

HAZARDOUS MATERIALS SURVEY AND 2022 REASSESSMENT SIMARD HALL, OTTAWA, ON



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Prepared for:

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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 60 University Private. The survey was conducted on October 22nd to 24th, 2019. The reassessment was completed on October 16th, 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 Ceilings were observed to be in Good, Fair, and Poor Condition in select areas throughout the subject building.
- ACM Mechanical Pipe Insulation was observed to be in Good Condition in select areas of the subject building.
- ACM Vinyl Floor Tile (VFT) was observed to be in Good Condition in Room 103 of the subject building.
- ACM Ceiling Tile was observed to be in Good Condition in Room 103 of the subject building.
- ACM Texture Coat on Wall was observed to be in Good Condition in select areas 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 Simard Hall located at 60 University Private in Ottawa, ON. The survey was conducted between October 22nd to 24th, 2019. The Reassessment Survey was completed on October 16th, 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.

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	Specific Areas Only	Chrysotile
Ceiling Tiles	-	Specific Areas Only	Multiple Types
Mechanical Pipe Insulation	Yes	Specific Areas Only	Chrysotile
Texture Coat	Yes	Specific Areas Only	Chrysotile
Plaster	Yes	Throughout Building	Multiple Types
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 and Hazardous Materials were identified or suspected to be present in the building:

Table B: Summary of Designated Substances & Hazardous Materials Identified

Material Description	Location
Lead Paint	Throughout Building
Lead Acid Batteries	Specific Areas Only
Mercury Liquid	Specific Areas Only
Ozone Depleted Substances	Specific Areas Only
Silica	Throughout Building
Mercury Vapour	Throughout Building
Mould/ Water Damage	Specific Areas Only

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

Designated Substances area 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 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

January 17, 2023

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Attention: Joel Lajeunesse, Project Manager

Re: Simard Hall, University of Ottawa - 60 University Private
Hazardous Materials Survey and 2022 Reassessment
McIntosh Perry Limited Reference No. Z1920014HZ / CCC-230252-00

1.0 INTRODUCTION

In accordance with your instructions, McIntosh Perry Limited (MPL) carried out a Hazardous Materials Survey at Simard Hall, the institutional building located at 60 University Private in Ottawa, ON. The site is situated on the northeast corner of the intersection of Laurier Avenue East and University Private. The survey of the building was conducted October 22nd to 24th 2019. The Reassessment Survey was completed on October 16th, 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 six-storey institutional building, covering approximately 108,147 square feet and constructed circa 1973. The subject building was observed to be constructed with a concrete slab floor, exterior walls, and roof deck. The interior walls were observed to be concrete, concrete block, gypsum wallboard and plaster trowelled on diamond mesh. Ceilings were observed to be either concrete, suspended ceiling tiles or sprayed-on plaster on diamond mesh. The floors were observed to be terrazzo, vinyl floor tiles, laminate wood, ceramic tiles, and carpet.

3.0 FINDINGS & RECOMMENDATIONS

Designated Substances

3.1 Asbestos

Findings

A total of one-hundred and sixty-one (161) bulk samples were collected during the survey and sent to an independent 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 02	Ceiling Plaster	None Detected	N/A
BS 1.2	Room 02E	Ceiling Plaster	None Detected	N/A
BS 1.3	Room 02E	Ceiling Plaster	None Detected	N/A
BS 1.4	Room 02D	Ceiling Plaster	None Detected	N/A
BS 1.5	Room 104A	Ceiling Plaster	None Detected	N/A
BS 1.6	Room 104A	Ceiling Plaster	None Detected	N/A
BS 1.7	Room 114	Ceiling Plaster	None Detected	N/A
BS 1.8	Room 201C	Ceiling Plaster	0.5% Tremolite	Friable
BS 1.9	Room 203	Ceiling Plaster	None Detected	N/A
BS 1.10	Room 203	Ceiling Plaster	None Detected	N/A
BS 1.11	Room 212	Ceiling Plaster	<MDL	-
BS 1.12	Room 303	Ceiling Plaster	0.5% Tremolite 15% Chrysotile	Friable

Sample ID	Location	Material	Type and Content	Friability
BS 1.13	Room 303	Ceiling Plaster	0.5% Tremolite 15% Chrysotile	Friable
BS 1.14	Room 332	Ceiling Plaster	0.5% Tremolite 15% Chrysotile	Friable
BS 1.15	Room 401B	Ceiling Plaster	None Detected	N/A
BS 1.16	Room 401B	Ceiling Plaster	None Detected	N/A
BS 1.17	Room 401B	Ceiling Plaster	None Detected	N/A
BS 1.18	Room 401B	Ceiling Plaster	0.5% Tremolite	Friable
BS 1.19	Room 401	Ceiling Plaster	0.5% Tremolite	Friable
BS 1.20	Room 403	Ceiling Plaster	None Detected	N/A
BS 1.21	Room 403	Ceiling Plaster	None Detected	N/A
BS 1.22	Room 423	Ceiling Plaster	0.5% Tremolite 10% Chrysotile	Friable
BS 1.23	Room 425	Ceiling Plaster	None Detected	N/A
BS 1.24	Room 510	Ceiling Plaster	None Detected	N/A
BS 2.1	Room 401B	Wall Plaster	None Detected	N/A
BS 2.2	Room 401B	Wall Plaster	None Detected	N/A
BS 2.3	Room 511	Wall Plaster	None Detected	N/A
BS 2.4	Room 511	Wall Plaster	None Detected	N/A
BS 2.5	Room 511	Wall Plaster	None Detected	N/A
BS 3.1	Room 02E	1'x1' - Glue-on Ceiling Tile	None Detected	N/A
BS 3.2	Room 02E	1'x1' - Glue-on Ceiling Tile	None Detected	N/A
BS 3.3	Room 02E	1'x1' - Glue-on Ceiling Tile	None Detected	N/A
BS 4.1	Room 425	HVAC Duct Caulking (Dark Grey)	None Detected	N/A
BS 4.2	Room 425	HVAC Duct Caulking (Dark Grey)	None Detected	N/A
BS 4.3	Room 425	HVAC Duct Caulking (Dark Grey)	None Detected	N/A
BS 5.1	Room 02E	Mastic Puck (Dark Brown)	None Detected	N/A
BS 5.2	Room 02E	Mastic Puck (Dark Brown)	None Detected	N/A
BS 5.3	Room 02E	Mastic Puck (Dark Brown)	None Detected	N/A
BS 6.1	Room 104A	Wallpaper (Woven, Beige)	None Detected	N/A
BS 6.2	Room 104A	Wallpaper (Woven, Beige)	None Detected	N/A
BS 6.3	Room 104A	Wallpaper (Woven, Beige)	None Detected	N/A
BS 7.1	Room 511	Drywall Joint Compound	None Detected	N/A
BS 7.2	Room 319	Drywall Joint Compound	None Detected	N/A

Sample ID	Location	Material	Type and Content	Friability
BS 7.3	Room 126A	Drywall Joint Compound	None Detected	N/A
BS 7.4	Room 125	Drywall Joint Compound	None Detected	N/A
BS 7.5	Room 103	Drywall Joint Compound	None Detected	N/A
BS 7.6	Room 02	Drywall Joint Compound	None Detected	N/A
BS 7.7	Room 002	Drywall Joint Compound	None Detected	N/A
BS 7.8	Room 006	Drywall Joint Compound	None Detected	N/A
BS 7.9	Room 0015	Drywall Joint Compound	None Detected	N/A
BS 7.10	Room 0025	Drywall Joint Compound	None Detected	N/A
BS 8.1	Room 502	Wall Plaster	1% Tremolite	Friable
BS 8.2	Room 321	Wall Plaster	Stop Positive	Friable
BS 8.3	Room 303A	Wall Plaster	Stop Positive	Friable
BS 8.4	Room 220	Wall Plaster	Stop Positive	Friable
BS 8.5	Room 006	Wall Plaster	Stop Positive	Friable
BS 8.6	Room 002A	Wall Plaster	Stop Positive	Friable
BS 8.7	Room 0023	Wall Plaster	Stop Positive	Friable
BS 9.1	Room 421	Wall Texture Coat	<MDL	-
BS 9.2	Room 419	Wall Texture Coat	0.5% Chrysotile	Friable
BS 9.3	Room 301B	Wall Texture Coat	Stop Positive	Friable
BS 9.4	Room 201	Wall Texture Coat	Stop Positive	Friable
BS 9.5	Room 102A	Wall Texture Coat	Stop Positive	Friable
BS 9.6	Room 002A	Wall Texture Coat	Stop Positive	Friable
BS 9.7	Room 0023	Wall Texture Coat	Stop Positive	Friable
BS 10.1	Room 419	Wall Texture Coat (on Vinyl)	0.5% Chrysotile	Friable
BS 10.2	Room 419	Wall Texture Coat (on Vinyl)	Stop Positive	Friable
BS 10.3	Room 419	Wall Texture Coat (on Vinyl)	Stop Positive	Friable
BS 11.1	Room 506	Carpet Mastic (Yellow)	None Detected	N/A
BS 11.2	Room 506	Carpet Mastic (Yellow)	None Detected	N/A
BS 11.3	Room 506	Carpet Mastic (Yellow)	None Detected	N/A
BS 12.1	Room 0024	Firestop Caulking (Red)	None Detected	N/A
BS 12.2	Room 0024	Firestop Caulking (Red)	None Detected	N/A
BS 12.3	Room 0024	Firestop Caulking (Red)	None Detected	N/A
BS 13.1	Room 421	Concrete Block Mortar (Grey)	None Detected	N/A
BS 13.2	Room 421	Concrete Block Mortar (Grey)	None Detected	N/A
BS 13.3	Room 421	Concrete Block Mortar (Grey)	None Detected	N/A
BS 14.1	Room 104	Wallpaper (Beige)	None Detected	N/A
BS 14.2	Room 104	Wallpaper (Beige)	None Detected	N/A
BS 14.3	Room 104	Wallpaper (Beige)	None Detected	N/A

Sample ID	Location	Material	Type and Content	Friability
BS 15.1	Room 104A	Carpet Mastic (Yellow)	None Detected	N/A
BS 15.2	Room 104A	Carpet Mastic (Yellow)	None Detected	N/A
BS 15.3	Room 104A	Carpet Mastic (Yellow)	None Detected	N/A
BS 16.1	Room 0025	Vinyl Baseboard Mastic (Yellow)	None Detected	N/A
BS 16.2	Room 0025	Vinyl Baseboard Mastic (Yellow)	None Detected	N/A
BS 16.3	Room 0025	Vinyl Baseboard Mastic (Yellow)	None Detected	N/A
BS 17.1	Room 302	VFT 12"x12" - Green	None Detected	N/A
		Mastic (Yellow)	None Detected	N/A
BS 17.2	Room 302	VFT 12"x12" - Green	None Detected	N/A
		Mastic (Yellow)	None Detected	N/A
BS 17.3	Room 302	VFT 12"x12" - Green	None Detected	N/A
		Mastic (Yellow)	None Detected	N/A
BS 18.1	Room 0023	VFT 12"x12" – Beige w/ Green & Orange Flakes	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 18.2	Room 0023	VFT 12"x12" – Beige w/ Green & Orange Flakes	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 18.3	Room 0023	VFT 12"x12" – Beige w/ Green & Orange Flakes	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 19.1	Room 03	VFT 12"x12" – Beige w/ Brown Flakes	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 19.2	Room 03	VFT 12"x12" – Beige w/ Brown Flakes	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 19.3	Room 03	VFT 12"x12" – Beige w/ Brown Flakes	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 20.1	Room 0011A	VFT 12"x12" – White w/ Black Dots	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 20.2	Room 0011A	VFT 12"x12" – White w/ Black Dots	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 20.3	Room 0011A	VFT 12"x12" – White w/ Black Dots	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 21.1	Room 332	VFT 12"x12" – Beige w/ Brown & White Flakes	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 21.2	Room 332	VFT 12"x12" – Beige w/ Brown & White Flakes	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 21.3	Room 332	VFT 12"x12" – Beige w/ Brown & White Flakes	None Detected	N/A
		Mastic (Black)	None Detected	N/A
BS 22.1	Room 125	VSF – Red	None Detected	N/A

Sample ID	Location	Material	Type and Content	Friability
BS 22.2	Room 125	VSF – Red	None Detected	N/A
BS 22.3	Room 125	VSF – Red	None Detected	N/A
BS 23.1	Room 125	VSF – Beige	None Detected	N/A
BS 23.2	Room 125	VSF – Beige	None Detected	N/A
BS 23.3	Room 125	VSF – Beige	None Detected	N/A
BS 24.1	Room 125	VSF - Green	None Detected	N/A
BS 24.2	Room 125	VSF - Green	None Detected	N/A
BS 24.3	Room 125	VSF - Green	None Detected	N/A
BS 25.1	Room 0029	VFT 12"x12" – Beige w/ Brown Flakes	None Detected	N/A
BS 25.2	Room 0029	VFT 12"x12" – Beige w/ Brown Flakes	None Detected	N/A
BS 25.3	Room 0029	VFT 12"x12" – Beige w/ Brown Flakes	None Detected	N/A
BS 26.1	Room 0029	VFT 12"x12" – Beige w/ Light Brown Flakes	None Detected	N/A
BS 26.2	Room 0029	VFT 12"x12" – Beige w/ Light Brown Flakes	None Detected	N/A
BS 26.3	Room 0029	VFT 12"x12" – Beige w/ Light Brown Flakes	None Detected	N/A
BS 27.1	Room 0029	VFT 12"x12" - Blue	None Detected	N/A
BS 27.2	Room 0029	VFT 12"x12" - Blue	None Detected	N/A
BS 27.3	Room 0029	VFT 12"x12" - Blue	None Detected	N/A
BS 28.1	Room 0029	VFT 12"x12" - Red	None Detected	N/A
BS 28.2	Room 0029	VFT 12"x12" - Red	None Detected	N/A
BS 28.3	Room 0029	VFT 12"x12" - Red	None Detected	N/A
BS 29.1	Room 333A	VSF - Beige	None Detected	N/A
BS 29.2	Room 333A	VSF - Beige	None Detected	N/A
BS 29.3	Room 333A	VSF - Beige	None Detected	N/A
BS 30.1	Room 512	VSF - Pink	None Detected	N/A
BS 30.2	Room 512	VSF - Pink	None Detected	N/A
BS 30.3	Room 512	VSF - Pink	None Detected	N/A
BS 31.1	Room 512	VSF - Grey	None Detected	N/A
BS 31.2	Room 512	VSF - Grey	None Detected	N/A
BS 31.3	Room 512	VSF - Grey	None Detected	N/A
BS 32.1	Room 407	VSF - Grey	None Detected	N/A
BS 32.2	Room 407	VSF - Grey	None Detected	N/A
BS 32.3	Room 407	VSF - Grey	None Detected	N/A
BS 33.1	Room 037	VFT 12"x12" – Beige w/ Brown Flakes	None Detected	N/A
BS 33.2	Room 037	VFT 12"x12" – Beige w/ Brown Flakes	None Detected	N/A
BS 33.3	Room 037	VFT 12"x12" – Beige w/ Brown Flakes	None Detected	N/A

N/A – Not Applicable

VFT – Vinyl Floor 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, approximate 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

Previously identified mechanical pipe straight insulation was observed in Room 002. Based on historical records, this material is asbestos containing, although the type and percentage of asbestos is not identified. This material is considered to be friable and was observed to be in good condition, with the exception of select areas which were observed in poor condition.

3.1.2.2 Mechanical Piping Elbows/Fittings Insulation

Previously identified parging cement mechanical pipe elbows/fittings were observed in Room 002, 007, 0023, and 0028. This material contains 50% Chrysotile asbestos and is considered to be friable. This material was observed to be in good condition, with the exception of select areas which were observed in poor condition.

3.1.2.3 Mechanical Piping Hangers Insulation

Mechanical piping hanger insulation was observed within ceiling spaces of the subject building. MPL made several incisions throughout to investigate its composition, and it was visually identified as fiberglass, and therefore not suspected of containing asbestos.

3.1.2.4 HVAC Duct Insulation

HVAC duct insulation was observed in ceiling spaces throughout the subject building. MPL made several incisions throughout to investigate its composition, and it was visually identified as fiberglass, and therefore not suspected of containing asbestos.

3.1.2.5 Other Mechanical Insulation

No other mechanical 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 potential heat shield or heat shield insulation was observed in the subject building.

3.1.5 Texture Finishes

Wall texture coating was observed and sampled in Room 421, 419, 301B, 201, 102A, 002A, and 0023. The laboratory analytical results of wall texture coat samples collected indicate that this material contains 0.5% Chrysotile asbestos. This material is considered friable and was observed in good condition.

3.1.6 Plaster

Wall plaster (troweled-on diamond mesh or concrete block) was observed throughout the subject building and sampled in Rooms 0023, 002A, 006, 220, 303A, 321, 401B, 502, and 511. The laboratory analytical results of the wall plaster samples collected indicate that this material contains 1% Tremolite asbestos. This material was observed to have been encapsulated by drywall in select areas and is therefore still present underneath.

Ceiling plaster (sprayed-on diamond mesh) was observed throughout the subject building and sampled from Rooms 02, 02E, 02D, 104A, 114, 201C, 203, 212, 303, 332, 104B, 401, 403, 423, 425, and 510. The laboratory analytical results of the ceiling plaster samples collected indicated that this material contains 0.5% Tremolite and 10-15% Chrysotile asbestos. This material is considered friable and was observed in good condition, with the exception of select areas which were observed in fair and poor condition during the 2022 Reassessment. This material was spray-applied, and overspray is visible on adjacent building materials and mechanical equipment within ceiling spaces. This material was observed to have been enclosed by ceiling tiles and/or drywall in select areas and is therefore still present underneath.

Since plaster is a visually 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 good condition, with the exception of select areas which were observed in poor condition.

3.1.7 Drywall Joint Compound

Drywall joint compound was observed throughout the subject building and sampled from Rooms 0025, 0015, 006, 002, 02, 103, 125, 126A, 319, and 511. The laboratory analytical results of the drywall joint compound samples collected indicated that this material does not contain asbestos.

3.1.8 Ceiling Tiles

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

- Previously identified suspended ceiling tiles (2'x4' – Varying Pinholes) were observed in Room 104, 201B, 201C, 322, 323, 323A, 324, 330, 430. This material contains 2% Amosite and 2% Chrysotile asbestos. This material was observed in good condition with the exception of select areas that were observed in fair condition.

- Glue-on ceiling tiles (1'x1') were observed and sampled in Room 02E. The laboratory analytical results indicate that this material does not contain asbestos.
- Suspended ceiling tiles (2'x4' – Random Pinholes) were observed and previously sampled in Room 202. The laboratory analytical results indicate that this material does not contain asbestos.
- Suspended ceiling tiles (2'x4' – Small Fissures & Pinholes) were observed and previously sampled in Room 403. The laboratory analytical results indicate that this material does not contain asbestos.
- Suspended ceiling tiles (2'x2' – Large Fissures & Pinholes) were observed and previously sampled in Room 401C. The laboratory analytical results indicate that this material does not contain asbestos.
- Suspended ceiling tiles (2'x2' – Deep Fissures & Pinholes) were observed and previously sampled in Room 401C. The laboratory analytical results indicate that this material does not contain asbestos.
- Suspended ceiling tiles (2'x4' – Random Pinholes) were observed and previously sampled in Room 402. The laboratory analytical results indicate that this material does not contain asbestos.
- Suspended ceiling tiles (2'x4' – Medium Fissures & Pinholes) were observed and previously sampled in Room 401C. The laboratory analytical results indicate that this material does not contain asbestos.
- Suspended ceiling tiles (2'x4' – Random Pinholes) were observed in Room 102A. The date stamp on the back of these tiles indicated that they were manufactured in 2013 and therefore, this material is not considered to contain asbestos.
- Suspended ceiling tiles (2'x4' – Pinholes & Medium Fissures) were observed in Room 203. The date stamp on the back of these tiles indicated that they were manufactured in 2002 and therefore, this material is not considered to contain asbestos.
- Suspended ceiling tiles (2'x4' – Small Fissures & Pinholes) were observed in Room 305. The date stamp on the back of these tiles indicated that they were manufactured in 2017 and therefore, this material is not considered to contain asbestos.
- Suspended ceiling tiles (2'x4' – Pinholes & Small Fissures) were observed in Room 423. The date stamp on the back of these tiles indicated that they were manufactured in 2015 and therefore, this material is not considered to contain asbestos.

