

HAZARDOUS MATERIALS SURVEY AND 2022 REASSESSMENT 133-135 SERAPHIN MARION (ACADEMIC HALL), OTTAWA, ON



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Prepared for:

University of Ottawa

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McINTOSH PERRY

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REASSESSMENT SURVEY 2022

McIntosh Perry Limited (MPL) was retained by the University of Ottawa, to complete to a hazardous materials survey of Marchand Residence located at 133-135 Seraphin Marion (Academic Hall). The survey was conducted on February 20th and 21st, 2020. The reassessment was completed on June 30th, 2022.

The purpose of the reassessment was to evaluate the condition and quantity of previously reported asbestos-containing materials (ACM) and develop corrective action plans as required for the purposes of long-term management.

The assessment and reassessment determined the following findings and recommendations.

Summary of the Reassessment Findings:

- ACM Plaster finishes on Walls and Ceiling were observed to be in Good, Fair, and Poor Condition in select areas throughout the subject building.
- ACM Drywall Joint Compound (DJC) was observed to be in Good, Fair, and Poor Condition in select areas throughout the subject building.
- ACM Vinyl Floor Tiles (VFT) was observed to be in Good Condition in select areas throughout the subject building.
- ACM Vinyl Sheet Flooring (VSF) was observed to be in Good Condition in select areas throughout the subject building.
- Mechanical Pipe Straight Insulation suspected to contain asbestos was observed to be in Good Condition in Room 015A of the subject building.
- Mechanical Pipe Elbow/Fitting Insulation suspected to contain asbestos was observed to be in Good Condition in Room 015A of the subject building.
- Water damaged materials were observed in select locations during the site survey.
- No mould affected materials were observed during the site survey.

Summary of Recommendations:

- Perform a reassessment of asbestos materials on an annual basis.
- Perform a pre-construction assessment and remove all asbestos-containing materials (ACM) prior to alterations or maintenance work if ACM may be disturbed by the work.
- Follow appropriate safe work procedures when handling or disturbing asbestos.
- Sample any presumed ACM prior to alteration or maintained work if presumed ACM may be disturbed by the work.

EXECUTIVE SUMMARY

McIntosh Perry Limited (MPL) was retained by the University of Ottawa, to complete a Hazardous Materials survey for the building located at 133-135 Seraphin Marion (Academic Hall). The survey was conducted on February 20th and 21st, 2020. The Reassessment Survey was completed on June 30th, 2022.

The purpose of the survey was to determine the presence of building materials containing Designated Substances, as defined under the Ontario Occupational Health and Safety Act. Designated Substances are eleven chemical agents prescribed under Ontario Regulation 490/09. In addition, a visual assessment was conducted for the presence of polychlorinated biphenyls (PCBs), radioactive materials, ozone depleting substances (ODSs), other halocarbons and mould.

Based on the assessment conducted by MPL, the following ACMs were identified or suspected to be present in the building:

Table A: Summary of Asbestos-Containing Materials Identified

Material Description	Friable?	Location	Type of Asbestos
Vinyl Floor Tiles	No	Throughout Building	Chrysotile
Drywall Joint Compound	-	Throughout Building	Chrysotile
Plaster	Yes	Throughout Building	Chrysotile
Vinyl Sheet Flooring	No	Specific Areas Only	Chrysotile
Mechanical Pipe Insulation	Yes	Specific Areas Only	Chrysotile
Brick Mortar	-	Throughout Building	Suspected
Concrete Block Mortar	-	Throughout Building	Suspected
Ceramic Wall/Floor Tile Grout	-	Throughout Building	Suspected
Roofing Materials	-	Specific Areas Only	Suspected
Fire Doors	-	Throughout Building	Suspected

Note: Please refer to the complete report for specific details and recommendations.

All repairs or removal of asbestos-containing materials must be conducted according to Ontario Regulation 278/05, Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations - made under the Occupational Health and Safety Act. Asbestos containing waste must also be handled and disposed of according to Ontario Regulation 347/90 as amended – made under the Environmental Protection Act. Any suspect building materials encountered that were not assessed as part of this survey, should be assumed to contain asbestos until proven otherwise by analytical testing;

Sub-trades working with or in close proximity to asbestos-containing material should be informed of its presence;

Given that asbestos containing materials (ACMs) have been identified and will likely remain in place, an Asbestos Management Plan (AMP) is therefore required and an inventory of ACMs must be kept on site. All ACMs must be routinely inspected to ensure no damage has occurred, and the inventory must be updated once in each 12-month period and as may be required based on expected changing site conditions, abatement and/or renovation activities.

Based on the assessment conducted by MPL, the following Designated Substances were identified or suspected to be present in the building:

Table B: Summary of Designated Substances & Hazardous Materials Identified

Material Description	Location
Silica	Throughout Building
Lead Paint	Throughout Building
Mercury Vapour	Specific Equipment
Mercury Liquid	Specific Equipment
Lead Acid Batteries	Specific Equipment
Ozone Depleted Substances	Specific Equipment
Mould	Specific Equipment

Note: Please refer to the complete report for specific details and recommendations.

Designated Substances are regulated under Ontario Regulation 490/09 — Designated Substances, made under the Ontario Health and Safety Act, which applies to controlling designated substances in the workplace.

In addition to Ontario Regulation 490/09, the following guidelines must also be adhered to when conducting work activities that involve disturbance of the above-mentioned materials:

- Guideline: Lead on Construction Projects, issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour
- Guideline: Silica on Construction Projects issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour.
- Environmental Abatement Council of Canada (EACC) Mould Abatement Guidelines.

Prior to any renovations or demolition activities within building, designated substances and hazardous materials must be decommissioned by a licensed contractor such that they are contained and not released to the environment during decommissioning as per O. Reg. 347/09- made under the Environmental Protection Act.

Any suspect building materials encountered that were not assessed as part of this survey, should be assumed to contain designated substances or hazardous materials until proven otherwise by analytical testing.

This report should be made available to contractors tendering on any renovation or demolition work. In turn, all contractors requesting tenders from subcontractors shall furnish this report to subcontractors.

This executive summary is not to be used alone. This report should be reviewed in its entirety.

McINTOSH PERRY

June 5, 2020

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via email: joel.lajeunesse@uottawa.ca

Attention: Joel Lajeunesse, Project Manager

Re: 133-135 Seraphin Marion (Academic Hall)
Hazardous Materials Survey and 2022 Reassessment
McIntosh Perry Limited Reference No. Z1021101HZ / CCC-230252-00

1.0 INTRODUCTION

In accordance with your instructions, McIntosh Perry Limited (MPL) carried out a Hazardous Materials Survey at the academic building located at 133-135 Seraphin Marion (Academic Hall). The site is situated north of Seraphin-Marion Private, east of the intersection of Waller Street and Seraphin-Marion Private. The survey of the building was conducted on February 20th and 21st, 2020. The Reassessment Survey was completed on June 30th, 2022.

The purpose of the survey was to determine the presence of building materials containing Designated Substances and other hazardous materials, as defined under the Ontario Occupational Health and Safety Act. Designated Substances are eleven chemical agents prescribed under Ontario Regulation 490/09. In addition, a visual assessment was conducted for the presence of polychlorinated biphenyls (PCBs), radioactive materials, ozone depleting substances (ODSs), other halocarbons and mould.

MPL completed the following,

- Visual review of the building to identify materials which could contain Designated Substances and hazardous materials;
- Bulk sampling and analysis of building materials suspected of containing asbestos (if required);
- Bulk sampling and analysis of representative paints and finishes suspected of containing lead (if required);
- Review of previously completed Hazardous Materials Survey(s) and historical building record(s); and,
- Recommendations for appropriate action where required.

2.0 PROPERTY DESCRIPTION

The subject building is a three-storey building with a basement, mezzanine and penthouse. The subject building was built in 1901 and is 38, 567 square feet. The subject building was observed to be constructed with a concrete slab floor, aluminum windows and exterior walls were finished with stone and brick. The interior walls were mainly plaster and drywall. Within the subject building, ceilings consisted of suspended ceiling tiles, with some open ceilings observed in other areas of the building. The floors were generally vinyl sheet flooring, vinyl floor tile, ceramic tile and carpet.

3.0 FINDINGS & RECOMMENDATIONS

Designated Substances

3.1 Asbestos

Findings

A total of one hundred and sixteen (116) bulk samples were collected during the survey and sent to an accredited laboratory for analysis. A summary of potential asbestos-containing samples collected along with the sample location, type and friability are presented in Table 1.

Laboratory certificates of analysis for asbestos are included in Appendix C.

Table 1:
Asbestos Laboratory Results

Sample ID	Location	Material	Type and Content	Friability
BS 1.1	Room 301	VFT (12" x 12"-Grey with White & Grey Streaks)	None Detected	N/A
BS 1.2	Room 301	VFT (12" x 12"-Grey with White & Grey Streaks)	None Detected	N/A
BS 1.3	Room 301	VFT (12" x 12"-Grey with White & Grey Streaks)	None Detected	N/A
BS 2.1	Room 301	VFT (12" x 12" Brown with White & Black Streaks)	None Detected	N/A
BS 2.2	Room 301	VFT (12" x 12" Brown with White & Black Streaks)	None Detected	N/A
		Mastic (Yellow)	None Detected	N/A
BS 2.3	Room 301	VFT (12" x 12" Brown with White & Black Streaks)	None Detected	N/A
BS 3.1	Room 309	VFT (12" x 12" Green)	None Detected	N/A

Sample ID	Location	Material	Type and Content	Friability
		Mastic (Black)	None Detected	N/A
BS 3.2	Room 309	VFT (12" x 12" Green)	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 3.3	Room 309	VFT (12" x 12" Green)	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 4.1	Room 201	VFT (12" x 12" White and Grey Mix)	None Detected	N/A
BS 4.2	Room 201	VFT (12" x 12" White and Grey Mix)	None Detected	N/A
BS 4.3	Room 201	VFT (12" x 12" White and Grey Mix)	None Detected	N/A
		Mastic (Beige)	None Detected	N/A
BS 5.1	Room 103	VFT (12" x 12" Grey w/ White and Grey Flecks)	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 5.2	Room 103	VFT (12" x 12" Grey w/ White and Grey Flecks)	None Detected	N/A
		Caulking (Grey)	None Detected	N/A
BS 5.3	Room 103	VFT (12" x 12" Grey w/ White and Grey Flecks)	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 6.1	Room 110A	VFT (12" x 12" Grey w/ Brown Marks)	2% Chrysotile	Non-Friable
BS 6.2	Room 110A	VFT (12" x 12" Grey w/ Brown Marks)	Stop Positive – Sample not Analyzed	Non-Friable
BS 6.3	Room 110A	VFT (12" x 12" Grey w/ Brown Marks)	Stop Positive – Sample not Analyzed	Non-Friable
BS 7.1	Room 102	VFT (12" x 12" Grey w/ Brown Marks)	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 7.2	Room 102	VFT (12" x 12" Grey w/ Brown Marks)	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 7.3	Room 102	VFT (12" x 12" Grey w/ Brown Marks)	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 8.1	Room 004	VFT (12" x 12" Black)	None Detected	N/A
BS 8.2	Room 004	VFT (12" x 12" Black)	None Detected	N/A
		Mastic (Beige)	None Detected	N/A
BS 8.3	Room 004	VFT (12" x 12" Black)	None Detected	N/A
		Mastic (Beige)	None Detected	N/A
BS 9.1	Room 120	VFT (12" x 12" Light Grey and Brown)	None Detected	N/A
		Mastic (Black/Yellow)	None Detected	N/A
BS 9.2	Room 120	VFT (12" x 12" Light Grey and Brown)	None Detected	N/A

Sample ID	Location	Material	Type and Content	Friability
		Mastic (Black/Yellow)	None Detected	N/A
BS 9.3	Room 120	VFT (12" x 12" Light Grey and Brown)	None Detected	N/A
		Mastic (Black/Yellow)	None Detected	N/A
BS 10.1	Room 218	VFT (12" x 12" Grey w/ White and Grey Streaks)	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 10.2	Room 218	VFT (12" x 12" Grey w/ White and Grey Streaks)	None Detected	N/A
		Mastic (Black/Yellow)	None Detected	N/A
BS 10.3	Room 218	VFT (12" x 12" Grey w/ White and Grey Streaks)	None Detected	N/A
		Mastic (Black/Yellow)	None Detected	N/A
BS 11.1	Room 107	VFT (12" x 12" Brown w/ White and Brown Streaks)	1% Chrysotile	Non-Friable
		Mastic (Brown/Black)	None Detected	N/A
		Leveller (Grey)	None Detected	N/A
BS 11.2	Room 107	VFT (12" x 12" Brown w/ White and Brown Streaks)	Stop Positive – Sample not Analyzed	Non-Friable
		Mastic (Black)	None Detected	N/A
		Leveller (Brown/Grey)	None Detected	N/A
BS 11.3	Room 107	VFT (12" x 12" Brown w/ White and Brown Streaks)	Stop Positive – Sample not Analyzed	Non-Friable
		Mastic (Black)	None Detected	N/A
BS 12.1	Room 017	VFT (12" x 12" Light Brown w/ Black and Grey Streaks)	2% Chrysotile	Non-Friable
		Mastic (Black)	None Detected	N/A
BS 12.2	Room 017	VFT (12" x 12" Light Brown w/ Black and Grey Streaks)	Stop Positive – Sample not Analyzed	Non-Friable
		Mastic (Black)	None Detected	N/A
BS 12.3	Room 017	VFT (12" x 12" Light Brown w/ Black and Grey Streaks)	Stop Positive – Sample not Analyzed	Non-Friable
BS 13.1	Room 017	VFT (12" x 12" Light Grey w/ Grey Streaks)	1% Chrysotile	Non-Friable
		Mastic (Black)	None Detected	N/A
BS 13.2	Room 017	VFT (12" x 12" Light Grey w/ Grey Streaks)	Stop Positive – Sample not Analyzed	Non-Friable
BS 13.3	Room 017	VFT (12" x 12" Light Grey w/ Grey Streaks)	Stop Positive – Sample not Analyzed	Non-Friable

Sample ID	Location	Material	Type and Content	Friability
		Mastic (Black)	None Detected	N/A
BS 14.1	Room 017	VFT (12" x 12" Dark Grey w/ White and Grey Streaks)	1% Chrysotile	Non-Friable
		Mastic (Brown)	None Detected	N/A
BS 14.2	Room 017	VFT (12" x 12" Dark Grey w/ White and Grey Streaks)	Stop Positive	Non-Friable
		Mastic (Black)	None Detected	N/A
BS 14.3	Room 017	VFT (12" x 12" Dark Grey w/ White and Grey Streaks)	Stop Positive	Non-Friable
		Mastic (Black)	None Detected	N/A
BS 15.1	Room 106	VFT (12" x 12" Beige w/ White Streaks)	1% Chrysotile	Non-Friable
		Mastic (Black)	None Detected	N/A
BS 15.2	Room 106	VFT (12" x 12" Beige w/ White Streaks)	Stop Positive	Non-Friable
		Mastic (Black)	None Detected	N/A
BS 15.3	Room 106	VFT (12" x 12" Beige w/ White Streaks)	Stop Positive	Non-Friable
		Mastic (Black)	None Detected	N/A
BS 16.1	Room 101	Vinyl Sheet Flooring (Blue w/ Circles)	None Detected	N/A
		Mastic (Beige)	None Detected	N/A
BS 16.2	Room 101	Vinyl Sheet Flooring (Blue w/ Circles)	None Detected	N/A
		Mastic (Beige)	None Detected	N/A
BS 16.3	Room 101	Vinyl Sheet Flooring (Blue w/ Circles)	None Detected	N/A
		Mastic (Beige)	None Detected	N/A
BS 17.1	Room 311	VFT (12" x 12" Black)	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 17.2	Room 311	VFT (12" x 12" Black)	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 17.3	Room 311	VFT (12" x 12" Black)	None Detected	N/A
BS 18.1	Rom 302	Vinyl Sheet Flooring (Grey and White Swirls)	None Detected	N/A
		Mastic (Beige)	None Detected	N/A
BS 18.2	Room 302	Vinyl Sheet Flooring (Grey and White Swirls)	None Detected	N/A
BS 18.3	Room 302	Vinyl Sheet Flooring (Grey and White Swirls)	None Detected	N/A
BS 19.1	Room 400	Vinyl Sheet Flooring (Green w/ Brown)	None Detected	N/A
BS 19.2	Room 400	Vinyl Sheet Flooring (Green w/ Brown)	None Detected	N/A
		Mastic (Brown)	None Detected	N/A

Sample ID	Location	Material	Type and Content	Friability
BS 19.3	Room 400	Vinyl Sheet Flooring (Green w/ Brown)	None Detected	N/A
		Mastic (Brown)	None Detected	N/A
		Loose Fibers – Associated w/ Vinyl Sheet Flooring	45% Chrysotile	Friable
BS 20.1	Room 207	Vinyl Sheet Flooring (Grey/Purple)	None Detected	N/A
BS 20.2	Room 207	Vinyl Sheet Flooring (Grey/Purple)	None Detected	N/A
		Mastic (Clear)	None Detected	N/A
BS 20.3	Room 207	Vinyl Sheet Flooring (Grey/Purple)	None Detected	N/A
		Mastic (Clear)	None Detected	N/A
BS 21.1	Room 307	Vinyl Sheet Flooring (Green)	None Detected	N/A
BS 21.2	Room 307	Vinyl Sheet Flooring (Green)	None Detected	N/A
BS 21.3	Room 307	Vinyl Sheet Flooring (Green)	None Detected	N/A
BS 22.1	Room 001	SCT (2'x4'- Fissures w/ Pinholes)	None Detected	N/A
BS 22.2	Room 001	SCT (2'x4'- Fissures w/ Pinholes)	None Detected	N/A
BS 22.3	Room 001	SCT (2'x4'- Fissures w/ Pinholes)	None Detected	N/A
BS 23.1	Room 001	SCT (2'x4'- Equal Amounts Fissures and Pinholes)	None Detected	N/A
BS 23.2	Room 001	SCT (2'x4'- Equal Amounts Fissures and Pinholes)	None Detected	N/A
BS 23.3	Room 001	SCT (2'x4'- Equal Amounts Fissures and Pinholes)	None Detected	N/A
BS 24.1	Room 002	SCT (1' x 1' Fissures)	None Detected	N/A
BS 24.2	Room 002	SCT (1' x 1' Fissures)	None Detected	N/A
BS 24.3	Room 002	SCT (1' x 1' Fissures)	None Detected	N/A
BS 25.1	Room 300	SCT (1' x 1' Fissures)	None Detected	N/A
BS 25.2	Room 300	SCT (1' x 1' Fissures)	None Detected	N/A
BS 25.3	Room 300	SCT (1' x 1' Fissures)	None Detected	N/A
BS 26.1	Room 004	Acoustic Tile (Black)	None Detected	N/A
BS 26.2	Room 004	Acoustic Tile (Black)	None Detected	N/A
BS 26.3	Room 004	Acoustic Tile (Black)	None Detected	N/A
BS 27.1	Room 307	Acoustic tile (White w/ Scattered Holes)	None Detected	N/A
BS 27.2	Room 307	Acoustic tile (White w/ Scattered Holes)	None Detected	N/A
BS 27.3	Room 307	Acoustic tile (White w/ Scattered Holes)	None Detected	N/A
BS 28.1	Room 307	Acoustic tile (Beige w/ Linear Holes)	None Detected	N/A
BS 28.2	Room 307	Acoustic tile (Beige w/ Linear Holes)	None Detected	N/A
BS 28.3	Room 307	Acoustic tile (Beige w/ Linear Holes)	None Detected	N/A
BS 29.1	Room 002	Drywall Joint Compound	None Detected	N/A

