - Metal	Assumed	1530	s.f.	NF	U	
1st	1	5	Concrete Block w/ Mortar	No	1580	s.f.	NF	U	
1st	1	7	Concrete Block w/ Mortar 8"x8"	No	475	s.f.	NF	U	
1st	1	10	Visual Display Boards w/ Adhesive	Assumed	280	s.f.	NF	U	7 boards
1st	1	13	Glazing - Interior Window - Black - Rubbery	No	1	s.f.	NF	U	one 4x6 window
1st	1	12	Sink Undercoating - Black	Yes	5	s.f.	NF	U	single sink
1st	1	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	1	14	Adhesive - Associated w/ Marble Windowsill	Assumed	12	s.f.	NF	U	
1st	1	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	1 with window
1st	1	16	Glazing - Interior - Door Window - Tan	No	3	s.f.	N/A	U	
1st	1	20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	40	s.f.	NF	U	restroom
1st	1	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No		l.f.	F	U	not observed
1st	1	42	Glazing - Interior Window - White - Powdery	Yes	4	s.f.	NF	U	four 4x6 windows
1st	1	54	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	Yes	64	s.f.	NF	U	storage room
1st	1	43	Cove Base w/ Adhesive - 4" - Black	No	10	s.f.	NF	U	1 wall
1st	1	55	Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks	Yes	300	s.f.	NF	U	
1st	1B	1	Concrete - Floor	No	960	s.f.	NF	U	30x32
1st	1B	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	1B	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	1B	57	Floor Tile w/ Mastic - 9" - Tan w/ White Streaks	Yes	960	s.f.	NF	U	
1st	1B	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	1B	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	1B	7	Concrete Block w/ Mortar 8"x8"	No	372	s.f.	NF	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	1B	10	Visual Display Boards w/ Adhesive	Assumed	240	s.f.	NF	U	6 boards
1st	1B	13	Glazing - Interior Window - Black - Rubbery	No	2	s.f.	NF	U	two 4x6 windows
1st	1B	59	Sink Undercoating - Pink	No	5	s.f.	NF	U	
1st	1B	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	1B	14	Adhesive - Associated w/ Marble Windowsill	Assumed	10	s.f.	NF	U	
1st	1B	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	one with window
1st	1B	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	
1st	1B	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	100	l.f.	F	U	
1st	1B	42	Glazing - Interior Window - White - Powdery	Yes	3	s.f.	NF	U	three 4x6 windows
1st	1B	58	Ceramic Tile w/ Grout and Bedding - Floor - 2" - Yellow	Assumed	45	s.f.	NF	U	restrooms
1st	1A	1	Concrete - Floor	No	960	s.f.	NF	U	30x32
1st	1A	3	Deck Panels - Metal	Assumed	960	s.f.	NF	U	
1st	1A	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	1A	57	Floor Tile w/ Mastic - 9" - Tan w/ White Streaks	Yes	960	s.f.	NF	U	
1st	1A	4	Ceiling Panel - Metal	Assumed	960	s.f.	NF	U	
1st	1A	5	Concrete Block w/ Mortar	No	1240	s.f.	NF	U	
1st	1A	7	Concrete Block w/ Mortar 8"x8"	No	372	s.f.	NF	U	
1st	1A	10	Visual Display Boards w/ Adhesive	Assumed	240	s.f.	NF	U	6 boards
1st	1A	13	Glazing - Interior Window - Black - Rubbery	No	3	s.f.	NF	U	three 4x6 windows
1st	1A	59	Sink Undercoating - Pink	No	5	s.f.	NF	U	single sink
1st	1A	25	Adhesive - Associated w/ Backsplash - Brown	No	10	s.f.	NF	U	
1st	1A	14	Adhesive - Associated w/ Marble Windowsill	Assumed	10	s.f.	NF	U	
1st	1A	15	Door - Interior - Wood	Assumed	3	ct.	NF	U	one with window
1st	1A	16	Glazing - Interior - Door Window - Tan	No	1	s.f.	N/A	U	
1st	1A	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	150	l.f.	F	U	
1st	1A	42	Glazing - Interior Window - White - Powdery	Yes	2	s.f.	NF	U	two 4x6 windows
1st	1A	60	Ceramic Tile w/ Grout and Bedding - Floor - 2" - Teal	Assumed	25	s.f.	NF	U	restrooms
1st	ME1A	1	Concrete - Floor	No	630	s.f.	NF	U	18x35 mech room
1st	ME1A	3	Deck Panels - Metal	Assumed	630	s.f.	NF	U	
1st	ME1A	5	Concrete Block w/ Mortar	No	1272	s.f.	NF	U	15' ceiling
1st	ME1A	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	150	l.f.	F	U	

# Room by Room Material Inventory

## Lansing Public Schools

### Cavanaugh Elementary

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	ME1A	61	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	No	250	l.f.	F	U	
1st	ME1A	62	Concrete - Wall	No	318	s.f.	NF	U	bottom 3'
1st	ME1A	63	Caulk - Interior - Tan - on Window System	No	2	s.f.	NF	U	8x8 window system
1st	ME1A	64	Wrap - Tan - on Chimney	No	1	s.f.	F	U	remnant
1st	ME1A	65	Concrete - Pad	No	100	s.f.	NF	U	
1st	ME1A	53	Caulk - Interior - Firestop - Red	No	1	s.f.	NF	U	
1st	ME1A	75	Waterproofing - Black	No	500	s.f.	NF	U	around perimeter of mech rm
1st	ME1A	46	Door - Interior - Metal	Assumed	2	ct.	NF	U	
Exterior	Exterior	32	Brick w/ Mortar - Red	No	16500	s.f.	NF	U	
Exterior	Exterior	66	Glazing - Exterior - Door Window - Black - Rubbery	No	6	s.f.	NF	U	small windows
Exterior	Exterior	67	Caulk - Exterior - Door Frame System - Brown	No	10	s.f.	NF	U	9x28 door system,
Exterior	Exterior	68	Caulk - Exterior - Door System Panel - Gray	No	1	s.f.	NF	U	
Exterior	Exterior	69	Caulk - Exterior - Metal Chase - Gray	Yes	27	s.f.	NF	U	
Exterior	Exterior	70	Glazing - Exterior - Window - White - Brittle	Yes	112	s.f.	NF	U	some covered w/ clear silicone
Exterior	Exterior	3	Deck Panels - Metal	Assumed	300	s.f.	NF	U	
Exterior	Exterior	71	Glazing - Exterior - Panel - Black	No	224	s.f.	NF	U	above and below each window
Exterior	Exterior	73	Caulk - Exterior - Window System - Gray - Soft	No	1	s.f.	NF	U	8x8 window system, mech room
Exterior	Exterior	74	Caulk - Exterior - on Vent Louvers - Gray	No	1	s.f.	NF	U	vent to mech rm
Exterior	Exterior	79	Insulation - Exterior Window Panel - Yellow	Yes	3360	s.f.	F	U	assumed present in all panels
Roof	Roof	78	Roofing Materials	Assumed	35000	s.f.	NF	U	
1st	98T	1	Concrete - Floor	No	36	s.f.	NF	U	6x6
1st	98T	3	Deck Panels - Metal	Assumed	36	s.f.	NF	U	
1st	98T	7	Concrete Block w/ Mortar 8"x8"	No	240	s.f.	NF	U	
1st	98T	9	Pipe Insulation - Fiberglass - Fabric Wrapped	No	20	l.f.	F	U	
1st	98T	72	Heat Shield	No	1	s.f.	F	U	
1st	98T	67	Caulk - Exterior - Door Frame System - Brown	No	1	s.f.	NF	U	

**Room by Room Material Inventory**  
**Lansing Public Schools**  
**Cavanaugh Elementary**

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	98T	36	Door - Exterior - Metal	Assumed	1	ct.	NF	U	no window
1st	99T	1	Concrete - Floor	No	36	s.f.	NF	U	
1st	99T	3	Deck Panels - Metal	Assumed	36	s.f.	NF	U	
1st	99T	7	Concrete Block w/ Mortar 8"x8"	No	240	s.f.	NF	U	
1st	99T	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	20	l.f.	F	U	
1st	99T	72	Heat Shield	No	1	s.f.	F	U	
1st	99T	67	Caulk - Exterior - Door Frame System - Brown	No	1	s.f.	NF	U	
1st	99T	36	Door - Exterior - Metal	Assumed	1	ct.	NF	U	no window
1st	97S	1	Concrete - Floor	No	132	s.f.	NF	U	6x22 storage
1st	97S	3	Deck Panels - Metal	Assumed	132	s.f.	NF	U	
1st	97S	7	Concrete Block w/ Mortar 8"x8"	No	560	s.f.	NF	U	
1st	97S	72	Heat Shield	No	3	s.f.	F	U	
1st	97S	67	Caulk - Exterior - Door Frame System - Brown	No	1	s.f.	NF	U	double door system
1st	97S	36	Door - Exterior - Metal	Assumed	2	ct.	NF	U	
Tunnel	Tunnel	1	Concrete - Floor	No	425	s.f.	NF	U	5x3x85
Tunnel	Tunnel	62	Concrete - Wall	No	510	s.f.	NF	U	
Tunnel	Tunnel	9	Pipe Insulation - Fibergalss - Fabric Wrapped	No	170	l.f.	F	U	2 pipes



# **Appendix C**

## **Bulk Sample Log – Asbestos**

BDN Project No.: P23-00305

**Cavanaugh Elementary Limited Scope NESHAP**

October 2023

Sample Number	HA Description	Sample Location	Notes
1-1	Concrete - Floor	ME1A	
1-2	Concrete - Floor	ME1A	
2-1	Floor Tile w/ Mastic - 9" - Brown w/ Tan Stripes	22	
2-2	Floor Tile w/ Mastic - 9" - Brown w/ Tan Stripes	22	
5-1	Concrete Block w/ Mortar	ME1A	
5-2	Concrete Block w/ Mortar	ME1A	
7-1	Concrete Block w/ Mortar 8"x8"	1	
7-2	Concrete Block w/ Mortar 8"x8"	99T	
8-1	Insulation - Fiberglass Batt - Unfaced - Pink	100C	
8-2	Insulation - Fiberglass Batt - Unfaced - Pink	24	
8-3	Insulation - Fiberglass Batt - Unfaced - Pink	4	
9-1	Pipe Insulation - Fiberglass - Fabric Wrapped	22	
9-2	Pipe Insulation - Fiberglass - Fabric Wrapped	100A	
9-3	Pipe Insulation - Fiberglass - Fabric Wrapped	ME1A	
12-1	Sink Undercoating - Black	24	
12-2	Sink Undercoating - Black	1	
13-1	Glazing - Interior Window - Black - Rubbery	11	window to hallway
13-2	Glazing - Interior Window - Black - Rubbery	18	
16-1	Glazing - Interior - Door Window - Tan	23	
16-2	Glazing - Interior - Door Window - Tan	18	
16-3	Glazing - Interior - Door Window - Tan	3	
17-1	Floor Tile w/ Mastic - 9" - Light Blue Green w/ Black and White Streaks	24	
17-2	Floor Tile w/ Mastic - 9" - Light Blue Green w/ Black and White Streaks	24	
19-1	Caulk - Interior - Tan - Associated w/ Window Panel	24	Center window w/ AC unit
19-2	Caulk - Interior - Tan - Associated w/ Window Panel	24	center window w/ AC unit
21-1	Floor Tile w/ Mastic - 12" - Gray Mottled	23	
21-2	Floor Tile w/ Mastic - 12" - Gray Mottled	23	
22-1	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	16	
22-2	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	16	
25-1	Adhesive - Associated w/ Backsplash - Brown	22	
26-1	Floor Tile w/ Mastic - 12" - Blue Mottled	19	
26-2	Floor Tile w/ Mastic - 12" - Blue Mottled	19	
27-1	Floor Tile w/ Mastic - 9" - Tan Green w/ Cream Streaks	18	
27-2	Floor Tile w/ Mastic - 9" - Tan Green w/ Cream Streaks	18	
28-1	Floor Tile w/ Mastic - 12" - Light Blue Mottled	18	
28-2	Floor Tile w/ Mastic - 12" - Light Blue Mottled	2	
29-1	Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks	15	
29-2	Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks	15	
32-1	Brick w/ Mortar - Red	Exterior	lobby left
32-2	Brick w/ Mortar - Red	Exterior	s/w
34-1	Caulk - Interior - Gray - Brittle	100V	lobby
34-2	Caulk - Interior - Gray - Brittle	100V	lobby
35-1	Caulk - Interior - Door System Frame - Brown	100V	lobby
35-2	Caulk - Interior - Door System Frame - Brown	100A	exit door
37-1	Ceiling Tile - 2x4 - Pinholes and Gouges	13	
37-2	Ceiling Tile - 2x4 - Pinholes and Gouges	13A	
38-1	Floor Tile w/ Mastic - 9" - Tan	12	Library



Sample Number	HA Description	Sample Location	Notes
38-2	Floor Tile w/ Mastic - 9" - Tan	13A	
39-1	Mastic - Carpet - Yellow	13A	
39-2	Mastic - Carpet - Yellow	13A	
42-1	Glazing - Interior Window - White - Powdery	11	
42-2	Glazing - Interior Window - White - Powdery	11	
43-1	Cove Base w/ Adhesive - 4" - Black	1	
43-2	Cove Base w/ Adhesive - 4" - Black	13	
44-1	Floor Tile w/ Mastic - 9" - Orange Brown Mottled	9	
44-2	Floor Tile w/ Mastic - 9" - Orange Brown Mottled	9	
45-1	Ceiling Tile - 2x4 - Smooth	9	
45-2	Ceiling Tile - 2x4 - Smooth	9	
47-1	Floor Tile w/ Mastic - 9" - Dk Brown w/ Confetti Speckles	5	
47-2	Floor Tile w/ Mastic - 9" - Dk Brown w/ Confetti Speckles	5	
49-1	Cove Base w/ Adhesive - 4" - Brown	13A	
49-2	Cove Base w/ Adhesive - 4" - Brown	13A	
51-1	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	3	by restroom
51-2	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	3	
53-1	Caulk - Interior - Firestop - Red	ME1A	
53-2	Caulk - Interior - Firestop - Red	ME1A	
54-1	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	1	STORAGE
54-2	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	1	STORAGE
55-1	Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks	1	
55-2	Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks	1	
56-1	Floor Tile w/ Mastic - 9" - Light Blue w/ Confetti Speckles	1	
56-2	Floor Tile w/ Mastic - 9" - Light Blue w/ Confetti Speckles	1	
57-1	Floor Tile w/ Mastic - 9" - Tan w/ White Streaks	1B	
57-2	Floor Tile w/ Mastic - 9" - Tan w/ White Streaks	1B	
59-1	Sink Undercoating - Pink	1A	
59-2	Sink Undercoating - Pink	1B	
61-1	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	ME1A	
61-2	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	ME1A	
61-3	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	100A	
62-1	Concrete - Wall	ME1A	
62-2	Concrete - Wall	ME1A	mech room
63-1	Caulk - Interior - Tan - on Window System	ME1A	
63-2	Caulk - Interior - Tan - on Window System	ME1A	
64-1	Wrap - Tan - on Chimney	ME1A	mech room on chimney
64-2	Wrap - Tan - on Chimney	ME1A	mech room on chimney
65-1	Concrete - Pad	ME1A	
65-2	Concrete - Pad	ME1A	
66-1	Glazing - Exterior - Door Window - Black - Rubbery	Exterior	main lobby
66-2	Glazing - Exterior - Door Window - Black - Rubbery	Exterior	gym door
67-1	Caulk - Exterior - Door Frame System - Brown	97S	
67-2	Caulk - Exterior - Door Frame System - Brown	Exterior	store room door by mechanical room
67-3	Caulk - Exterior - Door Frame System - Brown	Exterior	main lobby right
68-1	Caulk - Exterior - Door System Panel - Gray	Exterior	main lobby, right

Sample Number	HA Description	Sample Location	Notes
68-2	Caulk - Exterior - Door System Panel - Gray	Exterior	right of main entrance
69-1	Caulk - Exterior - Metal Chase - Gray	Exterior	metal door by dumpsters
69-2	Caulk - Exterior - Metal Chase - Gray	Exterior	main lobby, right
69-3	Caulk - Exterior - Metal Chase - Gray	Exterior	main lobby left
70-1	Glazing - Exterior - Window - White - Brittle	Exterior	north side, center
70-2	Glazing - Exterior - Window - White - Brittle	Exterior	south, center
71-1	Glazing - Exterior - Panel - Black	Exterior	north side, center
71-2	Glazing - Exterior - Panel - Black	Exterior	South east
72-1	Heat Shield	97S	
72-2	Heat Shield	97S	
73-1	Caulk - Exterior - Window System - Gray - Soft	Exterior	mech room window system
73-2	Caulk - Exterior - Window System - Gray - Soft	Exterior	mech room window
74-1	Caulk - Exterior - on Vent Louvers - Gray	Exterior	mech room vent
74-2	Caulk - Exterior - on Vent Louvers - Gray	Exterior	mech room vent
75-1	Waterproofing - Black	ME1A	
75-2	Waterproofing - Black	ME1A	
79-1	Insulation - Exterior Window Panel - Yellow	Exterior	South side window panel
79-2	Insulation - Exterior Window Panel - Yellow	Exterior	south



# **Appendix D**

## **Building Materials Summary – Asbestos**

BDN Project No.: P23-00305

**Cavanaugh Elementary Limited Scope NESHAP**

October 2023

HA#	HA Description	Asbestos Detected	Material Type	Quantity				Units
				Total	Friable	Damaged	Significantly Damaged	
1	Concrete - Floor	No	MM	29,723	0	0	0	s.f.
2	Floor Tile w/ Mastic - 9" - Brown w/ Tan Stripes	Yes	MM	960	0	0	0	s.f.
3	Deck Panels - Metal	NSM	NSM	29,274	0	0	0	s.f.
4	Ceiling Panel - Metal	NSM	NSM	32,790	0	0	0	s.f.
5	Concrete Block w/ Mortar	No	MM	34,034	0	0	0	s.f.
6	Floor Tile w/ Mastic - 9" - Tan Mottled	Assumed	MM	80	0	0	0	s.f.
7	Concrete Block w/ Mortar 8"x8"	No	MM	17,014	0	0	0	s.f.
8	Insulation - Fiberglass Batt - Unfaced - Pink	No	TSI	6,000	6,000	0	0	s.f.
9	Pipe Insulation - Fiberglass - Fabric Wrapped	No	TSI	3,375	3,375	0	0	l.f.
10	Visual Display Boards w/ Adhesive	Assumed	MM	3,706	0	0	0	s.f.
11	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal	Assumed	MM	420	0	0	0	s.f.
12	Sink Undercoating - Black	Yes	MM	70	0	0	0	s.f.
13	Glazing - Interior Window - Black - Rubbery	No	MM	90	0	0	0	s.f.
14	Adhesive - Associated w/ Marble Windowsill	Assumed	MM	495	0	0	0	s.f.
15	Door - Interior - Wood	Assumed	MM	65	0	0	0	ct.
16	Glazing - Interior - Door Window - Tan	No	MM	22	0	0	0	s.f.
17	Floor Tile w/ Mastic - 9" - Light Blue Green w/ Black and White St	Yes	MM	960	0	0	0	s.f.
18	Floor Tile w/ Mastic - 12" - Black	Assumed	MM	4	0	0	0	s.f.
19	Caulk - Interior - Tan - Associated w/ Window Panel	Yes	MM	1	0	0	0	s.f.
20	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan	Assumed	MM	195	0	0	0	s.f.
21	Floor Tile w/ Mastic - 12" - Gray Mottled	Yes	MM	960	0	0	0	s.f.
22	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	Yes	MM	3,030	0	0	0	s.f.
23	Floor Tile w/ Mastic - 12" - Purple Mottled	Assumed	MM	4	0	0	0	s.f.
24	Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink	Assumed	MM	130	0	0	0	s.f.
25	Adhesive - Associated w/ Backsplash - Brown	No	MM	170	0	0	0	s.f.
26	Floor Tile w/ Mastic - 12" - Blue Mottled	No	MM	1,920	0	0	0	s.f.
27	Floor Tile w/ Mastic - 9" - Tan Green w/ Cream Streaks	Yes	MM	960	0	0	0	s.f.
28	Floor Tile w/ Mastic - 12" - Light Blue Mottled	No	MM	3,710	0	0	0	s.f.
29	Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks	Yes	MM	2,185	0	0	0	s.f.
30	Mastic - Associated w/ Blue Carpet	No	MM	1,225	0	0	0	s.f.
31	Flooring - Terrazzo	Assumed	MM	5,375	0	0	0	s.f.
32	Brick w/ Mortar - Red	No	MM	16,800	0	0	0	s.f.
33	Caulk - Interior - Silicone - Clear	NSM	NSM	2	0	0	0	s.f.
34	Caulk - Interior - Gray - Brittle	Yes	MM	1	0	0	0	s.f.
35	Caulk - Interior - Door System Frame - Brown	No	MM	4	0	0	0	s.f.
36	Door - Exterior - Metal	Assumed	MM	13	0	0	0	ct.
37	Ceiling Tile - 2x4 - Pinholes and Gouges	No	MM	1,001	1,001	0	0	s.f.
38	Floor Tile w/ Mastic - 9" - Tan	Yes	MM	924	0	0	0	s.f.
39	Mastic - Carpet - Yellow	No	MM	1,084	0	0	0	s.f.
40	Drywall - Wall	Assumed	MM	230	0	0	0	s.f.
41	Joint Compound - Associated w/ Drywall - Wall	Assumed	MM	230	0	0	0	s.f.
42	Glazing - Interior Window - White - Powdery	Yes	MM	22	0	0	0	s.f.
43	Cove Base w/ Adhesive - 4" - Black	No	MM	14	0	0	0	s.f.
44	Floor Tile w/ Mastic - 9" - Orange Brown Mottled	Yes	MM	160	0	0	0	s.f.
45	Ceiling Tile - 2x4 - Smooth	No	MM	160	160	0	0	s.f.
46	Door - Interior - Metal	Assumed	MM	4	0	0	0	ct.
47	Floor Tile w/ Mastic - 9" - Dk Brown w/ Confetti Speckles	Yes	MM	525	0	0	0	s.f.
48	Deck - Corrugated - Metal	NSM	NSM	1,325	0	0	0	s.f.
49	Cove Base w/ Adhesive - 4" - Brown	No	MM	7	0	0	0	s.f.
50	Vibration Dampener - Cloth - White	Assumed	MM	5	0	0	0	s.f.
51	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	Yes	MM	2,560	0	0	0	s.f.
52	Adhesive - Associated w/ Countertops and Backsplash	Assumed	MM	100	0	0	0	s.f.
53	Caulk - Interior - Firestop - Red	No	MM	2	0	0	0	s.f.
54	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	Yes	MM	510	0	0	0	s.f.
55	Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks	Yes	MM	450	0	0	0	s.f.

HA#	HA Description	Asbestos Detected	Material Type	Quantity				Units
				Total	Friable	Damaged	Significantly Damaged	
56	Floor Tile w/ Mastic - 9" - Light Blue w/ Confetti Speckles	Yes	MM	1,100	0	0	0	s.f.
57	Floor Tile w/ Mastic - 9" - Tan w/ White Streaks	Yes	MM	1,920	0	0	0	s.f.
58	Ceramic Tile w/ Grout and Bedding - Floor - 2" - Yellow	Assumed	MM	45	0	0	0	s.f.
59	Sink Undercoating - Pink	No	MM	10	0	0	0	s.f.
60	Ceramic Tile w/ Grout and Bedding - Floor - 2" - Teal	Assumed	MM	25	0	0	0	s.f.
61	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	No	TSI	1,150	1,150	0	0	l.f.
62	Concrete - Wall	No	MM	828	0	0	0	s.f.
63	Caulk - Interior - Tan - on Window System	No	MM	2	0	0	0	s.f.
64	Wrap - Tan - on Chimney	No	MM	1	1	0	0	s.f.
65	Concrete - Pad	No	MM	100	0	0	0	s.f.
66	Glazing - Exterior - Door Window - Black - Rubbery	No	MM	6	0	0	0	s.f.
67	Caulk - Exterior - Door Frame System - Brown	No	MM	13	0	0	0	s.f.
68	Caulk - Exterior - Door System Panel - Gray	No	MM	1	0	0	0	s.f.
69	Caulk - Exterior - Metal Chase - Gray	Yes	MM	27	0	0	0	s.f.
70	Glazing - Exterior - Window - White - Brittle	Yes	MM	112	0	0	0	s.f.
71	Glazing - Exterior - Panel - Black	No	MM	224	0	0	0	s.f.
72	Heat Shield	No	MM	5	5	0	0	s.f.
73	Caulk - Exterior - Window System - Gray - Soft	No	MM	1	0	0	0	s.f.
74	Caulk - Exterior - on Vent Louvers - Gray	No	MM	1	0	0	0	s.f.
75	Waterproofing - Black	No	MM	500	0	0	0	s.f.
76	Floor Tile w/ Mastic - 9" - Green w/ Black and White Streaks	Assumed	MM	100	0	0	0	s.f.
77	Floor Tile w/ Mastic - 9" - Red w/ Gray Streaks	Assumed	MM	10	0	0	0	s.f.
78	Roofing Materials	Assumed	MM	35,000	0	0	0	s.f.
79	Insulation - Exterior Window Panel - Yellow	Yes	MM	3,360	3,360	0	0	s.f.



# **Appendix E**

## **Digital Photo Log**

BDN Project No.: P23-00305

**Cavanaugh Elementary Limited Scope NESHAP**

October 2023



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### Exterior View of Property





**Site Photograph Log**

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

**PHOTOGRAPH # 1****HA# 1****MATERIAL DESCRIPTION:**

Concrete - Floor

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

29,723 s.f.

**ADDITIONAL NOTES:****PHOTOGRAPH # 2****HA# 2****MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Brown w/ Tan Stripes

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

960 s.f.

**ADDITIONAL NOTES:****PHOTOGRAPH # 3****HA# 3****MATERIAL DESCRIPTION:**

Deck Panels - Metal

**ASBESTOS-CONTAINING MATERIAL**

NSM

**TOTAL QUANTITY:**

29,274 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 4



**HA# 4**

**MATERIAL DESCRIPTION:**

Ceiling Panel - Metal

**ASBESTOS-CONTAINING MATERIAL:**

NSM

**TOTAL QUANTITY:**

32,790 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 5



**HA# 5**

**MATERIAL DESCRIPTION:**

Concrete Block w/ Mortar

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

34,034 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 6



**HA# 6**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Tan Mottled

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

80 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 7



**HA# 7**

**MATERIAL DESCRIPTION:**

Concrete Block w/ Mortar 8"x8"

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

17,014 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 8



**HA# 8**

**MATERIAL DESCRIPTION:**

Insulation - Fiberglass Batt - Unfaced - Pink

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

6,000 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 9



**HA# 9**

**MATERIAL DESCRIPTION:**

Pipe Insulation - Fiberglass - Fabric Wrapped

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

3,375 l.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 10



**HA# 10**

**MATERIAL DESCRIPTION:**

Visual Display Boards w/ Adhesive

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

3,706 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 11



**HA# 11**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Teal

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

420 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 12



**HA# 12**

**MATERIAL DESCRIPTION:**

Sink Undercoating - Black

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

70 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 13



**HA# 13**

**MATERIAL DESCRIPTION:**

Glazing - Interior Window - Black - Rubbery

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

90 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 14



**HA# 14**

**MATERIAL DESCRIPTION:**

Adhesive - Associated w/ Marble Windowsill

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

495 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 15



**HA# 15**

**MATERIAL DESCRIPTION:**

Door - Interior - Wood

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

65 ct.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 16



**HA# 16**

**MATERIAL DESCRIPTION:**

Glazing - Interior - Door Window - Tan

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

22 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 17



**HA# 17**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Light Blue Green w/ Black and White Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

960 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 18



**HA# 18**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 12" - Black

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

4 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 19



**HA# 19**

**MATERIAL DESCRIPTION:**

Caulk - Interior - Tan - Associated w/ Window Panel

**ASBESTOS-CONTAINING MATERIAL:**

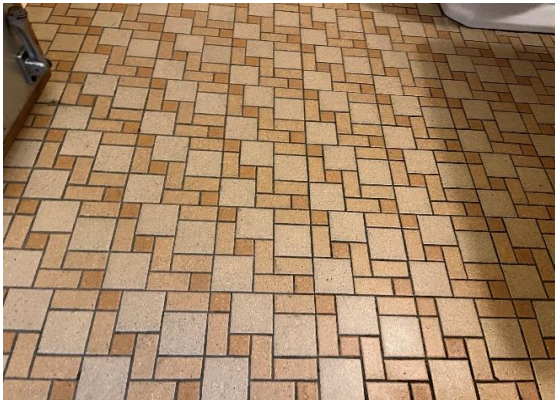
Yes

**TOTAL QUANTITY:**

1 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 20



**HA# 20**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Tan

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

195 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 21



**HA# 21**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 12" - Gray Mottled

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

960 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 22



**HA# 22**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks

**ASBESTOS-CONTAINING MATERIAL:**

Yes

**TOTAL QUANTITY:**

3,030 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 23



**HA# 23**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 12" - Purple Mottled

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

4 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 24



**HA# 24**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ Grout and Bedding - Floor - 1" and 2" - Pink

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

130 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 25



**HA# 25**

**MATERIAL DESCRIPTION:**

Adhesive - Associated w/ Backsplash - Brown

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

170 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 26



**HA# 26**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 12" - Blue Mottled

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

1,920 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 27



**HA# 27**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Tan Green w/ Cream Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

960 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 28



**HA# 28**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 12" - Light Blue Mottled

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

3,710 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 29



**HA# 29**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

2,185 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 30



**HA# 30**

**MATERIAL DESCRIPTION:**

Mastic - Associated w/ Blue Carpet

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

1,225 s.f.

**ADDITIONAL NOTES:**

**Site Photograph Log**

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

**PHOTOGRAPH # 31****HA# 31****MATERIAL DESCRIPTION:**

Flooring - Terrazzo

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

5,375 s.f.

**ADDITIONAL NOTES:****PHOTOGRAPH # 32****HA# 32****MATERIAL DESCRIPTION:**

Brick w/ Mortar - Red

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

16,800 s.f.

**ADDITIONAL NOTES:****PHOTOGRAPH # 33****HA# 33****MATERIAL DESCRIPTION:**

Caulk - Interior - Silicone - Clear

**ASBESTOS-CONTAINING MATERIAL**

NSM

**TOTAL QUANTITY:**

2 s.f.

**ADDITIONAL NOTES:**

**Site Photograph Log**

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

**PHOTOGRAPH # 34****HA# 34****MATERIAL DESCRIPTION:**

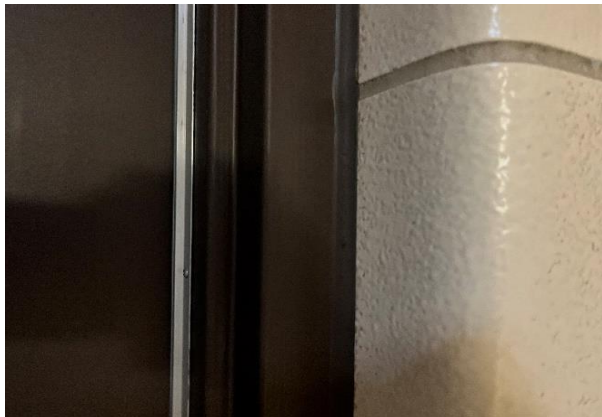
Caulk - Interior - Gray - Brittle

**ASBESTOS-CONTAINING MATERIAL:**

Yes

**TOTAL QUANTITY:**

1 s.f.

**ADDITIONAL NOTES:****HA# 35****MATERIAL DESCRIPTION:**

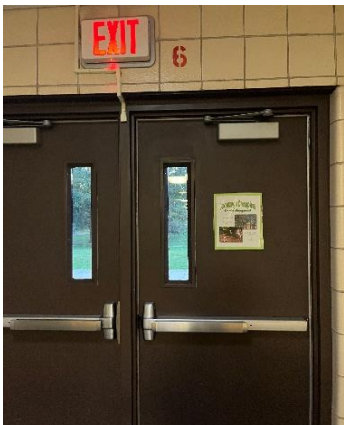
Caulk - Interior - Door System Frame - Brown

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

4 s.f.

**ADDITIONAL NOTES:****PHOTOGRAPH # 36****HA# 36****MATERIAL DESCRIPTION:**

Door - Exterior - Metal

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

13 ct.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 37



**HA# 37**

**MATERIAL DESCRIPTION:**

Ceiling Tile - 2x4 - Pinholes and Gouges

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

1,001 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 38



**HA# 38**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Tan

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

924 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 39



**HA# 39**

**MATERIAL DESCRIPTION:**

Mastic - Carpet - Yellow

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

1,084 s.f.

**ADDITIONAL NOTES:**

**Site Photograph Log**

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

**PHOTOGRAPH # 40****HA# 40****MATERIAL DESCRIPTION:**

Drywall - Wall

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

230 s.f.

**ADDITIONAL NOTES:****PHOTOGRAPH # 41****HA# 41****MATERIAL DESCRIPTION:**

Joint Compound - Associated w/ Drywall - Wall

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

230 s.f.

**ADDITIONAL NOTES:****PHOTOGRAPH # 42****HA# 42****MATERIAL DESCRIPTION:**

Glazing - Interior Window - White - Powdery

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

22 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 43



**HA# 43**

**MATERIAL DESCRIPTION:**

Cove Base w/ Adhesive - 4" - Black

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

14 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 44



**HA# 44**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Orange Brown Mottled

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

160 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 45



**HA# 45**

**MATERIAL DESCRIPTION:**

Ceiling Tile - 2x4 - Smooth

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

160 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 46



**HA# 46**

**MATERIAL DESCRIPTION:**

Door - Interior - Metal

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

4 ct.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 47



**HA# 47**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Dk Brown w/ Confetti Speckles

**ASBESTOS-CONTAINING MATERIAL**

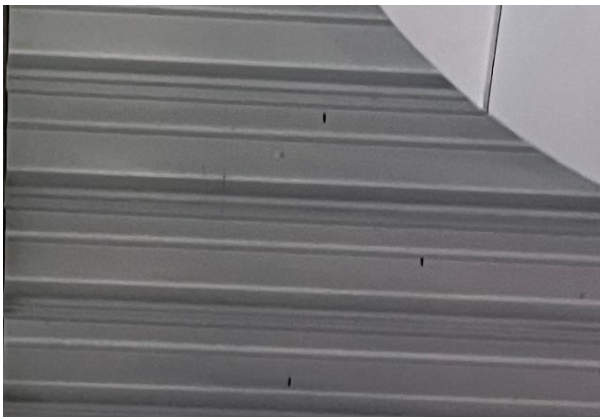
Yes

**TOTAL QUANTITY:**

525 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 48



**HA# 48**

**MATERIAL DESCRIPTION:**

Deck - Corrugated - Metal

**ASBESTOS-CONTAINING MATERIAL**

NSM

**TOTAL QUANTITY:**

1,325 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 49



**HA# 49**

**MATERIAL DESCRIPTION:**

Cove Base w/ Adhesive - 4" - Brown

**ASBESTOS-CONTAINING MATERIAL:**

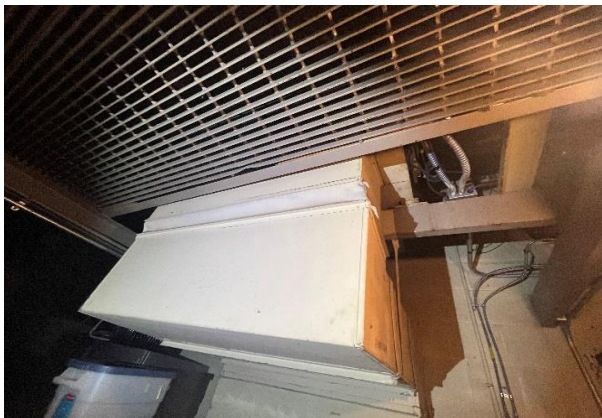
No

**TOTAL QUANTITY:**

7 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 50



**HA# 50**

**MATERIAL DESCRIPTION:**

Vibration Dampener - Cloth - White

**ASBESTOS-CONTAINING MATERIAL**

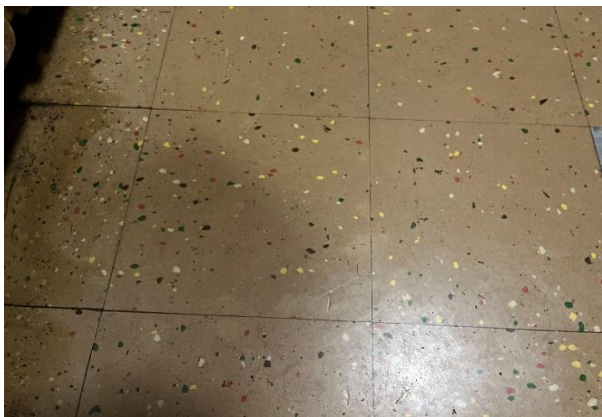
Assumed

**TOTAL QUANTITY:**

5 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 51



**HA# 51**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

2,560 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 52



**HA# 52**

**MATERIAL DESCRIPTION:**

Adhesive - Associated w/ Countertops and Backsplash

**ASBESTOS-CONTAINING MATERIAL:**

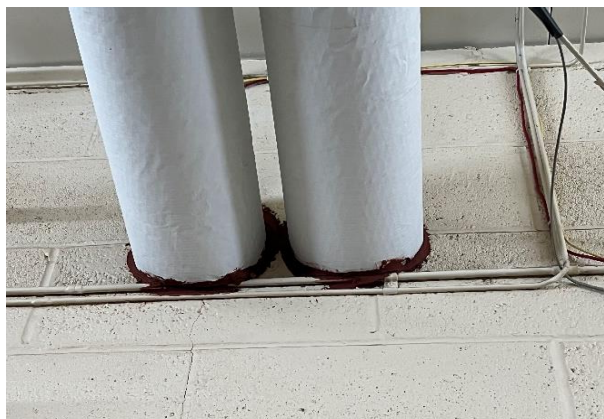
Assumed

**TOTAL QUANTITY:**

100 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 53



**HA# 53**

**MATERIAL DESCRIPTION:**

Caulk - Interior - Firestop - Red

**ASBESTOS-CONTAINING MATERIAL**

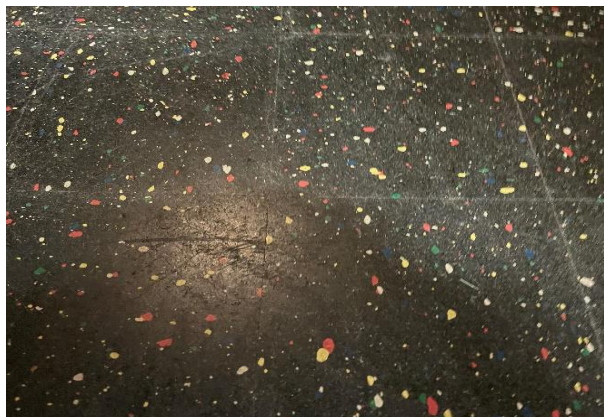
No

**TOTAL QUANTITY:**

2 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 54



**HA# 54**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

510 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 55



**HA# 55**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks

**ASBESTOS-CONTAINING MATERIAL:**

Yes

**TOTAL QUANTITY:**

450 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 56



**HA# 56**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Light Blue w/ Confetti Speckles

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

1,100 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 57



**HA# 57**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Tan w/ White Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

1,920 s.f.