3.1.9 Vinyl Floor Tiles

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

- Previously identified vinyl floor tiles (12"x12" – Brown w/ Dark Brown Streaks) were observed in Room 111, 210, 310, 410, and 509. The laboratory analytical results of the vinyl floor tile samples collected indicate that this material contains 35% Chrysotile asbestos. This material is considered to be non-friable and material was observed to be in good condition.
- Vinyl floor tiles (12"x12" - Green) were observed and sampled in Room 302. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos. The associated mastic (Yellow) was also determined not to contain asbestos.
- Vinyl floor tiles (12"x12" - Beige w/ Green & Orange Flakes) were observed and sampled in Room 0023. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos. The associated mastic (Black) was also determined not to contain asbestos.
- Vinyl floor tiles (12"x12" - Beige w/ Brown Flakes) were observed and sampled in Room 03. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos. The associated mastic (Black) was also determined not to contain asbestos.
- Vinyl floor tiles (12"x12" - White w/ Black Dots) were observed and sampled in Room 0011A. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos. The associated mastic (Black) was also determined not to contain asbestos.
- Vinyl floor tiles (12"x12" - Beige w/ Brown & White Flakes) were observed and sampled in Room 332. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos. The associated mastic (Black) was also determined not to contain asbestos.
- Vinyl floor tiles (12"x12" - Beige w/ Brown Flakes) were observed and sampled in Room 0029. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos.
- Vinyl floor tiles (12"x12" - Beige w/ Light Brown Flakes) were observed and sampled in Room 0029. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos.
- Vinyl floor tiles (12"x12" - Blue) were observed and sampled in Room 0029. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos.
- Vinyl floor tiles (12"x12" - Red) were observed and sampled in Room 0029. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos.

- Vinyl floor tiles (12"x12" - Beige w/ Brown Flakes) were observed and sampled in Room 037. The laboratory analytical results of the samples collected indicated that this material does not contain asbestos.

3.1.10 Vinyl Sheet Floor

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

- Vinyl sheet flooring (Red) was observed and sampled in Room 125. The laboratory analytical results of the vinyl sheet flooring samples collected indicate that this material does not contain asbestos.
- Vinyl sheet flooring (Beige) was observed and sampled in Room 125. The laboratory analytical results of the vinyl sheet flooring samples collected indicate that this material does not contain asbestos.
- Vinyl sheet flooring (Green) was observed and sampled in Room 125. The laboratory analytical results of the vinyl sheet flooring samples collected indicate that this material does not contain asbestos.
- Vinyl sheet flooring (Beige) was observed and sampled in Room 333A. The laboratory analytical results of the vinyl sheet flooring samples collected indicate that this material does not contain asbestos.
- Vinyl sheet flooring (Pink) was observed and sampled in Room 512. The laboratory analytical results of the vinyl sheet flooring samples collected indicate that this material does not contain asbestos. The associated mastic (Yellow) was also determined not to contain asbestos.
- Vinyl sheet flooring (Grey) was observed and sampled in Room 407. The laboratory analytical results of the vinyl sheet flooring samples collected indicate that this material does not contain asbestos.
- Vinyl sheet flooring (Grey) was observed and sampled in Room 512. The laboratory analytical results of the vinyl sheet flooring samples collected indicate that this material does not contain asbestos.

3.1.11 Transite (Asbestos Cement)

No transite (asbestos cement) materials were observed in the subject building.

3.1.12 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 104A. The laboratory analytical results of the mastic samples collected indicate that this material does not contain asbestos.
- Carpet mastic (Yellow) was observed and sampled in Room 506. The laboratory analytical results of the mastic samples collected indicate that this material does not contain asbestos.

- Vinyl baseboard mastic (Yellow) was observed and sampled in Room 0025. The laboratory analytical results of the mastic samples collected indicate that this material does not contain asbestos.

3.1.13 Caulking

Several different types of caulking materials were observed within the subject building as follows:

- Duct Caulking (Grey) was observed and previously sampled in Room 425. The laboratory analytical results of the caulking samples collected indicate that this material does not contain asbestos.
- Firestop Caulking (Red) was observed and sampled in Room 0024. The laboratory analytical results of the caulking samples collected indicate that this material does not contain asbestos.

3.1.14 Wallpaper

Several different types of wallpaper materials were observed within the subject building as follows:

- Wallpaper (Beige) was observed and sampled in Room 104. The laboratory analytical results of the wallpaper samples collected indicate that this material does not contain asbestos.
- Wallpaper (Woven, Beige) was observed and sampled in Room 104A. The laboratory analytical results of the wallpaper samples collected indicate that this material does not contain asbestos.

3.1.15 Concrete Block Mortar

Concrete block mortar (Grey) was observed and sampled in Room 421. The laboratory analytical results of the concrete block mortar samples collected indicate that this material does not contain asbestos.

3.1.16 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.

3.1.17 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

- 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;
- Entry into ceiling spaces where asbestos-containing plaster or ceiling tiles are present will require Type 2 asbestos abatement procedures;
- Please refer to Appendix E – Asbestos-Containing Materials Checklist for material conditions, approximate 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., 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 fifteen (15) 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 Laboratory Results

Sample I.D.	Location	Material	Colour	Lead Concentration Weight by Conc. (%)
Pb-1	Room 002A	Wall Paint	Dark Blue	<0.0005
Pb-2	Room 002A	Door Paint	Yellow	0.715
Pb-3	Room 02	Wall Paint	Blue	0.0008
Pb-4	Room 03	Door Paint	Blue	<0.0009
Pb-5	Room 125	Wall Paint	Beige	<0.0012
Pb-6	Room 201	Wall Paint	Brown	0.0046
Pb-7	Room 223	Door Paint	Green	<0.0016
Pb-8	Room 301	Wall Paint	Dark Blue	0.0028
Pb-9	Room 325	Door Paint	Dark Grey	0.0054
Pb-10	Room 330	Door Paint	Beige	0.03
Pb-11	Room 330	Door Paint	Brown	<0.0005
Pb-12	Room 503	Wall Paint	Beige	<0.0006
Pb-13	Room 504	Door Paint	Brown & Blue	<0.0010
Pb-14	Room 508	Wall Paint	Orange/ Brown	0.0029
Pb-15	Room 509	Wall Paint	Grey	0.0101
Previously Identified Lead Paint Finishes				
L-01	Room 600	Floor Paint	Grey	0.1220
L-04	Room 508	Ceiling Paint	Beige	0.2340
SMD-5-LBP-101006-07	Room 508	Door & Frame Paint	Blue	0.42
SMD-5-LBP-101006-08	Room 511	Stair Paint	Brown	0.02
SMD-5-LBP-101006-09	Room 503	Door & Frame Paint	Beige	0.05

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 with the exception of select areas that were observed in poor 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 with the exception of select areas that were observed in poor 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 sample is also included in Appendix C.

3.2.2 Battery Packs

No battery packs suspected of containing lead were identified in the subject 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 poor condition must be immediately repaired and/or stabilized following a minimum Type 1/2 lead abatement procedures as per OMOL "Lead on Construction Project" dated April 2011.

Paints identified to contain lead that are in fair condition should be either repaired (where possible) and/or closely monitored for signs of further deterioration.

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, approximate 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

No thermostat switches suspected of containing mercury were identified in the subject building.

3.3.2 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.

3.3.3 Pressure Gauges and Float Switches

MPL identified pressure gauges containing liquid mercury in Room 007, 0021B, 123B, 511, and 512.

Recommendations

Please refer to Appendix F – Hazardous Materials Checklist for equipment conditions, approximate 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, approximate 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. Transformers that could be assessed were observed to be dry-type and manufactured by Westinghouse.

Recommendations

Since no PCB-containing equipment was 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, etc. which contain or are suspected of containing ODSs or other halocarbons.

No other equipment containing ODSs or other halocarbons was observed in the subject building.

Recommendations

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

Under the management of a licensed contractor, equipment containing 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

MPL did not observe any electrical components containing radioactive materials in the subject building.

Recommendations

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

3.8 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. MPL did not observe any underground or above ground storage tanks in the subject building.

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 observe any areas with obvious signs of visible 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 select areas throughout the subject building, where materials were affected by water damage.

Recommendations

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

Water stained/damaged building materials observed throughout the subject building should be replaced/repared as part of regular maintenance and the underlying cause of the water leakage should be identified and repaired;

Water stained/damaged building 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



John Tufts, B.Sc.
Project Manager
Hazardous Materials/ Environmental Health & Safety

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 Simard Hall as required under our scope of work. No destructive investigations were performed as part of this survey. Due to the known or suspect presence of asbestos-containing materials in ceiling spaces, MPL carried out Type 2 ceiling entries in representative areas throughout the subject building alongside a qualified environmental contractor. 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 December 2007, reference # 45870(5));
- Asbestos Abatement Inspection Report by EHS (report dated May 15, 2019, EHS Project No. 04-0033-19-002);

- Asbestos Abatement Inspection Report by EHS (report dated May 17, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Abatement Inspection Report by EHS (report dated May 22, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Abatement Inspection Report by EHS (report dated June 3, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Abatement Inspection Report by EHS (report dated June 4, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Abatement Inspection Report by EHS (report dated June 5, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Abatement Inspection Report by EHS (report dated June 6, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Abatement Inspection Report by EHS (report dated June 13, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Abatement Inspection Report by EHS (report dated June 26, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Abatement Inspection Report by EHS (report dated June 27, 2019, EHS Project No. 04-0033-19-002);
- Potential Asbestos Containing Material Assessment Report by EHS (dated November 3, 2014, EHS Project No.: 04-0033-14-051);
- Asbestos Sampling Report by EHS (report dated July 2, 2019, EHS Project No. 04-0033-19-016);
- Asbestos Sampling Report by EHS (report dated June 7, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Sampling Report by EHS (report dated May 31, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Abatement Inspection Report by EHS (report dated May 17, 2019, EHS Project No. 04-0033-19-002);
- Pre-Construction Asbestos Containing Materials Assessment by EHS (dated June 13, 2013, EHS Project No. 04-0033-13-032);
- Asbestos Abatement Report by EHS (report dated June 19, 2015, EHS Project No. 04-0033-15-017);
- Asbestos Sampling Report by EHS (report dated July 16, 2015, EHS Project No. 04-0033-15-019);
- Asbestos Sampling Report by EHS (report dated May 14, 2019, EHS Project No. 04-0033-19-002);
- Asbestos Sampling Report by EHS (report dated November 3, 2014, EHS Project No. 04-0033-14-051);
- Asbestos Abatement Summary Report by CM3 (report dated December 21, 2018, CM3 Project No. TLW 2234);
- Project Specific Designated Substance Report by CM3 (report dated April 6, 2018, CM3 Project No. TLW 1870);

- Document Peer Review & Asbestos Bulk Sampling Report by McIntosh Perry (report dated July 15, 2019, MPL Project No. Z1919924HZ);
- Document Peer Review Report by McIntosh Perry (report dated July 15, 2019, MPL Project No. Z1919924HZ);
- Document Peer Review Report by McIntosh Perry (report dated July 17, 2019, MPL Project No. Z1919924HZ);
- Document Peer Review Report by McIntosh Perry (report dated July 23, 2019, MPL Project No. Z1919924HZ);
- Document Peer Review Report by McIntosh Perry (report dated July 27, 2019, MPL Project No. Z1919924HZ);
- Document Peer Review Report by McIntosh Perry (report dated July 25, 2019, MPL Project No. Z1919924HZ);
- Document Peer Review Report by McIntosh Perry (report dated July 26, 2019, MPL Project No. Z1919924HZ);
- Document Peer Review Report by McIntosh Perry (report dated July 27, 2019, MPL Project No. Z1919924HZ);
- Document Peer Review Report by McIntosh Perry (report dated July 31, 2019, MPL Project No. Z1919924HZ);
- Document Peer Review Report by McIntosh Perry (report dated August 2, 2019, MPL Project No. Z1919924HZ);
- Document Peer Review Report by McIntosh Perry (report dated August 8, 2019, MPL Project No. Z1919924HZ);
- PCM Air Sampling Report by Buller Crichton Environmental (report dated August 2, 2019, BCE Project No. 19-452);
- Asbestos Bulk Sampling Report by Buller Crichton Environmental (report dated July 23, 2019, BCE Project No. 19-452);
- Asbestos Bulk Sampling Report by Buller Crichton Environmental (report dated July 24, 2019, BCE Project No. 19-452);
- Asbestos Bulk Sampling Report by Buller Crichton Environmental (report dated July 25, 2019, BCE Project No. 19-452);
- Asbestos Bulk Sampling Report by Buller Crichton Environmental (report dated July 26, 2019, BCE Project No. 19-452);
- Asbestos Bulk Sampling Report by Buller Crichton Environmental (report dated July 30, 2019, BCE Project No. 19-452);
- Asbestos Bulk Sampling Report by Buller Crichton Environmental (report dated August 1, 2019, BCE Project No. 19-452);
- Asbestos Bulk Sampling Report by Buller Crichton Environmental (report dated August 2, 2019, BCE Project No. 19-452); and,

- o Site Specific Safety Plan by Power-Tek Electrical Services (report dated April 25, 2019, PT Project No. A0354).

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
1.		Less than 90 square metres	3

	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	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 Paracel Laboratories Ltd., an independent laboratory. Paracel is a fully accredited facility for asbestos analysis and is accredited under National Voluntary Laboratory Accreditation (NVLAP Lab Codes 200812-0 and 200863-0). Paracel is accredited for asbestos bulk analysis in PLM in Ottawa and Mississauga, respectively. For the Scope of Accreditation under the (CALA) Membership Number 1262, Paracel is accredited for asbestos in air samples by PCM.

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

Certificate of Analysis

McIntosh Perry Limited (Concord)

6240 Hwy 7, Suite 200
Woodbridge, ON L4H 0R2
Attn: Diana Banakh

Client PO:
Project: Z1920014HZ (SMD - Type 2 Ceiling Sampling)
Custody:

Report Date: 4-Nov-2019
Order Date: 1-Nov-2019

Order #: 1944594

This Certificate of Analysis contains analytical data applicable to the following samples as submitted :

Parcel ID	Client ID
1944594-01	BS1.1 Ceiling Plaster
1944594-02	BS1.2 Ceiling Plaster
1944594-03	BS1.3 Ceiling Plaster
1944594-04	BS1.4 Ceiling Plaster
1944594-05.1	BS1.5 Ceiling Plaster
1944594-05.2	BS1.5 Ceiling Plaster
1944594-06	BS1.6 Ceiling Plaster
1944594-07	BS1.7 Ceiling Plaster
1944594-08.1	BS1.8 Ceiling Plaster
1944594-08.2	BS1.8 Ceiling Plaster
1944594-09	BS1.9 Ceiling Plaster
1944594-10	BS1.10 Ceiling Plaster
1944594-11.1	BS1.11 Ceiling Plaster
1944594-11.2	BS1.11 Ceiling Plaster
1944594-12	BS1.12 Ceiling Plaster
1944594-13	BS1.13 Ceiling Plaster
1944594-14	BS1.14 Ceiling Plaster
1944594-15	BS1.15 Ceiling Plaster
1944594-16	BS1.16 Ceiling Plaster
1944594-17.1	BS1.17 Ceiling Plaster
1944594-17.2	BS1.17 Ceiling Plaster
1944594-18.1	BS1.18 Ceiling Plaster
1944594-18.2	BS1.18 Ceiling Plaster
1944594-19.1	BS1.19 Ceiling Plaster
1944594-19.2	BS1.19 Ceiling Plaster
1944594-20	BS1.20 Ceiling Plaster

Approved By:



Emma Diaz
Senior Analyst

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis

Report Date: 04-Nov-2019

Client: McIntosh Perry Limited (Concord)

Order Date: 1-Nov-2019

Client PO:

Project Description: Z1920014HZ (SMD - Type 2 Ceiling Sampling)

1944594-21	BS1.21 Ceiling Plaster
1944594-22	BS1.22 Ceiling Plaster
1944594-23	BS1.23 Ceiling Plaster
1944594-24	BS1.24 Ceiling Plaster
1944594-25	BS2.1 Wall Plaster
1944594-26	BS2.2 Wall Plaster
1944594-27	BS2.3 Wall Plaster
1944594-28	BS2.4 Wall Plaster
1944594-29	BS2.5 Wall Plaster
1944594-30	BS3.1 Acoustic Ceiling Tiles (1x1')
1944594-31	BS3.2 Acoustic Ceiling Tiles (1x1')
1944594-32	BS3.3 Acoustic Ceiling Tiles (1x1')
1944594-33	BS4.1 HVAC Caulking (Dark Grey)
1944594-34	BS4.2 HVAC Caulking (Dark Grey)
1944594-35	BS4.3 HVAC Caulking (Dark Grey)
1944594-36	BS5.1 Acoustic Tile Mastic Puck (Dark Brown)
1944594-37	BS5.2 Acoustic Tile Mastic Puck (Dark Brown)
1944594-38	BS5.3 Acoustic Tile Mastic Puck (Dark Brown)
1944594-39	BS6.1 Wallpaper (Woven, Beige)
1944594-40	BS6.2 Wallpaper (Woven, Beige)
1944594-41	BS6.3 Wallpaper (Woven, Beige)

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 04-Nov-2019
 Order Date: 1-Nov-2019

Project Description: Z1920014HZ (SMD - Type 2 Ceiling Sampling)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1944594-01	23-Oct-19	White	Plaster	No	Client ID: BS1.1 Ceiling Plaster	
					Non-Fibers	100
1944594-02	23-Oct-19	Grey	Plaster	No	Client ID: BS1.2 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100
1944594-03	23-Oct-19	Grey	Plaster	No	Client ID: BS1.3 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100
1944594-04	23-Oct-19	Grey	Plaster	No	Client ID: BS1.4 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100
1944594-05.1	23-Oct-19	White	Skim Coat	No	Client ID: BS1.5 Ceiling Plaster	
					Non-Fibers	100
1944594-05.2	23-Oct-19	Grey	Plaster	No	Client ID: BS1.5 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100
1944594-06	23-Oct-19	Grey	Plaster	No	Client ID: BS1.6 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100
1944594-07	23-Oct-19	White	Plaster	No	Client ID: BS1.7 Ceiling Plaster	
					Non-Fibers	100
1944594-08.1	23-Oct-19	White	Skim Coat	No	Client ID: BS1.8 Ceiling Plaster	
					Non-Fibers	100
1944594-08.2	23-Oct-19	Grey	Plaster	Yes	Client ID: BS1.8 Ceiling Plaster	
					[AS-PT, Z-01]	
					Tremolite	0.5
					Non-Fibers	99.5
1944594-09	23-Oct-19	Grey	Concrete Plaster	No	Client ID: BS1.9 Ceiling Plaster	
					Non-Fibers	100
1944594-10	23-Oct-19	Grey	Plaster	No	Client ID: BS1.10 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100

