

## **Asbestos Building Materials Assessment**

Multi-Residential Building  
105 Lewis Street East  
Merrickville ON



Prepared for:  
United Counties of Leeds & Grenville  
100-25 Central Avenue West  
Brockville ON K6V 4N6

Prepared by:  
Stantec Consulting Ltd.  
400-1331 Clyde Avenue  
Ottawa ON K2C 3G4

Project No.: 122150275

February 15, 2017

## Table of Contents

<b>EXECUTIVE SUMMARY</b> .....	<b>ii</b>
<b>1.0 INTRODUCTION</b> .....	<b>1</b>
<b>2.0 SCOPE</b> .....	<b>1</b>
2.1 LIMITATIONS .....	2
2.1.1 Project-Specific Limitations .....	3
2.1.2 Information from Previous Reports .....	3
<b>3.0 REGULATORY FRAMEWORK</b> .....	<b>3</b>
<b>4.0 ASSESSMENT METHODOLOGY</b> .....	<b>4</b>
4.1 FACILITY DESCRIPTION .....	4
4.2 DOCUMENT REVIEW.....	5
<b>5.0 FINDINGS</b> .....	<b>5</b>
5.1 FRIABLE ASBESTOS-CONTAINING MATERIALS.....	5
5.2 NON-FRIABLE ASBESTOS-CONTAINING MATERIALS.....	6
5.3 PRESUMED ASBESTOS-CONTAINING MATERIALS .....	6
5.4 NON-ASBESTOS-CONTAINING MATERIALS .....	7
5.5 POTENTIAL FOR VERMICULITE INSULATION .....	7
<b>6.0 RECOMMENDATIONS</b> .....	<b>7</b>
<b>7.0 CLOSURE</b> .....	<b>8</b>

### LIST OF APPENDICES

<b>APPENDIX A</b>	<b>SUMMARY OF RESULTS FOR ANALYSIS OF BULK SAMPLES FOR ASBESTOS CONTENT</b>
<b>APPENDIX B</b>	<b>LABORATORY ANALYTICAL REPORTS – ASBESTOS: POLARIZED LIGHT MICROSCOPY</b>
<b>APPENDIX C</b>	<b>SUMMARY OF OCCURRENCES OF ASBESTOS-CONTAINING MATERIALS</b>
<b>APPENDIX D</b>	<b>SELECTED SITE PHOTOGRAPHS</b>

## Executive Summary

Stantec Consulting Ltd. (Stantec) was commissioned by the United Counties of Leeds & Grenville (Leeds Grenville) to conduct an Asbestos Building Materials Assessment of the multi-residential building (subject building), located at 105 Lewis Street East in Merrickville, Ontario.

The purpose of the assessment was to assist Leeds Grenville to meet the requirements of *Ontario Regulation 278/05 Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations*, as amended (O. Reg. 278/05), made under the *Occupational Health and Safety Act* (OHSA). The assessment includes the identification of building materials suspected to be asbestos-containing materials (ACMs) that may require special attention during the operation of the building.

The assessment is intended for the long-term management of asbestos-containing building materials to be included as part of an overall Asbestos Management Program (AMP) and not for construction or renovations purposes. The conclusions presented herein represent the findings for a limited number of residential units. Intrusive inspections and additional testing of suspect ACMs and presumed asbestos-containing materials (PACMs) may be required to complement the information provided in this report if any work activities are planned which may disturb ACMs and/or PACMs.

The work was carried out in accordance with the requirements of the OHSA. The site work was conducted by Victoria Pereira on January 17, 2017.

Based on the visual assessment and laboratory analysis, ACMs were identified to be present in the form of:

- Stucco (friable);
- 12"x12" vinyl floor tiles – beige with black spots (non-friable);
- Drywall joint-fill compound (non-friable).
- Exterior window caulking – black (non-friable);
- Exterior window caulking – brown (non-friable);
- Exterior door caulking – dark brown (non-friable); and,
- Exterior and interior window and door glazing compound – grey (non-friable).

The 12"x12" vinyl floor tile – beige with black spots was observed to be in poor condition (one (1) loose tile) in the communal storage room.

The remaining materials were observed to be in good condition.

## ASBESTOS BUILDING MATERIALS ASSESSMENT

The following building materials were observed to be present but not sampled, and are listed as PACMs:

- Cement pipe;
- Mastic associated with 12" x 12" vinyl floor tile – beige with green smears;
- Mastic associated with vinyl floor tiles;
- Ceramic tile grout and mortar/adhesive;
- Fire rated doors;
- Brick mortar; and,
- Roof caulking.

These materials were observed to be in good condition. These materials were not sampled to preserve their integrity. As these materials are known to have been manufactured with asbestos, they should be presumed to be asbestos-containing unless proven otherwise by laboratory analysis.

Similar materials are likely to present in units not assessed and these should be treated as ACMs or PACMs.

The statements made in this Executive Summary text are subject to the same limitations included in this report, and are to be read in conjunction with the remainder of this report.

Recommendations pertaining to the handling, removal, disposal and management of identified asbestos-containing materials are provided within this report.

# ASBESTOS BUILDING MATERIALS ASSESSMENT

February 15, 2017

## 1.0 INTRODUCTION

Stantec Consulting Ltd. (Stantec) was commissioned by the United Counties of Leeds & Grenville (Leeds Grenville) to conduct an Asbestos Building Materials Assessment of the multi-residential building (subject building), located at 105 Lewis Street East in Merrickville, Ontario.

The purpose of the assessment was to assist Leeds Grenville to meet the requirements of *Ontario Regulation 278/05 Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations*, as amended (O. Reg. 278/05), made under the *Occupational Health and Safety Act* (OHSa). The assessment includes the identification of building materials suspected to be asbestos-containing materials (ACMs) that may require special attention during the operation of the building.

The assessment is intended for the long-term management of asbestos-containing building materials to be included as part of an overall Asbestos Management Program (AMP) and not for construction or renovations purposes. The conclusions presented herein represent the findings for a limited number of residential units. Intrusive inspections and additional testing of suspect ACMs and presumed asbestos-containing materials (PACMs) may be required to complement the information provided in this report if any work activities are planned which may disturb ACMs and/or PACMs.

The work was carried out in accordance with the requirements of the OHSa. The site work was conducted by Victoria Pereira on January 17, 2017.

## 2.0 SCOPE

The scope of work for this assessment involved the following:

- A review of existing information, including site drawings, previous assessment and/or abatement documentation and discussions with site personnel, where available;
- A visual assessment of readily accessible areas for the presence of asbestos-containing building materials; The assessment generally included common areas, mechanical rooms, and a representative number of residential units;
- The collection of representative bulk samples from building materials suspected of containing asbestos fibres;
- Submission of samples collected for laboratory analysis; and,
- Evaluation and interpretation of field findings and laboratory analytical results to develop conclusions and recommendations pertaining to the management of ACMs and PACMs identified within the building.

# ASBESTOS BUILDING MATERIALS ASSESSMENT

February 15, 2017

## 2.1 LIMITATIONS

This report reflects the observations made within accessed areas and the results of analyses performed on specific materials sampled during the assessment. Analytical results reflect the sampled materials at the specific sample locations.

