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Addendum No.[#2]

Project Name: Cavanaugh & Cumberland HVAC
Project No.: 221125-020 & 030
Architect: Kingscott
Date: 12/18/2023

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:

- Specification section(s):
  - BDN Abatement Technical Specifications - Cumberland 12/06/2023 [REVISED]

- Drawing(s):
  - M0.5 – Roof Composite Mechanical Plan [REVISED]
  - E7.0 – Electrical Diagrams, Schedules and Details [REVISED]
  - EP0.5 – Roof Composite Power Plan [REVISED]
  - EP1.2 – Power Plan - Unit 200 [REVISED]

B. Other modifications: None

- RFI's with architect/CM response.
- Virtual Pre-Bid Agenda & Attendance, meeting dated 12/5/2023
- Revised Project Manual;
  - WC 20 Specific Note Allowance Increase by $10,000, new allowance required to be $20,000
  - WC 27 Specific Note and Detail – Added note 30;
    - "Set Cumberland Rooftop Condensing Units no greater than 15' from the edge of the roof, ensure coordination with unit manufacturer that total refrigerant lengths are acceptable."
  - WC 27 Specific Note and Detail – Revised Note 3;
    - "This WC responsible to receive and install pre-purchase ~~electrical~~ mechanical equipment. Pre-purchase ~~electrical~~ mechanical equipment is to be brought on site, and this WC to unload and take ownership of equipment at time of delivery. This WC responsible for final installation, and maintaining of warranty associated with equipment."

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.

BDN revised specification - Full specification included at end of Addendum 2 starting on Page 29; Highlights & general information below, review full specification still required.

Marc Alexa
Owners Rep
Lansing Public Schools
519 West Kalamazoo
Lansing, MI 48933

Date: 12/6/2022
BDN Project No. P23-00304

RE: Revised Inspection and Bid Specification for Cumberland Elementary School.

Dear Mark,

Enclosed is the revised NESHAP inspection report and bid specification for Cumberland Elementary. This letter summarizes and documents our inspection procedures, findings, and conclusions on previous inspection on October 6, 2023. BDN re sampled the material on 11/7/23 and then again on 12/4/23. After further investigation of HA 61 ceiling tiles – 2x2 – worm track. BDN has made a determination of HA# 61 ceiling tiles – 2x2 – worm track is not an asbestos-containing material. BDN duplicated sampling in the locations of the original samples, as well as the surrounding area for confirmation. The samples were shipped to Eurofins for analysis. The lab determined the materials are non-asbestos. BDN believes the locations could have been contaminated prior to sampling or cross contamination occurred from our inspection tools, which we make every effort to avoid. When presented with anomalies such as this, we always conduct verification sampling to be sure.

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.

Sincerely,

Ken Conlin
Senior Project Manager
BDN Industrial Hygiene Consultants, Inc.

eurofins | Built Environment Testing

Report for:

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

Regarding: Eurofins J3 Resources, Inc.
Project: P23-00304; Cumberland
EML ID: 3471978

Approved by:

Lab Director
Scott Ward

Dates of Analysis:
Asbestos PLM (Layer %): 12-05-2023

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)
NVLAP Lab Code 200525-0

Eurofins J3 Resources, Inc.
6110 West 34th Street, Houston, TX 77092
713-290-0221 www.eurofinsus.com/Built

Client: BDN Industrial Hygiene Consultants
C/O: Ken Conlin
Re: P23-00304; Cumberland

Date of Receipt: 12-05-2023
Date of Report: 12-05-2023

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
61.3. 16921826-1	Layer 1 White Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	
61.4. 16921827-1	Layer 1 White Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	
61.5. 16921828-1	Layer 1 White Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	
61.6. 16921829-1	Layer 1 White Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	
107.2. 16921830-1	Layer 1 Pink Ceiling Tile Homogeneity:Good	Not Detected	60% Cellulose 20% Mineral Wool 20% Non-Fibrous Material	
108.2. 16921831-1	Layer 1 Brown Ceiling Tile Homogeneity:Good	Not Detected	60% Cellulose 20% Mineral Wool 20% Non-Fibrous Material	
109.2. 16921832-1	Layer 1 White Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	
110.2. 16921833-1	Layer 1 Tan Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	

Comments:

Analyst(s): Isiah Scott

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

Revision #v9/MF
Revision Date: 8/27/2021

IH (Y

003471978

eurofins | J3 Resources

☐ Open Lab Fee

Submitter Name:	Ken Conlin	**Bill to:**	Same as submitter
Company:	BDN Industrial Hygiene Consultants	**Address:**	
Address:	2922 Fuller Avnue NE		
		City/State:	**Zip:**
City/State:	Grand Rapids, MI **Zip:** 49505	**PO #:**	P23-00304

Project Information

Project Name: Cumberland	Project Manager: Ken Conlin
Project #: P23-00304	Telephone – Office/Cell 231-250-9343
Reports - Email Address: kconlin@bdnihc.com	
Invoice - Email Address: ap@bdnihc.com	Notification By: Email: ☒ Verbal: ☐
Special Instructions:	

Turnaround Times – Please Select One

Emergency* ☒	1 Day ☐	2 Day ☐	3 Day ☐	5 Day ☐

ASBESTOS

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

METALS

Flame AA	Graphite Furnace AA - LEAD	ICP
○ Lead in Paint – SW846 7420/3050B ○ Lead in Air – NIOSH 7082 ○ Lead in Wipes – SW846 7420/3050B ○ Lead in Soil – SW846 7420/3050B ○ TCLP – SW846-7420/1311	○ Drinking Water – EPA 200.9 ○ Wastewater – SW846-7421 ○ Soil/Sludge – SW846-7421 ○ Air – NIOSH 7105	○ Elements in Air – NIOSH 7300 ○ Wipe/Soil – SW846-6010B ○ Effluent – SW846-6010B ○ Welding Fume – NIOSH 7300M

SILICA/PARTICULATES

X-Ray Diffraction / Gravimetric / Combustion Byproduct

○ Respirable Crystalline Silica NIOSH 7500 / OSHA 142
○ NIOSH 0500 – Total Particulates
○ NIOSH 0600 – Respirable Particulates
ASTM 6602 - CBP
○ PLM ○ TEM ○ SEM

Total Number of Samples Submitted: 8

Positive Stop: ☒ NO ☐ YES ○ By Layer ○ By Sample

Signatures

Relinquished By:		**Date:** 12/9/23	**Time:**
Received By:		**Date:** 12/9/23	**Time:** 10:30
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)

Revision #v7/MF
Revision Date: 3/09/2020

IH CHAIN OF CUSTODY

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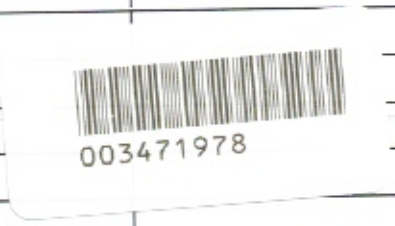
Project Name Cumberland
Project Number P23-00304

Page ____ of ____

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME/CONDITION
61.3	Ceiling Tile 2x2 Worm Track	
61.4	" " " "	
61.5	" " " "	
61.6	" " " "	
107.2	Ceiling Tile 2x2 pink back	
109.2	ceiling Tile 2x2 Brown Back	
109.2	ceiling Tile 2x2	
110.2	Ceiling Tile 2x2 Tan Back.	



Comments/Special Instructions:

Eurofins J3 Resources, Inc. • 6110 West 34th Street • Houston, Texas 77092 • tel: 713-290-0221 • fax: 713-290-0248
Eurofins J3 Resources, Inc. • 3113 Red Bluff Road • Pasadena, Texas 77503 • tel: 713-290-0223 • fax: 713-290-0248

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 demoltion 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

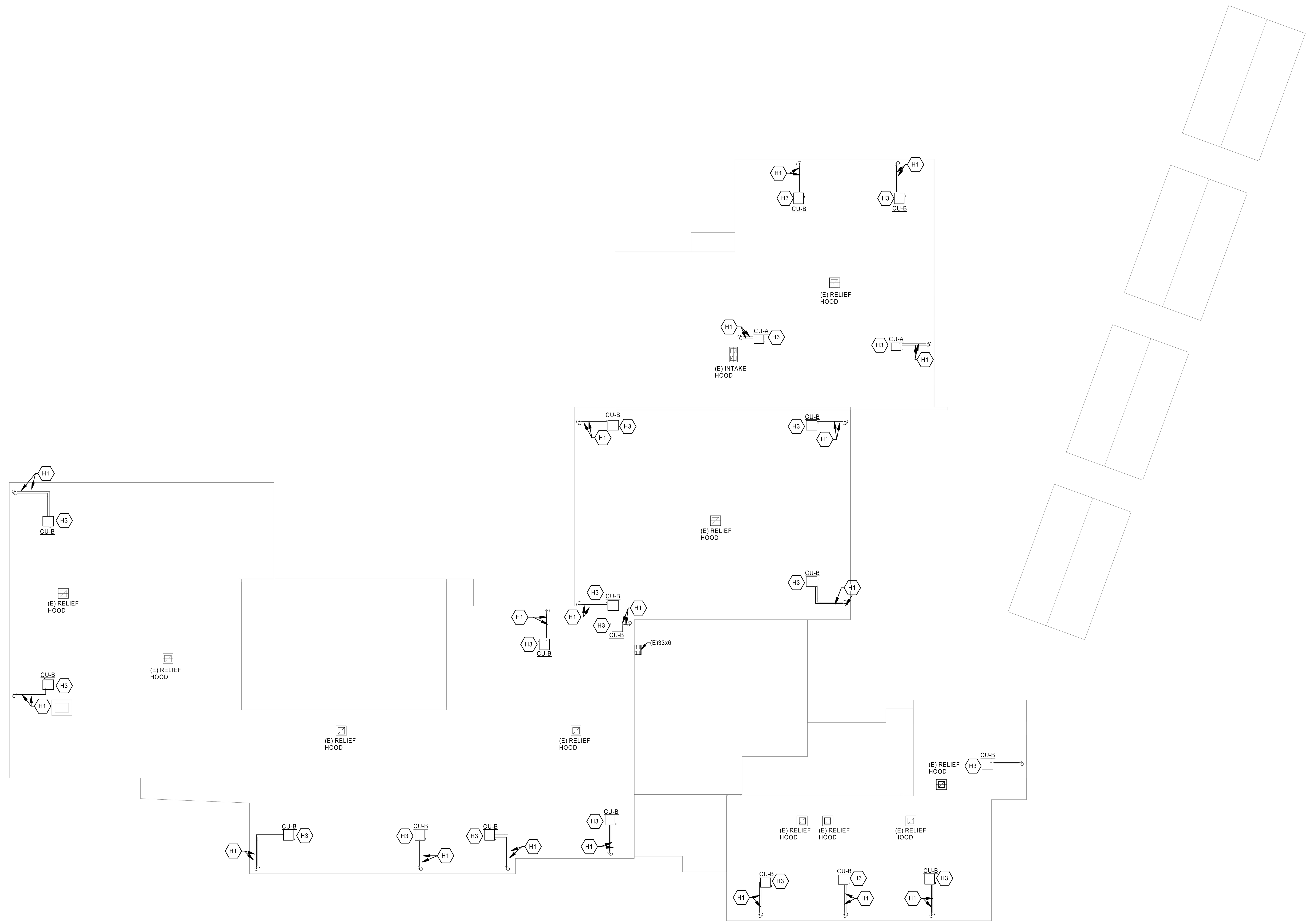
Cumberland Elementary Positive Materials		
Material Description	**Location of Material**	**Total Quantity**
Floor Tile – 9” – Various Colors and Patterns Mastic is Negative	Throughout	15,405 Sq. Ft.
Sink Undercoating - Black	Classroom and Kithcen Sinks	33 Sq. Ft.
Caulk - Building Seam	Rooms 36, 100D, 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 2X2 - Worm Track	Throughout	REMOVED ADD 1

HVAC GENERAL NOTES

1. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE HVAC SYSTEMS COMPLETE PER SPECIFICATION, SMACNA STANDARDS, AND PER APPLICABLE CODES INCLUDING ALL NECESSARY OFFSETS, FITTINGS, SPECIAL RADIUS OR MITERED ELBOWS WHICH ARE REQUIRED DUE TO SPACE CONSTRAINTS OR STRUCTURAL CONDITIONS OR OTHER CONDITIONS.
2. CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE WORK OF ALL OTHER TRADES. ALL DUCTWORK IS TO BE ROUTED AS HIGH AS POSSIBLE. PROVIDE ACCESS AROUND ALL NEW EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. VERIFY ALL CLEARANCES PRIOR TO THE FABRICATION OF ANY WORK.
3. DUCTWORK/PIPING SHALL BE ROUTED AS HIGH AS POSSIBLE AND SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT/PANELS. PROVIDE REQUIRED CLEARANCE IN FRONT OF ELECTRICAL EQUIPMENT. DUCTWORK/PIPING SHALL NOT INTERFERE WITH ELECTRICAL EQUIPMENT CLEARANCE.
4. DUCTWORK/PIPING SHALL NOT BE INSTALLED IN A LOCATION THAT RESTRICTS THE ACCESS TO MECHANICAL DEVICES REQUIRING ACCESS.
5. THE CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS SUPPORTING STEEL, ETC. FOR THE PROPER INSTALLATION OF ALL MECHANICAL SYSTEMS.
6. COORDINATE FLOOR, WALL, ROOF PENETRATIONS, LOUVER SIZES, PAD LOCATIONS ETC. WITH ARCHITECTURAL TRADES. SEAL ALL PIPING AND DUCT PENETRATIONS.
7. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS.
8. COORDINATE AND PROVIDE ACCESS DOORS IN HARD CEILING AREAS FOR ACCESS TO BALANCING DAMPERS, ETC. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
9. BRANCH DUCTWORK TO GRILLES, REGISTERS AND DIFFUSERS SHALL BE THE SAME SIZE AS THE GRILLE, REGISTER OR DIFFUSER NECK SIZE WHERE NO DUCT SIZE IS INDICATED ON PLAN.
10. FOR EQUIPMENT VALVING, COMPONENT, AND PIPING ARRANGEMENT, REFER TO PIPING DIAGRAMS AND DETAILS.
11. PAINT ALL VISIBLE INTERIOR SURFACES OF EXHAUST/RETURN GRILLES, REGISTERS AND VISIBLE ASSOCIATED DUCTWORK FLAT BLACK.
12. PROVIDE CODE REQUIRED CLEARANCE/ACCESS DOORS FOR DAMPERS, VALVES, AND CLEANOUTS LOCATED IN WALLS OR ABOVE HARD CEILINGS. COORDINATE LOCATIONS WITH ARCHITECT. REFER TO ARCHITECTURAL PLANS FOR CEILING TYPES.
13. CONNECTION TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.

HVAC KEYNOTES

- H1 REFRIGERANT PIPING TO/FROM CONDENSING UNIT ON ROOF AND UNIT VENTILATOR. INSTALL PER MANUFACTURER RECOMMENDATIONS.
- H2 PROVIDE NEW 24V MOTORIZED DAMPER IN VERTICAL DUCT UP TO RELIEF HOOD. DUCT SIZE IS APPROXIMATE. COORDINATE EXACT SIZE IN FIELD PRIOR TO ORDERING NEW DAMPER.
- H3 MOUNT CONDENSING UNIT ON EQUIPMENT STAND. ENSURE CONDENSING UNIT IS MINIMUM 15 FT FROM ROOF EDGE.
- H4 EXISTING LOUVER IS APPROXIMATELY 51"X10 3/8". PROVIDE NEW 60"X10 3/8", 2" DRAINABLE BLADE LOUVER. FIELD VERIFY AND REVISE OPENING SIZE AS REQUIRED FOR NEW LOUVER. NEW LOUVER HEIGHT TO MATCH EXISTING LOUVER HEIGHT AND BE 4 BRICK COURSINGS TALL. COORDINATE WITH ARCHITECTURAL TRADES.
- H5 EXISTING LOUVER OPENING IS APPROXIMATELY 76"X10 3/8". PROVIDE NEW 76"X10 3/8", 2" DRAINABLE BLADE LOUVER TO MATCH EXISTING OPENING. NEW LOUVER HEIGHT TO MATCH EXISTING LOUVER HEIGHT AND BE 4 BRICK COURSINGS TALL. FIELD VERIFY AND REVISE OPENING SIZE AS REQUIRED FOR NEW LOUVER. COORDINATE WITH ARCHITECTURAL TRADES.
- H6 EXISTING LOUVER OPENING IS APPROXIMATELY 56"X10 3/8". PROVIDE NEW 60"X10 3/8", 2" DRAINABLE BLADE LOUVER. FIELD VERIFY AND REVISE OPENING SIZE AS REQUIRED FOR NEW LOUVER. NEW LOUVER HEIGHT TO BE 4 BRICK COURSINGS TALL AT MATCH HEIGHT OF EXISTING LOUVER. COORDINATE WITH ARCHITECTURAL TRADES.
- H7 CONNECT NEW 1 1/4" STEAM AND 1" STEAM CONDENSATE TO MAIN PIPING IN TUNNELS BELOW. PROVIDE NEW STEAM CONTROL VALVE, NECESSARY ACCESSORIES AND CONDENSATE TRAP. REFER TO DETAILS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION IN FIELD.
- H8 ROUTE VERTICAL REFRIGERANT PIPING TIGHT TO WALL, ALONG EDGE OF WINDOW, AND PROVIDE METAL OR PLASTIC PIPE COVER. PROVIDE PIPE COVER THAT IS FACTORY FINISHED WITH COLOR COORDINATED WITH ARCHITECTURE. TOUCH UP PAINTING AS REQUIRED.
- H9 ROUTE HORIZONTAL REFRIGERANT PIPING TIGHT TO WALL IN ABANDONED CHASE BEHIND CASEWORK. COORDINATE WITH ARCHITECTURAL TRADES.
- H10 16X12 TRANSFER DUCT ROUTED TIGHT TO UNDERSIDE OF CEILING. PROVIDE GALVANEALED DUCTWORK AND PAINT TO MATCH ADJACENT WALL.
- H11 ROUTE VERTICAL REFRIGERANT PIPING TIGHT TO WALL AND PROVIDE PIPE COVER. PROVIDE METAL OR PLASTIC PIPE COVER THAT IS FACTORY FINISHED WITH COLOR COORDINATED WITH ARCHITECTURE. TOUCH UP PAINTING AS REQUIRED.
- H12 ROUTE HORIZONTAL REFRIGERANT PIPING TIGHT TO WALL PROVIDE PIPE COVER. PROVIDE METAL OR PLASTIC PIPE COVER THAT IS FACTORY FINISHED WITH COLOR COORDINATED WITH ARCHITECTURE. TOUCH UP PAINTING AS REQUIRED.
- H13 CONNECT EXISTING OA DUCT FROM INTAKE HOOD/GOOSENECK ON ROOF ABOVE. FIELD COORDINATE OPENING IN BACK SIDE OF UNIT VENTILATOR TO MATCH SIZE OF EXISTING LOUVER.
- H14 CLEAN EXISTING DIFFUSERS TO REMAIN.
- H15 EXISTING GRILLE TO REMAIN. ENSURE MANUAL DAMPER LOCATED BEHIND/PART OF GRILLE IS FULLY OPEN. CLEAN EXISTING GRILLE.