Certificate of Analysis
Client: McIntosh Perry Limited (Concord)
Client PO:

Report Date: 04-Nov-2019
Order Date: 1-Nov-2019
Project Description: Z1920014HZ (SMD - Type 2 Ceiling Sampling)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1944594-11.1	23-Oct-19	White	Skim Coat	No	Client ID: BS1.11 Ceiling Plaster	
					Non-Fibers	100
1944594-11.2	23-Oct-19	Grey	Plaster	Yes	Client ID: BS1.11 Ceiling Plaster	
					[ASTrc] Tremolite	<MDL
					Non-Fibers	100
1944594-12	23-Oct-19	Grey	Plaster	Yes	Client ID: BS1.12 Ceiling Plaster	
					[AS-PT, Z-01]	
					Chrysotile	15
					Tremolite	0.5
					Non-Fibers	84.5
1944594-13	23-Oct-19	Grey	Plaster	Yes	Client ID: BS1.13 Ceiling Plaster	
					[AS-PT, Z-01]	
					Chrysotile	15
					Tremolite	0.5
					Non-Fibers	84.5
1944594-14	23-Oct-19	Grey	Plaster	Yes	Client ID: BS1.14 Ceiling Plaster	
					[AS-PT, Z-01]	
					Chrysotile	15
					Tremolite	0.5
					Non-Fibers	84.5
1944594-15	23-Oct-19	Grey	Plaster	No	Client ID: BS1.15 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100
1944594-16	23-Oct-19	Grey	Plaster	No	Client ID: BS1.16 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100
1944594-17.1	23-Oct-19	White	Skim Coat	No	Client ID: BS1.17 Ceiling Plaster	
					Non-Fibers	100
1944594-17.2	23-Oct-19	Grey	Plaster	No	Client ID: BS1.17 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 04-Nov-2019
 Order Date: 1-Nov-2019
 Project Description: Z1920014HZ (SMD - Type 2 Ceiling Sampling)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1944594-18.1	23-Oct-19	White	Skim Coat	No	Client ID: BS1.18 Ceiling Plaster	
					Non-Fibers	100
1944594-18.2	23-Oct-19	Grey	Plaster	Yes	Client ID: BS1.18 Ceiling Plaster	
					[AS-PT, Z-01]	
					Tremolite	0.5
					Non-Fibers	99.5
1944594-19.1	23-Oct-19	White	Skim Coat	No	Client ID: BS1.19 Ceiling Plaster	
					Non-Fibers	100
1944594-19.2	23-Oct-19	Grey	Plaster	Yes	Client ID: BS1.19 Ceiling Plaster	
					[AS-PT, Z-01]	
					Tremolite	0.5
					Non-Fibers	99.5
1944594-20	23-Oct-19	Grey	Plaster	No	Client ID: BS1.20 Ceiling Plaster	
					Non-Fibers	100
1944594-21	23-Oct-19	White	Plaster	No	Client ID: BS1.21 Ceiling Plaster	
					Non-Fibers	100
1944594-22	23-Oct-19	Grey	Plaster	Yes	Client ID: BS1.22 Ceiling Plaster	
					[AS-PT, Z-01]	
					Chrysotile	10
					Tremolite	0.5
					Non-Fibers	88.5
1944594-23	23-Oct-19	Grey	Plaster	No	Client ID: BS1.23 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100
1944594-24	23-Oct-19	Grey	Plaster	No	Client ID: BS1.24 Ceiling Plaster	
					[Z-01]	
					Non-Fibers	100
1944594-25	23-Oct-19	Grey	Plaster	No	Client ID: BS2.1 Wall Plaster	
					[Z-01]	
					Non-Fibers	100

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 04-Nov-2019
 Order Date: 1-Nov-2019
 Project Description: Z1920014HZ (SMD - Type 2 Ceiling Sampling)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1944594-26	23-Oct-19	Grey	Plaster	No	Client ID: BS2.2 Wall Plaster	[Z-01]
					Non-Fibers	100
1944594-27	23-Oct-19	Dark Grey	Plaster	No	Client ID: BS2.3 Wall Plaster	[Z-01]
					Non-Fibers	100
1944594-28	23-Oct-19	Dark Grey	Plaster	No	Client ID: BS2.4 Wall Plaster	[Z-01]
					Non-Fibers	100
1944594-29	23-Oct-19	Dark Grey	Plaster	No	Client ID: BS2.5 Wall Plaster	[Z-01]
					Non-Fibers	100
1944594-30	23-Oct-19	White/Grey	Ceiling Tile	No	Client ID: BS3.1 Acoustic Ceiling Tiles (1x1')	
					MMVF	85
					Non-Fibers	15
1944594-31	23-Oct-19	White/Grey	Ceiling Tile	No	Client ID: BS3.2 Acoustic Ceiling Tiles (1x1')	
					MMVF	85
					Non-Fibers	15
1944594-32	23-Oct-19	White/Grey	Ceiling Tile	No	Client ID: BS3.3 Acoustic Ceiling Tiles (1x1')	
					MMVF	85
					Non-Fibers	15
1944594-33	23-Oct-19	Dark Grey	Caulking	No	Client ID: BS4.1 HVAC Caulking (Dark Grey)	
					Non-Fibers	99
					Other fibers	1
1944594-34	23-Oct-19	Dark Grey	Caulking	No	Client ID: BS4.2 HVAC Caulking (Dark Grey)	
					Non-Fibers	99
					Other fibers	1
1944594-35	23-Oct-19	Dark Grey	Caulking	No	Client ID: BS4.3 HVAC Caulking (Dark Grey)	
					Non-Fibers	99
					Other fibers	1

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 04-Nov-2019
 Order Date: 1-Nov-2019

Project Description: Z1920014HZ (SMD - Type 2 Ceiling Sampling)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1944594-36	23-Oct-19	Brown	Mastic	No	Client ID: BS5.1 Acoustic Tile Mastic Puck (Dark Brown) Non-Fibers	100
1944594-37	23-Oct-19	Brown	Mastic	No	Client ID: BS5.2 Acoustic Tile Mastic Puck (Dark Brown) Non-Fibers	100
1944594-38	23-Oct-19	Brown	Mastic	No	Client ID: BS5.3 Acoustic Tile Mastic Puck (Dark Brown) Non-Fibers	100
1944594-39	23-Oct-19	Beige	Wallpaper	No	Client ID: BS6.1 Wallpaper (Woven, Beige) Non-Fibers Other fibers	70 30
1944594-40	23-Oct-19	Beige	Wallpaper	No	Client ID: BS6.2 Wallpaper (Woven, Beige) Non-Fibers Other fibers	70 30
1944594-41	23-Oct-19	Beige	Wallpaper	No	Client ID: BS6.3 Wallpaper (Woven, Beige) Non-Fibers Other fibers	70 30

* MMVF: Man Made Vitreous Fibers: Fiberglass, Mineral Wool, Rockwool, Glasswool

** Analytes in bold indicate asbestos mineral content.

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code *	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	1 - Mississauga	200863-0	2-Nov-19

* Reference to the NVLAP term does not permit the user of this report to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Mississauga Lab: 15 - 6800 Kitimat Rd Mississauga, Ontario, L5N 5M1

Certificate of Analysis

Report Date: 04-Nov-2019

Client: McIntosh Perry Limited (Concord)

Order Date: 1-Nov-2019

Client PO:

Project Description: Z1920014HZ (SMD - Type 2 Ceiling Sampling)

Qualifier Notes

Sample Qualifiers :

AS-PT: Asbestos quantitation by PLM Point Count method.

ASTrc: Trace asbestos was observed below the noted detection limit but could not be accurately quantified.

Z-01: Sample contains vermiculite

Work Order Revisions | Comments

None

1944594



RESPONSIVE.
RELIABLE.

Head Office
300-2319 St. Laurent Blvd.
Ottawa, Ontario K1G 4J8
p: 1-800-749-1947
e: parac@paracellabs.com

Chain of Custody
(Lab Use Only)

Page 1 of 1

Client Name: McIntosh Perry	Project Reference: Z1920014HZ (SMD - Type 2 Ceiling Sampling)
Contact Name: Diana Banakh	Quote #: 19-651
Address: 6240 Highway 7, Suite 200, Concord, Ontario L4H 4G3	PO #:
Telephone: 905-856-5200	Email Address: d.banakh@mcintoshperry.com

Turnaround Time:

Immediate 1 Day
 4 Hour 2 Day
 8 Hour Regular

Date Required: 11:30 AM

ASBESTOS & MOLD ANALYSIS

Matrix: Air Bulk Tape Lift Swab Other **Regulatory Guideline:** ON QC AB SK Other:

Analyses: Microscopic Mold Culturable Mold Bacteria GRAM PCM Asbestos PLM Asbestos Chatfield Asbestos TEM Asbestos

Parcel Order Number: 1944594		Asbestos - Bulk				
Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Identify Distinct Building Materials to Be Analyzed	Positive Stop?	
BS1.1 - 1.24	Ceiling Plaster	October 23-25	N/A	PLM		
BS 2.1 - 2.5	Wall Plaster	October 23-25	N/A	PLM		
BS 3.1 - 3.3	Acoustic Ceiling Tiles (1x1')	October 23-25	N/A	PLM	X	
BS 4.1 - 4.3	HVAC Caulking (Dark Grey)	October 23-25	N/A	PLM	X	
BS 5.1 - 5.3	Acoustic Tile Mastie Puck (Dark Brown)	October 23-25	N/A	PLM	X	
BS 6.1 - 6.3	Wallpaper (Woven, Beige)	October 23-25	N/A	PLM	X	

* If left blank, Parcel will analyze all materials identified during analysis ** If left blank, Parcel will analyze all materials as individual samples (at additional cost) per EPA 600/R -93/116

Date/Time:	DO NOT HOMOGENIZE BASE & SKIM COAT LAYERS			Method of Delivery: Walk-in
Relinquished By (Sign): <i>[Signature]</i>	Received at Depot:	Received at Lab: <i>[Signature]</i>	Verified By: <i>[Signature]</i>	
Relinquished By (Print): Diana Banakh	Date/Time:	Date/Time: Nov. 1 / 2019 15:50	Date/Time: Nov. 1 / 2019 15:58	

Certificate of Analysis

McIntosh Perry Limited (Concord)

6240 Hwy 7, Suite 200
Woodbridge, ON L4H 0R2
Attn: Diana Banakh

Client PO:
Project: Z1920014HZ (Simard Hall)
Custody:

Report Date: 5-Feb-2020
Order Date: 18-Nov-2019

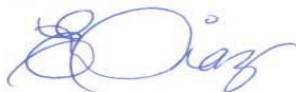
Revised Report

Order #: 1947124

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1947124-01	BS7.1 Drywall
1947124-02	BS7.2 Drywall
1947124-03	BS7.3 Drywall
1947124-04	BS7.4 Drywall
1947124-05	BS7.5 Drywall
1947124-06	BS7.6 Drywall
1947124-07	BS7.7 Drywall
1947124-08	BS7.8 Drywall
1947124-09	BS7.9 Drywall
1947124-10	BS7.10 Drywall
1947124-11	BS8.1 Wall Plaster
1947124-12	BS8.2 Wall Plaster
1947124-13	BS8.3 Wall Plaster
1947124-14	BS8.4 Wall Plaster
1947124-15	BS8.5 Wall Plaster
1947124-16	BS8.6 Wall Plaster
1947124-17	BS8.7 Wall Plaster
1947124-18	BS9.1 Wall Texture
1947124-19	BS9.2 Wall Texture
1947124-20	BS9.3 Wall Texture
1947124-21	BS9.4 Wall Texture
1947124-22	BS9.5 Wall Texture
1947124-23	BS9.6 Wall Texture
1947124-24	BS9.7 Wall Texture
1947124-25	BS10.1 Vinyl Wall
1947124-26	BS10.2 Vinyl Wall

Approved By:



Emma Diaz
Senior Analyst

Certificate of Analysis

Report Date: 05-Feb-2020

Client: McIntosh Perry Limited (Concord)

Order Date: 18-Nov-2019

Client PO:

Project Description: Z1920014HZ (Simard Hall)

1947124-27	BS10.3 Vinyl Wall
1947124-28	BS11.1 Carpet Mastic Yellow
1947124-29	BS11.2 Carpet Mastic Yellow
1947124-30	BS11.3 Carpet Mastic Yellow
1947124-31	BS12.1 Firestop Bright Red
1947124-32	BS12.2 Firestop Bright Red
1947124-33	BS12.3 Firestop Bright Red
1947124-34	BS13.1 Crawl Space
1947124-35	BS13.2 Crawl Space
1947124-36	BS13.3 Crawl Space
1947124-37	BS14.1 Wallpaper
1947124-38	BS14.2 Wallpaper
1947124-39	BS14.3 Wallpaper
1947124-40	BS15.1 Carpet Mastic Yellow
1947124-41	BS15.2 Carpet Mastic Yellow
1947124-42	BS15.3 Carpet Mastic Yellow
1947124-43	BS16.1 Vinyl Baseboard Mastic
1947124-44	BS16.2 Vinyl Baseboard Mastic
1947124-45	BS16.3 Vinyl Baseboard Mastic
1947124-46.1	BS17.1 VFT Green 2 x 2
1947124-46.2	BS18.1 VFT Green 2 x 2
1947124-47.1	BS17.2 VFT Green 2 x 2
1947124-47.2	BS18.2 VFT Green 2 x 2
1947124-48.1	BS17.3 VFT Green 2 x 2
1947124-48.2	BS18.3 VFT Green 2 x 2
1947124-49.1	BS18.1 VFT Beige with Green and Orange
1947124-49.2	BS19.1 VFT Beige with Green and Orange
1947124-50.1	BS18.2 VFT Beige with Green and Orange
1947124-50.2	BS19.2 VFT Beige with Green and Orange
1947124-51.1	BS18.3 VFT Beige with Green and Orange
1947124-51.2	BS19.3 VFT Beige with Green and Orange
1947124-52.1	BS19.1 VFT Beige with Brown
1947124-52.2	BS20.1 VFT Beige with Brown
1947124-53.1	BS19.2 VFT Beige with Brown
1947124-53.2	BS20.2 VFT Beige with Brown
1947124-54.1	BS19.3 VFT Beige with Brown
1947124-54.2	BS20.3 VFT Beige with Brown
1947124-55.1	BS20.1 VFT White with Black Dots
1947124-55.2	BS21.1 VFT White with Black Dots
1947124-56.1	BS20.2 VFT White with Black Dots
1947124-56.2	BS21.2 VFT White with Black Dots
1947124-57.1	BS20.3 VFT White with Black Dots
1947124-57.2	BS21.3 VFT White with Black Dots
1947124-58.1	BS21.1 VFT Beige with Brown and White

Certificate of Analysis

Report Date: 05-Feb-2020

Client: McIntosh Perry Limited (Concord)

Order Date: 18-Nov-2019

Client PO:

Project Description: Z1920014HZ (Simard Hall)

1947124-58.2	BS22.1 VFT Beige with Brown and White
1947124-59.1	BS21.2 VFT Beige with Brown and White
1947124-59.2	BS22.2 VFT Beige with Brown and White
1947124-60.1	BS21.3 VFT Beige with Brown and White
1947124-60.2	BS22.3 VFT Beige with Brown and White
1947124-61	BS22.1 VSF Red
1947124-62	BS22.2 VSF Red
1947124-63	BS22.3 VSF Red
1947124-64	BS23.1 VDF Beige
1947124-65	BS23.2 VDF Beige
1947124-66	BS23.3 VDF Beige
1947124-67	BS24.1 VSF Green
1947124-68	BS24.2 VSF Green
1947124-69	BS24.3 VSF Green
1947124-70	BS25.1 VFT Beige with Brown Flakes
1947124-71	BS25.2 VFT Beige with Brown Flakes
1947124-72	BS25.3 VFT Beige with Brown Flakes
1947124-73	BS26.1 VFT Brown with Light Brown Flakes
1947124-74	BS26.2 VFT Brown with Light Brown Flakes
1947124-75	BS26.3 VFT Brown with Light Brown Flakes
1947124-76	BS27.1 VFT Blue
1947124-77	BS27.2 VFT Blue
1947124-78	BS27.3 VFT Blue
1947124-79	BS28.1 VFT Red
1947124-80	BS28.2 VFT Red
1947124-81	BS28.3 VFT Red
1947124-82	BS29.1 VSF Beige
1947124-83	BS29.2 VSF Beige
1947124-84	BS29.3 VSF Beige
1947124-85.1	BS30.1 VSF Pink on Stairs
1947124-85.2	BS31.1 VSF Pink on Stairs
1947124-86.1	BS30.2 VSF Pink on Stairs
1947124-86.2	BS31.2 VSF Pink on Stairs
1947124-87.1	BS30.3 VSF Pink on Stairs
1947124-87.2	BS31.3 VSF Pink on Stairs
1947124-88	BS31.1 VSF Grey on Stairs
1947124-89	BS31.2 VSF Grey on Stairs
1947124-90	BS31.3 VSF Grey on Stairs
1947124-91	BS31.4 VSF Grey on Stairs
1947124-92	BS31.5 VSF Grey on Stairs
1947124-93	BS31.6 VSF Grey on Stairs
1947124-94	BS31.7 VSF Grey on Stairs
1947124-95	B32.1 VSF Grey
1947124-96	BS32.2 VSF Grey

Certificate of Analysis

Client: **McIntosh Perry Limited (Concord)**

Client PO:

Report Date: 05-Feb-2020

Order Date: 18-Nov-2019

Project Description: **Z1920014HZ (Simard Hall)**

1947124-97	BS32.3 VSF Grey
1947124-98	BS33.1 VFT Beige with Brown
1947124-99	BS33.2 VFT Beige with Brown
1947124-AA	BS33.3 VFT Beige with Brown

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 05-Feb-2020

Order Date: 18-Nov-2019

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-01	15-Nov-19	Off-white	Drywall Joint Compound	No	Client ID: BS7.1 Drywall	
					Non-Fibers	100
1947124-02	15-Nov-19	Grey	Gypsum	No	Client ID: BS7.2 Drywall	
					MMVF	5
					Non-Fibers	95
1947124-03	15-Nov-19	Off-white	Drywall Joint Compound	No	Client ID: BS7.3 Drywall	
					Non-Fibers	100
1947124-04	15-Nov-19	Off-white	Drywall Joint Compound	No	Client ID: BS7.4 Drywall	
					Non-Fibers	100
1947124-05	15-Nov-19	Off-white	Drywall Joint Compound	No	Client ID: BS7.5 Drywall	
					Non-Fibers	100
1947124-06	15-Nov-19	Off-white	Drywall Joint Compound	No	Client ID: BS7.6 Drywall	
					Non-Fibers	100
1947124-07	15-Nov-19	Off-white	Drywall Joint Compound	No	Client ID: BS7.7 Drywall	
					Non-Fibers	100
1947124-08	15-Nov-19	Grey	Gypsum	No	Client ID: BS7.8 Drywall	
					MMVF	5
					Non-Fibers	95
1947124-09	15-Nov-19	White	Drywall Joint Compound	No	Client ID: BS7.9 Drywall	
					Non-Fibers	100
1947124-10	15-Nov-19	Off-white	Drywall Joint Compound	No	Client ID: BS7.10 Drywall	
					Non-Fibers	100
1947124-11	15-Nov-19	Grey	Plaster	Yes	Client ID: BS8.1 Wall Plaster	
						[Z-01a]
					Tremolite	1
		Non-Fibers	99			