**ADDITIONAL NOTES:**

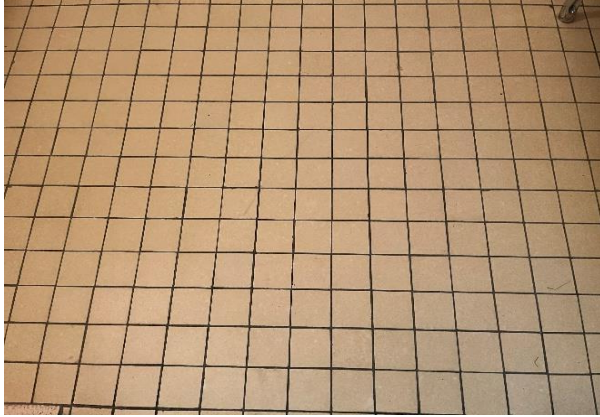




## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 58



**HA# 58**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ Grout and Bedding - Floor - 2" - Yellow

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

45 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 59



**HA# 59**

**MATERIAL DESCRIPTION:**

Sink Undercoating - Pink

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

10 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 60



**HA# 60**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ Grout and Bedding - Floor - 2" - Teal

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

25 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 61



**HA# 61**

**MATERIAL DESCRIPTION:**

Pipe Insulation - Fiberglass - Paper and Foil Wrapped

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

1,150 l.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 62



**HA# 62**

**MATERIAL DESCRIPTION:**

Concrete - Wall

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

828 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 63



**HA# 63**

**MATERIAL DESCRIPTION:**

Caulk - Interior - Tan - on Window System

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

2 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 64



**HA# 64**

**MATERIAL DESCRIPTION:**

Wrap - Tan - on Chimney

**ASBESTOS-CONTAINING MATERIAL:**

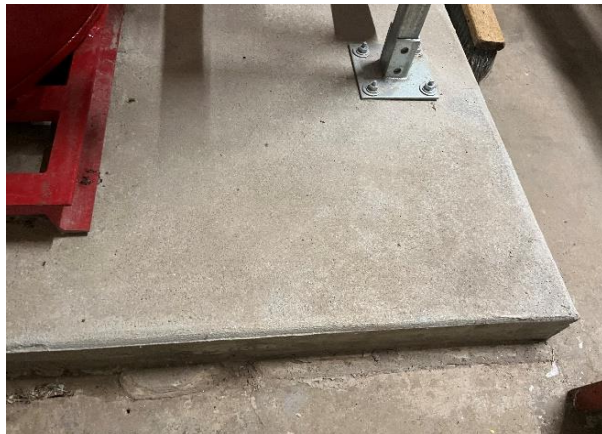
No

**TOTAL QUANTITY:**

1 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 65



**HA# 65**

**MATERIAL DESCRIPTION:**

Concrete - Pad

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

100 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 66



**HA# 66**

**MATERIAL DESCRIPTION:**

Glazing - Exterior - Door Window - Black - Rubbery

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

6 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 67



**HA# 67**

**MATERIAL DESCRIPTION:**

Caulk - Exterior - Door Frame System - Brown

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

13 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 68



**HA# 68**

**MATERIAL DESCRIPTION:**

Caulk - Exterior - Door System Panel - Gray

**ASBESTOS-CONTAINING MATERIAL**

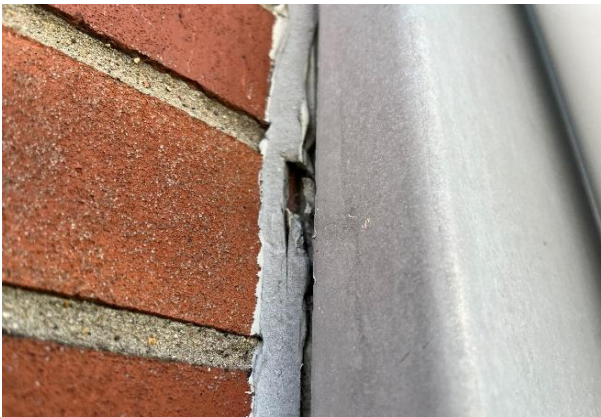
No

**TOTAL QUANTITY:**

1 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 69



**HA# 69**

**MATERIAL DESCRIPTION:**

Caulk - Exterior - Metal Chase - Gray

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

27 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 70



**HA# 70**

**MATERIAL DESCRIPTION:**

Glazing - Exterior - Window - White - Brittle

**ASBESTOS-CONTAINING MATERIAL:**

Yes

**TOTAL QUANTITY:**

112 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 71



**HA# 71**

**MATERIAL DESCRIPTION:**

Glazing - Exterior - Panel - Black

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

224 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 72



**HA# 72**

**MATERIAL DESCRIPTION:**

Heat Shield

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

5 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 73



**HA# 73**

**MATERIAL DESCRIPTION:**

Caulk - Exterior - Window System - Gray - Soft

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

1 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 74



**HA# 74**

**MATERIAL DESCRIPTION:**

Caulk - Exterior - on Vent Louvers - Gray

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

1 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 75



**HA# 75**

**MATERIAL DESCRIPTION:**

Waterproofing - Black

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

500 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 76



**HA# 76**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Green w/ Black and White Streaks

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

100 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 77



**HA# 77**

**MATERIAL DESCRIPTION:**

Floor Tile w/ Mastic - 9" - Red w/ Gray Streaks

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

10 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 78



**HA# 78**

**MATERIAL DESCRIPTION:**

Roofing Materials

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

35,000 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cavanaugh Elementary Inspection  
**Project Address:** 300 West Cavanaugh  
**BDN Project No.:** P23-00305

### PHOTOGRAPH # 79



**HA# 79**

**MATERIAL DESCRIPTION:**

Insulation - Exterior Window Panel - Yellow

**ASBESTOS-CONTAINING MATERIAL:**

Yes

**TOTAL QUANTITY:**

3,360 s.f.

**ADDITIONAL NOTES:**



# **Appendix F**

## **Analytical Results – Asbestos**

BDN Project No.: P23-00305

**Cavanaugh Elementary Limited Scope NESHAP**

October 2023

Report for:

**Nick Donaldson**  
**BDN Industrial Hygiene Consultants**  
8105 Valleywood Lane  
Portage, MI 49024

---

Regarding: Eurofins J3 Resources, Inc.  
Project: LPS Cavanaugh NESHAP Inspection; P23-00305  
EML ID: 3412769

Approved by:

Dates of Analysis:  
Asbestos PLM (Layer %): 10-13-2023 and 10-16-2023



Lab Director  
Scott Ward

Service SOPs: Asbestos PLM (Layer %) (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)  
NVLAP Lab Code 600120-0

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the samples as received and tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

Eurofins J3 Resources, Inc. ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: BDN Industrial Hygiene Consultants  
C/O: Nick Donaldson  
Re: LPS Cavanaugh NESHAP Inspection; P23-00305

Date of Sampling: 10-06-2023  
Date of Receipt: 10-09-2023  
Date of Report: 10-16-2023

**Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**  
**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
1-1. 16602361-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
1-2. 16602362-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
2-1. 16602363-1	Layer 1 Brown Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
2-2. 16602364-1	Layer 1 Brown Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
5-1. 16602365-1	Layer 1 Gray Concrete Block Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Mortar Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
5-2. 16602366-1	Layer 1 Gray Concrete Block Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Mortar Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
7-1. 16602367-1	Layer 1 Beige Concrete Block Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Mortar Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
7-2. 16602368-1	Layer 1 Beige Concrete Block Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Mortar Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

**Comments:**

The total percentage of sample components shown may be greater than 100% when some components are detected at <1%.

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**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
8-1. 16602369-1	Layer 1 Black Paper Backing Homogeneity:Good	Not Detected	90% Cellulose 10% Non-Fibrous Material	
	Layer 2 Yellow Insulation Homogeneity:Good	Not Detected	97% Mineral Wool 3% Non-Fibrous Material	
8-2. 16602370-1	Layer 1 Brown Paper Backing Homogeneity:Good	Not Detected	100% Cellulose	
	Layer 2 Yellow Insulation Homogeneity:Good	Not Detected	97% Mineral Wool 3% Non-Fibrous Material	
8-3. 16602371-1	Layer 1 Brown Paper Backing Homogeneity:Good	Not Detected	100% Cellulose	
	Layer 2 Yellow Insulation Homogeneity:Good	Not Detected	97% Mineral Wool 3% Non-Fibrous Material	
9-1. 16602372-1	Layer 1 Beige Wrap Cloth Homogeneity:Good	Not Detected	100% Cellulose	
	Layer 2 Yellow Insulation Homogeneity:Good	Not Detected	97% Mineral Wool 3% Non-Fibrous Material	
9-2. 16602373-1	Layer 1 Beige Wrap Cloth Homogeneity:Good	Not Detected	100% Cellulose	
	Layer 2 Yellow Insulation Homogeneity:Good	Not Detected	97% Mineral Wool 3% Non-Fibrous Material	
9-3. 16602374-1	Layer 1 Beige Wrap Cloth Homogeneity:Good	Not Detected	100% Cellulose	
	Layer 2 Yellow Insulation Homogeneity:Good	Not Detected	97% Mineral Wool 3% Non-Fibrous Material	
12-1. 16602375-1	Layer 1 Black Sink Undercoating Homogeneity:Good	6% Chrysotile	94% Non-Fibrous Material	
12-2. 16602376-1	Layer 1 Black Sink Undercoating Homogeneity:Good	6% Chrysotile	94% Non-Fibrous Material	

**Comments:**

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**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
13-1. 16602377-1	Layer 1 Black Window Glazing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
13-2. 16602378-1	Layer 1 Black Window Glazing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
16-1. 16602379-1	Layer 1 Tan Window Glazing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
16-2. 16602380-1	Layer 1 Tan Window Glazing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
16-3. 16602381-1	Layer 1 Tan Window Glazing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
17-1. 16602382-1	Layer 1 Gray Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
17-2. 16602383-1	Layer 1 Gray Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
19-1. 16602384-1	Layer 1 Tan Caulk Homogeneity:Good	3% Chrysotile	97% Non-Fibrous Material	
19-2. 16602385-1	Layer 1 Tan Caulk Homogeneity:Good	3% Chrysotile	97% Non-Fibrous Material	
21-1. 16602386-1	Layer 1 Tan Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
21-2. 16602387-1	Layer 1 Tan Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	

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**Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**  
**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
22-1. 16602388-1	Layer 1 Tan Floor Tile Homogeneity:Good	3% Chrysotile	97% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
22-2. 16602389-1	Layer 1 Tan Floor Tile Homogeneity:Good	3% Chrysotile	97% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
25-1. 16602390-1	Layer 1 Brown Adhesive Homogeneity:Good	Not Detected	98% Non-Fibrous Material 2% Talc	
26-1. 16602391-1	Layer 1 Blue Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow/ Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
26-2. 16602392-1	Layer 1 Blue Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow/ Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
27-1. 16602393-1	Layer 1 Gray Floor Tile Homogeneity:Good	4% Chrysotile	96% Non-Fibrous Material	
27-2. 16602394-1	Layer 1 Gray Floor Tile Homogeneity:Good	4% Chrysotile	96% Non-Fibrous Material	
28-1. 16602395-1	Layer 1 Lt. Blue Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

**Comments:**

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**Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**  
**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
28-2. 16602396-1	Layer 1 Lt. Blue Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
29-1. 16602397-1	Layer 1 Gray Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
29-1. 16602398-1	Layer 1 Gray Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
32-1. 16602399-1	Layer 1 Red Brick Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Mortar Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
32-2. 16602400-1	Layer 1 Red Brick Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Mortar Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
34-1. 16602401-1	Layer 1 Gray Caulk Homogeneity:Good	2% Chrysotile	96% Non-Fibrous Material 2% Talc	
	Layer 2 Gray Caulk Homogeneity:Good	2% Chrysotile	96% Non-Fibrous Material 2% Talc	
35-1. 16602403-1	Layer 1 Brown Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
35-2. 16602404-1	Layer 1 Brown Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
37-1. 16602405-1	Layer 1 Gray Ceiling Tile Homogeneity:Good	Not Detected	55% Cellulose 45% Non-Fibrous Material	

**Comments:**

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
37-2. 16602406-1	Layer 1 Gray Ceiling Tile Homogeneity:Good	Not Detected	55% Cellulose 45% Non-Fibrous Material	
38-1. 16602407-1	Layer 1 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Float Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose	
	Layer 3 Tan Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 4 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
38-2. 16602408-1	Layer 1 Yellow Carpet Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material < 1% Synthetic Fibers	
	Layer 2 Tan Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 3 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
39-1. 16602409-1	Layer 1 Yellow Carpet Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material < 1% Synthetic Fibers	
	Layer 2 Tan Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 3 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
39-2. 16602410-1	Layer 1 Yellow Carpet Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material < 1% Synthetic Fibers	
	Layer 2 Tan Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 3 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
42-1. 16602411-1	Layer 1 Gray Window Glazing Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
42-2. 16602412-1	Layer 1 Gray Window Glazing Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Clear Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
43-1. 16602413-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Beige Cove Base Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
43-2. 16602414-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Beige Cove Base Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
44-1. 16602415-1	Layer 1 Brown Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
44-2. 16602416-1	Layer 1 Brown Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
45-1. 16602417-1	Layer 1 White/ Brown Ceiling Tile Homogeneity:Good	Not Detected	90% Mineral Wool 10% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
45-2. 16602418-1	Layer 1 White/ Brown Ceiling Tile Homogeneity:Good	Not Detected	90% Mineral Wool 10% Non-Fibrous Material	
47-1. 16602419-1	Layer 1 Black Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
47-2. 16602420-1	Layer 1 Black Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
49-1. 16602421-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Beige Cove Base Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
49-2. 16602422-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Beige Cove Base Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
51-1. 16602423-1	Layer 1 Tan Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
51-2. 16602424-1	Layer 1 Tan Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
53-1. 16602425-1	Layer 1 Red Fire Stop Homogeneity:Good	Not Detected	95% Non-Fibrous Material 5% Glass Fibers	

**Comments:**

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Client: BDN Industrial Hygiene Consultants  
C/O: Nick Donaldson  
Re: LPS Cavanaugh NESHAP Inspection; P23-00305

Date of Sampling: 10-06-2023  
Date of Receipt: 10-09-2023  
Date of Report: 10-16-2023

**Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**  
**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
53-2. 16602426-1	Layer 1 Red Fire Stop Homogeneity:Good	Not Detected	95% Non-Fibrous Material 5% Glass Fibers	
54-1. 16602427-1	Layer 1 Black Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
54-2. 16602428-1	Layer 1 Black Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
55-1. 16602429-1	Layer 1 Yellow Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Gray Mastic / Float Homogeneity:Good	Not Detected	98% Non-Fibrous Material 2% Cellulose	
55-2. 16602430-1	Layer 1 Yellow Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Gray Mastic / Float Homogeneity:Good	Not Detected	98% Non-Fibrous Material 2% Cellulose	
56-1. 16602431-1	Layer 1 Lt. Blue Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
56-2. 16602432-1	Layer 1 Lt. Blue Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Gray Mastic / Float Homogeneity:Good	Not Detected	98% Non-Fibrous Material 2% Cellulose	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
57-1. 16602433-1	Layer 1 Tan Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
57-2. 16602434-1	Layer 1 Tan Floor Tile Homogeneity:Good	5% Chrysotile	95% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
59-1. 16602435-1	Layer 1 Pink Sink Undercoating Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
59-2. 16602436-1	Layer 1 Pink Sink Undercoating Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
61-1. 16602437-1	Layer 1 White Wrap Homogeneity:Good	Not Detected	45% Cellulose 45% Non-Fibrous Material 10% Glass Fibers	
	Layer 2 Yellow Insulation Homogeneity:Good	Not Detected	98% Mineral Wool 2% Non-Fibrous Material	
61-2. 16602438-1	Layer 1 White Wrap Homogeneity:Good	Not Detected	45% Cellulose 45% Non-Fibrous Material 10% Glass Fibers	
	Layer 2 Yellow Insulation Homogeneity:Good	Not Detected	98% Mineral Wool 2% Non-Fibrous Material	
61-3. 16602439-1	Layer 1 Silver Wrap Homogeneity:Good	Not Detected	60% Non-Fibrous Material 40% Cellulose	
	Layer 2 Yellow Insulation Homogeneity:Good	Not Detected	98% Mineral Wool 2% Non-Fibrous Material	
62-1. 16602440-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
62-2. 16602441-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 White Insulation Homogeneity:Good	35% Chrysotile	45% Non-Fibrous Material 20% Mineral Wool	
63-1. 16602442-1	Layer 1 Light Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
63-2. 16602443-1	Layer 1 Light Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
64-1. 16602444-1	Layer 1 Beige Wrap Homogeneity:Good	Not Detected	100% Cellulose	
	Layer 2 White Wrap Homogeneity:Good	Not Detected	45% Cellulose 45% Non-Fibrous Material 10% Glass Fibers	
	Layer 3 White Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 4 Yellow Insulation Homogeneity:Good	Not Detected	98% Mineral Wool 2% Non-Fibrous Material	
64-2. 16602445-1	Layer 1 Beige Wrap Homogeneity:Good	Not Detected	100% Cellulose	
	Layer 2 White Wrap Homogeneity:Good	Not Detected	100% Cellulose	
	Layer 3 White Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 4 Yellow Insulation Homogeneity:Good	Not Detected	98% Mineral Wool 2% Non-Fibrous Material	
65-1. 16602446-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
65-2. 16602447-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
66-1. 16602448-1	Layer 1 Black Window Glazing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
66-2. 16602449-1	Layer 1 Black Window Glazing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
67-1. 16602450-1	Layer 1 White Insulation Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Brown Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
67-2. 16602451-1	Layer 1 White Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Brown Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
67-3. 16602452-1	Layer 1 Brown Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
68-1. 16602453-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material < 1% Talc	
68-2. 16602454-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material < 1% Talc	
69-1. 16602455-1	Layer 1 Gray Caulk Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material < 1% Talc	
69-2. 16602456-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material < 1% Talc	
69-3. 16602457-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material < 1% Talc	
70-1. 16602458-1	Layer 1 White Window Glazing Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material < 1% Talc	
70-2. 16602459-1	Layer 1 White Window Glazing Homogeneity:Good	Not Detected	98% Non-Fibrous Material 2% Talc	
71-1. 16602460-1	Layer 1 Black Window Glazing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
71-2. 16602461-1	Layer 1 Black Window Glazing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
72-1. 16602462-1	Layer 1 Brown Non-Fibrous Material Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
72-2. 16602463-1	Layer 1 Brown Non-Fibrous Material Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
73-1. 16602464-1	Layer 1 Gray Window Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
73-2. 16602465-1	Layer 1 Gray Window Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
74-1. 16602466-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
74-2. 16602467-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
75-1. 16602468-1	Layer 1 Black Tar Waterproofing Homogeneity:Good	Not Detected	88% Non-Fibrous Material 12% Cellulose	
75-2. 16602469-1	Layer 1 Black Tar Waterproofing Homogeneity:Good	Not Detected	88% Non-Fibrous Material 12% Cellulose	
79-1. 16602470-1	Layer 1 Beige Insulation Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Black Insulation - Foam Glass Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 3 Black Mastic Homogeneity:Good	4% Chrysotile	96% Non-Fibrous Material	
79-2. 16602471-1	Layer 1 Beige Insulation Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Black Insulation - Foam Glass Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 3 Black Mastic Homogeneity:Good	4% Chrysotile	96% Non-Fibrous Material	

**Comments:**

**Analyst(s):** Duane Salinas  
Mark Silver  
Heather Graff

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# IH CHAIN OF CUSTODY



urces

003412769

☐ Open Lab Fee

J3 Order # (Lab use only)

<b>Submitter Name:</b> Nick Donaldson	<b>Bill to:</b> Same as Submitter
<b>Company:</b> BDN Industrial Hygiene Consultants	<b>Address:</b>
<b>Address:</b> 8105 Valleywood Lane	
<b>City/State:</b> Portage, MI	<b>City/State:</b> Zip:
<b>Zip:</b> 49024	<b>PO #:</b> P23-00305

## Project Information

<b>Project Name:</b> LPS Cavanaugh NESHP Inspection	<b>Project Manager:</b> Nick Donaldson
<b>Project #:</b> P23-00305	<b>Telephone – Office/Cell:</b> 989-560-3055
<b>Reports - Email Address:</b> ndonaldson@bdnihc.com	
<b>Invoice - Email Address:</b> accounting@bdnihc.com	<b>Notification By:</b> Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/>
<b>Special Instructions:</b>	

## Turnaround Times – Please Select One

<b>Emergency*</b> <input type="checkbox"/>	<b>1 Day</b> <input type="checkbox"/>	<b>2 Day</b> <input type="checkbox"/>	<b>3 Day</b> <input type="checkbox"/>	<b>5 Day</b> <input checked="" type="checkbox"/>
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## ASBESTOS

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
<b>EPA 600/R-93/116</b> <input checked="" type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW Received on Ice: <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: _____	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

## METALS

## SILICA/PARTICULATES

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input type="checkbox"/> Lead in Paint – SW846 7420/3050B <input type="checkbox"/> Lead in Air – NIOSH 7082 <input type="checkbox"/> Lead in Wipes – SW846 7420/3050B <input type="checkbox"/> Lead in Soil – SW846 7420/3050B <input type="checkbox"/> TCLP – SW846-1311/6010B	<input type="checkbox"/> Drinking Water – EPA 200.9 <input type="checkbox"/> Wastewater – SW846-7421 <input type="checkbox"/> Soil/Sludge – SW846-7421 <input type="checkbox"/> Air – NIOSH 7105	<input type="checkbox"/> Elements in Air – NIOSH 7300 <input type="checkbox"/> Wipe/Soil – SW846-6010B <input type="checkbox"/> Effluent – SW846-6010B <input type="checkbox"/> Welding Fume – NIOSH 7300M	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 – Total Particulates <input type="checkbox"/> NIOSH 0600 – Respirable Particulates

<b>Total Number of Samples Submitted:</b> 111	<b>Positive Stop:</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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## Signatures

<b>Relinquished By:</b>	<b>Date:</b> 10/6/23	<b>Time:</b> 11:00
<b>Received By:</b> _____	<b>Date:</b> _____	<b>Time:</b> _____
<b>Relinquished By:</b> _____	<b>Date:</b> 10-9-	<b>Time:</b> _____
<b>Received By:</b> _____	<b>Date:</b> 10-9-21	<b>Time:</b> 900

\* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.

\*\*TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)





Sample Number	HA Description	Sample Location	Notes
1-1	Concrete - Floor	ME1A	
1-2	Concrete - Floor	ME1A	
2-1	Floor Tile w/ Mastic - 9" - Brown w/ Tan Stripes	22	
2-2	Floor Tile w/ Mastic - 9" - Brown w/ Tan Stripes	22	
5-1	Concrete Block w/ Mortar	ME1A	
5-2	Concrete Block w/ Mortar	ME1A	
7-1	Concrete Block w/ Mortar 8"x8"	1	
7-2	Concrete Block w/ Mortar 8"x8"	99T	
8-1	Insulation - Fiberglass Batt - Unfaced - Pink	100C	
8-2	Insulation - Fiberglass Batt - Unfaced - Pink	24	
8-3	Insulation - Fiberglass Batt - Unfaced - Pink	4	
9-1	Pipe Insulation - Fiberglass - Fabric Wrapped	22	
9-2	Pipe Insulation - Fiberglass - Fabric Wrapped	100A	
9-3	Pipe Insulation - Fiberglass - Fabric Wrapped	ME1A	
12-1	Sink Undercoating - Black	24	
12-2	Sink Undercoating - Black	1	
13-1	Glazing - Interior Window - Black - Rubbery	11	window to hallway
13-2	Glazing - Interior Window - Black - Rubbery	18	
16-1	Glazing - Interior - Door Window - Tan	23	
16-2	Glazing - Interior - Door Window - Tan	18	
16-3	Glazing - Interior - Door Window - Tan	3	
17-1	Floor Tile w/ Mastic - 9" - Light Blue Green w/ Black and White Streaks	24	
17-2	Floor Tile w/ Mastic - 9" - Light Blue Green w/ Black and White Streaks	24	
19-1	Caulk - Interior - Tan - Associated w/ Window Panel	24	Center window w/ AC unit
19-2	Caulk - Interior - Tan - Associated w/ Window Panel	24	center window w/ AC unit
21-1	Floor Tile w/ Mastic - 12" - Gray Mottled	23	
21-2	Floor Tile w/ Mastic - 12" - Gray Mottled	23	
22-1	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	16	
22-2	Floor Tile w/ Mastic - 9" - Tan w/ Burgundy Streaks	16	
25-1	Adhesive - Associated w/ Backsplash - Brown	22	
26-1	Floor Tile w/ Mastic - 12" - Blue Mottled	19	
26-2	Floor Tile w/ Mastic - 12" - Blue Mottled	19	
27-1	Floor Tile w/ Mastic - 9" - Tan Green w/ Cream Streaks	18	
27-2	Floor Tile w/ Mastic - 9" - Tan Green w/ Cream Streaks	18	
28-1	Floor Tile w/ Mastic - 12" - Light Blue Mottled	16	
28-2	Floor Tile w/ Mastic - 12" - Light Blue Mottled	2	
29-1	Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks	15	
29-2	Floor Tile w/ Mastic - 9" - Green Tan w/ Pink Gray Black Streaks	15	
32-1	Brick w/ Mortar - Red	Exterior	lobby left
32-2	Brick w/ Mortar - Red	Exterior	s/w
34-1	Caulk - Interior - Gray - Brittle	100V	lobby
34-2	Caulk - Interior - Gray - Brittle	100V	lobby
35-1	Caulk - Interior - Door System Frame - Brown	100V	lobby
35-2	Caulk - Interior - Door System Frame - Brown	100A	exit door
37-1	Ceiling Tile - 2x4 - Pinholes and Gouges	13	
37-2	Ceiling Tile - 2x4 - Pinholes and Gouges	13A	
38-1	Floor Tile w/ Mastic - 9" - Tan	12	Library
38-2	Floor Tile w/ Mastic - 9" - Tan	13A	
39-1	Mastic - Carpet - Yellow	13A	

Sample Number	HA Description	Sample Location	Notes
39-2	Mastic - Carpet - Yellow	13A	
42-1	Glazing - Interior Window - White - Powdery	11	
42-2	Glazing - Interior Window - White - Powdery	11	
43-1	Cove Base w/ Adhesive - 4" - Black	1	
43-2	Cove Base w/ Adhesive - 4" - Black	13	
44-1	Floor Tile w/ Mastic - 9" - Orange Brown Mottled	9	
44-2	Floor Tile w/ Mastic - 9" - Orange Brown Mottled	9	
45-1	Ceiling Tile - 2x4 - Smooth	9	
45-2	Ceiling Tile - 2x4 - Smooth	9	
47-1	Floor Tile w/ Mastic - 9" - Dk Brown w/ Confetti Speckles	8	
47-2	Floor Tile w/ Mastic - 9" - Dk Brown w/ Confetti Speckles	8	
49-1	Cove Base w/ Adhesive - 4" - Brown	13A	
49-2	Cove Base w/ Adhesive - 4" - Brown	13A	
51-1	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	2	by restroom
51-2	Floor Tile w/ Mastic - 9" - Tan w/ Confetti Speckles	2	
53-1	Caulk - Interior - Firestop - Red	ME	
53-2	Caulk - Interior - Firestop - Red	ME	
54-1	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles		STORAGE
54-2	Floor Tile w/ Mastic - 9" - Black w/ Confetti Speckles	1	STORAGE
55-1	Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks		
55-2	Floor Tile w/ Mastic - 9" - Yellow w/ Brown and Gray Streaks		
56-1	Floor Tile w/ Mastic - 9" - Light Blue w/ Confetti Speckles		
56-2	Floor Tile w/ Mastic - 9" - Light Blue w/ Confetti Speckles		
57-1	Floor Tile w/ Mastic - 9" - Tan w/ White Streaks	1	
57-2	Floor Tile w/ Mastic - 9" - Tan w/ White Streaks	1	
59-1	Sink Undercoating - Pink	13A	
59-2	Sink Undercoating - Pink	13A	
61-1	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	ME A	
61-2	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	ME	
61-3	Pipe Insulation - Fiberglass - Paper and Foil Wrapped	13A	
62-1	Concrete - Wall	13A	
62-2	Concrete - Wall	13A	mech room
63-1	Caulk - Interior - Tan - on Window System	13A	
63-2	Caulk - Interior - Tan - on Window System	13A	
64-1	Wrap - Tan - on Chimney	ME	mech room on chimney
64-2	Wrap - Tan - on Chimney	ME	mech room on chimney
65-1	Concrete - Pad	13A	
65-2	Concrete - Pad	13A	
66-1	Glazing - Exterior - Door Window - Black - Rubbery	17	main lobby
66-2	Glazing - Exterior - Door Window - Black - Rubbery		gym door
67-1	Caulk - Exterior - Door Frame System - Brown	17	
67-2	Caulk - Exterior - Door Frame System - Brown	Ex	store room door by mechanical room
67-3	Caulk - Exterior - Door Frame System - Brown	Ex	main lobby right
68-1	Caulk - Exterior - Door System Panel - Gray	Ex	main lobby, right
68-2	Caulk - Exterior - Door System Panel - Gray	Ex	right of main entrance
69-1	Caulk - Exterior - Metal Chase - Gray	Ex	metal door by dumpsters
69-2	Caulk - Exterior - Metal Chase - Gray	Ex	main lobby, right
69-3	Caulk - Exterior - Metal Chase - Gray	Ex	main lobby left

Sample Number	HA Description	Sample Location	Notes
70-1	Glazing - Exterior - Window - White - Brittle	Exterior	north side, center
70-2	Glazing - Exterior - Window - White - Brittle	Exterior	south, center
71-1	Glazing - Exterior - Panel - Black	Exterior	north side, center
71-2	Glazing - Exterior - Panel - Black	Exterior	South east
72-1	Heat Shield	925	
72-2	Heat Shield	925	
73-1	Caulk - Exterior - Window System - Gray - Soft	Exterior	mech room window system
73-2	Caulk - Exterior - Window System - Gray - Soft	Exterior	mech room window
74-1	Caulk - Exterior - on Vent Louvers - Gray	Exterior	mech room vent
74-2	Caulk - Exterior - on Vent Louvers - Gray	Exterior	mech room vent
75-1	Waterproofing - Black	ME	
75-2	Waterproofing - Black	ME	
79-1	Insulation - Exterior Window Panel - Yellow	Exterior	South side window panel
79-2	Insulation - Exterior Window Panel - Yellow	Exterior	south



## TECHNICAL SPECIFICATION FOR ASBESTOS REMEDIATION

**Report Prepared for:**

Mark Alexa  
Plante Moran  
Lansing Public Schools  
519 West Kalamazoo Street  
Lansing, MI 48933

**Project Information:**

Cumberland Elementary  
2801 Cumberland Road  
Lansing, MI 48906

**Prepared by:**

Ken Conlin  
Senior Project Manager  
A51104  
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**BDN Project No.:** P23-00304

11/10/2023

## Table of Contents

<b>1.0 Bidder Submittals.....</b>	<b>2</b>
<b>2.0 Contractor Submittals.....</b>	<b>2</b>
2.1 Asbestos.....	2
2.2 General (if requested) .....	3
<b>3.0 Project Conditions.....</b>	<b>3</b>
3.1 Asbestos Project Contact:.....	3
3.2 Asbestos.....	3
3.3 Contractor Responsibilities.....	5
<b>4.0 General Project Conditions.....</b>	<b>5</b>
4.1 Legal Requirements .....	5
4.2 Referenced Standards .....	6
1. OSHA:.....	6
2. EPA:.....	7
3. DOT:.....	7
4. State Requirements:.....	7
5. Local Requirements: .....	7
6. Contractor Responsibility: .....	7
4.3 Worker Protection.....	8
4.4 Worker Decontamination.....	9
4.5 Prohibited Activities .....	9
4.6 On-Site Industrial Hygienist Responsibilities.....	10
4.7 Negative Pressure Enclosure .....	10
4.8 Methods of Asbestos Removal Within the NPE .....	11
4.9 Decontamination of the NPE.....	12
4.10 Asbestos Waste Disposal Requirements .....	12
<b>5.0 Scope of Work.....</b>	<b>13</b>
5.1 Contractor Responsibilities.....	13
<b>6.0 Project Notes.....</b>	<b>16</b>

**Appendix A – Bid Forms and Unit Rates**

**Appendix B – Supplemental Information**

**Appendix C – Asbestos Building Inspection Report**



## 1.0 Bidder Submittals

- 1.1 The Contractor shall submit a base bid and any alternates and unit prices for the asbestos abatement as outlined in the scope of work section, as described in these project specifications. (Appendix A).
- 1.2 The Contractor shall provide a work schedule detailing the number of days the abatement will take, the length of shifts, and the number of workers per shift to complete the scope of work outlined within this bid specification (Appendix A).

## 2.0 Contractor Submittals

The successful bidder shall provide the following information to BDN and the owner's representative (GC/CM) prior to commencing any tasks related to this project. These tasks include area preparation, equipment mobilizing, etc. Additional submittals may be required for the Construction Manager upon award.

### 2.1 Asbestos

1. Michigan Abatement Contractor's License
2. Proof that each of the employees assigned to this project has completed a physical complete with chest X-rays and pulmonary functions testing
3. Copies of Michigan Asbestos Abatement Supervisor and Asbestos Abatement Worker Accreditation Cards as issued by the Michigan Department of Labor and Economic Opportunity. The Accreditation period shall not expire prior to the project's scheduled completion date
4. Current Proof of Asbestos Worker Training or Asbestos Supervisor Training
5. Proof that non-asbestos workers assigned to this project (for general labor, bag-out, etc.) have received 2-hour asbestos awareness training
6. Proof of employee respirator training and most recent fit test certification
7. Copies of the Environmental Protection Agency (EPA) and/or designated state agencies Notification of intent to Renovate/Demolish as required under 40 CFR 61.22 (d).
8. Detailed work plan describing the number of employees who will be assigned to the project, the schedule (start and completion dates and times for each of the floors), equipment to be used within the work area, equipment, and recyclable materials decontamination, fire prevention procedures, and methods of removal of ACM. **This document will be reviewed and signed off prior to work commencing.**



9. Name and address of landfill proposed by Contractor.

## **2.2 General (if requested)**

1. Written HAZCOM program and proof of employee training for working around ACM
2. Written confined space entry program and proof of employee training (if appropriate)
3. Written hot work program and proof of employee training (if burning is anticipated)
4. A written respiratory protection program
5. SDSs for all materials brought on-site before they're used
6. A written silica exposure control program
7. Proof of employee Drug Testing Program.