Sample ID	Location	Material	Type and Content	Friability
BS 29.2	Room 016	Drywall Joint Compound	None Detected	N/A
BS 29.3	Room 012	Drywall Joint Compound	None Detected	N/A
BS 29.4	Room 202	Drywall Joint Compound	None Detected	N/A
		Drywall Joint Compound	2% Chrysotile	-
BS 29.5	Room 222	Drywall Joint Compound	2% Chrysotile	-
BS 29.6	Room 311	Drywall Joint Compound	Stop Positive	-
BS 29.7	Room 308	Drywall Joint Compound	Stop Positive	-
BS 30.1	Room 112	Plaster (Grey/Gold)	None Detected	N/A
BS 30.2	Room 015	Plaster (Grey)	None Detected	N/A
BS 30.3	Room 015	Plaster (Grey)	None Detected	N/A
BS 30.4	Room 400	Plaster Skim Coat (White)	7% Chrysotile	Friable
		Plaster Base Coat (Grey)	10% Chrysotile	Friable
BS 30.5	Room 001	Plaster	Stop Positive	Friable
BS 30.6	Room 308	Plaster	Stop Positive	Friable
BS 30.7	Room 301D	Plaster	Stop Positive	Friable
BS 31.1	Room 112	Carpet Mastic (Yellow)	None Detected	N/A
BS 31.2	Room 116	Carpet Mastic (Yellow)	None Detected	N/A
BS 31.3	Room 129	Carpet Mastic (Yellow)	None Detected	N/A
BS 34.1	Room 209	Carpet Mastic (Yellow)	None Detected	N/A
BS 34.2	Room 209	Carpet Mastic (Yellow)	None Detected	N/A
BS 34.3	Room 209	Carpet Mastic (Yellow)	None Detected	N/A
BS 35.1	Room 313	Carpet Mastic (Brown)	None Detected	N/A
BS 35.2	Room 313	Carpet Mastic (Brown)	None Detected	N/A
BS 35.3	Room 313	Carpet Mastic (Brown)	None Detected	N/A
BS 36.1	Room 112A	Wallpaper (Brown/Grey)	None Detected	N/A
BS 36.2	Room 112A	Wallpaper (Brown/Grey)	None Detected	N/A
BS 36.3	Room 112A	Wallpaper (Brown/Grey)	None Detected	N/A

N/A – Not Applicable

VFT – Vinyl Floor Tiles

SCT – Suspended Ceiling Tiles

Stop Positive – Material considered being asbestos-containing as per O. Reg. 278/05.

Please refer to Appendix E – Asbestos-Containing Materials Checklist for material conditions, quantities (where applicable), and recommended actions.

The following building materials (if present) were investigated for asbestos content:

3.1.1 Fireproofing

No fireproofing was observed in the subject building.

3.1.2 Mechanical Pipe Insulation

3.1.2.1 Mechanical Pipe Straight Insulation

Mechanical pipe straight insulation suspected to contain asbestos was observed in Room 015A of the subject building during the 2022 Reassessment.

3.1.2.2 Mechanical Piping Elbows/Fittings Insulation

Mechanical pipe elbows/fittings insulation suspected to contain asbestos were observed in Room 015A of the subject building during the 2022 Reassessment.

3.1.2.3 Mechanical Piping Hangers Insulation

No mechanical pipe hanger insulation was observed in the subject building.

3.1.2.4 HVAC Duct Insulation

No HVAC duct insulation was observed in the subject building.

3.1.2.5 Other Mechanical Insulation

No other mechanical insulation was observed in the subject building.

3.1.2.1 Other Insulation

No other insulation was observed in the subject building.

3.1.3 Flexible Duct Connector

No flexible duct connectors were observed in the subject building.

3.1.4 Heat Shield or Heat Shield Insulation

No heat shield insulation was observed in the subject building.

3.1.5 Texture Finishes

No texture coat finishes were observed in the subject building.

3.1.6 Plaster

Ceiling/Wall plaster was observed throughout the subject building. The laboratory analytical results of ceiling/wall plaster samples collected from Room 400 indicate that this material contains between 7-10% Chrysotile. Since plaster is a homogeneous material, all areas must be treated as asbestos-containing unless additional testing confirms otherwise. This material is considered to be friable and was observed in to be in

good, fair and poor condition throughout the subject building during the 2022 Reassessment. It should be noted that vermiculite is present in plaster finishes Room 112. Prior to renovation/demolition, additional sampling should be completed to confirm the presence of asbestos in the vermiculite following TEM analysis and to delineate the locations of this material.

3.1.7 Drywall Joint Compound

Drywall joint compound was observed throughout the subject building. The laboratory analytical results of drywall joint compound samples collected from Room 202 and Room 222 indicate that this material contains 2% Chrysotile. Since drywall joint compound is a homogeneous material, all areas must be treated as asbestos-containing unless additional bulk sampling and analysis proves otherwise. This material was observed in good, fair and poor condition during the 2022 Reassessment.

3.1.8 Ceiling Tiles

Several different types of ceiling tiles were observed and sampled within the building as follows:

- Suspended ceiling tiles (2'x4' - Fissures and Pinholes) were observed in Room 001. The laboratory analytical results of ceiling tile samples collected from Room 001 indicate that this material does not contain asbestos;
- Suspended ceiling tiles (2'x4' - Equal Amount Fissures and Pinholes) were observed in Room 001. The laboratory analytical results of ceiling tile samples collected from Room 001 indicate that this material does not contain asbestos;
- Suspended ceiling tiles (1'x1'-Fissures) were observed in Room 002 and 300. The laboratory analytical results of ceiling tile samples collected from Room 001 and 300 indicate that this material does not contain asbestos;
- Acoustic ceiling tiles (Black) were observed in Room 004. The laboratory analytical results of ceiling tile samples collected from Room 004 indicate that this material does not contain asbestos;
- Acoustic ceiling tiles (White with Scattered Holes) were observed in Room 307. The laboratory analytical results of ceiling tile samples collected from Room 307 indicate that this material does not contain asbestos; and
- Acoustic ceiling tiles (Beige with Linear Holes) were observed in 307. The laboratory analytical results of ceiling tile samples collected from Room 307 indicate that this material does not contain asbestos.

3.1.9 Vinyl Floor Tiles

Several different types of vinyl floor tiles were observed and sampled within the building as follows:

- Vinyl floor tiles (12" x 12" – Grey with Brown Marks) were observed in Room 110A. The laboratory analytical results of vinyl floor tile samples collected from Room 110A indicate that this material contains 2% Chrysotile asbestos. This material is considered to be non-friable and was not observed to be present during the 2022 Reassessment.
- Vinyl floor tiles (12" x 12" – Brown with White and Brown Streaks) were observed in Room 107. The laboratory analytical results of vinyl floor tile samples collected from Room 107 indicate that this material contains 1% Chrysotile asbestos. This material is considered to be non-friable and was observed in fair condition.
- Vinyl floor tiles (12" x 12" – Light Brown with Black and Grey Streaks) were observed in Room 017. The laboratory analytical results of vinyl floor tile samples collected from Room 017 indicate that this material contains 2% Chrysotile asbestos. This material is considered to be non-friable and was observed in good condition. The associated mastic (black) and leveller was found not to contain asbestos.
- Vinyl floor tiles (12" x 12" – Light Grey with Grey Streaks) were observed in Room 017. The laboratory analytical results of vinyl floor tile samples collected from Room 017 indicate that this material contains 1% asbestos. This material is considered to be non-friable and was observed in good condition. The associated mastic (Black) was found not to contain asbestos.
- Vinyl floor tiles (12" x 12" – Dark Grey with White and Grey Streaks) were observed in Room 017. The laboratory analytical results of vinyl floor tile samples collected from Room 017 indicate that this material contains 1% Chrysotile asbestos. This material is considered to be non-friable and was observed in good condition. This material is considered to be non-friable and was observed in good condition. The associated mastic (black) was found not to contain asbestos.
- Vinyl floor tiles (12" x 12" – Beige with White Streaks) were observed in Room 106. The laboratory analytical results of vinyl floor tile samples collected from Room 106 indicate that this material contains 1% Chrysotile asbestos. This material is considered to be non-friable and was not observed in to be present during the 2022 Reassessment. The associated mastic (black) was found not to contain asbestos.
- Vinyl floor tiles (12" x 12"- Grey with White and Grey Streaks) were observed in Room 301. The laboratory analytical results of the vinyl floor tile samples collected from Room 301 indicate that this material does not contain asbestos.

- Vinyl floor tiles (12" x 12"- Brown with White and Black Streaks) were observed in Room 301. The laboratory analytical results of the vinyl floor tile samples collected from Room 301 indicate that this material does not contain asbestos. The associated mastic (black/yellow) was found not to contain asbestos.
- Vinyl floor tiles (12" x 12"- Green) were observed in Room 309. The laboratory analytical results of the vinyl floor tile samples collected from Room 309 indicate that this material does not contain asbestos. The associated mastic (black) was found not to contain asbestos.
- Vinyl floor tiles (12" x 12"- Purple with Grey and White) were observed in Room 103. The laboratory analytical results of the vinyl floor tile samples collected from Room 103 indicate that this material does not contain asbestos. The associated mastic (black) and caulking was found not to contain asbestos.
- Vinyl floor tiles (12" x 12"- Grey with Brown Marks) were observed in Room 102. The laboratory analytical results of the vinyl floor tile samples collected from Room 102 indicate that this material does not contain asbestos. The associated mastic (black) was found not to contain asbestos.
- Vinyl floor tiles (12" x 12"- Black) were observed in Room 004. The laboratory analytical results of the vinyl floor tile samples collected from Room 004 indicate that this material does not contain asbestos. The associated mastic (beige) was found not to contain asbestos.
- Vinyl floor tiles (12" x 12"- Light Grey with Brown) were observed in Room 120. The laboratory analytical results of the vinyl floor tile samples collected from Room 120 indicate that this material does not contain asbestos. The associated mastic (black/yellow) was found not to contain asbestos.
- Vinyl floor tiles (12" x 12"- Grey with White and Grey Streaks) were observed in Room 218. The laboratory analytical results of the vinyl floor tile samples collected from Room 218 indicate that this material does not contain asbestos. The associated mastic (black/yellow) was found not to contain asbestos.
- Vinyl floor tiles (12" x 12"- Black) were observed in Room 311. The laboratory analytical results of the vinyl floor tile samples collected from Room 311 indicate that this material does not contain asbestos. The associated mastic (black) was found not to contain asbestos.

3.1.10 Vinyl Sheet Flooring

Several different types of vinyl sheet flooring were observed and sampled within the subject building as follows:

- Vinyl sheet flooring (Green and Brown) was observed in Room 400. The laboratory analytical results of the vinyl sheet flooring samples collected from the Room 400 indicate that this material does not contain asbestos. However, loose fibres (white) were present in the sample collected. This material

was found to contain 45% Chrysotile asbestos. As such, the vinyl sheet flooring in this room shall be considered as a friable asbestos-containing material and is in good condition. Prior to renovation/demolition, additional sampling should be completed to confirm the presence of asbestos and to delineate the locations of this material.

- Vinyl sheet flooring (Blue with Circles) was observed in Room 101. The laboratory analytical results of the vinyl sheet flooring samples collected from the Room 101 indicate that this material does not contain asbestos. The associated mastic/backing material (beige) was also found not to contain asbestos.
- Vinyl sheet flooring (Grey and White Swirls) was observed in Room 302. The laboratory analytical results of the vinyl sheet flooring samples collected from the Room 302 indicate that this material does not contain asbestos. The associated mastic/backing material (beige) was also found not to contain asbestos.
- Vinyl sheet flooring (Grey and Purple) was observed in Room 207. The laboratory analytical results of the vinyl sheet flooring samples collected from the Room 207 indicate that this material does not contain asbestos. The associated mastic/backing material (brown/green) was also found not to contain asbestos.
- Vinyl sheet flooring (Green) was observed in Room 307. The laboratory analytical results of the vinyl sheet flooring samples collected from the Room 307 indicate that this material does not contain asbestos.

3.1.11 Brick/ Stone Mortar

To avoid damage and compromising the integrity of the structure, no bulk samples of the brick/stone mortar were collected. Prior to renovation/demolition, brick/stone mortar should be examined and tested for asbestos content. Exterior brick/stone mortar should therefore be considered to contain asbestos until bulk samples and analysis proves otherwise.

3.1.12 Concrete Block Mortar

To avoid damage and compromising the integrity of the structure, no bulk samples of the concrete block mortar were collected. Prior to renovation/demolition, concrete mortar should be examined and tested for asbestos content. Exterior concrete block mortar should therefore be considered to contain asbestos until bulk samples and analysis proves otherwise.

3.1.13 Ceramic Wall / Floor Tile Grout

To avoid damage and compromising the integrity of the structure, no bulk samples of the ceramic wall/floor tile grout were collected. Prior to renovation/demolition, ceramic tile grout should be examined and tested

for asbestos content. Ceramic wall/floor tile grout should therefore be considered to contain asbestos until bulk samples and analysis proves otherwise.

3.1.14 *Transite (Asbestos Cement)*

No transite materials were observed in the subject building.

3.1.15 *Mastic*

Several different types of mastics were observed and sampled within the subject building as follows:

- Carpet mastic (Yellow) was observed and sampled in Room 112, 116, 139 and 209. The laboratory analytical results of the carpet mastic samples indicate that this material does not contain asbestos.
- Carpet Mastic (Brown/Beige) was observed and sampled in Room 313. The laboratory analytical results of the mastic samples indicate that this material does not contain asbestos

3.1.16 *Caulking*

No potential asbestos-containing caulking was observed in the subject building.

3.1.17 *Cementitious Coating*

No potential asbestos-containing cementitious coating finishes were observed in the subject building.

3.1.18 *Concrete*

No potential asbestos-containing concrete finishes were observed in the subject building.

3.1.19 *Fire Doors*

Fire doors were observed at various locations throughout the subject building. To avoid possible damage, no bulk samples of the internal door insulation materials were collected. Prior to removal and/or replacement, fire doors should be examined and tested for asbestos content. Fire doors should be considered to contain asbestos until bulk samples and analysis proves otherwise. All fire doors were observed to be in good condition.

3.1.20 *Roofing Material*

To avoid damage and compromising the integrity of roofing material, no bulk samples of the roofing materials were collected. Prior to removal and/or replacement, roofing materials should be examined and tested for asbestos content. Roofing materials should be considered to contain asbestos until bulk samples and analysis proves otherwise.

Recommendations

- Vinyl sheet flooring (Green and Brown) was observed in Room 400. The laboratory analytical results of the vinyl sheet flooring samples collected from the Room 400 indicate that this material does not contain asbestos. However, loose fibres (white) were present in the sample collected. This material

was found to contain 45% Chrysotile asbestos. As such, the vinyl sheet flooring in this room shall be considered as a friable asbestos-containing material in good condition. Prior to renovation/ demolition, additional sampling should be completed to confirm the presence of asbestos and to delineate the locations of this material;

- Asbestos-containing materials identified to be in poor condition must be repaired/removed immediately, following Type 1/2/3 asbestos abatement work procedures as detailed in O. Reg. 278/05 and disposed of as asbestos waste under O. Reg. 347;
- Asbestos-containing materials that have been identified to be in fair condition should be either repaired (where possible) and/or closely monitored for signs of further deterioration. Depending on type of material and location, these materials should be scheduled for removal if there is potential risk of exposure to worker and/or occupants;
- Materials identified to contain asbestos that are in good condition and do not pose a risk to workers or occupants can be managed in place. Prior to renovation/demolition activities that may disturb the ACMs, these materials must be removed following appropriate Type 1/2/3 asbestos abatement work procedures as detailed in O. Reg. 278/05 and disposed of as asbestos waste under O. Reg. 347;
- Please refer to Appendix E – Asbestos-Containing Materials Checklist for material conditions, quantities (where applicable), and recommended actions;
- Prior to renovation/demolition of materials which are assumed to be asbestos-containing (suspect materials which were not sampled, i.e., brick/stone mortar, concrete block mortar, ceramic wall/floor tile grout, roofing materials and fire doors), these materials must either be tested for asbestos content or removed following appropriate asbestos abatement work procedures (Type 1/2/3) as detailed in O. Reg. 278/05 and disposed of as asbestos waste under O. Reg. 347;
- All repairs or removal of asbestos-containing materials must be conducted according to Ontario Regulation 278/05, Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations - made under the Occupational Health and Safety Act. Asbestos containing waste must also be handled and disposed of according to Ontario Regulation 347/90 as amended – made under the Environmental Protection Act. Any suspect building materials encountered that were not assessed as part of this survey, should be assumed to contain asbestos until proven otherwise by analytical testing;
- Sub-trades working with or in close proximity to asbestos-containing material should be informed of its presence; and
- Given that asbestos containing materials (ACMs) have been identified and will likely remain in place, an Asbestos Management Plan (AMP) is therefore required and an inventory of ACMs must be kept on site. All ACMs must be routinely inspected to ensure no damage has occurred, and the inventory must

be updated once in each 12-month period and as may be required based on expected changing site conditions, abatement and/or renovation activities.