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 05-Feb-2020

Order Date: 18-Nov-2019

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-12	15-Nov-19				Client ID: BS8.2 Wall Plaster not analyzed	
1947124-13	15-Nov-19				Client ID: BS8.3 Wall Plaster not analyzed	
1947124-14	15-Nov-19				Client ID: BS8.4 Wall Plaster not analyzed	
1947124-15	15-Nov-19				Client ID: BS8.5 Wall Plaster not analyzed	
1947124-16	15-Nov-19				Client ID: BS8.6 Wall Plaster not analyzed	
1947124-17	15-Nov-19				Client ID: BS8.7 Wall Plaster not analyzed	
1947124-18	15-Nov-19	White	Texture Coat	Yes	Client ID: BS9.1 Wall Texture [ASTrc]Chrysotile Non-Fibers	[AS-PT] <MDL 100
1947124-19	15-Nov-19	White	Texture Coat	Yes	Client ID: BS9.2 Wall Texture [ASTrc]Chrysotile Non-Fibers	[AS-PT] 0.5 99.5
1947124-20	15-Nov-19				Client ID: BS9.3 Wall Texture not analyzed	
1947124-21	15-Nov-19				Client ID: BS9.4 Wall Texture not analyzed	
1947124-22	15-Nov-19				Client ID: BS9.5 Wall Texture not analyzed	

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 05-Feb-2020
 Order Date: 18-Nov-2019

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-23	15-Nov-19				Client ID: BS9.6 Wall Texture not analyzed	
1947124-24	15-Nov-19				Client ID: BS9.7 Wall Texture not analyzed	
1947124-25	15-Nov-19	White	Vinyl Wall Texture	Yes	Client ID: BS10.1 Vinyl Wall [ASTrc]Chrysotile Non-Fibers	[AS-PT] 0.5 99.5
1947124-26	15-Nov-19				Client ID: BS10.2 Vinyl Wall not analyzed	
1947124-27	15-Nov-19				Client ID: BS10.3 Vinyl Wall not analyzed	
1947124-28	15-Nov-19	Yellow	Mastic	No	Client ID: BS11.1 Carpet Mastic Yellow Non-Fibers	100
1947124-29	15-Nov-19	Yellow	Mastic	No	Client ID: BS11.2 Carpet Mastic Yellow Non-Fibers	100
1947124-30	15-Nov-19	Yellow	Mastic	No	Client ID: BS11.3 Carpet Mastic Yellow Non-Fibers	100
1947124-31	15-Nov-19	Red	Firestop	No	Client ID: BS12.1 Firestop Bright Red Non-Fibers	100
1947124-32	15-Nov-19	Red	Firestop	No	Client ID: BS12.2 Firestop Bright Red Non-Fibers	100
1947124-33	15-Nov-19	Red	Firestop	No	Client ID: BS12.3 Firestop Bright Red Non-Fibers	100
1947124-34	15-Nov-19	Grey	Plaster	No	Client ID: BS13.1 Crawl Space Non-Fibers	[Z-01] 100

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 05-Feb-2020

Order Date: 18-Nov-2019

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-35	15-Nov-19	Grey	Plaster	No	Client ID: BS13.2 Crawl Space	
					Non-Fibers	100
1947124-36	15-Nov-19	Grey	Plaster	No	Client ID: BS13.3 Crawl Space	
					Non-Fibers	100
1947124-37	15-Nov-19	White	Wallpaper	No	Client ID: BS14.1 Wallpaper	
					Non-Fibers	60
					Other fibers	40
1947124-38	15-Nov-19	White	Wallpaper	No	Client ID: BS14.2 Wallpaper	
					Non-Fibers	60
					Other fibers	40
1947124-39	15-Nov-19	White	Wallpaper	No	Client ID: BS14.3 Wallpaper	
					Non-Fibers	60
					Other fibers	40
1947124-40	15-Nov-19	Yellow	Mastic	No	Client ID: BS15.1 Carpet Mastic Yellow	
					Non-Fibers	100
1947124-41	15-Nov-19	Yellow	Mastic	No	Client ID: BS15.2 Carpet Mastic Yellow	
					Non-Fibers	100
1947124-42	15-Nov-19	Yellow	Mastic	No	Client ID: BS15.3 Carpet Mastic Yellow	
					Non-Fibers	100
1947124-43	15-Nov-19	Yellow	Mastic	No	Client ID: BS16.1 Vinyl Baseboard Mastic	
					Non-Fibers	100
1947124-44	15-Nov-19	Yellow	Mastic	No	Client ID: BS16.2 Vinyl Baseboard Mastic	
					Non-Fibers	100
1947124-45	15-Nov-19	Yellow	Mastic	No	Client ID: BS16.3 Vinyl Baseboard Mastic	
					Non-Fibers	100

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 05-Feb-2020

Order Date: 18-Nov-2019

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-46.1	15-Nov-19	Green	Vinyl Floor Tile	No	Client ID: BS17.1 VFT Green 2 x 2	
					Non-Fibers	100
1947124-46.2	15-Nov-19	Yellow	Mastic	No	Client ID: BS18.1 VFT Green 2 x 2	
					Non-Fibers	100
1947124-47.1	15-Nov-19	Green	Vinyl Floor Tile	No	Client ID: BS17.2 VFT Green 2 x 2	
					Non-Fibers	100
1947124-47.2	15-Nov-19	Yellow	Mastic	No	Client ID: BS18.2 VFT Green 2 x 2	
					Non-Fibers	100
1947124-48.1	15-Nov-19	Green	Vinyl Floor Tile	No	Client ID: BS17.3 VFT Green 2 x 2	
					Non-Fibers	100
1947124-48.2	15-Nov-19	Yellow	Mastic	No	Client ID: BS18.3 VFT Green 2 x 2	
					Non-Fibers	100
1947124-49.1	15-Nov-19	Beige	Vinyl Floor Tile	No	Client ID: BS18.1 VFT Beige with Green and Orange	
					Non-Fibers	100
1947124-49.2	15-Nov-19	Black	Mastic	No	Client ID: BS19.1 VFT Beige with Green and Orange	
					Non-Fibers	100
1947124-50.1	15-Nov-19	Beige	Vinyl Floor Tile	No	Client ID: BS18.2 VFT Beige with Green and Orange	
					Non-Fibers	100
1947124-50.2	15-Nov-19	Black	Mastic	No	Client ID: BS19.2 VFT Beige with Green and Orange	
					Non-Fibers	100
1947124-51.1	15-Nov-19	Beige	Vinyl Floor Tile	No	Client ID: BS18.3 VFT Beige with Green and Orange	
					Non-Fibers	100
1947124-51.2	15-Nov-19	Black	Mastic	No	Client ID: BS19.3 VFT Beige with Green and Orange	
					Non-Fibers	100

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 05-Feb-2020

Order Date: 18-Nov-2019

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-52.1	15-Nov-19	Beige	Vinyl Floor Tile	No	Client ID: BS19.1 VFT Beige with Brown	
					Non-Fibers	100
1947124-52.2	15-Nov-19	Black	Mastic	No	Client ID: BS20.1 VFT Beige with Brown	
					Non-Fibers	100
1947124-53.1	15-Nov-19	Beige	Vinyl Floor Tile	No	Client ID: BS19.2 VFT Beige with Brown	
					Non-Fibers	100
1947124-53.2	15-Nov-19	Black	Mastic	No	Client ID: BS20.2 VFT Beige with Brown	
					Non-Fibers	100
1947124-54.1	15-Nov-19	Beige	Vinyl Floor Tile	No	Client ID: BS19.3 VFT Beige with Brown	
					Non-Fibers	100
1947124-54.2	15-Nov-19	Black	Mastic	No	Client ID: BS20.3 VFT Beige with Brown	
					Non-Fibers	100
1947124-55.1	15-Nov-19	White/Black	Vinyl Floor Tile	No	Client ID: BS20.1 VFT White with Black Dots	
					Non-Fibers	100
1947124-55.2	15-Nov-19	Black	Mastic	No	Client ID: BS21.1 VFT White with Black Dots	
					Non-Fibers	100
1947124-56.1	15-Nov-19	White/Black	Vinyl Floor Tile	No	Client ID: BS20.2 VFT White with Black Dots	
					Non-Fibers	100
1947124-56.2	15-Nov-19	Black	Mastic	No	Client ID: BS21.2 VFT White with Black Dots	
					Non-Fibers	100
1947124-57.1	15-Nov-19	White/Black	Vinyl Floor Tile	No	Client ID: BS20.3 VFT White with Black Dots	
					Non-Fibers	100
1947124-57.2	15-Nov-19	Black	Mastic	No	Client ID: BS21.3 VFT White with Black Dots	
					Non-Fibers	100

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 05-Feb-2020

Order Date: 18-Nov-2019

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-58.1	15-Nov-19	Beige/Brown	Vinyl Floor Tile	No	Client ID: BS21.1 VFT Beige with Brown and White	
					Non-Fibers	100
1947124-58.2	15-Nov-19	Black	Mastic	No	Client ID: BS22.1 VFT Beige with Brown and White	
					Non-Fibers	100
1947124-59.1	15-Nov-19	Beige/Brown	Vinyl Floor Tile	No	Client ID: BS21.2 VFT Beige with Brown and White	
					Non-Fibers	100
1947124-59.2	15-Nov-19	Black	Mastic	No	Client ID: BS22.2 VFT Beige with Brown and White	
					Non-Fibers	100
1947124-60.1	15-Nov-19	Beige/Brown	Vinyl Floor Tile	No	Client ID: BS21.3 VFT Beige with Brown and White	
					Non-Fibers	100
1947124-60.2	15-Nov-19	Black	Mastic	No	Client ID: BS22.3 VFT Beige with Brown and White	
					Non-Fibers	100
1947124-61	15-Nov-19	Red	Vinyl Sheet Flooring	No	Client ID: BS22.1 VSF Red	
					Cellulose	10
					Non-Fibers	90
1947124-62	15-Nov-19	Red	Vinyl Sheet Flooring	No	Client ID: BS22.2 VSF Red	
					Cellulose	10
					Non-Fibers	90
1947124-63	15-Nov-19	Red	Vinyl Sheet Flooring	No	Client ID: BS22.3 VSF Red	
					Cellulose	10
					Non-Fibers	90
1947124-64	15-Nov-19	Beige	Vinyl Sheet Flooring	No	Client ID: BS23.1 VDF Beige	
					Cellulose	10
					Non-Fibers	90

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 05-Feb-2020
 Order Date: 18-Nov-2019

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-65	15-Nov-19	Beige	Vinyl Sheet Flooring	No	Client ID: BS23.2 VDF Beige	
					Cellulose	10
					Non-Fibers	90
1947124-66	15-Nov-19	Beige	Vinyl Sheet Flooring	No	Client ID: BS23.3 VDF Beige	
					Cellulose	10
					Non-Fibers	90
1947124-67	15-Nov-19	Green	Vinyl Sheet Flooring	No	Client ID: BS24.1 VSF Green	
					Cellulose	10
					Non-Fibers	90
1947124-68	15-Nov-19	Green	Vinyl Sheet Flooring	No	Client ID: BS24.2 VSF Green	
					Cellulose	10
					Non-Fibers	90
1947124-69	15-Nov-19	Green	Vinyl Sheet Flooring	No	Client ID: BS24.3 VSF Green	
					Cellulose	10
					Non-Fibers	90
1947124-70	15-Nov-19	Beige/Brown	Vinyl Floor Tile	No	Client ID: BS25.1 VFT Beige with Brown Flakes	
					Non-Fibers	100
1947124-71	15-Nov-19	Beige/Brown	Vinyl Floor Tile	No	Client ID: BS25.2 VFT Beige with Brown Flakes	
					Non-Fibers	100
1947124-72	15-Nov-19	Beige/Brown	Vinyl Floor Tile	No	Client ID: BS25.3 VFT Beige with Brown Flakes	
					Non-Fibers	100
1947124-73	15-Nov-19	Brown	Vinyl Floor Tile	No	Client ID: BS26.1 VFT Brown with Light Brown Flakes	
					Non-Fibers	100
1947124-74	15-Nov-19	Brown	Vinyl Floor Tile	No	Client ID: BS26.2 VFT Brown with Light Brown Flakes	
					Non-Fibers	100

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 05-Feb-2020
 Order Date: 18-Nov-2019

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-75	15-Nov-19	Brown	Vinyl Floor Tile	No	Client ID: BS26.3 VFT Brown with Light Brown Flakes	
					Non-Fibers	100
1947124-76	15-Nov-19	Blue	Vinyl Floor Tile	No	Client ID: BS27.1 VFT Blue	
					Non-Fibers	100
1947124-77	15-Nov-19	Blue	Vinyl Floor Tile	No	Client ID: BS27.2 VFT Blue	
					Non-Fibers	100
1947124-78	15-Nov-19	Blue	Vinyl Floor Tile	No	Client ID: BS27.3 VFT Blue	
					Non-Fibers	100
1947124-79	15-Nov-19	Red	Vinyl Floor Tile	No	Client ID: BS28.1 VFT Red	
					Non-Fibers	100
1947124-80	15-Nov-19	Red	Vinyl Floor Tile	No	Client ID: BS28.2 VFT Red	
					Non-Fibers	100
1947124-81	15-Nov-19	Red	Vinyl Floor Tile	No	Client ID: BS28.3 VFT Red	
					Non-Fibers	100
1947124-82	15-Nov-19	Beige	Vinyl Sheet Flooring	No	Client ID: BS29.1 VSF Beige	
					Non-Fibers	100
1947124-83	15-Nov-19	Beige	Vinyl Sheet Flooring	No	Client ID: BS29.2 VSF Beige	
					Non-Fibers	100
1947124-84	15-Nov-19	Beige	Vinyl Sheet Flooring	No	Client ID: BS29.3 VSF Beige	
					Non-Fibers	100
1947124-85.1	15-Nov-19	Pink	Vinyl Sheet Flooring	No	Client ID: BS30.1 VSF Pink on Stairs	
					Non-Fibers	100
1947124-85.2	15-Nov-19	Yellow	Mastic	No	Client ID: BS31.1 VSF Pink on Stairs	
					Non-Fibers	100

Certificate of Analysis
Client: McIntosh Perry Limited (Concord)
Client PO:

Report Date: 05-Feb-2020

Order Date: 18-Nov-2019

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-86.1	15-Nov-19	Pink	Vinyl Sheet Flooring	No	Client ID: BS30.2 VSF Pink on Stairs	
					Non-Fibers	100
1947124-86.2	15-Nov-19	Yellow	Mastic	No	Client ID: BS31.2 VSF Pink on Stairs	
					Non-Fibers	100
1947124-87.1	15-Nov-19	Pink	Vinyl Sheet Flooring	No	Client ID: BS30.3 VSF Pink on Stairs	
					Non-Fibers	100
1947124-87.2	15-Nov-19	Yellow	Mastic	No	Client ID: BS31.3 VSF Pink on Stairs	
					Non-Fibers	100
1947124-88	15-Nov-19	Grey	Vinyl Sheet Flooring	No	Client ID: BS31.1 VSF Grey on Stairs	
					Non-Fibers	100
1947124-89	15-Nov-19	Grey	Vinyl Sheet Flooring	No	Client ID: BS31.2 VSF Grey on Stairs	
					Non-Fibers	100
1947124-90	15-Nov-19	Grey	Vinyl Sheet Flooring	No	Client ID: BS31.3 VSF Grey on Stairs	
					Non-Fibers	100
1947124-91	15-Nov-19				Client ID: BS31.4 VSF Grey on Stairs	
					not analyzed	
1947124-92	15-Nov-19				Client ID: BS31.5 VSF Grey on Stairs	
					not analyzed	
1947124-93	15-Nov-19				Client ID: BS31.6 VSF Grey on Stairs	
					not analyzed	
1947124-94	15-Nov-19				Client ID: BS31.7 VSF Grey on Stairs	
					not analyzed	
1947124-95	15-Nov-19	Grey	Vinyl Sheet Flooring	No	Client ID: B32.1 VSF Grey	
					Cellulose	10
					Non-Fibers	90

Certificate of Analysis

Report Date: 05-Feb-2020

Client: McIntosh Perry Limited (Concord)

Order Date: 18-Nov-2019

Client PO:

Project Description: Z1920014HZ (Simard Hall)

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1947124-96	15-Nov-19	Grey	Vinyl Sheet Flooring	No	Client ID: BS32.2 VSF Grey	
					Cellulose	10
					Non-Fibers	90
1947124-97	15-Nov-19	Grey	Vinyl Sheet Flooring	No	Client ID: BS32.3 VSF Grey	
					Cellulose	10
					Non-Fibers	90
1947124-98	15-Nov-19	Beige/Brown	Vinyl Floor Tile	No	Client ID: BS33.1 VFT Beige with Brown	
					Non-Fibers	100
1947124-99	15-Nov-19	Beige/Brown	Vinyl Floor Tile	No	Client ID: BS33.2 VFT Beige with Brown	
					Non-Fibers	100
1947124-AA	15-Nov-19	Beige/Brown	Vinyl Floor Tile	No	Client ID: BS33.3 VFT Beige with Brown	
					Non-Fibers	100

* MMVF: Man Made Vitreous Fibers: Fiberglass, Mineral Wool, Rockwool, Glasswool

** Analytes in bold indicate asbestos mineral content.

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code *	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	1 - Mississauga	200863-0	25-Nov-19

* Reference to the NVLAP term does not permit the user of this report to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Mississauga Lab: 15 - 6800 Kitimat Rd Mississauga, Ontario, L5N 5M1

Certificate of Analysis

Report Date: 05-Feb-2020

Client: McIntosh Perry Limited (Concord)

Order Date: 18-Nov-2019

Client PO:

Project Description: Z1920014HZ (Simard Hall)

Qualifier Notes

Sample Qualifiers :

AS-PT: Asbestos quantitation by PLM Point Count method.

ASTrc: Trace asbestos was observed below the noted detection limit but could not be accurately quantified.

Z-01: Sample contains vermiculite

Z-01a: Sample contains vermiculite.

Work Order Revisions | Comments

REVISION-1: This report includes updated Sample IDs, as per client.

REVISION 2: This report includes further sample IDs, as revision per client.



