1 INTRODUCTION

Buller Crichton Environmental Inc. (BCE) was retained by the University of Ottawa (Client) to complete a ceiling space investigation for the entire Morisset Library to determine the presence or absence of asbestos-containing plaster adhered to the concrete deck. The survey was completed by BCE from May 29th, 30th and July 11th, 2023.

This report was prepared as requested by the Client to fulfill the following:

- Ontario Occupational Health & Safety Act – R.S.O. 1990, as amended, including:
  - Designated Substances – Ontario Regulation 490/09, as amended
  - Designated Substances – Asbestos on Construction Projects and in Buildings and Repair Operations – Ontario Regulation 278/05.

This report should be provided to contractors prior to conducting demolition or renovation work at the Site.

2 SCOPE OF WORK

BCE’s scope of work was limited to the following:

1. Reviewing all ceiling spaces above acoustic tiles within the building to determine the presence/absence of plaster and/or obvious signs of plaster debris/delamination.
2. Provide a comprehensive AutoCAD drawing indicating whether plaster and/or obvious plaster debris is present or absent in each room surveyed.

BCE also reviewed the following reports prior to the site assessment:

- Hazardous Materials Survey, Morisset Hall, 65 University Private, Ottawa, ON prepared by McIntosh Perry Limited (MPL) dated March 2020
- Expanded Designated Substances Report – Update, Morisset Hall, 65 University Private, Ottawa, Ontario (21-228) prepared by Buller Crichton Environmental Inc. dated February 2021

3 STANDARDS, REGULATIONS AND GUIDELINES

3.1 Designated Substances

Section 30 of the Occupational Health & Safety Act (OH&S Act) requires that a document summarizing the presence of these designated substances must be available to contractors and subcontractors requesting tenders, prior to beginning a construction project (including building renovation or demolition). This report serves that purpose. However, scaled drawings and contract specifications are still required should this job be tendered to multiple contractors.

3.1.1 Asbestos

Ontario Regulation 278/05 – Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations and made under the OH&S Act, outlines specific procedures for identifying asbestos in buildings and on construction sites. In addition, it outlines requirements for
their removal and / or re-assessment and management depending on whether any identified materials are to remain in the building. Asbestos-containing materials (ACM) in good condition can remain in the building if it is managed as prescribed in this regulation, including but not limited to implementation of an Asbestos Management Plan (AMP), annual condition assessment, notification to tenants and training for specified workers. However, any ACM must be removed prior to disturbance because of renovations and / or demolition of the Site.

R.R.O. 1990, Regulation 347 General – Waste Management as amended (O. Reg. 347/90), made under the Ontario Environmental Protection Act, R.S.O. 1990, Chapter E.19, as amended (EPA) sets out requirements for general waste management including ACM. This regulation requires the disposal of asbestos waste in double sealed containers (e.g., a six-mil polyethylene bag or hard plastic barrel), properly labelled and free of cuts, tears, or punctures. The waste must be disposed of in a licensed waste facility which has been properly notified of the presence of asbestos waste.

4 METHODOLOGY

Site sampling and assessment was completed from May 29th, 30th and July 11th, 2023 by Jessica Joubarne of BCE. In each area, a visual inspection was completed to determine the presence or absence, and condition of plaster on the concrete-deck.

5 RESULTS AND DISCUSSION

Based on the review of previous reports and visual assessment, the following is a summary of the results. A comprehensive drawing is attached as Appendix B.

5.1 Non-Plaster/Cementitious Overspray Ceilings

6.1.1 Bare Concrete/Corrugated Metal:

The majority of the ceiling deck throughout the building consisted of flat concrete slab, concrete waffle slab or corrugated metal deck. The following photos are examples of bare concrete and corrugated metal observed during the ceiling investigation.
Photo 1. Example of bare concrete ceiling.

Photo 2. Example of corrugated metal ceiling.
6.2.4. Smooth Plaster:

Smooth plaster bulkheads were observed in good condition within the majority of the stairwells throughout the building. BCE observed approximately 0.25 m² of smooth plaster in poor condition within stairwell 3C (see photo below). The following photo is an example of smooth plaster observed during the ceiling investigation.

Photo 3. Smooth plaster observed in poor condition within stairwell 3C.

6.2.5. Other:

The following photos are examples of additional ceiling finishes that were noted in good condition, however, were inaccessible and unable to be sampled due to height restrictions.
Photo 4. Example of yellow textured ceiling finish observed within rooms 0028 and 0029.

Photo 5. Example of sprayed fireproofing within room 0042B.
6  RECOMMENDATIONS

6.1  General Recommendations

Based on the findings, the *general recommendations* are:

- This report should be provided along with the full building DSR and project specific DSR to contractors prior to conducting demolition or renovation work at the Site. Further, contractors shall have an exposure control plan in place for each designated substance identified in this report.
- This report should be used to supplement the full building DSR as there are many other asbestos-containing materials within the building that could impact work being completed in ceiling spaces (asbestos-containing ceiling tiles, asbestos-containing drywall joint compound, etc.)

7  REPORT LIMITATIONS

This report was prepared for the exclusive use of the Client. This report is based on data and information collected during the Site visit by Buller Crichton Environmental Inc. as described in this report.