3.2 Lead

Findings

3.2.1 Paint Finishes

A total of nine (9) paint samples from the subject building were collected and analyzed for lead content. Results of bulk sampling testing are summarized in Table 2 and the laboratory certificate of analysis can be found in Appendix C.

Table 2:
Lead Sampling Locations and Laboratory Results

Sample I.D.	Location	Material	Colour	Lead Concentration Weight by Conc. (%)
Pb-1	Room 002C	Wall paint	Grey/blue	<0.079
Pb-2	Room 006	Wall Paint	Black	<0.027
Pb-3	Room 015A	Wall Paint	Light brown/beige	<0.0081
Pb-4	Room 001	Wall Paint	Grey	<0.049
Pb-5	Room 005	Wall paint	Orange/brown	<0.076
Pb-6	Room 001	Wall Paint	White	<0.0060
Pb-7	Room 014	Wall Paint	Light Blue/Green	<0.0081
Pb-8	Room 210	Wall Paint	Dark Green	<0.089
Pb-9	Room 209	Wall Paint	Light Purple	0.018
Previously Identified Lead Paint Finishes				
001-B-LBP-01	005	Wall Paint	Yellow	0.01
001-B-LBP-02	005	Doorframe Paint	Blue	0.02
001-B-LBP-03	019	Wall Paint	Light Beige	0.08
001-B-LBP-04	016	Wall Paint	Dark Beige	<0.01
001-B-LBP-05	004	Wall/Ceiling Paint	Dark Green	<0.01
001-B-LBP 06	106	Doorframe Paint	Light Blue	0.08
001-B-LBP 07	220	Wall Paint	Cream	<0.04
001-B-LBP-08	310	Doors/Trim Paint	Light Green	<0.01
Pb-01	Stairwell A	Underneath	Dark Blue Paint	0.013
Pb-02	Stairwell A	Stringer	Orange Paint	0.19
Pb-03	Stairwell A	Riser	Blue Paint	0.010

The paint finishes highlighted in blue in the above table were determined to contain low concentrations of lead which are less than or equal to 0.1%. These paint finishes were observed to be in good condition.

The paint finishes highlighted in pink in the above table are considered lead-containing paints or surface coatings with concentrations greater than 0.1% lead by weight. These paint finishes were observed to be in good condition.

All remaining paints tested were below the laboratory limit of detection for lead. However, all other paints throughout the subject building that are not mentioned in this report must be considered to be lead-containing unless sampling and analysis proves otherwise.

Laboratory certificate of analysis for the paint samples are also included in Appendix .

3.2.2 Battery Packs

MPL identified lead-containing acid battery packs throughout the subject building. These battery packs were observed on walls and above exits throughout the surveyed building.

Lead may also be present in the following materials in the building:

- Solder used on copper domestic water lines;
- Solder used in bell fittings for cast iron pipes;
- Solder used in electrical equipment;
- Ceramic tile glaze; and
- Concrete and mortar products, etc.

Recommendations

Paints identified to contain lead that are in good condition and do not pose a risk to workers or occupants can be managed in place.

Detailed worker protection protocols are outlined in the OMOL Guideline “Lead on Construction Projects” dated April 2011. Generally, the removal of the lead-based paint with the use of a chemical gel or paste, or a power tool equipped with a HEPA filter is considered a Type 1 operation. The removal of lead-based paint by scraping or sanding using non-powered hand tools is considered a Type 2 operation. The removal of lead-based paint using abrasive blasting, or power tools without a HEPA filter, is considered a Type 3 operation, and requires the most stringent worker protection protocols (similar to asbestos); Furthermore, high temperature cutting or welding would also require Type 3 Operations under the Guideline for Lead on Construction Projects. If this type of work is required, it may be prudent to chemically remove the lead paint in selected locations prior to performing any high temperature cutting or welding.

All lead materials that are removed must follow the Ministry of Labour and Environmental Abatement Council of Ontario Lead Guidelines.

Please refer to Appendix F – Hazardous Materials Checklist for material conditions, quantities (where applicable), and recommended actions.

Precautions should be taken as required during major renovations and demolition projects to ensure that workers' exposure levels to airborne lead does not exceed 0.05 mg/m³. This can be achieved by:

- providing workers with proper training;
- providing the workers with respiratory protection;
- wetting the surface of the materials to prevent dust emissions; and,
- providing workers with hygiene facilities to properly wash prior to exiting the work area.

Sub-trades working with or in close proximity to lead based paint should be informed of its presence.

All waste material must be handled and disposed of according to the Revised Regulation of Ontario 347/90 as amended – made under the Environmental Protection Act. Lead waste generated may also be subject to Leachate Criteria (Schedule 4) of this regulation.

3.3 Mercury

Findings

3.3.1 Thermostat Switches

MPL did not observe thermostats containing liquid mercury within the subject building.

3.3.2 Thermometers

MPL observed thermostats containing liquid mercury within the subject building.

3.3.3 Fluorescent Light Tubes

MPL identified fluorescent light fixtures throughout the surveyed area containing 2 to 4 fluorescent light tubes per fixture. Mercury is likely to be present in vapor form in the fluorescent light tubes.

3.3.4 Pressure Gauges and Float Switches

MPL identified pressure gauges containing liquid mercury in the subject building.

Recommendations

Please refer to Appendix F – Hazardous Materials Checklist for equipment conditions, quantities (where applicable), and recommended actions.

Precautions must be taken to prevent mercury liquid/vapours from becoming airborne during building demolition. Exposure to mercury is regulated under Ontario Regulation 490/09, Designated Substances - made under the Occupational Health and Safety Act." Prior to renovations to the building, all mercury containing fluorescent light tubes, thermostats, and equipment must be removed and stored in a safe, secure location and/or properly disposed of in accordance with R.R.O. 1990, Regulation 347 General – Waste Management, made under the Environmental Protection Act.

3.4 Silica

Findings

Silica is expected to be present in building materials such as concrete, brick, mortar and ceramic tiles located throughout the structures. Free crystalline silica (α -Quartz) may be a component in ceiling tiles and gypsum board. Silica (including free crystalline silica) may also be a component of concrete and brick surfaces noted in the building.

Recommendations

Please refer to Appendix F – Hazardous Materials Checklist for equipment conditions, quantities (where applicable), and recommended actions.

Precautions should be taken as required during major renovations and demolition projects on concrete (i.e. coring through concrete slabs, demolition of masonry, etc.) to ensure that workers' exposure levels to airborne silica does not exceed 0.05 mg/m³.

This can be achieved by:

- providing workers with proper training;
- providing the workers with respiratory protection;
- wetting the surface of the materials to prevent dust emissions; and,
- providing workers with facilities to properly wash prior to exiting the work area.

Demolition work that is likely to impact silica-containing materials should be carried out in accordance with the requirement detailed in the Ontario Ministry of Labour document entitled "Guideline: Silica on Construction Projects", dated April 2011.

Other Hazardous Materials

3.5 Polychlorinated Biphenyls (PCBs)

Findings

3.5.1 Light Ballasts

The subject building is illuminated by LED and fluorescent lights. MPL assessed representative ballasts in the building, and these ballasts were identified as non-PCBs content.

3.5.2 Transformers

MPL did not observe any PCBs containing electrical transformers within the subject building.

Recommendations

Since no radioactive materials were observed or suspected to be present during the site survey, no further action is required.

3.6 Ozone Depleting Substances (ODSs) and Other Halocarbon

Findings

A visual assessment for equipment potentially containing ODSs and other halocarbons was conducted. MPL observed equipment such as refrigerators, water fountains, water coolers, freezers, etc. which contain or are suspected of containing ODSs or other halocarbons.

Glycol compressor containing ODSs or other halocarbons was also observed in the subject building.

Recommendations

Please refer to Appendix F – Hazardous Materials Checklist for equipment conditions, quantities (where applicable), and recommended actions.

Under the management of a licensed contractor, equipment containing R-22 and R-134a does not represent a significant threat to human health or the environment however, a licensed contractor must decommission equipment such that CFCs are contained and not released to the environment during servicing or operation.

3.7 Radioactive Materials

Findings

A visual assessment of the subject building was conducted to determine if any electrical components containing radioactive materials were present.

MPL did not observe any electrical components containing radioactive materials.

Recommendations

Since no radioactive materials were observed or suspected to be present during the site survey, no further action is required.

3.8 Underground and Above Ground Storage Tanks (USTs and ASTs)

Findings

A visual survey of the subject building was conducted to determine if any USTs and ASTs were present.

No USTs and ASTs were present within the surveyed area.

Recommendations

Since no underground and/or above ground storage tanks (USTs and ASTs) were observed or suspected to be present during the site survey, no further action is required.

3.9 Mould

Findings

3.9.1 Mould

A visual survey of the subject building was conducted to determine if any mould was present. MPL did not identify materials affected by mould growth.

3.9.2 Water Damage

A visual survey of the subject building was conducted to determine if any water damaged was present. MPL identified water damage within selected areas in the subject building.

Recommendations

Please refer to Appendix F – Hazardous Materials Checklist for equipment conditions, approximate quantities (where applicable), and recommended actions.

Water stained/damaged materials that are also determined to contain asbestos must be replaced following appropriate asbestos abatement procedures as outlined in O.Reg. 278/05.

This report should be made available to contractors tendering on any renovation or demolition work. In turn, all contractors requesting tenders from subcontractors shall furnish this report to subcontractors.

4.0 GENERAL CONSIDERATIONS AND LIMITATIONS

The information presented in this report is based on information provided by others, direct visual observation made by personnel with McIntosh Perry Limited (MPL), and the results of laboratory testing as identified herein.

It should be noted that there might be hazardous materials in locations not visible during our investigation. In the event such material is encountered during demolition operations in the building, this material should be tested and dealt with accordingly.

The findings detailed in this report are based upon the information available at the time of preparation of the report. No investigative method eliminates the possibility of obtaining imprecise or incomplete information. Professional judgement was exercised in gathering and analyzing the information obtained and in the formulation of our conclusions and recommendations.

MPL does not certify or warrant the environmental status of the property nor the building on the property.

Please note that the passage of time affects the information provided in the report. Environmental conditions of a site can change. Opinions relating to the site conditions are based upon information that existed at the time that the conclusions were formulated.

The client expressly agrees that it has entered into this agreement with MPL, both on its own behalf and as agent on behalf of its employees and principals.

The client expressly agrees that MPL's employees and principals shall have no personal liability to the client in respect of a claim, whether in contract, tort and/or any other cause of action in law. Accordingly, the client expressly agrees that it will bring no proceedings and take no action in any court of law against any of MPL's employees or principals in their personal capacity.

We trust that we have detailed our findings clearly and that we have satisfactorily addressed the scope of work you require at this time. In the event you wish us to review our findings with you, or require our services further in this regard, please do not hesitate to contact our office.

Yours truly,

MCINTOSH PERRY LIMITED



Lauren Hamilton, B.Eng.
Project Technician
Hazardous Materials/ Environmental Health & Safety



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APPENDIX A

Regulatory Requirements

REGULATORY REQUIREMENTS

In Ontario, there is a total of eleven Designated Substances. These substances have been regulated under Ontario Regulation 490/09 — *Designated Substances*, made under the Ontario Health and Safety Act, which applies to controlling designated substances in the workplace.

In addition to the Ontario Regulation 490/09 noted above, the following were observed for this survey:

Guideline: Lead on Construction Projects, issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour

Guideline: Silica on Construction Projects issued April 2011 by the Occupational Health and Safety branch of the Ministry of Labour.

The Occupational Health and Safety Act (OHSA), R.S.O. 1990, c.0.1, s.30 (1) specifies that: “Before beginning a project, the owner shall determine whether any Designated Substances are present at the project site and shall prepare a list of all Designated Substances that are present at the site.

Section 30 of The Act requires that the list of Designated Substances be provided to prospective contractors and subcontractors who may do work on a site and come into contact at the site with Designated Substances.

The Ministry of Labour has designated the following substances:

- Acrylonitrile
- Arsenic
- Asbestos
- Benzene
- Coke Oven Emissions
- Ethylene Oxide
- Isocyanates
- Lead
- Mercury
- Silica
- Vinyl Chloride

Ontario Regulation 278/05 (O. Reg. 278/05), the Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations, made under the Occupational Health and Safety Act (OHSA), requires owners of a building to identify Asbestos-containing Materials (ACMs) prior to potential disturbance of the materials.

In addition, an owner of a building is required to have an Asbestos Management Plan (AMP) if ACMs (friable or non-friable) are present in the building and are to remain in place. An inventory of ACMs must be kept on site. All ACMs must be routinely inspected to ensure no damage has occurred, and the inventory must be updated once in each 12-month period and as may be required based on expected changing site conditions, abatement and/or renovation activities. Removal of all asbestos containing materials is required prior to building demolition.

In addition to the Designated Substances, the building was also surveyed for the presence of other hazardous materials such as polychlorinated biphenyls (PCBs), radioactive materials, ozone depleting substances (ODSs), other halocarbons, and mould.

We understand that this survey has been conducted to comply with the regulatory requirements of Ontario Regulation 278/05.

APPENDIX B

Survey Methodology & Background Information

SURVEY METHODOLOGY

For the purpose of this survey, not all Designated Substances or suspect hazardous material were sampled. Selective sampling was carried out only for substances that were suspected to be present or those deemed to have a likely source of origin in the survey areas.

Materials that were homogeneous in nature and/or similar in appearance to other materials tested were considered to be of similar composition. The likelihood of ACMs being present in inaccessible areas such as above gypsum board ceilings or behind gypsum wallboards was determined by assessing the presence of asbestos-containing systems in adjacent areas. Equipment such as boilers, motors, blowers, electrical panels, fire doors etc., were not de-energized or disassembled to examine internal components or materials. These items should be considered to contain hazardous materials until proven otherwise.

During the survey, representative samples of suspect building materials were collected and sent to CAELA accredited independent laboratory for analysis. Laboratory Certificate of Analysis are attached in Appendix C.

Other potential hazardous materials were identified by visual observation and/or by reviewing Material Safety Data Sheets (MSDS) and/or safety labels where available.

Investigated Areas

The survey included all accessible areas and ceiling space within 133-135 Seraphin Marion (Academic Hall) as required under our scope of work. No destructive investigations were performed as part of this survey. Photographs of the areas investigated can be found in Appendix D.

The assessment was directed on the interior structure and finishes of the building. It did not consider current or past owner or occupant articles within the building (i.e. contents, furniture, etc.) and does not report on possible contaminants in the soil under and surrounding the building, or contents of vessels, drums, etc. that may be concealed.

Sampling and Assessment Methodologies

Sampling was conducted as part of this assessment. Results for asbestos and lead samples can be found in the Findings & Recommendation Section 3.0.

A historical review of previous designated substance survey reports and abatement reports was examined as part of this survey. Due to concerns regarding certain historical analytical results, mainly in 2008 and prior years, confirmatory re-sampling was conducted for selected materials previously identified not to contain asbestos. However, building materials previously identified to be asbestos-containing were not re-sampled. The reports are listed as follows,

- Designated Substance Survey by Conestoga-Rovers & Associates (dated April 2008, reference #045870 (69));
- Asbestos Abatement, Academic Hall, Room 112 Memo by Conestoga-Rovers & Associates (dated January 6, 2010, reference #057671);
- Project Specific Asbestos Sampling Report by EHS (dated June 27, 2013, EHS project number 04-0033-13-035);

- Project Specific Designated Substance Survey Report in Academic Hall – Rooms 110, 111, 111A, 116, 116A, and 116B by EHS (dated May 23, 2014, EHS project number 04-0033-14-018);
- Lead Bulk Sampling Program by McIntosh Perry (dated August 8, 2019, McIntosh Perry project number 0Z1-920021-HZ).

Asbestos

Background Information on Asbestos

Asbestos is a generic name that has been given to a group of naturally occurring fibrous minerals. In the past, asbestos was commonly used as a component in building materials such as insulation, fireproofing and acoustic or decorative panels. Although there are many types of asbestos, the three main forms of commercial importance in Ontario are chrysotile, amosite and crocidolite.

An Asbestos-Containing Material (ACM) is defined by O. Reg. 278/05 as a material that contains 0.5% or more asbestos by dry weight. ACMs are placed into two general classes, “friable” and “non-friable” ACMs. Friable ACMs are those materials that when dry can be crumbled, pulverized and reduced to powder by hand pressure. Typical friable ACMs include acoustical or decorative texture coats, fireproofing and thermal insulation. Non-friable ACMs are much more durable as they are held together by a binder such as cement, vinyl or asphalt. Typical non-friable ACMs include floor tiles, fire blankets, roofing materials and cementitious products such as wallboards, pipes or siding.

It has been recognized that hazardous situations may exist in buildings where asbestos-containing materials are found. This is especially true where asbestos fibres may become airborne as a result of material ageing, physical damage, and water damage or air movement.

In contrast, there is little reason for concern if the asbestos is in good condition, has not been damaged and is not in a location where it is likely to be disturbed.

Asbestos Survey Methodology

The asbestos survey included the identification of potential friable and non-friable asbestos-containing materials within the surveyed areas of the subject building.

The likelihood of ACMs being present in inaccessible areas such as above gypsum wallboard ceilings and walls was determined by assessing the presence of asbestos-containing materials in adjacent areas.

Fiberglass insulation was not submitted for analysis as it can be identified visually as non-asbestos material.

Building materials suspected of containing asbestos were identified and representative sampling and laboratory testing of these materials was conducted. The number of bulk material samples collected from a homogeneous area was in accordance with Table 1. O. Reg. 278/05 s. 3 (3) below. Building materials suspected of containing asbestos were collected using wetting techniques and hand sampling tools.

Table 1 - O. Reg. 278/05 s. 3(3): Minimum Asbestos Bulk Material Sample Requirements

Item	Type of material	Size of area of homogeneous material	Minimum number of bulk material samples to be collected
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1.	Surfacing material, including without limitation, material that is applied to surfaces by spraying, by troweling or otherwise, such as acoustical plaster on ceilings and fireproofing materials on structural members	Less than 90 square metres	3
		90 or more square metres, but less than 450 square metres	5
		450 or more square metres	7
2.	Thermal insulation, except as described in item 3	any size	3
3.	Thermal insulation patch	Less than 2 linear metres or 0.5 square metres	1
4.	Other material	Any size	3

Preliminary identification of the samples was made using polarized light microscopy (PLM), with confirmation of presence and type of asbestos made by dispersion staining optical microscopy. This analytical procedure follows the U.S. Environmental Protection Agency Test Method EPA/600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials, June 1993.