Parcel ID: 1947124



0F2

Head Office
300-2319 St. Laurent Blvd.
Ottawa, Ontario K1G 4J8
p: 1-800-749-1947
e: paracel@paracellabs.com

Chain of Custody
(Lab Use Only)

Client Name: McIntosh Perry
Contact Name: Diana Banakh
Address: 6240 Highway 7, Suite 200, Concord, Ontario L4K 2A3
Telephone: 905-856-5200

Project Reference: Z1920014HZ (Simard Hall)
Quote #: 19-651
PO #:
Email Address: d.banakh@mcintoshperry.com

Turnaround Time:
 Immediate 1 Day
 4 Hour 2 Day
 8 Hour Regular
 Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: Air Bulk Tape Lift Swab Other **Regulatory Guideline:** ON QC AB SK Other:

Analyses: Microscopic Mold Culturable Mold Bacteria GRAM PCM Asbestos PLM Asbestos Chatfield Asbestos TEM Asbestos

Parcel Order Number: 1947124		Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk		Positive Stop?
Sample ID	Identify Distinct Building Materials to Be Analyzed						
BS1.1-1.10	Drywall		N/A	PLM			X
BS2.1-2.7	Wall plaster		N/A	PLM			X
BS3.1-3.7	Wall Texture		N/A	PLM			X
BS4.1-4.3	Vinyl Wall		N/A	PLM			X
BS5.1-5.3	Carpet Mastic yellow		N/A	PLM			X
BS6.1-6.3	Firestop Bright Red		N/A	PLM			X
BS7.1-7.3	Crawl Space		N/A	PLM			X
BS8.1-8.3	Wallpaper		N/A	PLM			X
BS9.1-9.3	Carpet Mastic yellow		N/A	PLM			X
BS10.1-10.3	Vinyl Baseboard Mastic		N/A	PLM			X
BS11.1-11.3	VFT Green 2 x 2		N/A	PLM			X
BS12.1-12.3	VFT Beige with green and orange		N/A	PLM			X
BS13.1-13.3	VFT Beige with brown		N/A	PLM			X
BS14.1-14.3	VFT white with black dots		N/A	PLM			X
BS15.1-15.3	VFT beige with brown and white		N/A	PLM			X
BS16.1-16.3	VSF red		N/A	PLM			X
BS17.1-17.3	VDF Beige		N/A	PLM			X
BS18.1-18.3	VSF Green		N/A	PLM			X
BS19.1-19.3	VFT beige with brown flakes		N/A	PLM			X
BS20.1-20.3	VFT brown with light brown flakes		N/A	PLM			X

Cynthia G., NOV 18 2019 10:35 United

Chain of Custody (Asbestos) - Rev 2-11-Nov-2017

p. 2 of 2.

Parcel ID: 1947124



BS21.1-21.3	VFT blue								
BS22.1-22.3	VFT red		N/A	PLM					x
BS23.1-23.3	VSF beige		N/A	PLM					x
BS24.1-24.3	VSF Pink on Stairs		N/A	PLM					x
BS25.1-25.7	VSF grey on stairs		N/A	PLM					x
BS26.1-26.3	VSF grey		N/A	PLM					x
BS27.1-27.3	VFT beige with brown		N/A	PLM					x
* If left blank, Parcel will analyze all materials identified during analysis		** If left blank, Parcel will analyze all materials as individual samples (at additional cost) per EPA 600/R-93/116							

Comments: 161

Relinquished By (Signature):		Received at Depot		Received at Lab: Cynthia Ozis		Method of Delivery: United	
Relinquished By (Print): Diana Banakh		Date/Time:		Date/Time: Nov 18 2019		Verified By: Cynthia Ozis	
Date/Time:		Date/Time:		Date/Time: Nov 18 2019		Date/Time: Nov 18 2019	

16:35

17:28

Certificate of Analysis

McIntosh Perry Limited (Concord)

6240 Hwy 7, Suite 200
Woodbridge, ON L4H 0R2
Attn: Diana Banakh

Client PO:
Project:
Custody: 41157

Report Date: 20-Sep-2019
Order Date: 19-Sep-2019

Order #: 1938444

This Certificate of Analysis contains analytical data applicable to the following samples as submitted :

Parcel ID	Client ID
1938444-01	Simard 406 Carpet Mastic 1
1938444-02	Simard 406 Carpet Mastic 2
1938444-03	Simard 406 Carpet Mastic 3
1938444-04.1	Simard 406 Plaster 1
1938444-04.2	Simard 406 Plaster 1
1938444-05.1	Simard 406 Plaster 2
1938444-05.2	Simard 406 Plaster 2
1938444-06.1	Simard 406 Plaster 3
1938444-06.2	Simard 406 Plaster 3
1938444-07.1	Simard 414 Plaster/Dust 1
1938444-07.2	Simard 414 Plaster/Dust 1
1938444-08.1	Simard 414 Plaster/Dust 2
1938444-08.2	Simard 414 Plaster/Dust 2
1938444-09.1	Simard 414 Plaster/Dust 3
1938444-09.2	Simard 414 Plaster/Dust 3
1938444-10	Simard 414 Carpet Mastic 1
1938444-11	Simard 414 Carpet Mastic 2
1938444-12	Simard 414 Carpet Mastic 3

Approved By:



Emma Diaz
Senior Analyst

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 20-Sep-2019
 Order Date: 19-Sep-2019
 Project Description:

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1938444-01	18-Sep-19	Yellow	Mastic	No	Client ID: Simard 406 Carpet Mastic 1	
					Non-Fibers	99
					Other fibers	1
1938444-02	18-Sep-19	Yellow	Mastic	No	Client ID: Simard 406 Carpet Mastic 2	
					Non-Fibers	99
					Other fibers	1
1938444-03	18-Sep-19	Yellow	Mastic	No	Client ID: Simard 406 Carpet Mastic 3	
					Non-Fibers	99
					Other fibers	1
1938444-04.1	18-Sep-19	White	Plaster	No	Client ID: Simard 406 Plaster 1	
					Non-Fibers	100
1938444-04.2	18-Sep-19	Grey	Plaster	Yes	Client ID: Simard 406 Plaster 1	[Z-01]
					Tremolite	1
					Non-Fibers	99
1938444-05.1	18-Sep-19	White	Plaster	No	Client ID: Simard 406 Plaster 2	
					Non-Fibers	100
1938444-05.2	18-Sep-19				Client ID: Simard 406 Plaster 2	
					not analyzed	
1938444-06.1	18-Sep-19	White	Plaster	No	Client ID: Simard 406 Plaster 3	
					Non-Fibers	100
1938444-06.2	18-Sep-19				Client ID: Simard 406 Plaster 3	
					not analyzed	
1938444-07.1	18-Sep-19	White	Plaster/Dust	No	Client ID: Simard 414 Plaster/Dust 1	
					Non-Fibers	100

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 20-Sep-2019
 Order Date: 19-Sep-2019
 Project Description:

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1938444-07.2	18-Sep-19	Grey	Plaster/Dust	Yes	Client ID: Simard 414 Plaster/Dust 1	
						[Z-01b]
					Tremolite	1
					Non-Fibers	99
1938444-08.1	18-Sep-19	White	Plaster/Dust	No	Client ID: Simard 414 Plaster/Dust 2	
						[Z-01a]
					Non-Fibers	100
1938444-08.2	18-Sep-19				Client ID: Simard 414 Plaster/Dust 2	
					not analyzed	
1938444-09.1	18-Sep-19	White	Plaster/Dust	No	Client ID: Simard 414 Plaster/Dust 3	
						[Z-01a]
					Non-Fibers	100
1938444-09.2	18-Sep-19				Client ID: Simard 414 Plaster/Dust 3	
					not analyzed	
1938444-10	18-Sep-19	Brown	Mastic	No	Client ID: Simard 414 Carpet Mastic 1	
					Non-Fibers	100
1938444-11	18-Sep-19	Brown	Mastic	No	Client ID: Simard 414 Carpet Mastic 2	
					Non-Fibers	100
1938444-12	18-Sep-19	Brown	Mastic	No	Client ID: Simard 414 Carpet Mastic 3	
					Non-Fibers	100

** Analytes in bold indicate asbestos mineral content.

Certificate of Analysis
Client: **McIntosh Perry Limited (Concord)**
Client PO:

Report Date: 20-Sep-2019
Order Date: 19-Sep-2019
Project Description:

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code *	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	2 - Ottawa West Lab	200812-0	20-Sep-19

* Reference to the NVLAP term does not permit the user of this report to claim product certification , approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Ottawa West Lab: 25 Northside Rd, Unit C Nepean, Ontario K2H 8S1

Qualifier Notes

Sample Qualifiers :

- Z-01: Contains vermiculite.
- Z-01a: Only plaster analyzed.
- Z-01b: Only plaster analyzed. Contains vermiculite.

Work Order Revisions | Comments

None



Paracel ID: 1938444



Office
319 St. Laurent Blvd.
a, Ontario K1G 4J8
00-749-1947
acel@paracellabs.com

Chain of Custody
(Lab Use Only)

No 41157

Page 1 of 1

Client Name: *McIntosh Perry Consulting Engineers*
Contact Name: *Diana Banakh*
Address: *6240 Hwy 7, Suite 200, Woodbridge, ON*
Telephone: *647-291-2942*

Project Reference:
Quote #:
PO #:
Email Address: *d.banakh@mcintoshperry.com*

Turnaround Time:
 Immediate 1 Day
 4 Hour 2 Day
 8 Hour 3 Day
 Regular
Date Required: _____

ASBESTOS & MOLD ANALYSIS

Matrix: Air Bulk Tape Lift Swab Other
Regulatory Guideline: ON QC AB SK Other:
Analyses: Microscopic Mold Culturable Mold Bacteria GRAM PCM Asbestos PLM Asbestos Chatfield Asbestos TEM Asbestos

Paracel Order Number: <i>1938444</i>		Asbestos - Bulk			
Sample ID	Sampling Date	Air Volume (L)	Analysis Required	Identify Distinct Building Materials to Be Analyzed (if not specified, all materials identified will be analyzed) *	Positive Stop?
1	<i>18-Sep-19</i>		<i>PLM</i>	<i>Carpet mastic</i>	<input checked="" type="checkbox"/>
2	<i>18-Sep-19</i>		<i>PLM</i>	<i>Plaster</i>	<input checked="" type="checkbox"/>
3	<i>18-Sep-19</i>		<i>PLM</i>	<i>Plaster/dust</i>	<input checked="" type="checkbox"/>
4	<i>18-Sep-19</i>		<i>PLM</i>	<i>Carpet mastic</i>	<input type="checkbox"/>
5					<input type="checkbox"/>
6					<input type="checkbox"/>
7					<input type="checkbox"/>
8					<input type="checkbox"/>
9					<input type="checkbox"/>
10					<input type="checkbox"/>
11					<input type="checkbox"/>
12					<input type="checkbox"/>

* If left blank, all distinct materials identified in the samples will be analyzed and reported separately as per EPA 600/R-93/116. Additional charges will apply.

Comments: _____ Method of Delivery: *Walkin*

Relinquished By (Sign): *[Signature]* Received at Depot: _____ Received at Lab: *[Signature]* Verified By: *[Signature]*
Relinquished By (Print): *Justin Cameron* Date/Time: *Sept 19/19 8:35* Date/Time: *Sept 19/19 11:33*

Certificate of Analysis

McIntosh Perry Limited (Concord)

6240 Hwy 7, Suite 200
Woodbridge, ON L4H 0R2
Attn: Diana Banakh

Client PO:
Project: Z1920014HZ (Simard Hall)
Custody:

Report Date: 21-Nov-2019
Order Date: 18-Nov-2019

Order #: 1947120

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Parcel ID	Client ID
1947120-01	Pb.1
1947120-02	Pb.2
1947120-03	Pb.3
1947120-04	Pb.4
1947120-05	Pb.5
1947120-06	Pb.6
1947120-07	Pb.7
1947120-08	Pb.8
1947120-09	Pb.9
1947120-10	Pb.10
1947120-11	Pb.11
1947120-12	Pb.12
1947120-13	Pb.13
1947120-14	Pb.14
1947120-15	Pb.15

Approved By:



Milan Ralitsch, PhD
Senior Technical Manager

Any use of these results implies your agreement that our total liability in connection with this work, however arising shall be limited to the amount paid by you for this work, and that our employees or agents shall not under circumstances be liable to you in connection with this work

Certificate of Analysis
Client: McIntosh Perry Limited (Concord)
Client PO:

Report Date: 21-Nov-2019
Order Date: 18-Nov-2019
Project Description: Z1920014HZ (Simard Hall)

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-MS	EPA 6020 - Digestion - ICP-MS	20-Nov-19	21-Nov-19

Sample and QC Qualifiers Notes

- 1- GEN01 :Elevated Reporting Limits due to limited sample volume.
- 2- QM-4X : The spike recovery was outside of QC acceptance limits due to elevated analyte concentration.

Sample Data Revisions

None

Work Order Revisions/Comments:

None

Other Report Notes:

- n/a: not applicable
- ND: Not Detected
- MDL: Method Detection Limit
- Source Result: Data used as source for matrix and duplicate samples
- %REC: Percent recovery.
- RPD: Relative percent difference.

Certificate of Analysis
 Client: McIntosh Perry Limited (Concord)
 Client PO:

Report Date: 21-Nov-2019
 Order Date: 18-Nov-2019
 Project Description: Z1920014HZ (Simard Hall)

Sample Results

Lead				Matrix: Paint
				Sample Date: 22-Oct-19
Paracel ID	Client ID	Units	MDL	Result
1947120-01	Pb.1	% by Wt.	0.0005	<0.0005
1947120-02	Pb.2	% by Wt.	0.0005	0.715
1947120-03	Pb.3	% by Wt.	0.0005	0.0008
1947120-04	Pb.4	% by Wt.	0.0005	<0.0009 [1]
1947120-05	Pb.5	% by Wt.	0.0005	<0.0012 [1]
1947120-06	Pb.6	% by Wt.	0.0005	0.0046
1947120-07	Pb.7	% by Wt.	0.0005	<0.0016 [1]
1947120-08	Pb.8	% by Wt.	0.0005	0.0028
1947120-09	Pb.9	% by Wt.	0.0005	0.0054
1947120-10	Pb.10	% by Wt.	0.0005	0.0300
1947120-11	Pb.11	% by Wt.	0.0005	<0.0005
1947120-12	Pb.12	% by Wt.	0.0005	<0.0006 [1]
1947120-13	Pb.13	% by Wt.	0.0005	<0.0010 [1]
1947120-14	Pb.14	% by Wt.	0.0005	0.0029
1947120-15	Pb.15	% by Wt.	0.0005	0.0101

Laboratory Internal QA/QC

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Matrix Blank									
Lead	ND	0.0005	% by Wt.						
Matrix Duplicate									
Lead	5.98	0.0150	% by Wt.	5.86			2.0	50	
Matrix Spike									
Lead	6.97	0.0005	% by Wt.	5.86	882	70-130			QM-4X



Chain of Custody
(Lab Use Only)

Client Name: McIntosh Perry	Project Reference: Z1920014HZ (Simard Hall)	Turnaround Time: <input type="checkbox"/> 1 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input checked="" type="checkbox"/> Regular Date Required: _____
Contact Name: Diana Banakh	Quote #: 19-651	
Address: 6420 Highway 7, Suite 200, Woodbridge Ontario L4H 4G3	PO #	
Telephone: 905-856-5200	Email Address: d.banakh@mcintoshperry.com	

Criteria: O. Reg. 153/04 (As Amended) Table ___ RSC Filing O. Reg. 558/00 PWQO CCME SUB (Storm) SUB (Sanitary) Municipality: _____ Other: _____

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

Sample ID/Location Name		Matrix	Air Volume	# of Containers	Sample Taken		Lead in Paint											
					Date	Time												
1	Pb.1	P			1 October 22nd, 201		X											
2	Pb.2	P			1 October 22nd, 201		X											
3	Pb.3	P			1 October 22nd, 201		X											
4	Pb.4	P			1 October 22nd, 201		X											
5	Pb.5	P			1 October 22nd, 201		X											
6	Pb.6	P			1 October 22nd, 201		X											
7	Pb.7	P			1 October 22nd, 201		X											
8	Pb.8	P			1 October 22nd, 201		X											
9	Pb.9	P			1 October 22nd, 201		X											
10	Pb.10	P			1 October 22nd, 201		X											
11	Pb.11	P			1 October 22nd, 201		X											
12	Pb.12	P			1 October 22nd, 201		X											
13	Pb.13	P			1 October 22nd, 201		X											
14	Pb.14	P			1 October 22nd, 201		X											
15	Pb.15	P			1 October 22nd, 201		X											

Comments: 15 samples

Method of Delivery: United.

Relinquished By (Sign):	Received by Driver/Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Diana Banakh	Date/Time: Nov 18/2019 16:35	Date/Time: 11/19/19 8:35	Date/Time: Nov 18/19 17:03
Date/Time:	Temperature: _____ °C	Temperature: _____ °C	pH Verified [] By: _____

Chain of Custody - Lead - uOttawa - filled.xlsx

APPENDIX D
Site Photographs



Photo 1: Representative view of the hallway finishes observed throughout the subject building.



Photo 2: Representative view of the common area finishes observed throughout the subject building.



Photo 3: Representative view of the hallway finishes observed throughout the subject building.



Photo 4: Representative view of the classroom finishes observed throughout the subject building.



Photo 5: Representative view of the classroom finishes observed throughout the subject building.



Photo 6: View of the non asbestos-containing ceiling tiles observed throughout Level 00.



Photo 7: View of the non asbestos-containing ceiling tiles observed throughout Level 00.



Photo 8: Representative view of the asbestos-containing parging cement elbows observed in good condition throughout Room 002.



Photo 9: View of the asbestos-containing ceiling plaster observed above the suspended ceiling tiles in Room 02.



Photo 10: Representative view of the asbestos-containing sprayed-on ceiling plaster overspray observed on adjacent building materials and equipment observed throughout Room 02D.



Photo 11: Representative view of the asbestos-containing sprayed-on ceiling plaster overspray observed on adjacent building materials and equipment observed throughout Room 02D.



Photo 12: Representative view of the asbestos-containing ceiling plaster debris observed on suspended ceiling tiles throughout Room 02D.



Photo 13: View of the non-asbestos-containing HVAC duct caulking observed throughout the subject building.



Photo 14: Representative view of the damaged asbestos-containing plaster observed throughout the subject building.



Photo 15: View of the non-asbestos acoustic glue-on tiles and mastic pucks (Dark Brown) observed overtop the ceiling plaster throughout Level 0.



Photo 16: Representative view of the asbestos-containing sprayed-on ceiling plaster overspray observed on adjacent building materials and equipment observed throughout Room 102B.



Photo 17: Representative view of the asbestos-containing ceiling plaster debris observed on suspended ceiling tiles throughout Room 206.



Photo 18: Representative view of the asbestos-containing ceiling plaster debris observed on suspended ceiling tiles throughout Room 212.



Photo 19: Representative view of the hallway finishes observed throughout Level 2.



Photo 20: Representative view of water fountains observed throughout the subject building, containing ODSs (R134a).



Photo 21: View of the asbestos-containing ceiling plaster and overspray observed above the suspended ceiling tiles in Room 303.



Photo 22: Representative view of the asbestos-containing ceiling plaster debris observed on suspended ceiling tiles throughout Room 303.



Photo 23: Representative view of the interior finishes observed throughout Room 423.



Photo 24: View of the poor condition asbestos-containing ceiling plaster and overspray observed above the suspended ceiling tiles in Room 423.



Photo 25: View of the asbestos-containing plaster overspray observed on walls along the Room 401B hallway.



Photo 26: View of the poor condition asbestos-containing ceiling plaster and overspray observed above the suspended ceiling tiles in Room 403.



Photo 27: Representative view of the asbestos-containing ceiling plaster debris observed on suspended ceiling tiles throughout Room 403.



Photo 28: Representative view of the Type 2 ceiling entries performed during the site survey to access ceiling spaces.



Photo 29: Representative view of the Type 2 ceiling entries performed during the site survey to access ceiling spaces.



Photo 30: Representative view of the Type 2 ceiling entries performed during the site survey to access ceiling spaces.



Photo 31: Representative view of the Type 2 ceiling entries performed during the site survey to access ceiling spaces.



Photo 32: View of asbestos-containing plaster wall finish observed to be in poor condition in Room 006.



Photo 33: View of water damaged non-asbestos drywall joint compound finish observed to be in poor condition in Room 0020.