Concealed spaces were assessed via existing access panels, where present. Interior and exterior finishes, solid ceilings, walls, flooring and structural elements were not removed to access concealed areas. An inaccessible area, where ACMs may be present includes, but is not limited to: ceiling spaces, wall cavities, crawlspaces, and buried materials.

Due to limitations on the agreed to scope of work for this project as well as physical limitations in accessing concealed areas and limitations associated with working in occupied/operational spaces, there are specific limitations to the information that can be provided for each suspect ACM or PACM considered in this assessment. The presence and asbestos content of some building materials could not be confirmed.

Building materials that may contain asbestos but were not accessible for sampling include, but are not limited to the following:

- Sub-grade materials (e.g., asbestos cement drainage pipe);
- Flooring material concealed beneath carpeting, ceramic tile, brickwork, hardwood flooring, and/or concealed beneath existing sub-floors;
- Insulation material present inside walls (e.g., suspected asbestos-containing vermiculite insulation inside concrete block and/or brick walls);
- Drywall and/or wall plaster and associated finish materials concealed behind new and/or additional walls;
- Woven tape inside duct connection joints;
- Mechanical (e.g., piping and ducting) insulation within wall cavities, crawlspaces tunnels or other concealed spaces;
- Insulation materials inside fire doors;
- Window and door glazing compounds;
- Heating, ventilation and air conditioning (HVAC) units mechanical inner linings and/or inner ducting insulation;
- Heat protection materials inside mechanical installations and light fixtures; and,
- Ceramic tile grout and mortar/adhesive concealed behind ceramic tiles.

## ASBESTOS BUILDING MATERIALS ASSESSMENT

February 15, 2017

### 2.1.1 Project-Specific Limitations

The areas included in this assessment were limited to the following:

- Units 104 and 204;
- Common areas (storage room, janitor room, communal storage room, garbage room, common room, laundry room, main entrance, stairs and corridors);
- Mechanical Rooms (crawl space and electrical room); and,
- Exterior.

The following areas were not accessed, for the reasons indicated:

- Roof (no access/sloped)

### 2.1.2 Information from Previous Reports

Stantec was not provided with previous reports for review.

## 3.0 REGULATORY FRAMEWORK

Asbestos is included in the *Ontario Regulation, 490/09 Designated Substances*, as amended (O. Reg. 490/09) made under Ontario's OHS Act, which primarily regulates worker exposure to asbestos during manufacturing of asbestos-containing products, but also includes requirements related to respiratory equipment, measurement of airborne fibres, and medical surveillance of exposed workers.

Ontario Regulation 278/05 clearly defines ACM as a material that contains 0.5 per cent or more asbestos by dry weight. Additionally, the regulation requires that the "record" (i.e., the Asbestos Building Materials Assessment) be updated at least once in each 12 month period or whenever the owner of the facility becomes aware of new information relating to the suspect and confirmed ACMs.

The general waste management regulation for the province of Ontario is *R.R.O. 1990, Regulation 347 General - Waste Management*, as amended (R.R.O. 1990, 347), under the *Environmental Protection Act* (EPA) of Ontario, sets out the requirements for the proper disposal of asbestos waste in Ontario. The waste must be placed in a double sealed container, properly labeled, free of cuts, tears or punctures and disposed of at a licensed waste station which has been properly notified of the presence of asbestos waste.

February 15, 2017

### 4.0 ASSESSMENT METHODOLOGY

Asbestos-containing materials are grouped into two classifications, friable and non-friable materials. Friable ACMs are those that can easily be crumbled or broken apart by mere hand pressure. When these materials break apart asbestos fibres are then released into the atmosphere. Non-friable ACMs or “manufactured products” are materials that by the nature of their manufacturing/construction do not readily allow the release of asbestos fibres. These materials should not be cut or shaped with power tools, since this procedure may allow for the release of the asbestos fibres. Some non-friable materials such as plaster, drywall and ceiling tiles are considered to be non-friable in an undisturbed state, but can release fibers when damaged or disturbed.

It is Stantec’s understanding that the subject building was constructed before 1990. This construction time period is consistent with those dates when asbestos-containing building materials were commonly used.

A visual assessment of accessible areas was undertaken in order to check for the presence of materials suspected of containing asbestos. Locations to collect discrete bulk asbestos samples of suspect building materials were identified. Samples of representative materials were then collected at these locations. An assessment of the condition and accessibility was completed for each occurrence of an ACM. The Public Works and Government Services Canada (PWGSC) document entitled *Deputy Ministers Directive 057 – Asbestos Management* (Last Revised June 16, 1999) was used as the basis for the criteria that was applied in evaluating the presence of ACMs and PACMs within the subject building, where applicable.

Samples of suspect ACMs from various building materials were collected and submitted to Paracel Laboratories Ltd. (Paracel) located in Ottawa, Ontario for analysis using Polarized Light Microscopy (PLM) with dispersion staining. The analysis was conducted following the U.S. EPA/600/R-93/116 Method. Paracel is certified under the National Voluntary Laboratory Accreditation Program (NVLAP) to perform asbestos analysis of bulk samples. Asbestos-containing materials are defined as a material that contains 0.5 per cent or more asbestos by dry weight.

A positive stop option was used. Multiple samples of visually similar material were collected and submitted for laboratory analysis. Once one sample within the set is identified to contain asbestos, further analysis of the subsequent samples is deemed to be unnecessary and not conducted.

#### 4.1 FACILITY DESCRIPTION

The multi-residential building located at 105 Lewis Street East consists of a two (2) level building with 20 units. The reported construction date of the building is 1979. The typical structural components and finishes associated with this building consist of brick exterior walls, various types



## ASBESTOS BUILDING MATERIALS ASSESSMENT

February 15, 2017

of flooring including cement, vinyl floor tile, ceramic tile and carpet and vinyl sheet flooring and interior concrete block and drywall walls with suspended ceiling tile and texture ceilings.

### 4.2 DOCUMENT REVIEW

Stantec was not provided with previous reports for review.

## 5.0 FINDINGS

A summary list of the bulk samples collected by Stantec, including a description of the material, sampling location, type of analysis and laboratory test results is provided in **Appendix A**. A copy of the PLM Laboratory Certificates of Analysis for bulk samples collected is provided in **Appendix B**.

A summary of occurrences of ACMs and/or PACMs is provided in **Appendix C**. Each ACM occurrence includes the following information:

- Room component that contains ACM;
- Location of the ACM within the room space;
- ACM description;
- Estimated quantity;
- Original sample number or representative sample number;
- Friability;
- Condition; and,
- Comments regarding recommended actions.

Selected site photographs are provided in **Appendix D**.

### 5.1 FRIABLE ASBESTOS-CONTAINING MATERIALS

Friable building materials were observed to be present and identified by laboratory analysis to be asbestos-containing in the form of:

- Stucco.

This material was observed to be in good condition.

## ASBESTOS BUILDING MATERIALS ASSESSMENT

February 15, 2017

### 5.2 NON-FRIABLE ASBESTOS-CONTAINING MATERIALS

Non-friable building materials were observed to be present and identified by laboratory analysis to be asbestos-containing in the form of:

- 12"x12" vinyl floor tiles – beige with black spots;
- Drywall joint-fill compound;
- Exterior window caulking – black;
- Exterior window caulking – brown;
- Exterior door caulking – dark brown; and,
- Exterior and interior window and door glazing compound – grey.