All bulk samples were analysed for asbestos content by EMSL Canada Inc. (EMSL), an independent laboratory. EMSL is an independent laboratory accredited by National Institute of Standards and Technology/National Voluntary Laboratory Accreditation (NIST/NVLAP) (Lab Code #200877-0).

Vinyl floors tiles were analyzed using the phase light microscopy (PLM) method of analysis. However, given the composition of vinyl floor products, the PLM analysis method may be prone to yielding false negative analytical results. Therefore, prior to removal or replacement, vinyl floor products previously identified to be negative, should undergo additional analysis by Transmission Electron Microscopy (TEM) to confirm asbestos content, if any.

Materials identified to contain asbestos were assessed on the relative possibility of fibre release into the air due to a combination of their condition and accessibility.

Evaluation of ACMs Based on Condition

In evaluating an ACM's condition, the following criteria was applied:

- Good – Material shows no signs of damage and/or is encapsulated. Asbestos-containing material could remain in place until eventual building demolition or major renovation.
- Fair – Material shows signs of minor damage (<5% damage) or otherwise near the end of useful life. This includes minor shrinking, cracking, delamination and/ or other damage. Material should be monitored closely and scheduled to be repaired, encapsulated or removed.
- Poor – Damage is greater than 5% to any ACM material and is highly recommended to be removed, repaired or encapsulated.

Note: The above evaluation criteria was also applied to other hazardous materials where applicable. Please refer to the Asbestos and Hazardous Materials Checklist in Appendix E & F for further details.

Lead

Background Information on Lead

Lead was a common additive in exterior and hard-wearing paint applications. Lead was used to prolong shelf life of paint and to increase its flexibility and durability to wear and weather. Acute exposure to lead by inhalation or ingestion may cause headaches, fatigue, nausea, abdominal cramps and joint pain. Chronic exposures can cause reduced haemoglobin production and reduced lifespan. It has also been known to impact the body's central and peripheral nervous systems and brain function and has been linked to learning disabilities in children.

Currently in Ontario, there is no regulatory limit that determines what concentration of lead constitutes a "lead containing material". On October 21, 2010, Health Canada, under the *Hazardous Products Act*, stated that the lead content in surface-coating materials, furniture, toys and other articles for children, should not exceed 90 mg/kg (0.009%, 90 ppm). However, this is intended for the importation or sale of products within Canada. Therefore, this is not to be misconstrued as a limit established to define a lead-containing material or a limit with respect to lead on construction projects.

The Environmental Abatement Council of Canada (EACC) has also developed the "*Lead Guideline for Construction, Renovation, Maintenance or Repair*" dated October 2014, which discusses the classification, handling, disturbance and removal of lead-containing materials. For the purpose of this guideline, paints or surface coatings containing less than or equal to 0.1% lead by weight (1000 mg/kg or 1000 ppm) are considered low-level lead paints or surface coatings. If these materials (and their respective surfaces) are disturbed in a non-aggressive manner and performed using adequate dust control procedures, then worker protection from the inhalation of lead is not required.

Furthermore, paints or surface coatings containing greater than 0.1% lead by weight are considered lead-containing paints or surface coatings. If these materials (and their respective surfaces) are disturbed, appropriate lead abatement procedures must always be followed.

Exposure to lead-containing materials is regulated under Ontario Regulation 490/09, *Designated Substances* - made under the Occupational Health and Safety Act. Care must be taken to prevent lead-containing particles from becoming airborne during the disturbance of lead-containing surfaces (i.e., during renovation or demolition projects). All lead abatement work must follow procedures outlined in the Guideline Lead on Construction Projects, issued in September 2004 (amended in April 2011) by the Occupational Health and Safety branch of the Ministry of Labour (Type 1-3). Similarly, the lead abatement work procedures outlined in the EACC Lead Guideline for Construction, Renovation, Maintenance or Repair (October 2014) may also be implemented (Class 1-3).

Lead is known to have been used in solder on copper plumbing fixtures, in lead conduit pipes, in lead-calcium battery plates, ammunition, and in nuclear and X-ray shielding devices. However, these materials were not sampled during this investigation, but were noted where applicable.

To verify lead content in paints, representative bulk samples of paint and finishes suspected of containing lead were collected. Bulk samples were scraped down to the building base structure, with all possible layer's present, placed in sealed plastic bags and labeled; and then submitted to an independent laboratory for analysis. Samples were treated with a dilute nitric acid sample digestion prior to filtration. Analysis utilized for lead detection in filtered samples was inductively coupled plasma optical emission spectrometry (ICP-OES).

Mercury

Background Information on Mercury

Mercury is known to cause poisoning in humans through the inhalation of vapours, ingestion of contaminated materials or skin absorption through direct contact with the liquid.

Precautions must be taken to prevent mercury vapours from becoming airborne during renovations or demolition of the building. Exposure to airborne mercury is regulated under the Revised O. Reg. 490/09 as amended – Regulation respecting Mercury – made under the Occupational Health and Safety Act; and under O. Reg. 558, which amended O. Reg. 347/90 (General - Waste Management), mercury is classified as a Schedule 2(b) Hazardous Waste Chemical. Its hazardous waste number is U151.

Mercury is found in products such as thermostats, temperature and pressure gauges, fluorescent lamps and batteries. Mercury in products can be released to the environment through breakage, or disposal at the end of a product's useful life. Improper disposal of these mercury products poses a health and environmental risk to everyone. In addition, the disposal of mercury-containing products can create wastes that are often classified as hazardous. Wastes that leach mercury in concentrations exceeding Ontario Regulation 347/90 (General - Waste Management) limits are also considered hazardous.

The mercury in thermostat switch contains approximately 3-4 grams of mercury in a glass ampoule, typically attached to a metal coil. Mercury-containing switches have been used in thermostats for over 40 years.

Mercury is an essential component in fluorescent lamps and HID lamps. The mercury is in a vapour form and in the phosphor coating on the lamp tube. Estimates of the mercury content contained in compact, 4 foot, and 8-foot lamps are 10 mg, 23 mg, and 46 mg respectively.

Most fluorescent lamps qualify as hazardous waste when removed from service and are therefore prohibited from disposal in the solid waste stream. Fluorescent lamps would be classified as 146T on your facility Generator Registration Report under O. Reg. 347/90 - General Waste Management, as amended by O. Reg. 558/00. Under this regulation, if the leachate results exceed 0.1 milligrams of mercury per litre for a given waste, then the facility must treat the waste as hazardous waste. Most fluorescent and HID lamps will exceed the leachate toxicity limit; therefore, these wastes must be registered and treated as hazardous waste or sent for recycling.

Silica

Background Information on Silica

Silica is expected to be present in building materials such as concrete, brick, mortar and ceramic tiles located throughout the structures. Free crystalline silica (α-Quartz) may be a component in ceiling tiles and gypsum board. Silica (including free crystalline silica) may also be a component of concrete and brick surfaces noted in the building.

Exposure to airborne silica is regulated under Ontario Regulation 490/09, *Designated Substances* - made under the Occupational Health and Safety Act.

Polychlorinated Biphenyls (PCBs)

Background Information on PCBs

Polychlorinated Biphenyls (PCBs) were commonly used as dielectric insulating fluid in electrical equipment such as transformers and capacitors, and in the fluorescent and HID lamp ballasts. The production of PCBs in the North America started in 1929 and was banned at the beginning of 1979. After 1981, no manufacturers produced fluorescent and HID lamps with PCB-containing ballasts.

PCBs are not a designated substance under the Occupational Health and Safety Act.

PCB Regulations (SOR/2008-273)

The *PCB Regulations* (the Regulations) set specific deadlines for ending the use of PCBs in concentrations at or above 50 mg/kg, eliminating all PCBs and equipment containing PCBs currently in storage and limiting the period of time PCBs can be stored before being destroyed. The Regulations also establish sound practices for the better management of the remaining PCBs in use (i.e. those with content of less than 50 mg/kg), until their eventual elimination, to prevent contamination of dielectric fluids and dispersion of PCBs in small quantities into other liquids.

Ozone Depleting Substances (ODSs) and Other Halocarbons

Background Information on ODSs

Within Ontario, the general use of ozone depleting substances (ODSs) and other halocarbons is controlled through Regulation 463/10 of the Environmental Protection Act. Production of ODSs in the form of hydro chlorofluorocarbons (HCFCs) and chlorofluorocarbons (CFCs) ceased in Canada in 1993 as a result of their ozone-depleting characteristics. Importation of CFCs into Canada ceased in 1997 and total ban was placed on their use since 2010. The use of these materials is still permitted in existing equipment, but equipment must be serviced by a licensed contractor such that CFCs are contained and not released to the environment during servicing or operation.

Radioactive Materials

There are two types of smoke detectors commonly found in building (residential, institutional, commercial, industrial, etc). Photoelectric-type smoke detectors detect smoke using an optical sensor, whereas ionization-type smoke detectors use an ionization chamber containing radioactive material. The ionization type is cheaper and is particularly common in older buildings. A typical modern detector contains about 1.0 microcurie of the radioactive element americium, a decrease from 3 microcurie in 1978. The use of sealed radioactive material sources in fire detection systems is still permitted and regulated by the Canadian Nuclear Safety Commission (CNSC) and the Canadian Nuclear Safety Act. The radioactive sources in smoke alarms are sealed and contained within a metal case inside the smoke detector and must not be damaged or tampered with.

Mould & Water Damage

Mould growth inside buildings is due to excess moisture caused by leakages, condensation or capillary movement of water into the building. Toxic moulds such as *Stachybotrys chartarum* and some species of *Aspergillus* spp. are greenish-black, wet and slimy moulds that grow on soaking wet cellulose-based materials.

They are often found near water leaks or where drying is very slow and can form after flooding if insufficient cleanup and drying occurred. They will generally not occur if materials are kept dry.

MPL conducted a general visual assessment for any obvious signs of visible mould and/or water damage. Based on our visual observations, the following guidelines were used in providing our recommendations for remedial action where required:

- Institute of Inspection Cleaning and Restoration Certification (IICRC) S520 Standard and Reference for Professional Mould Remediation,
- The Canadian Construction Association (CCA) Mould Guidelines for the Canadian construction industry (CCA document 82-2004)
- Environmental Abatement Council of Canada (EACC) Mould Abatement Guidelines.

Other Designated Substances

Select Designated Substances (acrylonitrile, arsenic, coke oven emissions, ethylene oxide, isocyanates, benzene, or vinyl chloride) are not expected to be present in the building in matrix or sufficient quantities to cause an exceedance of Ministry of Labour exposure guidelines. As such, no sampling was conducted for these materials.

Vinyl Chloride

Vinyl chloride (monomer) is likely to be present in stable form within poly vinyl-chloride (PVC) piping and conduits and as a component of interior finishes. Such building materials are not considered to be hazardous in their current matrix/composition.

Acrylonitrile

Acrylonitrile or ACN (also known as vinyl cyanide) is an explosive, flammable liquid used in the manufacture of acrylic fibres, rubber-like materials and pesticide fumigants. Acrylonitrile was not noted and would not be expected to be present in the project specific area/surveyed area/subject building.

Arsenic

Arsenic is used in metallurgy for hardening copper, lead and alloys, in pigment production, in the manufacture of certain types of glass, in insecticides, fungicides and rodenticides, as a by-product in the smelting of copper ores, and as a dopant material in semiconductor manufacturing. Arsenic or arsenic compounds were not noted and are not expected to be present in the project specific area/surveyed area/subject building.

Benzene

Benzene or benzol is a colourless liquid. It is used as an intermediate in the production of styrene, phenol, cyclohexane, and other organic chemicals, and in the manufacture of detergents, pesticides, solvents, and paint removers. It is also found in gasoline. Benzene may be present in stable form in roofing materials, paints and adhesives located throughout the subject building. Such building materials are not considered to be hazardous in their current matrix/composition.

Coke Oven Emissions

Coke oven emission is benzene soluble fraction of total particulate matter of the substances emitted into the atmosphere from metallurgical coke ovens.

Ethylene Oxides

Ethylene oxide is a colourless gas liquefying below 12°C. It is used generally as a fumigant and sterilizing agent for medical equipment. It is used generally as a fumigant and sterilizing agent for medical equipment.

Isocyanates

Isocyanates compounds may be present in stable form in paint finishes, varnishes, and polyurethane plastics, synthetic rubbers, foams and adhesives. Such building materials are not considered to be hazardous in their current matrix/composition.

In order to reduce the potential for exposure to workers or occupants, any suspect hazardous building material(s) that are not detailed within this survey due to inaccessibility and/or are discovered during renovation/demolition activities, must be properly assessed and/or tested prior to their disturbance.

APPENDIX C

Laboratory Analytical Reports



EMSL Canada Inc.

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EMSL Canada Order 672000460
 Customer ID: 55CTCS25B
 Customer PO: 0Z2-021101
 Project ID: Ottawa DSS

Attn: Stefan Holik Phone: (613) 836-2184
 McIntosh Perry Consulting Engineers Ltd Fax:
 115 Walgreen Rd RR 3 Collected: 2/18/2020
 Carp, ON K0A 1L0 Received: 3/06/2020
 Analyzed: 3/16/2020

Proj: University of Ottawa 0Z2-021101 (133-135 SM) (Ottawa DSS)

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 1.1 **Lab Sample ID:** 672000460-0001

Sample Description: 133-135 SM Room 301/VFT purple/grey w/light and dark marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/Purple	0.0%	100.0%	None Detected	TEM recommended

Client Sample ID: 1.2 **Lab Sample ID:** 672000460-0002

Sample Description: 133-135 SM Room 301/VFT purple/grey w/light and dark marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/Purple	0.0%	100.0%	None Detected	TEM recommended

Client Sample ID: 1.3 **Lab Sample ID:** 672000460-0003

Sample Description: 133-135 SM Room 301/VFT purple/grey w/light and dark marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/Purple	0.0%	100.0%	None Detected	TEM recommended

Client Sample ID: 2.1 **Lab Sample ID:** 672000460-0004

Sample Description: 133-135 SM Room 301/VFT brown w/white and black marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/White	0.0%	100.0%	None Detected	TEM recommended

Client Sample ID: 2.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0005

Sample Description: 133-135 SM Room 301/VFT brown w/white and black marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/White	0.0%	100.0%	None Detected	TEM recommended

Client Sample ID: 2.2-Mastic **Lab Sample ID:** 672000460-0005A

Sample Description: 133-135 SM Room 301/VFT brown w/white and black marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Yellow	0.0%	100.0%	None Detected	

Client Sample ID: 2.3 **Lab Sample ID:** 672000460-0006

Sample Description: 133-135 SM Room 301/VFT brown w/white and black marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/White	0.0%	100.0%	None Detected	TEM recommended



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EMSL Canada Order 672000460
 Customer ID: 55CTCS25B
 Customer PO: 0Z2-021101
 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 3.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0007
Sample Description: 133-135 SM Room 309/VFT green

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Green	0.0%	100.0%	None Detected	

Client Sample ID: 3.1-Mastic **Lab Sample ID:** 672000460-0007A
Sample Description: 133-135 SM Room 309/VFT green

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 3.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0008
Sample Description: 133-135 SM Room 309/VFT green

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Green	0.0%	100.0%	None Detected	

Client Sample ID: 3.2-Mastic **Lab Sample ID:** 672000460-0008A
Sample Description: 133-135 SM Room 309/VFT green

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 3.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0009
Sample Description: 133-135 SM Room 309/VFT green

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Green	0.0%	100.0%	None Detected	

Client Sample ID: 3.3-Mastic **Lab Sample ID:** 672000460-0009A
Sample Description: 133-135 SM Room 309/VFT green

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 4.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0010
Sample Description: 133-135 SM Room 201/VFT white and grey mix

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: 4.1-Mastic **Lab Sample ID:** 672000460-0010A
Sample Description: 133-135 SM Room 201/VFT white and grey mix

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020				Layer Not Present	



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EMSL Canada Order 672000460
Customer ID: 55CTCS25B
Customer PO: 0Z2-021101
Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 4.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0011
Sample Description: 133-135 SM Room 201/VFT white and grey mix

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: 4.2-Mastic **Lab Sample ID:** 672000460-0011A
Sample Description: 133-135 SM Room 201/VFT white and grey mix

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020				Insufficient Material	

Client Sample ID: 4.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0012
Sample Description: 133-135 SM Room 201/VFT white and grey mix

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: 4.3-Mastic **Lab Sample ID:** 672000460-0012A
Sample Description: 133-135 SM Room 201/VFT white and grey mix

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Beige	0.0%	100.0%	None Detected	

Client Sample ID: 5.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0013
Sample Description: 133-135 SM Room 103/VFT purple w/grey and white

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/Purple	0.0%	100.0%	None Detected	

Client Sample ID: 5.1-Mastic **Lab Sample ID:** 672000460-0013A
Sample Description: 133-135 SM Room 103/VFT purple w/grey and white

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 5.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0014
Sample Description: 133-135 SM Room 103/VFT purple w/grey and white

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/Purple	0.0%	100.0%	None Detected	

Client Sample ID: 5.2-Caulking **Lab Sample ID:** 672000460-0014A
Sample Description: 133-135 SM Room 103/VFT purple w/grey and white

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	0.0%	100.0%	None Detected	



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EMSL Canada Order 672000460
 Customer ID: 55CTCS25B
 Customer PO: 0Z2-021101
 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 5.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0015
Sample Description: 133-135 SM Room 103/VFT purple w/grey and white

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/Purple	0.0%	100.0%	None Detected	

Client Sample ID: 5.3-Mastic **Lab Sample ID:** 672000460-0015A
Sample Description: 133-135 SM Room 103/VFT purple w/grey and white

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 6.1 **Lab Sample ID:** 672000460-0016
Sample Description: 133-135 SM Room 110A/VFT grey with brown marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Beige	0.0%	98.0%	2% Chrysotile	

Client Sample ID: 6.2 **Lab Sample ID:** 672000460-0017
Sample Description: 133-135 SM Room 110A/VFT grey with brown marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020					Positive Stop (Not Analyzed)

Client Sample ID: 6.3 **Lab Sample ID:** 672000460-0018
Sample Description: 133-135 SM Room 110A/VFT grey with brown marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020					Positive Stop (Not Analyzed)

Client Sample ID: 7.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0019
Sample Description: 133-135 SM Room 102/VFT white with brown and grey marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: 7.1-Mastic **Lab Sample ID:** 672000460-0019A
Sample Description: 133-135 SM Room 102/VFT white with brown and grey marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 7.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0020
Sample Description: 133-135 SM Room 102/VFT white with brown and grey marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Gray/White	0.0%	100.0%	None Detected	