Photo 34: View of asbestos-containing plaster wall finish observed to be in fair condition in Room 115.



Photo 35: View of asbestos-containing plaster wall finish observed to be in fair condition in Room 116.



Photo 36: View of asbestos-containing plaster wall finish observed to be in fair condition in Room 128B.



Photo 37: View of asbestos-containing plaster wall finish observed to be in fair condition in Room 128B.



Photo 38: View of water damaged asbestos-containing plaster ceiling finish observed to be in fair condition in Room 126.



Photo 39: View of asbestos-containing plaster wall finish observed to be in poor condition in Room 204.



Photo 40: View of asbestos-containing plaster wall finish observed to be in poor condition in Room 206.



Photo 41: View of asbestos-containing plaster wall finish observed to be in poor condition in Room 207.



Photo 42: View of asbestos-containing plaster ceiling and wall finishes observed to be in poor condition in Room 221A.



Photo 43: View of asbestos-containing plaster ceiling finish observed to be in fair condition (exposed overspray) in Room 228.



Photo 44: View of asbestos-containing plaster wall finish observed to be in fair condition in Room 226A.



Photo 45: View of asbestos-containing plaster ceiling finish observed to be in fair condition (exposed overspray) in Room 224B.



Photo 46: View of asbestos-containing plaster ceiling finish observed to be in poor condition in Room 322A.



Photo 47: General View of water-damaged ceiling tile observed in select areas of the subject building.

APPENDIX E

Asbestos-Containing Materials Checklists

Simard Hall, Ottawa, Ontario
Hazardous Materials Survey and 2022 Reassessment
Appendix E - Asbestos Containing Materials Checklist

Z1920014HZ / CCC-230252-00

Floor/Level	Location	Type of ACM	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approximate Quantity	Unit	Recommended Action	Comments
6	Throughout Level	Ceiling Plaster	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	*May be enclosed by ceiling tiles
6	Throughout Level	Wall Plaster	Confirmed	Friable	Varies	Moderate	Low	-	-	Manage in Place	*May be enclosed behind drywall
6	Throughout Level	Fire Doors	Suspected	-	Good Condition	Moderate	Low	-	-	Manage in Place	
5	Throughout Level	Ceiling Plaster	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	*May be enclosed by ceiling tiles
5	Throughout Level	Wall Plaster	Confirmed	Friable	Varies	Moderate	Low	-	-	Manage in Place	*May be enclosed behind drywall
5	Throughout Level	Fire Doors	Suspected	-	Good Condition	Moderate	Low	-	-	Manage in Place	
5	Room 509	VFT (12"x12" – Brown w/ Dark Brown Streaks)	Confirmed	Non-Friable	Good Condition	Easy	Low	160	SF	Manage in Place	
5	Throughout Level	Ceiling Plaster	Confirmed	Friable	Poor Condition	Moderate	Low	1,300	SF	Remove Following Minimum Type 3 Abatement Procedures	
4	Room 430	Ceiling Tile (2'x4' – Varying Pinholes)	Confirmed	-	Good Condition	Moderate	Low	850	SF	Manage in Place	
4	Room 410	VFT (12"x12" – Brown w/ Dark Brown Streaks)	Confirmed	Non-Friable	Good Condition	Easy	Low	160	SF	Manage in Place	
4	Room 419	Wall Texture Coat	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	
4	Room 421	Wall Texture Coat	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	
4	Room 429	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall

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Floor/Level	Location	Type of ACM	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approximate Quantity	Unit	Recommended Action	Comments
4	Room 414	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	2	SF	Monitor Condition of Material. Consider Removal or Repair.	Ceiling
4	Room 404	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
4	Room 401A	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
4	Throughout Level	Ceiling Plaster	Confirmed	Friable	Poor Condition	Moderate	Low	10,000	SF	Remove Following Minimum Type 3 Abatement Procedures	
4	Throughout Level	Ceiling Plaster	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	*May be enclosed by ceiling tiles
4	Throughout Level	Wall Plaster	Confirmed	Friable	Varies	Moderate	Low	-	-	Manage in Place	*May be enclosed behind drywall
4	Throughout Level	Fire Doors	Suspected	-	Good Condition	Moderate	Low	-	-	Manage in Place	
3	Throughout Level	Ceiling Plaster	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	*May be enclosed by ceiling tiles
3	Throughout Level	Wall Plaster	Confirmed	Friable	Varies	Moderate	Low	-	-	Manage in Place	*May be enclosed behind drywall
3	Throughout Level	Fire Doors	Suspected	-	Good Condition	Moderate	Low	-	-	Manage in Place	
3	Room 322	Ceiling Tile (2'x4' – Varying Pinholes)	Confirmed	-	Good Condition	Moderate	Low	750	SF	Manage in Place	
3	Room 323	Ceiling Tile (2'x4' – Varying Pinholes)	Confirmed	-	Good Condition	Moderate	Low	200	SF	Manage in Place	
3	Room 323A	Ceiling Tile (2'x4' – Varying Pinholes)	Confirmed	-	Good Condition	Moderate	Low	200	SF	Manage in Place	

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Floor/Level	Location	Type of ACM	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approximate Quantity	Unit	Recommended Action	Comments
3	Room 324	Ceiling Tile (2'x4' – Varying Pinholes)	Confirmed	-	Good Condition	Moderate	Low	750	SF	Manage in Place	
3	Room 330	Ceiling Tile (2'x4' – Varying Pinholes)	Confirmed	-	Good Condition	Moderate	Low	400	SF	Manage in Place	
3	Room 322A	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Ceiling
3	Room 315	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	3	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
3	Room 314	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	3	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
3	Room 310	VFT (12"x12" – Brown w/ Dark Brown Streaks)	Confirmed	Non-Friable	Good Condition	Easy	Low	160	SF	Manage in Place	
3	Room 308	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
3	Room 306	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
3	Room 301B	Wall Texture Coat	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	
3	Throughout Level	Ceiling Plaster	Confirmed	Friable	Poor Condition	Moderate	Low	4,525	SF	Remove Following Minimum Type 3 Abatement Procedures	

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Floor/Level	Location	Type of ACM	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approximate Quantity	Unit	Recommended Action	Comments
2	Room 201B	Ceiling Tile (2'x4' – Varying Pinholes)	Confirmed	-	Good Condition	Moderate	Low	100	SF	Manage in Place	
2	Room 201C	Ceiling Tile (2'x4' – Varying Pinholes)	Confirmed	-	Good Condition	Moderate	Low	100	SF	Manage in Place	
2	Room 210	VFT (12"x12" – Brown w/ Dark Brown Streaks)	Confirmed	Non-Friable	Good Condition	Easy	Low	160	SF	Manage in Place	
2	Room 201	Wall Texture Coat	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	
2	Throughout Level	Ceiling Plaster	Confirmed	Friable	Poor Condition	Moderate	Low	3,800	SF	Remove Following Minimum Type 3 Abatement Procedures	
2	Throughout Level	Ceiling Plaster	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	*May be enclosed by ceiling tiles
2	Throughout Level	Wall Plaster	Confirmed	Friable	Varies	Moderate	Low	-	-	Manage in Place	*May be enclosed behind drywall
2	Throughout Level	Fire Doors	Suspected	-	Good Condition	Moderate	Low	-	-	Manage in Place	
2	Room 202	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	2	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
2	Room 204	Plaster	Confirmed	Friable	Poor Condition	Easy	Low	2	SF	Remove Following Type 2 Abatement Procedures	Wall
2	Room 206	Plaster	Confirmed	Friable	Poor Condition	Easy	Low	1	SF	Remove Following Type 2 Abatement Procedures	Wall
2	Room 207	Plaster	Confirmed	Friable	Poor Condition	Easy	Low	1	SF	Remove Following Type 2 Abatement Procedures	Wall

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Floor/Level	Location	Type of ACM	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approximate Quantity	Unit	Recommended Action	Comments
2	Room 212	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
2	Room 216	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	2	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
2	Room 221A	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	2	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall and ceiling
2	Room 224B	Plaster	Confirmed	Friable	Fair Condition	Moderate	Low	10	SF	Monitor Condition of Material. Consider Removal or Repair.	Ceiling (Overspray on Ceiling)
2	Room 226A	Plaster	Confirmed	Friable	Poor Condition	Easy	Low	5	SF	Remove Following Type 2 Abatement Procedures	Wall
2	Room 228	Plaster	Confirmed	Friable	Fair Condition	Moderate	Low	20	SF	Monitor Condition of Material. Consider Removal or Repair.	Ceiling (Overspray on Ceiling)
1	Throughout Level	Ceiling Plaster	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	*May be enclosed by ceiling tiles
1	Throughout Level	Wall Plaster	Confirmed	Friable	Varies	Moderate	Low	-	-	Manage in Place	*May be enclosed behind drywall
1	Throughout Level	Fire Doors	Suspected	-	Good Condition	Moderate	Low	-	-	Manage in Place	
1	Room 104	Ceiling Tile (2'x4' – Varying Pinholes)	Confirmed	-	Good Condition	Moderate	Low	215	SF	Manage in Place	
1	Room 111	VFT (12" x12" – Brown w/ Dark Brown Streaks)	Confirmed	Non-Friable	Good Condition	Easy	Low	160	SF	Manage in Place	

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Floor/Level	Location	Type of ACM	Asbestos Confirmed/Suspected	Friable/Non-Friable	Damaged/Deteriorated	Accessibility	Level of Work Near Material	Approximate Quantity	Unit	Recommended Action	Comments
1	Room 102A	Wall Texture Coat	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	
1	Throughout Level	Ceiling Plaster	Confirmed	Friable	Poor Condition	Moderate	Low	3,800	SF	Remove Following Minimum Type 3 Abatement Procedures	
1	Room 104A	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
1	Room 114	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
1	Room 115	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	2	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
1	Room 116	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
1	Room 128B	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
1	Room 128B	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	3	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall

Floor/Level	Location	Type of ACM	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approximate Quantity	Unit	Recommended Action	Comments
0	Throughout Level	Ceiling Plaster	Confirmed	Friable	Poor Condition	Moderate	Low	10,000	SF	Remove Following Minimum Type 3 Abatement Procedures	
0	Throughout Level	Ceiling Plaster	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	*May be enclosed by ceiling tiles
0	Throughout Level	Fire Doors	Suspected	-	Good Condition	Moderate	Low	-	-	Manage in Place	
00	Room 002	Mechanical Pipe Straight Insulation	Confirmed	Friable	Poor Condition	Moderate	Low	2	LF	Repair or Remove Following Type 2 (Glovebag) Abatement Procedures	
00	Room 002	Mechanical Pipe Straight Insulation	Confirmed	Friable	Good Condition	Moderate	Low	45	LF	Manage in Place	
00	Room 002	Mechanical Pipe/Elbow Fitting Parging Cement	Confirmed	Friable	Poor Condition	Moderate	Low	1	C	Repair or Remove Following Type 2 (Glovebag) Abatement Procedures	
00	Room 002	Mechanical Pipe/Elbow Fitting Parging Cement	Confirmed	Friable	Good Condition	Moderate	Low	22	C	Manage in Place	
00	Room 006	Plaster	Confirmed	Friable	Fair Condition	Easy	Low	1	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall
00	Room 007	Mechanical Pipe/Elbow Fitting Parging Cement	Confirmed	Friable	Good Condition	Moderate	Low	11	C	Manage in Place	

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Floor/Level	Location	Type of ACM	Asbestos Confirmed/ Suspected	Friable/Non-Friable	Damaged/ Deteriorated	Accessibility	Level of Work Near Material	Approximate Quantity	Unit	Recommended Action	Comments
00	Room 0020	Drywall Joint Compound	Confirmed	Non-Friable	Fair Condition	Easy	Low	5	SF	Monitor Condition of Material. Consider Removal or Repair.	Wall (Water Damage)
00	Room 0023	Mechanical Pipe/Elbow Fitting Parging Cement	Confirmed	Friable	Good Condition	Moderate	Low	3	C	Manage in Place	
00	Room 0028	Mechanical Pipe/Elbow Fitting Parging Cement	Confirmed	Friable	Good Condition	Moderate	Low	12	C	Manage in Place	
00	Room 0023	Wall Texture Coat	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	
00	Room 002A	Wall Texture Coat	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	
00	Throughout Level	Ceiling Plaster	Confirmed	Friable	Good Condition	Moderate	Low	-	-	Manage in Place	*May be enclosed by ceiling tiles
00	Throughout Level	Fire Doors	Suspected	-	Good Condition	Moderate	Low	-	-	Manage in Place	

APPENDIX F

Hazardous Containing Materials Checklists

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Hazardous Materials Survey and 2022 Reassessment
Appendix F - Hazardous Containing Materials Checklist

Z1920014HZ / CCC-230252-00

Floor/Level	Location	Type	Component	Colour	Condition	Manufacturer	Approximate Quantity	Unit	Suspected/ Confirmed	Recommended Action	Comments
6	Throughout Level	Lead	Wall Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
6	Throughout Level	Lead	Door Paint	Dark Grey	Good Condition	N/A	-	-	Confirmed	Manage in Place	
6	Throughout Level	Lead	Door Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
6	Throughout Level	Lead	Stair Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
6	Room 600	Lead	Floor Paint	Grey	Poor Condition	N/A	260	SF	Confirmed	Paint must be removed and/or stabilized following Class 1/2 or Type 1/2 Lead Procedures as per MOL and EACO Guidelines.	*Must follow appropriate asbestos abatement procedures *Refer to ACM Checklist regarding ceiling plaster
6	Throughout Level	Mercury	Fluorescent Light Tubes	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	
6	Throughout Level	Silica	Concrete, Mortar, Etc.	N/A	Good Condition	N/A	-	-	Confirmed	Manage in Place	
5	Throughout Level	Lead	Wall Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
5	Throughout Level	Lead	Door Paint	Dark Grey	Good Condition	N/A	-	-	Confirmed	Manage in Place	
5	Throughout Level	Lead	Door Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
5	Room 508	Lead	Wall Paint	Orange/Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
5	Room 509	Lead	Wall Paint	Grey	Good Condition	N/A	-	-	Confirmed	Manage in Place	
5	Room 508	Lead	Door Paint	Blue	Good Condition	N/A	-	-	Confirmed	Manage in Place	
5	Throughout Level	Lead	Stair Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
5	Throughout Level	Lead	Ceiling Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	

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Floor/Level	Location	Type	Component	Colour	Condition	Manufacturer	Approximate Quantity	Unit	Suspected/ Confirmed	Recommended Action	Comments
5	Throughout Level	Lead	Ceiling Paint	Beige	Poor Condition	N/A	-	-	Confirmed	Precautions should be taken during renovations to ensure that workers' exposure levels to airborne silica does not exceed 0.05 mg/m3 as per MOL Guideline.	*Must follow appropriate asbestos abatement procedures *Refer to ACM Checklist regarding ceiling plaster
5	Throughout Level	Mercury	Fluorescent Light Tubes	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	
5	Room 511	Mercury	Pressure Gauges	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	
5	Room 512	Mercury	Pressure Gauges	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	
5	Throughout Level	Silica	Concrete, Mortar, Etc.	N/A	Good Condition	N/A	-	-	Confirmed	Manage in Place	
4	Throughout Level	Silica	Concrete, Mortar, Etc.	N/A	Good Condition	N/A	-	-	Confirmed	Manage in Place	
4	Throughout Level	Lead	Wall Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
4	Throughout Level	Lead	Door Paint	Dark Grey	Good Condition	N/A	-	-	Confirmed	Manage in Place	
4	Throughout Level	Lead	Door Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
4	Throughout Level	Lead	Stair Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
4	Throughout Level	Lead	Ceiling Paint	Beige	Poor Condition	N/A	-	-	Confirmed	Precautions should be taken during renovations to ensure that workers' exposure levels to airborne silica does not exceed 0.05 mg/m3 as per MOL Guideline.	*Must follow appropriate asbestos abatement procedures *Refer to ACM Checklist regarding ceiling plaster
4	Throughout Level	Lead	Ceiling Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
4	Throughout Level	Mercury	Fluorescent Light Tubes	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	

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Floor/Level	Location	Type	Component	Colour	Condition	Manufacturer	Approximate Quantity	Unit	Suspected/ Confirmed	Recommended Action	Comments
4	Room 401	Ozone Depleting Substances (ODS)	Water Fountain	N/A	Good Condition	Elkay	1	C	Confirmed	Manage in Place	R134a
3	Throughout Level	Lead	Wall Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
3	Throughout Level	Lead	Wall Paint	Dark Blue	Good Condition	N/A	-	-	Confirmed	Manage in Place	
3	Throughout Level	Lead	Door Paint	Dark Grey	Good Condition	N/A	-	-	Confirmed	Manage in Place	
3	Throughout Level	Lead	Door Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
3	Throughout Level	Lead	Stair Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
3	Throughout Level	Lead	Ceiling Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
3	Throughout Level	Lead	Ceiling Paint	Beige	Poor Condition	N/A	-	-	Confirmed	Precautions should be taken during renovations to ensure that workers' exposure levels to airborne silica does not exceed 0.05 mg/m3 as per MOL Guideline.	*Must follow appropriate asbestos abatement procedures *Refer to ACM Checklist regarding ceiling plaster
3	Throughout Level	Mercury	Fluorescent Light Tubes	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	
3	Room 301	Ozone Depleting Substances (ODS)	Water Fountain	N/A	Good Condition	Elkay	1	C	Confirmed	Manage in Place	R134a
3	Throughout Level	Silica	Concrete, Mortar, Etc.	N/A	Good Condition	N/A	-	-	Confirmed	Manage in Place	
2	Throughout Level	Lead	Wall Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
2	Throughout Level	Lead	Door Paint	Dark Grey	Good Condition	N/A	-	-	Confirmed	Manage in Place	
2	Throughout Level	Lead	Door Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
2	Throughout Level	Lead	Stair Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	

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Floor/Level	Location	Type	Component	Colour	Condition	Manufacturer	Approximate Quantity	Unit	Suspected/ Confirmed	Recommended Action	Comments
2	Throughout Level	Lead	Ceiling Paint	Beige	Poor Condition	N/A	-	-	Confirmed	Precautions should be taken during renovations to ensure that workers' exposure levels to airborne silica does not exceed 0.05 mg/m3 as per MOL Guideline.	*Must follow appropriate asbestos abatement procedures *Refer to ACM Checklist regarding ceiling plaster
2	Throughout Level	Lead	Ceiling Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
2	Throughout Level	Mercury	Fluorescent Light Tubes	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	
2	Room 201	Ozone Depleting Substances (ODS)	Water Fountain	N/A	Good Condition	Elkay	1	C	Confirmed	Manage in Place	R134a
2	Throughout Level	Silica	Concrete, Mortar, Etc.	N/A	Good Condition	N/A	-	-	Confirmed	Manage in Place	
1	Throughout Level	Lead	Wall Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
1	Throughout Level	Lead	Door Paint	Dark Grey	Good Condition	N/A	-	-	Confirmed	Manage in Place	
1	Throughout Level	Lead	Door Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
1	Throughout Level	Lead	Stair Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
1	Throughout Level	Lead	Ceiling Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
1	Throughout Level	Lead	Ceiling Paint	Beige	Poor Condition	N/A	-	-	Confirmed	Precautions should be taken during renovations to ensure that workers' exposure levels to airborne silica does not exceed 0.05 mg/m3 as per MOL Guideline.	*Must follow appropriate asbestos abatement procedures *Refer to ACM Checklist regarding ceiling plaster
1	Throughout Level	Mercury	Fluorescent Light Tubes	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	