The 12"x12" vinyl floor tile – beige with black spots was observed to be in poor condition (one (1) loose tile) in the communal storage room. The remaining materials were observed to be in good condition.

It should be noted that drywall joint-fill compound is considered non-friable in its undisturbed state but can release fibers when damaged.

Similar asbestos-containing materials are likely to present in units not assessed and should be treated as asbestos-containing materials. Materials not sampled should be presumed to be asbestos-containing.

### 5.3 PRESUMED ASBESTOS-CONTAINING MATERIALS

The following building materials were observed to be present but not sampled, and are listed as PACMs:

- Cement pipe;
- Mastic associated with 12"x12" vinyl floor tile – beige with green smears;
- Mastic associated with vinyl floor tiles;
- Ceramic tile grout and mortar/adhesive;
- Fire rated doors;
- Brick mortar; and,
- Roof caulking.

These materials were observed to be in good condition. These materials were not sampled to preserve their integrity. As these materials are known to have been manufactured with asbestos, they should be presumed to be asbestos-containing unless proven otherwise by laboratory analysis.

February 15, 2017

### 5.4 NON-ASBESTOS-CONTAINING MATERIALS

It should be noted that the vinyl sheet flooring throughout the building and the windows in the units were reported by Leeds Grenville to have been removed and replaced within with last 3 years.

A summary list of the bulk samples collected during this assessment and confirmed to be non-ACMs by laboratory analysis is provided in **Appendix A**.

### 5.5 POTENTIAL FOR VERMICULITE INSULATION

Various walls of the subject building were comprised of masonry (concrete) blocks. Asbestos-contaminated vermiculite was historically used as insulating material in masonry block or brick walls. To assess for this potential ACM, destructive sampling is required, which was not conducted as part of this assessment. Although various holes, breaches and cracks were observed and no vermiculite was present, the presence of this potential ACM cannot be ruled out without destructive testing.

## 6.0 RECOMMENDATIONS

Stantec recommends the following with regards to meeting the requirements of O. Reg. 278/05:

- Damaged asbestos-containing 12"x12" vinyl floor tile – beige with black spots should be removed and disposed of following Type 1 abatement procedures;
- Asbestos-containing materials that may be impacted during renovation and/or demolition activities should be removed prior to the renovation and/or demolition activities;
- Prior to renovation and/or demolition activities that would disturb them, undertake testing of PACMs that may be impacted to determine their asbestos content. Confirmed asbestos materials should be handled accordingly;
- Should a material suspected to contain asbestos fibres become uncovered during renovation and/or demolition activities, all work in the areas that may disturb the material should be stopped. Samples of the suspect material should be submitted for laboratory analysis to determine if asbestos fibres are present. Confirmed asbestos materials should be handled accordingly;
- If masonry block walls are to be impacted by renovation and/or demolition work, and these walls have not been checked for the presence of vermiculite insulation, intrusive assessments for vermiculite should be undertaken prior to planned renovation and/or demolition work. If vermiculite insulation is suspected to be present, this material should be treated as an ACM until testing can show otherwise; and,
- This report should be added to the Asbestos Management Program and referred to as the current asbestos record.

February 15, 2017

## **7.0 CLOSURE**

This report has been prepared for the sole benefit of United Counties of Leeds & Grenville. The report may not be used or relied upon by any other person or entity without the express written consent of Stantec Consulting Ltd. and United Counties of Leeds & Grenville.

Any uses that a third party makes of this report, or any reliance on decisions based on it, are the responsibility of such third parties. Stantec Consulting Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted engineering and scientific practices current at the time the work was performed. Conclusions presented in this report should not be construed as legal advice.

The conclusions presented in this report represent the best technical judgment of Stantec Consulting Ltd. based on the data obtained from the work. The conclusions are based on the site conditions encountered by Stantec Consulting Ltd. at the time the work was performed at the specific assessment and/or sampling locations, and can only be extrapolated to an undefined limited area around these locations. The extent of the limited area depends on building construction and conditions, weather, building usage and other factors. Due to the nature of the investigation and the limited data available, Stantec Consulting Ltd. cannot warrant against undiscovered environmental liabilities.

If any conditions become apparent that differ significantly from our understanding of conditions as presented in this report, we request that we be notified immediately to reassess the conclusions provided herein.

We trust that the above is satisfactory for your purposes at this time. Should you have any questions or concerns, or require additional information, please do not hesitate to contact the undersigned at your convenience.

**ASBESTOS BUILDING MATERIALS ASSESSMENT**

February 15, 2017

This report was prepared by Victoria Pereira and reviewed by Linda Fleet and Martin Ling.

Regards,

**STANTEC CONSULTING LTD.**



Linda Fleet  
Project Manager  
Phone: (905) 415-6368  
Fax: (905) 474-9889  
linda.fleet@stantec.com



Martin Ling  
Senior Reviewer  
Phone: (905) 415-6386  
Fax: (905) 474-9889  
martin.ling@stantec.com



Nicole Flanagan, M.A.Sc., P.Eng  
Associate  
Phone: (613) 738-6086  
Fax: (613) 722-2799  
nicole.flanagan@stantec.com

VP/LF/ML/NF/aek

\\Cd1215-f01\work\_group\01221\active\122150275\Reports\105 Lewis Street East\122150275\_rpt\_vp\_2017Feb15\_UCLG\_105LewisStE\_Merrickville.docx

## **ASBESTOS BUILDING MATERIALS ASSESSMENT**

Appendix A  
Summary of Results for Analysis of  
Bulk Samples for Asbestos Content  
February 15, 2017

# Appendix A

## **Summary of Results for Analysis of Bulk Samples for Asbestos Content**

## Summary of Bulk Sample Analysis for Asbestos Type and Content

Sample Number	Sampling Location	Description of Sampled Material	Asbestos Type and Content	Analysis
105-BS-01A	1st Floor, Communal Storage Room	Mastic associated with 12"x12" vinyl floor tile - beige with black spots	<0.5% Chrysotile	PLM
105-BS-01B	1st Floor, Communal Storage Room	Mastic associated with 12"x12" vinyl floor tile - beige with black spots	<0.5% Chrysotile	PLM
105-BS-01C	1st Floor, Communal Storage Room	Mastic associated with 12"x12" vinyl floor tile - beige with black spots	<0.5% Chrysotile	PLM
105-BS-02A	1st Floor, Communal Storage Room	12"x12" Vinyl floor tile - beige with black spots	3.89% Chrysotile	PLM
105-BS-02B	1st Floor, Communal Storage Room	12"x12" Vinyl floor tile - beige with black spots	Positive Stop Not Analyzed	PLM
105-BS-02C	1st Floor, Communal Storage Room	12"x12" Vinyl floor tile - beige with black spots	Positive Stop Not Analyzed	PLM
105-BS-03A	1st Floor, East Stairs	12"x12" Vinyl floor tile - beige with green spots	None Detected	PLM
105-BS-03B	1st Floor, East Stairs	12"x12" Vinyl floor tile - beige with green spots	None Detected	PLM
105-BS-03C	1st Floor, East Stairs	12"x12" Vinyl floor tile - beige with green spots	None Detected	PLM
105-BS-04A	1st Floor, Communal Storage Room - wall	Drywall joint-fill compound	1% Chrysotile	PLM
105-BS-04B	1st Floor, Main Entrance - wall	Drywall joint-fill compound	Positive Stop Not Analyzed	PLM
105-BS-04C	1st Floor, Laundry Room - wall	Drywall joint-fill compound	Positive Stop Not Analyzed	PLM
105-BS-04D	1st Floor, Unit 104 Closet - bulkhead	Drywall joint-fill compound	Positive Stop Not Analyzed	PLM
105-BS-04E	2nd Floor, Storage Room - bulkhead	Drywall joint-fill compound	Positive Stop Not Analyzed	PLM
105-BS-04F	2nd Floor, Corridor - wall	Drywall joint-fill compound	Positive Stop Not Analyzed	PLM