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Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 7.2-Mastic **Lab Sample ID:** 672000460-0020A

Sample Description: 133-135 SM Room 102/VFT white with brown and grey marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 7.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0021

Sample Description: 133-135 SM Room 102/VFT white with brown and grey marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: 7.3-Mastic **Lab Sample ID:** 672000460-0021A

Sample Description: 133-135 SM Room 102/VFT white with brown and grey marks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 8.1 **Lab Sample ID:** 672000460-0022

Sample Description: 133-135 SM Room 004/VFT black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 8.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0023

Sample Description: 133-135 SM Room 004/VFT black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 8.2-Mastic **Lab Sample ID:** 672000460-0023A

Sample Description: 133-135 SM Room 004/VFT black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Beige	0.0%	100.0%	None Detected	

Client Sample ID: 8.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0024

Sample Description: 133-135 SM Room 004/VFT black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 8.3-Mastic **Lab Sample ID:** 672000460-0024A

Sample Description: 133-135 SM Room 004/VFT black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Beige	0.0%	100.0%	None Detected	



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EMSL Canada Order 672000460
 Customer ID: 55CTCS25B
 Customer PO: 0Z2-021101
 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 9.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0025
Sample Description: 133-135 SM Room 120/VFT light grey with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Gray	0.0%	100.0%	None Detected	

Client Sample ID: 9.1-Mastic **Lab Sample ID:** 672000460-0025A
Sample Description: 133-135 SM Room 120/VFT light grey with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black/Yellow	0.0%	100.0%	None Detected	Inseparable layers

Client Sample ID: 9.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0026
Sample Description: 133-135 SM Room 120/VFT light grey with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Gray	0.0%	100.0%	None Detected	

Client Sample ID: 9.2-Mastic **Lab Sample ID:** 672000460-0026A
Sample Description: 133-135 SM Room 120/VFT light grey with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black/Yellow	0.0%	100.0%	None Detected	Inseparable layers

Client Sample ID: 9.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0027
Sample Description: 133-135 SM Room 120/VFT light grey with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Gray	0.0%	100.0%	None Detected	

Client Sample ID: 9.3-Mastic **Lab Sample ID:** 672000460-0027A
Sample Description: 133-135 SM Room 120/VFT light grey with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 10.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0028
Sample Description: 133-135 SM Room 218/VFT grey with white marks and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: 10.1-Mastic **Lab Sample ID:** 672000460-0028A
Sample Description: 133-135 SM Room 218/VFT grey with white marks and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	



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Customer ID: 55CTCS25B
Customer PO: 0Z2-021101
Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 10.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0029
Sample Description: 133-135 SM Room 218/VFT grey with white marks and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: 10.2-Mastic **Lab Sample ID:** 672000460-0029A
Sample Description: 133-135 SM Room 218/VFT grey with white marks and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black/Yellow	0.0%	100.0%	None Detected	Inseparable layers

Client Sample ID: 10.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0030
Sample Description: 133-135 SM Room 218/VFT grey with white marks and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/White	0.0%	100.0%	None Detected	

Client Sample ID: 10.3-Mastic **Lab Sample ID:** 672000460-0030A
Sample Description: 133-135 SM Room 218/VFT grey with white marks and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black/Yellow	0.0%	100.0%	None Detected	Inseparable layers

Client Sample ID: 11.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0031
Sample Description: 133-135 SM Room 107/VFT brown with white and brown streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Gray	0.0%	99.0%	1% Chrysotile	

Client Sample ID: 11.1-Mastic **Lab Sample ID:** 672000460-0031A
Sample Description: 133-135 SM Room 107/VFT brown with white and brown streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Black	3.0%	97.0%	None Detected	Inseparable layers

Client Sample ID: 11.1-Leveler **Lab Sample ID:** 672000460-0031B
Sample Description: 133-135 SM Room 107/VFT brown with white and brown streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 11.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0032
Sample Description: 133-135 SM Room 107/VFT brown with white and brown streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020					Positive Stop (Not Analyzed)



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Customer ID: 55CTCS25B
Customer PO: 0Z2-021101
Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 11.2-Mastic **Lab Sample ID:** 672000460-0032A
Sample Description: 133-135 SM Room 107/VFT brown with white and brown streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 11.2-Leveler **Lab Sample ID:** 672000460-0032B
Sample Description: 133-135 SM Room 107/VFT brown with white and brown streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Gray	3.0%	97.0%	None Detected	Inseparable layers

Client Sample ID: 11.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0033
Sample Description: 133-135 SM Room 107/VFT brown with white and brown streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020					Positive Stop (Not Analyzed)

Client Sample ID: 11.3-Mastic **Lab Sample ID:** 672000460-0033A
Sample Description: 133-135 SM Room 107/VFT brown with white and brown streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	3.0%	97.0%	None Detected	

Client Sample ID: 12.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0034
Sample Description: 133-135 SM Room 017/VFT light brown with black and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Black	0.0%	98.0%	2% Chrysotile	

Client Sample ID: 12.1-Mastic **Lab Sample ID:** 672000460-0034A
Sample Description: 133-135 SM Room 017/VFT light brown with black and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 12.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0035
Sample Description: 133-135 SM Room 017/VFT light brown with black and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020					Positive Stop (Not Analyzed)

Client Sample ID: 12.2-Mastic **Lab Sample ID:** 672000460-0035A
Sample Description: 133-135 SM Room 017/VFT light brown with black and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	



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 Customer ID: 55CTCS25B
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 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 12.3 **Lab Sample ID:** 672000460-0036
Sample Description: 133-135 SM Room 017/VFT light brown with black and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020					Positive Stop (Not Analyzed)

Client Sample ID: 13.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0037
Sample Description: 133-135 SM Room 017/VFT light grey with grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	0.0%	99.0%	1% Chrysotile	

Client Sample ID: 13.1-Mastic **Lab Sample ID:** 672000460-0037A
Sample Description: 133-135 SM Room 017/VFT light grey with grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 13.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0038
Sample Description: 133-135 SM Room 017/VFT light grey with grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020					Positive Stop (Not Analyzed)

Client Sample ID: 13.2-Mastic **Lab Sample ID:** 672000460-0038A
Sample Description: 133-135 SM Room 017/VFT light grey with grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020					Insufficient Material

Client Sample ID: 13.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0039
Sample Description: 133-135 SM Room 017/VFT light grey with grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020					Positive Stop (Not Analyzed)

Client Sample ID: 13.3-Mastic **Lab Sample ID:** 672000460-0039A
Sample Description: 133-135 SM Room 017/VFT light grey with grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 14.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0040
Sample Description: 133-135 SM Room 017/VFT dark grey with white and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/White	0.0%	99.0%	1% Chrysotile	



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Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 14.1-Mastic **Lab Sample ID:** 672000460-0040A

Sample Description: 133-135 SM Room 017/VFT dark grey with white and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	0.0%	100.0%	None Detected	

Client Sample ID: 14.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0041

Sample Description: 133-135 SM Room 017/VFT dark grey with white and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020				Positive Stop (Not Analyzed)	

Client Sample ID: 14.2-Mastic **Lab Sample ID:** 672000460-0041A

Sample Description: 133-135 SM Room 017/VFT dark grey with white and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 14.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0042

Sample Description: 133-135 SM Room 017/VFT dark grey with white and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020				Positive Stop (Not Analyzed)	

Client Sample ID: 14.3-Mastic **Lab Sample ID:** 672000460-0042A

Sample Description: 133-135 SM Room 017/VFT dark grey with white and grey streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 15.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0043

Sample Description: 133-135 SM Room 106/VFT beige with white streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	White/Beige	0.0%	99.0%	1% Chrysotile	

Client Sample ID: 15.1-Mastic **Lab Sample ID:** 672000460-0043A

Sample Description: 133-135 SM Room 106/VFT beige with white streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 15.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0044

Sample Description: 133-135 SM Room 106/VFT beige with white streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020				Positive Stop (Not Analyzed)	



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 Customer ID: 55CTCS25B
 Customer PO: 0Z2-021101
 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 15.2-Mastic **Lab Sample ID:** 672000460-0044A

Sample Description: 133-135 SM Room 106/VFT beige with white streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 15.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0045

Sample Description: 133-135 SM Room 106/VFT beige with white streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020				Positive Stop (Not Analyzed)	

Client Sample ID: 15.3-Mastic **Lab Sample ID:** 672000460-0045A

Sample Description: 133-135 SM Room 106/VFT beige with white streaks

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 16.1-Vinyl Sheet Flooring **Lab Sample ID:** 672000460-0046

Sample Description: 133-135 SM Room 101/VSF blue with circles

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Blue	0.0%	100.0%	None Detected	

Client Sample ID: 16.1-Mastic **Lab Sample ID:** 672000460-0046A

Sample Description: 133-135 SM Room 101/VSF blue with circles

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Beige	0.0%	100.0%	None Detected	

Client Sample ID: 16.2-Vinyl Sheet Flooring **Lab Sample ID:** 672000460-0047

Sample Description: 133-135 SM Room 101/VSF blue with circles

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Blue	0.0%	100.0%	None Detected	

Client Sample ID: 16.2-Mastic **Lab Sample ID:** 672000460-0047A

Sample Description: 133-135 SM Room 101/VSF blue with circles

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Beige	0.0%	100.0%	None Detected	

Client Sample ID: 16.3-Vinyl Sheet Flooring **Lab Sample ID:** 672000460-0048

Sample Description: 133-135 SM Room 101/VSF blue with circles

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Blue	0.0%	100.0%	None Detected	



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Customer ID: 55CTCS25B
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Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 16.3-Mastic **Lab Sample ID:** 672000460-0048A
Sample Description: 133-135 SM Room 101/VSF blue with circles

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Beige	0.0%	100.0%	None Detected	

Client Sample ID: 17.1-Vinyl Floor Tile **Lab Sample ID:** 672000460-0049
Sample Description: 133-135 SM Room 311/VSF black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 17.1-Mastic **Lab Sample ID:** 672000460-0049A
Sample Description: 133-135 SM Room 311/VSF black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 17.2-Vinyl Floor Tile **Lab Sample ID:** 672000460-0050
Sample Description: 133-135 SM Room 311/VSF black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 17.2-Mastic **Lab Sample ID:** 672000460-0050A
Sample Description: 133-135 SM Room 311/VSF black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 17.3-Vinyl Floor Tile **Lab Sample ID:** 672000460-0051
Sample Description: 133-135 SM Room 311/VSF black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: 17.3-Mastic **Lab Sample ID:** 672000460-0051A
Sample Description: 133-135 SM Room 311/VSF black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020				Insufficient Material	

Client Sample ID: 18.1-Vinyl Sheet Flooring **Lab Sample ID:** 672000460-0052
Sample Description: 133-135 SM Room 302/VSF grey and white swirls

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/White	45.0%	55.0%	None Detected	



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 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 18.1-Mastic **Lab Sample ID:** 672000460-0052A

Sample Description: 133-135 SM Room 302/VSF grey and white swirls

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Beige	0.0%	100.0%	None Detected	

Client Sample ID: 18.2-Vinyl Sheet Flooring **Lab Sample ID:** 672000460-0053

Sample Description: 133-135 SM Room 302/VSF grey and white swirls

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/White	45.0%	55.0%	None Detected	

Client Sample ID: 18.2-Mastic **Lab Sample ID:** 672000460-0053B

Sample Description: 133-135 SM Room 302/VSF grey and white swirls

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020				Insufficient Material	

Client Sample ID: 18.3-Vinyl Sheet Flooring **Lab Sample ID:** 672000460-0054

Sample Description: 133-135 SM Room 302/VSF grey and white swirls

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/White	45.0%	55.0%	None Detected	

Client Sample ID: 18.3-Mastic **Lab Sample ID:** 672000460-0054A

Sample Description: 133-135 SM Room 302/VSF grey and white swirls

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020				Insufficient Material	

Client Sample ID: 19.1 **Lab Sample ID:** 672000460-0055

Sample Description: 133-135 SM Room 400/VSF green with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Green	45.0%	55.0%	None Detected	

Client Sample ID: 19.2-Vinyl Sheet Flooring **Lab Sample ID:** 672000460-0056

Sample Description: 133-135 SM Room 400/VSF green with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Green	45.0%	55.0%	None Detected	

Client Sample ID: 19.2-Mastic **Lab Sample ID:** 672000460-0056A

Sample Description: 133-135 SM Room 400/VSF green with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	0.0%	100.0%	None Detected	



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 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 19.3-Vinyl Sheet Flooring **Lab Sample ID:** 672000460-0057
Sample Description: 133-135 SM Room 400/VSF green with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Green	45.0%	55.0%	None Detected	

Client Sample ID: 19.3-Mastic **Lab Sample ID:** 672000460-0057A
Sample Description: 133-135 SM Room 400/VSF green with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	0.0%	100.0%	None Detected	

Client Sample ID: 19.3-Loose Fibers **Lab Sample ID:** 672000460-0057B
Sample Description: 133-135 SM Room 400/VSF green with brown

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	White	45.0%	10.0%	45% Chrysotile	

Client Sample ID: 20.1 **Lab Sample ID:** 672000460-0058
Sample Description: 133-135 SM Room 207/VSF grey/purple

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/Purple	45.0%	55.0%	None Detected	

Client Sample ID: 20.2-Vinyl Sheet Flooring **Lab Sample ID:** 672000460-0059
Sample Description: 133-135 SM Room 207/VSF grey/purple

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray/Purple	45.0%	55.0%	None Detected	

Client Sample ID: 20.2-Mastic **Lab Sample ID:** 672000460-0059A
Sample Description: 133-135 SM Room 207/VSF grey/purple

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Clear	0.0%	100.0%	None Detected	

Client Sample ID: 20.3-Vinyl Sheet Flooring **Lab Sample ID:** 672000460-0060
Sample Description: 133-135 SM Room 207/VSF grey/purple

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Green	45.0%	55.0%	None Detected	

Client Sample ID: 20.3-Mastic **Lab Sample ID:** 672000460-0060A
Sample Description: 133-135 SM Room 207/VSF grey/purple

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Clear	0.0%	100.0%	None Detected	



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EMSL Canada Order 672000460
Customer ID: 55CTCS25B
Customer PO: 0Z2-021101
Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 21.1 **Lab Sample ID:** 672000460-0061
Sample Description: 133-135 SM Room 307/VSF green

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Green	45.0%	55.0%	None Detected	

Client Sample ID: 21.2 **Lab Sample ID:** 672000460-0062
Sample Description: 133-135 SM Room 307/VSF green

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Green	45.0%	55.0%	None Detected	

Client Sample ID: 21.3 **Lab Sample ID:** 672000460-0063
Sample Description: 133-135 SM Room 307/VSF green

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Green	45.0%	55.0%	None Detected	

Client Sample ID: 22.1 **Lab Sample ID:** 672000460-0064
Sample Description: 133-135 SM Room 001/Ceiling tile - mostly fissures with pinholes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	85.0%	15.0%	None Detected	

Client Sample ID: 22.2 **Lab Sample ID:** 672000460-0065
Sample Description: 133-135 SM Room 001/Ceiling tile - mostly fissures with pinholes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	85.0%	15.0%	None Detected	

Client Sample ID: 22.3 **Lab Sample ID:** 672000460-0066
Sample Description: 133-135 SM Room 001/Ceiling tile - mostly fissures with pinholes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Gray	85.0%	15.0%	None Detected	

Client Sample ID: 23.1 **Lab Sample ID:** 672000460-0067
Sample Description: 133-135 SM Room 001/Ceiling tile - equal fissures and pinholes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	85.0%	15.0%	None Detected	

Client Sample ID: 23.2 **Lab Sample ID:** 672000460-0068
Sample Description: 133-135 SM Room 001/Ceiling tile - equal fissures and pinholes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	85.0%	15.0%	None Detected	



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 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 23.3

Lab Sample ID: 672000460-0069

Sample Description: 133-135 SM Room 001/Ceiling tile - equal fissures and pinholes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	85.0%	15.0%	None Detected	

Client Sample ID: 24.1

Lab Sample ID: 672000460-0070

Sample Description: 133-135 SM Room 002/Ceiling tile - 1'x1' with fissures

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	75.0%	25.0%	None Detected	

Client Sample ID: 24.2

Lab Sample ID: 672000460-0071

Sample Description: 133-135 SM Room 002/Ceiling tile - 1'x1' with fissures

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	75.0%	25.0%	None Detected	

Client Sample ID: 24.3

Lab Sample ID: 672000460-0072

Sample Description: 133-135 SM Room 002/Ceiling tile - 1'x1' with fissures

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	75.0%	25.0%	None Detected	

Client Sample ID: 25.1

Lab Sample ID: 672000460-0073

Sample Description: 133-135 SM Room 300/Ceiling tile - pinholes with small fissures

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	85.0%	15.0%	None Detected	

Client Sample ID: 25.2

Lab Sample ID: 672000460-0074

Sample Description: 133-135 SM Room 300/Ceiling tile - pinholes with small fissures

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	85.0%	15.0%	None Detected	

Client Sample ID: 25.3

Lab Sample ID: 672000460-0075

Sample Description: 133-135 SM Room 300/Ceiling tile - pinholes with small fissures

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Gray	85.0%	15.0%	None Detected	

Client Sample ID: 26.1

Lab Sample ID: 672000460-0076

Sample Description: 133-135 SM Room 004/Acoustic tile - black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Black	95.0%	5.0%	None Detected	



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 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 26.2

Lab Sample ID: 672000460-0077

Sample Description: 133-135 SM Room 004/Acoustic tile - black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Black	95.0%	5.0%	None Detected	

Client Sample ID: 26.3

Lab Sample ID: 672000460-0078

Sample Description: 133-135 SM Room 004/Acoustic tile - black

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Black	95.0%	5.0%	None Detected	

Client Sample ID: 27.1

Lab Sample ID: 672000460-0079

Sample Description: 133-135 SM Room 307/Acoustic tile - white with scattered holes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	95.0%	5.0%	None Detected	

Client Sample ID: 27.2

Lab Sample ID: 672000460-0080

Sample Description: 133-135 SM Room 307/Acoustic tile - white with scattered holes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	95.0%	5.0%	None Detected	

Client Sample ID: 27.3

Lab Sample ID: 672000460-0081

Sample Description: 133-135 SM Room 307/Acoustic tile - white with scattered holes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	95.0%	5.0%	None Detected	