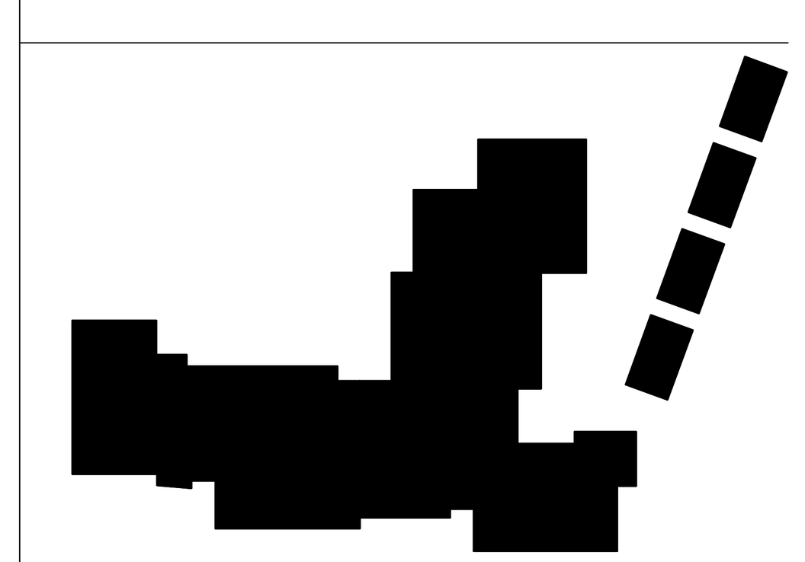


ROOF COMPOSITE MECHANICAL PLAN
SCALE: 1/16" = 1'-0"

CUMBERLAND HVAC REMODEL

LANSING SCHOOL DISTRICT
2801 Cumberland Road
Lansing, MI 48906

ISSUANCES	DATE
DESIGN DEVELOPMENT	07/27/2023
CONSTRUCTION DOCUMENTS	11/17/2023
PR-01	12/14/2023



KEY PLAN

LSD NO. SB-0058
JOB NO. 2616-01C

N

SHEET TITLE
ROOF COMPOSITE MECHANICAL PLAN

SHEET NO.
M0.5

Strategic Energy Solutions®
4000 W. Eleven Mile Road Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
www.sesnet.com

SES Project # 23 0588 03

PANEL NAME: MR1

PANEL LOCATION: BOOK STORAGE 118	MAIN: MLO	VOLTAGE: 120/240 Single
ENCLOSURE: TYPE 1	BUSSING: 400 A	PHASE: 1
MOUNTING: SURFACE	GROUND BUS: STANDARD	WIRE: 3
	NEUTRAL: 100.00%	MIN A.I.C. RATING: 10,000

CKT	DESCRIPTION	BKR SIZE	P	A	A	B	B	P	BKR SIZE	DESCRIPTION	CKT
1	CU-B - RM 120 - ROOF	40 A	2	2892	2892			2	40 A	CU-B - RM 121 - ROOF	2
3						2892	2892				4
5	UV-B - CLASSROOM 122	15 A	2	420	420			2	15 A	UV-B - CLASSROOM 123	6
7						420	420				8
9	CU-B - RM 122 - ROOF	40 A	2	2892	2892			2	40 A	CU-B - RM 123 - ROOF	10
11						2892	2892				12
13	UV-A - CLASSROOM 125	15 A	2	420	420			2	15 A	UV-A - CLASSROOM 125	14
15						420	420				16
17	CU-A - RM 125 - ROOF	40 A	2	2892	2892			2	40 A	CU-A - RM 125 - ROOF	18
19						2892	2892				20
21	UV-A - CLASSROOM 127A	15 A	2	420	420			2	15 A	UV-A - CLASSROOM 127B	22
23						420	420				24
25	CU-B - RM 127A - ROOF	40 A	2	2892	2892			2	40 A	CU-B - RM 127B - ROOF	26
27						2892	2892				28
29	UV-B - CLASSROOM 130	15 A	2	420	420			2	15 A	UV-B - CLASSROOM 131	30
31						420	420				32
33	CU-B - RM 130 - ROOF	40 A	2	2892	2892			2	40 A	CU-B - RM 131 - ROOF	34
35						2892	2892				36
37	UV-B - CLASSROOM 132	15 A	2	420	420			2	15 A	UV-B - CLASSROOM 133	38
39						420	420				40
41	CU-B - RM 132 - ROOF	40 A	2	2892	2892			2	40 A	CU-B - RM 133 - ROOF	42
43						2892	2892				44
45	UV-B - STAFF LOUNGE 112B	15 A	2	420	2892			2	40 A	CU-B - RM 112 - ROOF	46
47						420	2892				48
49	CU-B - RM 112B - ROOF	40 A	2	2892	420			2	15 A	UV-B - CLASSROOM 120	50
51						2892	420				52
53	REC -ROOF MAINTENANCE	20 A	1	900	420			2	15 A	UV-B - CLASSROOM 121	54
55	SPARE	20 A	1			0	420				56
57	SPARE	20 A	1	0	720			1	20 A	REC -ROOF MAINTENANCE	58
59	SPARE	20 A	1			0	540	1	20 A	REC -ROOF MAINTENANCE	60
		TOTAL LOAD:		47568 VA		46488 VA					
		TOTAL AMP:		396 A		387 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED LOAD	PANEL TOTALS	
HVAC	91896 VA	100.00%	91896 VA		
RECEPTACLE	2160 VA	100.00%	2160 VA	CONNECTED LOAD:	94 kVA
				DEMAND LOAD:	94 kVA
				TOTAL CONNECTED:	392 A
				TOTAL DEMAND:	392 A

NOTES:

PANEL NAME: MDP2

PANEL LOCATION: ELEC 105E	MAIN: 1000 A	VOLTAGE: 120/240 Single
ENCLOSURE: TYPE 1	BUSSING: 1000 A	PHASE: 1
MOUNTING: FLOOR	GROUND BUS: STANDARD	WIRE: 3
	NEUTRAL: 100.00%	MIN A.I.C. RATING: 42,000

CKT	DESCRIPTION	BKR SIZE	P	A	A	B	B	P	BKR SIZE	DESCRIPTION	CKT
1	UV-B - CLASSROOM 101	15 A	2	420	420			2	15 A	UV-B - CLASSROOM 103	2
3						420	420				4
5	CU-B - RM 101 - ROOF	40 A	2	2892	2892			2	40 A	CU-B - RM 103 - ROOF	6
7						2892	2892				8
9	UV-B - CLASSROOM 109	15 A	2	420	420			2	15 A	UV-B - CLASSROOM 110	10
11						420	420				12
13	CU-B - RM 109 - ROOF	40 A	2	2892	2892			2	40 A	CU-B - RM 110 - ROOF	14
15						2892	2892				16
17	UV-B - CLASSROOM 111	15 A	2	420	420			2	15 A	UV-B - CLASSROOM 112	18
19						420	420				20
21	CU-B - RM 111 - ROOF	40 A	2	2892	0			1	20 A	SPARE	22
23						2892	0	1	20 A	SPARE	24
25	UV-B - CLASSROOM 113	15 A	2	420	--			1	--	SPACE	26
27						420	--	1	--	SPACE	28
29	CU-B - RM 113 - ROOF	40 A	2	2892	--			1	--	SPACE	30
31						2892	--	1	--	SPACE	32
33	PANEL MR1 (100% RATED BREAKER)	400 A	2	47568	--			1	--	SPACE	34
35						46488	--	1	--	SPACE	36
37	SPACE	--	1	--	--			1	--	SPACE	38
39	SPACE	--	1			--	0	2	30 A	SURGE PROTECTION	40
41	SPACE	--	1	--	0						42
		TOTAL LOAD:		67860 VA		66780 VA					
		TOTAL AMP:		566 A		557 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED LOAD	PANEL TOTALS	
HVAC	132480 VA	100.00%	132480 VA		
RECEPTACLE	2160 VA	100.00%	2160 VA	CONNECTED LOAD:	135 kVA
				DEMAND LOAD:	135 kVA
				TOTAL CONNECTED:	561 A
				TOTAL DEMAND:	561 A

NOTES:
PROVIDE SERVICE WITH EXTERNAL SURGE PROTECTION DEVICE, COORDINATE FINAL BREAKER SIZE WITH MANUFACTURER REQUIREMENTS.

PANEL NAME: MDP1

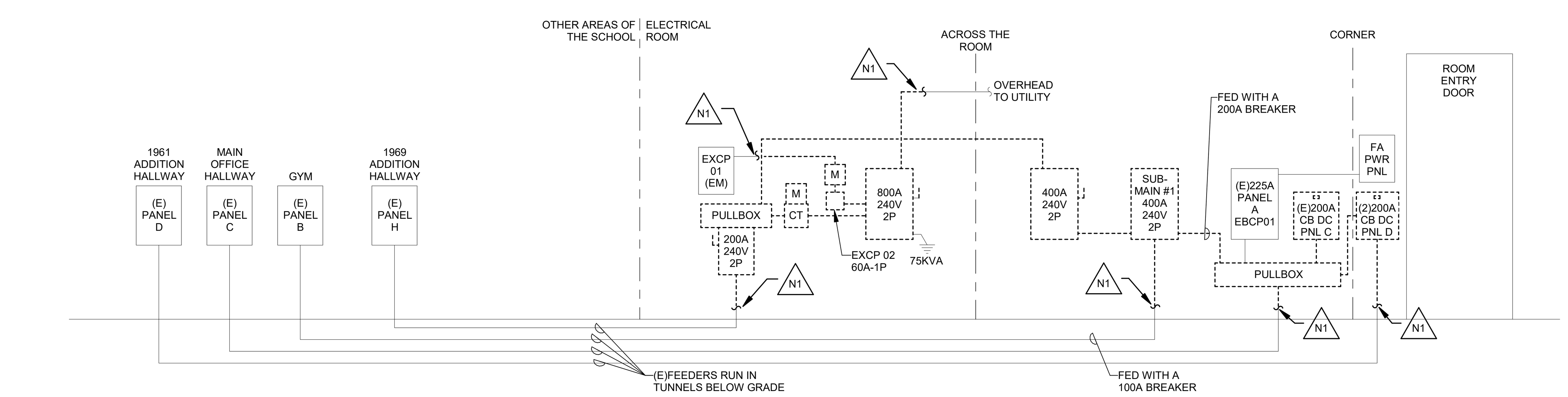
PANEL LOCATION: ELEC 105E	MAIN: 800 A	VOLTAGE: 120/240 Single
ENCLOSURE: TYPE 1	BUSSING: 800 A	PHASE: 1
MOUNTING: FLOOR	GROUND BUS: STANDARD	WIRE: 3
	NEUTRAL: 100.00%	MIN A.I.C. RATING: 14,000

CKT	DESCRIPTION	BKR SIZE	P	A	A	B	B	P	BKR SIZE	DESCRIPTION	CKT
1	PANEL A	225 A	2	0	0			2	100 A	PANEL B	2
3						0	0				4
5	PANEL C	200 A	2	0	0			2	200 A	PANEL D	6
7						0	0				8
9	PANEL H	200 A	2	0	0			2	60 A	PANEL EXCP 01 (EM)	10
11						0	0				12
13	INV1 - MAIN ELECTRICAL ROOM	20 A	2	0	0			1	20 A	INV2 - MAIN ELECTRICAL ROOM	14
15						0	--	1	--	SPACE	16
17	SPACE	--	1	--	--			1	--	SPACE	18
19	SPACE	--	1			--	--	1	--	SPACE	20
21	SPACE	--	1	--	--			1	--	SPACE	22
23	SPACE	--	1			--	--	1	--	SPACE	24
25	SPACE	--	1	--	--			1	--	SPACE	26
27	SPACE	--	1			--	0	2	30 A	SURGE PROTECTION	28
29	SPACE	--	1	--	0						30
		TOTAL LOAD:		0 VA		0 VA					
		TOTAL AMP:		0 A		0 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED LOAD	PANEL TOTALS	
LIGHTING	0 VA	0.00%	0 VA		
				CONNECTED LOAD:	0 kVA
				DEMAND LOAD:	0 kVA
				TOTAL CONNECTED:	0 A
				TOTAL DEMAND:	0 A

NOTES:
EXISTING SERVICE TO BE CONSOLIDATED AND REFED FROM NEW PANEL. NO ADDITIONAL LOAD IS BEING ADDED.
PROVIDE SERVICE WITH EXTERNAL SURGE PROTECTION DEVICE, COORDINATE FINAL BREAKER SIZE WITH MANUFACTURER REQUIREMENTS.

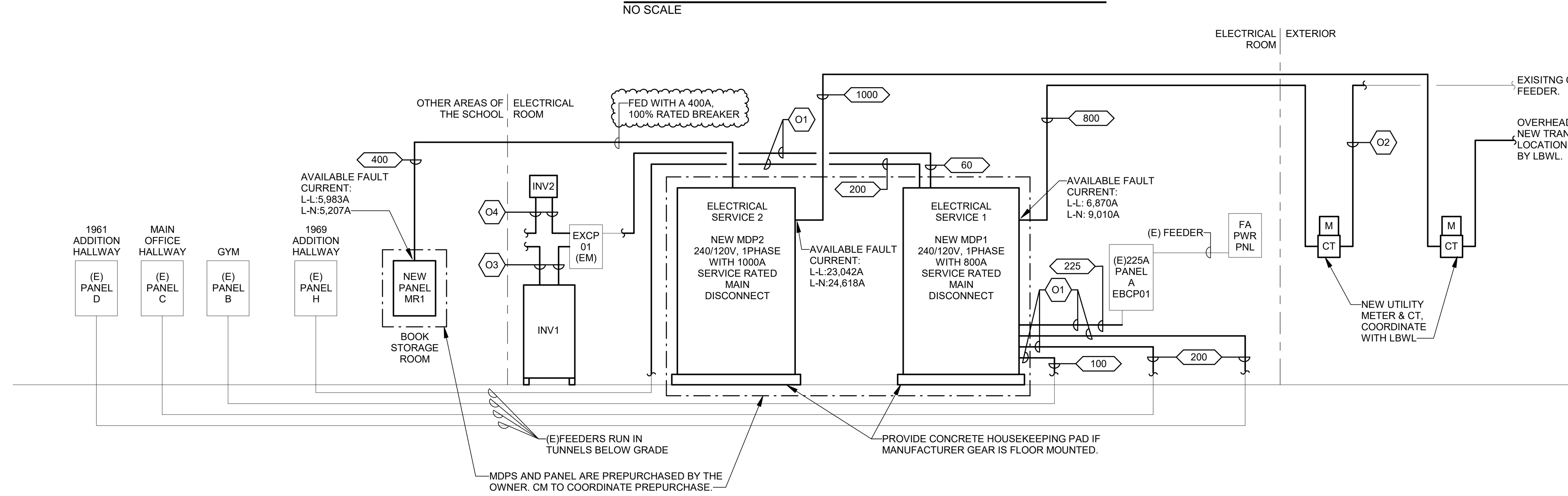
MDPS AND PANEL ARE PREPURCHASED BY THE OWNER. CM TO COORDINATE PREPURCHASE.



DEMOLITION ELECTRICAL RISER DIAGRAM
NO SCALE

DEMO RISER DIAGRAM KEYNOTES

N1 DOWNSTREAM ELECTRICAL EQUIPMENT TO BE RELOCATED TO A NEW PANEL. DISCONNECT EXISTING FEED, PULL WIRE BACK, AND SAVE FEEDER FOR REUSE. REFER TO NEW WORK RISER DIAGRAM FOR EXTENSION OF FEEDER TO NEW PANEL.



NEW WORK ELECTRICAL RISER DIAGRAM
NO SCALE

NEW RISER DIAGRAM KEYNOTES

O1 EXTEND FEEDERS FROM RELOCATED PANEL TO NEW DISTRIBUTION PANEL AS SHOWN.
O2 OVERHEAD FEEDER BY UTILITY, COORDINATE CONNECTION TO NEW CT AND METER WITH LANSING BOARD OF WATER AND LIGHT (LBWL).
O3 INTERCEPT THE EXISTING EMERGENCY CIRCUIT (BREAKER 1,3) FROM (E)EXCP-01 PANEL AND FEED WIRING THROUGH NEW INVERTER (INV1) TO PROVIDE EMERGENCY POWER TO (E)FIRE ALARM FROM THE 20A, 2-POKE BREAKER. COORDINATE EXACT LOCATION IN MAIN ELECTRICAL ROOM WITH SPACE MADE CLEAR BY DEMOLITION.
O4 INTERCEPT THE EXISTING EMERGENCY CIRCUIT (BREAKER 7) FROM (E)EXCP-01 PANEL AND FEED WIRING THROUGH NEW INVERTER (INV2) TO PROVIDE EMERGENCY POWER TO EXISTING EXIT LIGHTS FROM THE 20A, 1-POKE BREAKER. COORDINATE EXACT LOCATION IN MAIN ELECTRICAL ROOM WITH SPACE MADE CLEAR BY DEMOLITION.