The conclusions and recommendations contained in this report are based upon professional opinions regarding the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

- The data and findings presented in this report are valid as of the date of the investigation. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report.
- The findings, observations and conclusions expressed by BCE in this report are not, and should not be considered, an opinion concerning compliance of any past or present owner or operator of the building with any federal, provincial, or local laws or regulations.
- Additional Designated Substances not identified in this report may become evident during demolition activities. Should additional information become available, BCE requests that this information be brought to our attention so that we may re-assess the conclusions presented herein. All quantities contained in this report are approximate and based on visual observations made in accessible areas.
- Although effort was made to expose and sample potential designated substances, there is a possibility that additional concealed substances/materials may be present beneath existing flooring, behind wall cavities, roof systems, above ceilings, and any other inaccessible areas such as pipe chases at the Site.
- Should further designated substances be encountered during any renovation or demolition activities, those materials must be managed in accordance with applicable regulations.
8 Closure

If you have any questions or require any further information, please feel free to contact the undersigned at 613-729-5291. Thank you for the opportunity to be of service. We look forward to working with you again.

Best Regards,

BULLER CRICHTON ENVIRONMENTAL INC.
1 Raymond St., Suite 102
Ottawa, ON K1R 1A2

Prepared by:                          Reviewed by:

Jessica Joubarne, HBSc.
Environmental Health & Safety Technician

Derek Stashick, B.Ed, CMI, C-NRPP
Senior Project Manager/Consultant
Appendix A -
Site Photographs
### Ceiling Space Investigation

<table>
<thead>
<tr>
<th>Photo #</th>
<th>Material Location / Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>View of solid drywall ceiling observed in poor condition within room 0046.</td>
</tr>
<tr>
<td>2</td>
<td>View of solid drywall suspended ceilings within corridor 202C.</td>
</tr>
</tbody>
</table>
Appendix B - Site Drawings
LEVEL 00 FLOOR PLAN, MORISSET HALL

NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL
JOINT COMPOUND PRESENT THROUGHOUT

LEVEL 00 FLOOR PLAN, MORISSET HALL

NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL
JOINT COMPOUND PRESENT THROUGHOUT
NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL
JOINT COMPOUND PRESENT THROUGHOUT

LEVEL 005 FLOOR PLAN, MORISSET HALL

NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL
JOINT COMPOUND PRESENT THROUGHOUT

LEVEL 005 FLOOR PLAN, MORISSET HALL
NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL 
JOINT COMPOUND PRESENT THROUGHOUT

LEVEL 0 FLOOR PLAN, MORISSET HALL

LEGEND:
- EXPOSED ASBESTOS-CONTAINING PLASTER IN GOOD CONDITION
- NO ACCESS (SOLID CEILING / KEYS NOT PROVIDED)
- CLEAN (BARE CONCRETE / METAL / OTHER NON ACM MATERIALS)
- ASBESTOS-CONTAINING ACOUSTIC CEILING TILE

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Project:
MORISSET HALL, 65 UNIVERSITY PRIVATE, OTTAWA ON
CEILING SPACE INVESTIGATION
MRT-03

Date: JULY 21, 2023
Completed by: JK
Checked by: JJ
Project Location: UNIVERSITY OF OTTAWA
Project Number: 23-366
NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL JOINT COMPOUND PRESENT THROUGHOUT
NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL
JOINT COMPOUND PRESENT THROUGHOUT
NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL
JOINT COMPOUND PRESENT THROUGHOUT
LEVEL 4 FLOOR PLAN, MORISSET HALL

NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL JOINT COMPOUND PRESENT THROUGHOUT

LEGEND:
- Exposed asbestos-containing plaster in good condition
- No access (solid ceiling, keys not provided)
- Clean (bare concrete, metal, other non-ACM materials)
- Asbestos-containing acoustic ceiling tile

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bullercrichton.ca

Project:
Project Location:
Client:
Date:
Completed by:
Checked by:
Project Number:
Figure Number:
CEILING SPACE INVESTIGATION
MORISSET HALL, 65 UNIVERSITY PRIVATE, OTTAWA ON
UNIVERSITY OF OTTAWA
MRT-07
JULY 21, 2023
JJ
23-366
NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL JOINT COMPOUND PRESENT THROUGHOUT

LEVEL 5 FLOOR PLAN, MORISSET HALL
NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL
J OINT COMPOUND PRESENT THROUGHOUT

LEVEL 6 FLOOR PLAN, MORISSET HALL

LEGEND

- Exposed Asbestos-Containing Plaster in Good Condition
- No Access (Solid Ceiling / Keys Not Provided)
- Clean (Bare Concrete / Metal / Other Non ACM Materials)
- Asbestos-Containing Acoustic Ceiling Tile

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Project: CEILING SPACE INVESTIGATION
Project Location: MORISSET HALL, 65 UNIVERSITY PRIVATE, OTTAWA ON
Client: UNIVERSITY OF OTTAWA

Date: JULY 21, 2023
Completed by: JR
Checked by: JJ
Project Number: MRT-09
Figure Number: 23-366
LEVEL 7 FLOOR PLAN, MORISSET HALL

NOTE: ASBESTOS-CONTAINING PLASTER AND DRYWALL
     JOINT COMPOUND PRESENT THROUGHOUT