Simard Hall, Ottawa, Ontario
Hazardous Materials Survey and 2022 Reassessment
Appendix F - Hazardous Containing Materials Checklist

Z1920014HZ / CCC-230252-00

Floor/Level	Location	Type	Component	Colour	Condition	Manufacturer	Approximate Quantity	Unit	Suspected/ Confirmed	Recommended Action	Comments
1	Room 123B	Mercury	Pressure Gauges	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	
1	Room 126	Water Damage	Drywall Joint Compound	N/A	Fair Condition	-	4	SF	Confirmed	Manage in Place. If affected by renovation/demolition, must be removed and disposed of as per EACO Guidelines.	
1	Throughout Level	Silica	Concrete, Mortar, Etc.	N/A	Good Condition	N/A	-	-	Confirmed	Manage in Place	
0	Throughout Level	Lead	Wall Paint	Blue	Good Condition	N/A	-	-	Confirmed	Manage in Place	
0	Throughout Level	Lead	Door Paint	Dark Grey	Good Condition	N/A	-	-	Confirmed	Manage in Place	
0	Throughout Level	Lead	Door Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
0	Throughout Level	Lead	Stair Paint	Brown	Good Condition	N/A	-	-	Confirmed	Manage in Place	
0	Throughout Level	Lead	Ceiling Paint	Beige	Poor Condition	N/A	-	-	Confirmed	Precautions should be taken during renovations to ensure that workers' exposure levels to airborne silica does not exceed 0.05 mg/m3 as per MOL Guideline.	*Must follow appropriate asbestos abatement procedures *Refer to ACM Checklist regarding ceiling plaster
0	Throughout Level	Lead	Ceiling Paint	Beige	Good Condition	N/A	-	-	Confirmed	Manage in Place	
0	Throughout Level	Mercury	Fluorescent Light Tubes	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	
0	Room 02D	Ozone Depleting Substances (ODS)	Water Fountain	N/A	Good Condition	Elkay	1	C	Confirmed	Manage in Place	R134a
0	Throughout Level	Silica	Concrete, Mortar, Etc.	N/A	Good Condition	N/A	-	-	Confirmed	Manage in Place	
00	Throughout Level	Lead	Door Paint	Yellow	Good Condition	N/A	-	-	Confirmed	Manage in Place	
00	Throughout Level	Mercury	Fluorescent Light Tubes	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	

Simard Hall, Ottawa, Ontario
 Hazardous Materials Survey and 2022 Reassessment
 Appendix F - Hazardous Containing Materials Checklist

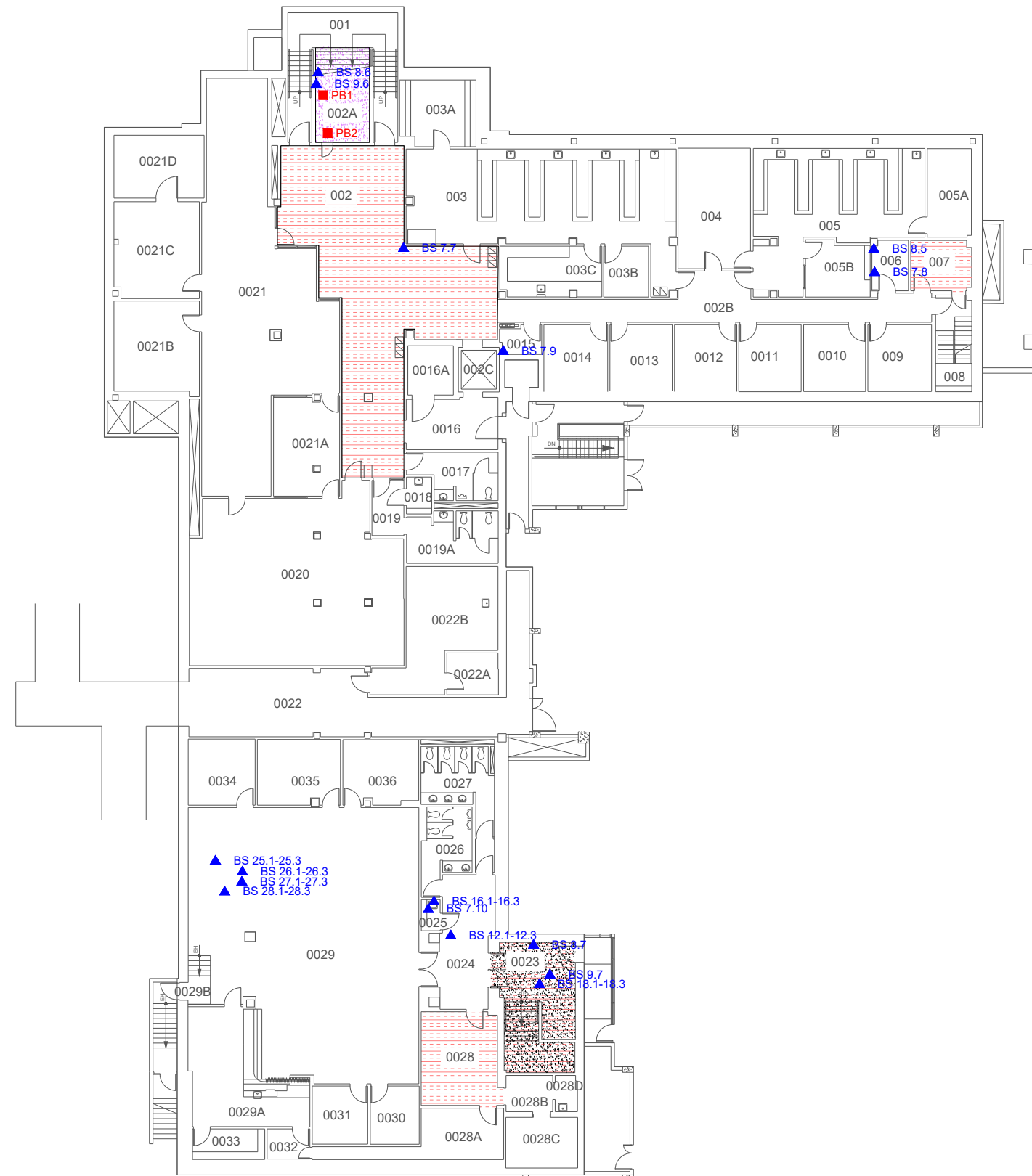
Z1920014HZ / CCC-230252-00

Floor/Level	Location	Type	Component	Colour	Condition	Manufacturer	Approximate Quantity	Unit	Suspected/Confirmed	Recommended Action	Comments
00	Room 007	Mercury	Pressure Gauges	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	
00	Room 0020	Water Damage	Drywall Joint Compound	N/A	Fair Condition	-	5	SF	Confirmed	Manage in Place. If affected by renovation/demolition, must be removed and disposed of as per EACO Guidelines.	Asbestos-containing Drywall Joint Compound present
00	Room 0021B	Mercury	Pressure Gauges	N/A	Good Condition	-	-	-	Confirmed	Manage in Place	
00	Room 0029A	Ozone Depleting Substances (ODS)	Refrigerator	N/A	Good Condition	-	2	C	Confirmed	Manage in Place	R134a
00	Throughout Level	Silica	Concrete, Mortar, Etc.	N/A	Good Condition	N/A	-	-	Confirmed	Manage in Place	

APPENDIX G

Site Sampling & Location Plans

REV DATE	DESCRIPTION	BY



- Legend:**
- ▲ Asbestos Bulk Sample
 - Lead Paint Sample
- Notes:**
- ACM plaster is present throughout
- ACM Ceiling Tile
 - ACM Vinyl Floor Tile (VFT)
 - ACM Mechanical Insulation
 - ACM Wall Texture Coat

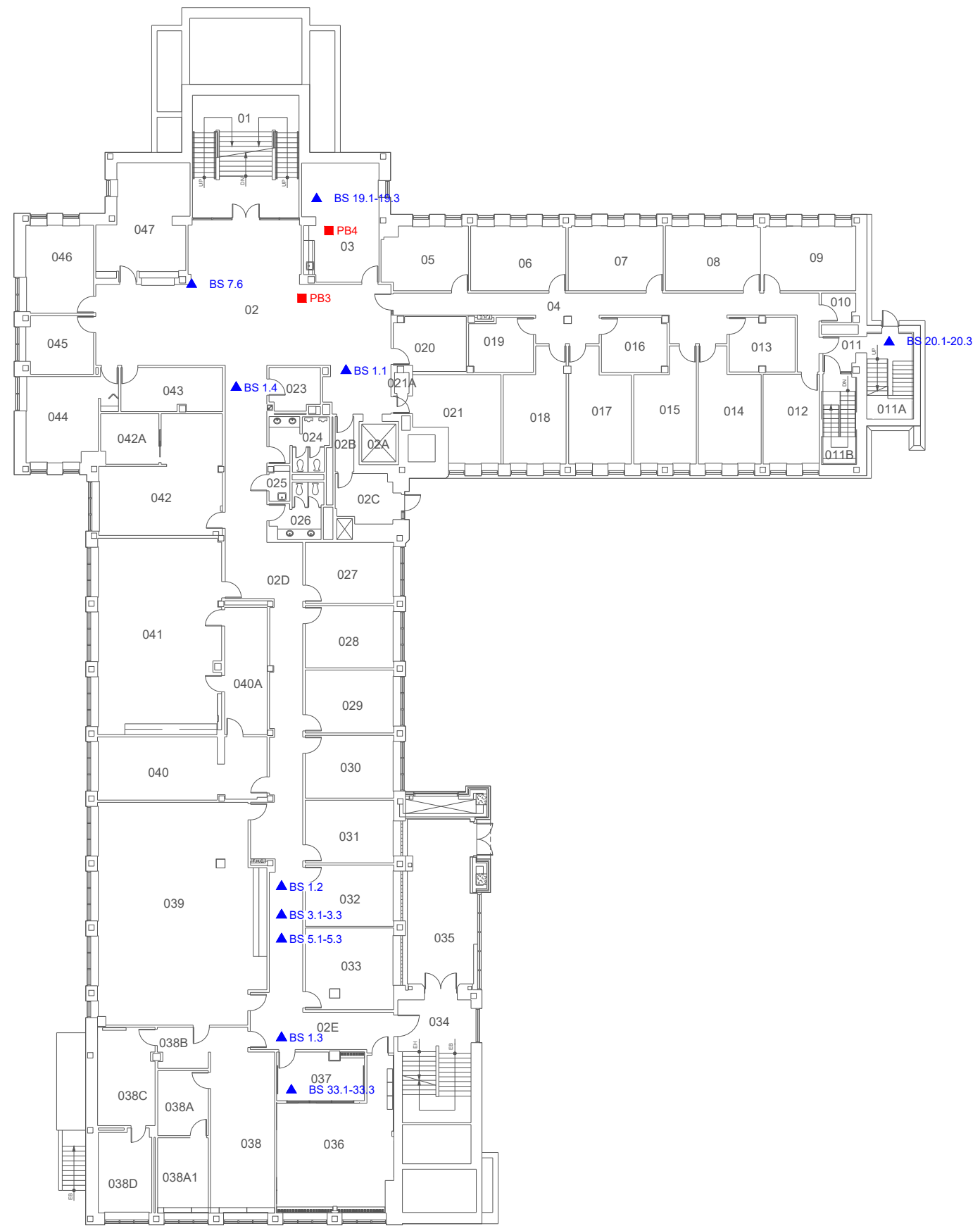
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Dessin / Drawing:		SITE PLAN & SAMPLE LOCATIONS	
Édifice/Bldg	060	Niveau/Level:	00
Echelle/Scale:	1:300	Feuille/Sheet:	A-00
Revision:	1	of/de	of/de

BUILDING COMBINED

REV DATE	DESCRIPTION	BY



- Legend:**
- ▲ Asbestos Bulk Sample
 - Lead Paint Sample
 - ACM Ceiling Tile
 - ACM Vinyl Floor Tile (VFT)
 - ACM Mechanical Insulation
 - ACM Wall Texture Coat
- Notes:**
ACM plaster is present throughout

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Édifice/Bldg	060	Niveau/Level:	0
Feuille/Sheet:			
Echelle/Scale:	1:300	Revision:	1
		08/09/2015	A-0 of/de

BUILDING COMBINED





JB

REV DATE	DESCRIPTION	BY



Legend:
▲ Asbestos Bulk Sample
■ Lead Paint Sample

Notes:
ACM plaster is present throughout

-  ACM Ceiling Tile
-  ACM Vinyl Floor Tile (VFT)
-  ACM Mechanical Insulation
-  ACM Wall Texture Coat

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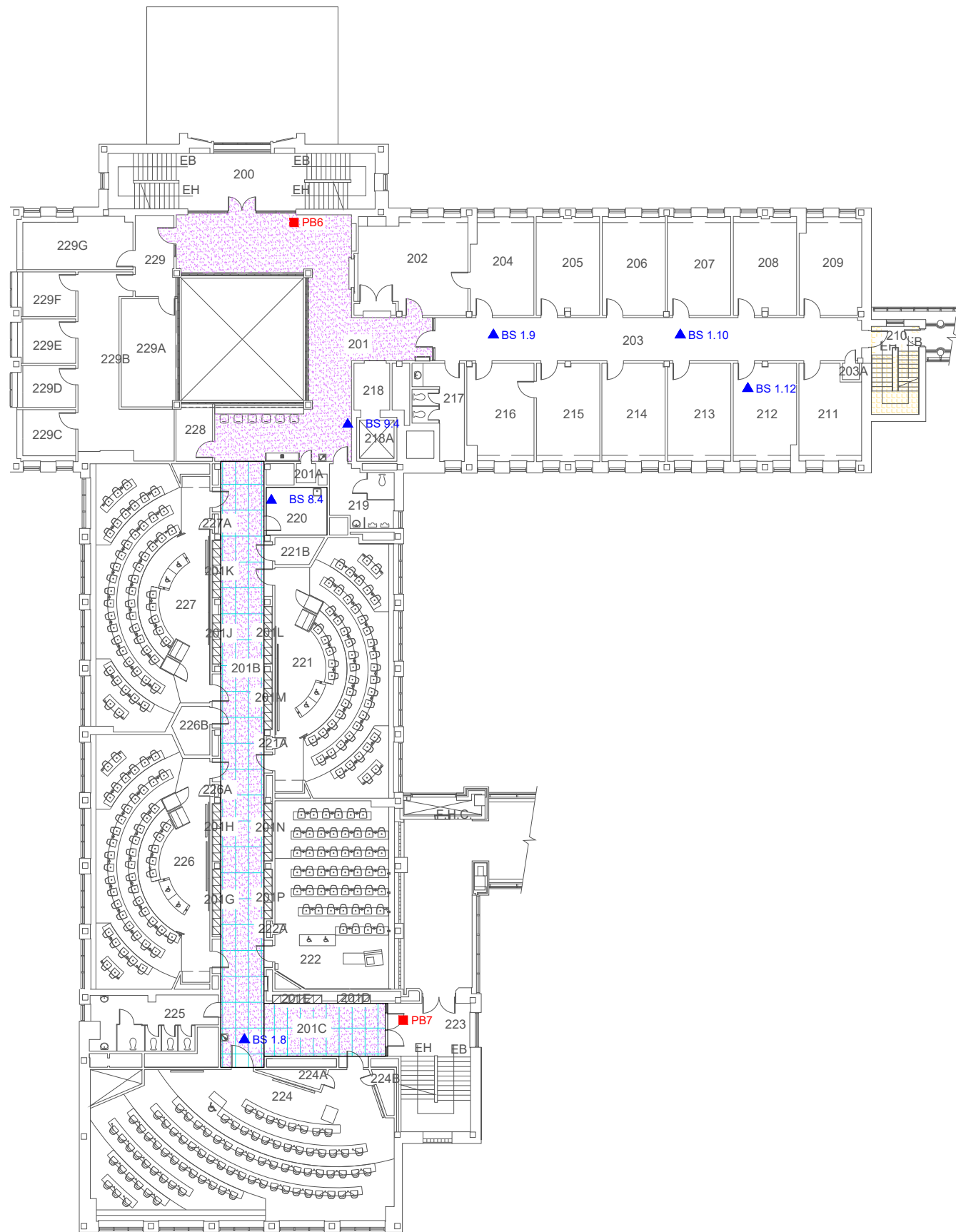
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Dessin / Drawing:
**SITE PLAN &
SAMPLE LOCATIONS**

Édifice/Bldg 060	Niveau/Level: 1
Echelle/Scale: 1:300	Revision: 1
08/09/2015	A-1 of/de

BUILDING COMBINED JB

REV DATE	DESCRIPTION	BY



- Legend:**
- ▲ Asbestos Bulk Sample
 - Lead Paint Sample
 - ACM Ceiling Tile
 - ACM Vinyl Floor Tile (VFT)
 - ACM Mechanical Insulation
 - ACM Wall Texture Coat
- Notes:**
- ACM plaster is present throughout

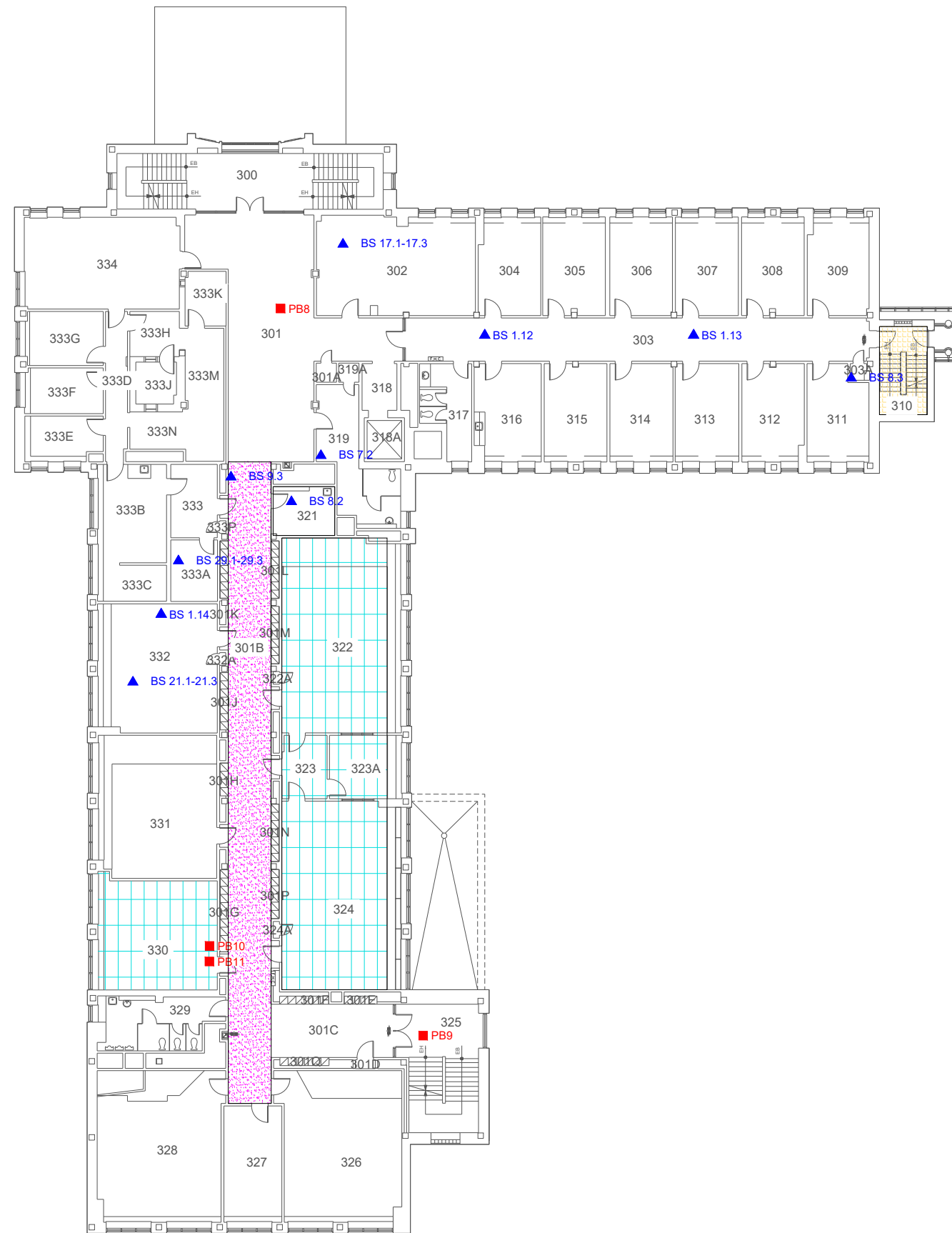
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Dessin / Drawing:		SITE PLAN & SAMPLE LOCATIONS	
Édifice/Bldg	060	Niveau/Level:	2
Echelle/Scale:	1:300	Feuille/Sheet:	A-2 of/de
Revision:	1	Date:	09/09/2015