INVERTER EQUIPMENT SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	MODEL	WATTAGE	REMARKS
INV1	FAST TRANSFER PURE SINE WAVE CENTRAL INVERTER SYSTEM RATED 2200VA FOR 90 MINUTES DURATION. FLOOR MOUNTED.	EVENLITE	LITE MINDER LM-2200-1S-LC-ID-OD-CS	0 W	240V-1PH INPUT AND OUTPUT POWER.
INV2	MINI LIGHTING INVERTER 550W FOR 90 MINUTES DURATION. WALL MOUNTED	EVENLITE	PWII-550-ID	0 W	120V INPUT AND OUTPUT POWER.

KINGSCOTT
KALAMAZOO | CHELSEA | GRAND RAPIDS | ROYAL OAK

CUMBERLAND HVAC REMODEL

LANSING SCHOOL DISTRICT
2801 Cumberland Road
Lansing, MI 48906

Lansing School District

ISSUANCES	DATE
DESIGN DEVELOPMENT	07/27/2023
CONSTRUCTION DOCUMENTS	11/17/2023
PR-01	12/14/2023

Strategic Energy Solutions®
4000 W. Eleven Mile Road Berkley, MI 48072
Phone 248.399.1900 Fax 248.399.1901
www.sesnet.com

SES Project # 23 0588 03

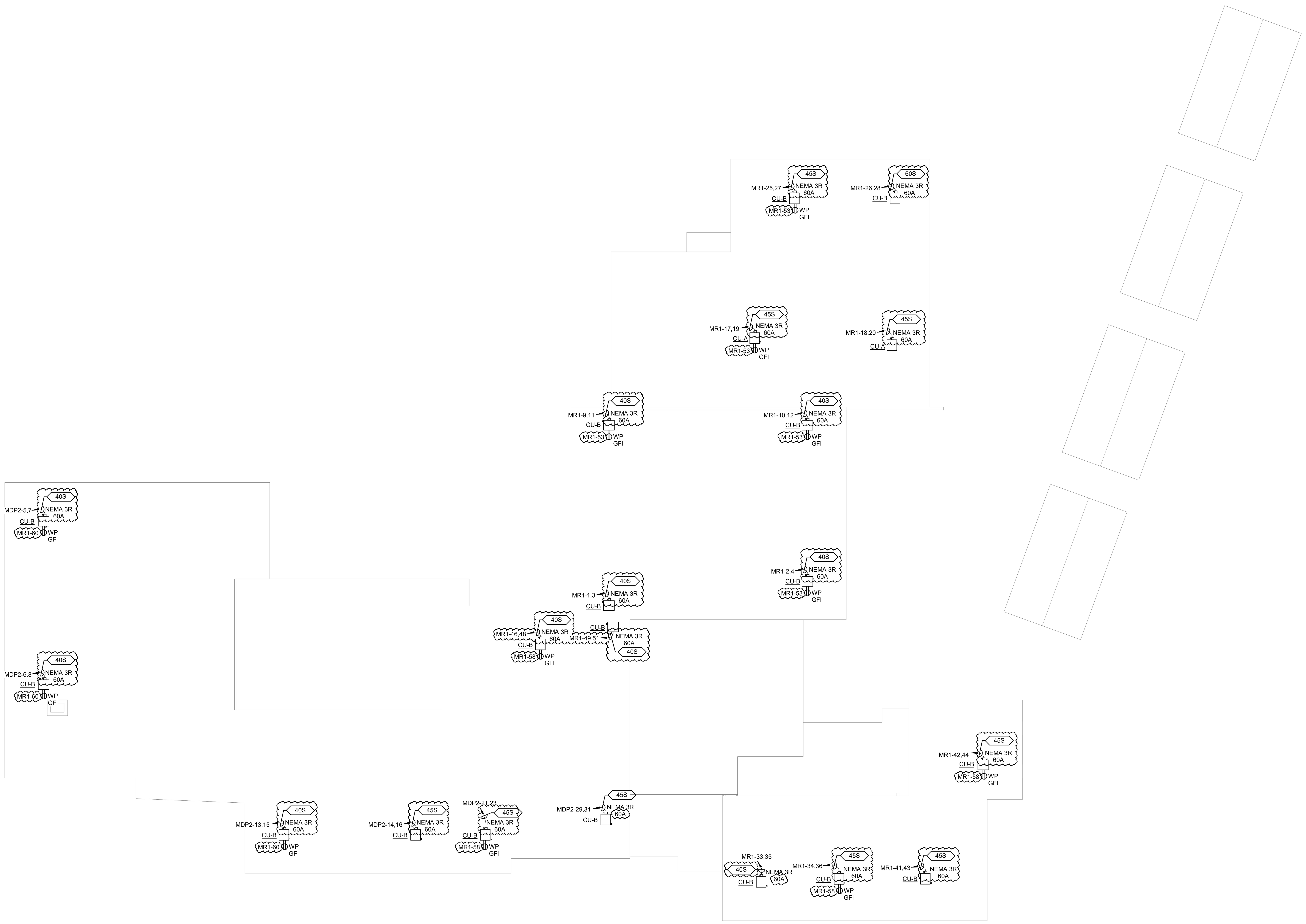
LSD NO. SB-0058
JOB NO. 2616-01C

SHEET TITLE
ELECTRICAL DIAGRAMS, SCHEDULES AND DETAILS

SHEET NO.
E7.0

POWER GENERAL NOTES

1. ALL RECEPTACLES ON EXTERIOR, IN KITCHEN, IN CONCESSION, IN LABORATORY, AND WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE READILY ACCESSIBLE GFCI TYPE RECEPTACLE.
2. REFER TO ARCHITECTURAL FLOOR PLANS AND ELEVATIONS TO VERIFY LOCATION OF DEVICES.
3. ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
4. ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
5. ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
6. ALL BRANCH CIRCUITS THAT SUPPLY 125-V SINGLE PHASE, 15 AND 20 AMP OUTLETS TO BE INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, RECREATION ROOMS, CLOSETS, HALLWAYS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER; COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.



ROOF COMPOSITE POWER PLAN
SCALE: 1/16" = 1'-0"

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CUMBERLAND HVAC REMODEL

LANSING SCHOOL DISTRICT
2801 Cumberland Road
Lansing, MI 48906

Lansing School District

ISSUANCES	DATE
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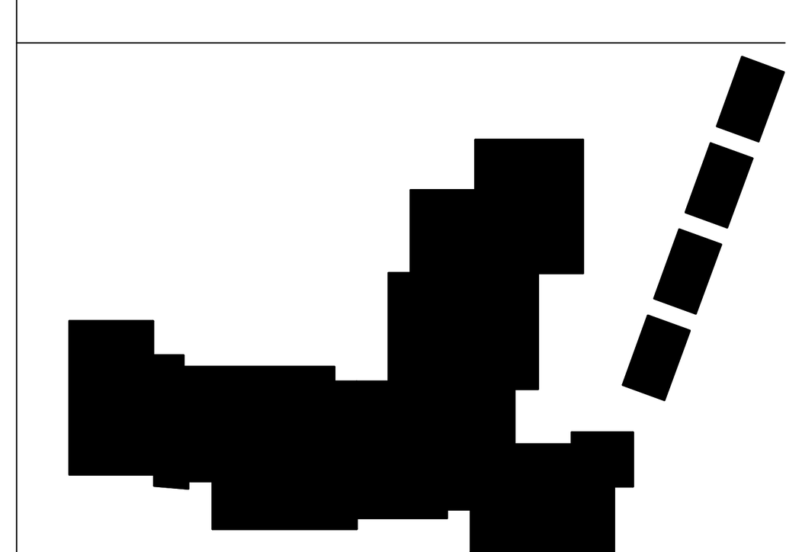

KEY PLAN

N

LSD NO. SB-0058
JOB NO. 2616-01C

SHEET TITLE
ROOF COMPOSITE POWER PLAN

SHEET NO.
EP0.5

SES
Strategic Energy Solutions®
4000 W. Eleven Mile Road Berkley, MI 48072
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www.sesnet.com

SES Project # 23 0588 03

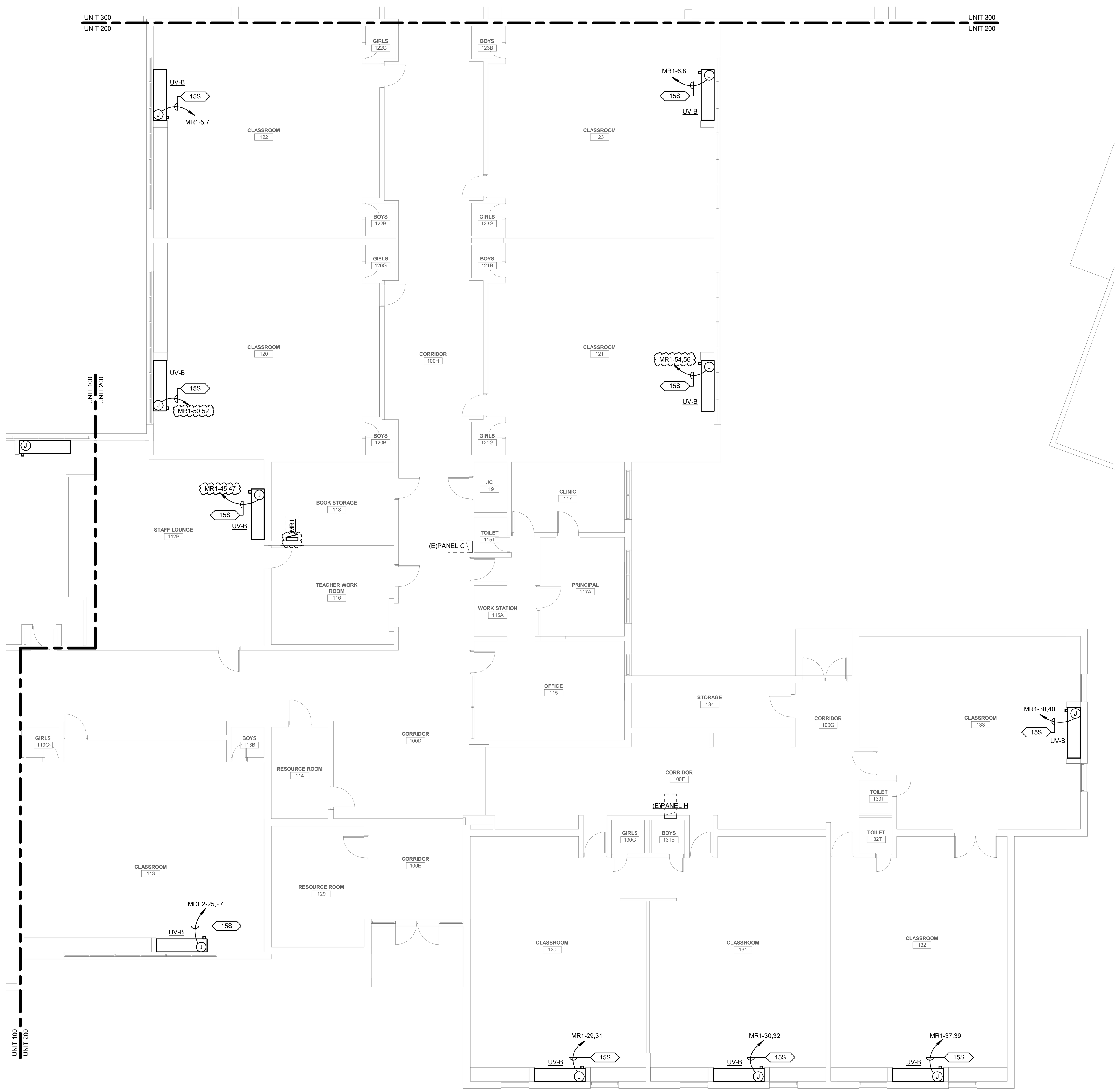
POWER GENERAL NOTES

1. ALL RECEPTACLES ON EXTERIOR, IN KITCHEN, IN CONCESSION, IN LABORATORY, AND WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE READILY ACCESSIBLE GFCI TYPE RECEPTACLE.
2. REFER TO ARCHITECTURAL FLOOR PLANS AND ELEVATIONS TO VERIFY LOCATION OF DEVICES.
3. ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
4. ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
5. ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
6. ALL BRANCH CIRCUITS THAT SUPPLY 125-V SINGLE PHASE, 15 AND 20 AMP OUTLETS TO BE INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, RECREATION ROOMS, CLOSETS, HALLWAYS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER; COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.

POWER KEYNOTES

R1 REFER TO E7.0 FOR COMPLETE ELECTRICAL ROOM NEW SCOPE AS INDICATED IN NEW WORK ELECTRICAL RISER DIAGRAM.

R2 ELECTRICAL CONTRACTOR TO VERIFY NEW EQUIPMENT WILL FIT THROUGH STANDARD 3' X 7' DOOR PRIOR TO ISSUING SUBMITTAL OR PURCHASING EQUIPMENT.



POWER PLAN - UNIT 200
SCALE: 1/8" = 1'-0"

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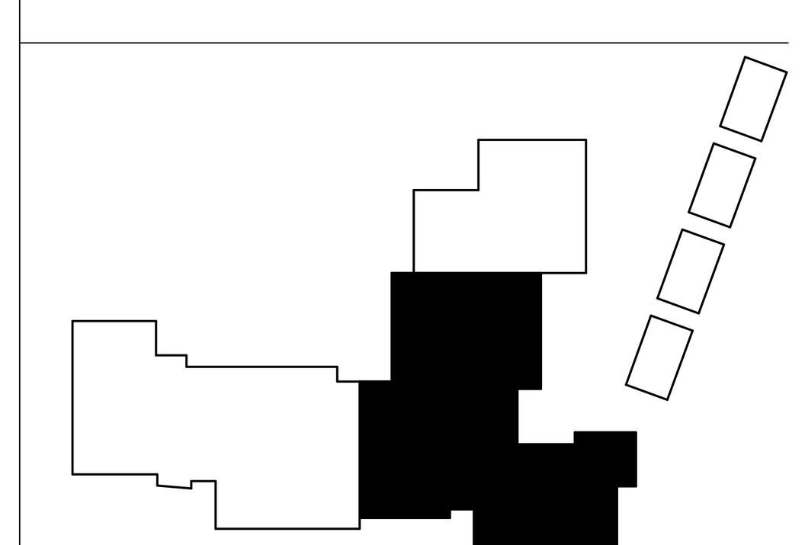
CUMBERLAND HVAC REMODEL

LANSING SCHOOL DISTRICT

2801 Cumberland Road
Lansing, MI 48906

Lansing School District

ISSUANCES	DATE
DESIGN DEVELOPMENT	07/27/2023
CONSTRUCTION DOCUMENTS	11/17/2023
PR-01	12/14/2023



KEY PLAN

N

LSD NO. SB-0058
JOB NO. 2616-01C

SHEET TITLE
POWER PLAN - UNIT 200

SHEET NO.
EP1.2

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SES Project # 23 0588 03

CHRISTMAN
BUILDING SINCE 1894

The Christman Company

Job #: 221125-030 LSD Cumberland HVAC Remodel
2801 Cumberland Rd
Lansing, Michigan 48906

RFI LOG

#	Subject	Status	Responsible Contractor	Received From	Assignee	Date Initiated	RFI Manager	Due Date	Closed Date	Ball In Court	Location	Schedule Impact	Cost Code	Cost Impact
5	PVC-Coated Galvanized Rigid Metal Conduit or Aluminum Rigid	Closed		None	Szeszulski, Sami ... Burnham, Hanna (K...	12/13/2023	Austin Brown	12/17/2023	12/18/23					

Q:

Austin Brown Sent Wed Dec 13, 2023 at 12:47 pm EST

1. Is the intent that the overhead service raceway to be either: PVC-coated galvanized steel rigid metal conduit or aluminum rigid metal conduit?

-Conduit for Electrical Systems 26 0533.13 - I. Exposed, Exterior: Use PVC-coated galvanized steel rigid metal conduit or aluminum rigid metal conduit.

1. Will galvanized rigid metal conduit be acceptable for penetrations and raceway for condensing units on the roof before switching over to seal tight?

-Conduit for Electrical Systems 26 0533.13 - I. Exposed, Exterior: Use PVC-coated galvanized steel rigid metal conduit or aluminum rigid metal conduit.

A:

Hanna Burnham (Kingscott) Responded Mon Dec 18, 2023 at 08:36 am EST
See attached response.
RFI05 - Conduit_Answered.pdf

#	Subject	Status	Responsible Contractor	Received From	Assignee	Date Initiated	RFI Manager	Due Date	Closed Date	Ball In Court	Location	Schedule Impact	Cost Code	Cost Impact
4	Lintel Removal at Door/Frame Removal	Closed		None	Szeszulski, Sami ... Burnham, Hanna (K...	12/13/2023	Austin Brown	12/17/2023	12/18/23					

Q:

Austin Brown Sent Wed Dec 13, 2023 at 12:21 pm EST
At the door being removed to accommodate added panel MR1; Is the lintel to be removed? If so, will it be necessary to remove blocking up to metal deck? Is there a requirement for this wall to be structurally supported with additional structural steel or is the intent for blocking the entire opening to be structurally adequate?