Client Sample ID: 28.1

Lab Sample ID: 672000460-0082

Sample Description: 133-135 SM Room 307/Acoustic tile - beige with linear holes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	95.0%	5.0%	None Detected	

Client Sample ID: 28.2

Lab Sample ID: 672000460-0083

Sample Description: 133-135 SM Room 307/Acoustic tile - beige with linear holes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	95.0%	5.0%	None Detected	

Client Sample ID: 28.3

Lab Sample ID: 672000460-0084

Sample Description: 133-135 SM Room 307/Acoustic tile - beige with linear holes

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	95.0%	5.0%	None Detected	



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 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 29.1 **Lab Sample ID:** 672000460-0085
Sample Description: 133-135 SM/Drywall joint compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	White	0.0%	100.0%	None Detected	

Client Sample ID: 29.2 **Lab Sample ID:** 672000460-0086
Sample Description: 133-135 SM/Drywall joint compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	White	0.0%	100.0%	None Detected	

Client Sample ID: 29.3 **Lab Sample ID:** 672000460-0087
Sample Description: 133-135 SM/Drywall joint compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	White	0.0%	100.0%	None Detected	

Client Sample ID: 29.4-Joint Compound 1 **Lab Sample ID:** 672000460-0088
Sample Description: 133-135 SM/Drywall joint compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	White	0.0%	100.0%	None Detected	

Client Sample ID: 29.4-Joint Compound 2 **Lab Sample ID:** 672000460-0088A
Sample Description: 133-135 SM/Drywall joint compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Tan	0.0%	98.0%	2% Chrysotile	

Client Sample ID: 29.5 **Lab Sample ID:** 672000460-0089
Sample Description: 133-135 SM/Drywall joint compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Tan	0.0%	98.0%	2% Chrysotile	

Client Sample ID: 29.6 **Lab Sample ID:** 672000460-0090
Sample Description: 133-135 SM/Drywall joint compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020					Positive Stop (Not Analyzed)

Client Sample ID: 29.7 **Lab Sample ID:** 672000460-0091
Sample Description: 133-135 SM/Drywall joint compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020					Positive Stop (Not Analyzed)



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Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 30.1 **Lab Sample ID:** 672000460-0092
Sample Description: 133-135 SM/Plaster

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Gray/Gold	0.0%	100.0%	None Detected	Sample contains vermiculite which is a problem matrix; TEM with milling recommended

Client Sample ID: 30.2-Plaster **Lab Sample ID:** 672000460-0093
Sample Description: 133-135 SM/Plaster

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 30.2-Drywall **Lab Sample ID:** 672000460-0093A
Sample Description: 133-135 SM/Plaster

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Gray	2.0%	98.0%	None Detected	

Client Sample ID: 30.3 **Lab Sample ID:** 672000460-0094
Sample Description: 133-135 SM/Plaster

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Gray	0.0%	100.0%	None Detected	

Client Sample ID: 30.4-Skim Coat **Lab Sample ID:** 672000460-0095
Sample Description: 133-135 SM/Plaster

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	White	0.0%	93.0%	7% Chrysotile	

Client Sample ID: 30.4-Base Coat **Lab Sample ID:** 672000460-0095A
Sample Description: 133-135 SM/Plaster

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Gray	4.0%	86.0%	10% Chrysotile	

Client Sample ID: 30.5 **Lab Sample ID:** 672000460-0096
Sample Description: 133-135 SM/Plaster

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020					Positive Stop (Not Analyzed)

Client Sample ID: 30.6 **Lab Sample ID:** 672000460-0097
Sample Description: 133-135 SM/Plaster

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020					Positive Stop (Not Analyzed)



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 Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 30.7 **Lab Sample ID:** 672000460-0098
Sample Description: 133-135 SM/Plaster

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020					Positive Stop (Not Analyzed)

Client Sample ID: 31.1 **Lab Sample ID:** 672000460-0099
Sample Description: 133-135 SM Room 112/Mastic 31

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Yellow	5.0%	95.0%	None Detected	

Client Sample ID: 31.2 **Lab Sample ID:** 672000460-0100
Sample Description: 133-135 SM Room 116/Mastic 32

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Yellow	0.0%	100.0%	None Detected	

Client Sample ID: 31.3 **Lab Sample ID:** 672000460-0101
Sample Description: 133-135 SM Room 129/Mastic 33

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Yellow	0.0%	100.0%	None Detected	

Client Sample ID: 34.1 **Lab Sample ID:** 672000460-0102
Sample Description: 133-135 SM Room 209/Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Yellow	0.0%	100.0%	None Detected	

Client Sample ID: 34.2 **Lab Sample ID:** 672000460-0103
Sample Description: 133-135 SM Room 209/Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Yellow	0.0%	100.0%	None Detected	

Client Sample ID: 34.3 **Lab Sample ID:** 672000460-0104
Sample Description: 133-135 SM Room 209/Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Yellow	0.0%	100.0%	None Detected	

Client Sample ID: 35.1 **Lab Sample ID:** 672000460-0105
Sample Description: 133-135 SM Room 313/Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	0.0%	100.0%	None Detected	



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Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: 35.2-Mastic 1 **Lab Sample ID:** 672000460-0106
Sample Description: 133-135 SM Room 313/Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Beige	0.0%	100.0%	None Detected	

Client Sample ID: 35.2-Mastic 2 **Lab Sample ID:** 672000460-0106A
Sample Description: 133-135 SM Room 313/Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown	0.0%	100.0%	None Detected	

Client Sample ID: 35.3 **Lab Sample ID:** 672000460-0107
Sample Description: 133-135 SM Room 313/Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Brown	0.0%	100.0%	None Detected	

Client Sample ID: 36.1 **Lab Sample ID:** 672000460-0108
Sample Description: 133-135 SM Room 112A/Wallpaper

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Gray	30.0%	70.0%	None Detected	inseparable layers

Client Sample ID: 36.2 **Lab Sample ID:** 672000460-0109
Sample Description: 133-135 SM Room 112A/Wallpaper

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2020	Brown/Gray	35.0%	65.0%	None Detected	Inseparable layers

Client Sample ID: 36.3 **Lab Sample ID:** 672000460-0110
Sample Description: 133-135 SM Room 112A/Wallpaper

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/16/2020	Brown/Gray	30.0%	70.0%	None Detected	inseparable layers



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Customer ID: 55CTCS25B
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Project ID: Ottawa DSS

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Analyst(s):

Ewa Krupinska PLM (41)
Simon Parent PLM (101)

Reviewed and approved by:

Simon Parent, Laboratory Manager
or Other Approved Signatory

None Detected = <0.1%. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP of any agency or the U.S. Government

Samples analyzed by EMSL Canada Inc. Ottawa, ON

Report amended: 03/19/2020 13:37:00 Replaces amended report from: 03/16/2020 10:21:21 Reason Code: Client-Change to Sample ID

**EMSL Canada Inc.**

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CustomerID:	55CTCS25B
CustomerPO:	0Z2-021101
ProjectID:	

Attn: **Stefan Holik**
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115 Walgreen Rd RR 3
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Phone: (613) 836-2184
 Fax:
 Received: 03/09/20 11:04 AM
 Collected:

Project: **University of Ottawa 0Z2-021101 Ottawa DSS****Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)***

<i>Client Sample</i>	<i>Description</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>RDL</i>	<i>Lead Concentration</i>
1			3/10/2020	0.0252 g	0.079 % wt	<0.079 % wt
552002792-0001	Site: 133-135 SM - Room 002C (grey/blue) Insufficient sample to reach reporting limit.					
2			3/10/2020	0.0742 g	0.027 % wt	<0.027 % wt
552002792-0002	Site: 133-135 SM - Room 006 (black) Insufficient sample to reach reporting limit.					
3			3/10/2020	0.2459 g	0.0081 % wt	<0.0081 % wt
552002792-0003	Site: 133-135 SM - Room 015A (light brown/beige)					
4			3/10/2020	0.0408 g	0.049 % wt	<0.049 % wt
552002792-0004	Site: 133-135 SM - Room 001 (grey) Insufficient sample to reach reporting limit.					
5			3/10/2020	0.0263 g	0.076 % wt	<0.076 % wt
552002792-0005	Site: 133-135 SM - Room 005 (orange/brown) Insufficient sample to reach reporting limit.					
6			3/10/2020	0.2492 g	0.0080 % wt	<0.0080 % wt
552002792-0006	Site: 133-135 SM - Room 001 (white)					
7			3/10/2020	0.2466 g	0.0081 % wt	<0.0081 % wt
552002792-0007	Site: 133-135 SM - Room 014 (light blue/green)					
8			3/10/2020	0.0225 g	0.089 % wt	<0.089 % wt
552002792-0008	Site: 133-135 SM - Room 210 (dark green) Insufficient sample to reach reporting limit.					
9			3/10/2020	0.1604 g	0.012 % wt	0.018 % wt
552002792-0009	Site: 133-135 SM - Room 209 (light purple)					

Rowena Fanto, Lead Supervisor
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the results, it will be noted on the report. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.
 Samples analyzed by EMSL Canada Inc. Mississauga, ON AIHA-LAP, LLC - ELLAP #196142

Initial report from 03/16/2020 09:24:59

APPENDIX D
Site Photographs



Photo 1: View of non-asbestos containing vinyl floor tile (12" x 12" -green) observed in Room 309.



Photo 2: View of asbestos containing vinyl floor tile observed in Room 103.



Photo 3: View of asbestos-containing vinyl floor tile observed to be in poor condition within Room 110A.



Photo 4: View of Asbestos-containing vinyl floor tiles in Room 107.



Photo 5: View of asbestos-containing vinyl floor tiles in Room 017.



Photo 6: View of non-asbestos containing vinyl sheet flooring in Room 101.



Photo 7: View of non-asbestos containing vinyl sheet flooring in Room 302.



Photo 8: View of vinyl sheet flooring associated with asbestos-containing loose fibres in Room 400.



Photo 9: View of non-asbestos containing suspended ceiling tiles in Room 001.



Photo 10: View of non-asbestos containing suspended ceiling tiles in Room 300.

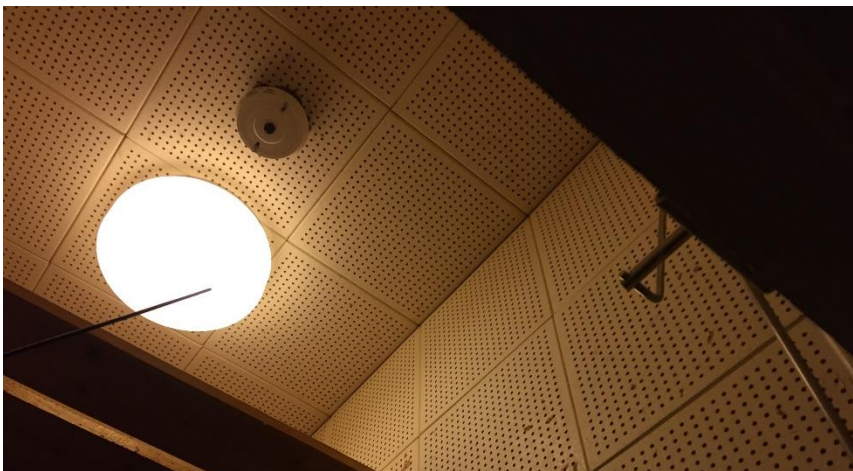


Photo 11: View of non-asbestos containing acoustic ceiling tile in Room 307.



Photo 12: View of asbestos-containing drywall joint compound in Room 202.



Photo 13: View of damaged asbestos-containing wall/ceiling plaster from Room 400.



Photo 14: View of non-asbestos containing carpet mastic in Room 209.



Photo 15: View of water damaged suspended ceiling tile observed in Room 225.



Photo 16: View of mechanical pipe straight and elbow insulation suspected to contain asbestos observed in Room 015A.



Photo 17: View of asbestos-containing plaster wall observed to be in fair condition in Room 012.



Photo 18: View of asbestos-containing plaster wall observed to be in fair condition in Room 012.



Photo 19: View of asbestos-containing plaster wall observed to be in poor condition in Room 112.



Photo 20: View of asbestos-containing plaster ceiling observed to be in fair condition in Room 129.

APPENDIX E

Asbestos-Containing Materials Checklists

Floor/Level	Room	ID	Type of ACM	Description	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approx. Quantity	Unit	Recommended Action	Estimated Abatement Cost	Comments
1	Room	101	Drywall Joint Compound	Brown	Confirmed	Friable	Fair Condition	Easy	Low	2	SF	Monitor Condition of Material. Consider Removal or Repair.		Stairwell
1	Room	101A	Drywall Joint Compound	Brown	Confirmed	Friable	Fair Condition	Easy	Low	3	SF	Monitor Condition of Material. Consider Removal or Repair.		Stairwell
1	Room	103	Drywall Joint Compound	Brown	Confirmed	Friable	Fair Condition	Easy	Low	15	SF	Monitor Condition of Material. Consider Removal or Repair.		Stairwell
1	Room	109	Wall Plaster	Brown	Confirmed	Friable	Fair Condition	Easy	Low	3	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	111B	Drywall Joint Compound	Brown	Confirmed	Friable	Fair Condition	Easy	Low	3	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	112	Wall Plaster	Brown	Confirmed	Friable	Good Condition	Easy	Low	Throughout	-	Manage in Place		
1	Room	112	Drywall Joint Compound	Brown	Confirmed	Friable	Fair Condition	Easy	Low	7	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	112	Wall Plaster	Brown	Confirmed	Friable	Fair Condition	Easy	Low	6	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	114A	Drywall Joint Compound	Brown	Confirmed	Friable	Fair Condition	Easy	Low	7	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	121	Wall Plaster	Brown	Confirmed	Friable	Fair Condition	Easy	Low	2	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	124	Wall Plaster	Brown	Confirmed	Friable	Fair Condition	Easy	Low	4	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	126	Wall & Ceiling Plaster	Brown	Confirmed	Friable	Fair Condition	Easy	Low	9	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	128	Ceiling Plaster	Brown	Confirmed	Friable	Fair Condition	Easy	Low	4	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	129	Ceiling Plaster	Brown	Confirmed	Friable	Fair Condition	Easy	Low	<1	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	107	12" x 12" Vinyl Floor Tile	Brown with white and brown streaks	Confirmed	Non-Friable	Fair Condition	Easy	Low	158	SF	Monitor Condition of Material. Consider Removal or Repair.		
1	Room	106	Wall Plaster	Beige	Confirmed	Friable	Good Condition	Easy	Low	Throughout	-	Manage in Place		

Floor/Level	Room	ID	Type of ACM	Description	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approx. Quantity	Unit	Recommended Action	Estimated Abatement Cost	Comments
2	Room	200	Drywall Joint Compound	Stairwell	Confirmed	Friable	Fair Condition	Easy	Low	4	SF	Monitor Condition of Material. Consider Removal or Repair.		
2	Room	202	Drywall Joint Compound	Beige	Confirmed	-	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.		
2	Room	211	Wall Plaster	Wall	Confirmed	Friable	Fair Condition	Easy	Low	8	SF	Monitor Condition of Material. Consider Removal or Repair.		
2	Room	212	Drywall Joint Compound	Wall	Confirmed	Friable	Fair Condition	Easy	Low	2	SF	Monitor Condition of Material. Consider Removal or Repair.		
2	Room	217	Drywall Joint Compound	Wall	Confirmed	Friable	Fair Condition	Easy	Low	8	SF	Monitor Condition of Material. Consider Removal or Repair.		
2	Room	222	Wall Plaster	Beige	Confirmed	-	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.		
2	Room	201	12" x 12" Vinyl Floor Tile	White and Grey Mix	Confirmed	Non-Friable	Fair Condition	Easy	Low	Throughout	-	Monitor Condition of Material. Consider Removal or Repair.		
3	Room	300	Drywall Joint Compound	Wall	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.		
3	Room	303	Wall Plaster	Wall	Confirmed	Friable	Fair Condition	Easy	Low	4	SF	Monitor Condition of Material. Consider Removal or Repair.		Bubbles in Wall
3	Room	304A	Wall Plaster	Wall	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.		Cracks in Wall
3	Room	304B	Wall Plaster	Wall	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.		Cracks in Wall
3	Room	304C	Wall Plaster	Wall	Confirmed	Friable	Fair Condition	Easy	Low	10	SF	Monitor Condition of Material. Consider Removal or Repair.		Cracks in Wall
3	Room	313	Drywall Joint Compound	Wall	Confirmed	Friable	Fair Condition	Easy	Low	15	SF	Monitor Condition of Material. Consider Removal or Repair.		
3	Room	311	Drywall Joint Compound	Beige	Confirmed	-	Good Condition	Easy	Low	Throughout	-	Manage in Place		

Floor/Level	Room	ID	Type of ACM	Description	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approx. Quantity	Unit	Recommended Action	Estimated Abatement Cost	Comments
3	Room	308	Drywall Joint Compound	White	Confirmed	-	Poor Condition	Easy	Low	30	SF	Repair or Remove Following Type 1/2 Abatement Procedures	\$2,500.00	
3	Room	308	Wall & Ceiling Plaster	White	Confirmed	Friable	Fair Condition	Easy	Low	432	SF	Monitor Condition of Material. Consider Removal or Repair.		
3	Room	301D	Drywall Joint Compound	White	Confirmed	Friable	Poor Condition	Easy	Low	1	SF	Repair or Remove Following Type 1 Abatement Procedures	\$1,000.00	
3	Room	301	12" x 12" Vinyl Floor Tile	Purple/grey with light and dark marks	Confirmed	Non-Friable	Fair Condition	Easy	Low	40	SF	Monitor Condition of Material. Consider Removal or Repair.		
3	Room	301	12" x 12" Vinyl Floor Tile	Brown with white and black marks	Confirmed	Non-Friable	Good Condition	Easy	Low	Throughout	-	Manage in Place		
3	Room	309	12" x 12" Vinyl Floor Tile	Green	Confirmed	Non-Friable	Fair Condition	Easy	Low	739	SF	Monitor Condition of Material. Consider Removal or Repair.		
3	Room	311	Drywall Joint Compound	Wall	Confirmed	Friable	Fair Condition	Easy	Low	12	SF	Monitor Condition of Material. Consider Removal or Repair.		
3	Room	311	12" x 12" Vinyl Floor Tile	Black	Confirmed	Non-Friable	Good Condition	Easy	Low	750	SF	Manage in Place		
3	Room	302	12" x 12" Vinyl Floor Tile	Grey and White Swirls	Confirmed	Non-Friable	Good Condition	Easy	Low	Throughout	-	Manage in Place		
3	Room	316	Drywall Joint Compound	White	Confirmed	Friable	Fair Condition	Easy	Low	2	SF	Monitor Condition of Material. Consider Removal or Repair.		
3	Room	317	Drywall Joint Compound	White	Confirmed	Friable	Fair Condition	Easy	Low	5	SF	Monitor Condition of Material. Consider Removal or Repair.		
4	Room	400	Wall & Ceiling Plaster	White	Confirmed	Friable	Poor Condition	Easy	Low	40	SF	Remove Following Type 3 Abatement Procedures	\$6,500.00	
4	Room	400	Wall & Ceiling Plaster	White	Confirmed	Friable	Good Condition	Easy	Low	144	SF	Manage in Place		
4	Room	400	Vinyl Sheet Flooring	Green w/ Brown	Confirmed	Non-Friable	Fair Condition	Easy	Low	144	SF	Monitor Condition of Material. Consider Removal or Repair.		
5	Roof Level	-	Roofing Materials	N/A	Suspected	-	Good Condition	Difficult	High	Throughout	-	Manage in Place		
All	Throughout Subject Building	-	Ceramic Floor Tile Grout	N/A	Suspected	-	Good Condition	Difficult	High	Throughout	-	Manage in Place		