## **3.0 Project Conditions**

### **3.1 Asbestos Project Contact:**

Ken Conlin of BDN Industrial Hygiene Consultants, Inc., will serve as the asbestos project manager for the project and can be reached at:

BDN Industrial Hygiene Consultants, Inc.  
620 South Capitol Avenue, Suite 305  
Lansing, MI 48933  
231-250-9343  
Kconlin@bdnihc.com

### **3.2 Asbestos**

Removal shall not occur until the 10-day notification has taken effect. Before asbestos abatement activities start, the Contractor **SHALL**:

1. Effectively isolate the abatement area from all other areas of the Building. The Contractor shall isolate and seal all air ducts, doors, hallways, and other openings into the abatement area.
2. Post warning signs and barrier tape at all entrances or openings to the removal area in accordance with applicable regulations.

Provide in accordance with 29 CFR 1910.1001(f) of OSHA's Asbestos standard:

**DANGER  
ASBESTOS  
MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS  
AUTHORIZED PERSONNEL ONLY**

In addition, where the use of respirators and protective clothing is required in the regulated area, the warning signs shall include the following:

**WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA**

3. Construct a decontamination area, per regulations and require that all non-emergency access to the abatement be limited through the decontamination area. The location of the decontamination area shall be determined by the Contractor with the approval of the BDN representative on site.
4. The Contractor shall supply a sufficient number of Air Filtration Devices (AFD) to provide a minimum of 4 air changes per hour and negative pressure of .02" water column in the project areas where required. The Contractor shall provide a means to measure water column pressure throughout the project (e.g., Negamaster/Monometer).
5. The Contractor shall assume full responsibility for the conduct of each of his employees, including subcontractors, while under contract for this project. Absolutely no employee will be allowed on the premises while under the influence of alcohol, controlled substances, or prescription medication, which may impair the employee in any way. This site will require additional background checks and fingerprinting prior to your first day on site.
6. The Contractor shall establish emergency and fire exit routes from the work area. Emergency response personnel (fire, police, and emergency technicians) shall have immediate access to the work area. In an emergency, preservation of life and treatment of seriously injured workers shall have priority over decontamination.
7. The Contractor shall faithfully comply with all federal, state, and local laws, standards, and regulations while carrying out this project.
8. The Contractor will provide and make all arrangements necessary to access utilities on site:
  - a) Access to sufficient electrical power shall be provided by the Owner.
  - b) Access to sufficient cold running water for decontamination and water for asbestos removal shall be provided by the Owner. The Contractor is responsible for supplying hot water for the purpose of decontamination. The Contractor shall ensure all residual water



used in abatement or worker decontamination is filtered and disposed of in the City sanitary sewer.

9. Damage to the Owner's services or property caused as a result of the Contractor's actions as a result of this project shall be repaired to the Owner's satisfaction. All expenses resulting from repairs of damage shall be at the Contractor's expense.
10. The Contractor shall ensure that the dumpsters maintained on-site are locked at all times when not attended. In addition, the dumpsters shall have a hardtop and be appropriately labeled.
11. **All waste shall be transported to the landfill approved by the Owner and Construction Manager.**

### **3.3 Contractor Responsibilities**

1. The Contractor shall provide all items, articles, materials, operations, or methods listed, required to be furnished or accomplished by reason of the plans or any other Contract Documents, including all labor, materials, equipment, and incidentals required or necessary for their completion.
2. Should any error or inconsistency be found by the Contractor in the Specifications or drawings, the Contractor shall contact BDN and the Construction Manager before proceeding with the work for proper adjustment. In no case shall proceed with the work until so authorized.
3. The Contractor shall be held to provide all labor and materials necessary for the entire completion of the work described in the Bid Documents and reasonably implied therefrom.
4. **Quantities listed in this document are for general information only and will not relieve the Contractor from the removal of all asbestos materials under their quoted price.**
5. A copy of the waste manifest shall be submitted to BDN after the completion of the project.

## **4.0 General Project Conditions**

### **4.1 Legal Requirements**

1. The Contractor shall be licensed for asbestos abatement work in the State of Michigan as required by Michigan Public Act 55, effective June 8, 1993.
2. The Contractor shall use only employees who have received health and safety training, which, as a minimum, fulfills the training required by Michigan Public Act 147 (1986) and OSHA 29 CFR 1926.62.

3. The Contractor shall furnish all labor, supervision, materials (lien-free), employee training, employee physicals, insurance, and equipment necessary to carry out asbestos abatement procedures in accordance with OSHA, EPA, MIOSHA, and other applicable federal, state, and local government regulations.
4. The Contractor shall obtain prior approval to deposit asbestos-containing wastes at an Owner approved landfill.
5. The Contractor shall provide project notification to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and Michigan Department of Labor and Economic Opportunity (MLEO), Asbestos Programs at least 10 days prior to commencement of asbestos abatement work if required.

## **4.2 Referenced Standards**

### **1. OSHA:**

U.S. Department of Labor, Occupational Safety and Health Administration,(OSHA), including but not limited to:

Occupational Exposure to Asbestos, Tremolite,  
Anthophyllite, and Actinolite; Final Rules  
Title 29, Part 1910, Section 1001 and  
Part 1926, Section 1101 of the  
Code of Federal Regulations

Respiratory Protection  
Title 29, Part 1910, Section 134 of the  
Code of Federal Regulations

Construction Industry  
Title 29, Part 1926, of the  
Code of Federal Regulations

Subpart J, Fire Prevention  
Title 29, Part 1926

Subpart T, Demolition  
Title 29, Part 1926

Access to Employee Exposure and Medical Records  
Title 29, Part 1910, Section 2 of the  
Code of Federal Regulations

Hazard Communication  
Title 29, Part 1910, Section 1200 of the

Code of Federal Regulations

Specifications for Accident Prevention Signs and Tags  
Title 29, Part 1910, Section 145 of the  
Code of Federal Regulations

## **2. EPA:**

U. S. Environmental Protection Agency (EPA), including but not limited to:

National Emission Standard for Hazardous Air Pollutants (NESHAPS)  
National Emission Standard for Asbestos  
Title 40, Part 61, Sub-part A, and Sub-part M (Revised Sub-part B) of the  
Code of Federal Regulations

## **3. DOT:**

U. S. Department of Transportation, including but not limited to:

Hazardous Substances  
Title 29, Part 171 and 172 of the  
Code of Federal Regulations

## **4. State Requirements:**

MIOSHA Rule 2205

Michigan Public Act 55

Michigan Public Act 147

Michigan Public Act 440

## **5. Local Requirements:**

Abide by all local requirements which govern asbestos abatement work or  
hauling and disposal of asbestos waste materials.

## **6. Contractor Responsibility:**

The Contractor shall assume full responsibility and liability for the compliance with all standards  
pertaining to work practices, hauling, disposal, and protection of workers, visitors to the sites,  
and persons occupying areas adjacent to the sites.





### 4.3 Worker Protection

1. All individuals entering the removal area during the project must comply with OSHA standard 29 CFR 1910.134 respiratory protection, including the selection of an approved respirator with HEPA filters or an approved supplied-air respirator. The individuals must have passed a medical examination as specified in the respiratory standard, must have completed a pulmonary function test, must have their doctor's permission to engage in activities while wearing a respirator, and must have passed a respiratory fit test as specified in 29 CFR 1910.134.
2. Any facial hair that interferes with the fit of a negative pressure respirator must be removed before the individual dons the respirator.
3. The minimum respiratory protection for workers shall be a half-mask air-purifying respirator equipped with HEPA filter cartridges approved by the National Institute for Occupational Safety and Health (NIOSH).
4. The Contractor shall have established a respirator usage program as specified in 29 CFR 1910.134, and shall have proof of formal employee training in respirator usage.
5. The Contractor shall have a sufficient quantity of replacement HEPA respirator filter cartridges stored on the worksite and shall be easily accessible to workers and Consultants.
6. The Contractor shall enforce proper worker decontamination and cleaning of worker respirators each time they exit the work area.
7. The Contractor shall keep a bound, written, and dated log of employees, regulators, and any other persons who enter the work area wearing respirators. The log shall be kept on-site at or near the enclosure for periodic review or with Project documents held by the project supervisor.
8. Should air sampling indicate that the airborne asbestos fiber concentration within the restricted area is in excess of the safe allowable limits for the respiratory protection worn, the Contractor shall provide for his/her employees with respiratory protection that will allow for safe working conditions.
9. The Contractor shall communicate the results of the air sampling to his/her employees by posting the air sampling results on the job site or in writing within 24 hours.
10. In the event the results of the personal breathing zone samples exceed the Permissible Exposure Limit (PEL) of 0.10 fibers/cc for asbestos, work will be stopped until the cause can be isolated.
11. Asbestos abatement personnel shall wear a powered air-purifying respirators (PAPR) respiratory protection until sufficient data has been collected through personal breathing zone sampling to assure the method of removal does not result in airborne concentrations in excess



of the restrictive limits of the respirator. Respiratory protection requirements may be relaxed to negative pressure respirators when sufficient data has been generated and at the approval of the on-site industrial hygienist.

12. Workers shall wear disposable full-body coveralls, head covers, and appropriate footwear in the removal area. Reusable footwear (i.e., boots) may be left in the dirty room of the removal area between workdays, but must be either disposed of with other contaminated wastes or decontaminated thoroughly before removal from the dirty room.
13. The Contractor shall provide gloves, hard hats, goggles or safety glasses, and other personal protective equipment as may be appropriate for use by workers on the project site.

#### **4.4 Worker Decontamination**

1. The Contractor shall construct and isolate a decontamination area in accordance with 29 CFR 1926 Appendix F.
2. **Contractor's employees shall remove street clothes in the clean/changing room**, and dress in disposable coveralls, head covers, foot covers, and respiratory protection prior to entering negative pressure enclosure work areas.
3. When workers leave the work area, they shall remove their head coverings, disposable coveralls, and foot coverings in the "dirty" or "equipment" room, and while wearing a respirator, proceed to the shower. Respirators shall be removed while showering with Soap and water.
4. Because cold water showers discourage thorough worker decontamination, the Contractor must provide showers with water of at least 70 degrees Fahrenheit with independently adjustable hot and cold water controls for worker decontamination. The Contractor shall provide a portable water heater.
5. Workers shall shower as a minimum:
  - a. before lunch
  - b. at the end of each workday
  - c. at any other time, the worker leaves the contaminated area.

#### **4.5 Prohibited Activities**

Smoking, drinking, eating, or chewing gum or tobacco inside the contaminated area and surrounding work areas are prohibited. The Contractor shall immediately release any individual of the privilege of working on the project if the individual is smoking, eating, drinking, or chewing tobacco or gum inside the work area.



#### 4.6 On-Site Industrial Hygienist Responsibilities

1. The Owner will contract with an industrial hygiene company such as BDN as the neutral third party to conduct air monitoring and assure Contractor compliance with applicable asbestos abatement standards, regulations, and procedures. Air monitoring procedures shall follow the NIOSH 7400 A method (third revision of May 19, 1989) and Appendix A of 29 CFR 1926.1101 (Construction standard) for asbestos. Air samples shall be collected, as stated below.
  - a. Background, baseline, or pre-abatement samples may be collected prior to the start of area preparation.
  - b. General (clean) area samples will be collected outside the restricted area to verify that the engineering controls established on this project are effective in preventing the spread of airborne asbestos fibers to uncontaminated areas. In the event that general area samples obtained outside the enclosure but in the regulated area are equal to or exceed 0.05 fiber/cc, work inside the removal area will cease. The cause will be identified and corrected before allowing the Contractor to resume the asbestos abatement activities.
  - c. Personal breathing zone samples from personnel performing representative work activities/tasks within restricted areas will be collected. Verification of personal breathing zone samples can be taken at its discretion. Sample results shall be displayed within 24 hours of collection. If the airborne fiber concentration is in excess of the PEL, the Contractor shall document the steps taken to control and minimize the levels of airborne asbestos fibers. This monitoring does not relieve the Contractor of their OSHA responsibilities.
  - d. Clearance samples shall be collected only after the on-site IH, and a representative of the Contractor has performed a visual examination on the removal area. If asbestos is detected subsequent to clearance sampling, the ACM shall be removed. Additional clearance samples may be required.

#### 4.7 Negative Pressure Enclosure

1. The Contractor shall isolate the project areas from the remainder of the Building. Each area shall be pre-cleaned, and any suspect ACM and/or ACM debris found on ceilings, floors, or ledges shall be wetted and removed with the use of a HEPA vacuum prior to erecting the enclosure. The on-site IH shall inspect the integrity of the Contractor's barriers prior to the start of abatement in each area. The Contractor shall isolate work areas for the duration of the project by completely sealing off all openings to the area. Sealing of openings and fixtures of the work area shall include, but not be limited to, heating and ventilation ducts and openings, attic ventilation ducts extending downward into the floor, doors, windows, skylights, and lighting, electrical panels, and conduit openings. Sealing shall be accomplished with **6 mil polyethylene sheeting** or equivalent, taped, or glued into place. Enclosure walls shall be constructed of two layers of polyethylene sheeting taped into place. The floors of the enclosures shall be constructed of two layers of 6-mil polyethylene sheeting, or equivalent,



taped, or glued into place. The Contractor is responsible for cleaning any glue or tape residue from any surface following the completion of the work.

2. If contaminated, movable objects are located within the removal area, the Contractor shall, while setting up the restricted area, vacuum, clean, and remove these from the removal area.
3. Airlocks for entrance in and out of the work area shall be constructed of 6 mil polyethylene sheeting and wooden or metal framing. The airlocks from the work area, to the equipment (dirty) room, to the shower area, to the clean (change) room shall be contiguous.
4. The Contractor shall provide ventilation controls that facilitate the movement of airborne fibers away from the worker in all removal areas. The equipment used for such ventilation controls shall have HEPA filters for filtering exhaust air that shall be exhausted to the outdoors unless otherwise directed by the Owner. In each restricted area, ventilation controls shall operate continuously throughout the project until final clearance sampling levels are attained.
5. The Contractor shall post lawfully required notification of asbestos removal, Contractor license, and training certificate of the Contractors personnel trained in the requirements of the NESHAP standard adjacent to the entrance of the removal area, and to any other points of access to the work area.
6. It is the Contractor's responsibility for site security unless otherwise stated. The Contractor will follow all requirements of the Ingham County Jail's security program.

#### **4.8 Methods of Asbestos Removal Within the NPE**

1. Removal of all asbestos shall be with wet methods. All asbestos surfaces shall be sprayed with water and an acceptable wetting agent. A fine spray of this solution shall be applied to prevent fiber liberation preceding removal; fine spraying of surfaces shall be continued to minimize employee exposure.
2. Asbestos-containing materials shall be removed and placed into 6 mil, labeled bags while still wet. Bags will be labeled with legally required hazard warnings, sealed, washed, and placed into a second 6 mil, labeled, polyethylene bag, and must be labeled and sealed in accordance with federal and state regulations. (See asbestos waste disposal requirements)
3. Asbestos-containing material shall not be removed with power tools unless attached to a HEPA filtration unit.
4. All equipment used during removal shall be properly decontaminated prior to removal from the work area.
5. All plastic sheeting, cleaning materials, clothing, and other disposable materials used during removal shall be double-bagged in the same manner as asbestos-containing materials.



6. All transportation of asbestos-containing materials to the landfill shall be in vehicles with hard roofs. Transportation of asbestos-containing wastes in open pickup trucks or in pickup trucks with tarpaulins is expressly prohibited.

#### **4.9 Decontamination of the NPE**

1. The Contractor shall clean all surfaces in the work area with water and/or a HEPA-filter equipped vacuum. After the work area has been cleaned, the Contractor and the industrial hygienist shall conduct a thorough visual examination to certify the removal of all ACM. Upon completion of the visual inspection and approval of the industrial hygienist, the Contractor shall apply a sealant (encapsulant) to all potentially contaminated surfaces inside the removal area.
2. If after final clearance air sampling, the industrial hygienist finds the work area is not sufficiently decontaminated, the Contractor shall repeat the cleaning and encapsulation. This shall continue until no asbestos is found during the area inspection.
3. After the work area is found to be in compliance, all barriers, plastic sheeting, tape, and other wastes and debris shall be removed and disposed of as asbestos-containing wastes.

Remote decontamination may be proposed by the Abatement Trade Contractor as part of their Abatement Plan. Where a Mini Enclosure (ME) is specified, a pressure differential containment with a minimum two-stage decontamination facility concurrent with the containment will be constructed as outlined in these specifications prior to the removal of asbestos-containing materials or any other preparatory work which may involve disturbing the asbestos-containing material. A shower facility shall be located nearby pursuant to OSHA regulations 29 CFR 1926.1101. and must be equipped with Hot and Cold adjustable water, disposable towels, Soap, and shower facilities must comply with 29 CFR 1910.141(d)(3).

Any other removal method or practice that the Contractor intends to use should be described in their written work plan and approved by BDN prior to proceeding with the work. These work practices include but are not limited to; glove bag removal operations, regulated area set-up, whole structure removal, etc.

#### **4.10 Asbestos Waste Disposal Requirements**

The Contractor shall dispose of the asbestos-containing materials in disposal bags labeled as follows:

**First Label:**

Provide in accordance with 29 CFR 1910.1001(f) of OSHA's Asbestos standard:

**DANGER**  
**CONTAINS ASBESTOS FIBERS**



**MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS  
DO NOT BREATHE DUST  
AVOID CREATING DUST**

**Second Label:**

Provide in accordance with U. S. Department of Transportation regulation on hazardous waste marking. 49 CFR parts 106, 107, 171 to 180. Published December 21, 1990.

**RQ, ASBESTOS, NA 2212  
CLASS 9**

**Third Label:**

**Lansing Public Schools  
Cumberland Elementary  
2801 Cumberland Road  
Lansing, MI 48906**

Labels shall be applied to bags before bags are loaded onto vehicles or dumpsters to be transported to the landfill.

All waste shall be transported to the landfill in hard-roofed trucks, and all waste shipment records shall be submitted to BDN following their receipt from the landfill.

## **5.0 Scope of Work**

The project consists of removing all identified asbestos-containing materials within the scope of work. This will include removing floor tile located under and adjacent to heating vent units to facilitate their removal and installation of new units. Some 2'x2' ceiling tile tested positive. The scope will also include removing some ceiling tiles so other trades may access above the ceiling. The ceiling tiles will need to be stored to prevent damage and then replaced once other work has been completed. The scope will also include removal of two assumed doors with frames.

### **5.1 Contractor Responsibilities**

1. These project specifications are the responsibilities of the abatement Contractor. The Construction Manager or Consultant will approve **in writing**, prior to starting the project, any proposed deviations from these specifications. The information, which may be used to assist the Contractor in formulating his/her bid, is presented for informational purposes only and shall be verified by the Contractor or his/her representative at the time of the site inspection.



2. The Contractor will be responsible for removing all ACM within the work areas as identified in these specifications or found during abatement and demolition.
3. The Contractor is responsible for all selective demolition that may be required to access known asbestos-containing materials.
4. The Contractor is required to coordinate any Lock out/ Tag out activities with the Construction Manager, if applicable.
5. The Owner will provide electrical power for the Contractor to connect to his electrical panel to power equipment. It shall be the Contractor's responsibility to ensure all equipment and circuits are properly isolated prior to the commencement of work.
6. All equipment used on this project shall be in good repair with no exposed wires or insulation. All plugs shall be equipped with a ground. Extension cords shall be rated for "hard surface" and shall have watertight connectors.
7. Temporary light fixtures shall be general service, incandescent lamps of sufficient power for adequate illumination. Guard cages or tempered glass shall be used to protect the lamps. Exterior fixtures shall be used if exposed to moisture.
8. The Owner will provide a source of water for the duration of the project. The Contractor is responsible for the proper disposal of all wastewater generated on-site during the project to the sanitary sewer. All wastewater shall be properly filtered prior to disposal.

#### ASBESTOS-CONTAINING MATERIALS IDENTIFIED BY BUILDING

Cumberland Elementary Positive Materials		
Material Description	Location of Material	Total Quantity
Floor Tile – 9" – Various Colors and Patterns Mastic is Negative	Throughout	15,405 Sq. Ft.
Sink Undercoating - Black	Classroom and Kitchen Sinks	33 Sq. Ft.
Caulk - Building Seam	Rooms 36, 100D, 100i, 103, 111, 112, 113, 121, 122, 123, 135	298 Sq. Ft.
Interior Window Glazing	Rooms 107, 115, 120, 121, 123, 125, 125B, 127, 129, 133	193 Sq. Ft.
Sink Undercoating - Grey	Classroom Sinks	15 Sq. Ft.
Ceiling Tile 2 X 2 - Worm Track	Throughout	14,896 Sq. Ft.

Material Description	Location of Material	Total Quantity
Firebreak paper w/ associated mastic - Black	Corridor 100i	20 Sq. Ft.
Glazing - Exterior Window	Exterior Windows	855 Sq. Ft.
Caulk - Exterior Building Seam	Exterior	165 Sq. Ft.

Cumberland Elementary Assumed Maerials		
Various Interior & Exterior Fire Doors & Frames – Wood & Metal	Throughout	98 Ct.
Various Formica Countertops and associated adhesive	Throughout	135 Sq. Ft.
Various Ceramic Tile & Associated Grout & Bedding – Walls & Floors	Throughout	3,306 Sq. Ft.
Adhesive associated w/ speaker	Throughout	35 Sq. Ft.
Adhesive- Associate Carpet	Throughout	5,820 Sq. Ft.
Chalkboard – Black & Green	Throughout	2,610 Sq. Ft.
Caulk- Interior Door Frame	Throughout	142 Sq. Ft.
Boiler	Boiler Room 036	820 Cu. Ft.
Boiler Supply/Return Line 24 in	Boiler Room 036	20 Ln. Ft.
Electrical Equipment	Custodial Office 105	8 Ct.
Ceramic Block w/ associated Mortar 12' X 18'	Throughout	2,448 Sq. ft.
Display Boards & Associated Adhesives	Throughout	3,175 Sq. Ft.
Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Cream w/ Green Streaks	Classroom 110	60 Sq. Ft.
Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Brown w/ Multi-color Specs	Classroom 111	10 Sq. Ft.
Vinyl Floor Tile w/ associated Mastic 9 X 9 - Maroon w/ multi-color	Hallway Corridor 100 B	30 Sq. Ft.
Terrazzo - Red Specs	Throughout	2,180 Sq. Ft.
Joint Compound associated w/ Gypsum Board drywall	Hallway Corridor 100 E	100 Sq. Ft.
Exterior Window Vapor Barrier	Exterior Window Systems	2,280 Sq. Ft.

## 6.0 Project Notes

1. Removal of floor tile located under and adjacent to heating vent units to facilitate their removal and installation of new units.
2. Removal, temporary storage, and replacement of ceiling tiles, as directed.
3. Removal of two assumed doors and frames.
4. Painted surfaces tested positive for heavy metals. Lead-safe work practices should be utilized during your work.

Please refer to the asbestos building inspection report provided in Appendix C for further detail regarding sampling results, locations, identified materials, etc.

These project specifications have been prepared by BDN Industrial Hygiene Consultants, Inc., located in Portage, Michigan. We appreciate the opportunity to be of service on this project. If you have any questions concerning this report, please do not hesitate to call me at 231-250-9343.

A handwritten signature in black ink, appearing to read "K. Conlin", with a horizontal line underneath.

Ken Conlin  
Michigan Asbestos Project Designer A-51104



# BID FORM

Project Title: Cumberland Elementary Heating & Air Conditioning

Project Location: 2801 Cumberland Road, Lansing, MI 48906

BDN Project No. P23-00304

Bid Due Date: MM/DD/YYYY at HH:MM

The undersigned, having carefully reviewed the specification for the above-named project; and become thoroughly familiar with all conditions affecting the work required by those specifications, prepared by BDN Industrial Hygiene Consultants dated 11/10/2023 hereby proposed to provide all materials, labor, services, etc., required thereby for the following base bid items:

## Base Bid 1 (1.1 – 1.3), Cumberland Elementary

<i>Cost Written Out (Words)</i>	<i>Cost in Figures</i>

TAXES, PERMITS, BONDS, AND FEES: bid sum includes all applicable taxes, permits, bonds and fees, required by all legal authorities at the location of work.

## Base Bids Lansing Public Schools Cumberland Elementary

### Base Bid 1.1 – Floor Tile – 900 Sq. Ft. (18 areas ~ 50 Sq. Ft. each)

<i>Cost Written Out (Words)</i>	<i>Cost in Figures</i>

### Base Bid 1.2 – Ceiling Tile – TBD Sq. Ft. (Remove, Stack, Replace)

<i>Cost Written Out (Words)</i>	<i>Cost in Figures</i>

### Base Bid 1.3 – Door and Frame – 2 Ct.

<i>Cost Written Out (Words)</i>	<i>Cost in Figures</i>

### Cumberland Elementary Base Bid Totals

Total Cost to Complete ALL Base Bids 1.1 – 1.3	
<i>Cost Written Out (Words)</i>	<i>Cost in Figures</i>

## Schedule

The contractor agrees to complete the work within the dates specified by the schedule laid out by the General Contractor / Construction Manager. Please provide below the specific duration of the abatement scope of work at each location.

Total Duration to complete ALL Base Bids 1.1 – 1.3		
Estimated Project Duration:		Days
Shift duration:		Hours
Crew size:		Members

## Alternates 1.0

The contractor agrees that prices quoted for requested alternates (quoted below) shall be accepted as full compensation or credit for work described in the drawings, specifications, and instructions to bidders.

### Alternates – Cumberland Elementary

Item No.	Description	Add	Amount
A 1.1			

Total Duration Alternate A 1.1		
Estimated Project Duration:		Days
Shift duration:		Hours
Crew size:		Members

## Voluntary Alternates

The contractor agrees that voluntary alternates for materials, methods, and/or equipment specified if accepted by the Owner, will be added to or deducted from the base bid. Attached additional information on letterhead if needed. Label clearly as Lansing Public Schools Cumberland Elementary.

Description	Add or Deduct?	Amount

## Addendum Acknowledgment

Please acknowledge that the following addenda(s) have been received, are hereby acknowledged, and their execution is included in sums listed herein.

Addendum No.	Description	Date

## Performance & Payment Bonds

The additional cost to provide Performance and Payment Bonds, if required, will be \$\_\_\_\_\_ for the Base Bid plus \_\_\_\_\_% of any accepted requested or voluntary alternate(s)

## Agreement

Undersigned agree(s) that this proposal shall remain open during such sixty (60) days after the due date of the opening. Undersigned further agrees that this proposal shall remain open during such a sixty (60) day period. The signature below serves as an acknowledgement that Bidder understands the Bid Documents and Appendices, and Bidder assumes full responsibility for the cost impact of same. Undersigned also acknowledges that Owner reserves right to accept or reject any and all bids with or without cause and/or to waive informalities in bidding.

## Non-Collusive Certification

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief.

- A. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or any competitor;



- B. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor;
- C. No attempt has been made or will be made by the bidder to insure any other person, partnership, or corporation to submit or not to submit a bid for the purpose of restricting competition;
- D. The person signing this bid or proposal certifies that he has fully informed themselves regarding the accuracy of the statements contained in this certification, and under the penalties of perjury, affirms the truth thereof, such penalties being applicable to the bidder as well as to the person signing in its behalf.

## Unit Rates

In order to increase or decrease the project amount, all prospective bidders shall be required to provide unit price costs for potential items that may require removal.

#	Description of Material	Amount	Units
1.	Straight pipe insulation (glove bag)	\$	ln. ft.
2.	Straight pipe insulation (inside containment)	\$	ln. ft.
3.	Pipe joint / fitting insulation (inside containment)	\$	fitting
4.	Pipe joint / fitting insulation (one glove bag)	\$	glove bag
5.	Pipe insulation and fitting removal (non-asbestos)	\$	ln. ft.
6.	Asbestos-containing debris clean-up and disposal	\$	sq. ft.
7.	Fire doors (tagged or untagged)	\$	door
8.	Door system removal w/ frame (fire door, window glazing, and/or transite)	\$	each
9.	Floor tile removal and mastic (inside containment)	\$	sq. ft.
10.	Floor tile removal without mastic	\$	sq. ft.
11.	Removal of carpet adhered to floor tile	\$	sq. ft.
12.	Removal of floor mastic only (non-asbestos)	\$	sq. ft.
13.	Removal of carpet only (non-asbestos)	\$	sq. ft.
14.	Exterior building caulk	\$	sq. ft.
15.	Interior building caulk	\$	sq. ft.
16.	Window glazing	\$	sq. ft.
17.	Removal of existing window (non-asbestos)	\$	each
18.	Removal of suspend ceiling tiles and gridwork	\$	sq. ft.
19.	Removal of acoustical ceiling tile and adhesive	\$	sq. ft.
20.	Ceramic tile & grout	\$	sq. ft.
21.	Cove base & adhesive	\$	sq. ft.
22.	Vibration dampener	\$	sq. ft.
23.	Sink undercoating	\$	each
24.	Mobilization charges once Contractor off site	\$	per call out

The owner may choose to conduct additional work utilizing a time and material hourly rate.

**Hourly Rate (Abatement Contractor):** \_\_\_\_\_

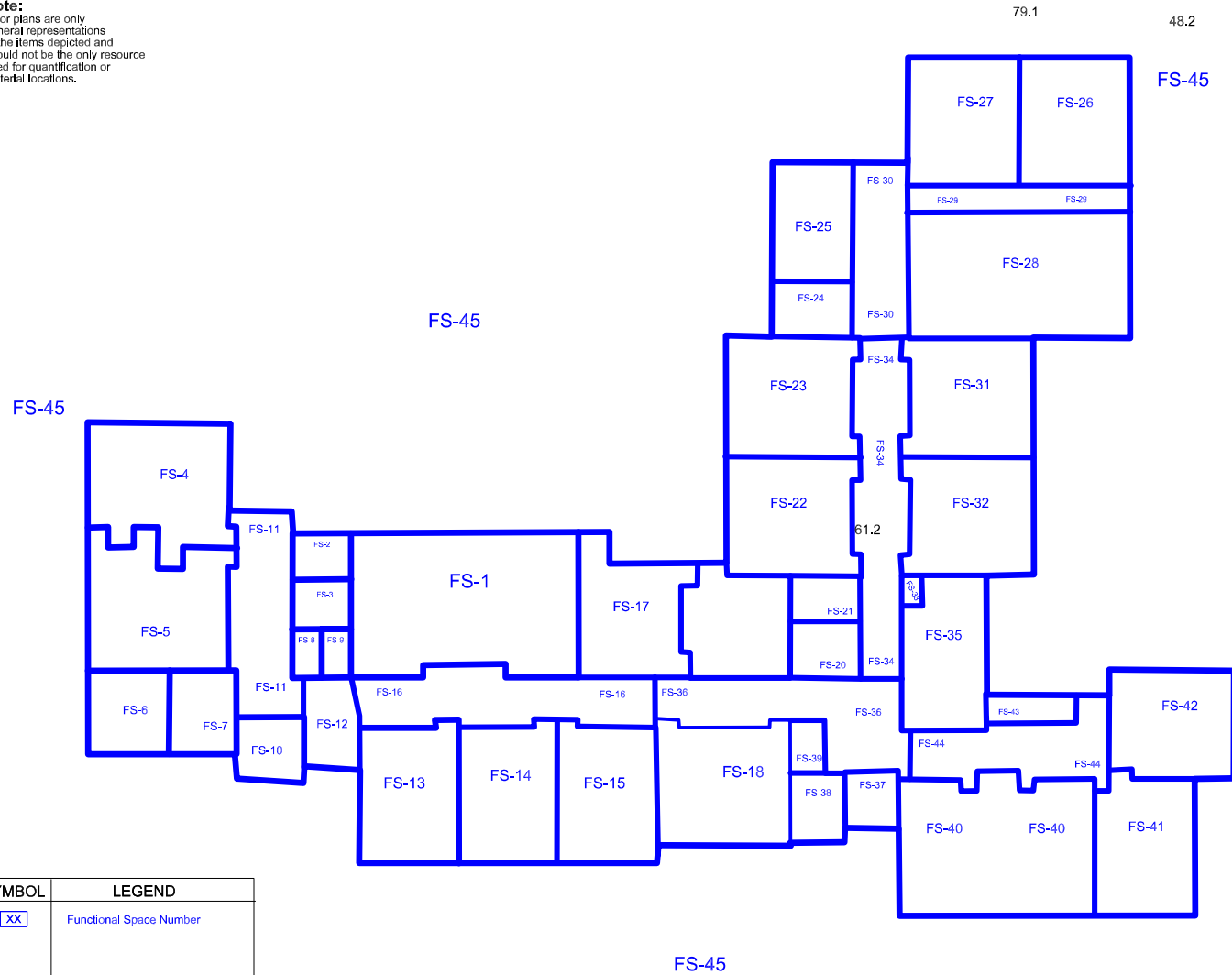
**Hourly Rate (General Laborer):** \_\_\_\_\_

The Contractor may add any qualifying statements or explanations for the above-proposed unit costs.

I hereby certify that all pricing is reasonably accurate at the time of this proposal and that cost is reflective of the scope of work as outlined in the bid specification, site walk, RFI's, and addenda's.

Company Name: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_

**Note:**  
Floor plans are only  
general representations  
of the items depicted and  
should not be the only resource  
used for quantification or  
material locations.