In addition, Note 7 states blocking is to be toothed in. In the attached image, there are wood shelving units which are incorporated in the room with rubber wall base. Is it required to remove this shelving unit, wall mounted conduit & light switch, and tooth block into this opening, or is it acceptable to have a vertical joint and leave the existing finishes in place?
IMG_0575.jpg

A:

Hanna Burnham (Kingscott) Responded Thu Dec 14, 2023 at 09:30 am EST
Please see attached response.
RFI04 - Lintel Removel at Door-Frame Removal_Answered.pdf

#	Subject	Status	Responsible Contractor	Received From	Assignee	Date Initiated	RFI Manager	Due Date	Closed Date	Ball In Court	Location	Schedule Impact	Cost Code	Cost Impact
3	MR1 - Recessed to Wall mounted electrical panel	Closed		None	Szeszulski, Sami ... Burnham, Hanna (K...	12/13/2023	Austin Brown	12/17/2023	12/15/23					

Q:

Austin Brown Sent Wed Dec 13, 2023 at 12:12 pm EST
Per electrical schedule, MR1 is to be recessed. With the amount of branches being fed out of the panel, and the space from roof deck to interior ceilings, there is concern with the constructability of getting all the required conduit in the wall to feed the panel, and branch conduits out all in wall.

For constructability, is it acceptable to change recessed to wall mounted electrical panel?

A:

Hanna Burnham (Kingscott) Responded Thu Dec 14, 2023 at 09:29 am EST
Please see attached response.
RFI03 - MR1 Recessed to Wall Mounted Electrical Panel_Answered.pdf

The Christman Company
208 N Capitol Ave
Lansing, Michigan 48933-1357
P: (517) 482-1488

Project: 221125-030 LSD Cumberland HVAC Remodel
2801 Cumberland Rd
Lansing, Michigan 48906

RFI #5: PVC-Coated Galvanized Rigid Metal Conduit or Aluminum Rigid

Status	Open		
To	Hanna Burnham (Kingscott) Sami Szeszulski (Kingscott)	**From**	Austin Brown (The Christman Company (LAN))
Date Initiated	Dec 13, 2023	**Due Date**	Dec 17, 2023
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To			

Activity

Question

Question from Austin Brown The Christman Company (LAN) *on Wednesday, Dec 13, 2023 at 12:47 PM EST*

1. Is the intent that the overhead service raceway to be either: PVC-coated galvanized steel rigid metal conduit or aluminum rigid metal conduit?

-Conduit for Electrical Systems 26 0533.13 - I. Exposed, Exterior: Use PVC-coated galvanized steel rigid metal conduit or aluminum rigid metal conduit.

1. Will galvanized rigid metal conduit be acceptable for penetrations and raceway for condensing units on the roof before switching over to seal tight?

-Conduit for Electrical Systems 26 0533.13 - I. Exposed, Exterior: Use PVC-coated galvanized steel rigid metal conduit or aluminum rigid metal conduit.

Awaiting an Official Response

SES Response by RAL:

1. Yes
1. Yes

12-14-2023

The Christman Company
208 N Capitol Ave
Lansing, Michigan 48933-1357
P: (517) 482-1488

Project: 221125-030 LSD Cumberland HVAC Remodel
2801 Cumberland Rd
Lansing, Michigan 48906

RFI #4: Lintel Removal at Door/Frame Removal

Status	Open		
To	Hanna Burnham (Kingscott) Sami Szeszulski (Kingscott)	**From**	Austin Brown (The Christman Company (LAN))
Date Initiated	Dec 13, 2023	**Due Date**	Dec 17, 2023
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To			

Activity

Question

Question from Austin Brown The Christman Company (LAN) *on Wednesday, Dec 13, 2023 at 12:21 PM EST*

At the door being removed to accommodate added panel MR1; Is the lintel to be removed? If so, will it be necessary to remove blocking up to metal deck? Is there a requirement for this wall to be structurally supported with additional structural steel or is the intent for blocking the entire opening to be structurally adequate?

In addition, Note 7 states blocking is to be toothed in. In the attached image, there are wood shelving units which are incorporated in the room with rubber wall base. Is it required to remove this shelving unit, wall mounted conduit & light switch, and tooth block into this opening, or is it acceptable to have a vertical joint and leave the existing finishes in place?

Attachments
IMG_0575.jpg

Awaiting an Official Response

KAI - Hanna Burnham
Refer to Note 8 in General Demolition Notes for requirement of temporary shoring of existing construction at removals. Additional structure is not required at infill location. Tooth in masonry as documented.


Making Math the Story

The Christman Company
208 N Capitol Ave
Lansing, Michigan 48933-1357
P: (517) 482-1488

Project: 221125-030 LSD Cumberland HVAC Remodel
2801 Cumberland Rd
Lansing, Michigan 48906

RFI #3: MR1 - Recessed to Wall mounted electrical panel

Status	Open		
To	Hanna Burnham (Kingscott) Sami Szeszulski (Kingscott)	**From**	Austin Brown (The Christman Company (LAN))
Date Initiated	Dec 13, 2023	**Due Date**	Dec 17, 2023
Location		**Project Stage**	
Cost Impact		**Schedule Impact**	
Spec Section		**Cost Code**	
Drawing Number		**Reference**	
Linked Drawings			
Received From			
Copies To			

Activity

Question

Question from Austin Brown The Christman Company (LAN) *on Wednesday, Dec 13, 2023 at 12:12 PM EST*

Per electrical schedule, MR1 is to be recessed. With the amount of branches being fed out of the panel, and the space from roof deck to interior ceilings, there is concern with the constructability of getting all the required conduit in the wall to feed the panel, and branch conduits out all in wall.

For constructability, is it acceptable to change recessed to wall mounted electrical panel?

Awaiting an Official Response

KAI - Hanna Burnham
A surface mounted electrical panel is acceptable in this location.

CHRISTMAN
SINCE 1894

Pre-Bid Meeting Agenda

Project Name	**Cavanaugh & Cumberland HVAC Renovations**	Work Category	**01A,11,20,27,28**
Christman Project No.	**221125-020 & 030**	Contractor	
		Meeting Date & Time	**12/5/2023 – 9:30AM**
		Meeting Location	**TEAMS**

Meeting Purpose:

- To communicate clearly defined work scope, quality standards, and anticipated schedule to subcontractors.
- Providing this information improves the likelihood that bids will be consistent with the owner's and The Christman Company's quality standards and schedule expectations.

Meeting Agenda:

1. **Introduction**
   a. Bid documents list
      i. Kingscott Drawings
      ii. Kingscott Specifications
      iii. BDN Report – Addendum 1
      iv. TCC Project Manual
   b. Christman Front-End Documents (subcontract, insurance)
2. **Construction Program Overview**
   a. WC 01A - Abatement & Hazardous Demolition
      i. BDN report for Cavanaugh & Cumberland
         1. Cumberland – Minor removal of asbestos items.
   b. WC 11 - Masonry Requirements
      i. Removal of all brick, and reinstallation of brick at exteriors.
   c. WC 20 - General Trades
      i. Painting (architectural)
      ii. Demolition/selective removal (architectural)
      iii. Ceiling work – Extensive coordination with Mechanical & Electrical contractors is required to extent of required removal.
      iv. Construction cleaning (labor hour requirement, protection of owner items to remain)
   d. WC 27 - HVAC Requirements
      i. Pre-work assessments as required
      ii. Installation of pre-purchased unit ventilators and condensers
         1. Cavanaguh – Vertical Unit Ventilators
         2. Cumberland – Horizontal Unit Ventilators
            a. Condensers on roof with pipe chases for condensing lines
               i. Pre-finished metal enclosures/panels
            b. Demolition of existing HVAC equipment after made safe by electrical contractor.
         3. Selective locations of glazing, this WC responsible to perform work.
   e. WC 28 - Electrical Requirements
      i. Pre-work assessments as required
      ii. Installation of pre-purchased and purchased panels

1. Cavanaugh – distribution panels pre-purchased, single phase electrical
    a. Addendum to revise both panels to be pre-purchased, one currently shows as being pre-purchased and one being purchased by this WC.
2. Cumberland - distribution panels pre-purchased, single phase electrical

3. General Quality Expectations

a. Why the owner is building this project
b. What is important to the owner, building occupants, etc.
c. The Christman Company's quality commitment to the owner

4. Schedule Expectations

a. Total timeline
b. Phasing
c. Milestone dates
    i. RFI's due 12/12/2023 at 5:00PM – Email RFI's to projects@lansingschools.net
    ii. Bids due 12/21/2023 at 2:00PM – Physical bids due, in person at 519 W. Kalamazoo St. Room 208, Lansing MI
    iii. Start of work – Last Day of School (6/7/2024)
    iv. End of work – Mid August (8/16/2024)
d. Owner occupancy commitment

5. Work Scope

a. Included and excluded activities
    i. Roofing work – Cavanaugh Roof Warranty
        1. Every contractor responsible for own fall protection
b. Quality expectations for workmanship and results
c. Allowances
    i. WC 01A – Allowance of $25,000
    ii. WC 11 – Allowance of $0
    iii. WC 20 – Allowance of $10,000
    iv. WC 27 – Allowance of $20,000
    v. WC 28 – Allowance of $20,000

6. Project Specifics

a. Contractor amenities
    1. Bathrooms on site, dumpsters on site
    2. Bathrooms within building envelope, can be removed and use portajons if use of owner bathrooms isn't respected & kept clean.
b. Contractor requirements (permits, delivery scheduling, clean up, dress code, smoking)
    1. General allowance for clean up
c. Building occupancy (shared travel paths, operation of building systems, material delivery & removal, noise, conduct)
d. Hazardous materials exposure or removal
e. Safety requirements
    i. Absolutely NO smoking on project site.
f. Other challenges (Section 00825 Additional Conditions)

7. Bid Procedures

a. Bond requirements
b. Included and voluntary alternates
c. Tax status
d. Requests for site access

8. Walk Through

Cavanaugh Elementary; 300 W Cavanaugh Rd, Lansing, MI 48910 on Wednesday, December 6, 2023 at 7:00 AM

Cumberland Elementary; 2801 Cumberland Rd, Lansing, MI 48906 on Thursday, December 7, 2023 at 7:00 AM

ATTENDEES

Cavanaugh & Cumberland Pre-Bid Meeting Attendance	
Name	Email
Rick Cramer	RickC@summit.ws
Kellie Bergquist	Admin@MidMichiganElectricalSoluti.onmicrosoft.com
15172904726	
Hanna Burnham	hburnham@kingscott.com
Marc Alexa	Marc.Alexa@plantemoran.com
Steve Meyer	smeyer@schiffermason.com
Rob Beard Davenport	
15177636888	
Eric Kuznicki	ekuznicki@asbestosabatementinc.com
Brian Lapham	BrianL@summit.ws
Austin Brown	austin.brown@christmanco.com
Noah Bush	noah.bush@christmanco.com
Theron Coe	todd.coe@lansingschools.net
John Joss	jjoss@reichenbachco.com
15177195886	
Mike Hull (Guest)	
Ray (ADS)	

Work Category No. 20 – General Trades

Work Included:

The subcontractor shall timely perform all work as detailed below, in accordance with the contract documents (including Bidding Requirements, Proposal Section, Contract Forms, General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

See Work Category Index and Cross Reference

Work Category Notes:

1. Complete all exterior and interior Carpentry/Millwork (rough and finish) and various General Trades Work as noted within this Work Category, including all labor, materials and equipment required for a complete installation.
2. All exterior and interior rough and finish carpentry including counters, cabinets, trim, nailers, blocking and plywood sheathing.
3. Furnish and install wood blocking, FRT, sheets, boards, plywood, etc. for required materials that are to be installed by this work category.
4. Furnish and install all wood blocking in gypsum walls as required for cabinets, owner furnished items, etc. Also furnish and install all roof required nailers/blocking.
5. Provide non-combustible wood blocking/studs in walls for wall mounted accessories and equipment installed by Owner/others shown or specified.
6. Furnish and install doors, hollow metal frames, and hardware as specified. This WC required to set new hollow metal frame, including grouting.
7. This WC responsible for the removal and salvage of interior doors and door hardware. Furnish to owner at district warehouse.
8. Manufacturer's rep is to review, approve and sign off on the installation of all door hardware before acceptance by TCC and the Owner.
9. Furnish and install wall protection systems, including fiberglass reinforced wall panels and associated trim/accessories for a complete installation, delivered per floor.
10. Removal of, and reinstallation, including modification of if necessary, of all window sills to remain. This is to include all sealants and adhesives as required.
11. Furnish and install all solid-surface materials and grommets as indicated.
12. Include all stainless steel required and associated with millwork.
13. All fabricated materials are to be shop assembled to the greatest extent possible before shipping to the job site.
14. Furnish and install all metal studs, gypsum board, plywood, blocking,
15. Protect from damage existing finish work that is to remain. This WC to provide room protection for teacher/classroom belongings to cover, protect, and encase all belongings gathered in a central/localized area in plastic wrapping. This WC responsible to remove at the conclusion of the project.

16. Furnish shop drawings, samples, product data, test reports, coordination drawings and other submittals as specified. Coordinate submittal schedule with the Construction Manager.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this Work Category.

1. Provide a 200 hour allowance for laborers to be used at the discretion of TCC. Daily time tickets will be required by TCC. All unused funds will be returned to the Owner.
2. This WC required to provide and install all metal frames, doors, door hardware for a complete assembly, including caulking as required.
3. Provide and install all VCT flooring, and rubber base as required.
4. Provide all architectural painting as required, including painting to match surfaces, priming, and block filler as needed. Samples shall be provided prior to construction for approval.
5. Remove and salvage all ceiling tiles, acoustical ceiling tiles, metal ceiling tiles, ceiling grid etc. as required for roof penetrations and ceiling access as coordinated with electrical and mechanical contractor. This WC to provide replacement ceiling tiles and grid for any damages during the removal process. Include removal and adjustment of ceiling tiles to accommodate revised lighting plans. This WC to reinstall existing ceiling tiles, including any modifications required for mechanical and electrical equipment, at the end of the project.
    i. At Cavanaugh, this WC to salvage metal panels and return to owner. Coordinate with Electrical & mechanical all removal. This WC responsible for all replacement components (Grid, hangers, tiles, etc.).
6. This WC to demolish and removal base cabinets, countertops, shelving, anchors and supports at all casework locations. Where casework is required to be removed and reinstalled, coordinate with MEP contractors for extent of removal. Coordination with Mechanical contractor is necessary for layout of new units. This may require multiple site visits and coordination meetings to ensure field measuring is correct.
7. This WC responsible for protection and removal of windowsills in accordance with project documents.
8. This WC responsible for the infill, patch, and repair of existing walls, floors, ceilings, and surfaces to match existing where demolition occurs other than as described, including but not limited to and patching ductwork from mechanical demolition at all locations other than masonry openings.
    (a) Masonry openings are to be patched by others
    (b) Penetrations for sleeves/piping/conduits to be filled in by others, this WC required to repair flooring/drywall damaged/removed for installation of new work.
9. At all locations where this WC creates a penetration through a presumed 1-hour fire rated wall, this WC is responsible to provide fire caulk and fireproofing required to meet local code and requirements to maintain the 1-hour rating.
10. This WC to provide all hardwood blocking under deck cells.
11. This WC to provide all blocking at masonry assemblies.
12. This WC to provide all flooring, wall base, interior architectural painting, including block filler.

13. This WC to remove, reinstall, and replace if damaged all multi-colored metal panels as required at the exterior façade for installation of lintels, mechanical, and electrical equipment at Cavanaugh Elementary.
14. Provide temporary fire extinguishers (during construction) as located by the Construction Manager. Removal following use included. Quantity for each area to match minimum required by MIOSHA
15. Caulk all installed countertops, base, wood trim reinstalled by this WC, etc. as required to complete assemblies removed and reinstalled by this WC.
16. Final cleanup for this work shall include broom sweeping.

Related Work by Others:

1. Dumpsters
2. Temporary water and electrical
3. Demolition of asbestos containing materials by WC01A
4. Roof mechanical equipment curbs by WC 27.
5. All structural framing by WC 11 and WC 27.
6. Painting and pre-finishing to be provided by WC27 for all mechanical equipment, ductwork, pipe chases/line hides.

Allowances:

This Contractor shall include in their Base Bid a Construction Manager's allowance of $20,000. Reference Section 01020 for specific instructions on allowances.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 20

Work Category No. 27 – HVAC Systems

Work Included:

The subcontractor shall timely perform all HVAC work, as detailed below, in accordance with the contract documents (including Bidding Requirements, Contract Forms and General Conditions, Supplemental Conditions, General Requirements, Addenda, etc.), including, but not limited to, the following Specification Sections and Work Scope Items. Unless otherwise noted, this contractor is responsible for all items specified in the following specifications sections:

See Work Category Index and Cross Reference

Work Category Notes:

1. Furnish all labor, materials, tools and equipment associated with HVAC/sheet metal, and air distribution equipment Work, including associated insulation, formal MEP space coordination process, commissioning and start-up/testing, for a complete installation, indicated by the contract documents (not just limited to the HVAC drawings) or as required for a complete installation, including labor, materials, dampers, duct detectors, louvers, accessories, and equipment for a complete installation.
2. Include all required air plenums, including but not limited to insulated panels, sheet metal closures, misc. iron galvanized support angles, joint sealants, isolation valves, pressure relief valves, reducers, strainers, manual air vent, condensate neutralizer, condensate pump, manual air vet, access doors (including frames if required and hardware), fiberglass insulation, etc. for a complete installation.
3. Investigate areas prior to demolition activities, reroute and relocate existing services required for occupied operation. Cut, cap, and make safe, all existing ductwork and HVAC systems in renovated areas prior to demolition. Properly identify and mark system and components to be removed.
4. All cutting, capping, coring, patching and firesafing of walls, floors, ceilings, etc., required for the installation of this work. Patch and repair work is to be done professionally by skilled craftsmen. All such openings require prior written approval from the Construction Manager, before work begins. Furnish and install all sleeves and or misc. steel in walls, floors, roofs and ceilings that may be required by this W.C.
5. All utility connection, disconnections, tie-ins, crossovers, shut downs and similar work must be performed and scheduled so they will not interfere with other work. It may be necessary to make these changes during "off" hours, or it may be necessary to make "hot tap" connections. The contractor should plan on premium time for this work. Coordinate with the Construction Manager prior to performing this work.
6. Furnish access panels where required for the wall and ceiling valves, dampers and controls that are not shown on the Architectural/Mechanical plans but are necessary for the Mechanical Systems.
7. Extreme care is to be taken when installing hangers and equipment in the area that has "spray on fireproofing", so as not to damage it. This contractor will be responsible for patching fireproofing incase of damage by this trade. This work is to be performed by a qualified contractor so that the warranty will not be affected.
8. Furnish all hoisting, lifting, scaffolding and handling of all materials required to complete this work category.
9. The Electrical and Mechanical Contractors will be required to coordinate in a formal coordination process to accomplish the rough-in and final layout as required and specified in Section 1049. Any relocation required to coordinate work will be done at no additional cost to the Owner. All contractors are required to furnish layout and coordination prints for their work prior to these meetings allowing the team to be better prepared at each coordination meeting. Detailers will be provided by this contractor to accomplish

this coordination. These meetings shall be coordinated with the construction manager and shall be held on-site.