## Summary of Bulk Sample Analysis for Asbestos Type and Content

Sample Number	Sampling Location	Description of Sampled Material	Asbestos Type and Content	Analysis
105-BS-04G	2nd Floor, Stairs - ceiling	Drywall joint-fill compound	Positive Stop Not Analyzed	PLM
105-BS-05A	1st Floor, Communal Storage Room - ceiling	Stucco	2% Chrysotile	PLM
105-BS-05B	1st Floor, Main Entrance - ceiling	Stucco	Positive Stop Not Analyzed	PLM
105-BS-05C	1st Floor, Laundry Room - ceiling	Stucco	Positive Stop Not Analyzed	PLM
105-BS-05D	1st Floor, Unit 104 Closet - ceiling	Stucco	Positive Stop Not Analyzed	PLM
105-BS-05E	2nd Floor, Storage Room - ceiling	Stucco	Positive Stop Not Analyzed	PLM
105-BS-05F	2nd Floor, Corridor - ceiling	Stucco	Positive Stop Not Analyzed	PLM
105-BS-05G	2nd Floor, Stairs - ceiling	Stucco	Positive Stop Not Analyzed	PLM
105-BS-06A	1st Floor, Lobby - ceiling	2'x4'Acoustic ceiling tile - pinholes and fissures	None Detected	PLM
105-BS-06B	1st Floor, Lobby - ceiling	2'x4'Acoustic ceiling tile - pinholes and fissures	None Detected	PLM
105-BS-06C	1st Floor, Lobby - ceiling	2'x4'Acoustic ceiling tile - pinholes and fissures	None Detected	PLM
105-BS-07A	1st Floor, Corridor - ceiling	2'x4'Acoustic ceiling tile - large and small pinholes	None Detected	PLM
105-BS-07B	1st Floor, Corridor - ceiling	2'x4'Acoustic ceiling tile - large and small pinholes	None Detected	PLM
105-BS-07C	1st Floor, Corridor - ceiling	2'x4'Acoustic ceiling tile - large and small pinholes	None Detected	PLM
105-BS-08A	Exterior, South near Main Entrance - window	Exterior caulking - black	0.85% Chrysotile	PLM
105-BS-08B	Exterior, South near Main Entrance - window	Exterior caulking - black	Positive Stop Not Analyzed	PLM



## Summary of Bulk Sample Analysis for Asbestos Type and Content

Sample Number	Sampling Location	Description of Sampled Material	Asbestos Type and Content	Analysis
105-BS-08C	Exterior, South near Main Entrance - window	Exterior caulking - black	Positive Stop Not Analyzed	PLM
105-BS-09A	1st Floor, Main Entrance - window	Interior/exterior glazing compound - grey	4.42% Chrysotile	PLM
105-BS-09B	1st Floor, Main Entrance - door	Interior/exterior glazing compound - grey	Positive Stop Not Analyzed	PLM
105-BS-09C	Exterior, Main Entrance - window	Interior/exterior glazing compound - grey	Positive Stop Not Analyzed	PLM
105-BS-10A	Exterior, Main Entrance - door	Exterior caulking - light brown	None Detected	PLM
105-BS-10B	Exterior, Main Entrance - door	Exterior caulking - light brown	None Detected	PLM
105-BS-10C	Exterior, Main Entrance - door	Exterior caulking - light brown	None Detected	PLM
105-BS-11A	Exterior, Main Entrance near Laundry Room - window	Exterior caulking - brown	0.53% Chrysotile	PLM
105-BS-11B	Exterior, Main Entrance near Common Room - window	Exterior caulking - brown	Positive Stop Not Analyzed	PLM
105-BS-11C	Exterior, Main Entrance near Common Room - window	Exterior caulking - brown	Positive Stop Not Analyzed	PLM
105-BS-12A	Exterior, Back Entrance - door	Exterior caulking - dark brown	None Detected	PLM
105-BS-12B	Exterior, Back Entrance - door	Exterior caulking - dark brown	1% Chrysotile	PLM
105-BS-12C	Exterior, Back Entrance - door	Exterior caulking - dark brown	Positive Stop Not Analyzed	PLM
105-BS-13A	1st Floor, Main Entrance - door	Interior caulking - grey	None Detected	PLM
105-BS-13B	1st Floor, Main Entrance - door	Interior caulking - grey	None Detected	PLM
105-BS-13C	1st Floor, Main Entrance - door	Interior caulking - grey	None Detected	PLM

## **ASBESTOS BUILDING MATERIALS ASSESSMENT**

Appendix B  
Laboratory Analytical Reports – Asbestos: Polarized Light Microscopy  
February 15, 2017

# Appendix B Laboratory Analytical Reports – Asbestos: Polarized Light Microscopy

## Certificate of Analysis

### Stantec Consulting Ltd. (Ottawa)

300-675 Cochrane Dr West Tower  
Markham, ON L3R 0B8  
Attn: Victoria Pereira

Client PO: 105 Lewis St E  
Project: 122150275  
Custody:

Report Date: 26-Jan-2017  
Order Date: 23-Jan-2017

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

Paracel ID	Client ID
1704145-01	105-BS-01A
1704145-02	105-BS-01B
1704145-03	105-BS-01C
1704145-04	105-BS-02A (tile)
1704145-05	105-BS-02B (tile)
1704145-06	105-BS-02C (tile)
1704145-07	105-BS-03A (tile)
1704145-08	105-BS-03B (tile)
1704145-09	105-BS-03C (tile)
1704145-10	105-BS-04A
1704145-11	105-BS-04B
1704145-12	105-BS-04C
1704145-13	105-BS-04D
1704145-14	105-BS-04E
1704145-15	105-BS-04F
1704145-16	105-BS-04G
1704145-17	105-BS-05A
1704145-18	105-BS-05B
1704145-19	105-BS-05C
1704145-20	105-BS-05D
1704145-21	105-BS-05E
1704145-22	105-BS-05F
1704145-23	105-BS-05G
1704145-24	105-BS-06A
1704145-25	105-BS-06B
1704145-26	105-BS-06C

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: **Stantec Consulting Ltd. (Ottawa)**

Client PO: **105 Lewis St E**

Report Date: 26-Jan-2017

Order Date: 23-Jan-2017

Project Description: **122150275**

---

1704145-27	105-BS-07A
1704145-28	105-BS-07B
1704145-29	105-BS-07C
1704145-30	105-BS-08A
1704145-31	105-BS-08B
1704145-32	105-BS-08C
1704145-33	105-BS-09A
1704145-34	105-BS-09B
1704145-35	105-BS-09C
1704145-36	105-BS-10A
1704145-37	105-BS-10B
1704145-38	105-BS-10C
1704145-39	105-BS-11A
1704145-40	105-BS-11B
1704145-41	105-BS-11C
1704145-42	105-BS-12A
1704145-43	105-BS-12B
1704145-44	105-BS-12C
1704145-45	105-BS-13A
1704145-46	105-BS-13B
1704145-47	105-BS-13C