SYMBOL	LEGEND
XX	Functional Space Number



**Lansing Public Schools**  
Cumberland Elementary  
2801 Cumberland Road  
Lansing, Michigan 48906

Revisions	
Description	Date

Project Name:  
**Cumberland Elementary**

Drawing Title:  
**Asbestos Sample Location Map**

Sheet Number:  
**1 of 1**

BDN Project No. 723-46304

**APPENDIX A**

## Room by Room Material Inventory

Lansing School District  
2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	01-Multipurpose Rm 108 (60'x35')	6	Wood Fire doors and Frame	Assumed	6	ct.	NF	U	
1st	01-Multipurpose Rm 108 (60'x35')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
1st	02- Kitchen Prep Rm 102 (17' x 12')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	02- Kitchen Prep Rm 102 (17' x 12')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	180	s.f.	NF	U	
1st	02- Kitchen Prep Rm 102 (17' x 12')	13	sink undercoating - Black	Yes	6	s.f.	F	U	
1st	02- Kitchen Prep Rm 102 (17' x 12')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	50	s.f.	NF	U	
1st	02- Kitchen Prep Rm 102 (17' x 12')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single Speaker on Eastern wall
1st	03- Kitchen Prep Rm 104 (17' X 14')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	03- Kitchen Prep Rm 104 (17' X 14')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	240	s.f.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	7	Wood Fire door and Frame w/ Windows	Assumed	1	ct.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	13	sink undercoating - Black	Yes	3	s.f.	F	U	
1st	04 - Classroom 101 ( 36' X 36')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	20	s.f.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on west wall
1st	04 - Classroom 101 ( 36' X 36')	18	Adhesive- Associate Carpet	Assumed	900	s.f.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	19	Vinyl Floor Tile w/ Associated Mastic- 9"x9" Tan w/ Red & Black Streaks	Yes	1100	s.f.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	21	Vinyl Floor Tile- 9 X 9 Green w/ Tan & Black Streaks	Yes	100	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	04 - Classroom 101 ( 36' X 36')	23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	50	s.f.	NF	U	Restroom
1st	04 - Classroom 101 ( 36' X 36')	24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	120	s.f.	NF	U	Restroom
1st	04 - Classroom 101 ( 36' X 36')	25	Chalkboard- Green	Assumed	100	s.f.	NF	U	Single Large Chalkboard on southern wall
1st	04 - Classroom 101 ( 36' X 36')	50	Display Board	Assumed	120	s.f.	NF	U	
1st	05- Clasroom 103 (36' X 30')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	05- Classroom 103 (36' X 30')	13	sink undercoating - Black	Yes	3	s.f.	F	U	
1st	05- Clasroom 103 (36' X 30')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	20	s.f.	NF	U	
1st	05- Clasroom 103 (36' X 30')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single Speaker on West Wall
1st	05- Clasroom 103 (36' X 30')	18	Adhesive- Associate Carpet	Assumed	820	s.f.	NF	U	
1st	05- Classroom 103 (36' X 30')	19	Vinyl Floor Tile w/ Associated Mastic- 9"x9" Tan w/ Red & Black Streaks	Yes	1080	s.f.	NF	U	
1st	05- Classroom 103 (36' X 30')	21	Vinyl Floor Tile- 9 X 9 Green w/ Tan & Black Streaks	Yes	80	s.f.	NF	U	
1st	05- Clasroom 103 (36' X 30')	23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	40	s.f.	NF	U	Restroom Floors
1st	05- Clasroom 103 (36' X 30')	24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	100	s.f.	NF	U	Restroom Walls
1st	05- Clasroom 103 (36' X 30')	25	Chalkboard- Green	Assumed	80	s.f.	NF	U	Single large chalkboard on Northern Wall
1st	05- Clasroom 103 (36' X 30')	26	Caulk- Interior Door Frame	Assumed	30	s.f.	NF	U	
1st	05- Classroom 103 (36' X 30')	27	Caulk - Building Seam	Yes	10	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	05- Classroom 103 (36' X 30')	28	Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor	Assumed	60	s.f.	NF	U	Present in eastern entry
1st	05- Classroom 103 (36' X 30')	50	Display Board	Assumed	120	s.f.	NF	U	
<b>1st</b>	<b>06- Boiler Rm 36 (24' X 14')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>10</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	06- Boiler Rm 36 (24' X 14')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	
1st	06- Boiler Rm 36 (24' X 14')	33	Boiler	Assumed	820	c.f.	NF	U	Large Single Boiler
1st	06- Boiler Rm 36 (24' X 14')	36	Boiler Supply/Return Line 24 in	Assumed	20	l.f.	F	U	Single Supply/Return Horizontal Line present off boiler running into wall
1st	07 - Custodial Office Rm 105 (17' X 13')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	07 - Custodial Office Rm 105 (17' X 13')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	Into Electrical Room
1st	07 - Custodial Office Rm 105 (17' X 13')	37	Electrical Equipment	Assumed		s.f.	NF	U	Various Breaker boxes, transformers and electrical equipment present
1st	08 - Men's Restroom Rm 106 ( 11' X 8')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	08 - Men's Restroom Rm 106 ( 11' X 8')	29	Ceramic Block w/ associated grout 12' X 18' - Green	Assumed	176	s.f.	NF	U	
1st	08 - Men's Restroom Rm 106 ( 11' X 8')	38	Ceramic Tile w. associated grout & bedding Multi-colored Tan	Assumed	44	s.f.	NF	U	
1st	08 - Men's Restroom Rm 106 ( 11' X 8')	40	Restroom Doors	Assumed	100	s.f.	NF	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	



## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	09 - Women's Restroom Rm 108 (11' X 8')	29	Ceramic Block w/ associated grout 12' X 18' - Green	Assumed	176	s.f.	NF	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	38	Ceramic Tile w. associated grout & bedding Multi-colored Tan	Assumed	88	s.f.	NF	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	40	Restroom Doors	Assumed	100	s.f.	NF	U	
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	7	Wood Fire door and Frame w/ Windows	Assumed	3	ct.	NF	U	
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on southern wall
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	41	Interior Window Glazing	Yes	80	s.f.	NF	U	Present on northern window system, 4 window systems at 6' X 4'
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	42	Vinyl Floor Tiles w/ associated Mastic 9 X 9 - Tan w/ Brown specs	Yes	145	s.f.	NF	U	
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	43	Vinyl Floor Tiles w/ associated mastic 9 X 9 - Brown w/ Dark Brown Specs	Yes	145	s.f.	NF	U	
1st	11 - Corridor 100A (52' X 11')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	450	s.f.	NF	U	Present along perimeter of corridor
1st	11 - Corridor 100A (52' X 11')	47	Ceramic Tile w/ associated grout and bedding- Orange 4 in. wall tile	Assumed	10	s.f.	NF	U	Present as baseboard along brick & mortar
1st	11 - Corridor 100A (52' X 11')	49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	450	s.f.	NF	U	Painted over w/ half white & half blue paint
1st	11 - Corridor 100A (52' X 11')	50	Display Board	Assumed	35	s.f.	NF	U	Single board on Eastern Wall
1st	11 - Corridor 100A (52' X 11')	51	Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks	Yes	122	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	110	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	26	Caulk- Interior Door Frame	Assumed	12	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	12- Corridor 100C (20' X 14')	28	Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor	Assumed	196	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	47	Ceramic Tile w/ associated grout and bedding- Orange 4 in. wall tile	Assumed	35	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	180	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	50	Display Board	Assumed		s.f.	NF	U	
<b>1st</b>	<b>12- Corridor 100C (20' X 14')</b>	<b>51</b>	<b>Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks</b>	<b>Yes</b>	<b>20</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	13 - Classroom 109 (25' X 35')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
<b>1st</b>	<b>13 - Classroom 109 (25' X 35')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	13 - Classroom 109 (25' X 35')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	15	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on southern wall
1st	13 - Classroom 109 (25' X 35')	18	Adhesive- Associate Carpet	Assumed	800	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	40	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	80	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	2 Boards; ON east and West walls
1st	13 - Classroom 109 (25' X 35')	50	Display Board	Assumed	80	s.f.	NF	U	
<b>1st</b>	<b>13 - Classroom 109 (25' X 35')</b>	<b>53</b>	<b>Vinyl Floor Tiles &amp; associated mastic 9 X 9 - Cream w/ Black Streaks</b>	<b>Yes</b>	<b>875</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>Assumed to be under carpet also</b>
1st	14 - Classroom 110 (35' X 25')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
<b>1st</b>	<b>14 - Classroom 110 (35' X 25')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	14 - Classroom 110 (35' X 25')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	15	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on southern wall
1st	14 - Classroom 110 (35' X 25')	23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	40	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	80	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	50	Display Board	Assumed	80	s.f.	NF	U	
<b>1st</b>	<b>14 - Classroom 110 (35' X 25')</b>	<b>54</b>	<b>Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks</b>	<b>Yes</b>	<b>800</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	14 - Classroom 110 (35' X 25')	55	Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Cream w/ Green Streaks	Assumed	60	s.f.	NF	U	Present in northern part of space
1st	15 - Classroom 111 ( 35' X 25')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
<b>1st</b>	<b>15 - Classroom 111 ( 35' X 25')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	15 - Classroom 111 ( 35' X 25')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	15	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on southern wall
1st	15 - Classroom 111 ( 35' X 25')	23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	40	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	80	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	25	Chalkboard- Green	Assumed	120	s.f.	NF	U	Painted over w/ black paint
<b>1st</b>	<b>15 - Classroom 111 ( 35' X 25')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>18</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>Present in Corners of space</b>
1st	15 - Classroom 111 ( 35' X 25')	50	Display Board	Assumed	100	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	15 - Classroom 111 ( 35' X 25')	56	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Tan w/ multi-color streaks	Yes	855	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	57	Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Brown w/ Multi-color Specs	Assumed	10	s.f.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	7	Wood Fire door and Frame w/ Windows	Assumed	3	ct.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	800	s.f.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	900	s.f.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	50	Display Board	Assumed	120	s.f.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	51	Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks	Yes	94	s.f.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	58	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Maroon w/ Multi-color	Assumed	30	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Presenton northern wall above entry door
1st	17 - Classroom 112 ( 26' X 29')	27	Caulk - Building Seam	Yes	25	s.f.	NF	U	Present in corners of space and where brick & mortar joins CMU
1st	17 - Classroom 112 ( 26' X 29')	50	Display Board	Assumed	60	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	59	Sink Undercoating - Grey	Yes	3	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	754	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	62	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red & Black Streaks	Yes	754	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	64	Chalkboard - Black	Assumed	70	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	65	Formica Countertops w/ associated adhesive - Grey	Assumed	10	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	18 - Classroom 113 (31' X 34')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Present on southern wall space
1st	18 - Classroom 113 (31' X 34')	25	Chalkboard- Green	Assumed	180	s.f.	NF	U	Painted Blue
1st	18 - Classroom 113 (31' X 34')	27	Caulk - Building Seam	Yes	20	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	50	Display Board	Assumed	160	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	54	Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks	Yes	1054	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	1054	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	100	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	130	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Present on western Wall
1st	19 - Staff Lounge Rm 112 (28' X 27')	25	Chalkboard- Green	Assumed	60	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	756	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	62	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red & Black Streaks	Yes	377	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	60	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	70	Vinyl Floor Tile 9 X 9 - Tan Marble	Yes	297	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	71	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Mint Green w/ Black & White Streaks	Yes	80	s.f.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	255	s.f.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	30	Metal Fire door & Frame	Assumed	2	ct.	NF	U	

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	<b>20 - Staff Work Room 116 (17' X 14')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>255</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	20 - Staff Work Room 116 (17' X 14')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	60	s.f.	NF	U	
1st	<b>21 - Book Storage Rm 118 ( 18' X 11')</b>	<b>10</b>	<b>Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks</b>	<b>Yes</b>	<b>198</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	21 - Book Storage Rm 118 ( 18' X 11')	26	Caulk- Interior Door Frame	Assumed	5	s.f.	NF	U	
1st	<b>21 - Book Storage Rm 118 ( 18' X 11')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>198</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	21 - Book Storage Rm 118 ( 18' X 11')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	60	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	22 - Classroom 120 (32' X 30')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on W wall
1st	22 - Classroom 120 (32' X 30')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	2 Large display boardds on N & S wall
1st	<b>22 - Classroom 120 (32' X 30')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>30</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>6 window systems at 6' X 4'</b>
1st	22 - Classroom 120 (32' X 30')	50	Display Board	Assumed	160	s.f.	NF	U	
1st	<b>22 - Classroom 120 (32' X 30')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	22 - Classroom 120 (32' X 30')	66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	60	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	110	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	85	s.f.	NF	U	
1st	<b>22 - Classroom 120 (32' X 30')</b>	<b>75</b>	<b>Vinyl Floor Tile W/ associated Mastic 9 X 9 - Tan w/ White streaks</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	23 - Classroom 122 (32' X 30')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	



## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	23 - Classroom 122 (32' X 30')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Present on W wall
1st	23 - Classroom 122 (32' X 30')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	Painted over w/ black paint
1st	23 - Classroom 122 (32' X 30')	27	Caulk - Building Seam	Yes	20	s.f.	NF	U	
1st	<b>23 - Classroom 122 (32' X 30')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>20</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	23 - Classroom 122 (32' X 30')	50	Display Board	Assumed	180	s.f.	NF	U	
1st	<b>23 - Classroom 122 (32' X 30')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	23 - Classroom 122 (32' X 30')	66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	60	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	90	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	85	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	76	Formica Countertops - Pink	Assumed	15	s.f.	NF	U	
1st	<b>23 - Classroom 122 (32' X 30')</b>	<b>77</b>	<b>Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black &amp; cream streaks</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	<b>24 - Storage Rm 124 (20' X 14')</b>	<b>54</b>	<b>Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks</b>	<b>Yes</b>	<b>280</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	25 - Classrooms 126 & 128 (20' X 30')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	
1st	25 - Classrooms 126 & 128 (20' X 30')	25	Chalkboard- Green	Assumed	80	s.f.	NF	U	
1st	25 - Classrooms 126 & 128 (20' X 30')	50	Display Board	Assumed	160	s.f.	NF	U	
1st	<b>25 - Classrooms 126 &amp; 128 (20' X 30')</b>	<b>54</b>	<b>Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks</b>	<b>Yes</b>	<b>600</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	<b>25 - Classrooms 126 &amp; 128 (20' X 30')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>600</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	

## Room by Room Material Inventory

Lansing School District  
2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	26 - Classroom 129 (32' X 28')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	26 - Classroom 129 (32' X 28')	25	Chalkboard- Green	Assumed	100	s.f.	NF	U	Painted over black
1st	26 - Classroom 129 (32' X 28')	41	Interior Window Glazing	Yes	6	s.f.	NF	U	2 windows at S wall at 4' X 6'
1st	26 - Classroom 129 (32' X 28')	50	Display Board	Assumed	160	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	59	Sink Undercoating - Grey	Yes	3	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	896	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	30	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	10	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	26	Caulk- Interior Door Frame	Assumed	10	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	41	Interior Window Glazing	Yes	6	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	50	Display Board	Assumed	200	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	59	Sink Undercoating - Grey	Yes	6	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	1792	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	72	Formica Countertops w/ associated adhesive - White w/ Grey specs	Assumed	15	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	60	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	27 - Library Rooms 125 & 125 B (32' X 56')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	40	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	28 - Classroom 127 (32' X 28')	25	Chalkboard- Green	Assumed	100	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	26	Caulk- Interior Door Frame	Assumed	5	s.f.	NF	U	
<b>1st</b>	<b>28 - Classroom 127 (32' X 28')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>6</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>2 window systems on S wall 4' X 6'</b>
1st	28 - Classroom 127 (32' X 28')	50	Display Board	Assumed	180	s.f.	NF	U	
<b>1st</b>	<b>28 - Classroom 127 (32' X 28')</b>	<b>59</b>	<b>Sink Undercoating - Grey</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
<b>1st</b>	<b>28 - Classroom 127 (32' X 28')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>896</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	28 - Classroom 127 (32' X 28')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	30	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	10	s.f.	NF	U	
1st	29 - Corridor 127 (55' X 7')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
1st	29 - Corridor 127 (55' X 7')	26	Caulk- Interior Door Frame	Assumed	15	s.f.	NF	U	
<b>1st</b>	<b>29 - Corridor 127 (55' X 7')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>385</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	30 - Corridor 100 I (10' X 47')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
<b>1st</b>	<b>30 - Corridor 100 I (10' X 47')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>30</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	30 - Corridor 100 I (10' X 47')	50	Display Board	Assumed	80	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	30 - Corridor 100 I (10' X 47')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	470	s.f.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	82	Terrezzo - Red Specs	Assumed	470	s.f.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	83	Firebreak paper w/ associated mastic - Black	Yes	20	s.f.	NF	U	Present at Corridor seam above ceiling
1st	31 - Classroom 123 (30' X 32')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	31 - Classroom 123 (30' X 32')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	2 Large boards on N & S wall
1st	31 - Classroom 123 (30' X 32')	26	Caulk- Interior Door Frame	Assumed	10	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	27	Caulk - Building Seam	Yes	20	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	41	Interior Window Glazing	Yes	15	s.f.	NF	U	6 window systems on W wall at 4' X 6'
1st	31 - Classroom 123 (30' X 32')	50	Display Board	Assumed	80	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	54	Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks	Yes	960	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	960	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	60	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	100	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	110	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	76	Formica Countertops - Pink	Assumed	10	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	32 - Classroom 121 (30' X 32')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	Painted black
1st	32 - Classroom 121 (30' X 32')	26	Caulk- Interior Door Frame	Assumed	10	s.f.	NF	U	
1st	<b>32 - Classroom 121 (30' X 32')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>20</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	<b>32 - Classroom 121 (30' X 32')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>30</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	32 - Classroom 121 (30' X 32')	49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	260	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	50	Display Board	Assumed	180	s.f.	NF	U	
1st	<b>32 - Classroom 121 (30' X 32')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	32 - Classroom 121 (30' X 32')	66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	60	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	100	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	76	Formica Countertops - Pink	Assumed	10	s.f.	NF	U	
1st	<b>32 - Classroom 121 (30' X 32')</b>	<b>77</b>	<b>Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black &amp; cream streaks</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	<b>33 - Classroom 119 (6' X 8')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>48</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	33 - Classroom 119 (6' X 8')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	18	s.f.	NF	U	
1st	<b>33 - Classroom 119 (6' X 8')</b>	<b>77</b>	<b>Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black &amp; cream streaks</b>	<b>Yes</b>	<b>48</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	34 - Corridor 100 H (10' X 88')	50	Display Board	Assumed	220	s.f.	NF	U	
1st	<b>34 - Corridor 100 H (10' X 88')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>880</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	34 - Corridor 100 H (10' X 88')	82	Terrezzo - Red Specs	Assumed	880	s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
<b>1st</b>	<b>35 - Office Rooms 115 &amp; 117 (40' X 22')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>10</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>5 window systems on W wall at 4' X 3'</b>
1st	35 - Office Rooms 115 & 117 (40' X 22')	49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	60	s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	50	Display Board	Assumed	40	s.f.	NF	U	
<b>1st</b>	<b>35 - Office Rooms 115 &amp; 117 (40' X 22')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>880</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	35 - Office Rooms 115 & 117 (40' X 22')	85	Ceramic Tiles w/ associated grout & bedding - 1 in White	Assumed	30	s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	86	Ceramic Tile w/ associated grout and bedding - 4 in. Blue	Assumed	80	s.f.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
<b>1st</b>	<b>36 - Corridor 100 D (24' X 19')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>25</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	36 - Corridor 100 D (24' X 19')	28	Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor	Assumed	456	s.f.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	49	Ceramic Block w/ associated Mortar 12' X 18'	assumed	100	s.f.	NF	u	
<b>1st</b>	<b>36 - Corridor 100 D (24' X 19')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>876</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	37 - Corridor 100 E (13' X 15')	28	Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor	Assumed	195	s.f.	NF	U	
1st	37 - Corridor 100 E (13' X 15')	87	Joint Compound associated w/ Gypsum Board drywal	Assumed	100	s.f.	F	U	



## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	38 - Resource Rm 135 (12' X 17')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	204	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	27	Caulk - Building Seam	Yes	80	s.f.	NF	U	Present at seams and perimeter of ceiling
1st	38 - Resource Rm 135 (12' X 17')	50	Display Board	Assumed	60	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	204	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	89	Metal Fire Door & Frame w/ Windows	assumed	1	ct.	NF	u	
1st	39 - Resource Rm 114 (8' X 14')	50	Display Board	Assumed	120	s.f.	NF	U	
1st	39 - Resource Rm 114 (8' X 14')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	112	s.f.	NF	U	
1st	39 - Resource Rm 114 (8' X 14')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	20	s.f.	NF	U	
1st	39 - Resource Rm 114 (8' X 14')	88	Vinyl Floor Tile w/ associated mastic 9 X 9 - Grey w/ Multi-color Streaks	Yes	112	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')'	13	sink undercoating - Black	Yes	6	s.f.	F	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')'	16	Adhesive associated w/ speaker	Assumed	1	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')'	18	Adhesive- Associate Carpet	Assumed	1600	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')'	30	Metal Fire door & Frame	Assumed	2	ct.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')'	50	Display Board	Assumed	200	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	64	Chalkboard - Black	Assumed	240	s.f.	NF	U	! Small board & 1 large board on E & W wall
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	40	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	20	s.f.	NF	U	
<b>1st</b>	<b>41 - Classroom 132 (32' X 25')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	41 - Classroom 132 (32' X 25')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	18	Adhesive- Associate Carpet	Assumed	800	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	
1st	41 - Classroom 132 (32' X 25')	50	Display Board	Assumed	120	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	64	Chalkboard - Black	Assumed	200	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	30	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	10	s.f.	NF	U	
<b>1st</b>	<b>42 - Classroom 133 (30' X 30')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	42 - Classroom 133 (30' X 30')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	18	Adhesive- Associate Carpet	Assumed	900	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	26	Caulk- Interior Door Frame	Assumed	15	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	<b>42 - Classroom 133 (30' X 30')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>10</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	42 - Classroom 133 (30' X 30')	50	Display Board	Assumed	80	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	64	Chalkboard - Black	Assumed	80	s.f.	NF	U	2 medium boards on S wall
1st	42 - Classroom 133 (30' X 30')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	30	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	10	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	89	Metal Fire Door & Frame w/ Windows	Assumed	2	ct.	NF	U	
1st	<b>43 - Storage Rm 134 (22' X 5')</b>	<b>10</b>	<b>Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks</b>	<b>Yes</b>	<b>110</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	43 - Storage Rm 134 (22' X 5')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	26	Caulk- Interior Door Frame	Assumed	30	s.f.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	50	Display Board	Assumed	80	s.f.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	82	Terrezzo - Red Specs	Assumed	830	s.f.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	89	Metal Fire Door & Frame w/ Windows	Assumed	5	ct.	NF	U	
Exterior	<b>45 - School Exterior</b>	<b>93</b>	<b>Glazing - Exterior Window</b>	<b>Yes</b>	<b>855</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>106 Total windows (80 @ 4'x6', 16 @ 3'x4', 9 @ 3'x6', 1 @ 3'x2')</b>

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

BDN Project No. P23-00304

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
Exterior	45 - School Exterior	96	Caulk - Exterior Building Seam	Yes	165	s.f.	NF	U	Present on building corners, intermittently present on brick façade
Exterior	45 - School Exterior	98	Exterior Fire Door and Frame	Assumed	18	ct.	NF	U	7 Double doors, 4 Single Doors
Exterior	45 - School Exterior	102	Exterior Window Vapor Barrier	Assumed	2280	s.f.	NF	U	Present where window lintel meets brick & Mortar façade. Assumed to be present around entire perimeter of window systems. 106 Total windows (80 @ 4'x6', 16 @ 3'x4', 9 @ 3'x6', 1 @ 3'x2')



Marc Alexa  
Lansing Public School  
519 West Kalamazoo Street  
Lansing, Michigan 48933

Date: 10/24/2023  
BDN Project No. P23-00304

RE: Asbestos Building Inspection Performed at 2801 Cumberland Road, Lansing, Michigan 48906

Dear Mr. Alexa,

BDN Industrial Hygiene Consulting (BDN) is pleased to submit this Comprehensive NESHAP Asbestos Inspection for the above-referenced address. This work was performed in accordance with our accepted proposal CP23-00207 dated 8/15/2023.

Enclosed is the inspection report, which summarizes and documents our inspection procedures, findings, and conclusions. This report is for the explicit use of Lansing Public Schools, and other use is strictly prohibited without written consent from BDN or Lansing, Public Schools.

Thank you for giving us the opportunity to work with you on this project. Please contact us if there are any questions concerning this report. We look forward to working with you again soon.

Sincerely,

A handwritten signature in black ink that reads "Matt Moody". The signature is written in a cursive, flowing style.

Matt Moody  
Industrial Hygiene Specialist  
BDN Industrial Hygiene Consultants, Inc.



# INSPECTION REPORT

**Report Prepared for:**

Lansing Public Schools  
Marc Alexa  
519 West Kalamazoo Street  
Lansing, Michigan 48933

**Project Information**

Comprehensive NESHAP Asbestos Inspection  
Cumberland Elementary  
2801 Cumberland Road  
Lansing, Michigan

**Project Dates:** October 3, 2023 – October 9, 2023

**BDN Project No.:** P23-00304





# Cumberland Elementary

## Comprehensive NESHAP Asbestos Inspection



Report prepared by:

Project managed by:

A handwritten signature in black ink that reads "Matt Moody".

A handwritten signature in black ink that reads "Ken Conlin".

Matt Moody  
Industrial Hygiene Specialist  
Accreditation No.: A55786  
BDN Industrial Hygiene Consultants

Ken Conlin  
Senior Project Manager  
Accreditation No.: A51107  
BDN Industrial Hygiene Consultants

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## TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY .....	1
2.0	INTRODUCTION .....	2
3.0	ASBESTOS .....	3
3.1	Inspection and Sampling Procedures.....	3
3.2	Findings and Conclusions .....	3
4.0	PAINT CONTAINING HEAVY METALS .....	8
4.1	Inspection and Sampling Procedures.....	8
4.2	Findings and Conclusions .....	8
5.0	REGULATORY COMPLIANCE AND OBLIGATIONS .....	9
6.0	LIMITATIONS .....	10
7.0	CONCLUSIONS AND RECOMMENDATIONS.....	10

## LIST OF APPENDICES

- Appendix A: CAD Diagrams
- Appendix B: Room by Room Material Inventory – Asbestos
- Appendix C: Asbestos Bulk Sample Log
- Appendix D: Building Materials Summary – Asbestos
- Appendix E: Digital Photo Log
- Appendix F: Analytical Results – Asbestos
- Appendix G: Analytical Results – Heavy Metals

## 1.0 EXECUTIVE SUMMARY

BDN Industrial Hygiene Consultants, Inc. of Lansing, Michigan was retained by Lansing Public Schools to conduct a Comprehensive NESHAP Asbestos Inspection at 2801 Cumberland Road, Lansing, Michigan. The inspection was conducted on October 3, 2023.

A total of one-hundred fourteen (114) samples were collected of suspect asbestos-containing materials. The samples collected were from one-hundred three (103) homogeneous area materials identified as part of this inspection. Of the homogeneous area identified, twenty-three (23) were



found to be asbestos containing. Additionally, BDN collected three (3) samples that were tested for chromium, cadmium, and lead. A table of the identified asbestos-containing and assumed asbestos-containing materials can be found in the tables of this report, as well as **Appendix D – Building Materials Summary – Asbestos**. A copy of the analytical results for asbestos and heavy metal paint chips can be found in **Appendix F – Analytical Results – Asbestos** and **Appendix G – Analytical Results – Heavy Metals**, respectively.

A map of functional spaces and sample locations can be found in **Appendix A – CAD Diagrams** of this report. A digital photograph log can be found in **Appendix E – Digital Photograph Log** of this report.

The asbestos-containing materials identified in this inspection that may be disturbed during demolition or renovation activities are required to be removed prior to the commencement of such activities. If suspect Asbestos-Containing Materials (ACMs) not identified within the report are encountered during demolition activities for which no analytical data exists, BDN recommends the material(s) remain undisturbed until the asbestos content of the material(s) is determined in accordance with the United States Environment Protection Act (USEPA) and Occupational Safety and Health Administration (OSHA) regulations.

BDN recommends that an asbestos abatement project design be developed by a State of Michigan accredited Asbestos Project Designer prior to any abatement or demolition activities begin. Additionally, BDN recommends the building owner hire an industrial hygiene consultant to perform on-site third-party asbestos air monitoring and clearance inspections throughout the duration of the abatement process.

The OSHA construction standard does not specifically list a concentration that is considered a hazardous level for lead, cadmium, and chromium content within building materials. However, the building owner is obligated to inform contractors if heavy metals are present at the worksite and provide contractors with a copy of the analytical report which can be found in **Appendix G – Analytical Results – Heavy Metals**. The employer of a construction crew is required to perform monitoring for their employees depending on the scope of work when heavy metals are present on a worksite in compliance with the OSHA Construction Standard to ensure the employees are not exposed to concentrations above the action level or permissible exposure limit.

## 2.0 INTRODUCTION

BDN Industrial Hygiene Consultants, Inc. of Lansing, Michigan was retained by Lansing Public Schools to conduct a Comprehensive NESHAP Asbestos Inspection of the building located at 2801 Cumberland Road in Lansing, Michigan. The intent of the inspection was to identify asbestos-containing building materials, heavy metal-based paints and materials that may be disturbed during upcoming renovation/demolition activities. Prior to any demolition or renovation, an inspection is required by the USEPA under the National Emission Standard for Hazardous Air Pollutants (NESHAP)



standard and enforced by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) in the State of Michigan. The inspection was conducted by Matt Moody (A55786) a State of Michigan Accredited Asbestos Inspector on October 3, 2023.

## **3.0 ASBESTOS**

### **3.1 Inspection and Sampling Procedures**

On October 3, 2023, BDN conducted a visual assessment and identified and estimated quantities of suspect ACMs associated with the building and assigned a unique homogenous area number to each suspect ACM observed. A homogenous area, as defined by USEPA's Asbestos Hazard Emergency Response Act (AHERA, 40 CFR Part 763), is an area of thermal system insulation (TSI), surfacing material, or miscellaneous material that appears uniform in color and texture.

Following the assessment, a total of one-hundred fourteen (114) samples were collected from the one-hundred three (103) homogenous areas of identified suspect ACMs in accordance with the AHERA assessment protocol (40 CFR Part 763), which is also referenced by the OSHA regulations.

All collected asbestos bulk samples were submitted to Eurofins which is an accredited laboratory by the National Voluntary Laboratory Program (NVLAP), for asbestos analysis of the bulk samples via Polarized Light Microscopy (PLM). Results of the submitted asbestos bulk samples are presented in the following subsection.

### **3.2 Findings and Conclusions**

The building is located at 2801 Cumberland Road in Lansing, Michigan which is an early elementary school within the Lansing School District. The Structure consists of a poured concrete pad along with concrete masonry unit (CMU) interior and exterior walls. Throughout the building various vinyl floorings are present along with carpeted areas in classrooms, multi-purpose rooms, and storage areas. Both pre-cast concrete panels and metal roof deck are present above the suspended ceiling system throughout. The structure contains a flat roofing system with caulking and flashing system present around the perimeter of the roof along with a sheet metal parapet wall cap.

Laboratory descriptions of materials analyzed by Polarized Light Microscopy (PLM) method for asbestos content were based upon the microscopists' visual observations of bulk samples that were homogenized and prepared for analysis. Due to the preparation of the sampled materials and the minute level of observation by the laboratory personnel, the descriptions in the analytical report may not match the sample descriptions recorded by BDN in the field. BDN's sample descriptions and locations should be used to identify materials that were



sampled, and BDN's sample numbers should be used to correlate analytical results for the sampled materials.

A list of asbestos-containing materials is presented in the following table:

Asbestos-Containing Materials			
HA #	Materials Description	Asbestos Results / Layers	Qty
10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	2,547 Sq. Ft.
13	sink undercoating - Black	10% Chrysotile	33 Sq. Ft.
19	Vinyl Floor Tile w/ Associated Mastic- 9"x9" Tan w/ Red & Black Streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	2,180 Sq. Ft.
21	Vinyl Floor Tile- 9 X 9 Green w/ Tan & Black Streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	180 Sq. Ft.
27	Caulk - Building Seam	2% Chrysotile	298 Sq. Ft.
41	Interior Window Glazing	2% Chrysotile	193 Sq. Ft.
42	Vinyl Floor Tiles w/ associated Mastic 9 X 9 - Tan w/ Brown specs	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	145 Sq. Ft.
43	Vinyl Floor Tiles w/ associated mastic 9 X 9 - Brown w/ Dark Brown Specs	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	145 Sq. Ft.
51	Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	236 Sq. Ft.
53	Vinyl Floor Tiles & associated mastic 9 X 9 - Cream w/ Black Streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	875 Sq. Ft.
54	Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	3,694 Sq. Ft.
56	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Tan w/ multi-color streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	855 Sq. Ft.
59	Sink Undercoating - Grey	10% Chrysotile	15 Sq. Ft.
61	Ceiling Tile 2 X 2 - Worm Track	2% Chrysotile	14,896 Sq. Ft.
62	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red & Black Streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	1,131 Sq. Ft.

HA #	Materials Description	Asbestos Results / Layers	Qty
70	Vinyl Floor Tile 9 X 9 - Tan Marble	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	297 Sq. Ft.
71	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Mint Green w/ Black & White Streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	80 Sq. Ft.
75	Vinyl Floor Tile W/ associated Mastic 9 X 9 - Tan w/ White streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	960 Sq. Ft.
77	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	1,968 Sq. Ft.
83	Firebreak paper w/ associated mastic - Black	Layer 1 – Not Detected Layer 2 – 60% Chrysotile	20 Sq. Ft.
88	Vinyl Floor Tile w/ associated mastic 9 X 9 - Grey w/ Multi-color Streaks	Layer 1 – 2% Chrysotile Layer 2 – Not Detected	112 Sq. Ft.
93	Glazing - Exterior Window	2% Chrysotile	855 Sq. Ft.
96	Caulk - Exterior Building Seam	2% Chrysotile	165 Sq. Ft.

The following materials are assumed to be asbestos containing:

Assumed Asbestos-Containing Materials			
HA #	Materials Description	Asbestos Results / Layers	Qty
5	Metal Pan Ceiling Squares w/ Insulation 9 x 9 Pinhole	Assumed	2,575 Sq. Ft.
6	Wood Fire doors and Frame	Assumed	34 Ct.
7	Wood Fire door and Frame w/ Windows	Assumed	27 Ct.
11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	Assumed	5,631 Sq. Ft.
14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	135 Sq. Ft.
16	Adhesive associated w/ speaker	Assumed	35 Sq. Ft.
18	Adhesive- Associate Carpet	Assumed	5,820 Sq. Ft.
23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	210 Sq. Ft.

HA #	Materials Description	Asbestos Results / Layers	Qty
24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	460 Sq. Ft.
25	Chalkboard- Green	Assumed	2,020 Sq. Ft.
26	Caulk- Interior Door Frame	Assumed	142 Sq. Ft.
28	Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor	Assumed	907 Sq. Ft.
29	Ceramic Block w/ associated grout 12' X 18' - Green	Assumed	352 Sq. Ft.
30	Metal Fire door & Frame	Assumed	9 Ct.
33	Boiler	Assumed	820 Cu. Ft.
36	Boiler Supply/Return Line 24 in	Assumed	20 Ln. Ft.
37	Electrical Equipment	Assumed	8 Ct.
38	Ceramic Tile w. associated grout & bedding Multi-colored Tan	Assumed	132 Sq. Ft.
40	Restroom Doors	Assumed	200 Sq. Ft.
47	Ceramic Tile w/ associated grout and bedding- Orange 4 in. wall tile	Assumed	45 Sq. Ft.
49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	1,950 Sq. ft.
50	Display Board	Assumed	3,175 Sq. Ft.
55	Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Cream w/ Green Streaks	Assumed	60 Sq. Ft.
57	Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Brown w/ Multi-color Specs	Assumed	10 Sq. Ft.
58	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Maroon w/ multi-color	Assumed	30 Sq. Ft.
64	Chalkboard - Black	Assumed	590 Sq. Ft.
65	Formica Countertops w/ associated adhesive - Grey	Assumed	10 Sq. Ft.
66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	340 Sq. Ft.



HA #	Materials Description	Asbestos Results / Layers	Qty
67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	530 Sq. Ft.
69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	498 Sq. Ft.
72	Formica Countertops w/ associated adhesive - White w/ Grey specs	Assumed	15 Sq. Ft.
76	Formica Countertops - Pink	Assumed	35 Sq. Ft.
78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	220 Sq. Ft.
80	Formica Countertops w/ associated adhesive - Tan	Assumed	100 Sq. Ft.
82	Terrazzo - Red Specs	Assumed	2,180 Sq. Ft.
85	Ceramic Tiles w/ associated grout & bedding - 1 in White	Assumed	30 Sq. Ft.
86	Ceramic Tile w/ associated grout and bedding - 4 in. Blue	Assumed	80 Sq. Ft.
87	Joint Compound associated w/ Gypsum Board drywall	Assumed	100 Sq. Ft.
89	Metal Fire Door & Frame w/ Windows	Assumed	8 Ct.
98	Exterior Fire Door and Frame	Assumed	18 Ct.

All assumed materials should be sampled prior to them being removed from the building or impacted by the renovation. To sample some materials, destructive sampling methods will be deployed so the sampling should be carried out when the building is no longer occupied and is turned over for renovation.

Quantities in these tables represent materials that were accessible at the time of the inspection. Additional quantities and materials may exist that were not accessible at the time of the inspection based on our project scope.

## 4.0 PAINT CONTAINING HEAVY METALS

### 4.1 Inspection and Sampling Procedures

On Tuesday, October 3, 2023, BDN conducted a visual assessment and identified commonly painted surfaces in the building likely to be impacted by renovation activities.

Following the assessment, a total of three (3) chip samples of paints suspected to be heavy-metal containing were collected. The samples were submitted to Eurofins, which is accredited by the American Industrial Hygiene Associates (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP), for lead paint chip analysis via flame atomic absorption (FAA).

### 4.2 Findings and Conclusions

Chromium was not detected at concentrations above the laboratory reporting limits in any of the three collected samples. Cadmium was not detected above the laboratory reporting limit in any of the three collected samples. Lead was detected in two of the three collected samples. The chain of custody and analytical data for the paint chip samples is included in **Appendix G – Analytical Reports – Heavy Metals** of this report. A summary of the descriptions of lead, cadmium, and chromium-bearing paints, paint locations, as well as lead, cadmium, and chromium content of the paint chip samples are presented in the table below:

Paint Containing HEAVY METALS				
PC #	Description / Location of Material	Results by % of weight		
		Chromium	Cadmium	Lead
1	White paint on Ceramic Block	<0.00114	<0.00114	<0.00114
2	White paint on Metal Window Lintel	<0.00112	<0.00112	<b>0.00490</b>
3	White paint on Metal Uninsulated Pipe	<0.00102	<0.00102	<b>0.0163</b>

#### **RL: Reporting Limit**

The OSHA construction standard does not specifically list the concentration of a metal that is considered to be hazardous within a building material. The building owner is obligated to inform their employees or any contractors that heavy metals were detected within the building and provide them with a copy of the analytical report. The employer of person who has been hired by the building owner or a representative of the building owner to perform any work within the building must perform monitoring for their employees, depending on the scope of work, when heavy metals are present on a job site. Contractors that may be impacting these materials are responsible for performing lead-safe work practices.



The OSHA Lead Exposure in Construction Standard (29 CFR Part 1926.62), OSHA Cadmium in Construction Standard (29 CFR Part 1926.1027), and OSHA Chromium (VI) in Construction Standard (29 CFR Part 19126.1126) are applicable to construction activities when lead, cadmium, or chromium are present regardless of their concentrations in paints. If heavy metal-bearing paints are subjected to demolition forces that may cause paint particles to become airborne, unacceptable levels of heavy-metal exposure to on-site personnel and environmental contamination could result. These paints could pose inhalation or ingestion exposure hazards if subjected to torch cutting, welding/burning, or if pulverized and concentrated to a dust.

If heavy-metal-bearing coatings or paints are to be removed by manual demolition of structural surfaces, manual scraping, manual sanding, heat gun applications, power tool cleaning, torch cutting, or welding, then the employees must be trained, and exposures must be assessed in accordance with the OSHA Lead and Cadmium in Construction Standards. When lead, cadmium, or chromium is present at any concentration, employers are required to assess their workers' exposures to airborne lead or cadmium dust/fumes. The employer must perform an exposure assessment to determine if any employee is exposed at or above the action level or permissible exposure limit as calculated over a time-weighted average (TWA).