10. Provide and install mechanical equipment tags, pipe identification and other required identification of signage related to his work.

11. Furnish and install all roof curbs and necessary or required auxiliary steel framing for equipment supplied under this W.C. This includes any auxiliary steel required at roof openings not shown on the structural drawings, or for pipe hangers and plenum stiffeners.

12. A coordination meeting will be set up between the controls contractor, mechanical contractor, electrician, and construction manager prior to control work. This will include all required work for a complete system as indicated in the construction documents.

Specific Notes and Details:

The following details and notes are included in this Work Category; this list is to clarify the specific items noted below and does not exclude other details or otherwise limit the scope of work for this work category:

1. Painting of all mechanical equipment to be done by this WC including but not limited to metal/plastic wall chases, filler panels, ductwork (interior and exterior) as noted and required in the drawings. Include caulking of these assemblies as required in base bid.

2. Paint all visible interior surfaces of ductwork flat black as required.

3. This WC responsible to receive and install pre-purchase ~~electrical~~ mechanical equipment. Pre-purchase ~~electrical~~ mechanical equipment is to be brought on site, and this WC to unload and take ownership of equipment at time of delivery. This WC responsible for final installation, and maintaining of warranty associated with equipment.

4. Receive, unload, and install all pre-purchase mechanical equipment. Delivery of pre-purchase equipment is to be coordinated with ThermalNetics to include all Unit Ventilators, Condensers, Pipe Curbs for Condensers, louvers, stepdown plenums, wall sleeves.

5. Install all louvers, metal fillers (Front, top and sides), sealants, etc. at interior and exterior penetrations. Include all painting required for mechanical equipment, covers, chases, etc.

6. Provide all roof curbs for mechanical equipment including but not limited to pipe curbs and equipment curbs.

7. Provide and install metal/plastic wall chases, filler panels pre-finished & painted to match existing conditions. This WC to provide touch-up painting for surfaces scratched during installation and maneuvering of unit ventilators, chases, and filler panels. This WC to coordinate color and paint options with pre-purchase mechanical contractor ThermalNetics, and existing conditions for A/E approval.

8. This WC responsible for disconnecting supply piping at main and preparing for new connection.

9. This WC responsible for all glazing work, including removal and replacement where necessary. If glazing cannot be provided when openings are created, this WC to provide temporary plywood protection for weather and security.

    a. This WC also responsible to remove existing glazing panel, and ensure aluminum frame is not damaged. If aluminum frame becomes damaged through demolition, this WC responsible to repair.

10. At all locations where this WC creates a penetration through a presumed 1-hour fire rated wall, this WC

is responsible to provide fire caulk and fireproofing required to meet local code and requirements to maintain the 1-hour rating.

11. Provide and install new 24V motorized damper duct up to relief hood.

12. Provide and install equipment stand for new condensing units as required.

13. Coordinate with WC 11 to field verify location of, dimension of, and extent of masonry removal to determine size required for new louvers.

14. Provide 16x12 transfer duct & grilles routed tight to underside of ceiling pre-finished to match existing adjacent wall color.

15. All metal deck cutting required to be performed by this WC. Roof structural steel support to be provided and installed by this WC in accordance with structural support details. Coordinate wood blocking/wood support with WC 20. All roofing repair to be done by this WC for all mechanical & plumbing penetrations required for new work to be installed.

16. Roofing and all roof associated assemblies required to be repaired in accordance with existing roof manufacturer requirements at all locations where this WC creates a penetration in the roof assembly. This is to include all required work to maintain the current roof warranty at Cavanaugh.

    a. Firestone roof installed by Quality Roofing in 2021 at Cavanaugh.

    b. Though this WC will not be the only contractor on the roof, this WC is responsible to provide all fall protection flagging and MIOSHA requirements to make the roof a safe working environment for all WC's required to be on the roof (WC01A, WC20, WC28).

17. This WC to provide and install all condensate, refrigerant, and steam lines, including supports, anchors, and hangers as required to be furnished and installed.

18. This WC responsible to provide all controls for all mechanical equipment, including but not limited to furnishing and installing control valves, Split AC Monitoring, DDC system architecture, Equipment Start-up Intervals, Split system AC monitoring, Vertical Unit DX and HHW controls, relief hood controls, and Heating Hot Water System controls. Carry SC Tech as the controls subcontractor. If a substitute controls contractor is requested, a substitution request for a voluntary alternative is required. Include final commissioning and balancing of control systems as required.

19. This WC to provide all cleaning of existing diffusers & grilles to remain.

20. This WC responsible for all mechanical demolition including but not limited to removal of unit ventilators, unit ventilator controls, louvers, baseboard radiant heaters, steam traps, piping, and air conditioning units, finned tube & associated assemblies, existing ductwork, thermostats, and hydronic piping.

    a. This WC responsible to coordinate with WC 11 on all removal of exterior louvers, ensure that masonry can keep up with production of removal and can provide temporary protection and demolition for masonry assemblies as required. This WC responsible for removal of louvers.

21. Provide and install differential pressure device, verify install with TAB contractor also supplied by this WC.

22. This WC responsible for all TAB related requirements, including but not limited to balancing of existing FTR, CUH, UH, Convector, sequences of operations of controls, DDC system architecture & tie in.

23. This WC responsible for a pre-construction TAB report for all existing mechanical equipment to remain, including but not limited to CUH/UH/Convector, FTR, and heating coil.

24. This WC responsible for a post-construction rebalancing of all existing equipment, including but not limited to FTR, CUH, UH, Convectors.

25. This WC responsible for all tie-ins to existing mechanical equipment including but not limited to existing OA duct to back of unit ventilator.

26. This WC responsible to remove all mechanical equipment required to be demolished including but not limited to mechanical pumps. For all items required to be turned over to owner, furnish material to owner warehouse located at *1717 Sams Way, Lansing, MI 48912.*

27. Mini-Split Indoor & Outdoor Units and all related accessories (thermostat, controls, etc.) to be provided by this WC. Coordinate electrical requirements with WC28.

28. This WC responsible for all sleeves and in-fill in penetrations where necessary, including concrete encasing, or mortar in-fill for penetrations made by this WC operations. Final architectural patching (drywall or VCT) by others. Final architectural painting by others.

29. Include safety plans, and adhere to local requirements for confined work space in tunnels as required for Mechanical equipment installation.

30. Set Cumberland Rooftop Condensing Units no greater than 15' from the edge of the roof, ensure coordination with unit manufacturer that total refrigerant lengths are acceptable.

Related Work by Others:

1. Power supply to mechanical equipment by W.C. 28.
2. Counter tops removal and reinstallation by WC 20.
3. Painting of all architectural assemblies to be done by WC 20.
4. Rooftop Condensing Units & associated accessories including curbs and stands, Unit Ventilators (Vertical and Horizontal), including sleeves, and louvers are to be provided by pre-purchase contractor ThermalNetics.
    a. This WC responsible for final installation of all the above listed equipment, including all insulation as required for roof penetrations.
5. Electrical disconnect of Unit Ventilators (Vertical and Horizontal) to be done by WC 28.
6. VCT flooring & wall base WC 20.

Allowances:

This Contractor shall include in their Base Bid a Construction Manager's allowance of $20,000. Reference Section 01020 for specific instructions on allowances.

Unit Prices:

Unit Prices are to be complete furnished in-place operations, and include all costs, incidental materials and work, insurance, fringes, bonds, engineering, overhead and profit. Reference the Trade Contract Proposal form for unit pricing required.

End of Work Category No. 27

BDN Abatement Specification - Full reissue of Abatement Specs below

Marc Alexa
Owners Rep
Lansing Public Schools
519 West Kalamazoo
Lansing, MI 48933

Date: 12/6/2022
BDN Project No. P23-00304

RE: Revised Inspection and Bid Specification for Cumberland Elementary School.

Dear Mark,

Enclosed is the revised NESHAP inspection report and bid specification for Cumberland Elementary. This letter summarizes and documents our inspection procedures, findings, and conclusions on previous inspection on October 6, 2023. BDN re sampled the material on 11/7/23 and then again on 12/4/23. After further investigation of HA 61 ceiling tiles – 2x2 – worm track. BDN has made a determination of HA# 61 ceiling tiles – 2x2 – worm track is not an asbestos-containing material. BDN duplicated sampling in the locations of the original samples, as well as the surrounding area for confirmation. The samples were shipped to Eurofins for analysis. The lab determined the materials are non-asbestos. BDN believes the locations could have been contaminated prior to sampling or cross contamination occurred from our inspection tools, which we make every effort to avoid. When presented with anomalies such as this, we always conduct verification sampling to be sure.

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.

Sincerely,

Ken Conlin
Senior Project Manager
BDN Industrial Hygiene Consultants, Inc.

eurofins | Built Environment Testing

Report for:

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

Regarding: Eurofins J3 Resources, Inc.
Project: P23-00304; Cumberland
EML ID: 3471978

Approved by:

Lab Director
Scott Ward

Dates of Analysis:
Asbestos PLM (Layer %): 12-05-2023

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)
NVLAP Lab Code 200525-0

Eurofins J3 Resources, Inc.
6110 West 34th Street, Houston, TX 77092
713-290-0221 www.eurofinsus.com/Built

Client: BDN Industrial Hygiene Consultants
C/O: Ken Conlin
Re: P23-00304; Cumberland

Date of Receipt: 12-05-2023
Date of Report: 12-05-2023

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
61.3. 16921826-1	Layer 1 White Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	
61.4. 16921827-1	Layer 1 White Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	
61.5. 16921828-1	Layer 1 White Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	
61.6. 16921829-1	Layer 1 White Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	
107.2. 16921830-1	Layer 1 Pink Ceiling Tile Homogeneity:Good	Not Detected	60% Cellulose 20% Mineral Wool 20% Non-Fibrous Material	
108.2. 16921831-1	Layer 1 Brown Ceiling Tile Homogeneity:Good	Not Detected	60% Cellulose 20% Mineral Wool 20% Non-Fibrous Material	
109.2. 16921832-1	Layer 1 White Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	
110.2. 16921833-1	Layer 1 Tan Ceiling Tile Homogeneity:Good	Not Detected	70% Cellulose 20% Non-Fibrous Material 10% Mineral Wool	

Comments:

Analyst(s): Isiah Scott

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

Revision #v9/MF
Revision Date: 8/27/2021

IH (Y

003471978

eurofins | J3 Resources

☐ Open Lab Fee

Submitter Name:	Ken Conlin	**Bill to:**	Same as submitter
Company:	BDN Industrial Hygiene Consultants	**Address:**	
Address:	2922 Fuller Avnue NE		
		City/State:	**Zip:**
City/State:	Grand Rapids, MI **Zip:** 49505	**PO #:**	P23-00304

Project Information

Project Name: Cumberland	Project Manager: Ken Conlin
Project #: P23-00304	Telephone – Office/Cell 231-250-9343
Reports - Email Address: kconlin@bdnihc.com	
Invoice - Email Address: ap@bdnihc.com	Notification By: Email: ☒ Verbal: ☐
Special Instructions:	

Turnaround Times – Please Select One

Emergency* ☒	1 Day ☐	2 Day ☐	3 Day ☐	5 Day ☐

ASBESTOS

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

METALS

Flame AA	Graphite Furnace AA - LEAD	ICP
○ Lead in Paint – SW846 7420/3050B ○ Lead in Air – NIOSH 7082 ○ Lead in Wipes – SW846 7420/3050B ○ Lead in Soil – SW846 7420/3050B ○ TCLP – SW846-7420/1311	○ Drinking Water – EPA 200.9 ○ Wastewater – SW846-7421 ○ Soil/Sludge – SW846-7421 ○ Air – NIOSH 7105	○ Elements in Air – NIOSH 7300 ○ Wipe/Soil – SW846-6010B ○ Effluent – SW846-6010B ○ Welding Fume – NIOSH 7300M

SILICA/PARTICULATES

X-Ray Diffraction / Gravimetric / Combustion Byproduct

○ Respirable Crystalline Silica NIOSH 7500 / OSHA 142
○ NIOSH 0500 – Total Particulates
○ NIOSH 0600 – Respirable Particulates
ASTM 6602 - CBP
○ PLM ○ TEM ○ SEM

Total Number of Samples Submitted: 8

Positive Stop: ☒ NO ☐ YES ○ By Layer ○ By Sample

Signatures

Relinquished By:		**Date:** 12/9/23	**Time:**
Received By:		**Date:** 12/9/23	**Time:** 10:30
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)

Revision #v7/MF
Revision Date: 3/09/2020

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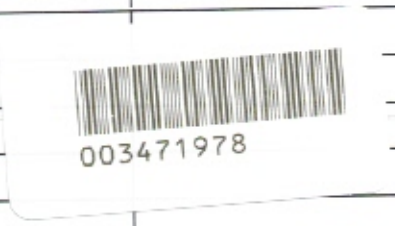
Project Name Cumberland
Project Number P23-00304

Page ____ of ____

SAMPLE IDENTIFICATION

SAMPLE NUMBER	SAMPLE LOCATION / MATERIAL	VOLUME/CONDITION
61.3	Ceiling Tile 2x2 Worm Track	
61.4	" " " "	
61.5	" " " "	
61.6	" " " "	
107.2	Ceiling Tile 2x2 pink back	
109.2	ceiling Tile 2x2 Brown Back	
109.2	ceiling Tile 2x2	
110.2	Ceiling Tile 2x2 Tan Back.	



Comments/Special Instructions:

Eurofins J3 Resources, Inc. • 6110 West 34th Street • Houston, Texas 77092 • tel: 713-290-0221 • fax: 713-290-0248
Eurofins J3 Resources, Inc. • 3113 Red Bluff Road • Pasadena, Texas 77503 • tel: 713-290-0223 • fax: 713-290-0248

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
Kconlin@bdnihc.com

BDN Project No.: P23-00304

Revised :12/6/23

Table of Contents

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 Conlinof 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 demoltion 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 Kithcen 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 2X2 - Worm Track	Throughout	REMOVED ADD 1

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.

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.

_____

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 herby proposed to provide all materials, labor, services, etc., required thereby for the following base bid items:

Base Bid 1 (1.1 – 1.2), Cumberland Elementary

Cost Written Out (Words)	*Cost in Figures*

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)

Cost Written Out (Words)	*Cost in Figures*

Base Bid 1.2 – Door and Frame – 2 Ct.

Cost Written Out (Words)	*Cost in Figures*

Cumberland Elementary Base Bid Totals

Total Cost to Complete ALL Base Bids 1.1 – 1.3	
Cost Written Out (Words)	*Cost in Figures*

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 – 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	S	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.