Certificate of Analysis  
 Client: **Stantec Consulting Ltd. (Ottawa)**  
 Client PO: **105 Lewis St E**

Report Date: 26-Jan-2017  
 Order Date: 23-Jan-2017  
 Project Description: **122150275**

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

Parcel I.D.	Sample Date	Layers Analyzed	Colour	Description	Asbestos Detected:	Material Identification	% Content
1704145-01	17-Jan-17	sample homogenized	Grey	Mastic	Yes	Client ID: 105-BS-01A <span style="float:right">[AS-PRE]</span>	
						[ASTrc] <b>Chrysotile</b>	<MDL
						Cellulose	1
						Non-Fibers	99
1704145-02	17-Jan-17	sample homogenized	Grey	Mastic	Yes	Client ID: 105-BS-01B <span style="float:right">[AS-PRE]</span>	
						[ASTrc] <b>Chrysotile</b>	<MDL
						Cellulose	1
						Non-Fibers	99
1704145-03	17-Jan-17	sample homogenized	Grey	Mastic	Yes	Client ID: 105-BS-01C <span style="float:right">[AS-PRE]</span>	
						[ASTrc] <b>Chrysotile</b>	<MDL
						Cellulose	1
						Non-Fibers	99
1704145-04	17-Jan-17	sample homogenized	Beige/Black	Vinyl Floor Tile	Yes	Client ID: 105-BS-02A (tile) <span style="float:right">[AS-PRE]</span>	
						<b>Chrysotile</b>	3.89
						Non-Fibers	96.11
1704145-05	17-Jan-17					Client ID: 105-BS-02B (tile)	not analyzed
1704145-06	17-Jan-17					Client ID: 105-BS-02C (tile)	not analyzed
1704145-07	17-Jan-17	sample homogenized	Beige/Green	Vinyl Floor Tile	No	Client ID: 105-BS-03A (tile) <span style="float:right">[AS-PRE]</span>	
						Non-Fibers	100
1704145-08	17-Jan-17	sample homogenized	Beige/Green	Vinyl Floor Tile	No	Client ID: 105-BS-03B (tile) <span style="float:right">[AS-PRE]</span>	
						Non-Fibers	100
1704145-09	17-Jan-17	sample homogenized	Beige/Green	Vinyl Floor Tile	No	Client ID: 105-BS-03C (tile) <span style="float:right">[AS-PRE]</span>	
						Non-Fibers	100
1704145-10	17-Jan-17	sample homogenized	Beige	Drywall Joint Compound	Yes	Client ID: 105-BS-04A	
						<b>Chrysotile</b>	1
						Non-Fibers	99
1704145-11	17-Jan-17					Client ID: 105-BS-04B	not analyzed
1704145-12	17-Jan-17					Client ID: 105-BS-04C	not analyzed
1704145-13	17-Jan-17					Client ID: 105-BS-04D	not analyzed

Certificate of Analysis  
 Client: **Stantec Consulting Ltd. (Ottawa)**  
 Client PO: **105 Lewis St E**

Report Date: 26-Jan-2017  
 Order Date: 23-Jan-2017  
 Project Description: **122150275**

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

Paracel I.D.	Sample Date	Layers Analyzed	Colour	Description	Asbestos Detected:	Material Identification	% Content
1704145-14	17-Jan-17					Client ID: 105-BS-04E not analyzed	
1704145-15	17-Jan-17					Client ID: 105-BS-04F not analyzed	
1704145-16	17-Jan-17					Client ID: 105-BS-04G not analyzed	
1704145-17	17-Jan-17	sample homogenized	White	Texture Material	Yes	Client ID: 105-BS-05A <b>Chrysotile</b> Non-Fibers	2 98
1704145-18	17-Jan-17					Client ID: 105-BS-05B not analyzed	
1704145-19	17-Jan-17					Client ID: 105-BS-05C not analyzed	
1704145-20	17-Jan-17					Client ID: 105-BS-05D not analyzed	
1704145-21	17-Jan-17					Client ID: 105-BS-05E not analyzed	
1704145-22	17-Jan-17					Client ID: 105-BS-05F not analyzed	
1704145-23	17-Jan-17					Client ID: 105-BS-05G not analyzed	
1704145-24	17-Jan-17	sample homogenized	White/Grey	Acoustic Tile	No	Client ID: 105-BS-06A [AS-PRE] Cellulose MMVF Non-Fibers	40 30 30
1704145-25	17-Jan-17	sample homogenized	White/Grey	Acoustic Tile	No	Client ID: 105-BS-06B [AS-PRE] Cellulose MMVF Non-Fibers	40 30 30
1704145-26	17-Jan-17	sample homogenized	White/Grey	Acoustic Tile	No	Client ID: 105-BS-06C [AS-PRE] Cellulose MMVF Non-Fibers	40 30 30

Certificate of Analysis  
 Client: **Stantec Consulting Ltd. (Ottawa)**  
 Client PO: **105 Lewis St E**

Report Date: 26-Jan-2017  
 Order Date: 23-Jan-2017  
 Project Description: **122150275**

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

Parcel I.D.	Sample Date	Layers Analyzed	Colour	Description	Asbestos Detected:	Material Identification	% Content
1704145-27	17-Jan-17	sample homogenized	White/Grey	Acoustic Tile	No	<b>Client ID: 105-BS-07A</b> [AS-PRE] Cellulose	40
						MMVF	30
						Non-Fibers	30
1704145-28	17-Jan-17	sample homogenized	White/Grey	Acoustic Tile	No	<b>Client ID: 105-BS-07B</b> [AS-PRE] Cellulose	40
						MMVF	30
						Non-Fibers	30
1704145-29	17-Jan-17	sample homogenized	White/Grey	Acoustic Tile	No	<b>Client ID: 105-BS-07C</b> [AS-PRE] Cellulose	40
						MMVF	30
						Non-Fibers	30
1704145-30	17-Jan-17	sample homogenized	Black	Caulking	Yes	<b>Client ID: 105-BS-08A</b> [AS-PRE] <b>Chrysotile</b>	0.85
						Cellulose	1
						Non-Fibers	98.15
1704145-31	17-Jan-17					<b>Client ID: 105-BS-08B</b> not analyzed	
1704145-32	17-Jan-17					<b>Client ID: 105-BS-08C</b> not analyzed	
1704145-33	17-Jan-17	sample homogenized	Grey	Glaze	Yes	<b>Client ID: 105-BS-09A</b> [AS-PRE] <b>Chrysotile</b>	4.42
						Non-Fibers	95.58
1704145-34	17-Jan-17					<b>Client ID: 105-BS-09B</b> not analyzed	
1704145-35	17-Jan-17					<b>Client ID: 105-BS-09C</b> not analyzed	
1704145-36	17-Jan-17	sample homogenized	Light Brown	Caulking	No	<b>Client ID: 105-BS-10A</b> [AS-PRE] Non-Fibers	100
1704145-37	17-Jan-17	sample homogenized	Light Brown	Caulking	No	<b>Client ID: 105-BS-10B</b> [AS-PRE] Non-Fibers	100
1704145-38	17-Jan-17	sample homogenized	Light Brown	Caulking	No	<b>Client ID: 105-BS-10C</b> [AS-PRE] Non-Fibers	100