## **5.0 REGULATORY COMPLIANCE AND OBLIGATIONS**

The OSHA Asbestos Standard for Construction, (29 CFR 1926.1101), MIOSHA Part 305, and the OSHA Asbestos Standard for General Industry, (29 CFR 1910.1001), requires that all building facilities (excluding owner-occupied residential homes) constructed prior to 1981, where employees may enter, work, or contact building materials must be inspected for asbestos-containing building materials (ACBM). Also, all such buildings scheduled for renovation or demolition must have an asbestos building inspection completed prior to the start of the renovation or demolition. The inspection must adhere to the Asbestos Hazard Emergency Response Act (AHERA) inspection protocol and be performed by a Michigan accredited asbestos building inspector or Certified Industrial Hygienist (CIH). The building inspection must also include the presence, location, and quantity of all suspected ACBM. Additionally, laboratory analysis information should be a part of the building inspection document.

The Michigan Asbestos Abatement Contractors Licensing Act (i.e., Act 135, P.A. 1986, as amended) requires asbestos abatement contractors and exempt trade groups to notify the Michigan Labor and Economic Opportunity (MLEO) Asbestos Program of any asbestos abatement project exceeding 10 linear feet or 15 square feet, or both, of friable asbestos materials. This requires a 10-calendar day notice.



The Notification of Intent to Renovate/Demolish form required by the USEPA NESHAP regulations must be prepared and submitted to EGLE at least 10 working days prior to demolition of a building, regardless of whether or not ACMs are present in the building. If ACM is present and included for removal and the quantity is greater than 260 linear feet and/or 160 square feet, a 10 working-day notice is required.

## 6.0 LIMITATIONS

At the time this inspection was conducted, BDN was faced with the following limitations:

- At the time of the inspection, BDN assumed all fire doors as asbestos-containing due to the unknown demolition scope of work and/or doors being re-purposed. BDN noted within the inspection if any suspect material was observed but did not disturb the integrity of the fire door(s) by performing destructive sampling techniques to confirm the fire door(s) as asbestos-containing or not.
- The building was occupied at the time of the inspection, so BDN could not perform destructive investigation measures to search for the presence of hidden ACM. BDN utilized non-destructive methods to the best of our ability. BDN recommends further demolition activities once the building is ready for demolition to identify the presence of hidden materials. BDN recommends materials uncovered during demolition for which no analytical data exists to be treated as ACM and handled accordingly.
- Energized electrical components were not evaluated as part of this inspection for safety reasons. Examples of potential asbestos-containing electrical components are switchgear, high-voltage transmission lines, breaker boxes, and other electrical components with insulators and backer boards.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

BDN recommends that an asbestos abatement project design be developed by a State of Michigan accredited Asbestos Project Designer prior to any abatement or demolition/renovation activities begin. Additionally, BDN recommends the building owner hire an on-site consultant and hygienist to perform third-party asbestos air monitoring and perform clearance inspections throughout the duration of the abatement process.

BDN recommends the additional sampling of assumed asbestos-containing materials to determine their actual asbestos content.

If suspect ACMs not identified within the report are encountered during demolition activities for which no analytical data exists, BDN recommends the material(s) remain undisturbed until the asbestos content of the material(s) is determined in accordance with USEPA and OSHA regulations.

**BDN's quantities are intended to be "Order of Magnitude" estimates, and the estimated quantities**



**and other information in this report should not be used as an exclusive source of information for bid formulation or for notification to regulatory agencies.**

BDN recommends that any contractor performing work within the building have adequate and up-to-date asbestos and lead awareness training. The building owner is obligated to inform any contractors that heavy metals were detected at the projected work site and provide them with a copy of the analytical report. The employer of any construction trade that may be impacting materials containing heavy metals must perform exposure monitoring on their employees to comply with the OSHA construction standard.

The asbestos-containing materials identified in this inspection that may be disturbed during demolition activities are required to be removed prior to the commencement of those activities by a State of Michigan accredited asbestos abatement contractor.

The asbestos-containing materials identified in this inspection that remain must be included as part of a Hazard Communication Program as required by OSHA Standard 29CFR1910.1101. It is also recommended that an asbestos Operations and Maintenance (O&M) plan be implemented to prevent the disturbance of these materials.

Materials categorized as universal waste must be handled appropriately prior to disturbance and must be disposed of properly following all federal, state, and local laws regarding the disposal of hazardous materials.

If there are any questions regarding this report, please contact us.

**End of report**



# **Appendix A**

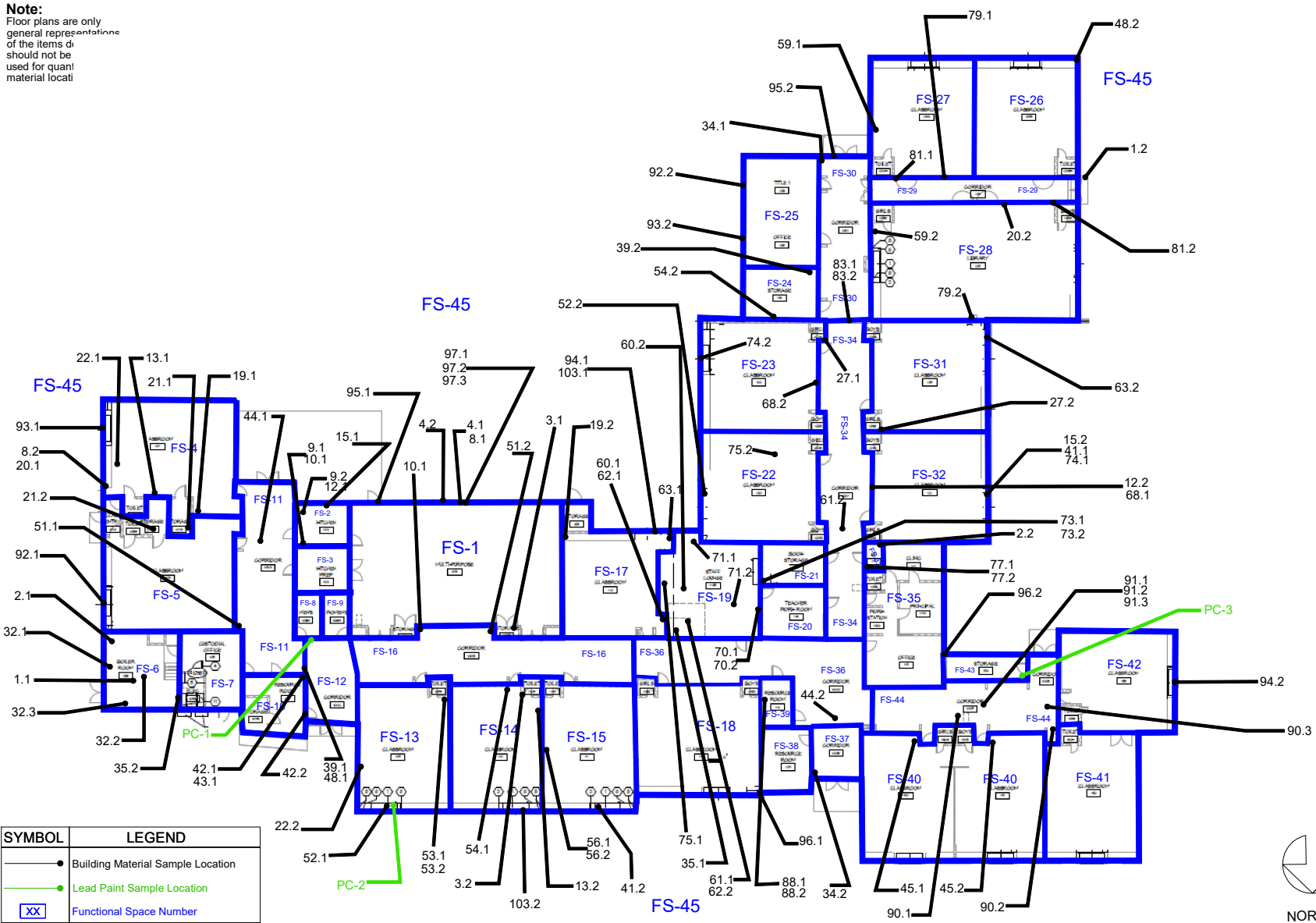
## **CAD Diagrams**

BDN Project No.: P23-00304

**Cumberland Elementary – Lansing Public Schools**

October 2023

**Note:**  
Floor plans are only general representations of the items displayed and should not be used for quantitative material location.



SYMBOL	LEGEND
●	Building Material Sample Location
●	Lead Paint Sample Location
XX	Functional Space Number



**Lansing Public Schools**  
Cumberland Elementary  
2801 Cumberland Road  
Lansing, Michigan 48906

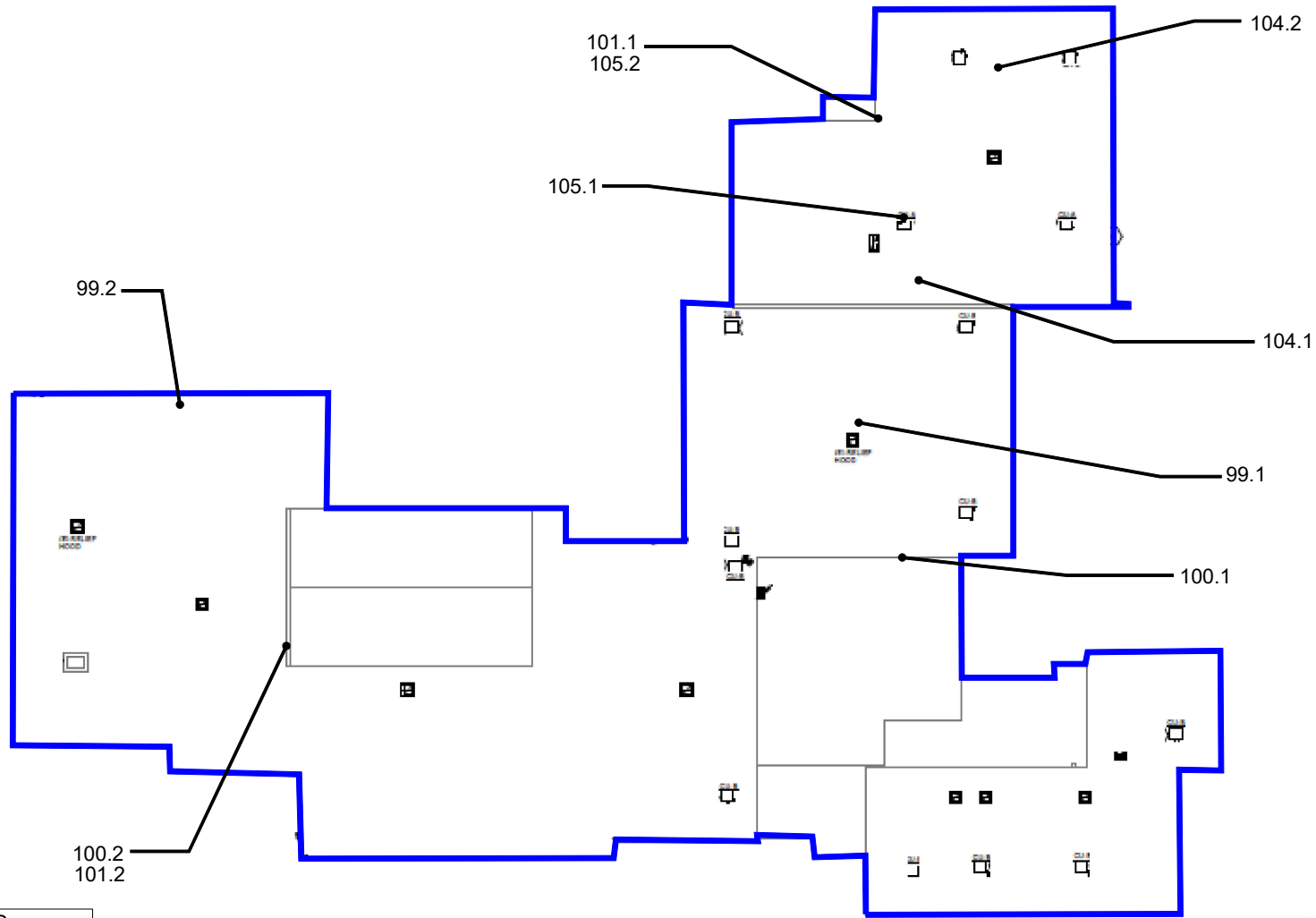
Revisions	
Description	Date

Project Name: **Cumberland Elementary**  
Drawing Title: **Asbestos Sample Location Map**

Sheet Number:  
**1 of 1**  
BDN Project No. P23-00304  
**APPENDIX A**



**Note:**  
Floor plans are only general representations of the items depicted and should not be the only method used for quantification of material locations.



SYMBOL	LEGEND
●	Building Material Sample Location
●	Lead Paint Sample Location
XX	Functional Space Number



**Lansing Public Schools**  
Cumberland Elementary  
2801 Cumberland Road  
Lansing, Michigan 48906

**Revisions**

Description	Date
▲	
▲	
▲	
▲	
▲	

Project Name:  
**Cumberland Elementary  
Roof / Exterior**  
Drawing Title:  
**Asbestos Sample Location Map**

Sheet Number:

1 of 1

BDN Project No. P23-00304

**APPENDIX A**



# **Appendix B**

## **Room by Room Inventory**

BDN Project No.: P23-00304

**Cumberland Elementary – Lansing Public Schools**

October 2023

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	01-Multipurpose Rm 108 (60'x35')	1	Concrete	No	2100	s.f.	NF	U	
1st	01-Multipurpose Rm 108 (60'x35')	2	CMU Block	No	3070	s.f.	NF	U	
1st	01-Multipurpose Rm 108 (60'x35')	3	Vinyl Floor tile and associated mastic 12 x 12 Brown specs	No	2100	s.f.	NF	U	
1st	01-Multipurpose Rm 108 (60'x35')	4	Tectum- White	No	560	s.f.	F	U	
1st	01-Multipurpose Rm 108 (60'x35')	5	Metal Pan Ceiling Squares w/ Insulation 9 x 9 Pinhole	NSM	2100	s.f.	NF	U	
1st	01-Multipurpose Rm 108 (60'x35')	6	Wood Fire doors and Frame	Assumed	6	ct.	NF	U	
1st	01-Multipurpose Rm 108 (60'x35')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
1st	01-Multipurpose Rm 108 (60'x35')	8	Caulk- Interior Window - Beige	No	5	s.f.	NF	U	
1st	01-Multipurpose Rm 108 (60'x35')	17	Metal Roof Deck	NSM	2100	s.f.	NF	U	Assumed to be above metal pan ceiling
1st	02- Kitchen Prep Rm 102 (17' x 12')	1	Concrete	No	204	s.f.	NF	U	
1st	02- Kitchen Prep Rm 102 (17' x 12')	2	CMU Block	No	850	s.f.	NF	U	
1st	02- Kitchen Prep Rm 102 (17' x 12')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	02- Kitchen Prep Rm 102 (17' x 12')	9	Vinyl Floor Tile and Associated Mastic - 9 x 9 Tan w/ Brown Specs	No	24	s.f.	NF	U	
<b>1st</b>	<b>02- Kitchen Prep Rm 102 (17' x 12')</b>	<b>10</b>	<b>Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks</b>	<b>Yes</b>	<b>180</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	02- Kitchen Prep Rm 102 (17' x 12')	11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	204	s.f.	F	U	
1st	02- Kitchen Prep Rm 102 (17' x 12')	12	Covebase and associated adhesive - 4 in. Brown	No	54	s.f.	NF	U	
<b>1st</b>	<b>02- Kitchen Prep Rm 102 (17' x 12')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>6</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	02- Kitchen Prep Rm 102 (17' x 12')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	50	s.f.	NF	U	

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	02- Kitchen Prep Rm 102 (17' x 12')	15	Caulk interior Window - Grey	No	12	s.f.	NF	U	
1st	02- Kitchen Prep Rm 102 (17' x 12')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single Speaker on Eastern wall
1st	02- Kitchen Prep Rm 102 (17' x 12')	17	Metal Roof Deck	NSM	204	s.f.	NF	U	
1st	03- Kitchen Prep Rm 104 (17' X 14')	1	Concrete	No	240	s.f.	NF	U	
1st	03- Kitchen Prep Rm 104 (17' X 14')	2	CMU Block	No	4021	s.f.	NF	U	
1st	03- Kitchen Prep Rm 104 (17' X 14')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
<b>1st</b>	<b>03- Kitchen Prep Rm 104 (17' X 14')</b>	<b>10</b>	<b>Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks</b>	<b>Yes</b>	<b>240</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	03- Kitchen Prep Rm 104 (17' X 14')	12	Covebase and associated adhesive - 4 in. Brown	No	40	s.f.	NF	U	
1st	03- Kitchen Prep Rm 104 (17' X 14')	17	Metal Roof Deck	NSM	240	s.f.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	1	Concrete	No	1300	s.f.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	2	CMU Block	No	1450	s.f.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	7	Wood Fire door and Frame w/ Windows	Assumed	1	ct.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	8	Caulk- Interior Window - Beige	No	10	s.f.	NF	U	Observed ONLY on upper window frame
1st	04 - Classroom 101 ( 36' X 36')	11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	1300	s.f.	F	U	
<b>1st</b>	<b>04 - Classroom 101 ( 36' X 36')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	04 - Classroom 101 ( 36' X 36')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	20	s.f.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on west wall

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	04 - Classroom 101 ( 36' X 36')	17	Metal Roof Deck	NSM	1300	s.f.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	18	Adhesive- Associate Carpet	Assumed	900	s.f.	NF	U	
<b>1st</b>	<b>04 - Classroom 101 ( 36' X 36')</b>	<b>19</b>	<b>Vinyl Floor Tile w/ Associated Mastic- 9"x9" Tan w/ Red &amp; Black Streaks</b>	<b>Yes</b>	<b>1100</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	04 - Classroom 101 ( 36' X 36')	20	Covebase w/ associated Mastic 4 in Black	No	50	s.f.	NF	U	
<b>1st</b>	<b>04 - Classroom 101 ( 36' X 36')</b>	<b>21</b>	<b>Vinyl Floor Tile- 9 X 9 Green w/ Tan &amp; Black Streaks</b>	<b>Yes</b>	<b>100</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	04 - Classroom 101 ( 36' X 36')	22	Vinyl Floor Tile 9 X 9 Black w/ White Specs	No	10	s.f.	NF	U	Single row of floor tile
1st	04 - Classroom 101 ( 36' X 36')	23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	50	s.f.	NF	U	Restroom
1st	04 - Classroom 101 ( 36' X 36')	24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	120	s.f.	NF	U	Restroom
1st	04 - Classroom 101 ( 36' X 36')	25	Chalkboard- Green	Assumed	100	s.f.	NF	U	Single Large Chalkboard on southern wall
1st	04 - Classroom 101 ( 36' X 36')	50	Display Board	Assumed	120	s.f.	NF	U	
1st	04 - Classroom 101 ( 36' X 36')	52	Covebase w/ adhesive 2 in. - Tan	No	10	s.f.	NF	U	
1st	05- Classroom 103 (36' X 30')	1	Concrete	No	1080	s.f.	NF	U	
1st	05- Classroom 103 (36' X 30')	2	CMU Block	No	3020	s.f.	NF	U	
1st	05- Classroom 103 (36' X 30')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	05- Classroom 103 (36' X 30')	8	Caulk- Interior Window - Beige	No	10	s.f.	NF	U	Observed ONLY on upper window frame
1st	05- Classroom 103 (36' X 30')	11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	1080	s.f.	F	U	
<b>1st</b>	<b>05- Classroom 103 (36' X 30')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	05- Classroom 103 (36' X 30')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	20	s.f.	NF	U	
1st	05- Classroom 103 (36' X 30')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single Speaker on West Wall
1st	05- Classroom 103 (36' X 30')	17	Metal Roof Deck	NSM	1080	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	05- Classroom 103 (36' X 30')	18	Adhesive- Associate Carpet	Assumed	820	s.f.	NF	U	
1st	<b>05- Classroom 103 (36' X 30')</b>	<b>19</b>	<b>Vinyl Floor Tile w/ Associated Mastic- 9"x9" Tan w/ Red &amp; Black Streaks</b>	<b>Yes</b>	<b>1080</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	05- Classroom 103 (36' X 30')	20	Covebase w/ associated Mastic 4 in Black	No	40	s.f.	NF	U	
1st	<b>05- Classroom 103 (36' X 30')</b>	<b>21</b>	<b>Vinyl Floor Tile- 9 X 9 Green w/ Tan &amp; Black Streaks</b>	<b>Yes</b>	<b>80</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	05- Classroom 103 (36' X 30')	22	Vinyl Floor Tile 9 X 9 Black w/ White Specs	No	10	s.f.	NF	U	Single Line of floor tile
1st	05- Classroom 103 (36' X 30')	23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	40	s.f.	NF	U	Restroom Floors
1st	05- Classroom 103 (36' X 30')	24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	100	s.f.	NF	U	Restroom Walls
1st	05- Classroom 103 (36' X 30')	25	Chalkboard- Green	Assumed	80	s.f.	NF	U	Single large chalkboard on Northern Wall
1st	05- Classroom 103 (36' X 30')	26	Caulk- Interior Door Frame	Assumed	30	s.f.	NF	U	
1st	<b>05- Classroom 103 (36' X 30')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>10</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	05- Classroom 103 (36' X 30')	28	Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor	Assumed	60	s.f.	NF	U	Present in eastern entry
1st	05- Classroom 103 (36' X 30')	50	Display Board	Assumed	120	s.f.	NF	U	
1st	05- Classroom 103 (36' X 30')	52	Covebase w/ adhesive 2 in. - Tan	No	10	s.f.	NF	U	
1st	06- Boiler Rm 36 (24' X 14')	1	Concrete	No	340	s.f.	NF	U	Tunnels Access Present in Boiler Room
1st	06- Boiler Rm 36 (24' X 14')	2	CMU Block	No	1320	s.f.	NF	U	
1st	06- Boiler Rm 36 (24' X 14')	17	Metal Roof Deck	NSM	340	s.f.	NF	U	
1st	<b>06- Boiler Rm 36 (24' X 14')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>10</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	06- Boiler Rm 36 (24' X 14')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	
1st	06- Boiler Rm 36 (24' X 14')	31	Fiberglass Straight Pipe Insulation	NSM	620	l.f.	F	U	Number does not include fiberglass present in tunnels
1st	06- Boiler Rm 36 (24' X 14')	32	Gasket(s)	No	17	ct.	F	U	
1st	06- Boiler Rm 36 (24' X 14')	33	Boiler	Assumed	820	c.f.	NF	U	Large Single Boiler
1st	06- Boiler Rm 36 (24' X 14')	34	Door Frame Caulk	No	5	s.f.	NF	U	
1st	06- Boiler Rm 36 (24' X 14')	35	Caulk- Firestop - Red	No	20	s.f.	NF	U	Present at conduit penetrations

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	06- Boiler Rm 36 (24' X 14')	36	Boiler Supply/Return Line 24 in	Assumed	20	l.f.	F	U	Single Supply/Return Horizontal Line present off boiler running into wall
1st	07 - Custodial Office Rm 105 (17' X 13')	1	Concrete	No	900	s.f.	NF	U	
1st	07 - Custodial Office Rm 105 (17' X 13')	2	CMU Block	No	225	s.f.	NF	U	
1st	07 - Custodial Office Rm 105 (17' X 13')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	07 - Custodial Office Rm 105 (17' X 13')	17	Metal Roof Deck	NSM	225	s.f.	NF	U	
1st	07 - Custodial Office Rm 105 (17' X 13')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	Into Electrical Room
1st	07 - Custodial Office Rm 105 (17' X 13')	31	Fiberglass Straight Pipe Insulation	NSM	62	l.f.	F	U	
1st	07 - Custodial Office Rm 105 (17' X 13')	35	Caulk- Firestop - Red	No	12	s.f.	NF	U	
1st	07 - Custodial Office Rm 105 (17' X 13')	37	Electrical Equipment	Assumed		s.f.	NF	U	Various Breaker boxes, transformers and electrical equipment present
1st	08 - Men's Restroom Rm 106 (11' X 8')	1	Concrete	No	88	s.f.	NF	U	
1st	08 - Men's Restroom Rm 106 (11' X 8')	2	CMU Block	No	352	s.f.	NF	U	
1st	08 - Men's Restroom Rm 106 (11' X 8')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	08 - Men's Restroom Rm 106 (11' X 8')	11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	44	s.f.	F	U	
1st	08 - Men's Restroom Rm 106 (11' X 8')	17	Metal Roof Deck	NSM	44	s.f.	NF	U	
1st	08 - Men's Restroom Rm 106 (11' X 8')	29	Ceramic Block w/ associated grout 12' X 18' - Green	Assumed	176	s.f.	NF	U	
1st	08 - Men's Restroom Rm 106 (11' X 8')	38	Ceramic Tile w. associated grout & bedding Multi-colored Tan	Assumed	44	s.f.	NF	U	



## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	08 - Men's Restroom Rm 106 (11' X 8')	39	Ceiling Tile 2' X 2 Pinhole	No	88	s.f.	F	U	
1st	08 - Men's Restroom Rm 106 (11' X 8')	40	Restroom Doors	Assumed	100	s.f.	NF	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	1	Concrete	No	88	s.f.	NF	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	2	CMU Block	No	352	s.f.	NF	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	88	s.f.	F	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	17	Metal Roof Deck	NSM	88	s.f.	NF	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	29	Ceramic Block w/ associated grout 12' X 18' - Green	Assumed	176	s.f.	NF	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	38	Ceramic Tile w. associated grout & bedding Multi-colored Tan	Assumed	88	s.f.	NF	U	
1st	09 - Women's Restroom Rm 108 (11' X 8')	40	Restroom Doors	Assumed	100	s.f.	NF	U	
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	1	Concrete	No	290	s.f.	NF	U	
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	2	CMU Block	No	1150	s.f.	NF	U	
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	7	Wood Fire door and Frame w/ Windows	Assumed	3	ct.	NF	U	
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	290	s.f.	F	U	
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	12	Covebase and associated adhesive - 4 in. Brown	No	30	s.f.	NF	U	
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on southern wall
1st	10 - Quiet Rm/Break Rm 107 (17' X 17)	17	Metal Roof Deck	NSM	290	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	10 - Quiet Rm/Break Rm 107 (17' X 17')	41	Interior Window Glazing	Yes	80	s.f.	NF	U	Present on northern window system, 4 window systems at 6' X 4'
1st	10 - Quiet Rm/Break Rm 107 (17' X 17')	42	Vinyl Floor Tiles w/ associated Mastic 9 X 9 - Tan w/ Brown specs	Yes	145	s.f.	NF	U	
1st	10 - Quiet Rm/Break Rm 107 (17' X 17')	43	Vinyl Floor Tiles w/ associated mastic 9 X 9 - Brown w/ Dark Brown Specs	Yes	145	s.f.	NF	U	
1st	11 - Corridor 100A (52' X 11')	1	Concrete	No	575	s.f.	NF	U	
1st	11 - Corridor 100A (52' X 11')	2	CMU Block	No	760	s.f.	NF	U	
1st	11 - Corridor 100A (52' X 11')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	450	s.f.	NF	U	Present along perimeter of coridor
1st	11 - Corridor 100A (52' X 11')	31	Fiberglass Straight Pipe Insulation	NSM	40	l.f.	F	U	Present above ceiling tiles, horizontal lines present above ceiling tiles
1st	11 - Corridor 100A (52' X 11')	39	Ceiling Tile 2' X '2 Pinhole	No	575	s.f.	F	U	
1st	11 - Corridor 100A (52' X 11')	44	Pre-cast Concrete Panels	No	575	s.f.	NF	U	
1st	11 - Corridor 100A (52' X 11')	46	Vinyl Floor Tile w/ associated Mastic 9 X 9- Cream w/ Brown Specs	No	20	s.f.	NF	U	Only present in front of drinking fountain
1st	11 - Corridor 100A (52' X 11')	47	Ceramic Tile w/ associated grout and bedding- Orange 4 in. wall tile	Assumed	10	s.f.	NF	U	Present as baseboard along brick & mortar
1st	11 - Corridor 100A (52' X 11')	48	Brick & Mortar - Tan	No	120	s.f.	NF	U	
1st	11 - Corridor 100A (52' X 11')	49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	450	s.f.	NF	U	Painted over w/ half white & half blue paint
1st	11 - Corridor 100A (52' X 11')	50	Display Board	Assumed	35	s.f.	NF	U	Single board on Eastern Wall
1st	11 - Corridor 100A (52' X 11')	51	Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks	Yes	122	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	1	Concrete	No	280	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	2	CMU Block	No	220	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	3	Vinyl Floor tile and associated mastic 12 x 12 Brown specs	No	16	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	5	Metal Pan Ceiling Squares w/ Insulation 9 x 9 Pinhole	NSM	280	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	110	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	12- Corridor 100C (20' X 14')	17	Metal Roof Deck	NSM	280	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	26	Caulk- Interior Door Frame	Assumed	12	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	28	Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor	Assumed	196	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	31	Fiberglass Straight Pipe Insulation	NSM	20	l.f.	F	U	Horizontal Lines present above Ceiling
1st	12- Corridor 100C (20' X 14')	47	Ceramic Tile w/ associated grout and bedding- Orange 4 in. wall tile	Assumed	35	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	48	Brick & Mortar - Tan	No	130	s.f.	NF	U	Can Sample above Ceiling
1st	12- Corridor 100C (20' X 14')	49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	180	s.f.	NF	U	
1st	12- Corridor 100C (20' X 14')	50	Display Board	Assumed		s.f.	NF	U	
<b>1st</b>	<b>12- Corridor 100C (20' X 14')</b>	<b>51</b>	<b>Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks</b>	<b>Yes</b>	<b>20</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	13 - Classroom 109 (25' X 35')	1	Concrete	No	875	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	2	CMU Block	No	1250	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	13 - Classroom 109 (25' X 35')	8	Caulk- Interior Window - Beige	No	10	s.f.	NF	U	Present ONLY above window
1st	13 - Classroom 109 (25' X 35')	11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	875	s.f.	F	U	
<b>1st</b>	<b>13 - Classroom 109 (25' X 35')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	13 - Classroom 109 (25' X 35')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	15	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on southern wall
1st	13 - Classroom 109 (25' X 35')	18	Adhesive- Associate Carpet	Assumed	800	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	20	Covebase 4 in Black	No	70	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	22	Vinyl Floor Tile 9 X 9 Black w/ White Specs	No	10	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	13 - Classroom 109 (25' X 35')	23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	40	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	80	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	2 Boards; ON east and West walls
1st	13 - Classroom 109 (25' X 35')	50	Display Board	Assumed	80	s.f.	NF	U	
1st	13 - Classroom 109 (25' X 35')	52	Covebase w/ adhesive 2 in. - Tan	No	20	s.f.	NF	U	
<b>1st</b>	<b>13 - Classroom 109 (25' X 35')</b>	<b>53</b>	<b>Vinyl Floor Tiles &amp; associated mastic 9 X 9 - Cream w/ Black Streaks</b>	<b>Yes</b>	<b>875</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>Assumed to be under carpet also</b>
1st	14 - Classroom 110 (35' X 25')	1	Concrete	No	875	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	2	CMU Block	No	1250	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	3	Vinyl Floor tile and associated mastic 12 x 12 Brown specs	No	5	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	14 - Classroom 110 (35' X 25')	8	Caulk- Interior Window - Beige	No	10	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	875	s.f.	F	U	
<b>1st</b>	<b>14 - Classroom 110 (35' X 25')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	14 - Classroom 110 (35' X 25')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	15	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on southern wall
1st	14 - Classroom 110 (35' X 25')	17	Metal Roof Deck	NSM	875	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	20	Covebase w/ associated Mastic 4 in Black	No	70	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	40	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	14 - Classroom 110 (35' X 25')	24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	80	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	50	Display Board	Assumed	80	s.f.	NF	U	
1st	14 - Classroom 110 (35' X 25')	52	Covebase w/ adhesive 2 in. - Tan	No	20	s.f.	NF	U	
<b>1st</b>	<b>14 - Classroom 110 (35' X 25')</b>	<b>54</b>	<b>Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks</b>	<b>Yes</b>	<b>800</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	14 - Classroom 110 (35' X 25')	55	Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Cream w/ Green Streaks	Assumed	60	s.f.	NF	U	Present in northern part of space
1st	15 - Classroom 111 ( 35' X 25')	1	Concrete	No	875	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	2	CMU Block	No	1250	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	8	Caulk- Interior Window - Beige	No	10	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	9	Vinyl Floor Tile and Associated Mastic - 9 x 9 Tan w/ Brown Specs	No	10	s.f.	NF	U	Present speratically throughout space
1st	15 - Classroom 111 ( 35' X 25')	11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	875	s.f.	F	U	
1st	15 - Classroom 111 ( 35' X 25')	12	Covebase and associated adhesive - 4 in. Brown	No	70	s.f.	NF	U	
<b>1st</b>	<b>15 - Classroom 111 ( 35' X 25')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	15 - Classroom 111 ( 35' X 25')	14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	15	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on southern wall
1st	15 - Classroom 111 ( 35' X 25')	17	Metal Roof Deck	NSM	875	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	40	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	15 - Classroom 111 ( 35' X 25')	24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	80	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	25	Chalkboard- Green	Assumed	120	s.f.	NF	U	Painted over w/ black paint
<b>1st</b>	<b>15 - Classroom 111 ( 35' X 25')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>18</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>Present in Corners of space</b>
1st	15 - Classroom 111 ( 35' X 25')	50	Display Board	Assumed	100	s.f.	NF	U	
1st	15 - Classroom 111 ( 35' X 25')	52	Covebase w/ adhesive 2 in. - Tan	No	20	s.f.	NF	U	Painted over w/ pink paint
<b>1st</b>	<b>15 - Classroom 111 ( 35' X 25')</b>	<b>56</b>	<b>Vinyl Floor Tile w/ associated Mastic 9 X 9 - Tan w/ multi-color streaks</b>	<b>Yes</b>	<b>855</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	15 - Classroom 111 ( 35' X 25')	57	Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Brown w/ Multi-color Specs	Assumed	10	s.f.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	1	Concrete	No	924	s.f.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	2	CMU Block	No	1400	s.f.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	7	Wood Fire door and Frame w/ Windows	Assumed	3	ct.	NF	U	
<b>1st</b>	<b>16 - Corridor 100 B ( 12' X 77')</b>	<b>10</b>	<b>Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks</b>	<b>Yes</b>	<b>800</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	16 - Corridor 100 B ( 12' X 77')	31	Fiberglass Straight Pipe Insulation	NSM	231	l.f.	F	U	3 Horizontal Lines running above Ceiling
1st	16 - Corridor 100 B ( 12' X 77')	39	Ceiling Tile 2' X '2 Pinhole	No	924	s.f.	F	U	
1st	16 - Corridor 100 B ( 12' X 77')	44	Pre-cast Concrete Panels	No	924	s.f.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	900	s.f.	NF	U	
1st	16 - Corridor 100 B ( 12' X 77')	50	Display Board	Assumed	120	s.f.	NF	U	
<b>1st</b>	<b>16 - Corridor 100 B ( 12' X 77')</b>	<b>51</b>	<b>Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks</b>	<b>Yes</b>	<b>94</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	16 - Corridor 100 B ( 12' X 77')	58	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Maroon w/ Multi-color	Assumed	30	s.f.	NF	U	

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	17 - Classroom 112 ( 26' X 29')	1	Concrete	No	754	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	2	CMU Block	No	520	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	8	Caulk- Interior Window - Beige	No	45	s.f.	NF	U	Present around entire window system
1st	17 - Classroom 112 ( 26' X 29')	12	Covebase and associated adhesive - 4 in. Brown	No	60	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Present on northern wall above entry door
1st	17 - Classroom 112 ( 26' X 29')	17	Metal Roof Deck	NSM	754	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	20	Covebase w/ associated Mastic 4 in Black	No	50	s.f.	NF	U	
<b>1st</b>	<b>17 - Classroom 112 ( 26' X 29')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>25</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>Present in corners of space and where brick &amp; mortar joins CMU</b>
1st	17 - Classroom 112 ( 26' X 29')	48	Brick & Mortar - Tan	No	520	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	50	Display Board	Assumed	60	s.f.	NF	U	
<b>1st</b>	<b>17 - Classroom 112 ( 26' X 29')</b>	<b>59</b>	<b>Sink Undercoating - Grey</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	17 - Classroom 112 ( 26' X 29')	60	Drywall - Gypsum Board	No	410	s.f.	NF	U	Present as Western Wall in space; No joint compound observed
<b>1st</b>	<b>17 - Classroom 112 ( 26' X 29')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>754</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
<b>1st</b>	<b>17 - Classroom 112 ( 26' X 29')</b>	<b>62</b>	<b>Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red &amp; Black Streaks</b>	<b>Yes</b>	<b>754</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	17 - Classroom 112 ( 26' X 29')	63	Covebase w/ associated Mastic 2 in. - Black	No	20	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	64	Chalkboard - Black	Assumed	70	s.f.	NF	U	
1st	17 - Classroom 112 ( 26' X 29')	65	Formica Countertops w/ associated adhesive - Grey	Assumed	10	s.f.	NF	U	



## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	18 - Classroom 113 (31' X 34')	1	Concrete	No	1054	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	2	CMU Block	No	1340	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	15	Caulk interior Window - Grey	No	10	s.f.	NF	U	Present ONLY above window
1st	18 - Classroom 113 (31' X 34')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Present on southern wall space
1st	18 - Classroom 113 (31' X 34')	17	Metal Roof Deck	NSM	1054	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	20	Covebase w/ associated Mastic 4 in Black	No	60	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	25	Chalkboard- Green	Assumed	180	s.f.	NF	U	Painted Blue
<b>1st</b>	<b>18 - Classroom 113 (31' X 34')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>20</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	18 - Classroom 113 (31' X 34')	50	Display Board	Assumed	160	s.f.	NF	U	
<b>1st</b>	<b>18 - Classroom 113 (31' X 34')</b>	<b>54</b>	<b>Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks</b>	<b>Yes</b>	<b>1054</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
<b>1st</b>	<b>18 - Classroom 113 (31' X 34')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>1054</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	18 - Classroom 113 (31' X 34')	63	Covebase w/ associated Mastic 2 in. - Black	No	20	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	100	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	130	s.f.	NF	U	
1st	18 - Classroom 113 (31' X 34')	68	Sink Undercoating - Pink	No	3	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	1	Concrete	No	756	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	2	CMU Block	No	740	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	12	Covebase and associated adhesive - 4 in. Brown	No	40	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	19 - Staff Lounge Rm 112 (28' X 27')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Present on western Wall
1st	19 - Staff Lounge Rm 112 (28' X 27')	17	Metal Roof Deck	NSM	756	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	25	Chalkboard- Green	Assumed	60	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	35	Caulk- Firestop - Red	No	10	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	60	Drywall - Gypsum Board	No	360	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	756	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	62	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red & Black Streaks	Yes	377	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	60	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	70	Vinyl Floor Tile 9 X 9 - Tan Marble	Yes	297	s.f.	NF	U	
1st	19 - Staff Lounge Rm 112 (28' X 27')	71	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Mint Green w/ Black & White Streaks	Yes	80	s.f.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	1	Concrete	No	255	s.f.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	2	CMU Block	No	620	s.f.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	255	s.f.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	12	Covebase and associated adhesive - 4 in. Brown	No	15	s.f.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	17	Metal Roof Deck	NSM	255	s.f.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	30	Metal Fire door & Frame	Assumed	2	ct.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	255	s.f.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	68	Sink Undercoating - Pink	No	3	s.f.	NF	U	

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	20 - Staff Work Room 116 (17' X 14')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	60	s.f.	NF	U	
1st	21 - Book Storage Rm 118 ( 18' X 11')	1	Concrete	No	198	s.f.	NF	U	
1st	21 - Book Storage Rm 118 ( 18' X 11')	2	CMU Block	No	580	s.f.	NF	U	
<b>1st</b>	<b>21 - Book Storage Rm 118 ( 18' X 11')</b>	<b>10</b>	<b>Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks</b>	<b>Yes</b>	<b>198</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	21 - Book Storage Rm 118 ( 18' X 11')	12	Covebase and associated adhesive - 4 in. Brown	No	50	s.f.	NF	U	
1st	21 - Book Storage Rm 118 ( 18' X 11')	17	Metal Roof Deck	NSM	198	s.f.	NF	U	
1st	21 - Book Storage Rm 118 ( 18' X 11')	26	Caulk- Interior Door Frame	Assumed	5	s.f.	NF	U	
<b>1st</b>	<b>21 - Book Storage Rm 118 ( 18' X 11')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>198</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	21 - Book Storage Rm 118 ( 18' X 11')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	60	s.f.	NF	U	
1st	21 - Book Storage Rm 118 ( 18' X 11')	73	HVAC Duct Wrap - Canvas	No	80	s.f.	F	U	Present along NE corner of wall as vertical line
1st	22 - Classroom 120 (32' X 30')	1	Concrete	No	960	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	2	CMU Block	No	1240	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	22 - Classroom 120 (32' X 30')	12	Covebase and associated adhesive - 4 in. Brown	No	20	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Single speaker on W wall
1st	22 - Classroom 120 (32' X 30')	17	Metal Roof Deck	NSM	960	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	2 Large display boardds on N & S wall
<b>1st</b>	<b>22 - Classroom 120 (32' X 30')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>30</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>6 window systems at 6' X 4'</b>

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	22 - Classroom 120 (32' X 30')	50	Display Board	Assumed	160	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	52	Covebase w/ adhesive 2 in. - Tan	No	20	s.f.	NF	U	
<b>1st</b>	<b>22 - Classroom 120 (32' X 30')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	22 - Classroom 120 (32' X 30')	66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	60	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	110	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	68	Sink Undercoating - Pink	No	3	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	85	s.f.	NF	U	
1st	22 - Classroom 120 (32' X 30')	74	Caulk - Interior window - Black	No	10	s.f.	NF	U	ONLY present on top portion of Lentil
<b>1st</b>	<b>22 - Classroom 120 (32' X 30')</b>	<b>75</b>	<b>Vinyl Floor Tile W/ associated Mastic 9 X 9 - Tan w/ White streaks</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	23 - Classroom 122 (32' X 30')	1	Concrete	No	960	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	2	CMU Block	No	1240	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	23 - Classroom 122 (32' X 30')	12	Covebase and associated adhesive - 4 in. Brown	No	15	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	Present on W wall
1st	23 - Classroom 122 (32' X 30')	17	Metal Roof Deck	NSM	960	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	Painted over w/ black paint
1st	23 - Classroom 122 (32' X 30')	27	Caulk - Building Seam	Yes	20	s.f.	NF	U	
<b>1st</b>	<b>23 - Classroom 122 (32' X 30')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>20</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	23 - Classroom 122 (32' X 30')	50	Display Board	Assumed	180	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	52	Covebase w/ adhesive 2 in. - Tan	No	10	s.f.	NF	U	
<b>1st</b>	<b>23 - Classroom 122 (32' X 30')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	23 - Classroom 122 (32' X 30')	66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	60	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	90	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	68	Sink Undercoating - Pink	No	3	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	85	s.f.	NF	U	
1st	23 - Classroom 122 (32' X 30')	74	Caulk - Interior window - Black	No	30	s.f.	NF	U	6 window systems at 6' X 4'
1st	23 - Classroom 122 (32' X 30')	76	Formica Countertops - Pink	Assumed	15	s.f.	NF	U	
<b>1st</b>	<b>23 - Classroom 122 (32' X 30')</b>	<b>77</b>	<b>Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black &amp; cream streaks</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	24 - Storage Rm 124 (20' X 14')	1	Concrete	No	280	s.f.	NF	U	
1st	24 - Storage Rm 124 (20' X 14')	2	CMU Block	No	680	s.f.	NF	U	
1st	24 - Storage Rm 124 (20' X 14')	17	Metal Roof Deck	NSM	280	s.f.	NF	U	
1st	24 - Storage Rm 124 (20' X 14')	20	Covebase w/ associated Mastic 4 in Black	No	20	s.f.	NF	U	
1st	24 - Storage Rm 124 (20' X 14')	39	Ceiling Tile 2' X 2' Pinhole	No	280	s.f.	F	U	
<b>1st</b>	<b>24 - Storage Rm 124 (20' X 14')</b>	<b>54</b>	<b>Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks</b>	<b>Yes</b>	<b>280</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	25 - Classrooms 126 & 128 (20' X 30')	1	Concrete	No	600	s.f.	NF	U	
1st	25 - Classrooms 126 & 128 (20' X 30')	2	CMU Block	No	800	s.f.	NF	U	

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	25 - Classrooms 126 & 128 (20' X 30')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	
1st	25 - Classrooms 126 & 128 (20' X 30')	17	Metal Roof Deck	NSM	600	s.f.	NF	U	
1st	25 - Classrooms 126 & 128 (20' X 30')	20	Covebase w/ associated Mastic 4 in Black	No	50	s.f.	NF	U	
1st	25 - Classrooms 126 & 128 (20' X 30')	25	Chalkboard- Green	Assumed	80	s.f.	NF	U	
1st	25 - Classrooms 126 & 128 (20' X 30')	31	Fiberglass Straight Pipe Insulation	NSM	10	l.f.	F	U	Roof drain; NO mudded fittings observed
1st	25 - Classrooms 126 & 128 (20' X 30')	50	Display Board	Assumed	160	s.f.	NF	U	
1st	25 - Classrooms 126 & 128 (20' X 30')	54	Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks	Yes	600	s.f.	NF	U	
1st	25 - Classrooms 126 & 128 (20' X 30')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	600	s.f.	NF	U	
1st	25 - Classrooms 126 & 128 (20' X 30')	74	Caulk - Interior window - Black	No	10	s.f.	NF	U	2 Large windows E wall; 2 windows systems at 4' X 6'
1st	26 - Classroom 129 (32' X 28')	1	Concrete	No	896	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	2	CMU Block	No	600	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	26 - Classroom 129 (32' X 28')	17	Metal Roof Deck	NSM	896	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	20	Covebase w/ associated Mastic 4 in Black	No	40	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	25	Chalkboard- Green	Assumed	100	s.f.	NF	U	Painted over black
1st	26 - Classroom 129 (32' X 28')	34	Door Frame Caulk	No	5	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	41	Interior Window Glazing	Yes	6	s.f.	NF	U	2 windows at S wall at 4' X 6'

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	26 - Classroom 129 (32' X 28')	50	Display Board	Assumed	160	s.f.	NF	U	
1st	<b>26 - Classroom 129 (32' X 28')</b>	<b>59</b>	<b>Sink Undercoating - Grey</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	26 - Classroom 129 (32' X 28')	60	Drywall - Gypsum Board	No	600	s.f.	NF	U	
1st	<b>26 - Classroom 129 (32' X 28')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>896</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	26 - Classroom 129 (32' X 28')	74	Caulk - Interior window - Black	No	10	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	30	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	79	Vinyl Floor Tile w/ Associated Mastic 12" X 12" - Blue w/ Blue Specs	No	896	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	10	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	1	Concrete	No	1792	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	2	CMU Block	No	1120	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	17	Metal Roof Deck	NSM	1792	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	20	Covebase w/ associated Mastic 4 in Black	No	100	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	26	Caulk- Interior Door Frame	Assumed	10	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	31	Fiberglass Straight Pipe Insulation	NSM	32	l.f.	F	U	Horizontal line above ceiling running N to S
1st	<b>27 - Library Rooms 125 &amp; 125 B (32' X 56')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>6</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	50	Display Board	Assumed	200	s.f.	NF	U	
1st	<b>27 - Library Rooms 125 &amp; 125 B (32' X 56')</b>	<b>59</b>	<b>Sink Undercoating - Grey</b>	<b>Yes</b>	<b>6</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	



## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	27 - Library Rooms 125 & 125 B (32' X 56')	60	Drywall - Gypsum Board	No	560	s.f.	NF	U	
<b>1st</b>	<b>27 - Library Rooms 125 &amp; 125 B (32' X 56')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>1792</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	72	Formica Countertops w/ associated adhesive - White w/ Grey specs	Assumed	15	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	74	Caulk - Interior window - Black	No	10	s.f.	NF	U	2 large present on W wall; 4' X 6'
1st	27 - Library Rooms 125 & 125 B (32' X 56')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	60	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	79	Vinyl Floor Tile w/ Associated Mastic 12" X 12" - Blue w/ Blue Specs	No	1792	s.f.	NF	U	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	40	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	1	Concrete	No	896	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	2	CMU Block	No	600	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	28 - Classroom 127 (32' X 28')	17	Metal Roof Deck	NSM	896	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	20	Covebase w/ associated Mastic 4 in Black	No	70	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	25	Chalkboard- Green	Assumed	100	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	26	Caulk- Interior Door Frame	Assumed	5	s.f.	NF	U	
<b>1st</b>	<b>28 - Classroom 127 (32' X 28')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>6</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>2 window systems on S wall 4' X 6'</b>
1st	28 - Classroom 127 (32' X 28')	50	Display Board	Assumed	180	s.f.	NF	U	
<b>1st</b>	<b>28 - Classroom 127 (32' X 28')</b>	<b>59</b>	<b>Sink Undercoating - Grey</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	28 - Classroom 127 (32' X 28')	60	Drywall - Gypsum Board	No	600	s.f.	NF	U	

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	28 - Classroom 127 (32' X 28')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	896	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	74	Caulk - Interior window - Black	No	10	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	30	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	79	Vinyl Floor Tile w/ Associated Mastic 12" X 12" - Blue w/ Blue Specs	No	896	s.f.	NF	U	
1st	28 - Classroom 127 (32' X 28')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	10	s.f.	NF	U	
1st	29 - Corridor 127 (55' X 7')	1	Concrete	No	385	s.f.	NF	U	
1st	29 - Corridor 127 (55' X 7')	2	CMU Block	No	80	s.f.	NF	U	
1st	29 - Corridor 127 (55' X 7')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
1st	29 - Corridor 127 (55' X 7')	17	Metal Roof Deck	NSM	385	s.f.	NF	U	
1st	29 - Corridor 127 (55' X 7')	26	Caulk- Interior Door Frame	Assumed	15	s.f.	NF	U	
1st	29 - Corridor 127 (55' X 7')	31	Fiberglass Straight Pipe Insulation	NSM	7	l.f.	F	U	Single line above ceiling
1st	29 - Corridor 127 (55' X 7')	60	Drywall - Gypsum Board	No	1250	s.f.	NF	U	
1st	29 - Corridor 127 (55' X 7')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	385	s.f.	NF	U	
1st	29 - Corridor 127 (55' X 7')	79	Vinyl Floor Tile w/ Associated Mastic 12" X 12" - Blue w/ Blue Specs	No	385	s.f.	NF	U	
1st	29 - Corridor 127 (55' X 7')	81	Covebase w/ associated adhesive 8 in. - Black	No	80	s.f.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	1	Concrete	No	470	s.f.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	2	CMU Block	No	940	s.f.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	17	Metal Roof Deck	NSM	470	s.f.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	20	Covebase w/ associated Mastic 4 in Black	No	50	s.f.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	27	Caulk - Building Seam	Yes	30	s.f.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	31	Fiberglass Straight Pipe Insulation	NSM	181	l.f.	F	U	Multiple horizontal lines present above ceiling; 3 lines running N to S, 4 lines running E to W
1st	30 - Corridor 100 I (10' X 47')	50	Display Board	Assumed	80	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	30 - Corridor 100 I (10' X 47')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	470	s.f.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	82	Terrezzo - Red Specs	Assumed	470	s.f.	NF	U	
1st	30 - Corridor 100 I (10' X 47')	83	Firebreak paper w/ associated mastic - Black	Yes	20	s.f.	NF	U	Present at Corridor seam above ceiling
1st	31 - Classroom 123 (30' X 32')	1	Concrete	No	960	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	2	CMU Block	No	1120	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	31 - Classroom 123 (30' X 32')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	17	Metal Roof Deck	NSM	960	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	20	Covebase w/ associated Mastic 4 in Black	No	30	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	2 Large boards on N & S wall
1st	31 - Classroom 123 (30' X 32')	26	Caulk- Interior Door Frame	Assumed	10	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	27	Caulk - Building Seam	Yes	20	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	41	Interior Window Glazing	Yes	15	s.f.	NF	U	6 window systems on W wall at 4' X 6'
1st	31 - Classroom 123 (30' X 32')	50	Display Board	Assumed	80	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	54	Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks	Yes	960	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	960	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	63	Covebase w/ associated Mastic 2 in. - Black	No	10	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	60	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	100	s.f.	NF	U	

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	31 - Classroom 123 (30' X 32')	68	Sink Undercoating - Pink	No	3	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	110	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	74	Caulk - Interior window - Black	No	30	s.f.	NF	U	
1st	31 - Classroom 123 (30' X 32')	76	Formica Countertops - Pink	Assumed	10	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	1	Concrete	No	960	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	2	CMU Block	No	1120	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	32 - Classroom 121 (30' X 32')	9	Vinyl Floor Tile and Associated Mastic - 9 x 9 Tan w/ Brown Specs	No	10	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	12	Covebase and associated adhesive - 4 in. Brown	No	10	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	15	Caulk interior Window - Grey	No	15	s.f.	NF	U	6 large window systems on W wall at 4' X 6'
1st	32 - Classroom 121 (30' X 32')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	17	Metal Roof Deck	NSM	960	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	20	Covebase w/ associated Mastic 4 in Black	No	10	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	25	Chalkboard- Green	Assumed	200	s.f.	NF	U	Painted black
1st	32 - Classroom 121 (30' X 32')	26	Caulk- Interior Door Frame	Assumed	10	s.f.	NF	U	
<b>1st</b>	<b>32 - Classroom 121 (30' X 32')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>20</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
<b>1st</b>	<b>32 - Classroom 121 (30' X 32')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>30</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	32 - Classroom 121 (30' X 32')	49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	260	s.f.	NF	U	

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	32 - Classroom 121 (30' X 32')	50	Display Board	Assumed	180	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	52	Covebase w/ adhesive 2 in. - Tan	No	10	s.f.	NF	U	
<b>1st</b>	<b>32 - Classroom 121 (30' X 32')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	32 - Classroom 121 (30' X 32')	66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	60	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	100	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	68	Sink Undercoating - Pink	No	3	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	74	Caulk - Interior window - Black	No	15	s.f.	NF	U	6 large window systems on W wall at 4' X 6'
1st	32 - Classroom 121 (30' X 32')	76	Formica Countertops - Pink	Assumed	10	s.f.	NF	U	
<b>1st</b>	<b>32 - Classroom 121 (30' X 32')</b>	<b>77</b>	<b>Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black &amp; cream streaks</b>	<b>Yes</b>	<b>960</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	33 - Classroom 119 (6' X 8')	1	Concrete	No	48	s.f.	NF	U	
1st	33 - Classroom 119 (6' X 8')	2	CMU Block	No	280	s.f.	NF	U	
1st	33 - Classroom 119 (6' X 8')	17	Metal Roof Deck	NSM	48	s.f.	NF	U	
<b>1st</b>	<b>33 - Classroom 119 (6' X 8')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>48</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	33 - Classroom 119 (6' X 8')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	18	s.f.	NF	U	
<b>1st</b>	<b>33 - Classroom 119 (6' X 8')</b>	<b>77</b>	<b>Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black &amp; cream streaks</b>	<b>Yes</b>	<b>48</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	34 - Corridor 100 H (10' X 88')	1	Concrete	No	880	s.f.	NF	U	
1st	34 - Corridor 100 H (10' X 88')	2	CMU Block	No	1760	s.f.	NF	U	
1st	34 - Corridor 100 H (10' X 88')	31	Fiberglass Straight Pipe Insulation	NSM	576	l.f.	F	U	Multiple horizontal lines present above ceiling; 3 lines running N to S, 4 lines running E to W

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	34 - Corridor 100 H (10' X 88')	44	Pre-cast Concrete Panels	No	880	s.f.	NF	U	No caulking observed in between concrete panels
1st	34 - Corridor 100 H (10' X 88')	50	Display Board	Assumed	220	s.f.	NF	U	
<b>1st</b>	<b>34 - Corridor 100 H (10' X 88')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>880</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	34 - Corridor 100 H (10' X 88')	82	Terrezzo - Red Specs	Assumed	880	s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	1	Concrete	No	880	s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	2	CMU Block	No		s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	9	Vinyl Floor Tile and Associated Mastic - 9 x 9 Tan w/ Brown Specs	No	880	s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	12	Covebase and associated adhesive - 4 in. Brown	No	60	s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	17	Metal Roof Deck	NSM	880	s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	34	Door Frame Caulk	No	25	s.f.	NF	U	
<b>1st</b>	<b>35 - Office Rooms 115 &amp; 117 (40' X 22')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>10</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>5 window systems on W wall at 4' X 3'</b>
1st	35 - Office Rooms 115 & 117 (40' X 22')	49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	60	s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	50	Display Board	Assumed	40	s.f.	NF	U	
<b>1st</b>	<b>35 - Office Rooms 115 &amp; 117 (40' X 22')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>880</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	35 - Office Rooms 115 & 117 (40' X 22')	74	Caulk - Interior window - Black	No	15	s.f.	NF	U	
1st	35 - Office Rooms 115 & 117 (40' X 22')	85	Ceramic Tiles w/ associated grout & bedding - 1 in White	Assumed	30	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	35 - Office Rooms 115 & 117 (40' X 22')	86	Ceramic Tile w/ associated grout and bedding - 4 in. Blue	Assumed	80	s.f.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	1	Concrete	No	876	s.f.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	2	CMU Block	No	880	s.f.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	6	Wood Fire doors and Frame	Assumed	1	ct.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	17	Metal Roof Deck	NSM	456	s.f.	NF	U	
<b>1st</b>	<b>36 - Corridor 100 D (24' X 19')</b>	<b>27</b>	<b>Caulk - Building Seam</b>	<b>Yes</b>	<b>25</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	36 - Corridor 100 D (24' X 19')	28	Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor	Assumed	456	s.f.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	31	Fiberglass Straight Pipe Insulation	NSM	88	l.f.	F	U	Multiple lines present above ceiling
1st	36 - Corridor 100 D (24' X 19')	44	Pre-cast Concrete Panels	No	420	s.f.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	48	Brick & Mortar - Tan	No	370	s.f.	NF	U	
1st	36 - Corridor 100 D (24' X 19')	49	Ceramic Block w/ associated Mortar 12' X 18'	assumed	100	s.f.	NF	u	
<b>1st</b>	<b>36 - Corridor 100 D (24' X 19')</b>	<b>61</b>	<b>Ceiling Tile 2 X 2 - Worm Track</b>	<b>Yes</b>	<b>876</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	37 - Corridor 100 E (13' X 15')	1	Concrete	No	195	s.f.	NF	U	
1st	37 - Corridor 100 E (13' X 15')	5	Metal Pan Ceiling Squares w/ Insulation 9 x 9 Pinhole	NSM	195	s.f.	NF	U	
1st	37 - Corridor 100 E (13' X 15')	28	Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor	Assumed	195	s.f.	NF	U	
1st	37 - Corridor 100 E (13' X 15')	34	Door Frame Caulk	No	10	s.f.	NF	U	
1st	37 - Corridor 100 E (13' X 15')	48	Brick & Mortar - Tan	No	300	s.f.	NF	U	



## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	37 - Corridor 100 E (13' X 15')	60	Drywall - Gypsum Board	No	100	s.f.	NF	U	Corridor bulkhead (not present above ceiling)
1st	37 - Corridor 100 E (13' X 15')	87	Joint Compound associated w/ Gypsum Board drywal	Assumed	100	s.f.	F	U	
1st	38 - Resource Rm 135 (12' X 17')	1	Concrete	No	204	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	2	CMU Block	No	240	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	204	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	12	Covebase and associated adhesive - 4 in. Brown	No	20	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	17	Metal Roof Deck	NSM	204	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	27	Caulk - Building Seam	Yes	80	s.f.	NF	U	Present at seams and perimeter of ceiling
1st	38 - Resource Rm 135 (12' X 17')	48	Brick & Mortar - Tan	No	240	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	50	Display Board	Assumed	60	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	204	s.f.	NF	U	
1st	38 - Resource Rm 135 (12' X 17')	89	Metal Fire Door & Frame w/ Windows	assumed	1	ct.	NF	u	
1st	39 - Resource Rm 114 (8' X 14')	1	Concrete	No	112	s.f.	NF	U	
1st	39 - Resource Rm 114 (8' X 14')	2	CMU Block	No	420	s.f.	NF	U	
1st	39 - Resource Rm 114 (8' X 14')	50	Display Board	Assumed	120	s.f.	NF	U	
1st	39 - Resource Rm 114 (8' X 14')	61	Ceiling Tile 2 X 2 - Worm Track	Yes	112	s.f.	NF	U	
1st	39 - Resource Rm 114 (8' X 14')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	20	s.f.	NF	U	
1st	39 - Resource Rm 114 (8' X 14')	88	Vinyl Floor Tile w/ associated mastic 9 X 9 - Grey w/ Multi-color Streaks	Yes	112	s.f.	NF	U	

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	1	Concrete	No	1600	s.f.	NF	U	<b>NO hard plaster observed in entryway; replaced w/ metal pan ceiling</b>
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	2	CMU Block	No	1470	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	12	Covebase and associated adhesive - 4 in. Brown	No	150	s.f.	NF	U	
<b>1st</b>	<b>40 - Classrooms 130(32' X 25') &amp; 131 ( X 25')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>6</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	15	Caulk interior Window - Grey	No	10	s.f.	NF	U	2 windows at N wall at 4' X 6'
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	16	Adhesive associated w/ speaker	Assumed	1	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	17	Metal Roof Deck	NSM	1600	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	18	Adhesive- Associate Carpet	Assumed	1600	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	30	Metal Fire door & Frame	Assumed	2	ct.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	39	Ceiling Tile 2' X '2 Pinhole	No	1600	s.f.	F	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	45	Vinyl Floor Tile w/ Mastic 12 X 12 - Tan w/ Cream Streaks	No	10	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	50	Display Board	Assumed	200	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	60	Drywall - Gypsum Board	No	640	s.f.	NF	U	NO joint compound observed
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	64	Chalkboard - Black	Assumed	240	s.f.	NF	U	! Small board & 1 large board on E & W wall
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	40	s.f.	NF	U	
1st	40 - Classrooms 130(32' X 25') & 131 ( X 25')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	20	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	1	Concrete	No	800	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	41 - Classroom 132 (32' X 25')	8	Caulk- Interior Window - Beige	No	10	s.f.	NF	U	2 windows on N wall at 4' X 6'
<b>1st</b>	<b>41 - Classroom 132 (32' X 25')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	41 - Classroom 132 (32' X 25')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	17	Metal Roof Deck	NSM	800	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	18	Adhesive- Associate Carpet	Assumed	800	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	20	Covebase w/ associated Mastic 4 in Black	No	60	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	
1st	41 - Classroom 132 (32' X 25')	39	Ceiling Tile 2' X '2 Pinhole	No	800	s.f.	F	U	
1st	41 - Classroom 132 (32' X 25')	50	Display Board	Assumed	120	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	64	Chalkboard - Black	Assumed	200	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	30	s.f.	NF	U	
1st	41 - Classroom 132 (32' X 25')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	10	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	1	Concrete	No	900	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	2	CMU Block	No	1060	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	12	Covebase and associated adhesive - 4 in. Brown	No	40	s.f.	NF	U	
<b>1st</b>	<b>42 - Classroom 133 (30' X 30')</b>	<b>13</b>	<b>sink undercoating - Black</b>	<b>Yes</b>	<b>3</b>	<b>s.f.</b>	<b>F</b>	<b>U</b>	
1st	42 - Classroom 133 (30' X 30')	15	Caulk interior Window - Grey	No	15	s.f.	NF	U	2 window systems on W wall at 4' X 6'
1st	42 - Classroom 133 (30' X 30')	16	Adhesive associated w/ speaker	Assumed	2	s.f.	NF	U	

## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	42 - Classroom 133 (30' X 30')	17	Metal Roof Deck	NSM	1	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	18	Adhesive- Associate Carpet	Assumed	900	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	26	Caulk- Interior Door Frame	Assumed	15	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	
1st	42 - Classroom 133 (30' X 30')	39	Ceiling Tile 2' X '2 Pinhole	No	900	s.f.	F	U	
<b>1st</b>	<b>42 - Classroom 133 (30' X 30')</b>	<b>41</b>	<b>Interior Window Glazing</b>	<b>Yes</b>	<b>10</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	42 - Classroom 133 (30' X 30')	50	Display Board	Assumed	80	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	64	Chalkboard - Black	Assumed	80	s.f.	NF	U	2 medium boards on S wall
1st	42 - Classroom 133 (30' X 30')	78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	30	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	80	Formica Countertops w/ associated adhesive - Tan	Assumed	10	s.f.	NF	U	
1st	42 - Classroom 133 (30' X 30')	89	Metal Fire Door & Frame w/ Windows	Assumed	2	ct.	NF	U	
1st	43 - Storage Rm 134 (22' X 5')	1	Concrete	No	110	s.f.	NF	U	<b>*Metal Pan Ceiling*</b>
1st	43 - Storage Rm 134 (22' X 5')	2	CMU Block	No	440	s.f.	NF	U	
<b>1st</b>	<b>43 - Storage Rm 134 (22' X 5')</b>	<b>10</b>	<b>Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks</b>	<b>Yes</b>	<b>110</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	
1st	43 - Storage Rm 134 (22' X 5')	12	Covebase and associated adhesive - 4 in. Brown	No	20	s.f.	NF	U	
1st	43 - Storage Rm 134 (22' X 5')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	
1st	43 - Storage Rm 134 (22' X 5')	48	Brick & Mortar - Tan	No	50	s.f.	NF	U	Present on E wall
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	1	Concrete	No	830	s.f.	NF	U	

## Room by Room Material Inventory

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	2	CMU Block	No	1080	s.f.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	12	Covebase and associated adhesive - 4 in. Brown	No	65	s.f.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	17	Metal Roof Deck	NSM	830	s.f.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	26	Caulk- Interior Door Frame	Assumed	30	s.f.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	39	Ceiling Tile 2' X '2 Pinhole	No	830	s.f.	F	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	48	Brick & Mortar - Tan	No	240	s.f.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	50	Display Board	Assumed	80	s.f.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	82	Terrezzo - Red Specs	Assumed	830	s.f.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	89	Metal Fire Door & Frame w/ Windows	Assumed	5	ct.	NF	U	
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	90	Mudded fittings on Fiberglass pipe insulation	No	17	ct.	F	U	Present above ceiling on horizontal lines
1st	44 - Corridor 100 G (11' X 8') & F (14' X 53')	91	Mudded fittings on roof drain	No	1	ct.	F	U	Present above ceiling in front of classroom 131
Exterior	45 - School Exterior	48	Brick & Mortar - Tan	No		s.f.	NF	U	Exterior Façade
Exterior	45 - School Exterior	92	Caulk - Exterior Window	No	570	s.f.	NF	U	106 Total windows (80 @ 4'x6', 16 @ 3'x4', 9 @ 3'x6', 1 @ 3'x2')
<b>Exterior</b>	<b>45 - School Exterior</b>	<b>93</b>	<b>Glazing - Exterior Window</b>	<b>Yes</b>	<b>855</b>	<b>s.f.</b>	<b>NF</b>	<b>U</b>	<b>106 Total windows (80 @ 4'x6', 16 @ 3'x4', 9 @ 3'x6', 1 @ 3'x2')</b>
Exterior	45 - School Exterior	94	Caulk - Exterior Vent	No	92	s.f.	NF	U	23 Vents @ 1' x 4'
Exterior	45 - School Exterior	95	Caulk - Exterior Door Frame	No	90	s.f.	NF	U	7 Double doors, 4 Single Doors

## Room by Room Material Inventory

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

BDN Project No. P23-00304

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
Exterior	45 - School Exterior	96	Caulk - Exterior Building Seam	Yes	165	s.f.	NF	U	Present on building corners, intermittently present on brick façade
Exterior	45 - School Exterior	97	Exterior Plaster	No	300	s.f.	F	U	Present on southern wall of Multi-purpose Room
Exterior	45 - School Exterior	98	Exterior Fire Door and Frame	Assumed	18	ct.	NF	U	7 Double doors, 4 Single Doors
Exterior	45 - School Exterior	99	Exterior - Flat Roofing - Grey	No	32719	s.f.	NF	U	
Exterior	45 - School Exterior	100	Exterior Roof Flashing - Grey	No	11400	s.f.	NF	U	Present around perimeter of roofing system and parapet walls
Exterior	45 - School Exterior	101	Caulk - Exterior Roof	No	480	s.f.	NF	U	Present where overhangs meet brick & mortar façade. Intermittently present on roof penetrations
Exterior	45 - School Exterior	102	Exterior Window Vapor Barrier	Assumed	2280	s.f.	NF	U	Present where window lintel meets brick & Mortar façade. Assumed to be present around entire perimeter of window systems. 106 Total windows (80 @ 4'x6', 16 @ 3'x4', 9 @ 3'x6', 1 @ 3'x2')
Exterior	45 - School Exterior	103	Caulk - Exterior Window Sill	No	130	s.f.	NF	U	Present on window sill seams throughout
Exterior	45 - School Exterior	104	Exterior - Flat Roofing - White	No	5937	s.f.	NF	U	Southwest Portion of Roof
Exterior	45 - School Exterior	105	Exterior Roof Flashing - White	No	1450	s.f.	NF	U	Southwest Portion of Roof - Perimeter
1st	Interior	106	Bedding and Grout - Associated w/ Windowsill	No	212	s.f.	NF	U	Throughout



## Room by Room Material Inventory

BDN Project No. P23-00304

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	Interior	111	Caulk - Interior - Soft - Windowsill	No	106	s.f.	NF	U	Throughout
1st	Interior	112	Caulk - Interior - Hard - Windowsill	No	106	s.f.	NF	U	Throughout
1st	Interior	113	Cove Base w/ Adhesive - 2" - Brown	No	106	s.f.	NF	U	Throughout





# **Appendix C**

## **Bulk Sample Log – Asbestos**

BDN Project No.: P23-00304

**Cumberland Elementary – Lansing Public Schools**

October 2023

## Asbestos Bulk Sample Log

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

BDN Project No.P23-00304

Sample Number	Date	HA #	HA Description	Sample Location	Asbestos Detected	Notes
1-1	10/6/2023	1	Concrete	FS-6 - Boiler Concrete Pad	No	
1-2	10/6/2023	1	Concrete	Exterior West Entry Pad	No	
2-1	10/6/2023	2	CMU Block	FS-6 - East Wall	No	
2-2	10/6/2023	2	CMU Block	FS-33 Custodial	No	
3-1	10/6/2023	3	Vinyl Floor tile and associated mastic 12 x 12 Brown specs	FS-1 - Mutli Purpose Closet	No	
3-2	10/6/2023	3	Vinyl Floor tile and associated mastic 12 x 12 Brown specs	FS-14 Classroom 110 Restroom entry	No	
4-1	10/6/2023	4	Tectum- White	FS-1 Mutli Purpose South Wall	No	
4-2	10/6/2023	4	Tectum- White	FS-1 Multi Purpose South Wall	No	
8-1	10/6/2023	8	Caulk- Interior Window - Beige	FS-1 - Multi purpose south window	No	
8-2	10/6/2023	8	Caulk- Interior Window - Beige	FS-4 East Windows	No	
9-1	10/6/2023	9	Vinyl Floor Tile and Associated Mastic - 9 x 9 Tan w/ Brown Specs	FS - 2 - Kitchen - Room 102	No	
9-2	10/6/2023	9	Vinyl Floor Tile and Associated Mastic - 9 x 9 Tan w/ Brown Specs	FS - 2 - Kitchen - Room 102	No	
10-1	10/6/2023	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	FS-2 North Wall	Yes	
10-2	10/6/2023	10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	FS-16 South Corridor wall	Yes	
12-1	10/6/2023	12	Covebase and associated adhesive - 4 in. Brown	FS-2 North Wall	No	
12-2	10/6/2023	12	Covebase and associated adhesive - 4 in. Brown	FS - 32 - Classroom 121	No	
13-1	10/6/2023	13	sink undercoating - Black	FS-4 Classroom 101 North Sink	Yes	
13-2	10/6/2023	13	sink undercoating - Black	FS-15 Classroom 110 Sink	Yes	
15-1	10/6/2023	15	Caulk interior Window - Grey	FS-3 South Window	No	
15-2	10/6/2023	15	Caulk interior Window - Grey	FS - 32 - Classroom 121	No	
19-1	10/6/2023	19	Vinyl Floor Tile w/ Associated Mastic- 9"x9" Tan w/ Red & Black Streaks	FS-4 Classroom 101 Northwest Corner	Yes	
19-2	10/6/2023	19	Vinyl Floor Tile w/ Associated Mastic- 9"x9" Tan w/ Red & Black Streaks	FS-17 Rm 112 South Corner	Yes	
20-1	10/6/2023	20	Covebase w/ associated Mastic 4 in Black	FS-4 Classroom 101 NorthEast Corner	No	
20-2	10/6/2023	20	Covebase w/ associated Mastic 4 in Black	FS-27 Library	No	
21-1	10/6/2023	21	Vinyl Floor Tile- 9 X 9 Green w/ Tan & Black Streaks	FS-4 - Back right corner of storage closet	Yes	