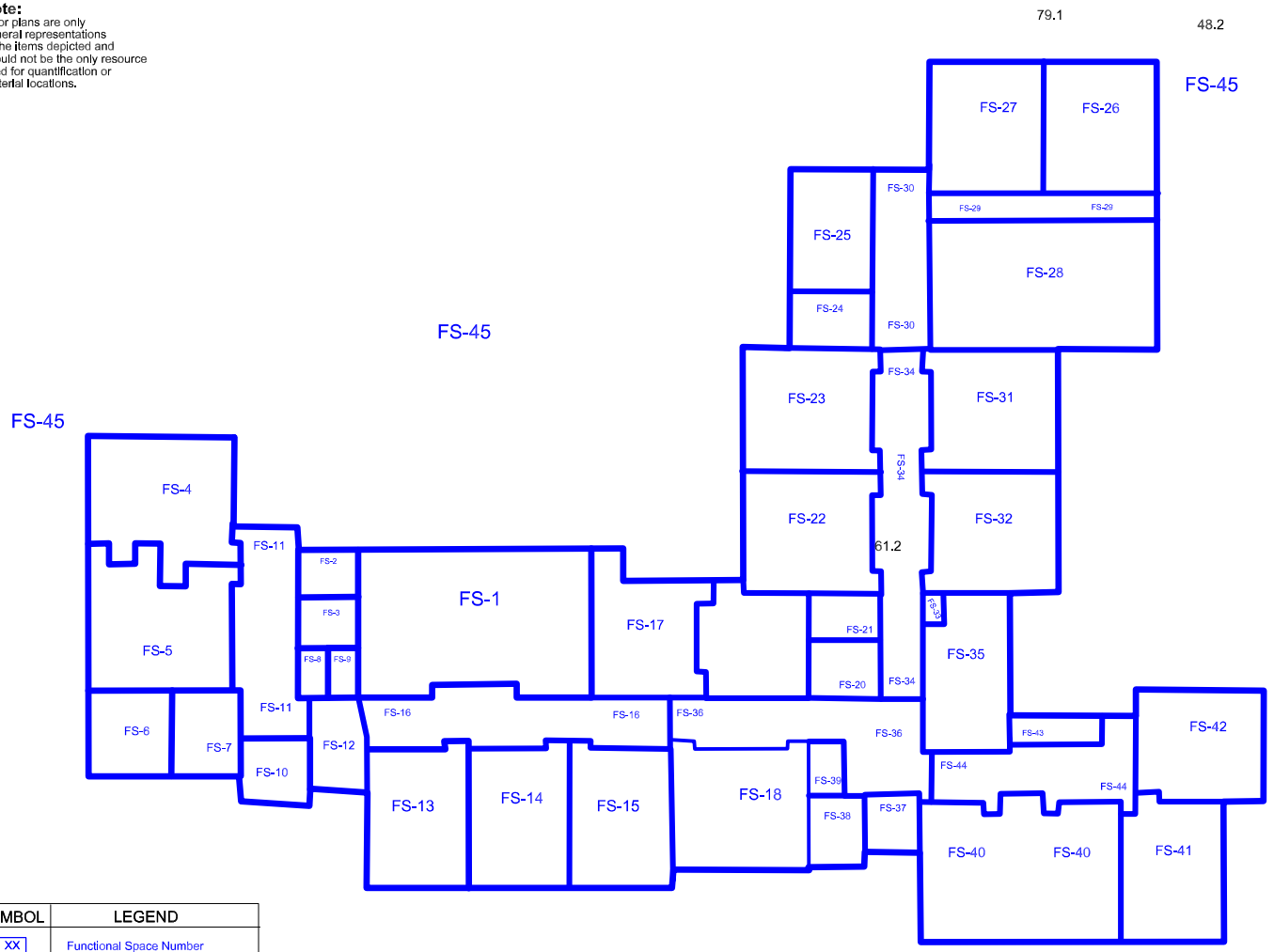
Company Name: _____

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

NORTH

BDN CREATING SAFE WORK
BDN Industrial Hygiene Consultants
8105 Valley Wood Lane, Portage, MI
Contact Us: 1-800-888-0123 | www.bdnllc.com

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

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
1st	01-Multipurppose Rm 108 (60'x35')	6	Wood Fire doors and Frame	Assumed	6	ct.	NF	U	
1st	01-Multipurppose 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**	
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

NSM = Non-Suspect Material

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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 Chalkboad 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- Clasroom 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- Clasroom 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- Clasroom 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- Clasroom 103 (36' X 30')**	**27**	**Caulk - Building Seam**	**Yes**	**10**	**s.f.**	**NF**	**U**	
1st	05- Clasroom 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- Clasroom 103 (36' X 30')	50	Display Board	Assumed	120	s.f.	NF	U	
1st	**06- Boiler Rm 36 (24' X 14')**	**27**	**Caulk - Building Seam**	**Yes**	**10**	**s.f.**	**NF**	**U**	
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

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')	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	
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'**

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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 coridor**
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	
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	
1st	**12- Corridor 100C (20' X 14')**	**51**	**Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks**	**Yes**	**20**	**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')**	**13**	**sink undercoating - Black**	**Yes**	**3**	**s.f.**	**F**	**U**	
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	

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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')**	**53**	**Vinyl Floor Tiles & associated mastic 9 X 9 - Cream w/ Black Streaks**	**Yes**	**875**	**s.f.**	**NF**	**U**	**Assumed to be under carpet also**
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')**	**13**	**sink undercoating - Black**	**Yes**	**3**	**s.f.**	**F**	**U**	
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	
1st	**14 - Classroom 110 (35' X 25')**	**54**	**Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks**	**Yes**	**800**	**s.f.**	**NF**	**U**	
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	
1st	**15 - Classroom 111 (35' X 25')**	**13**	**sink undercoating - Black**	**Yes**	**3**	**s.f.**	**F**	**U**	
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

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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
1st	**15 - Classroom 111 (35' X 25')**	**27**	**Caulk - Building Seam**	**Yes**	**18**	**s.f.**	**NF**	**U**	**Present in Corners of space**
1st	15 - Classroom 111 (35' X 25')	50	Display Board	Assumed	100	s.f.	NF	U	
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**	

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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	
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')	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')**	**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	

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')**	**10**	**Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks**	**Yes**	**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	
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	**22 - Classroom 120 (32' X 30')**	**41**	**Interior Window Glazing**	**Yes**	**30**	**s.f.**	**NF**	**U**	**6 window systems at 6' X 4'**
1st	22 - Classroom 120 (32' X 30')	50	Display Board	Assumed	160	s.f.	NF	U	
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	**22 - Classroom 120 (32' X 30')**	**75**	**Vinyl Floor Tile W/ associated Mastic 9 X 9 - Tan w/ White streaks**	**Yes**	**960**	**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')	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	**23 - Classroom 122 (32' X 30')**	**27**	**Caulk - Building Seam**	**Yes**	**20**	**s.f.**	**NF**	**U**	

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')	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	**23 - Classroom 122 (32' X 30')**	**77**	**Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks**	**Yes**	**960**	**s.f.**	**NF**	**U**	
1st	**24 - Storage Rm 124 (20' X 14')**	**54**	**Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks**	**Yes**	**280**	**s.f.**	**NF**	**U**	
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	**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	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')	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	

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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')	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	
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	
1st	**28 - Classroom 127 (32' X 28')**	**41**	**Interior Window Glazing**	**Yes**	**6**	**s.f.**	**NF**	**U**	**2 window systems on S wall 4' X 6'**
1st	28 - Classroom 127 (32' X 28')	50	Display Board	Assumed	180	s.f.	NF	U	
1st	**28 - Classroom 127 (32' X 28')**	**59**	**Sink Undercoating - Grey**	**Yes**	**3**	**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')	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	
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	

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')**	**27**	**Caulk - Building Seam**	**Yes**	**30**	**s.f.**	**NF**	**U**	
1st	30 - Corridor 100 I (10' X 47')	50	Display Board	Assumed	80	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')	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	
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

NSM = Non-Suspect Material

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')	26	Caulk- Interior Door Frame	Assumed	10	s.f.	NF	U	
1st	**32 - Classroom 121 (30' X 32')**	**27**	**Caulk - Building Seam**	**Yes**	**20**	**s.f.**	**NF**	**U**	
1st	**32 - Classroom 121 (30' X 32')**	**41**	**Interior Window Glazing**	**Yes**	**30**	**s.f.**	**NF**	**U**	
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	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	**32 - Classroom 121 (30' X 32')**	**77**	**Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks**	**Yes**	**960**	**s.f.**	**NF**	**U**	
1st	33 - Classroom 119 (6' X 8')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	18	s.f.	NF	U	
1st	**33 - Classroom 119 (6' X 8')**	**77**	**Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks**	**Yes**	**48**	**s.f.**	**NF**	**U**	
1st	34 - Corridor 100 H (10' X 88')	50	Display Board	Assumed	220	s.f.	NF	U	
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	
1st	**35 - Office Rooms 115 & 117 (40' X 22')**	**41**	**Interior Window Glazing**	**Yes**	**10**	**s.f.**	**NF**	**U**	**5 window systems on W wall at 4' X 3'**
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	

NSM = Non-Suspect Material

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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	
1st	**36 - Corridor 100 D (24' X 19')**	**27**	**Caulk - Building Seam**	**Yes**	**25**	**s.f.**	**NF**	**U**	
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	
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 assoiciated w/ Gypsum Board drywal	Assumed	100	s.f.	F	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')**	**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')	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')	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	

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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	
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')**	**13**	**sink undercoating - Black**	**Yes**	**3**	**s.f.**	**F**	**U**	
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	
1st	**42 - Classroom 133 (30' X 30')**	**13**	**sink undercoating - Black**	**Yes**	**3**	**s.f.**	**F**	**U**	
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	

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	42 - Classroom 133 (30' X 30')	30	Metal Fire door & Frame	Assumed	1	ct.	NF	U	
1st	**42 - Classroom 133 (30' X 30')**	**41**	**Interior Window Glazing**	**Yes**	**10**	**s.f.**	**NF**	**U**	
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')**	**10**	**Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks**	**Yes**	**110**	**s.f.**	**NF**	**U**	
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	**45 - School Exterior**	**93**	**Glazing - Exterior Window**	**Yes**	**855**	**s.f.**	**NF**	**U**	**106 Total windows (80 @ 4'x6', 16 @ 3'x4', 9 @ 3'x6', 1 @ 3'x2')**
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

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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,

Matt Moody

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:

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

Ken Conlin
Senior Project Manager
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BDN Industrial Hygiene Consultants

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LIST OF APPENDICES

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	**0.00490**
3	White paint on Metal Uninsulated Pipe	<0.00102	<0.00102	**0.0163**

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

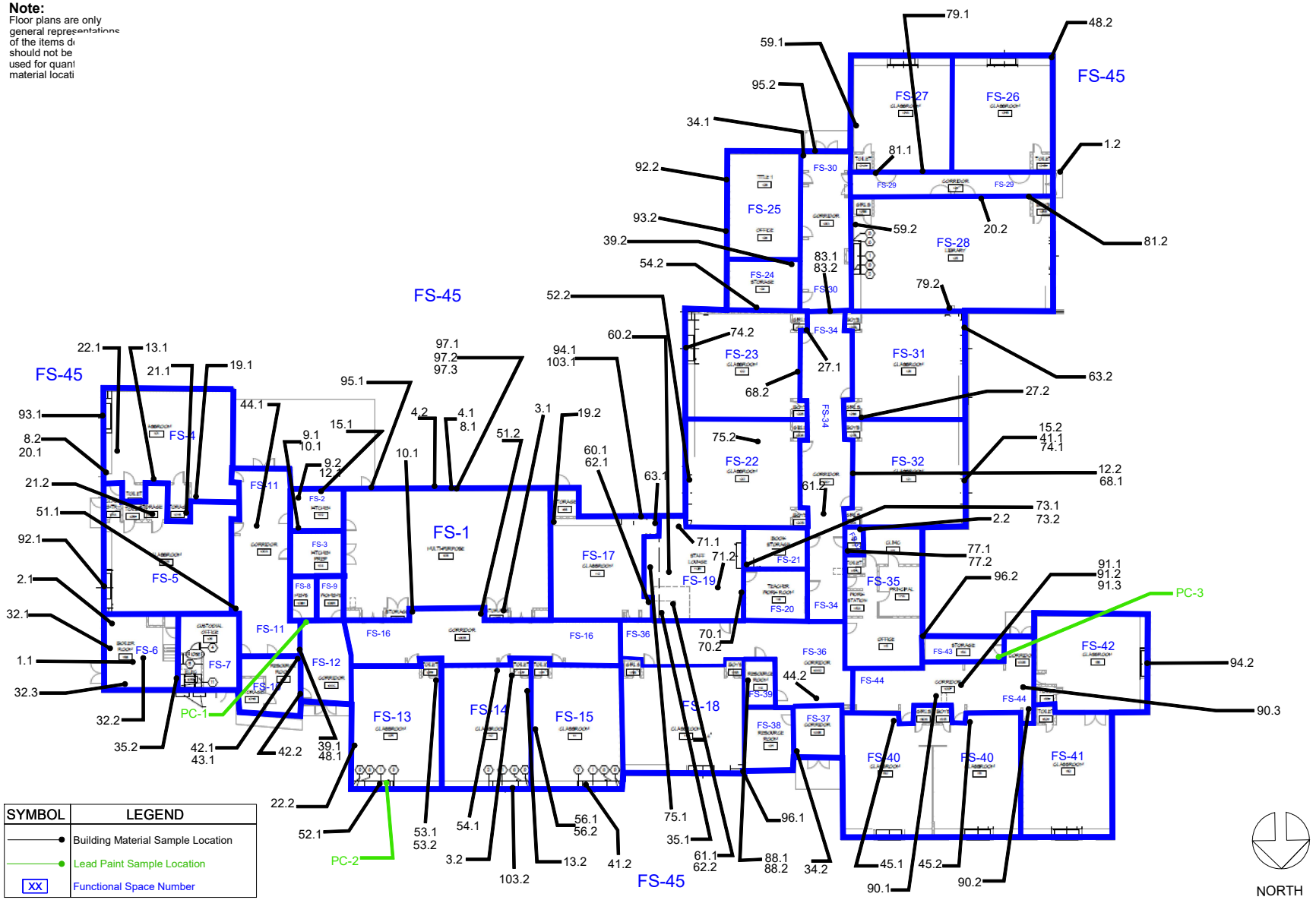
CAD Diagrams

BDN Project No.: P23-00304

Cumberland Elementary – Lansing Public Schools

October 2023

Note:
Floor plans are only
general representations
of the items d
should not be
used for quant
material locati



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

NORTH

BDN
CREATING SAFE WORK
BDN Industrial Hygiene Consultants
8105 Valley Wood Lane, Portage, MI
Contact Us: 1-800-968-0123 | www.bdnihc.com

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

Revisions

Description	Date

Project Name: **Cumberland Elementary**

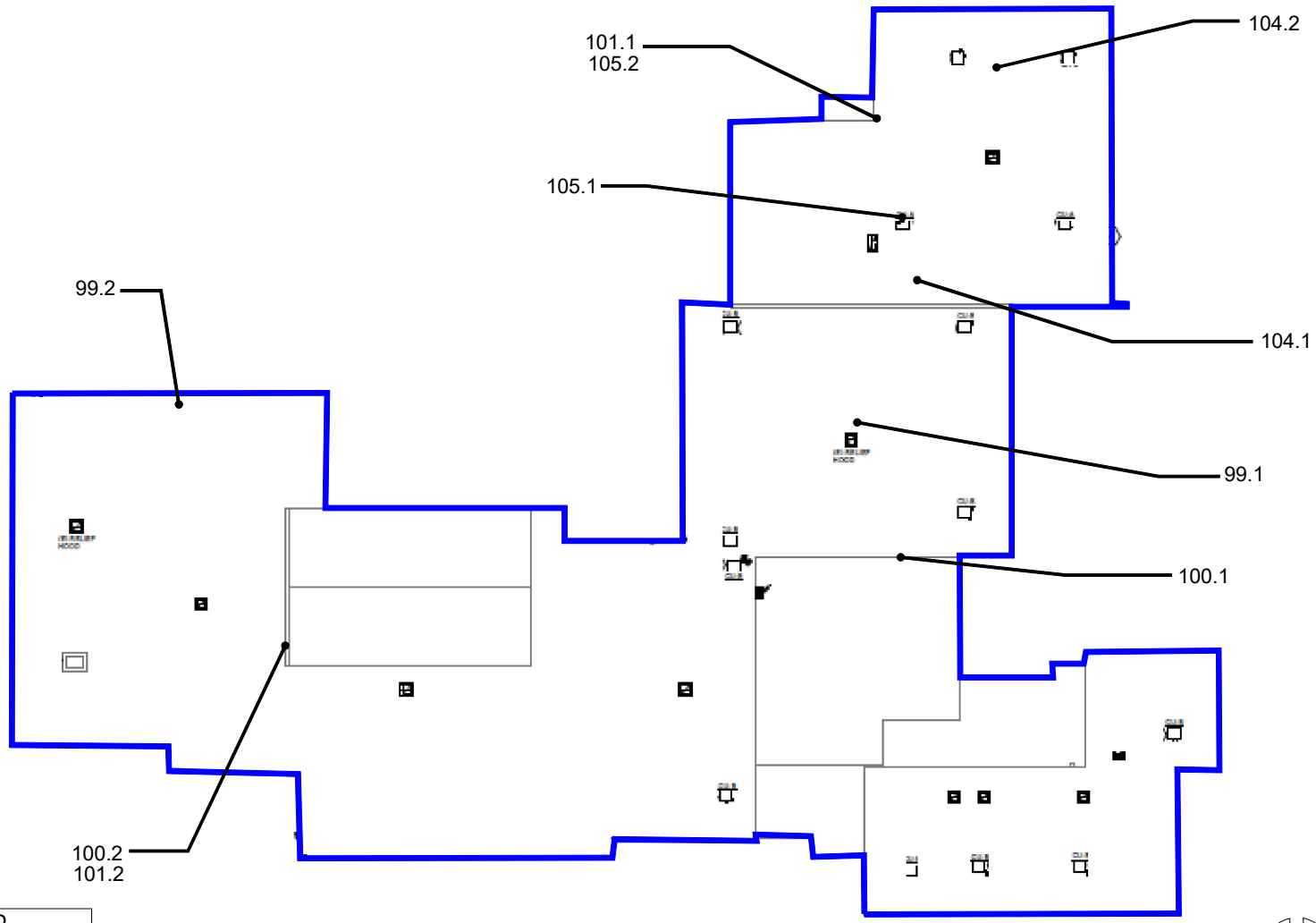
Drawing Title: **Asbestos Sample Location Map**

Sheet Number: 1 of 1

BDN Project No. P23-00304

APPENDIX A

Note:
Floor plans are only general representations of the items depicted ar should not be the only r used for quantification c material locations.