Certificate of Analysis  
 Client: **Stantec Consulting Ltd. (Ottawa)**  
 Client PO: **105 Lewis St E**

Report Date: 26-Jan-2017  
 Order Date: 23-Jan-2017  
 Project Description: **122150275**

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

Parcel I.D.	Sample Date	Layers Analyzed	Colour	Description	Asbestos Detected:	Material Identification	% Content
1704145-39	17-Jan-17	sample homogenized	Brown	Caulking	<b>Yes</b>	<b>Client ID: 105-BS-11A</b> [AS-PRE] <b>Chrysotile</b>	0.53
						Non-Fibers	99.47
1704145-40	17-Jan-17					<b>Client ID: 105-BS-11B</b> not analyzed	
1704145-41	17-Jan-17					<b>Client ID: 105-BS-11C</b> not analyzed	
1704145-42	17-Jan-17	sample homogenized	Dark Brown	Caulking	No	<b>Client ID: 105-BS-12A</b> [AS-PRE] Non-Fibers	99
						Other fibers	1
1704145-43	17-Jan-17	sample homogenized	Dark Brown	Caulking	<b>Yes</b>	<b>Client ID: 105-BS-12B</b> [AS-PRE] <b>Chrysotile</b>	1
						Non-Fibers	99
1704145-44	17-Jan-17					<b>Client ID: 105-BS-12C</b> not analyzed	
1704145-45	17-Jan-17	sample homogenized	Grey	Caulking	No	<b>Client ID: 105-BS-13A</b> [AS-PRE] Non-Fibers	100
1704145-46	17-Jan-17	sample homogenized	Grey	Caulking	No	<b>Client ID: 105-BS-13B</b> [AS-PRE] Non-Fibers	100
1704145-47	17-Jan-17	sample homogenized	Grey	Caulking	No	<b>Client ID: 105-BS-13C</b> [AS-PRE] 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-Jan-17

\* 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.



Certificate of Analysis

Client: **Stantec Consulting Ltd. (Ottawa)**

Client PO: 105 Lewis St E

Report Date: 26-Jan-2017

Order Date: 23-Jan-2017

Project Description: 122150275

---

### Qualifier Notes

Sample Qualifiers :

AS-PRE: Due to the difficult nature of the bulk sample (interfering fibers/binders), additional NOB preparation was required prior to analysis

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

---

### Work Order Revisions / Comments

None

**ASBESTOS BUILDING MATERIALS ASSESSMENT**

Appendix C  
Summary of Occurrences of Asbestos-Containing Materials  
February 15, 2017

Appendix C  
**Summary of Occurrences of Asbestos-Containing Materials**

## Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
1	Back Entrance	Exterior	Door	Exterior Caulking - dark brown	5 m	105-BS-12B	Yes	1% Chrysotile	No Yes	A	good	ACM
1	Common Room	Exterior	Double Door	Exterior Caulking - dark brown	6 m	Ref: 105-BS-12B	No	1% Chrysotile	No Yes	A	good	ACM
1	Communal Storage Room	Ceiling	Ceiling	Stucco	20 sq.m	105-BS-05A	Yes	2% Chrysotile	Yes Yes	A	good	ACM
1	Communal Storage Room	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	35 sq.m	105-BS-04A	Yes	1% Chrysotile	No Yes	A	good	ACM
1	Communal Storage Room	Floor	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	20 sq.m	105-BS-02A	Yes	3.89% Chrysotile	No Yes	A	poor	1 LOOSE TILE OBSERVED
1	Corridors	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	150 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
1	Corridors	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
1	Electrical Room	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	50 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
1	Electrical Room	Ceiling	Ceiling	Stucco	15 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	Yes Yes	A	good	ACM
1	Garbage Room	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	100 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM

### Accessibility Classification

- A - Areas of the building within reach (from floor level) of all building users
- B - Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder
- C - Areas of the building above 2.4 m where use of a ladder is required to reach the asbestos
- D - Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the ceiling, wall, or equipment, etc., is required to reach the asbestos

### Visibility

- Yes - Suspect material is visible without opening hatches or lifting ceiling tiles
- No - Suspect material can only be viewed if access hatches are opened or ceiling tiles lifted.

\* Based on a non-intrusive inspection of visible surfaces within the room space.

- Notes:
- ACM - asbestos-containing material
  - PACM - presumed asbestos-containing material
  - Access. - accessibility
  - nq - not quantified
  - na - not applicable
  - ns - not sampled
  - ref - reference sample
  - F - friable
  - NF - non friable
  - RCA - recommend corrective action
  - BS - bulk sample

## Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
1	Garbage Room	Ceiling	Ceiling	Stucco	25 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	Yes Yes	A	good	ACM
1	Janitor Storage Room	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	100 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
1	Laundry and Common Room	Exterior	Windows	Exterior Caulking - brown	5 m (4 windows)	105-BS-11A	Yes	0.53% Chrysotile	No Yes	A	good	1 WINDOW IN LAUNDRY ROOM AND 3 WINDOWS IN COMMON ROOM
1	Laundry Room	Floors	Floors	Ceramic Tile Grout and Mortar / Adhesive	10 sq.m	NS	No	PACM	No Yes	A	good (PACM)	PACM
1	Laundry Room	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	30 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
1	Laundry Room	Ceiling	Ceiling	Stucco	10 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	Yes Yes	A	good	ACM
1	Main Entrance	Ceiling	Ceiling	Stucco	10 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	Yes Yes	A	good	ACM
1	Main Entrance	Interior/Exterior	Window / Door	Interior / Exterior Glazing Compound - grey	5 m	105-BS-09A	Yes	4.42% Chrysotile	No Yes	A	good	ACM
1	Main Entrance	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	20 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM

### Accessibility Classification

- A - Areas of the building within reach (from floor level) of all building users
- B - Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder
- C - Areas of the building above 2.4 m where use of a ladder is required to reach the asbestos
- D - Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the ceiling, wall, or equipment, etc., is required to reach the asbestos

### Visibility

- Yes - Suspect material is visible without opening hatches or lifting ceiling tiles
- No - Suspect material can only be viewed if access hatches are opened or ceiling tiles lifted.

\* Based on a non-intrusive inspection of visible surfaces within the room space.