# Asbestos Bulk Sample Log

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

BDN Project No.P23-00304

Sample Number	Date	HA #	HA Description	Sample Location	Asbestos Detected	Notes
21-2	10/6/2023	21	Vinyl Floor Tile- 9 X 9 Green w/ Tan & Black Streaks	FS - 5 -Classroom 103 Storage Closet	Yes	
22-1	10/6/2023	22	Vinyl Floor Tile 9 X 9 Black w/ White Specs	FS-4 - Classroom 101 - Infront of windows	No	
22-2	10/6/2023	22	Vinyl Floor Tile 9 X 9 Black w/ White Specs	FS-13 Rm 109	No	
27-1	10/6/2023	27	Caulk - Building Seam	FS-34 Outside room 122	No	
27-2	10/6/2023	27	Caulk - Building Seam	FS - 31 - Classroom 123	Yes	
32-1	10/6/2023	32	Gasket(s)	FS-6 Boiler Room	No	
32-2	10/6/2023	32	Gasket(s)	FS-6 Boiler Room	No	
32-3	10/6/2023	32	Gasket(s)	FS-6 Boiler Room	No	
34-1	10/6/2023	34	Door Frame Caulk	FS-30 South Door system	No	
34-2	10/6/2023	34	Door Frame Caulk	FS-37 - North Door System	No	
35-1	10/6/2023	35	Caulk- Firestop - Red	FS-19 Teacher Lounge North Wall	No	
35-2	10/6/2023	35	Caulk- Firestop - Red	FS-6 Boiler - North Wall	No	
39-1	10/6/2023	39	Ceiling Tile 2' X '2 Pinhole	FS-12 Corridor Central	No	
39-2	10/6/2023	39	Ceiling Tile 2' X '2 Pinhole	FS - 24 - Room 124	No	
41-1	10/6/2023	41	Interior Window Glazing	FS-32 Rm 121 Window	No	
41-2	10/11/2023	41	Interior Window Glazing	FS-15 Rm 111 Window	Yes	
42-1	10/6/2023	42	Vinyl Floor Tiles w/ associated Mastic 9 X 9 - Tan w/ Brown specs	FS - 10 - Resource/ Quiet Room	Yes	
42-2	10/6/2023	42	Vinyl Floor Tiles w/ associated Mastic 9 X 9 - Tan w/ Brown specs	FS - 10 - Resource/Quiet Room	Yes	
43-1	10/6/2023	43	Vinyl Floor Tiles w/ associated mastic 9 X 9 - Brown w/ Dark Brown Specs	FS - 10 - Resource/Quiet Room	Yes	
43-2	10/6/2023	43	Vinyl Floor Tiles w/ associated mastic 9 X 9 - Brown w/ Dark Brown Specs	FS - 10 - Resource/Quiet Room	Yes	
44-1	10/6/2023	44	Pre-cast Concrete Panels	FS-11 - Corridor ceiling	No	
44-2	10/6/2023	44	Pre-cast Concrete Panels	FS-36 - Corridor Ceiling	No	
45-1	10/6/2023	45	Vinyl Floor Tile w/ Mastic 12 X 12 - Tan w/ Cream Streaks	FS-40 Rm 130	No	
45-2	10/6/2023	45	Vinyl Floor Tile w/ Mastic 12 X 12 - Tan w/ Cream Streaks	FS40 - Rm 131	No	
48-1	10/6/2023	48	Brick & Mortar - Tan	FS-12 North Corridor Wall	No	
48-2	10/6/2023	48	Brick & Mortar - Tan	Exterior Southwest Corner	No	

## Asbestos Bulk Sample Log

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

BDN Project No.P23-00304

Sample Number	Date	HA #	HA Description	Sample Location	Asbestos Detected	Notes
51-1	10/6/2023	51	Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks	FS-11 Corridor	Yes	
51-2	10/6/2023	51	Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks	FS-16 Corridor	Yes	
52-1	10/6/2023	52	Covebase w/ adhesive 2 in. - Tan	FS-13 Room 109 North Wall	No	
52-2	10/6/2023	52	Covebase w/ adhesive 2 in. - Tan	FS-22 - Room 120 East Wall	No	
53-1	10/6/2023	53	Vinyl Floor Tiles & associated mastic 9 X 9 - Cream w/ Black Streaks	FS-13 Rm109	Yes	
53-2	10/6/2023	53	Vinyl Floor Tiles & associated mastic 9 X 9 - Cream w/ Black Streaks	FS-13 RM 109	Yes	
54-1	10/6/2023	54	Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks	FS-14 Classroom 110 Near Entry door	Yes	
54-2	10/6/2023	54	Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks	FS - 24 - Room 124	Yes	
56-1	10/6/2023	56	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Tan w/ multi-color streaks	FS-15 Classroom 111 East Wall	Yes	
56-2	10/6/2023	56	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Tan w/ multi-color streaks	FS-15 Classroom 111 West Wall	Yes	
59-1	10/6/2023	59	Sink Undercoating - Grey	FS - 28 - Classroom 127A	Yes	
59-2	10/6/2023	59	Sink Undercoating - Grey	FS-27 - Library East Sink	Yes	
60-1	10/6/2023	60	Drywall - Gypsum Board	FS-17 Rm 112 west wall	No	
60-2	10/6/2023	60	Drywall - Gypsum Board	FS-19 Teacher lounge East Wall	No	
61-1	10/6/2023	61	Ceiling Tile 2 X 2 - Worm Track	FS-19 North	Yes	
61-2	10/6/2023	61	Ceiling Tile 2 X 2 - Worm Track	FS - 19 - Staff Lounge Rm 112	No	
62-1	10/6/2023	62	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red & Black Streaks	FS-17 Rm 112 West Corner	Yes	
62-2	10/6/2023	62	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red & Black Streaks	FS-19 North Corner	Yes	
63-1	10/6/2023	63	Covebase w/ associated Mastic 2 in. - Black	FS - 17 - Classroom 112 - SW Corner	No	
63-2	10/6/2023	63	Covebase w/ associated Mastic 2 in. - Black	FS - 31 - Classroom 123	No	
68-1	10/6/2023	68	Sink Undercoating - Pink	FS-32 Rm 121	No	
68-2	10/6/2023	68	Sink Undercoating - Pink	FS-23 Rm 122 Sink	No	
70-1	10/6/2023	70	Vinyl Floor Tile 9 X 9 - Tan Marble	FS-19 West wall	Yes	
70-2	10/6/2023	70	Vinyl Floor Tile 9 X 9 - Tan Marble	FS-19 South Wall	Yes	

## Asbestos Bulk Sample Log

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

BDN Project No.P23-00304

Sample Number	Date	HA #	HA Description	Sample Location	Asbestos Detected	Notes
71-1	10/6/2023	71	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Mint Green w/ Black & White Streaks	FS - 19 - Staff Lounge	Yes	
71-2	10/6/2023	71	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Mint Green w/ Black & White Streaks	FS-19 Teacher lounge	Yes	
73-1	10/6/2023	73	HVAC Duct Wrap - Canvas	FS - 21 - Book Storage Rm 116 - NW Corner	No	
73-2	10/6/2023	73	HVAC Duct Wrap - Canvas	FS - 21 - Book Storage Rm 118 - NW Corner	No	
74-1	10/6/2023	74	Caulk - Interior window - Black	FS-32 Rm 121 window	No	
74-2	10/6/2023	74	Caulk - Interior window - Black	FS-23 Rm 122 Window	No	
75-1	10/6/2023	75	Vinyl Floor Tile W/ associated Mastic 9 X 9 - Tan w/ White streaks	FS-19 Teacher lounge	Yes	
75-2	10/6/2023	75	Vinyl Floor Tile W/ associated Mastic 9 X 9 - Tan w/ White streaks	FS-19 Teacher lounge	Yes	
77-1	10/6/2023	77	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks	FS - 33 - Custodial Closet - Rm 119	Yes	
77-2	10/6/2023	77	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks	FS - 33 - Custodial Closet - Rm 119	Yes	
79-1	10/6/2023	79	Vinyl Floor Tile w/ Associated Mastic 12" X 12" - Blue w/ Blue Specs	FS-28 Rm 127	No	
79-2	10/6/2023	79	Vinyl Floor Tile w/ Associated Mastic 12" X 12" - Blue w/ Blue Specs	FS-27 Library North corner	No	
81-1	10/6/2023	81	Covebase w/ associated adhesive 8 in. - Black	FS-29 East	No	
81-2	10/6/2023	81	Covebase w/ associated adhesive 8 in. - Black	FS-29 West	No	
83-1	10/6/2023	83	Firebreak paper w/ associated mastic - Black	FS-30 Corridor Break	Yes	
83-2	10/6/2023	83	Firebreak paper w/ associated mastic - Black	FS-30 Corridor Break	Yes	
88-1	10/6/2023	88	Vinyl Floor Tile w/ associated mastic 9 X 9 - Grey w/ Multi-color Streaks	FS - 39 - Resource Rm 114	Yes	
88-2	10/6/2023	88	Vinyl Floor Tile w/ associated mastic 9 X 9 - Grey w/ Multi-color Streaks	FS - 39 - Resource Rm 114	Yes	
90-1	10/6/2023	90	Mudded fittings on Fiberglass pipe insulation	FS-44 Corridor above ceiling	No	
90-2	10/6/2023	90	Mudded fittings on Fiberglass pipe insulation	FS-44 Corridor above ceiling	No	
90-3	10/6/2023	90	Mudded fittings on Fiberglass pipe insulation	FS-44 Corridor above ceiling	No	
91-1	10/6/2023	91	Mudded fittings on roof drain	FS-44 - Corridor above ceiling - infront of RM 131	No	

## Asbestos Bulk Sample Log

Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

BDN Project No.P23-00304

Sample Number	Date	HA #	HA Description	Sample Location	Asbestos Detected	Notes
91-2	10/6/2023	91	Mudded fittings on roof drain	FS-44 - Corridor above ceiling - infront of RM 131	No	
91-3	10/6/2023	91	Mudded fittings on roof drain	FS-44 - Corridor above ceiling - infront of RM 131	No	
92-1	10/6/2023	92	Caulk - Exterior Window	Exterior - East Side Windows	No	
92-2	10/6/2023	92	Caulk - Exterior Window	Exterior Southeast Windows	No	
93-1	10/6/2023	93	Glazing - Exterior Window	Exterior East Windows	Yes	
93-2	10/6/2023	93	Glazing - Exterior Window	Exterior South East Windows	Yes	
94-1	10/6/2023	94	Caulk - Exterior Vent	Exterior Southwall Vent	No	
94-2	10/6/2023	94	Caulk - Exterior Vent	Exterior West Vent	No	
95-1	10/6/2023	95	Caulk - Exterior Door Frame	Exterior South Mutlipurpose Entry Door	No	
95-2	10/6/2023	95	Caulk - Exterior Door Frame	Exterior South Corridor Entry	No	
96-1	10/6/2023	96	Caulk - Exterior Building Seam	Exterior North Corner near double door entry	Yes	
96-2	10/6/2023	96	Caulk - Exterior Building Seam	Exterior West Wall near Principal office	No	
97-1	10/6/2023	97	Exterior Plaster	Exterior South Wall - Gym	No	
97-2	10/6/2023	97	Exterior Plaster	Exterior South Wall - Gym	No	
97-3	10/6/2023	97	Exterior Plaster	Exterior South Wall - Gym	No	
99-3	11/7/2023	99	Exterior - Flat Roofing - Grey		No	
99-1	11/1/2023	99	Exterior - Flat Roofing - Grey	Roof - Central	Assumed	
99-2	11/1/2023	99	Exterior - Flat Roofing - Grey	Roof - Southeast Corner	Assumed	
100-3	11/7/2023	100	Exterior Roof Flashing - Grey		No	
100-1	11/1/2023	100	Exterior Roof Flashing - Grey	Roof - Central HVAC Unit	Assumed	
100-2	11/1/2023	100	Exterior Roof Flashing - Grey	Roof - North Central wall	Assumed	
101-1	11/7/2023	101	Caulk - Exterior Roof		No	
101-1	11/1/2023	101	Caulk - Exterior Roof	Southwest Roof Line	Assumed	
101-2	11/1/2023	101	Caulk - Exterior Roof	Northwest Corner of Roof	Assumed	
103-1	10/6/2023	103	Caulk - Exterior Window Sill	Exterior South Central Vent	No	
103-2	10/6/2023	103	Caulk - Exterior Window Sill	Exterior North Central Vent	No	
104-3	11/7/2023	104	Exterior - Flat Roofing - White		No	
104-1	11/1/2023	104	Exterior - Flat Roofing - White	Southwest Roof - Central	Assumed	
104-2	11/1/2023	104	Exterior - Flat Roofing - White	Southwest Roof - North Perimeter	Assumed	
105-3	11/7/2023	105	Exterior Roof Flashing - White		No	
105-1	11/1/2023	105	Exterior Roof Flashing - White	Southwest Roof - Central	Assumed	
105-2	11/1/2023	105	Exterior Roof Flashing - White	Southwest Roof - South Perimeter	Assumed	

**Asbestos Bulk Sample Log**  
 Lansing School District  
 2801 Cumberland Road, Lansing, Mi 48906

BDN Project No.P23-00304

Sample Number	Date	HA #	HA Description	Sample Location	Asbestos Detected	Notes
106-1	11/7/2023	106	Bedding and Grout - Associated w/ Windowsill	Room 111	No	
106-2	11/7/2023	106	Bedding and Grout - Associated w/ Windowsill	Room 109	No	
107-1	11/7/2023	107	Ceiling Tile - Pink Back	112B	No	Teacher lounge
108-1	11/7/2023	108	Ceiling Tile - 2'x2' - Brown Back	112B	No	Teacher lounge
109-1	11/7/2023	109	Ceiling Tile - 2'x2'	112B	No	Center, Teacher Lounge
110-1	11/7/2023	110	Ceiling Tile - 2'x2' - Tan Back	100B	No	Corridor outside 112B
111-1	11/7/2023	111	Caulk - Interior - Soft - Windowsill	Room 109	No	
111-2	11/7/2023	111	Caulk - Interior - Soft - Windowsill	Room 109	No	
112-1	11/7/2023	112	Caulk - Interior - Hard - Windowsill	Room 109	No	
112-2	11/7/2023	112	Caulk - Interior - Hard - Windowsill	Room 109	No	
113-1	11/7/2023	113	Cove Base w/ Adhesive - 2" - Brown	Room 109	No	
113-2	11/7/2023	113	Cove Base w/ Adhesive - 2" - Brown	Room 109	No	





# **Appendix D**

## **Building Materials Summary – Asbestos**

BDN Project No.: P23-00304

**Cumberland Elementary – Lansing Public Schools**

October 2023

HA#	HA Description	Asbestos Detected	Material Type	Quantity				Units
				Total	Friable	Damaged	Significantly Damaged	
1	Concrete	No	MM	30,645	0	0	0	s.f.
2	CMU Block	No	MM	42,910	0	0	0	s.f.
3	Vinyl Floor tile and associated mastic 12 x 12 Brown specs	No	MM	2,121	0	0	0	s.f.
4	Tectum- White	No	MM	560	560	0	0	s.f.
5	Metal Pan Ceiling Squares w/ Insulation 9 x 9 Pinhole	NSM	MM	2,575	0	0	0	s.f.
6	Wood Fire doors and Frame	Assumed	MM	34	0	0	0	ct.
7	Wood Fire door and Frame w/ Windows	Assumed	MM	27	0	0	0	ct.
8	Caulk- Interior Window - Beige	No	MM	110	0	0	0	s.f.
9	Vinyl Floor Tile and Associated Mastic - 9 x 9 Tan w/ Brown Specs	No	MM	924	0	0	0	s.f.
10	Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks	Yes	MM	2,547	0	0	0	s.f.
11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	MM	5,631	5,631	0	0	s.f.
12	Covebase and associated adhesive - 4 in. Brown	No	MM	759	0	0	0	s.f.
13	sink undercoating - Black	Yes	MM	33	33	0	0	s.f.
14	Formica Countertops and associated adhesive - Citrus Squares	Assumed	MM	135	0	0	0	s.f.
15	Caulk interior Window - Grey	No	MM	62	0	0	0	s.f.
16	Adhesive associated w/ speaker	Assumed	MM	35	0	0	0	s.f.
17	Metal Roof Deck	NSM	NSM	24,936	0	0	0	s.f.
18	Adhesive- Associate Carpet	Assumed	MM	5,820	0	0	0	s.f.
19	Vinyl Floor Tile w/ Associated Mastic- 9"x9" Tan w/ Red & Black Streaks	Yes	MM	2,180	0	0	0	s.f.
20	Covebase w/ associated Mastic 4 in Black	No	MM	770	0	0	0	s.f.
21	Vinyl Floor Tile- 9 X 9 Green w/ Tan & Black Streaks	Yes	MM	180	0	0	0	s.f.
22	Vinyl Floor Tile 9 X 9 Black w/ White Specs	No	MM	30	0	0	0	s.f.
23	Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles	Assumed	MM	210	0	0	0	s.f.

HA#	HA Description	Asbestos Detected	Material Type	Quantity				Units
				Total	Friable	Damaged	Significantly Damaged	
24	Ceramic Tile w/ associated grout and bedding- 4 in. Blue	Assumed	MM	460	0	0	0	s.f.
25	Chalkboard- Green	Assumed	MM	2,020	0	0	0	s.f.
26	Caulk- Interior Door Frame	Assumed	MM	142	0	0	0	s.f.
27	Caulk - Building Seam	Yes	MM	298	0	0	0	s.f.
28	Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor	Assumed	MM	907	0	0	0	s.f.
29	Ceramic Block w/ associated grout 12' X 18' - Green	Assumed	MM	352	0	0	0	s.f.
30	Metal Fire door & Frame	Assumed	MM	9	0	0	0	ct.
31	Fiberglass Straight Pipe Insulation	NSM	TSI	1,867	1,867	0	0	l.f.
32	Gasket(s)	No	TSI	17	17	0	0	ct.
33	Boiler	Assumed	MM	820	0	0	0	c.f.
34	Door Frame Caulk	No	MM	45	0	0	0	s.f.
35	Caulk- Firestop - Red	No	MM	42	0	0	0	s.f.
36	Boiler Supply/Return Line 24 in	Assumed	TSI	20	20	0	0	l.f.
37	Electrical Equipment	Assumed	MM	0	0	0	0	s.f.
38	Ceramic Tile w. associated grout & bedding Multi-colored Tan	Assumed	MM	132	0	0	0	s.f.
39	Ceiling Tile 2' X '2 Pinhole	No	MM	5,997	5,997	0	0	s.f.
40	Restroom Doors	Assumed	MM	200	0	0	0	s.f.
41	Interior Window Glazing	Yes	MM	193	0	0	0	s.f.
42	Vinyl Floor Tiles w/ associated Mastic 9 X 9 - Tan w/ Brown specs	Yes	MM	145	0	0	0	s.f.
43	Vinyl Floor Tiles w/ associated mastic 9 X 9 - Brown w/ Dark Brown Specs	Yes	MM	145	0	0	0	s.f.
44	Pre-cast Concrete Panels	No	MM	2,799	0	0	0	s.f.
45	Vinyl Floor Tile w/ Mastic 12 X 12 - Tan w/ Cream Streaks	No	MM	10	0	0	0	s.f.
46	Vinyl Floor Tile w/ associated Mastic 9 X 9- Cream w/ Brown Specs	No	MM	20	0	0	0	s.f.
47	Ceramic Tile w/ associated grout and bedding- Orange 4 in. wall tile	Assumed	MM	45	0	0	0	s.f.

HA#	HA Description	Asbestos Detected	Material Type	Quantity				Units
				Total	Friable	Damaged	Significantly Damaged	
48	Brick & Mortar - Tan	No	MM	1,970	0	0	0	s.f.
49	Ceramic Block w/ associated Mortar 12' X 18'	Assumed	MM	1,950	0	0	0	s.f.
50	Display Board	Assumed	MM	3,175	0	0	0	s.f.
51	Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks	Yes	MM	236	0	0	0	s.f.
52	Covebase w/ adhesive 2 in. - Tan	No	MM	120	0	0	0	s.f.
53	Vinyl Floor Tiles & associated mastic 9 X 9 - Cream w/ Black Streaks	Yes	MM	875	0	0	0	s.f.
54	Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks	Yes	MM	3,694	0	0	0	s.f.
55	Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Cream w/ Green Streaks	Assumed	MM	60	0	0	0	s.f.
56	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Tan w/ multi-color streaks	Yes	MM	855	0	0	0	s.f.
57	Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Brown w/ Multi-color Specs	Assumed	MM	10	0	0	0	s.f.
58	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Maroon w/ Multi-color	Assumed	MM	30	0	0	0	s.f.
59	Sink Undercoating - Grey	Yes	MM	15	0	0	0	s.f.
60	Drywall - Gypsum Board	No	MM	4,520	0	0	0	s.f.
61	Ceiling Tile 2 X 2 - Worm Track	Yes	MM	14,896	0	0	0	s.f.
62	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red & Black Streaks	Yes	MM	1,131	0	0	0	s.f.
63	Covebase w/ associated Mastic 2 in. - Black	No	MM	50	0	0	0	s.f.
64	Chalkboard - Black	Assumed	MM	590	0	0	0	s.f.
65	Formica Countertops w/ associated adhesive - Grey	Assumed	MM	10	0	0	0	s.f.
66	Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown	Assumed	MM	340	0	0	0	s.f.
67	Ceramic Tile w/ associated grout & bedding - 4 in. Tan	Assumed	MM	530	0	0	0	s.f.
68	Sink Undercoating - Pink	No	MM	18	0	0	0	s.f.

HA#	HA Description	Asbestos Detected	Material Type	Quantity				Units
				Total	Friable	Damaged	Significantly Damaged	
69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	MM	498	0	0	0	s.f.
70	Vinyl Floor Tile 9 X 9 - Tan Marble	Yes	MM	297	0	0	0	s.f.
71	Vinyl Floor Tile w/ associated Mastic 9 X 9 - Mint Green w/ Black & White Streaks	Yes	MM	80	0	0	0	s.f.
72	Formica Countertops w/ associated adhesive - White w/ Grey specs	Assumed	MM	15	0	0	0	s.f.
73	HVAC Duct Wrap - Canvas	No	MM	80	80	0	0	s.f.
74	Caulk - Interior window - Black	No	MM	140	0	0	0	s.f.
75	Vinyl Floor Tile W/ associated Mastic 9 X 9 - Tan w/ White streaks	Yes	MM	960	0	0	0	s.f.
76	Formica Countertops - Pink	Assumed	MM	35	0	0	0	s.f.
77	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks	Yes	MM	1,968	0	0	0	s.f.
78	Ceramic Tile w/ associated grout & bedding 1 in. Tan	Assumed	MM	220	0	0	0	s.f.
79	Vinyl Floor Tile w/ Associated Mastic 12" X 12" - Blue w/ Blue Specs	No	MM	3,969	0	0	0	s.f.
80	Formica Countertops w/ associated adhesive - Tan	Assumed	MM	100	0	0	0	s.f.
81	Covebase w/ associated adhesive 8 in. - Black	No	MM	80	0	0	0	s.f.
82	Terrezzo - Red Specs	Assumed	MM	2,180	0	0	0	s.f.
83	Firebreak paper w/ associated mastic - Black	Yes	MM	20	0	0	0	s.f.
85	Ceramic Tiles w/ associated grout & bedding - 1 in White	Assumed	MM	30	0	0	0	s.f.
86	Ceramic Tile w/ associated grout and bedding - 4 in. Blue	Assumed	MM	80	0	0	0	s.f.
87	Joint Compound assoiciated w/ Gypsum Board drywal	Assumed	MM	100	100	0	0	s.f.
88	Vinyl Floor Tile w/ associated mastic 9 X 9 - Grey w/ Multi-color Streaks	Yes	MM	112	0	0	0	s.f.
89	Metal Fire Door & Frame w/ Windows	Assumed	MM	8	0	0	0	ct.
90	Mudded fittings on Fiberglass pipe insulation	No	TSI	17	17	0	0	ct.
91	Mudded fittings on roof drain	No	TSI	1	1	0	0	ct.
92	Caulk - Exterior Window	No	MM	570	0	0	0	s.f.
93	Glazing - Exterior Window	Yes	MM	855	0	0	0	s.f.

HA#	HA Description	Asbestos Detected	Material Type	Quantity				Units
				Total	Friable	Damaged	Significantly Damaged	
94	Caulk - Exterior Vent	No	MM	92	0	0	0	s.f.
95	Caulk - Exterior Door Frame	No	MM	90	0	0	0	s.f.
96	Caulk - Exterior Building Seam	Yes	MM	165	0	0	0	s.f.
97	Exterior Plaster	No	SM	300	300	0	0	s.f.
98	Exterior Fire Door and Frame	Assumed	MM	18	0	0	0	ct.
99	Exterior - Flat Roofing - Grey	No	MM	32,719	0	0	0	s.f.
100	Exterior Roof Flashing - Grey	No	MM	11,400	0	0	0	s.f.
101	Caulk - Exterior Roof	No	MM	480	0	0	0	s.f.
102	Exterior Window Vapor Barrier	Assumed	MM	2,280	0	0	0	s.f.
103	Caulk - Exterior Window Sill	No	MM	130	0	0	0	s.f.
104	Exterior - Flat Roofing - White	No	MM	5,937	0	0	0	s.f.
105	Exterior Roof Flashing - White	No	MM	1,450	0	0	0	s.f.
106	Bedding and Grout - Associated w/ Windowsill	No	MM	212	0	0	0	s.f.
107	Ceiling Tile - Pink Back	No	MM	0	0	0	0	s.f.
108	Ceiling Tile - 2'x2' - Brown Back	No	MM	0	0	0	0	s.f.
109	Ceiling Tile - 2'x2'	No	MM	0	0	0	0	s.f.
110	Ceiling Tile - 2'x2' - Tan Back	No	MM	0	0	0	0	s.f.
111	Caulk - Interior - Soft - Windowsill	No	MM	106	0	0	0	s.f.
112	Caulk - Interior - Hard - Windowsill	No	MM	106	0	0	0	s.f.
113	Cove Base w/ Adhesive - 2" - Brown	No	MM	106	0	0	0	s.f.



# **Appendix E**

## **Digital Photo Log**

BDN Project No.: P23-00304

**Cumberland Elementary – Lansing Public Schools**

October 2023





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### Exterior View of Property





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 1



**HA# 1**

**MATERIAL DESCRIPTION:**

Concrete

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

30,645 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 2



**HA# 2**

**MATERIAL DESCRIPTION:**

CMU Block

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

42,910 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 3



**HA# 3**

**MATERIAL DESCRIPTION:**

Vinyl Floor tile and associated mastic 12 x 12 Brown specs

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

2,121 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 4



**HA# 4**

**MATERIAL DESCRIPTION:**

Tectum- White

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

560 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 5



**HA# 5**

**MATERIAL DESCRIPTION:**

Metal Pan Ceiling Squares w/ Insulation 9 x 9 Pinhole

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

2,575 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 6



**HA# 6**

**MATERIAL DESCRIPTION:**

Wood Fire doors and Frame

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

34 ct.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
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**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 7



**HA# 7**

**MATERIAL DESCRIPTION:**

Wood Fire door and Frame w/ Windows

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

27 ct.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 8



**HA# 8**

**MATERIAL DESCRIPTION:**

Caulk- Interior Window - Beige

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

110 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 9



**HA# 9**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile and Associated Mastic - 9 x 9 Tan w/ Brown Specs

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

924 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 10



**HA# 10**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks

**ASBESTOS-CONTAINING MATERIAL:**

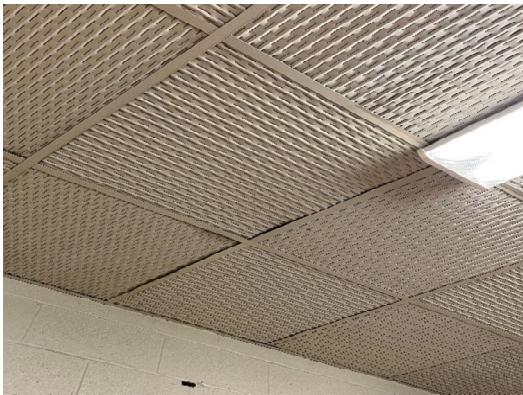
Yes

**TOTAL QUANTITY:**

2,547 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 11



**HA# 11**

**MATERIAL DESCRIPTION:**

Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting

**ASBESTOS-CONTAINING MATERIAL**

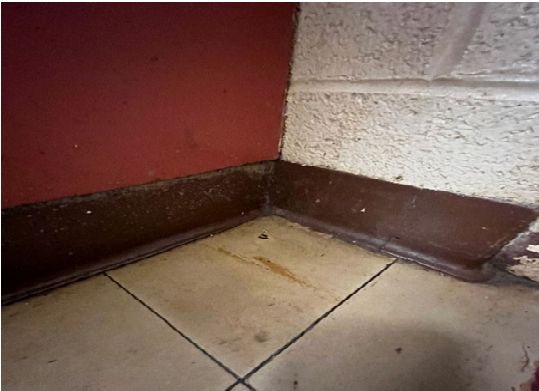
Assumed

**TOTAL QUANTITY:**

5,631 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 12



**HA# 12**

**MATERIAL DESCRIPTION:**

Covebase and associated adhesive - 4 in. Brown

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

759 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

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### PHOTOGRAPH # 13



**HA# 13**

**MATERIAL DESCRIPTION:**

sink undercoating - Black

**ASBESTOS-CONTAINING MATERIAL:**

Yes

**TOTAL QUANTITY:**

33 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 14



**HA# 14**

**MATERIAL DESCRIPTION:**

Formica Countertops and associated adhesive - Citrus Squares

**ASBESTOS-CONTAINING MATERIAL**

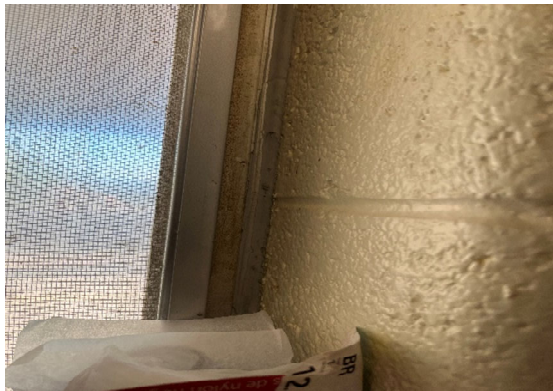
Assumed

**TOTAL QUANTITY:**

135 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 15



**HA# 15**

**MATERIAL DESCRIPTION:**

Caulk interior Window - Grey

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

62 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 16



**HA# 16**

**MATERIAL DESCRIPTION:**

Adhesive associated w/ speaker

**ASBESTOS-CONTAINING MATERIAL:**

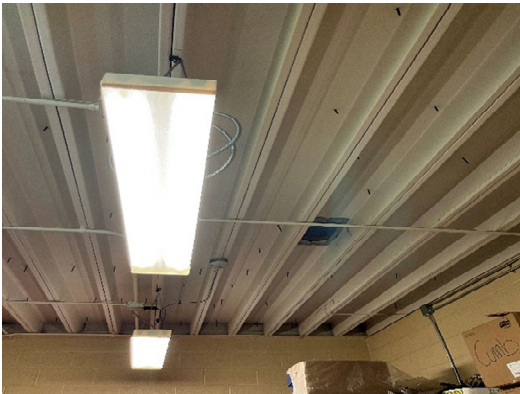
Assumed

**TOTAL QUANTITY:**

35 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 17



**HA# 17**

**MATERIAL DESCRIPTION:**

Metal Roof Deck

**ASBESTOS-CONTAINING MATERIAL**

NSM

**TOTAL QUANTITY:**

24,936 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 18



**HA# 18**

**MATERIAL DESCRIPTION:**

Adhesive- Associate Carpet

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

5,820 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 19



**HA# 19**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ Associated Mastic- 9"x9" Tan w/ Red & Black Streaks

**ASBESTOS-CONTAINING MATERIAL:**

Yes

**TOTAL QUANTITY:**

2,180 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 20



**HA# 20**

**MATERIAL DESCRIPTION:**

Covebase w/ associated Mastic 4 in Black

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

770 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 21



**HA# 21**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile- 9 X 9 Green w/ Tan & Black Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

180 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 22



**HA# 22**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile 9 X 9 Black w/ White Specs

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

30 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 23



**HA# 23**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ associated grout and bedding- Blue Squares & rectangles

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

210 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 24



**HA# 24**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ associated grout and bedding- 4 in. Blue

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

460 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 25



**HA# 25**

**MATERIAL DESCRIPTION:**

Chalkboard- Green

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

2,020 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 26



**HA# 26**

**MATERIAL DESCRIPTION:**

Caulk- Interior Door Frame

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

142 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 27



**HA# 27**

**MATERIAL DESCRIPTION:**

Caulk - Building Seam

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

298 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 28



**HA# 28**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ associated grout & bedding 4 X 4 - Orange floor

**ASBESTOS-CONTAINING MATERIAL:**

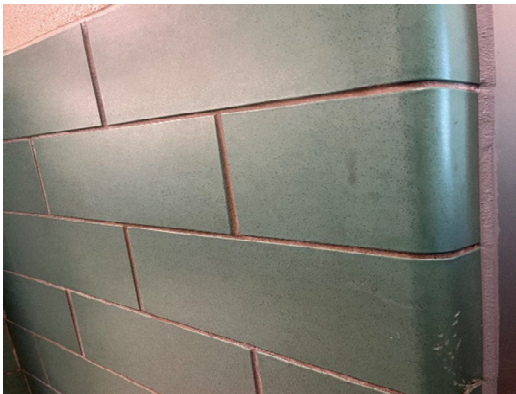
Assumed

**TOTAL QUANTITY:**

907 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 29



**HA# 29**

**MATERIAL DESCRIPTION:**

Ceramic Block w/ associated grout 12' X 18' - Green

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

352 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 30



**HA# 30**

**MATERIAL DESCRIPTION:**

Metal Fire door & Frame

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

9 ct.

**ADDITIONAL NOTES:**



## Site Photograph Log

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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 31



**HA# 31**

**MATERIAL DESCRIPTION:**

Fiberglass Straight Pipe Insulation

**ASBESTOS-CONTAINING MATERIAL:**

NSM

**TOTAL QUANTITY:**

1,867 l.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 32



**HA# 32**

**MATERIAL DESCRIPTION:**

Gasket(s)

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

17 ct.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 33



**HA# 33**

**MATERIAL DESCRIPTION:**

Boiler

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

820 c.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 34



**HA# 34**

**MATERIAL DESCRIPTION:**

Door Frame Caulk

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

45 s.f.

**ADDITIONAL NOTES:**



**HA# 35**

**MATERIAL DESCRIPTION:**

Caulk- Firestop - Red

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

42 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 36



**HA# 36**

**MATERIAL DESCRIPTION:**

Boiler Supply/Return Line 24 in

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

20 l.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 37



**HA# 37**

**MATERIAL DESCRIPTION:**

Electrical Equipment

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

0 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 38



**HA# 38**

**MATERIAL DESCRIPTION:**

Ceramic Tile w. associated grout & bedding Multi-colored Tan

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

132 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 39



**HA# 39**

**MATERIAL DESCRIPTION:**

Ceiling Tile 2' X '2 Pinhole

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

5,997 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

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**BDN Project No.:** P23-00304

### PHOTOGRAPH # 40



**HA# 40**

**MATERIAL DESCRIPTION:**

Restroom Doors

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

200 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 41



**HA# 41**

**MATERIAL DESCRIPTION:**

Interior Window Glazing

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

193 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 42



**HA# 42**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tiles w/ associated Mastic 9 X 9 - Tan w/ Brown specs

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

145 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
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**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 43



**HA# 43**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tiles w/ associated mastic 9 X 9 - Brown w/ Dark Brown Specs

**ASBESTOS-CONTAINING MATERIAL:**

Yes

**TOTAL QUANTITY:**

145 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 44



**HA# 44**

**MATERIAL DESCRIPTION:**

Pre-cast Concrete Panels

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

2,799 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 45



**HA# 45**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ Mastic 12 X 12 - Tan w/ Cream Streaks

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

10 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 46



**HA# 46**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ associated Mastic 9 X 9- Cream w/ Brown Specs

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

20 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 47



**HA# 47**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ associated grout and bedding- Orange 4 in. wall tile

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

45 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 48



**HA# 48**

**MATERIAL DESCRIPTION:**

Brick & Mortar - Tan

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

1,970 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 49



**HA# 49**

**MATERIAL DESCRIPTION:**

Ceramic Block w/ associated Mortar 12' X 18'

**ASBESTOS-CONTAINING MATERIAL:**

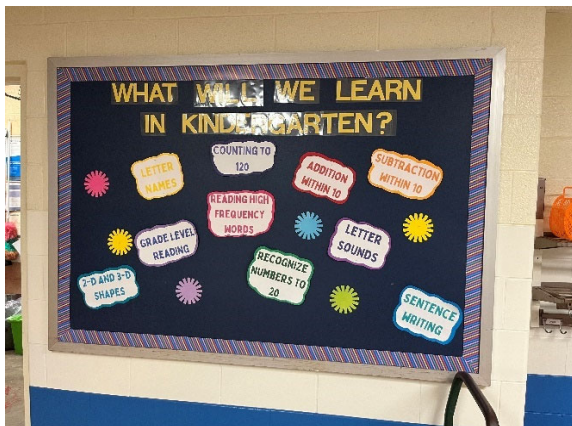
Assumed

**TOTAL QUANTITY:**

1,950 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 50



**HA# 50**

**MATERIAL DESCRIPTION:**

Display Board

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

3,175 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 51



**HA# 51**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

236 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 52



**HA# 52**

**MATERIAL DESCRIPTION:**

Covebase w/ adhesive 2 in. - Tan

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

120 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 53



**HA# 53**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tiles & associated mastic 9 X 9 - Cream w/ Black Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

875 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 54



**HA# 54**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

3,694 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 55



**HA# 55**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Cream w/ Green Streaks

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

60 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 56



**HA# 56**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ associated Mastic 9 X 9 - Tan w/ multi-color streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

855 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 57



**HA# 57**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ Associated Mastic 12 X 12 - Brown w/ Multi-color Specs

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

10 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 58



**HA# 58**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ associated Mastic 9 X 9 - Maroon w/ Multi-color

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

30 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 59



**HA# 59**

**MATERIAL DESCRIPTION:**

Sink Undercoating - Grey

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

15 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 60



**HA# 60**

**MATERIAL DESCRIPTION:**

Drywall - Gypsum Board

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

4,520 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 61



**HA# 61**

**MATERIAL DESCRIPTION:**

Ceiling Tile 2 X 2 - Worm Track

**ASBESTOS-CONTAINING MATERIAL:**

Yes

**TOTAL QUANTITY:**

14,896 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 62



**HA# 62**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red & Black Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

1,131 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 63



**HA# 63**

**MATERIAL DESCRIPTION:**

Covebase w/ associated Mastic 2 in. - Black

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

50 s.f.