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

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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

BDN Project No. P23-00304

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	01-Multipurppose Rm 108 (60'x35')	1	Concrete	No	2100	s.f.	NF	U	
1st	01-Multipurppose Rm 108 (60'x35')	2	CMU Block	No	3070	s.f.	NF	U	
1st	01-Multipurppose Rm 108 (60'x35')	3	Vinyl Floor tile and associated mastic 12 x 12 Brown specs	No	2100	s.f.	NF	U	
1st	01-Multipurppose Rm 108 (60'x35')	4	Tectum- White	No	560	s.f.	F	U	
1st	01-Multipurppose Rm 108 (60'x35')	5	Metal Pan Ceiling Squares w/ Insulation 9 x 9 Pinhole	NSM	2100	s.f.	NF	U	
1st	01-Multipurppose Rm 108 (60'x35')	6	Wood Fire doors and Frame	Assumed	6	ct.	NF	U	
1st	01-Multipurppose Rm 108 (60'x35')	7	Wood Fire door and Frame w/ Windows	Assumed	4	ct.	NF	U	
1st	01-Multipurppose Rm 108 (60'x35')	8	Caulk- Interior Window - Beige	No	5	s.f.	NF	U	
1st	01-Multipurppose Rm 108 (60'x35')	17	Metal Roof Deck	NSM	2100	s.f.	NF	U	Assumed to beabove 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	
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')	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	
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	

NSM = Non-Suspect Material

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	
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	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	
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

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	
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')	20	Covebase w/ associated Mastic 4 in Black	No	50	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**	
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 Chalkboad 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- Clasroom 103 (36' X 30')	1	Concrete	No	1080	s.f.	NF	U	
1st	05- Clasroom 103 (36' X 30')	2	CMU Block	No	3020	s.f.	NF	U	
1st	05- Clasroom 103 (36' X 30')	6	Wood Fire doors and Frame	Assumed	2	ct.	NF	U	
1st	05- Clasroom 103 (36' X 30')	8	Caulk- Interior Window - Beige	No	10	s.f.	NF	U	Observed ONLY on upper window frame
1st	05- Clasroom 103 (36' X 30')	11	Metal Pan Slit Ceiling 2 x 2 w/ associated fiberglass batting	NSM	1080	s.f.	F	U	
1st	**05- Clasroom 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')	17	Metal Roof Deck	NSM	1080	s.f.	NF	U	

NSM = Non-Suspect Material

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	05- Clasroom 103 (36' X 30')	18	Adhesive- Associate Carpet	Assumed	820	s.f.	NF	U	
1st	**05- Clasroom 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- Clasroom 103 (36' X 30')	20	Covebase w/ associated Mastic 4 in Black	No	40	s.f.	NF	U	
1st	**05- Clasroom 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')	22	Vinyl Floor Tile 9 X 9 Black w/ White Specs	No	10	s.f.	NF	U	Single Line of floor tile
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- Clasroom 103 (36' X 30')**	**27**	**Caulk - Building Seam**	**Yes**	**10**	**s.f.**	**NF**	**U**	
1st	05- Clasroom 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- Clasroom 103 (36' X 30')	50	Display Board	Assumed	120	s.f.	NF	U	
1st	05- Clasroom 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	**06- Boiler Rm 36 (24' X 14')**	**27**	**Caulk - Building Seam**	**Yes**	**10**	**s.f.**	**NF**	**U**	
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 penitrations

NSM = Non-Suspect Material

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	

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	

NSM = Non-Suspect Material

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**	

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	
1st	**12- Corridor 100C (20' X 14')**	**51**	**Vinyl Floor Tile w/ Associated mastic- 9 X 9- Brown w/ Black Streaks**	**Yes**	**20**	**s.f.**	**NF**	**U**	
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	
1st	**13 - Classroom 109 (25' X 35')**	**13**	**sink undercoating - Black**	**Yes**	**3**	**s.f.**	**F**	**U**	
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	

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	
1st	**13 - Classroom 109 (25' X 35')**	**53**	**Vinyl Floor Tiles & associated mastic 9 X 9 - Cream w/ Black Streaks**	**Yes**	**875**	**s.f.**	**NF**	**U**	**Assumed to be under carpet also**
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	
1st	**14 - Classroom 110 (35' X 25')**	**13**	**sink undercoating - Black**	**Yes**	**3**	**s.f.**	**F**	**U**	
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	

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	
1st	**14 - Classroom 110 (35' X 25')**	**54**	**Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks**	**Yes**	**800**	**s.f.**	**NF**	**U**	
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	
1st	**15 - Classroom 111 (35' X 25')**	**13**	**sink undercoating - Black**	**Yes**	**3**	**s.f.**	**F**	**U**	
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	

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
1st	**15 - Classroom 111 (35' X 25')**	**27**	**Caulk - Building Seam**	**Yes**	**18**	**s.f.**	**NF**	**U**	**Present in Corners of space**
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
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')	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	
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')	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	
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	

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	Presenton 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	
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')	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	
1st	**17 - Classroom 112 (26' X 29')**	**59**	**Sink Undercoating - Grey**	**Yes**	**3**	**s.f.**	**NF**	**U**	
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
1st	17 - Classroom 112 (26' X 29')	61	Ceiling Tile 2 X 2 - Worm Track	No	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')	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	

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
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	No	1054	s.f.	NF	U	
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	

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	No	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	No	255	s.f.	NF	U	
1st	20 - Staff Work Room 116 (17' X 14')	68	Sink Undercoating - Pink	No	3	s.f.	NF	U	

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	
1st	**21 - Book Storage Rm 118 (18' X 11')**	**10**	**Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks**	**Yes**	**198**	**s.f.**	**NF**	**U**	
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	
1st	21 - Book Storage Rm 118 (18' X 11')	61	Ceiling Tile 2 X 2 - Worm Track	No	198	s.f.	NF	U	
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
1st	**22 - Classroom 120 (32' X 30')**	**41**	**Interior Window Glazing**	**Yes**	**30**	**s.f.**	**NF**	**U**	**6 window systems at 6' X 4'**

NSM = Non-Suspect Material

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	
1st	22 - Classroom 120 (32' X 30')	61	Ceiling Tile 2 X 2 - Worm Track	No	960	s.f.	NF	U	
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
1st	**22 - Classroom 120 (32' X 30')**	**75**	**Vinyl Floor Tile W/ associated Mastic 9 X 9 - Tan w/ White streaks**	**Yes**	**960**	**s.f.**	**NF**	**U**	
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	
1st	**23 - Classroom 122 (32' X 30')**	**27**	**Caulk - Building Seam**	**Yes**	**20**	**s.f.**	**NF**	**U**	

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	
1st	23 - Classroom 122 (32' X 30')	61	Ceiling Tile 2 X 2 - Worm Track	No	960	s.f.	NF	U	
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	
1st	**23 - Classroom 122 (32' X 30')**	**77**	**Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks**	**Yes**	**960**	**s.f.**	**NF**	**U**	
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	
1st	**24 - Storage Rm 124 (20' X 14')**	**54**	**Vinyl Floor Tile w/ Associated mastic - 9 X 9 - Cream w/ Green Streaks**	**Yes**	**280**	**s.f.**	**NF**	**U**	
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	

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	No	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'**

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	**26 - Classroom 129 (32' X 28')**	**59**	**Sink Undercoating - Grey**	**Yes**	**3**	**s.f.**	**NF**	**U**	
1st	26 - Classroom 129 (32' X 28')	60	Drywall - Gypsum Board	No	600	s.f.	NF	U	
1st	26 - Classroom 129 (32' X 28')	61	Ceiling Tile 2 X 2 - Worm Track	No	896	s.f.	NF	U	
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	**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**	

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	
1st	27 - Library Rooms 125 & 125 B (32' X 56')	61	Ceiling Tile 2 X 2 - Worm Track	No	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')	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	
1st	**28 - Classroom 127 (32' X 28')**	**41**	**Interior Window Glazing**	**Yes**	**6**	**s.f.**	**NF**	**U**	**2 window systems on S wall 4' X 6'**
1st	28 - Classroom 127 (32' X 28')	50	Display Board	Assumed	180	s.f.	NF	U	
1st	**28 - Classroom 127 (32' X 28')**	**59**	**Sink Undercoating - Grey**	**Yes**	**3**	**s.f.**	**NF**	**U**	
1st	28 - Classroom 127 (32' X 28')	60	Drywall - Gypsum Board	No	600	s.f.	NF	U	

NSM = Non-Suspect Material

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	No	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	No	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 runninh 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	
1st	30 - Corridor 100 I (10' X 47')	61	Ceiling Tile 2 X 2 - Worm Track	No	470	s.f.	NF	U	

NSM = Non-Suspect Material

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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	No	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	
1st	31 - Classroom 123 (30' X 32')	68	Sink Undercoating - Pink	No	3	s.f.	NF	U	

NSM = Non-Suspect Material

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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	
1st	**32 - Classroom 121 (30' X 32')**	**27**	**Caulk - Building Seam**	**Yes**	**20**	**s.f.**	**NF**	**U**	
1st	**32 - Classroom 121 (30' X 32')**	**41**	**Interior Window Glazing**	**Yes**	**30**	**s.f.**	**NF**	**U**	
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	

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	32 - Classroom 121 (30' X 32')	52	Covebase w/ adhesive 2 in. - Tan	No	10	s.f.	NF	U	
1st	32 - Classroom 121 (30' X 32')	61	Ceiling Tile 2 X 2 - Worm Track	No	960	s.f.	NF	U	
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	
1st	**32 - Classroom 121 (30' X 32')**	**77**	**Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks**	**Yes**	**960**	**s.f.**	**NF**	**U**	
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	
1st	33 - Classroom 119 (6' X 8')	61	Ceiling Tile 2 X 2 - Worm Track	No	48	s.f.	NF	U	
1st	33 - Classroom 119 (6' X 8')	69	Ceramic Block w/ associated grout- 12' X 18 - Tan	Assumed	18	s.f.	NF	U	
1st	**33 - Classroom 119 (6' X 8')**	**77**	**Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Tan w/ Black & cream streaks**	**Yes**	**48**	**s.f.**	**NF**	**U**	
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 runninh N to S, 4 lines running E to W
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

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	34 - Corridor 100 H (10' X 88')	50	Display Board	Assumed	220	s.f.	NF	U	
1st	34 - Corridor 100 H (10' X 88')	61	Ceiling Tile 2 X 2 - Worm Track	No	880	s.f.	NF	U	
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	
1st	**35 - Office Rooms 115 & 117 (40' X 22')**	**41**	**Interior Window Glazing**	**Yes**	**10**	**s.f.**	**NF**	**U**	**5 window systems on W wall at 4' X 3'**
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	
1st	35 - Office Rooms 115 & 117 (40' X 22')	61	Ceiling Tile 2 X 2 - Worm Track	No	880	s.f.	NF	U	
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	
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	

NSM = Non-Suspect Material

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
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	
1st	**36 - Corridor 100 D (24' X 19')**	**27**	**Caulk - Building Seam**	**Yes**	**25**	**s.f.**	**NF**	**U**	
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	
1st	36 - Corridor 100 D (24' X 19')	61	Ceiling Tile 2 X 2 - Worm Track	No	876	s.f.	NF	U	
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	
1st	37 - Corridor 100 E (13' X 15')	60	Drywall - Gypsum Board	No	100	s.f.	NF	U	Corridor bulkhead (not present above ceiling

NSM = Non-Suspect Material

Floor	Functional Space	HA#	HA Description	Asbestos Detected	Quantity	Units	F/NF	Condition	Notes
1st	37 - Corridor 100 E (13' X 15')	87	Joint Compound assoiciated 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	No	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	No	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**	

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	**NO hard plaster observed in entryway; replaced w/ metal pan ceiling**
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	
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')'	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	

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'
1st	**41 - Classroom 132 (32' X 25')**	**13**	**sink undercoating - Black**	**Yes**	**3**	**s.f.**	**F**	**U**	
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	
1st	**42 - Classroom 133 (30' X 30')**	**13**	**sink undercoating - Black**	**Yes**	**3**	**s.f.**	**F**	**U**	
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	

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	
1st	**42 - Classroom 133 (30' X 30')**	**41**	**Interior Window Glazing**	**Yes**	**10**	**s.f.**	**NF**	**U**	
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	***Metal Pan Ceiling***
1st	43 - Storage Rm 134 (22' X 5')	2	CMU Block	No	440	s.f.	NF	U	
1st	**43 - Storage Rm 134 (22' X 5')**	**10**	**Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks**	**Yes**	**110**	**s.f.**	**NF**	**U**	
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	

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')
Exterior	**45 - School Exterior**	**93**	**Glazing - Exterior Window**	**Yes**	**855**	**s.f.**	**NF**	**U**	**106 Total windows (80 @ 4'x6', 16 @ 3'x4', 9 @ 3'x6', 1 @ 3'x2')**
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

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

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

NSM = Non-Suspect Material

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	
61-3	12/4/2023	61	Ceiling Tile 2 X 2 - Worm Track	FS36	No	
61-4	12/4/2023	61	Ceiling Tile 2 X 2 - Worm Track	FS36	No	
61-5	12/4/2023	61	Ceiling Tile 2 X 2 - Worm Track	FS34	No	
61-6	12/4/2023	61	Ceiling Tile 2 X 2 - Worm Track	FS44	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	No	
62-2	10/6/2023	62	Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red & Black Streaks	FS-19 North Corner	No	
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	

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
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	
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	

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
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	
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	

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
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	
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
107-2	12/4/2023	107	Ceiling Tile - Pink Back	FS19	No	
108-1	11/7/2023	108	Ceiling Tile - 2'x2' - Brown Back	112B	No	Teacher lounge
108-2	12/4/2023	108	Ceiling Tile - 2'x2' - Brown Back	FS19	No	
109-1	11/7/2023	109	Ceiling Tile - 2'x2'	112B	No	Center, Teacher Lounge
109-2	12/4/2023	109	Ceiling Tile - 2'x2'	FS19	No	
110-1	11/7/2023	110	Ceiling Tile - 2'x2' - Tan Back	100B	No	Corridor outside 112B
110-2	12/4/2023	110	Ceiling Tile - 2'x2'	FS19	#N/A	
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

Building Materials Summary

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

BDN Project No. P23-00304

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.

NSM = Non-Suspect Material

Building Materials Summary

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

BDN Project No. P23-00304

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.

NSM = Non-Suspect Material

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	No	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.

NSM = Non-Suspect Material

Building Materials Summary

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

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.

NSM = Non-Suspect Material

Building Materials Summary

Lansing School District

2801 Cumberland Road, Lansing, Mi 48906

BDN Project No. P23-00304

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.

NSM = Non-Suspect Material

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 QUANITY:
30,645 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 2

HA# 2

MATERIAL DESCRIPTION:
CMU Block

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
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 QUANITY:
2,121 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 # 4

HA# 4

MATERIAL DESCRIPTION:
Tectum- White

ASBESTOS-CONTAINING MATERIAL:
No

TOTAL QUANITY:
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 QUANITY:
2,575 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 6

HA# 6

MATERIAL DESCRIPTION:
Wood Fire doors and Frame

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
34 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 # 7

HA# 7

MATERIAL DESCRIPTION:
Wood Fire door and Frame w/ Windows

ASBESTOS-CONTAINING MATERIAL:
Assumed

TOTAL QUANITY:
27 ct.

ADDITIONAL NOTES:

PHOTOGRAPH # 8

HA# 8

MATERIAL DESCRIPTION:
Caulk- Interior Window - Beige

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
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 QUANITY:
924 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 # 10

HA# 10

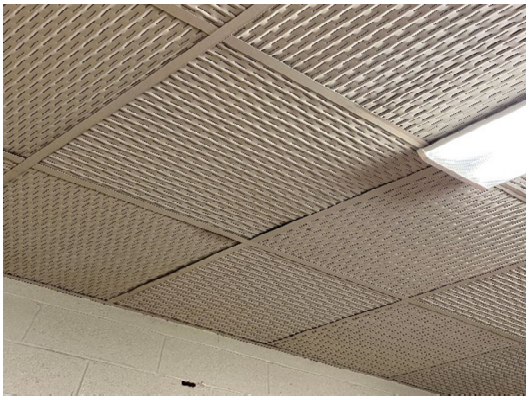
MATERIAL DESCRIPTION:
Vinyl Floor Tile and associated Mastic 9 x 9 Tan w/ Brown Streaks

ASBESTOS-CONTAINING MATERIAL:
Yes

TOTAL QUANITY:
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 QUANITY:
5,631 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 12

HA# 12

MATERIAL DESCRIPTION:
Covebase and associated adhesive - 4 in. Brown

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
759 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 # 13

HA# 13

MATERIAL DESCRIPTION:
sink undercoating - Black

ASBESTOS-CONTAINING MATERIAL:
Yes

TOTAL QUANITY:
33 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 14

HA# 14

MATERIAL DESCRIPTION:
Formica Countertops and associated adhesive - Citrus Squares

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
135 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 15

HA# 15

MATERIAL DESCRIPTION:
Caulk interior Window - Grey

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
62 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 # 16

HA# 16

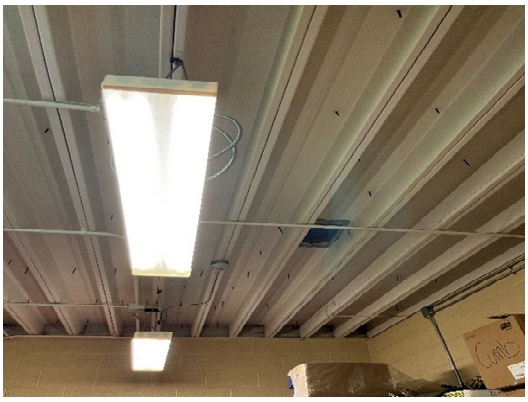
MATERIAL DESCRIPTION:
Adhesive associated w/ speaker

ASBESTOS-CONTAINING MATERIAL:
Assumed

TOTAL QUANITY:
35 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 17



HA# 17

MATERIAL DESCRIPTION:
Metal Roof Deck

ASBESTOS-CONTAINING MATERIAL
NSM

TOTAL QUANITY:
24,936 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 18

HA# 18

MATERIAL DESCRIPTION:
Adhesive- Associate Carpet

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
5,820 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 # 19

HA# 19

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

ASBESTOS-CONTAINING MATERIAL:
Yes

TOTAL QUANITY:
2,180 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 20

HA# 20

MATERIAL DESCRIPTION:
Covebase w/ associated Mastic 4 in Black

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
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

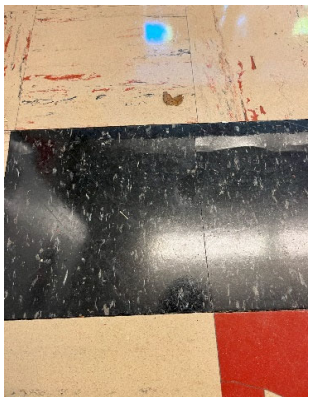
TOTAL QUANITY:
180 s.f.