BUILDING COMBINED

REV DATE	DESCRIPTION	BY



- Legend:**
- ▲ Asbestos Bulk Sample
 - Lead Paint Sample
 - ACM Ceiling Tile
 - ACM Vinyl Floor Tile (VFT)
 - ACM Mechanical Insulation
 - ACM Wall Texture Coat
- Notes:**
ACM plaster is present throughout

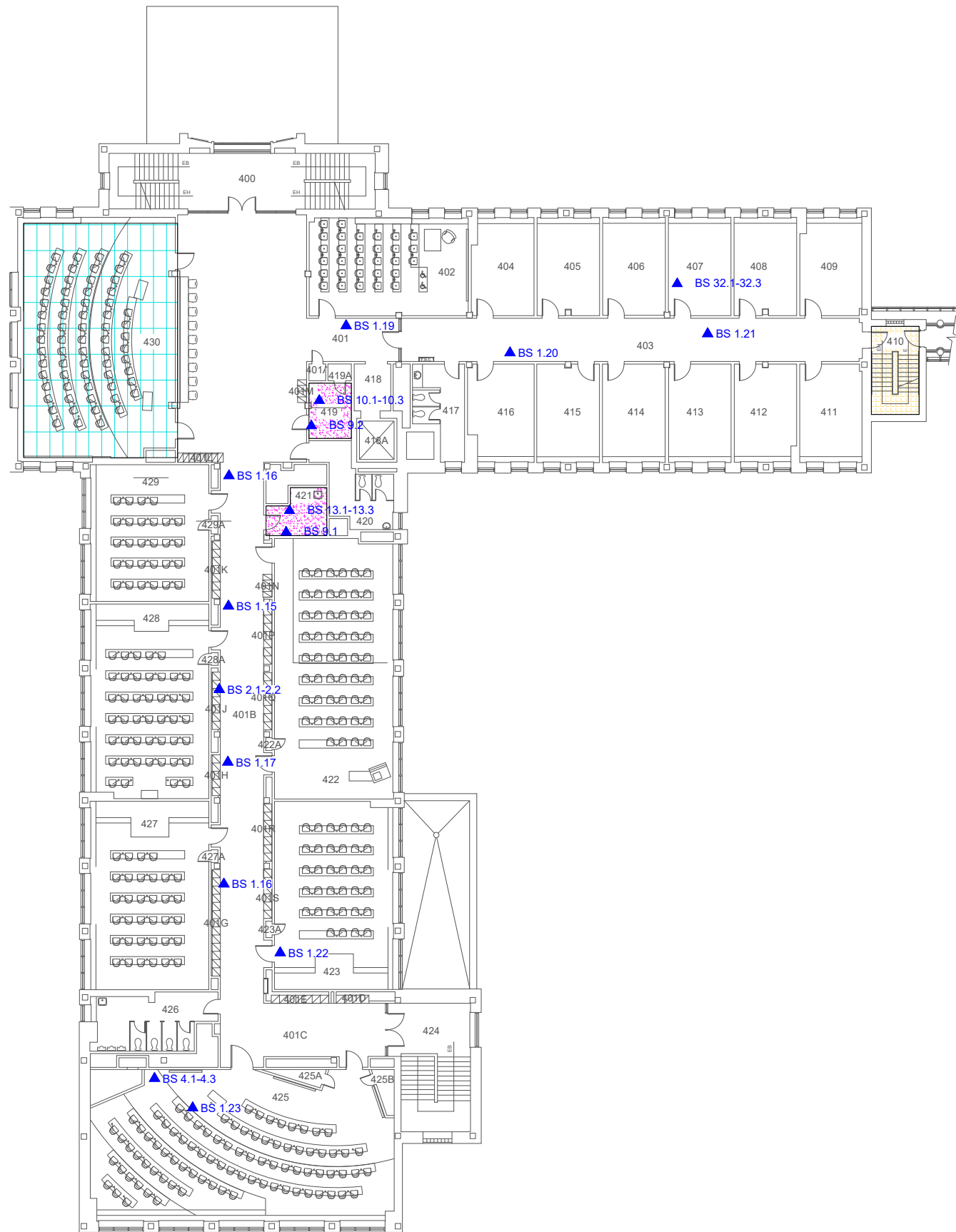
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Édifice/Bldg	Niveau/Level:	Échelle/Scale:	Revision:
060	3	1:300	1
Feuille/Sheet:	A-3 of/de		
09/09/2015			

BUILDING COMBINED JB

REV DATE	DESCRIPTION	BY



- Legend:**
- ▲ Asbestos Bulk Sample
 - Lead Paint Sample
 - ACM Ceiling Tile
 - ACM Vinyl Floor Tile (VFT)
 - ACM Mechanical Insulation
 - ACM Wall Texture Coat
- Notes:**
ACM plaster is present throughout

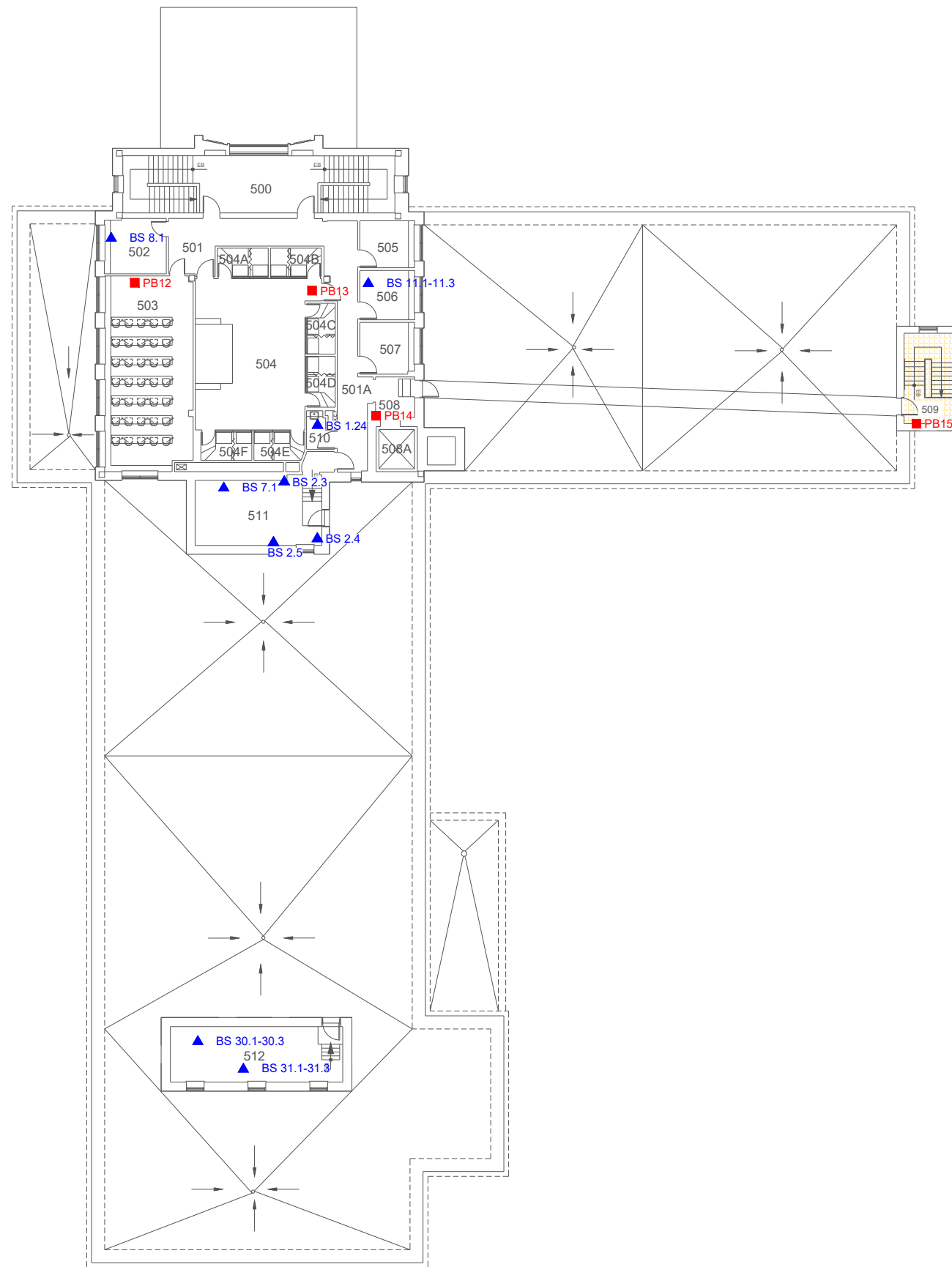
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Dessin / Drawing:		SITE PLAN & SAMPLE LOCATIONS	
Édifice/Bldg	060	Niveau/Level:	4
Echelle/Scale:	1:300	Revision:	1
		Feuille/Sheet:	A-4 of/de





BUILDING COMBINED

REV DATE	DESCRIPTION	BY



Legend:
▲ Asbestos Bulk Sample
■ Lead Paint Sample

Notes:
ACM plaster is present throughout

-  ACM Ceiling Tile
-  ACM Vinyl Floor Tile (VFT)
-  ACM Mechanical Insulation
-  ACM Wall Texture Coat

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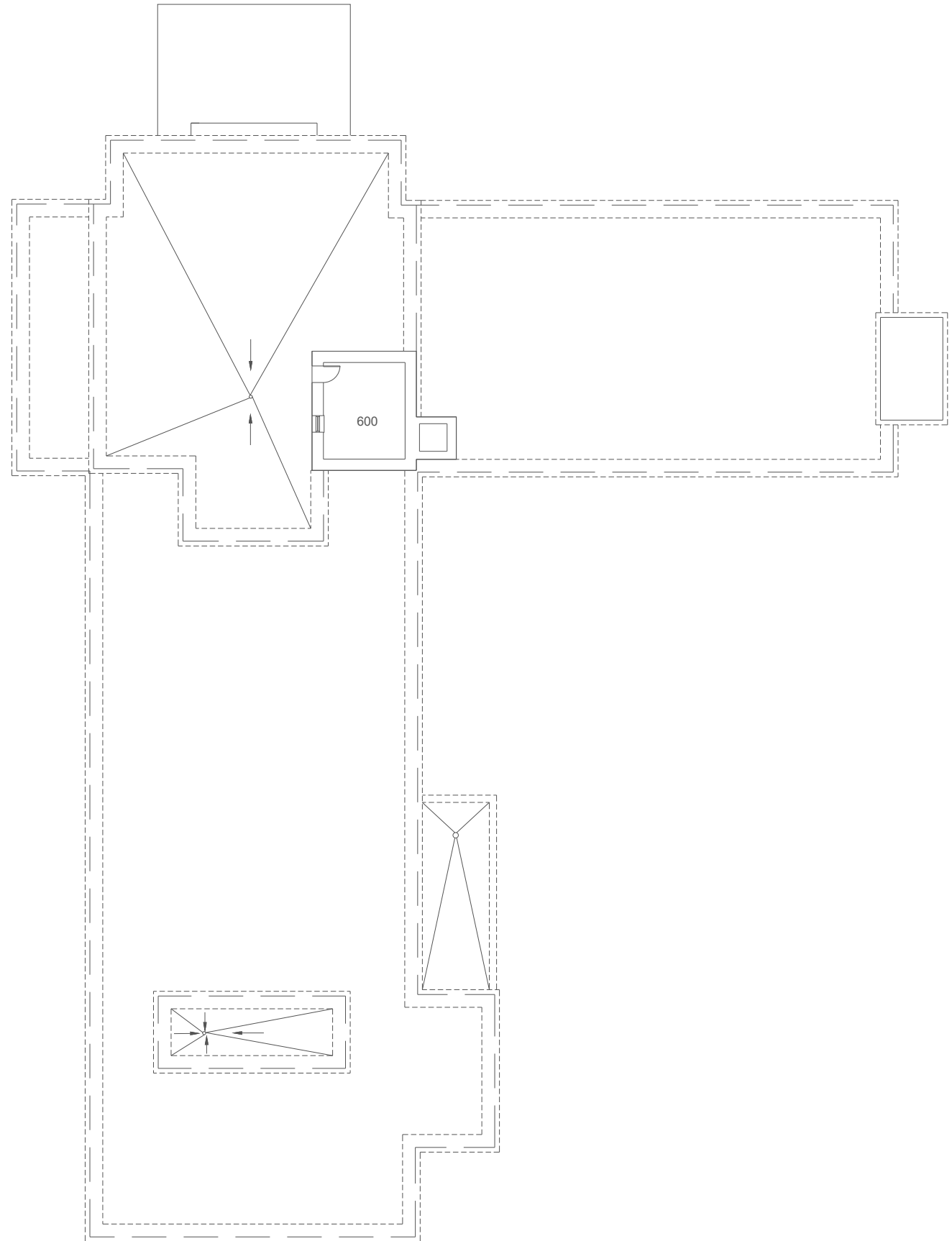
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Dessin / Drawing:
**SITE PLAN &
SAMPLE LOCATIONS**

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Echelle/Scale: 1:300	Revised: 1
09/09/2015	A-5 of/de




JB BUILDING COMBINED

REV DATE	DESCRIPTION	BY



Legend:
▲ Asbestos Bulk Sample
■ Lead Paint Sample

Notes:
ACM plaster is present throughout

-  ACM Ceiling Tile
-  ACM Vinyl Floor Tile (VFT)
-  ACM Mechanical Insulation
-  ACM Wall Texture Coat

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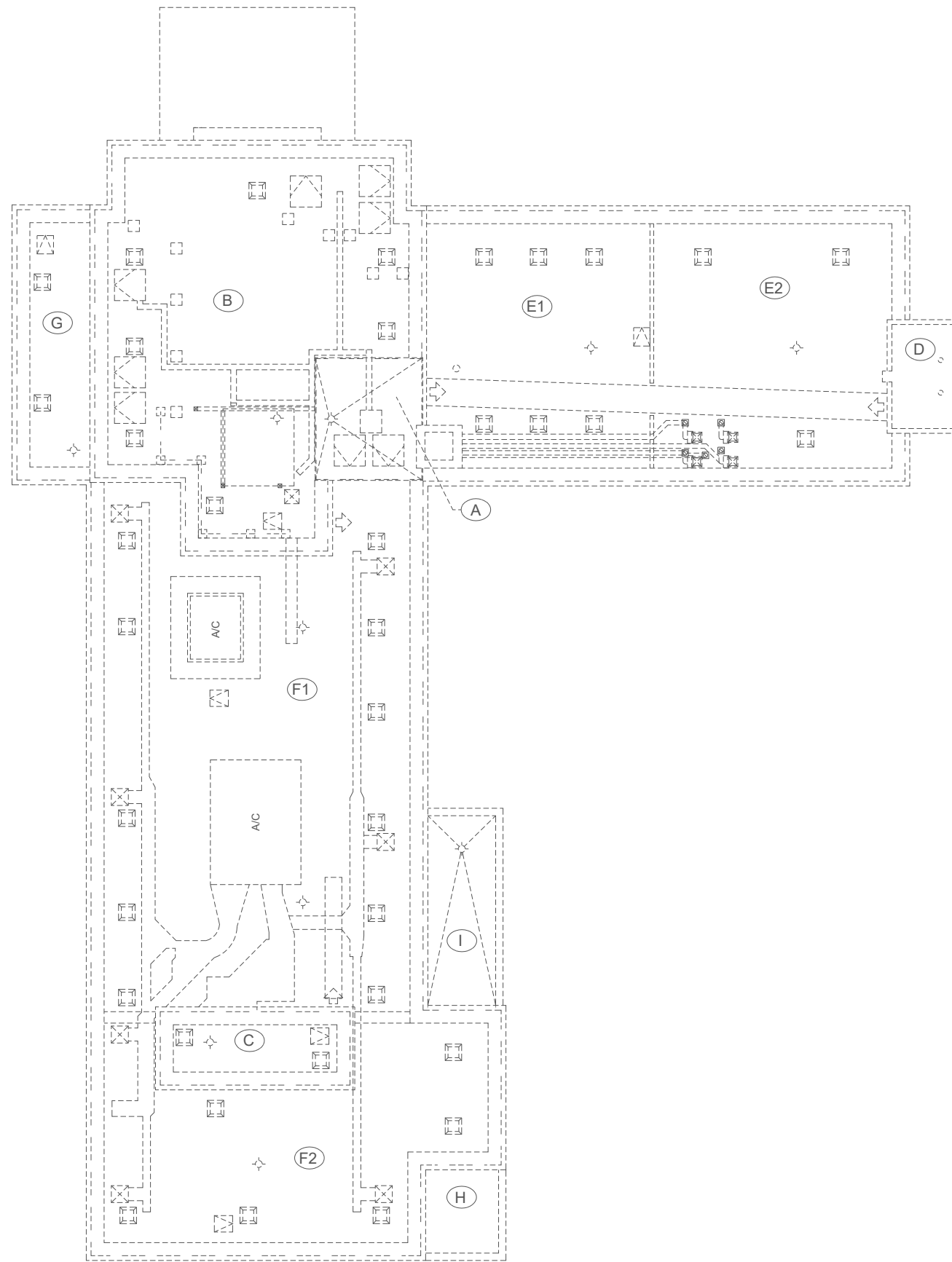
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Dessin / Drawing:
**SITE PLAN &
SAMPLE LOCATIONS**

Édifice/Bldg 060	Niveau/Level: 6
Echelle/Scale: 1:300	Revision: 1
08/09/2015	A-6 of/de





JB BUILDING COMBINED

REV DATE	DESCRIPTION	BY



Legend:
▲ Asbestos Bulk Sample
■ Lead Paint Sample

Notes:
ACM plaster is present throughout

-  ACM Ceiling Tile
-  ACM Vinyl Floor Tile (VFT)
-  ACM Mechanical Insulation
-  ACM Wall Texture Coat

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Dessin / Drawing:
**SITE PLAN &
SAMPLE LOCATIONS**

Édifice/Bldg 060	Niveau/Level: 7
Echelle/Scale: 1:300	Revision: 1
08/09/2015	A-7 of/de

JB BUILDING COMBINED