Floor/Level	Room	ID	Type of ACM	Description	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approx. Quantity	Unit	Recommended Action	Estimated Abatement Cost	Comments
All	Throughout Subject Building	-	Brick Mortar	N/A	Suspected	-	Good Condition	Difficult	High	Throughout	-	Manage in Place		
All	Throughout Subject Building	-	Concrete Block Mortar	N/A	Suspected	-	Good Condition	Difficult	High	Throughout	-	Manage in Place		
All	Throughout Subject Building	N/A	Fire Doors	N/A	Suspected	-	Good Condition	Easy	Low	Throughout	-	Manage in Place		
B	Room	017	12" x 12" Vinyl Floor Tile	Light Grey w/ Grey Streaks	Confirmed	Non-Friable	Good Condition	Easy	Low	76	-	Manage in Place		
B	Room	017	12" x 12" Vinyl Floor Tile	Dark Grey w/White and Grey	Confirmed	Non-Friable	Good Condition	Easy	Low	3	SF	Manage in Place		
B	Room	001	Wall & Ceiling Plaster	White	Confirmed	Friable	Good Condition	Easy	Low	Throughout	-	Manage in Place		
B	Room	001	Drywall Joint Compound	Beige	Confirmed	-	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.		
B	Room	002C	Drywall Joint Compound	Beige	Confirmed	-	Fair Condition	Easy	Low	3	SF	Monitor Condition of Material. Consider Removal or Repair.		
B	Room	004B	Drywall Joint Compound	Beige	Confirmed	-	Fair Condition	Easy	Low	2	SF	Monitor Condition of Material. Consider Removal or Repair.		
B	Room	015A	Pipe	Parging	Confirmed	Friable	Good Condition	Moderate	Low	20	C	Manage in Place		
B	Room	015A	Wall Plaster	Beige	Confirmed	Friable	Good Condition	Easy	Low	Throughout	-	Manage in Place		
B	Room	015A	Wall Plaster	Beige	Confirmed	Friable	Poor Condition	Easy	Low	40	SF	Remove Following Type 3 Abatement Procedures	\$6,500.00	
B	Room	016	Drywall Joint Compound	Beige	Confirmed	-	Good Condition	Easy	Low	Throughout	-	Manage in Place		
B	Room	016	Drywall Joint Compound	Beige	Confirmed	-	Fair Condition	Easy	Low	5	SF	Monitor Condition of Material. Consider Removal or Repair.		
B	Room	18	Drywall Joint Compound	Beige	Confirmed	-	Fair Condition	Easy	Low	4	SF	Monitor Condition of Material. Consider Removal or Repair.		Stairwell
B	Room	012	Drywall Joint Compound	Beige	Confirmed	-	Good Condition	Easy	Low	Throughout	-	Manage in Place		
B	Room	012	Drywall Joint Compound	Beige	Confirmed	-	Fair Condition	Easy	Low	6	SF	Monitor Condition of Material. Consider Removal or Repair.		
B	Room	012	Wall Plaster	Beige	Confirmed	-	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.		Walls and Ceiling

APPENDIX F

Hazardous Materials Checklists

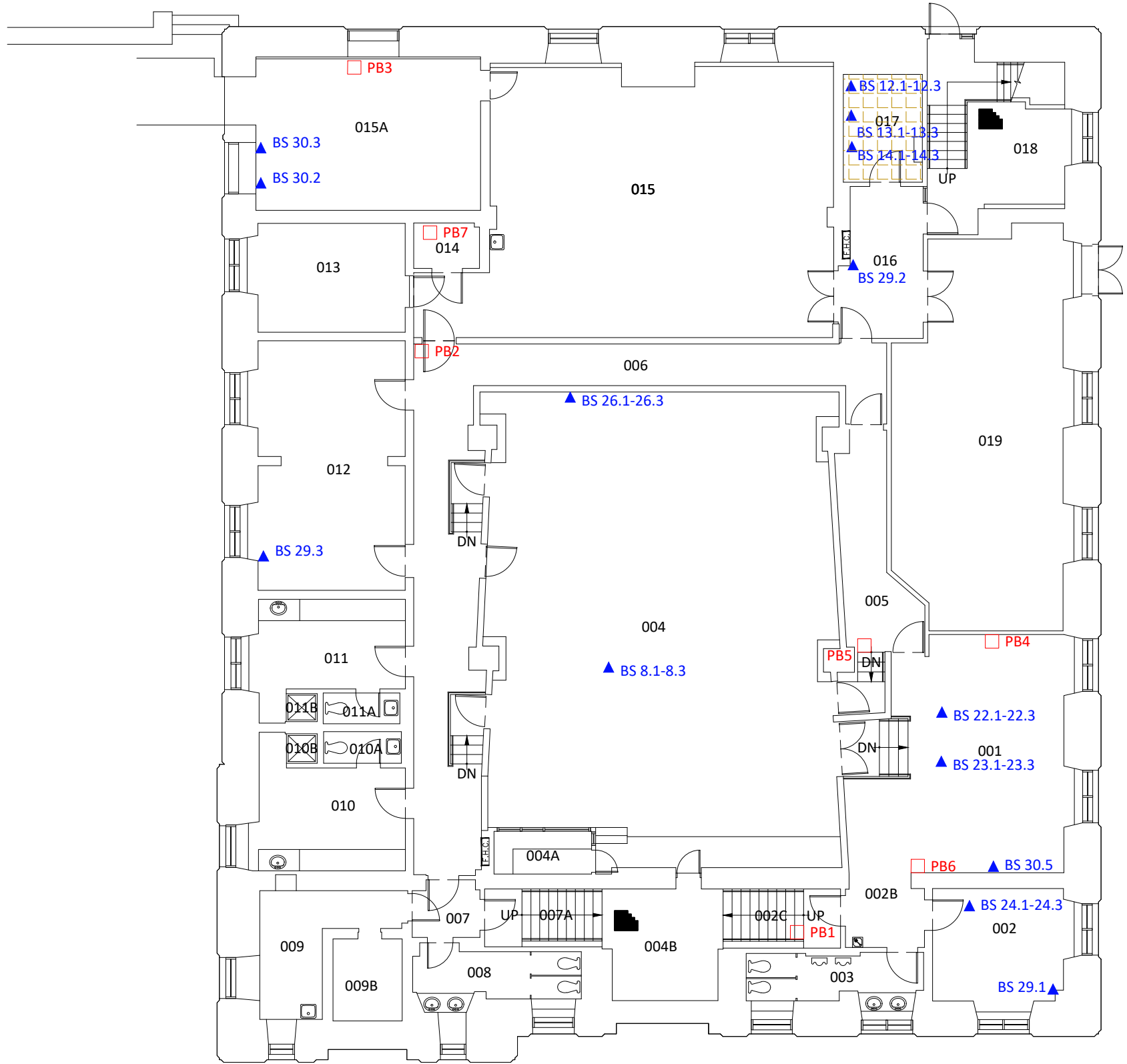
Floor/Level	Location	ID	DS Type	Component	Colour	Condition	Manufacturer	Quantity #	Unit	Suspected/ Confirmed	Recommended Action	Estimated Abatement Cost	Comments
1	Room	106	Lead	Door Frame Paint	Light Blue	Good Condition	N/A			Confirmed	Manage in Place		
2	Room	214A	Mercury	Thermometer	N/A	Good Condition	N/A	1	C	Confirmed	Manage in Place		
2	Room	209	Lead	Wall Paint	Light purple	Good Condition	N/A	-	-	Confirmed	Manage in Place		
2	Room	214A	Ozone Depleting Substances (ODS)	Glycol Compressor	N/A	Good Condition	N/A	Throughout	-	Confirmed	Manage in Place		
2	Room	225	Water Damage	Ceiling Tiles	N/A	Poor Condition	N/A	1	C	Confirmed	Should be replaced as part of regular		
3	Room	308	Water Damage	Ceiling Tiles	N/A	Poor Condition	N/A	1	C	Confirmed	Should be replaced as part of regular maintenance.		
All	Throughout Subject Building	-	Lead	Battery Pack	N/A	Good Condition	N/A	Throughout	-	Confirmed	Manage in Place		
All	Stairwell	A	Lead	Underneath Paint	Dark Blue	Good Condition	N/A	Throughout	-	Confirmed	Manage in Place		
All	Stairwell	A	Lead	Stringer Paint	Orange	Good Condition	N/A	Throughout	-	Confirmed	Manage in Place		
All	Stairwell	A	Lead	Riser Paint	Blue	Good Condition	N/A	Throughout	-	Confirmed	Manage in Place		
All	Throughout Subject Building	-	Mercury	Fluorescent Light Tubes	N/A	Good Condition	N/A	Throughout	-	Confirmed	Manage in Place		

Floor/Level	Location	ID	DS Type	Component	Colour	Condition	Manufacturer	Quantity #	Unit	Suspected/ Confirmed	Recommended Action	Estimated Abatement Cost	Comments
All	Throughout Subject Building	-	Silica	Concrete, Mortar, Etc.	N/A	Good Condition	N/A	Throughout	-	Confirmed	Manage in Place		
B	Room	5	Lead	Wall Paint	Yellow	Good Condition	N/A			Confirmed	Manage in Place		
B	Room	5	Lead	Door Frame Paint	Blue	Good Condition	N/A			Confirmed	Manage in Place		
B	Room	19	Lead	Wall Paint	Light beige	Good Condition	N/A			Confirmed	Manage in Place		
B	Room	13	Mercury	Thermometer	N/A	Good Condition	N/A	1	C	Confirmed	Manage in Place		
B	Room	015A	Mercury	Pressure Gauge	N/A	Good Condition	N/A	2	C	Confirmed	Manage in Place		
B	Room	015A	Ozone Depleting Substances (ODS)	Glycol Compressor	N/A	Good Condition	N/A	Throughout	-	Confirmed	Manage in Place		

APPENDIX G

Site Sampling & Location Plans

W:\PROJECTS\OTTAWA\2020\HAZARDOUS - DESIGNATED SUBSTANCES\022-0210-HZ PHASE 1\PROJECTS\09 ACADEMIC HALL\DRAWINGS\ACADEMIC HALL.DWG



McINTOSH PERRY
 6240 HIGHWAY 7 SUITE 200 WOODBRIDGE ON L4H 4G3
 Tel: 905.856.5200 Fax: 905.695.0221
 Toll Free: 1.888.348.8991 www.mcintoshperry.com

Legend:

- ▲ Asbestos Bulk Sample
- Lead Paint Sample <LOD
- Lead Paint Sample >LOD
- ACM Vinyl Floor Tile (VFT)

Notes:

Drywall with ACM joint and ACM plaster compound is present throughout

THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, REPORT ALL ERRORS AND OMISSIONS TO THE CONSULTANTS, PRIOR TO PROCEEDING WITH ANY WORKS.

CLIENT: UNIVERSITY OF OTTAWA

TITLE: MASTER DRAWING
LEVEL 0
SAMPLE LOCATION

PROJECT: HAZARDOUS MATERIALS SURVEY
ACADEMIC HALL, OTTAWA, ONTARIO
133-135 SERAPHIN MARION

SCALE: 1:150

DATE: APRIL 8, 2020

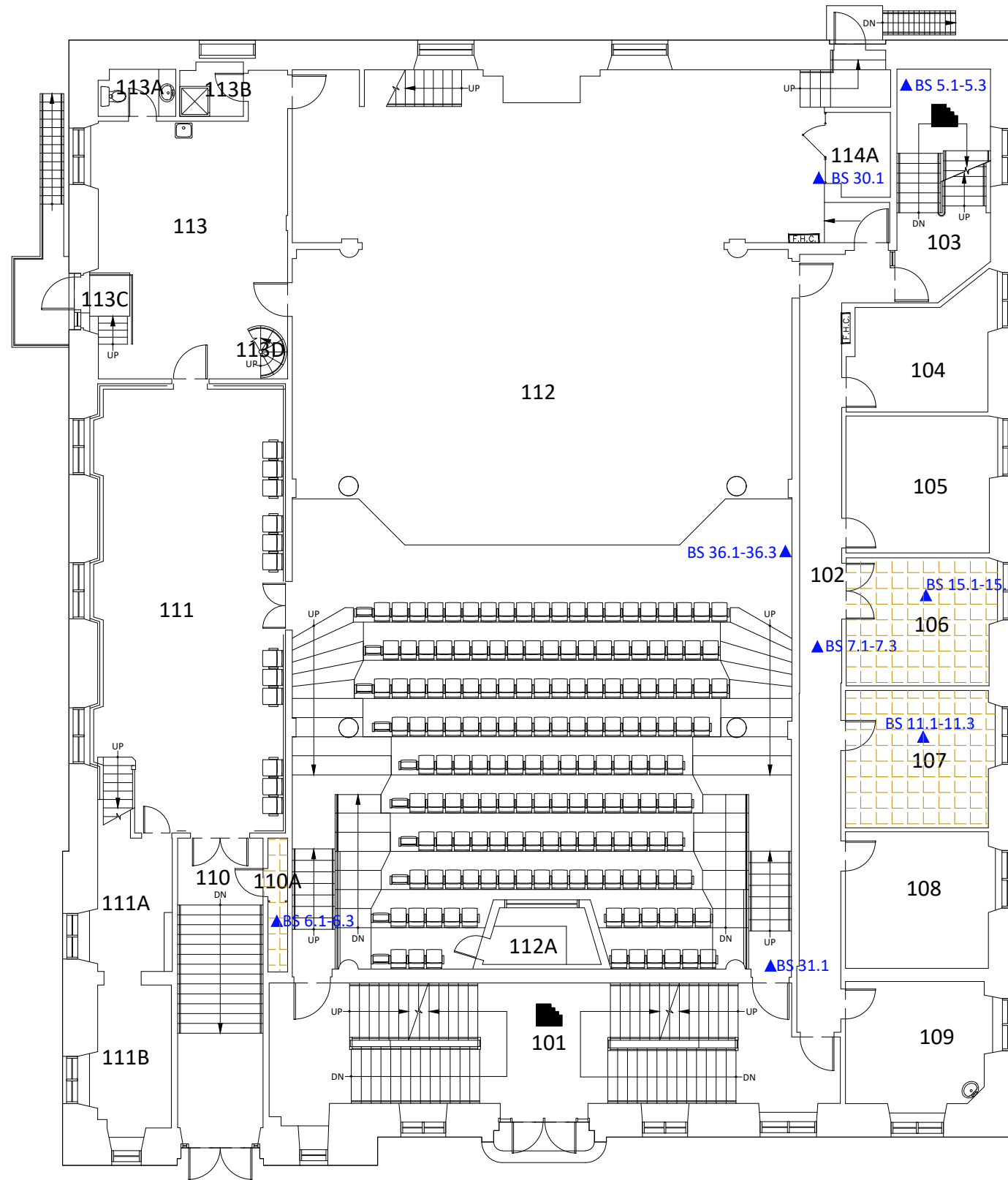
DRAWN: N.V.

CHECKED: M.M.

REV. NO.	DESCRIPTION	DATE	BY	APPD.

DRAWING NUMBER: A-00

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Legend:

- ▲ Asbestos Bulk Sample
- Lead Paint Sample <LOD
- Lead Paint Sample >LOD

ACM Vinyl Floor Tile (VFT)

Notes:

Drywall with ACM joint and ACM plaster compound is present throughout

THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, REPORT ALL ERRORS AND OMISSIONS TO THE CONSULTANTS, PRIOR TO PROCEEDING WITH ANY WORKS.