- Notes:
- ACM - asbestos-containing material
  - PACM - presumed asbestos-containing material
  - Access. - accessibility
  - nq - not quantified
  - na - not applicable
  - ns - not sampled
  - ref - reference sample
  - F - friable
  - NF - non friable
  - RCA - recommend corrective action
  - BS - bulk sample

## Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
1	Main Entrance	Exterior	Windows	Exterior Caulking - black	20 m (4 windows)	105-BS-08A	Yes	0.85% Chrysotile	No Yes	A	good	EXTERIOR CAULKING - BROWN OBSERVED UNDER CAULKING (REF: 105-BS-11A)
1	Main Entrance	Floors	Floors	Ceramic Tile Grout and Mortar / Adhesive	10 sq.m	NS	No	PACM	No Yes	A	good (PACM)	PACM
1	Unit 104	Bedroom	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	40 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Closet	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	15 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Living Room	Ceiling	Stucco	30 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	Yes Yes	A	good	ACM
1	Unit 104	Kitchen	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	10 sq.m	Ref: 105-BS-02A	No	3.89% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Washroom	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	20 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Hallway	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	15 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Closet	Ceiling	Stucco	5 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	Yes Yes	A	good	ACM

### Accessibility Classification

- A - Areas of the building within reach (from floor level) of all building users
- B - Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder
- C - Areas of the building above 2.4 m where use of a ladder is required to reach the asbestos
- D - Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the ceiling, wall, or equipment, etc., is required to reach the asbestos

### Visibility

- Yes - Suspect material is visible without opening hatches or lifting ceiling tiles
- No - Suspect material can only be viewed if access hatches are opened or ceiling tiles lifted.

- Notes:
- ACM - asbestos-containing material
  - PACM - presumed asbestos-containing material
  - Access. - accessibility
  - nq - not quantified
  - na - not applicable
  - ns - not sampled
  - ref - reference sample
  - F - friable
  - NF - non friable
  - RCA - recommend corrective action
  - BS - bulk sample

\* Based on a non-intrusive inspection of visible surfaces within the room space.

## Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
1	Unit 104	Hallway	Ceiling	Stucco	5 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	Yes Yes	A	good	ACM
1	Unit 104	Living Room	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	40 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Bedroom	Ceiling	Stucco	20 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	Yes Yes	A	good	ACM
1	Unit 104	Kitchen	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	30 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Bedroom	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	20 sq.m	Ref: 105-BS-02A	No	3.89% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Exterior	Door	Exterior Caulking - dark brown	5 m	Ref: 105-BS-12B	No	1% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Hallway	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	10 sq.m	Ref: 105-BS-02A	No	3.89% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Closet	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	10 sq.m	Ref: 105-BS-02A	No	3.89% Chrysotile	No Yes	A	good	ACM
1	Unit 104	Living Room	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	25 sq.m	Ref: 105-BS-02A	No	3.89% Chrysotile	No Yes	A	good	ACM
1	Washroom	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	20 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM

### Accessibility Classification

- A - Areas of the building within reach (from floor level) of all building users
- B - Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder
- C - Areas of the building above 2.4 m where use of a ladder is required to reach the asbestos
- D - Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the ceiling, wall, or equipment, etc., is required to reach the asbestos

### Visibility

- Yes - Suspect material is visible without opening hatches or lifting ceiling tiles
- No - Suspect material can only be viewed if access hatches are opened or ceiling tiles lifted.

\* Based on a non-intrusive inspection of visible surfaces within the room space.

- Notes:
- ACM - asbestos-containing material
  - PACM - presumed asbestos-containing material
  - Access. - accessibility
  - nq - not quantified
  - na - not applicable
  - ns - not sampled
  - ref - reference sample
  - F - friable
  - NF - non friable
  - RCA - recommend corrective action
  - BS - bulk sample

## Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable?	Visible?	Access.	ACM Condition	Comments/ Notes
1	Washroom	Floor	Under Floor Tile	Mastic Associated with 12"x12" Vinyl Floor Tile - beige with green smears	5 sq.m	NS	No	PACM	No	No	D	unknown (PACM)	PACM
1/2	Throughout	Floor	Under Floor Tile	Mastic Associated with Vinyl Floor Tiles	NQ	NS	No	PACM	No	No	D	unknown (PACM)	PACM
1/2	Units Not Assessed	Exterior	Doors	Exterior Caulking - dark brown	100 m	Ref: 105-BS-12B	No	1% Chrysotile	No	Yes	A	good	ACM
1-2	East Stairs	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No	Yes	A	good (PACM)	PACM
1-2	East Stairs	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	50 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No	Yes	A	good	ACM
1-2	East Stairs	Ceiling	Ceiling	Stucco	20 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	Yes	Yes	A	good	ACM
1-2	East Stairs	Floor	Under Floor Tile	Mastic Associated with 12"x12" Vinyl Floor Tile - beige with green smears	15 sq.m	NS	No	PACM	No	No	D	unknown (PACM)	PACM
1-2	West Stairs	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No	Yes	A	good (PACM)	PACM
1-2	West Stairs	Ceiling	Ceiling	Stucco	20 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	Yes	Yes	A	good	ACM

### Accessibility Classification

- A - Areas of the building within reach (from floor level) of all building users
- B - Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder
- C - Areas of the building above 2.4 m where use of a ladder is required to reach the asbestos
- D - Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the ceiling, wall, or equipment, etc., is required to reach the asbestos

### Visibility

- Yes - Suspect material is visible without opening hatches or lifting ceiling tiles
- No - Suspect material can only be viewed if access hatches are opened or ceiling tiles lifted.

- Notes:
- ACM - asbestos-containing material
  - PACM - presumed asbestos-containing material
  - Access. - accessibility
  - nq - not quantified
  - na - not applicable
  - ns - not sampled
  - ref - reference sample
  - F - friable
  - NF - non friable
  - RCA - recommend corrective action
  - BS - bulk sample

\* Based on a non-intrusive inspection of visible surfaces within the room space.

## Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable?	Visible?	Access.	ACM Condition	Comments/ Notes
1-2	West Stairs	Floor	Under Floor Tile	Mastic Associated with 12"x12" Vinyl Floor Tile - beige with green smears	15 sq.m	NS	No	PACM	No	No	D	unknown (PACM)	PACM
1-2	West Stairs	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	50 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No	Yes	A	good	ACM
2	Corridors	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No	Yes	A	good (PACM)	PACM
2	Corridors	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	150 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No	Yes	A	good	ACM
2	Storage	Floor	Under Floor Tile	Mastic Associated with 12"x12" Vinyl Floor Tile - beige with green smears	30 sq.m	NS	No	PACM	No	No	D	unknown (PACM)	PACM
2	Storage	Walls, Ceiling and Bulkheads	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	50 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No	Yes	A	good	ACM
2	Unit 204	Kitchen	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	10 sq.m	Ref: 105-BS-02A	No	3.89% Chrysotile	No	Yes	A	good	ACM
2	Unit 204	Bedroom	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	40 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No	Yes	A	good	ACM
2	Unit 204	Living Room	Ceiling	Texture Material	30 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	No	Yes	A	good	ACM

### Accessibility Classification

- A - Areas of the building within reach (from floor level) of all building users
- B - Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder
- C - Areas of the building above 2.4 m where use of a ladder is required to reach the asbestos
- D - Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the ceiling, wall, or equipment, etc., is required to reach the asbestos

### Visibility

- Yes - Suspect material is visible without opening hatches or lifting ceiling tiles
- No - Suspect material can only be viewed if access hatches are opened or ceiling tiles lifted.

- Notes:
- ACM - asbestos-containing material
  - PACM - presumed asbestos-containing material
  - Access. - accessibility
  - nq - not quantified
  - na - not applicable
  - ns - not sampled
  - ref - reference sample
  - F - friable
  - NF - non friable
  - RCA - recommend corrective action
  - BS - bulk sample

\* Based on a non-intrusive inspection of visible surfaces within the room space.



## Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
2	Unit 204	Bedroom	Ceiling	Texture Material	20 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	No Yes	A	good	ACM
2	Unit 204	Closet	Ceiling	Texture Material	5 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	No Yes	A	good	ACM
2	Unit 204	Hallway	Ceiling	Texture Material	5 sq.m	Ref: 105-BS-05A	No	2% Chrysotile	No Yes	A	good	ACM
2	Unit 204	Bedroom	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	20 sq.m	Ref: 105-BS-02A	No	3.89% Chrysotile	No Yes	A	good	ACM
2	Unit 204	Living Room	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	40 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
2	Unit 204	Exterior	Door	Exterior Caulking - dark brown	5 m	Ref: 105-BS-12B	No	1% Chrysotile	No Yes	A	good	ACM
2	Unit 204	Closet	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	15 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
2	Unit 204	Washroom	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	20 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
2	Unit 204	Hallway	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	15 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No Yes	A	good	ACM
2	Unit 204	Living Room	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	25 sq.m	Ref: 105-BS-02A	No	3.89% Chrysotile	No Yes	A	good	ACM

### Accessibility Classification

- A - Areas of the building within reach (from floor level) of all building users
- B - Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder
- C - Areas of the building above 2.4 m where use of a ladder is required to reach the asbestos
- D - Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the ceiling, wall, or equipment, etc., is required to reach the asbestos

### Visibility

- Yes - Suspect material is visible without opening hatches or lifting ceiling tiles
- No - Suspect material can only be viewed if access hatches are opened or ceiling tiles lifted.

- Notes:
- ACM - asbestos-containing material
  - PACM - presumed asbestos-containing material
  - Access. - accessibility
  - nq - not quantified
  - na - not applicable
  - ns - not sampled
  - ref - reference sample
  - F - friable
  - NF - non friable
  - RCA - recommend corrective action
  - BS - bulk sample

\* Based on a non-intrusive inspection of visible surfaces within the room space.

## Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable?	Visible?	Access.	ACM Condition	Comments/ Notes
2	Unit 204	Closet	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	10 sq.m	Ref: 105-BS-02A	No	3.89% Chrysotile	No	Yes	A	good	ACM
2	Unit 204	Hallway	Floor	12"x12" Vinyl Floor Tile - Beige with Black Spots	10 sq.m	Ref: 105-BS-02A	No	3.89% Chrysotile	No	Yes	A	good	ACM
2	Unit 204	Kitchen	Walls, Ceiling and Bulkheads	Drywall Joint-Fill Compound	30 sq.m	Ref: 105-BS-04A	No	1% Chrysotile	No	Yes	A	good	ACM
Crawlspace	Crawlspace	Mechanical	Walls	Cement Pipe	NQ	NS	No	PACM	No	Yes	B	good (PACM)	PACM
Exterior	Exterior	Walls	Walls	Brick Mortar	NQ	NS	No	PACM	No	Yes	A	good (PACM)	PACM
Roof	Exterior	Roofing	Roofing	Roof Caulking	NQ	NS	No	PACM	No	No	C	unknown (PACM)	METAL ROOF

### Accessibility Classification

- A - Areas of the building within reach (from floor level) of all building users
- B - Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder
- C - Areas of the building above 2.4 m where use of a ladder is required to reach the asbestos
- D - Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the ceiling, wall, or equipment, etc., is required to reach the asbestos

### Visibility

- Yes - Suspect material is visible without opening hatches or lifting ceiling tiles
- No - Suspect material can only be viewed if access hatches are opened or ceiling tiles lifted.

\* Based on a non-intrusive inspection of visible surfaces within the room space.

- Notes:
- ACM - asbestos-containing material
  - PACM - presumed asbestos-containing material
  - Access. - accessibility
  - nq - not quantified
  - na - not applicable
  - ns - not sampled
  - ref - reference sample
  - F - friable
  - NF - non friable
  - RCA - recommend corrective action
  - BS - bulk sample

**ASBESTOS BUILDING MATERIALS ASSESSMENT**

Appendix D  
Selected Site Photographs  
February 15, 2017

Appendix D  
Selected Site Photographs

## ASBESTOS BUILDING MATERIALS ASSESSMENT

Appendix D  
Selected Site Photographs  
February 15, 2017



Photo 1: Asbestos-containing 12" x 12" vinyl floor tiles – beige with black spots (3.89% Chrysotile) in the communal storage room.



Photo 2: Asbestos-containing exterior window caulking – black (0.85% Chrysotile) near the main entrance.

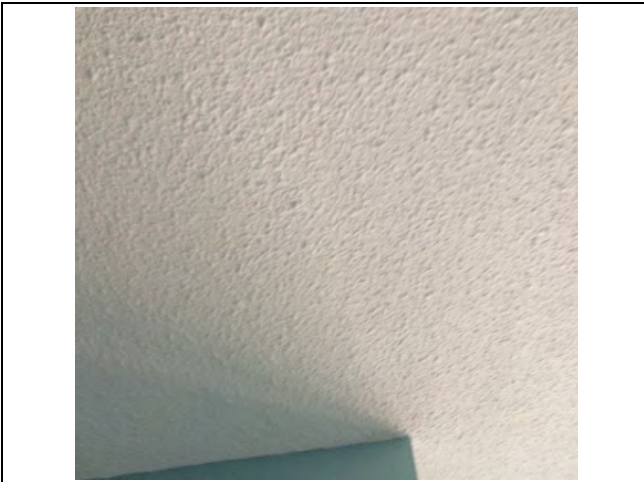


Photo 3: Asbestos-containing stucco (2% Chrysotile) observed to be in good condition on the ceiling in the 1<sup>st</sup> floor stairwell.



Photo 4: Asbestos-containing exterior caulking – dark brown (0.53% Chrysotile) at the back entrance door.

## ASBESTOS BUILDING MATERIALS ASSESSMENT

Appendix D  
Selected Site Photographs  
February 15, 2017



Photo 5: Asbestos-containing interior / exterior glazing compound – grey (4.42% Chrysotile) at the main entrance window.



Photo 6: Presumed asbestos-containing roof caulking suspected to be present on the metal roof observed

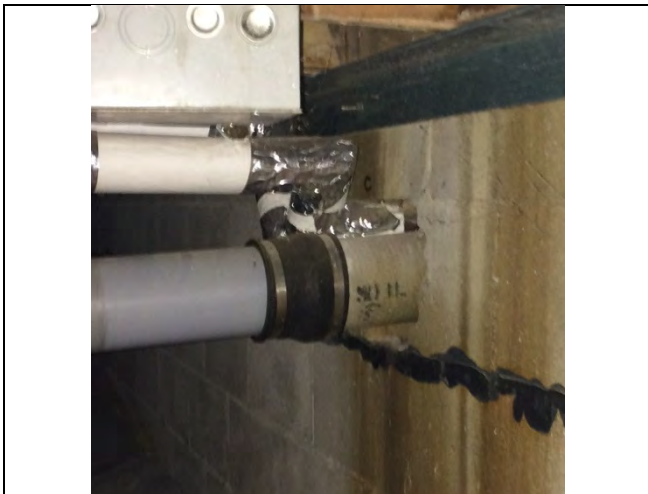


Photo 7: Presumed asbestos-containing cement pipe observed in the crawlspace.