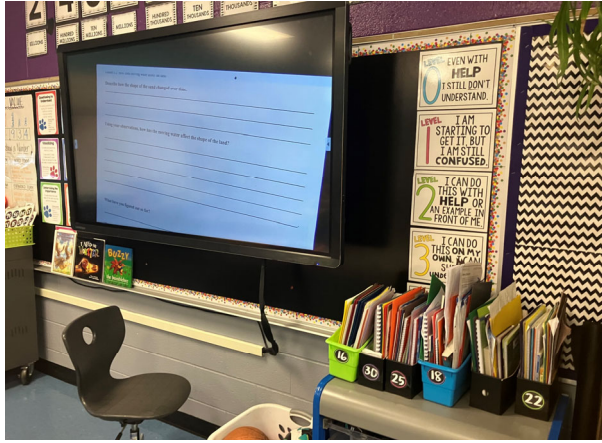
**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 64



**HA# 64**

**MATERIAL DESCRIPTION:**

Chalkboard - Black

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

590 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 65



**HA# 65**

**MATERIAL DESCRIPTION:**

Formica Countertops w/ associated adhesive - Grey

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

10 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 66



**HA# 66**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ associated Grout & bedding - 2" X 1" Brown

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

340 s.f.

**ADDITIONAL NOTES:**

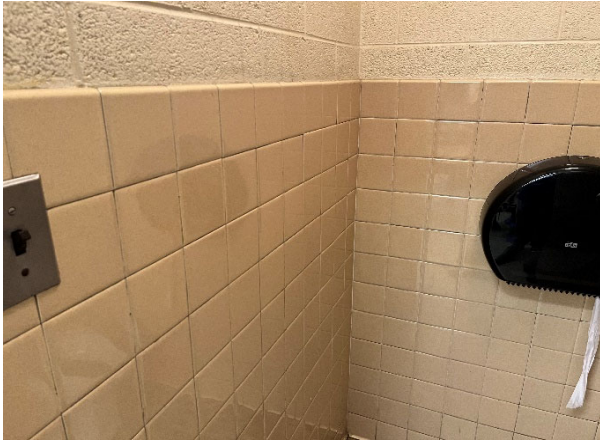




## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 67



**HA# 67**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ associated grout & bedding - 4 in. Tan

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

530 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 68



**HA# 68**

**MATERIAL DESCRIPTION:**

Sink Undercoating - Pink

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

18 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 69



**HA# 69**

**MATERIAL DESCRIPTION:**

Ceramic Block w/ associated grout- 12' X 18 - Tan

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

498 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 70



**HA# 70**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile 9 X 9 - Tan Marble

**ASBESTOS-CONTAINING MATERIAL:**

Yes

**TOTAL QUANTITY:**

297 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 71



**HA# 71**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ associated Mastic 9 X 9 - Mint Green w/ Black & White Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

80 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 72



**HA# 72**

**MATERIAL DESCRIPTION:**

Formica Countertops w/ associated adhesive - White w/ Grey specs

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

0 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 73



**HA# 73**

**MATERIAL DESCRIPTION:**

HVAC Duct Wrap - Canvas

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

80 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 74



**HA# 74**

**MATERIAL DESCRIPTION:**

Caulk - Interior window - Black

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

140 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 75



**HA# 75**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile W/ associated Mastic 9 X 9 - Tan w/ White streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

960 s.f.

**ADDITIONAL NOTES:**

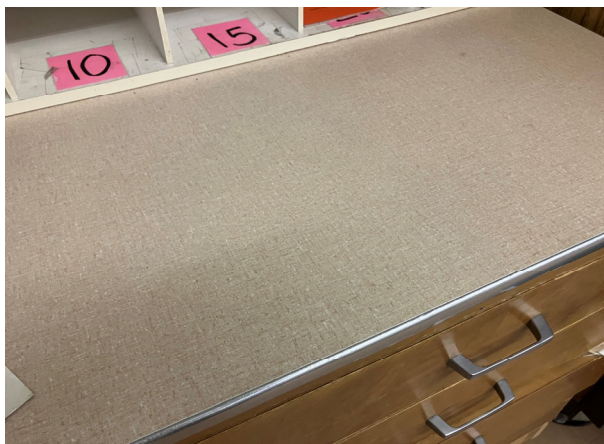




## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 76



**HA# 76**

**MATERIAL DESCRIPTION:**

Formica Countertops - Pink

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

35 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 77



**HA# 77**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

1,968 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 78



**HA# 78**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ associated grout & bedding 1 in. Tan

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

220 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
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**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 79



**HA# 79**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ Associated Mastic 12" X 12" - Blue w/ Blue Specs

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

3,969 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 80



**HA# 80**

**MATERIAL DESCRIPTION:**

Formica Countertops w/ associated adhesive - Tan

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

100 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 81



**HA# 81**

**MATERIAL DESCRIPTION:**

Covebase w/ associated adhesive 8 in. - Black

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

80 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 82



**HA# 82**

**MATERIAL DESCRIPTION:**

Terrezo - Red Specs

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

2,180 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 83



**HA# 83**

**MATERIAL DESCRIPTION:**

Firebreak paper w/ associated mastic - Black

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

20 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 85



**HA# 85**

**MATERIAL DESCRIPTION:**

Ceramic Tiles w/ associated grout & bedding - 1 in White

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

30 s.f.

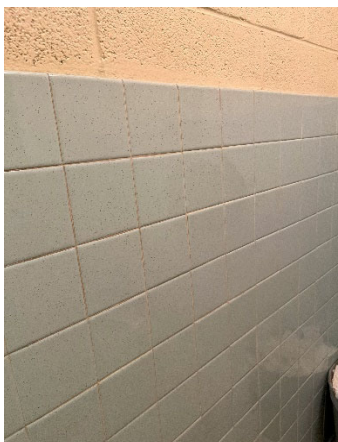
**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 86



**HA# 86**

**MATERIAL DESCRIPTION:**

Ceramic Tile w/ associated grout and bedding - 4 in. Blue

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

80 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 87



**HA# 87**

**MATERIAL DESCRIPTION:**

Joint Compound associated w/ Gypsum Board drywal

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

100 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 88



**HA# 88**

**MATERIAL DESCRIPTION:**

Vinyl Floor Tile w/ associated mastic 9 X 9 - Grey w/ Multi-color Streaks

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

112 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 89



**HA# 89**

**MATERIAL DESCRIPTION:**

Metal Fire Door & Frame w/ Windows

**ASBESTOS-CONTAINING MATERIAL:**

Assumed

**TOTAL QUANTITY:**

8 ct.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 90



**HA# 90**

**MATERIAL DESCRIPTION:**

Mudded fittings on Fiberglass pipe insulation

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

17 ct.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 91



**HA# 91**

**MATERIAL DESCRIPTION:**

Muddled fittings on roof drain

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

1 ct.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 92



**HA# 92**

**MATERIAL DESCRIPTION:**

Caulk - Exterior Window

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

570 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 93



**HA# 93**

**MATERIAL DESCRIPTION:**

Glazing - Exterior Window

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

855 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 94



**HA# 94**

**MATERIAL DESCRIPTION:**

Caulk - Exterior Vent

**ASBESTOS-CONTAINING MATERIAL:**

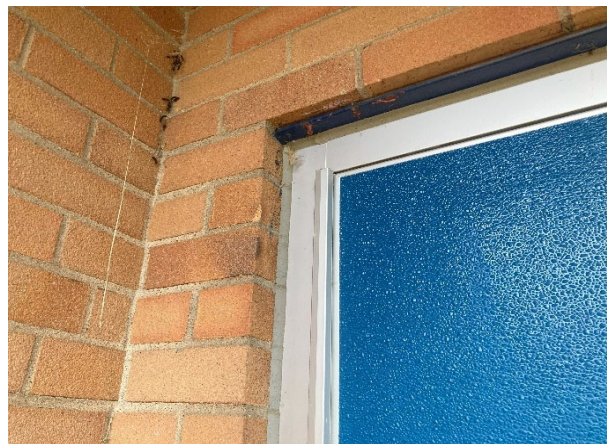
No

**TOTAL QUANTITY:**

92 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 95



**HA# 95**

**MATERIAL DESCRIPTION:**

Caulk - Exterior Door Frame

**ASBESTOS-CONTAINING MATERIAL**

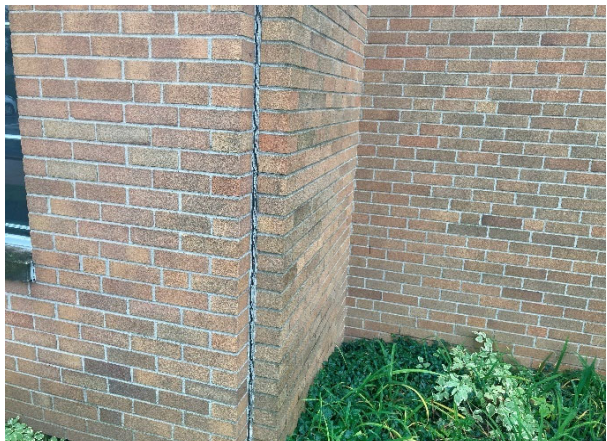
No

**TOTAL QUANTITY:**

90 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 96



**HA# 96**

**MATERIAL DESCRIPTION:**

Caulk - Exterior Building Seam

**ASBESTOS-CONTAINING MATERIAL**

Yes

**TOTAL QUANTITY:**

165 s.f.

**ADDITIONAL NOTES:**



## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 97



**HA# 97**

**MATERIAL DESCRIPTION:**

Exterior Plaster

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

300 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 98



**HA# 98**

**MATERIAL DESCRIPTION:**

Exterior Fire Door and Frame

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

18 ct.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 99



**HA# 99**

**MATERIAL DESCRIPTION:**

Exterior - Flat Roofing

**ASBESTOS-CONTAINING MATERIAL**

No

**TOTAL QUANTITY:**

38,650 s.f.

**ADDITIONAL NOTES:**





## Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 100



**HA# ##**

**MATERIAL DESCRIPTION:**

Exterior Roof Flashing

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

12,850 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 101



**HA# 101**

**MATERIAL DESCRIPTION:**

Caulk - Exterior Roof

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

480 s.f.

**ADDITIONAL NOTES:**

### PHOTOGRAPH # 102



**HA# 102**

**MATERIAL DESCRIPTION:**

Exterior Window Vapor Barrier

**ASBESTOS-CONTAINING MATERIAL**

Assumed

**TOTAL QUANTITY:**

2,280 s.f.

**ADDITIONAL NOTES:**



### Site Photograph Log

**Client Name:** Lansing School District  
**Project Name:** Cumberland Elementry  
**Project Address:** 2801 Cumberland Road, Lansing, Mi 48906  
**BDN Project No.:** P23-00304

### PHOTOGRAPH # 103



**HA#** 103

**MATERIAL DESCRIPTION:**

Caulk - Exterior Window Sill

**ASBESTOS-CONTAINING MATERIAL:**

No

**TOTAL QUANTITY:**

130 s.f.

**ADDITIONAL NOTES:**



# **Appendix F**

## **Analytical Results – Asbestos**

BDN Project No.: P23-00304

**Cumberland Elementary – Lansing Public Schools**

October 2023

Report for:

**Ken Conlin, Matt Moody**  
**BDN Industrial Hygiene Consultants**  
2922 Fuller Avenue NE  
Suite 200-B  
Grand Rapids, MI 49505

---

Regarding: Eurofins J3 Resources, Inc.  
Project: P23-00304; Lansing Schools - Cumberland  
EML ID: 3418954

Approved by:



Signatory  
Kenneth Castro

Dates of Analysis:  
Asbestos PLM (Layer %): 10-19-2023

Service SOPs: Asbestos PLM (Layer %) (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)

---

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the samples as received and tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

Eurofins J3 Resources, Inc. ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.



Client: BDN Industrial Hygiene Consultants  
C/O: Ken Conlin, Matt Moody  
Re: P23-00304; Lansing Schools - Cumberland

Date of Receipt: 10-13-2023  
Date of Report: 10-19-2023

**Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**  
**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
1-1. 16637442-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
1-2. 16637443-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
2-1. 16637444-1	Layer 1 Gray CMU Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Mortar Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
2-2. 16637445-1	Layer 1 Gray CMU Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
3-1. 16637446-1	Layer 1 Beige Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow/ Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
3-2. 16637447-1	Layer 1 Beige Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow/ Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
4-1. 16637448-1	Layer 1 White Tectum Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Cellulose	
4-2. 16637449-1	Layer 1 White Tectum Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Cellulose	
8-1. 16637450-1	Layer 1 Beige Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
8-2. 16637451-1	Layer 1 Beige Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
9-1. 16637452-1	Layer 1 Beige Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

**Comments:**

The total percentage of sample components shown may be greater than 100% when some components are detected at <1%.

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers of that type were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

Client: BDN Industrial Hygiene Consultants  
C/O: Ken Conlin, Matt Moody  
Re: P23-00304; Lansing Schools - Cumberland

Date of Receipt: 10-13-2023  
Date of Report: 10-19-2023

**Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**  
**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
9-2. 16637453-1	Layer 1 Beige Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
10-1. 16637454-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
10-2. 16637455-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
12-1. 16637456-1	Layer 1 Brown Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Brown Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
12-2. 16637457-1	Layer 1 Brown Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Brown Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
13-1. 16637458-1	Layer 1 Black Sink Undercoating Homogeneity:Good	10% Chrysotile	90% Non-Fibrous Material	
13-2. 16637459-1	Layer 1 Black Sink Undercoating Homogeneity:Good	10% Chrysotile	90% Non-Fibrous Material	
15-1. 16637460-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
15-2. 16637461-1	Layer 1 Clear Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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**Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**  
**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
19-1. 16637462-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
19-2. 16637463-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
20-1. 16637464-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Brown Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
20-2. 16637465-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Cream Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
21-1. 16637466-1	Layer 1 Brown Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
21-2. 16637467-1	Layer 1 Brown Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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22-1. 16637468-1	Layer 1 Black Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
22-2. 16637469-1	Layer 1 Black Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
27-1. 16637470-1	Layer 1 Beige/ Gray Plaster Painted Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
27-2. 16637471-1	Layer 1 Silver Caulk Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
32-1. 16637472-1	Layer 1 Black Gasket Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
32-2. 16637473-1	Layer 1 Black Gasket Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Synthetic Fibers	
32-3. 16637474-1	Layer 1 White Gasket Homogeneity:Good	Not Detected	98% Glass Fibers 2% Non-Fibrous Material	
34-1. 16637475-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	98% Non-Fibrous Material 2% Synthetic Fibers	
34-2. 16637476-1	Layer 1 Black Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
35-1. 16637477-1	Layer 1 Red Caulk Homogeneity:Good	Not Detected	98% Non-Fibrous Material 2% Glass Fibers	
35-2. 16637478-1	Layer 1 Red Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
39-1. 16637479-1	Layer 1 White/ Gray Ceiling Tile Homogeneity:Good	Not Detected	60% Cellulose 30% Non-Fibrous Material 10% Mineral Wool	
39-2. 16637480-1	Layer 1 White/ Gray Ceiling Tile Homogeneity:Good	Not Detected	60% Cellulose 30% Non-Fibrous Material 10% Mineral Wool	
41-1. 16637481-1	Layer 1 Black Window Glazing Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
41-2. 16637482-1	Layer 1 White Window Glazing Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
42-1. 16637483-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
42-2. 16637484-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
43-1. 16637485-1	Layer 1 Brown Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
43-2. 16637486-1	Layer 1 Brown Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
44-1. 16637487-1	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 1 Gray Concrete Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
45-1. 16637489-1	Layer 1 Tan Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Cream Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
45-2. 16637490-1	Layer 1 Tan Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Cream Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
48-1. 16637491-1	Layer 1 Tan Brick Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Mortar Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
48-2. 16637492-1	Layer 1 Tan Brick Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Gray Mortar Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
51-1. 16637493-1	Layer 1 Brown Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
51-2. 16637494-1	Layer 1 Brown Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
52-1. 16637495-1	Layer 1 Brown Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Brown Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
52-2. 16637496-1	Layer 1 Brown Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Brown Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
53-1. 16637497-1	Layer 1 Cream Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
53-2. 16637498-1	Layer 1 Cream Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
54-1. 16637499-1	Layer 1 Cream Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
54-2. 16637500-1	Layer 1 Cream Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
56-1. 16637501-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
56-2. 16637502-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
59-1. 16637503-1	Layer 1 Gray Sink Undercoating Homogeneity:Good	10% Chrysotile	90% Non-Fibrous Material	
59-2. 16637504-1	Layer 1 Gray Sink Undercoating Homogeneity:Good	10% Chrysotile	90% Non-Fibrous Material	
60-1. 16637505-1	Layer 1 Beige Drywall with Brown Paper Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose	
60-2. 16637506-1	Layer 1 White Drywall with Brown Paper Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
61-1. 16637507-1	Layer 1 White/ Gray Ceiling Tile Homogeneity:Good	2% Chrysotile	56% Mineral Wool 40% Non-Fibrous Material 2% Cellulose	
61-2. 16637508-1	Layer 1 White/ Gray Ceiling Tile Homogeneity:Good	Not Detected	45% Mineral Wool 35% Non-Fibrous Material 20% Cellulose	
62-1. 16637509-1	Layer 1 Cream Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
62-2. 16637510-1	Layer 1 Cream Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
63-1. 16637511-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
63-2. 16637512-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Brown Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
68-1. 16637513-1	Layer 1 Pink Sink Undercoating Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
68-2. 16637514-1	Layer 1 Pink Sink Undercoating Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
70-1. 16637515-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
70-2. 16637516-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
71-1. 16637517-1	Layer 1 Gray Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Clear Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
71-2. 16637518-1	Layer 1 Gray Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Clear Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
73-1. 16637519-1	Layer 1 Beige Wrap Homogeneity:Good	Not Detected	98% Cellulose 2% Non-Fibrous Material	
	Layer 2 Brown/ Silver Paper / Foil Wrap Homogeneity:Good	Not Detected	60% Cellulose 40% Non-Fibrous Material	
	Layer 3 Yellow Insulation Homogeneity:Good	Not Detected	95% Glass Fibers 5% Non-Fibrous Material	
73-2. 16637520-1	Layer 1 Beige Wrap Homogeneity:Good	Not Detected	98% Cellulose 2% Non-Fibrous Material	
	Layer 2 Brown/ Silver Paper / Foil Wrap Homogeneity:Good	Not Detected	60% Cellulose 40% Non-Fibrous Material	
	Layer 3 Yellow Insulation Homogeneity:Good	Not Detected	95% Glass Fibers 5% Non-Fibrous Material	
74-1. 16637521-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
74-2. 16637522-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
75-1. 16637523-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
75-2. 16637524-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
77-1. 16637525-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
77-2. 16637526-1	Layer 1 Tan Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
79-1. 16637527-1	Layer 1 Blue Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
79-2. 16637528-1	Layer 1 Blue Floor Tile Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
81-1. 16637529-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
81-2. 16637530-1	Layer 1 Black Cove Base Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 2 Yellow Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
83-1. 16637531-1	Layer 1 Black Felt Homogeneity:Good	60% Chrysotile	35% Non-Fibrous Material 5% Cellulose	
83-2. 16637532-1	Layer 1 Black Wrap Tar Homogeneity:Good	Not Detected	60% Cellulose 40% Non-Fibrous Material	
	Layer 2 Black Felt Homogeneity:Good	60% Chrysotile	35% Non-Fibrous Material 5% Cellulose	
88-1. 16637533-1	Layer 1 Gray Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
88-2. 16637534-1	Layer 1 Gray Floor Tile Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
	Layer 2 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
90-1. 16637535-1	Layer 1 Beige Wrap Homogeneity:Good	Not Detected	98% Cellulose 2% Non-Fibrous Material	
	Layer 2 Gray Insulation Homogeneity:Good	Not Detected	70% Non-Fibrous Material 30% Mineral Wool	

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Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
90-2. 16637536-1	Layer 1 Silver Wrap Mastic Homogeneity:Good	Not Detected	50% Non-Fibrous Material 40% Cellulose 10% Glass Fibers	
	Layer 2 Beige Wrap Homogeneity:Good	Not Detected	98% Cellulose 2% Non-Fibrous Material	
	Layer 3 Gray/ Yellow Insulation Homogeneity:Good	Not Detected	70% Non-Fibrous Material 30% Mineral Wool	
90-3. 16637537-1	Layer 1 Beige Wrap Homogeneity:Good	Not Detected	98% Cellulose 2% Non-Fibrous Material	
	Layer 2 Gray Insulation Homogeneity:Good	Not Detected	70% Non-Fibrous Material 30% Mineral Wool	
91-1. 16637538-1	Layer 1 Beige Wrap Homogeneity:Good	Not Detected	98% Cellulose 2% Non-Fibrous Material	
	Layer 2 Gray Insulation Homogeneity:Good	Not Detected	70% Non-Fibrous Material 30% Mineral Wool	
91-2. 16637539-1	Layer 1 Beige Wrap Homogeneity:Good	Not Detected	98% Cellulose 2% Non-Fibrous Material	
	Layer 2 Gray Insulation Homogeneity:Good	Not Detected	70% Non-Fibrous Material 30% Mineral Wool	
91-3. 16637540-1	Layer 1 Beige Wrap Homogeneity:Good	Not Detected	98% Cellulose 2% Non-Fibrous Material	
	Layer 2 Gray Insulation Homogeneity:Good	Not Detected	70% Non-Fibrous Material 30% Mineral Wool	
92-1. 16637541-1	Layer 1 Clear Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
92-2. 16637542-1	Layer 1 White Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
93-1. 16637543-1	Layer 1 White Window Glazing Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	

**Comments:**

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The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers of that type were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.



Client: BDN Industrial Hygiene Consultants  
C/O: Ken Conlin, Matt Moody  
Re: P23-00304; Lansing Schools - Cumberland

Date of Receipt: 10-13-2023  
Date of Report: 10-19-2023

**Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**  
**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
93-2. 16637544-1	Layer 1 White Window Glazing Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
94-1. 16637545-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
94-2. 16637546-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
95-1. 16637547-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	98% Non-Fibrous Material 2% Synthetic Fibers	
95-2. 16637548-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	98% Non-Fibrous Material 2% Synthetic Fibers	
96-1. 16637549-1	Layer 1 White Caulk Homogeneity:Good	2% Chrysotile	98% Non-Fibrous Material	
96-2. 16637550-1	Layer 1 White Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
97-1. 16637551-1	Layer 1 White Plaster Homogeneity:Good	Not Detected	95% Non-Fibrous Material 5% Glass Fibers	
97-2. 16637552-1	Layer 1 White Plaster Homogeneity:Good	Not Detected	95% Non-Fibrous Material 5% Glass Fibers	
97-3. 16637553-1	Layer 1 White Plaster Homogeneity:Good	Not Detected	95% Non-Fibrous Material 5% Glass Fibers	
103-1. 16637554-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
103-2. 16637555-1	Layer 1 Gray Caulk Homogeneity:Good	Not Detected	98% Non-Fibrous Material 2% Synthetic Fibers	

**Comments:**

**Analyst(s):** Kenneth Castro

The total percentage of sample components shown may be greater than 100% when some components are detected at <1%.

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Report for:

**Ken Conlin, Matt Moody**  
**BDN Industrial Hygiene Consultants**  
2922 Fuller Avenue NE  
Suite 200-B  
Grand Rapids, MI 49505

---

Regarding: Eurofins J3 Resources, Inc.  
Project: P23-00304; Ldn Sing Schools Cumberland  
EML ID: 3441680

Approved by:

Dates of Analysis:  
Asbestos PLM (Layer %): 11-03-2023



Lab Director  
Scott Ward

Service SOPs: Asbestos PLM (Layer %) (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)  
NVLAP Lab Code 200525-0

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the samples as received and tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

Eurofins J3 Resources, Inc. ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: BDN Industrial Hygiene Consultants  
C/O: Ken Conlin, Matt Moody  
Re: P23-00304; Ldn Sing Schools Cumberland

Date of Receipt: 11-03-2023  
Date of Report: 11-03-2023

**Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**  
**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
99-1. 16758603-1	Layer 1 Black Roll Roofing Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Synthetic Fibers	
	Layer 2 Black Foam Insulation Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose < 1% Glass Fibers	
99-2. 16758604-1	Layer 1 Black Roll Roofing Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Synthetic Fibers	
	Layer 2 Black Foam Insulation Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose < 1% Glass Fibers	
100-1. 16758605-1	Layer 1 Black Roll Roofing Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Synthetic Fibers	
100-2. 16758606-1	Layer 1 Black Roll Roofing Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Synthetic Fibers	
101-1. 16758607-1	Layer 1 White Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
101-2. 16758608-1	Layer 1 Black Caulk Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
104-1. 16758609-1	Layer 1 White Roofing Membrane Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Synthetic Fibers	
	Layer 2 White Felt Homogeneity:Good	Not Detected	100% Glass Fibers	
	Layer 3 Pink Foam Insulation Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 4 Black Foam Insulation Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose < 1% Glass Fibers	

**Comments:**

The total percentage of sample components shown may be greater than 100% when some components are detected at <1%.

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Client: BDN Industrial Hygiene Consultants  
C/O: Ken Conlin, Matt Moody  
Re: P23-00304; Ldn Sing Schools Cumberland

Date of Receipt: 11-03-2023  
Date of Report: 11-03-2023

**Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)**  
**Appx E Sub E 40 CFR 763 / EPA 600/R-93/116**

Sample ID #	Sample Description	Asbestos Constituents	Non-Asbestos Constituents	Comment
104-2. 16758610-1	Layer 1 White Roofing Membrane Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Synthetic Fibers	
	Layer 2 White Felt Homogeneity:Good	Not Detected	100% Glass Fibers	
	Layer 3 Pink Foam Insulation Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 4 Black Foam Insulation Homogeneity:Good	Not Detected	90% Non-Fibrous Material 10% Cellulose < 1% Glass Fibers	
105-1. 16758611-1	Layer 1 White Roofing Membrane Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Synthetic Fibers	
	Layer 2 Tan Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 3 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
105-2. 16758612-1	Layer 1 White Roofing Membrane Homogeneity:Good	Not Detected	85% Non-Fibrous Material 15% Synthetic Fibers	
	Layer 2 Tan Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	
	Layer 3 Black Mastic Homogeneity:Good	Not Detected	100% Non-Fibrous Material	

**Comments:**

**Analyst(s):** Jovahnny Dominguez

The total percentage of sample components shown may be greater than 100% when some components are detected at <1%.

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# **Appendix G**

## **Analytical Results – Heavy Metals**

BDN Project No.: P23-00304

**Cumberland Elementary – Lansing Public Schools**

October 2023

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Ken Conlin  
BDN Industrial Hygiene Consultants  
2922 Fuller Avenue NE  
Suite 200-B  
Grand Rapids, Michigan 49505

Generated 10/19/2023 2:16:52 PM

## JOB DESCRIPTION

Lansing Schools - Cumberland  
SDG NUMBER P23-00304

## JOB NUMBER

740-1272-1



# Eurofins Built Environment Testing

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins J3 Resources, Inc. Project Manager.

## Authorization

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10/19/2023 2:16:52 PM

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Authorized for release by  
Milena Rodriguez, Laboratory Technician I  
[Milena.Rodriguez@et.eurofinsus.com](mailto:Milena.Rodriguez@et.eurofinsus.com)  
Designee for  
Reddy Pakanati, Department Manager II  
[reddy.pakanati@et.eurofinsus.com](mailto:reddy.pakanati@et.eurofinsus.com)  
(713)290-0223

## Sample Summary

Client: BDN Industrial Hygiene Consultants  
Project/Site: Lansing Schools - Cumberland

Job ID: 740-1272-1  
SDG: P23-00304

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
740-1272-1	PC-1	Solid	10/12/23 00:00	10/13/23 12:17
740-1272-2	PC-2	Solid	10/12/23 00:00	10/13/23 12:17
740-1272-3	PC-3	Solid	10/12/23 00:00	10/13/23 12:17

## Client Sample Results

Client: BDN Industrial Hygiene Consultants  
Project/Site: Lansing Schools - Cumberland

Job ID: 740-1272-1  
SDG: P23-00304

### Client Sample ID: PC-1

Date Collected: 10/12/23 00:00

Date Received: 10/13/23 12:17

### Lab Sample ID: 740-1272-1

Matrix: Solid

#### Method: OSHA ID 121 - Metals (ICP-MS)

Analyte	Result	Qualifier	RL	Unit	D	Analyzed	Dil Fac	Analyst
Cadmium	<0.00114	*+	0.00114	%		10/19/23 13:04	50	MR
Chromium	<0.00114	*+	0.00114	%		10/19/23 13:04	50	MR
Lead	<0.00114	*+	0.00114	%		10/19/23 13:04	50	MR

### Client Sample ID: PC-2

Date Collected: 10/12/23 00:00

Date Received: 10/13/23 12:17

### Lab Sample ID: 740-1272-2

Matrix: Solid

#### Method: OSHA ID 121 - Metals (ICP-MS)

Analyte	Result	Qualifier	RL	Unit	D	Analyzed	Dil Fac	Analyst
Cadmium	<0.00112	*+	0.00112	%		10/19/23 13:06	50	MR
Chromium	<0.00112	*+	0.00112	%		10/19/23 13:06	50	MR
Lead	0.00490	*+	0.00112	%		10/19/23 13:06	50	MR

### Client Sample ID: PC-3

Date Collected: 10/12/23 00:00

Date Received: 10/13/23 12:17

### Lab Sample ID: 740-1272-3

Matrix: Solid

#### Method: OSHA ID 121 - Metals (ICP-MS)

Analyte	Result	Qualifier	RL	Unit	D	Analyzed	Dil Fac	Analyst
Cadmium	<0.00102	*+	0.00102	%		10/19/23 13:08	50	MR
Chromium	<0.00102	*+	0.00102	%		10/19/23 13:08	50	MR
Lead	0.0163	*+	0.00102	%		10/19/23 13:08	50	MR

# Accreditation/Certification and Definitions Summary

Client: BDN Industrial Hygiene Consultants  
Project/Site: Lansing Schools - Cumberland

Job ID: 740-1272-1  
SDG: P23-00304

## Laboratory: Eurofins Built Environment Testing

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Environmental Lead Laboratory Accreditation Program (ELLAP)	LAP-157714	12-01-24
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	LAP-157714	12-01-24

## Qualifiers

### IH - Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
MRL	Method Reporting Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
SDL	Sample Detection Limit
SDL	Sample Detection Limit
SDL	Sample Detection Limit

## Accreditation/Certification and Definitions Summary

Client: BDN Industrial Hygiene Consultants  
Project/Site: Lansing Schools - Cumberland

Job ID: 740-1272-1  
SDG: P23-00304

### Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Method Summary

Client: BDN Industrial Hygiene Consultants  
Project/Site: Lansing Schools - Cumberland

Job ID: 740-1272-1  
SDG: P23-00304

Method	Method Description	Protocol	Laboratory
OSHA ID 121	Metals (ICP-MS)	OSHA	EJ3
3050B	Preparation, Metals	SW846	EJ3

### Protocol References:

OSHA = OSHA Analytical Methods Manual, Occupational Safety And Health Administration.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EJ3 = Eurofins Built Environment Testing, 3113 Red Bluff Road, Pasadena, TX 77503, TEL (713)290-0223



☐ Open Lab Fee

IH



003418905

Y



Submitter Name: <u>Matt Moody</u>	Bill to: <u>Same as Submitter</u>
Company: <u>BDN Industrial Hygiene Consultants</u>	Address: _____
Address: <u>8105 Valleywood Lane</u>	City/State: _____ Zip: _____
City/State: <u>Portage, MI</u> Zip: <u>49024</u>	PO #: _____

**Project Information**

Project Name: <u>Lansing Schools - Cumberland</u>	Project Manager: <u>Ken Lonlin</u>
Project #: <u>P23-00304</u>	Telephone - Office/Cell <u>231-250-9343</u>
Reports - Email Address: <u>mmmoody@BDNIHL.com, klonlin@BDNIHL.com</u>	
Invoice - Email Address: <u>accounting@bdnihc.com</u>	Notification By: Email: <input checked="" type="checkbox"/> Verbal: <input type="checkbox"/> Text: <input type="checkbox"/>

Special Instructions: Lead, Cadmium, Chromium, Report as % of weight

**Turnaround Times - Please Select One**

Emergency* <input type="checkbox"/>	1 Day <input type="checkbox"/>	2 Day <input type="checkbox"/>	3 Day <input type="checkbox"/>	5 Day <input checked="" type="checkbox"/>
-------------------------------------	--------------------------------	--------------------------------	--------------------------------	---

**ASBESTOS**

PLM - Bulk	PCM - Air	TEM - Air	TEM - Bulk	TEM - Water	TEM - Dust	TEM/PLM Soil/Vermiculite/Ore
EPA 600/R-93/116 <input type="checkbox"/> Visual Estimation (<1%) <input type="checkbox"/> 400 Point Count 0.25% <input type="checkbox"/> 1,000 Point Count 0.1% <input type="checkbox"/> Gravimetric Reduction <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> NIOSH 9002 <input type="checkbox"/> OSHA ID-191	<input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> ASTM D7201 <input type="checkbox"/> ISO 8672 <input type="checkbox"/> OSHA ID-160	<input type="checkbox"/> AHERA <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> ASTM D6281 <input type="checkbox"/> ISO 10312 <input type="checkbox"/> ISO 13794	<input type="checkbox"/> Gravimetric Reduction (<1%) <input type="checkbox"/> Matrix Reduction (+/-) <input type="checkbox"/> Qualitative (+/-) <input type="checkbox"/> Drop Mount <input type="checkbox"/> Filtration	<input type="checkbox"/> EPA 100.2 Drinking Water <input type="checkbox"/> >10 µm fibers <input type="checkbox"/> ≥0.5 µm fibers <input type="checkbox"/> EPA 100.2 Effluent / WW	<input type="checkbox"/> ASTM D5755 Microvac <input type="checkbox"/> ASTM D6480 Wipe <input type="checkbox"/> 600/J-93/167 Carpet - EPA <input type="checkbox"/> Bulk Dust Qualitative	<input type="checkbox"/> ASTM 7521-TEM (+/-) <input type="checkbox"/> ASTM 7521-TEM (<1%) <input type="checkbox"/> CARB 435-Modified <input type="checkbox"/> Soil - PLM Only (+/-) <input type="checkbox"/> Vermiculite - TEM (+/-) <input type="checkbox"/> Vermiculite-Cincinnati <input type="checkbox"/> Erionite ID

**METALS**

**SILICA/PARTICULATES**

Flame AA	Graphite Furnace AA - LEAD	ICP	X-Ray Diffraction / Gravimetric
<input checked="" type="checkbox"/> Lead in Paint - SW846 7420/3050B <input type="checkbox"/> Lead in Air - NIOSH 7082 <input type="checkbox"/> Lead in Wipes - SW846 7420/3050B <input type="checkbox"/> Lead in Soil - SW846 7420/3050B	<input type="checkbox"/> Drinking Water - EPA 200.9 <input type="checkbox"/> Wastewater - SW846-7421 <input type="checkbox"/> Soil/Sludge - SW846-7421 <input type="checkbox"/> Air - NIOSH 7105	<input type="checkbox"/> Elements in Air - NIOSH 7300 <input type="checkbox"/> Wipe/Soil - SW846-6010B <input type="checkbox"/> Effluent - SW846-6010B <input type="checkbox"/> Welding Fume - NIOSH 7300M <input type="checkbox"/> TCLP - SW846-1311/6010B	<input type="checkbox"/> Respirable Crystalline Silica NIOSH 7500 / OSHA 142 <input type="checkbox"/> NIOSH 0500 - Total Particulates <input type="checkbox"/> NIOSH 0600 - Respirable Particulates

Total Number of Samples Submitted: <u>3</u>	Positive Stop: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
---	--

**Signatures**

Relinquished By: <u>Matt Moody</u>	Date: <u>10.12.23</u> Time: <u>1400</u>
Received By: <u>[Signature]</u>	Date: <u>10/13/23</u> Time: <u>9:35 AM</u>
Relinquished By: _____	Date: _____ Time: _____
Received By: _____	Date: _____ Time: _____

\* Emergency TAT requires prior lab notification. All samples analyzed outside normal business hours are charged at Emergency rate.  
\*\*TAT's are in Business Days rather than Hours (i.e. 1 Day TAT = End of Next Business Day)

J3 Resources, Inc. • 6110 West 34<sup>th</sup> Street • Houston, Texas 77092 • tel: 713/290-0221 • fax: 713/290-0248