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 # 22



HA# 22

MATERIAL DESCRIPTION:
Vinyl Floor Tile 9 X 9 Black w/ White Specs

ASBESTOS-CONTAINING MATERIAL:
No

TOTAL QUANITY:
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 QUANITY:
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 QUANITY:
460 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 # 25

HA# 25

MATERIAL DESCRIPTION:
Chalkboard- Green

ASBESTOS-CONTAINING MATERIAL:
Assumed

TOTAL QUANITY:
2,020 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 26

HA# 26

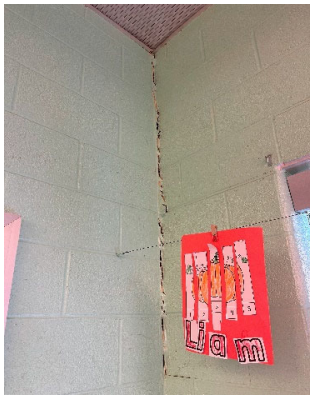
MATERIAL DESCRIPTION:
Caulk- Interior Door Frame

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
142 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 27



HA# 27

MATERIAL DESCRIPTION:
Caulk - Building Seam

ASBESTOS-CONTAINING MATERIAL
Yes

TOTAL QUANITY:
298 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 # 28

HA# 28

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

ASBESTOS-CONTAINING MATERIAL:
Assumed

TOTAL QUANITY:
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 QUANITY:
352 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 30

HA# 30

MATERIAL DESCRIPTION:
Metal Fire door & Frame

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
9 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 # 31

HA# 31

MATERIAL DESCRIPTION:
Fiberglass Straight Pipe Insulation

ASBESTOS-CONTAINING MATERIAL:
NSM

TOTAL QUANITY:
1,867 l.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 32

HA# 32

MATERIAL DESCRIPTION:
Gasket(s)

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
17 ct.

ADDITIONAL NOTES:

PHOTOGRAPH # 33

HA# 33

MATERIAL DESCRIPTION:
Boiler

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
820 c.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 # 34

HA# 34

MATERIAL DESCRIPTION:
Door Frame Caulk

ASBESTOS-CONTAINING MATERIAL:
No

TOTAL QUANITY:
45 s.f.

ADDITIONAL NOTES:

HA# 35

MATERIAL DESCRIPTION:
Caulk- Firestop - Red

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
42 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 36

HA# 36

MATERIAL DESCRIPTION:
Boiler Supply/Return Line 24 in

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
20 l.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 # 37

HA# 37

MATERIAL DESCRIPTION:
Electrical Equipment

ASBESTOS-CONTAINING MATERIAL:
Assumed

TOTAL QUANITY:
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 QUANITY:
132 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 39

HA# 39

MATERIAL DESCRIPTION:
Ceiling Tile 2' X '2 Pinhole

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
5,997 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 # 40

HA# 40

MATERIAL DESCRIPTION:
Restroom Doors

ASBESTOS-CONTAINING MATERIAL:
Assumed

TOTAL QUANITY:
200 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 41

HA# 41

MATERIAL DESCRIPTION:
Interior Window Glazing

ASBESTOS-CONTAINING MATERIAL
Yes

TOTAL QUANITY:
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 QUANITY:
145 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 # 43

HA# 43

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

ASBESTOS-CONTAINING MATERIAL:
Yes

TOTAL QUANITY:
145 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 44

HA# 44

MATERIAL DESCRIPTION:
Pre-cast Concrete Panels

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
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 QUANITY:
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

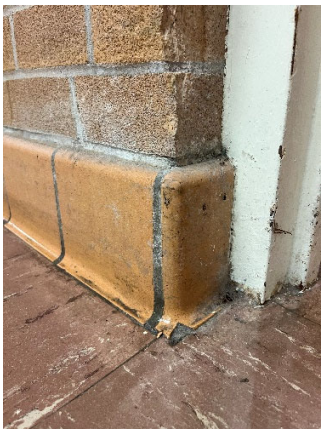
MATERIAL DESCRIPTION:
Vinyl Floor Tile w/ associated Mastic 9 X 9- Cream w/ Brown Specs

ASBESTOS-CONTAINING MATERIAL:
No

TOTAL QUANITY:
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 QUANITY:
45 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 48

HA# 48

MATERIAL DESCRIPTION:
Brick & Mortar - Tan

ASBESTOS-CONTAINING MATERIAL
No

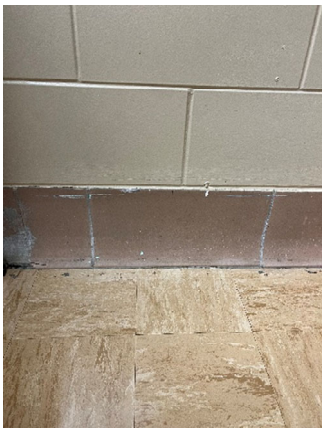
TOTAL QUANITY:
1,970 s.f.

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 QUANITY:
1,950 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 50

HA# 50

MATERIAL DESCRIPTION:
Display Board

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
30 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 59

HA# 59

MATERIAL DESCRIPTION:
Sink Undercoating - Grey

ASBESTOS-CONTAINING MATERIAL
Yes

TOTAL QUANITY:
15 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 60

HA# 60

MATERIAL DESCRIPTION:
Drywall - Gypsum Board

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
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 QUANITY:
14,896 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 62

HA# 62

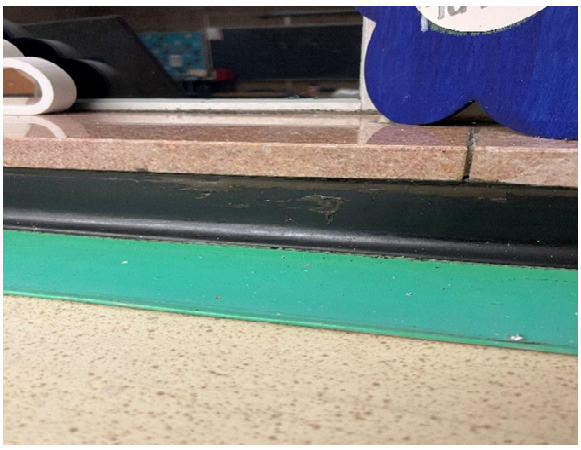
MATERIAL DESCRIPTION:
Vinyl Floor Tile w/ Associated Mastic 9 X 9 - Cream w/ Red & Black Streaks

ASBESTOS-CONTAINING MATERIAL
Yes

TOTAL QUANITY:
1,131 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 63



HA# 63

MATERIAL DESCRIPTION:
Covebase w/ associated Mastic 2 in. - Black

ASBESTOS-CONTAINING MATERIAL
No

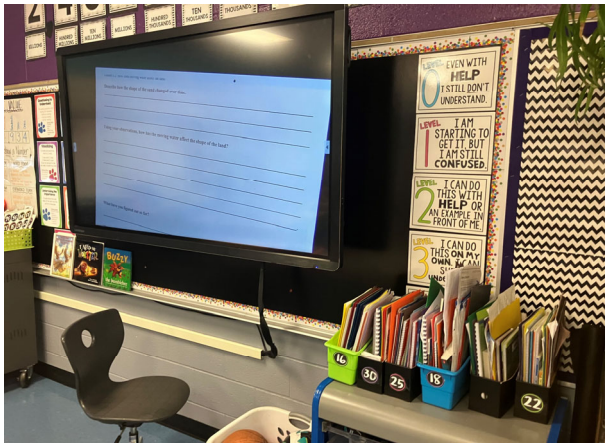
TOTAL QUANITY:
50 s.f.

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

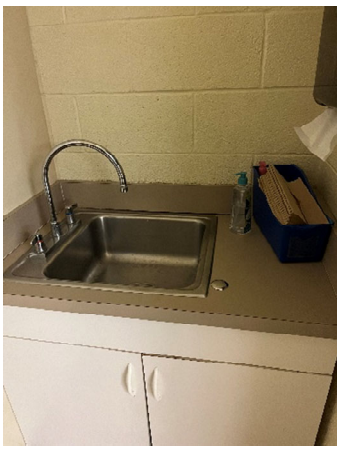
MATERIAL DESCRIPTION:
Chalkboard - Black

ASBESTOS-CONTAINING MATERIAL:
Assumed

TOTAL QUANITY:
590 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 65



HA# 65

MATERIAL DESCRIPTION:
Formica Countertops w/ associated adhesive - Grey

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
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

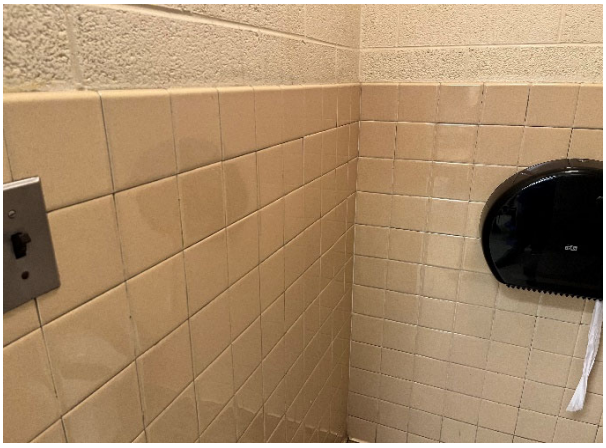
TOTAL QUANITY:
340 s.f.

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 QUANITY:
530 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 68

HA# 68

MATERIAL DESCRIPTION:
Sink Undercoating - Pink

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
80 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 74

HA# 74

MATERIAL DESCRIPTION:
Caulk - Interior window - Black

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
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 QUANITY:
220 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 # 79

HA# 79

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

ASBESTOS-CONTAINING MATERIAL:
No

TOTAL QUANITY:
3,969 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 80

HA# 80

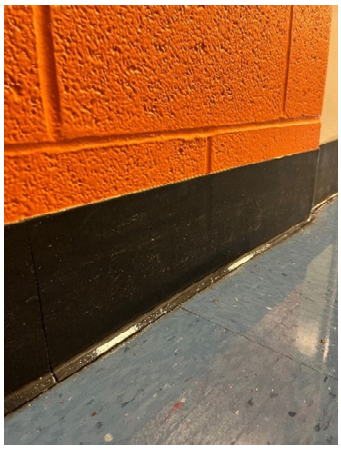
MATERIAL DESCRIPTION:
Formica Countertops w/ associated adhesive - Tan

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
100 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 81



HA# 81

MATERIAL DESCRIPTION:
Covebase w/ associated adhesive 8 in. - Black

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
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:
Terrezzo - Red Specs

ASBESTOS-CONTAINING MATERIAL:
Assumed

TOTAL QUANITY:
2,180 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 83

HA# 83

MATERIAL DESCRIPTION:
Firebreak paper w/ associated mastic - Black

ASBESTOS-CONTAINING MATERIAL
Yes

TOTAL QUANITY:
20 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 85

HA# 85

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

ASBESTOS-CONTAINING MATERIAL
Assumed

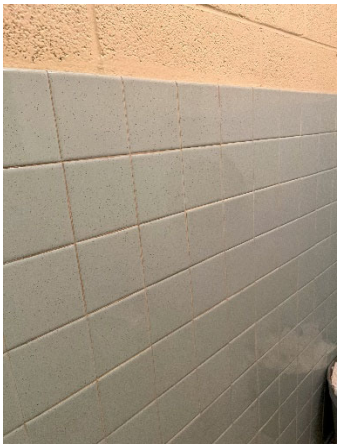
TOTAL QUANITY:
30 s.f.

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 QUANITY:
80 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 87

HA# 87

MATERIAL DESCRIPTION:
Joint Compound assoiciated w/ Gypsum Board drywal

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
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 QUANITY:
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 QUANITY:
8 ct.

ADDITIONAL NOTES:

PHOTOGRAPH # 90

HA# 90

MATERIAL DESCRIPTION:
Mudded fittings on Fiberglass pipe insulation

ASBESTOS-CONTAINING MATERIAL
No

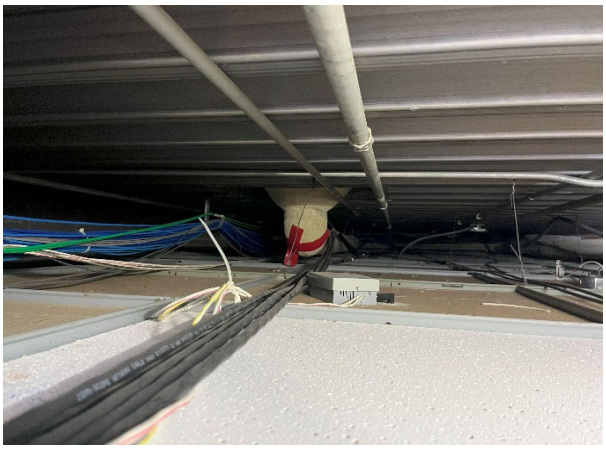
TOTAL QUANITY:
17 ct.

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:
Mudded fittings on roof drain

ASBESTOS-CONTAINING MATERIAL:
No

TOTAL QUANITY:
1 ct.

ADDITIONAL NOTES:

PHOTOGRAPH # 92

HA# 92

MATERIAL DESCRIPTION:
Caulk - Exterior Window

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
570 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 93

HA# 93

MATERIAL DESCRIPTION:
Glazing - Exterior Window

ASBESTOS-CONTAINING MATERIAL
Yes

TOTAL QUANITY:
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 QUANITY:
92 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 95

HA# 95

MATERIAL DESCRIPTION:
Caulk - Exterior Door Frame

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
90 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 96

HA# 96

MATERIAL DESCRIPTION:
Caulk - Exterior Building Seam

ASBESTOS-CONTAINING MATERIAL
Yes

TOTAL QUANITY:
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 QUANITY:
300 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 98

HA# 98

MATERIAL DESCRIPTION:
Exterior Fire Door and Frame

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
18 ct.

ADDITIONAL NOTES:

PHOTOGRAPH # 99

HA# 99

MATERIAL DESCRIPTION:
Exterior - Flat Roofing

ASBESTOS-CONTAINING MATERIAL
No

TOTAL QUANITY:
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 QUANITY:
12,850 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 101

HA# 101

MATERIAL DESCRIPTION:
Caulk - Exterior Roof

ASBESTOS-CONTAINING MATERIAL:
No

TOTAL QUANITY:
480 s.f.

ADDITIONAL NOTES:

PHOTOGRAPH # 102

HA# 102

MATERIAL DESCRIPTION:
Exterior Window Vapor Barrier

ASBESTOS-CONTAINING MATERIAL
Assumed

TOTAL QUANITY:
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 QUANITY:
130 s.f.

ADDITIONAL NOTES:

Appendix F

Analytical Results – Asbestos

BDN Project No.: P23-00304

Cumberland Elementary – Lansing Public Schools

October 2023

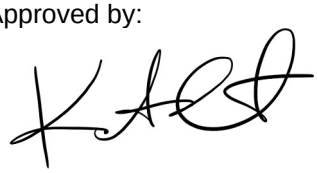
eurofins | Built Environment Testing

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
Kennetch 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)

Eurofins J3 Resources, Inc.
9701 Harry Hines Blvd, Dallas, TX 75220
713-290-0221 www.eurofinsus.com/Built

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%.

Eurofins J3 Resources, Inc.
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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	

Comments:

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

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Re: P23-00304; Lansing Schools - Cumberland

Date of Receipt: 10-13-2023
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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	

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; 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
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	

Comments:

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

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.

Eurofins J3 Resources, Inc.
9701 Harry Hines Blvd, Dallas, TX 75220
713-290-0221 www.eurofinsus.com/Built

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
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	
44-2. 16637488-1	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	

Comments:

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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	

Comments:

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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	

Comments:

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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	

Comments:

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Bulk Asbestos Fiber Analysis by Polarized Light Microscopy (PLM)
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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	

Comments:

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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	

Comments:

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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	

Comments:

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Re: P23-00304; Lansing Schools - Cumberland

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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
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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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): Kennetch Castro

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

eurofins | Built Environment Testing

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:

Lab Director
Scott Ward

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

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)
NVLAP Lab Code 200525-0

Eurofins J3 Resources, Inc.
6110 West 34th Street, Houston, TX 77092
713-290-0221 www.eurofinsus.com/Built

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

Date of Receipt: 11-03-2023
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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
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:

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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

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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

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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

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JOB DESCRIPTION

Lansing Schools - Cumberland
SDG NUMBER P23-00304

JOB NUMBER

740-1272-1

Eurofins Built Environment Testing
3113 Red Bluff Road
Pasadena TX 77503

See page two for job notes and contact information.

Eurofins Built Environment Testing

Job Notes

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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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Authorized for release by
Milena Rodriguez, Laboratory Technician I
Milena.Rodriguez@et.eurofinsus.com
Designee for
Reddy Pakanati, Department Manager II
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.
¤	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

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 C[illegible]Y

003418905

J3 resources, inc.

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

Project Information

Project Name: Lansing Schools - Cumberland	Project Manager: Nan Conlin
Project #: P23-00304	Telephone – Office/Cell 231-250-9343
Reports - Email Address: MMoody@BDNIHC.com, NConlin@BDNIHC.com	
Invoice - Email Address: accounting@bdnihc.com	Notification By: Email: ☒ Verbal: ☐ Text: ☐
Special Instructions: Lead, Cadmium, Chromium, Report as % of weight	

Turnaround Times – Please Select One

Emergency* ☐	1 Day ☐	2 Day ☐	3 Day ☐	5 Day ☒

ASBESTOS

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

METALS

Flame AA	Graphite Furnace AA - LEAD	ICP
☒ Lead in Paint – SW846 7420/3050B ○ Lead in Air – NIOSH 7082 ○ Lead in Wipes – SW846 7420/3050B ○ Lead in Soil – SW846 7420/3050B	○ Drinking Water – EPA 200.9 ○ Wastewater – SW846-7421 ○ Soil/Sludge – SW846-7421 ○ Air – NIOSH 7105	○ Elements in Air – NIOSH 7300 ○ Wipe/Soil – SW846-6010B ○ Effluent – SW846-6010B ○ Welding Fume – NIOSH 7300M ○ TCLP – SW846-1311/6010B

SILICA/PARTICULATES

X-Ray Diffraction / Gravimetric

○ Respirable Crystalline Silica NIOSH 7500 / OSHA 142

○ NIOSH 0500 – Total Particulates

○ NIOSH 0600 – Respirable Particulates

Total Number of Samples Submitted: 3 **Positive Stop:** ☐ YES ☐ NO

Signatures

Relinquished By:	Matt Moody	**Date:** 10.12.23	**Time:** 1400
Received By:		**Date:** 10/13/23	**Time:** 9:35 AM
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 34th Street • Houston, Texas 77092 • tel: 713/290-0221 • fax: 713/290-0248