CLIENT: UNIVERSITY OF OTTAWA

TITLE: MASTER DRAWING
 LEVEL 01
 SAMPLE LOCATION

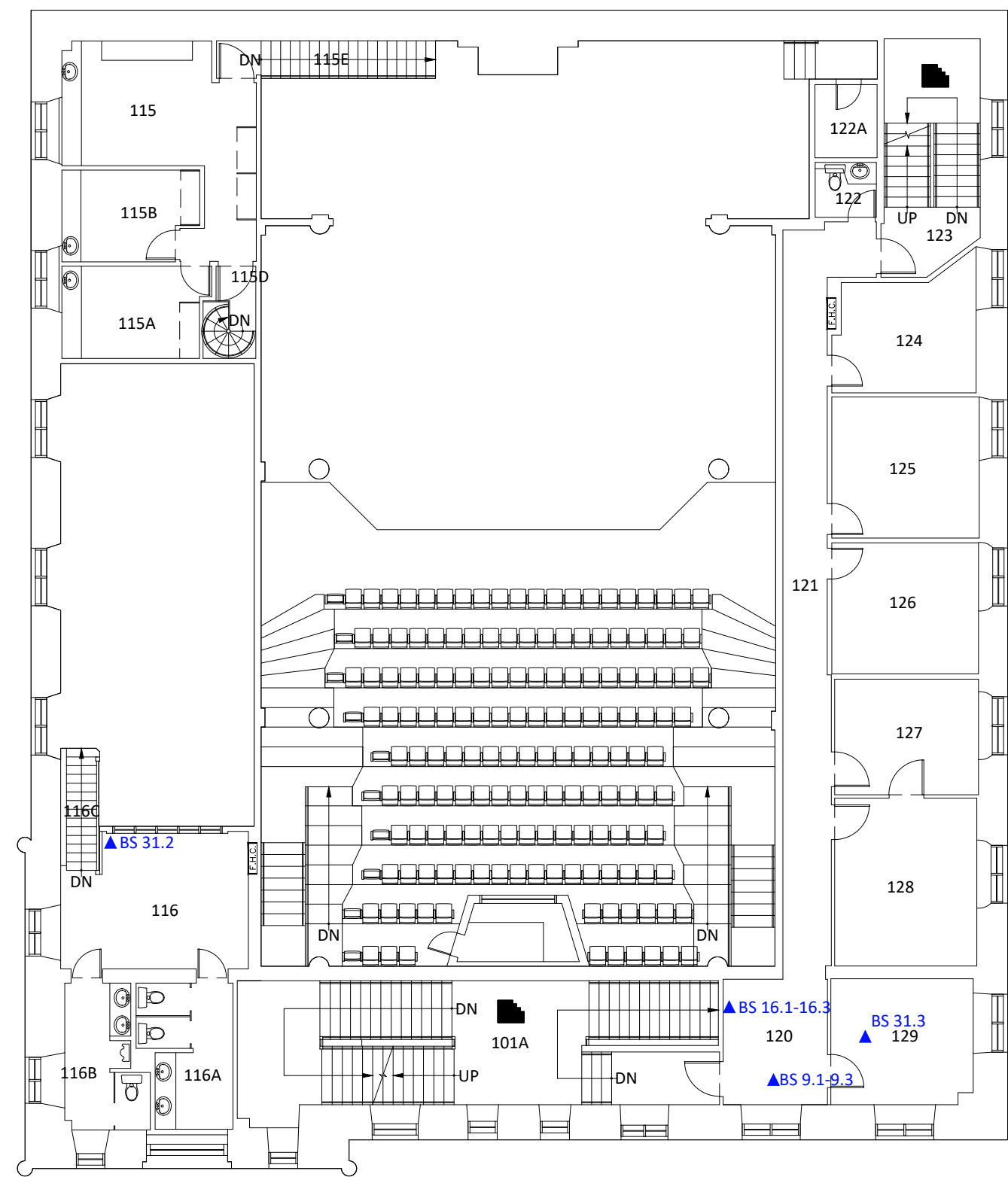
PROJECT: HAZARDOUS MATERIALS SURVEY
 ACADEMIC HALL, OTTAWA, ONTARIO
 133-135 SERAPHIN MARION

SCALE: 1:150
 DATE: APRIL 8, 2020
 DRAWN: N.V.
 CHECKED: M.M.

REV. NO.	DESCRIPTION	DATE	BY	APPD.

DRAWING NUMBER: A-01

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 Toll Free: 1.888.348.8991 www.mcintoshperry.com

Legend:

- ▲ Asbestos Bulk Sample
- Lead Paint Sample <LOD
- Lead Paint Sample >LOD

Notes:

Drywall with ACM joint and ACM plaster compound is present throughout

THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, REPORT ALL ERRORS AND OMISSIONS TO THE CONSULTANTS, PRIOR TO PROCEEDING WITH ANY WORKS.

CLIENT: UNIVERSITY OF OTTAWA

TITLE: MASTER DRAWING
 LEVEL 01.5
 SAMPLE LOCATION

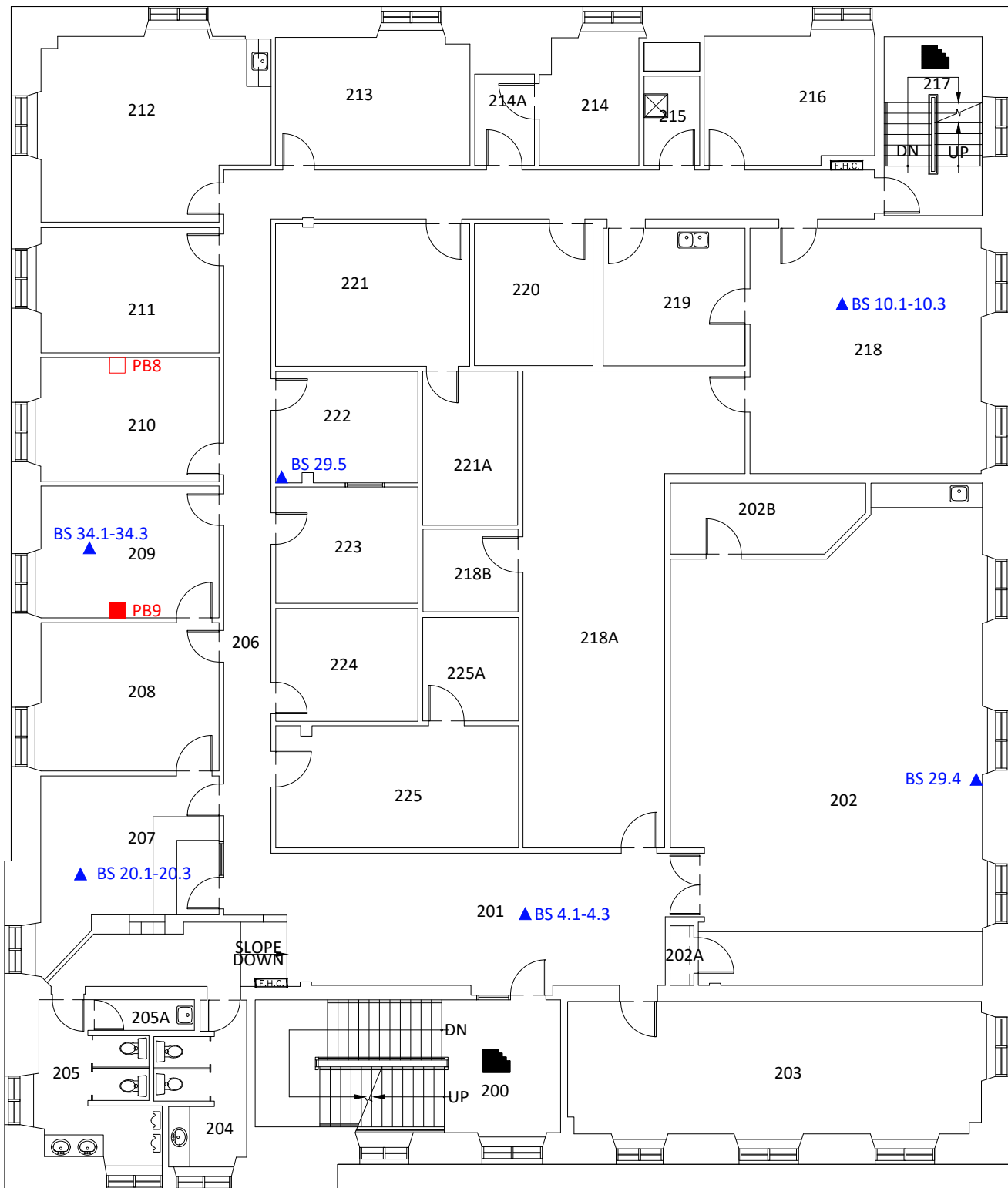
PROJECT: HAZARDOUS MATERIALS SURVEY
 ACADEMIC HALL, OTTAWA, ONTARIO
 133-135 SERAPHIN MARION

SCALE: 1:150 DATE: APRIL 8, 2020
 DRAWN: N.V. CHECKED: M.M.

REV. NO.	DESCRIPTION	DATE	BY	APPD.

DRAWING NUMBER: A-01.5

W:\PROJECTS\OTTAWA\2020\HAZARDOUS - DESIGNATED SUBSTANCES\02-02101-HZ PHASE 1\PROJECTS\09 ACADEMIC HALL\DRAWINGS\ACADEMIC HALL.DWG



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 Toll Free: 1.888.348.8991 www.mcintoshperry.com

Legend:
 ▲ Asbestos Bulk Sample
 □ Lead Paint Sample <LOD
 ■ Lead Paint Sample >LOD

Notes:
 Drywall with ACM joint and ACM plaster compound is present throughout

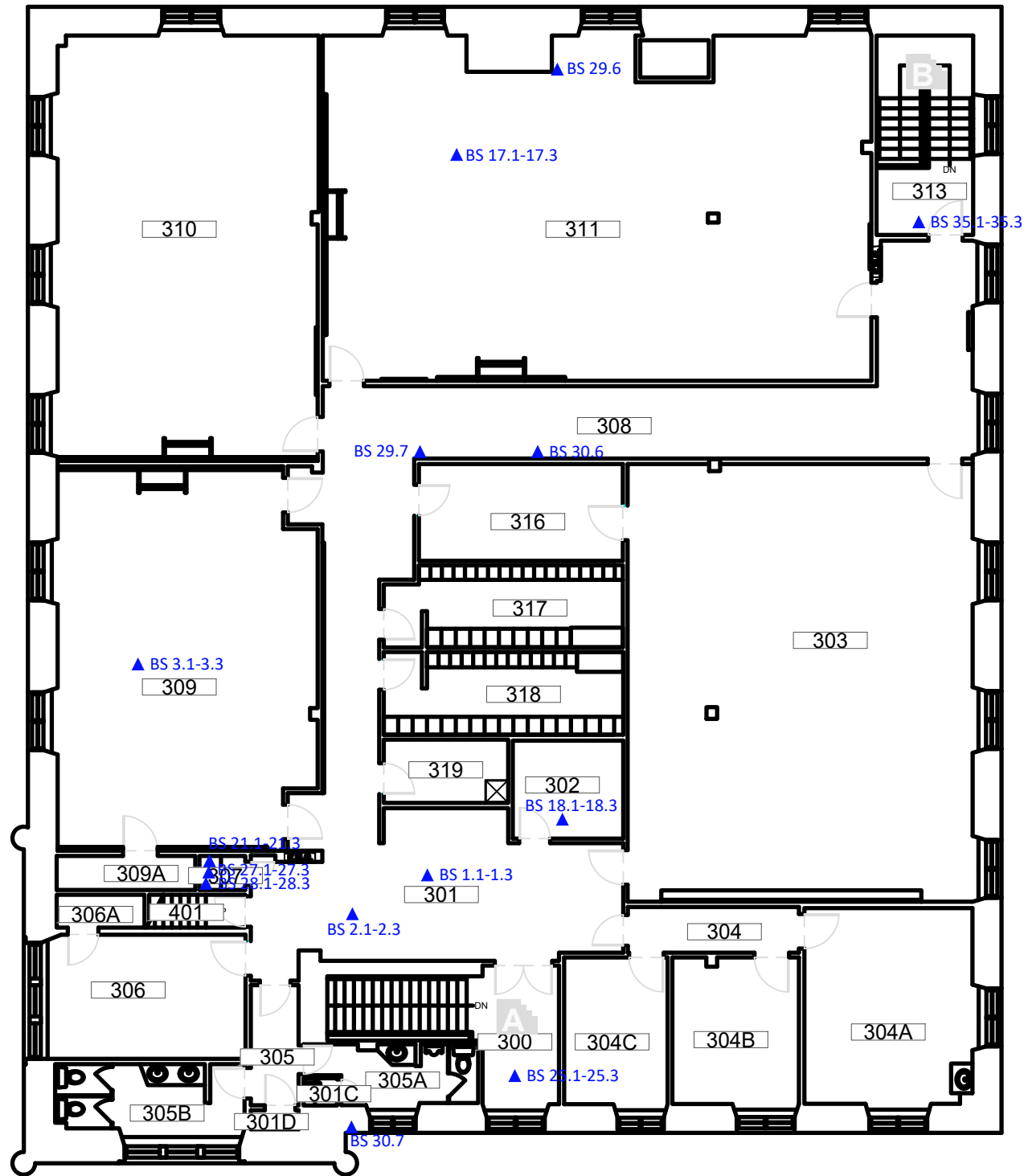
THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS. REPORT ALL ERRORS AND OMISSIONS TO THE CONSULTANTS, PRIOR TO PROCEEDING WITH ANY WORKS.

CLIENT: UNIVERSITY OF OTTAWA
 PROJECT: HAZARDOUS MATERIALS SURVEY ACADEMIC HALL, OTTAWA, ONTARIO 133-135 SERAPHIN MARION

TITLE: MASTER DRAWING LEVEL 02 SAMPLE LOCATION
 SCALE: 1:150
 DATE: APRIL 8, 2020
 DRAWN: N.V.
 CHECKED: M.M.

REV. NO.	DESCRIPTION	DATE	BY	APPD.
DRAWING NUMBER: A-02				

C:\USERS\S.REZAEI\DESKTOP\HAZMAT\SHAHIN\DRAWINGS USED IN REPORTS\10-ACADEMIC HALL.DWG



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 Toll Free: 1.888.348.8991 www.mcintoshperry.com

Legend:

- ▲ Asbestos Bulk Sample
- Lead Paint Sample <LOD
- Lead Paint Sample >LOD

Notes:

Drywall with ACM joint and ACM plaster compound is present throughout

THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, REPORT ALL ERRORS AND OMISSIONS TO THE CONSULTANTS, PRIOR TO PROCEEDING WITH ANY WORKS.

CLIENT: UNIVERSITY OF OTTAWA

TITLE: MASTER DRAWING
 LEVEL 03
 SAMPLE LOCATION

PROJECT: HAZARDOUS MATERIALS SURVEY
 ACADEMIC HALL, OTTAWA, ONTARIO
 133-135 SERAPHIN MARION

SCALE: 1:150

DATE: APRIL 8, 2020

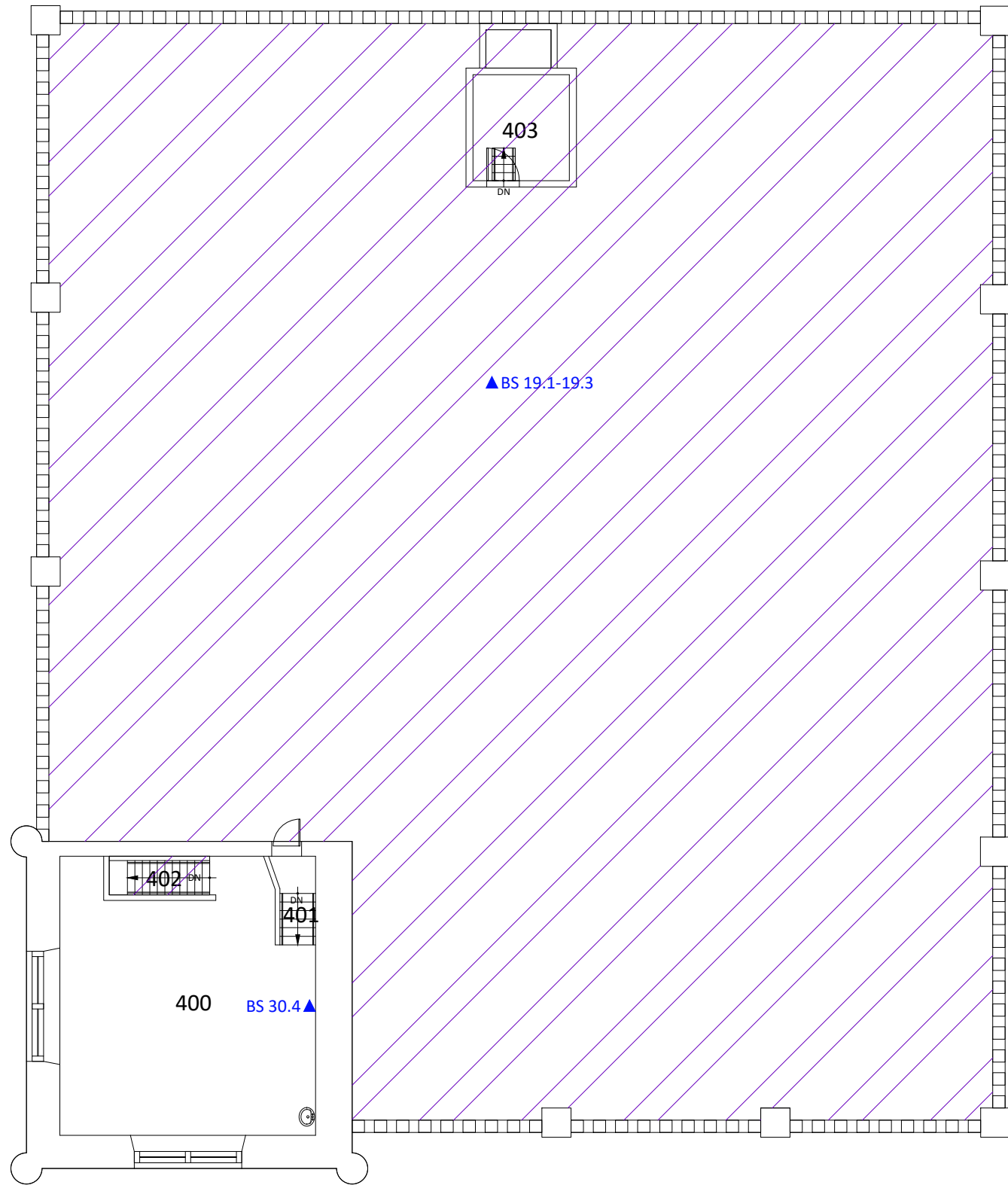
DRAWN: N.V.

CHECKED: M.M.

REV. NO.	DESCRIPTION	DATE	BY	APPD.

DRAWING NUMBER: A-03

W:\PROJECTS\OTTAWA\2020\HAZARDOUS - DESIGNATED SUBSTANCES\02-02101-HZ PHASE 1\PROJECTS\09 ACADEMIC HALL\DRAWINGS\ACADEMIC HALL.DWG



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Legend:

- ▲ Asbestos Bulk Sample
- Lead Paint Sample <LOD
- Lead Paint Sample >LOD
- ▨ ACM Vinyl Sheet Flooring (VSF)

Notes:

Drywall with ACM joint and ACM plaster compound is present throughout

THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS, REPORT ALL ERRORS AND OMISSIONS TO THE CONSULTANTS, PRIOR TO PROCEEDING WITH ANY WORKS.

CLIENT: UNIVERSITY OF OTTAWA

TITLE: MASTER DRAWING
 LEVEL 04
 SAMPLE LOCATION

PROJECT: HAZARDOUS MATERIALS SURVEY
 ACADEMIC HALL, OTTAWA, ONTARIO
 133-135 SERAPHIN MARION

SCALE: 1:150

DATE: APRIL 8, 2020

DRAWN: N.V.

CHECKED: M.M.

REV. NO.	DESCRIPTION	DATE	BY	APPD.

DRAWING NUMBER: A-04

REV.: