

BERSCH & ASSOCIATES LTD.

July 15, 2013

City of Saskatoon
Infrastructure Services Department
1101 Avenue P North
Saskatoon, Sk.
S7L 7K6

ATTENTION: Brent Anderson

SUBJECT: Fire Hall #6 - Asbestos Registry Report

Please find attached our laboratory's results for the bulk material samples taken from the Fire Hall #6 located at 3309 Taylor Street East, Saskatoon, SK. The samples were analyzed in our laboratory for the identification of asbestos.

The results for the samples submitted were obtained by examination in accordance with the current USEPA 600/R-93/116 Method for the analysis of asbestos in building materials using polarized light microscopy and dispersion staining techniques. The detection limit of this method is listed as less than 1% by volume.

This test report relates only to the materials sent for examination and any use or extension of the information by the client of these results is the responsibility of the client. If any questions arise on the results of the attached information please contact our office. Thank you for this opportunity of service to your firm.

Also included is a floor plan of the facility identifying the bulk sample locations. Photos of suspect materials sampled are also included following the floor plans.

Sincerely,

Dustin Fraess
Bersch & Associates Ltd.
File: B67BLE06

Bersch & Associates Ltd.

Box 3568

Humboldt, Sask. S0K 2A0

B67BAE06

BULK SAMPLE ANALYSIS REPORT**PROJECT NO. B67.13****CLIENT: City of Saskatoon****Infrastructure Services - Facilities Branch****Contact: Brent Anderson****Location: Fire Hall #6 -3309 Taylor Street East, Saskatoon, SK.**

NO.	DATE	SAMPLE INFORMATION	ASBESTOS	%	ANALYST
B1	6-May-13	114 - Pipeline fitting on small green line	None detected		WB
B2	6-May-13	121 - Pipeline fitting on small white line, overhead adjacent unit heater in the northeast corner	None detected		WB
B3	6-May-13	103 - Pipeline fitting above ceiling tile adjacent women's dorm entry	None detected		WB
B4	6-May-13	124 - Duct expansion gasket on ducting in upper deck	None detected		WB
B5	6-May-13	102 - Sheet flooring- tan, beige and blue stone pattern	None detected		WB
B6	6-May-13	112 - Sheet flooring- grey, white and black stone pattern	None detected		WB

GENERAL NOTES:

1. All dimensions are in millimetres.
2. Drawings are not to be scaled.
3. All drawings to be read in conjunction with the specifications.
4. Where shown, dimensions are otherwise noted.
5. Verify all dimensions and location of all utilities prior to the start of construction.
6. Report all discrepancies to the Consultant.
7. If in doubt, ask.

REV. PROJECT NO. DATE

DESIGNED BY: LJS/MG

CHECKED BY: DATE: Nov, 2003

SCALE: 1:125

SHEET NO. 1

PROJECT NO. 3309 Taylor St.E

PROJECT TITLE: Main Floor Base Plan

PROJECT FILE: 826

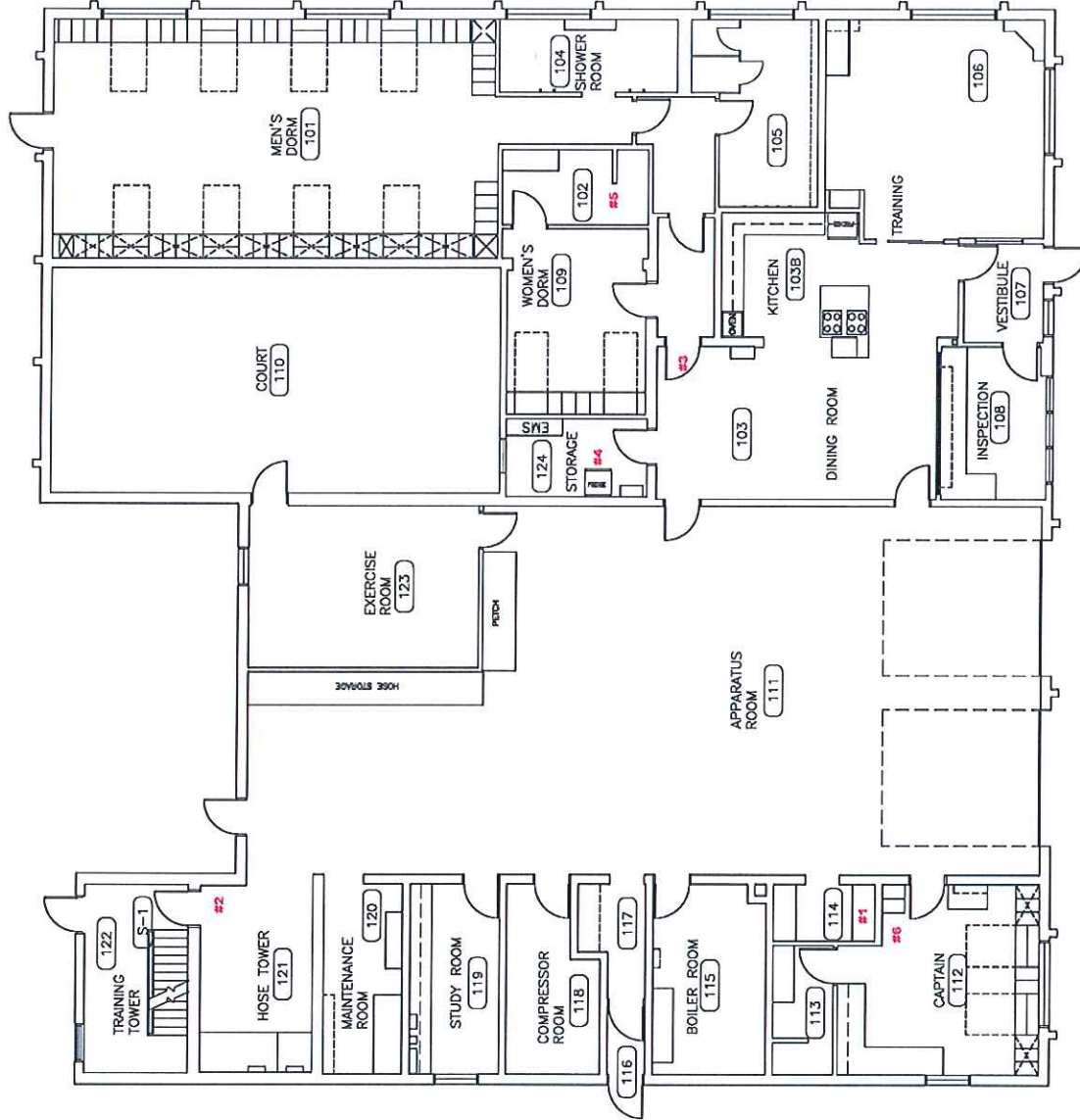
Firehall #6

3309 Taylor St.E

PROJECT NO. 3309 Taylor St.E

SHEET 1

REV. NO. 1



BULK SAMPLE PHOTOS

#1) Pipeline Fitting



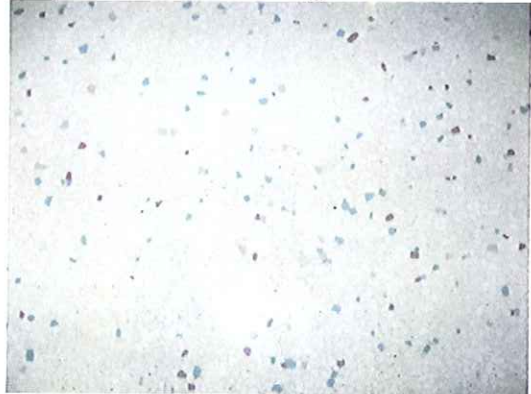
#2) Pipeline Fitting



#4) Duct Expansion Gasket



#5) Sheet Flooring



#6) Sheet Flooring





FINAL
**Limited Asbestos
Building Materials
Assessment**

Fire Hall #6 Cable Drop Project
3309 Taylor Street East,
Saskatoon, Saskatchewan

Prepared for:

City of Saskatoon
1101 Avenue P North
Saskatoon, Saskatchewan

Attention: Les Severson

April 4, 2017

PWL File: 7141AO-002r02

Issued to: City of Saskatoon
Contact: Les Severson
Contact Title
Issued on: April 4, 2017
PWL File: 7141AO-002r02
Issuing Office: 210 Cardinal Crescent, Saskatoon, SK
S7L 6H8
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DISTRIBUTION

cc: Hazel Fernandez Indoor Air Quality Manager, Hazel.Fernandez@saskatoon.ca
Asbestos Program Manager,
Facilities & Fleet Division

EXECUTIVE SUMMARY

City of Saskatoon (Client) retained Pinchin West Ltd. (PWL) to conduct limited asbestos-containing building materials assessment of Firehall #6 located at Fire Hall #6 Cable Drop Project 3309 Taylor Street East, Saskatoon, Saskatchewan. PWL performed the assessment on April 3, 2017.

The objective of the assessment was to identify specified hazardous building materials in preparation for building renovation. The results of this assessment are intended for use with a properly developed scope of work and performance specification.

The assessed area was limited to the Study, Compressor Room, Men's washroom and the Training room.

SUMMARY OF FINDINGS

Asbestos: Asbestos-containing materials were not identified in the assessed areas.

SUMMARY OF RECOMMENDATIONS

Provide this report and the detailed plans to the contractor prior to bidding or commencing work.

This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.

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1.0 INTRODUCTION AND SCOPE

City of Saskatoon (Client) retained Pinchin West Ltd. (PWL) to conduct a hazardous building materials assessment of Firehall #6, located at Fire Hall #6 Cable Drop Project 3309 Taylor Street East, Saskatoon, Saskatchewan.

Paul Farago, B.A.Sc., P.Eng. performed the assessment on April 3, 2017. The surveyor was accompanied by Les Severson from the City of Saskatoon during the assessment. The building was occupied at the time of the assessment.

The objective of the assessment was to identify specified asbestos-containing building materials in preparation for building renovation. This assessment is intended to be used for pre-construction purposes only, and may not provide sufficient detail for long term management of hazardous materials as required by Health and Safety regulations. The results of this assessment are intended for use with a properly developed scope of work and performance specification.

1.1 Scope of Assessment

The assessment was performed to establish the location and type of asbestos building materials incorporated in the structure(s) and its finishes. The assessed area was limited to the Study, Compressor Room, Men's washroom and the Training room. The extent of the assessed area was defined by the Client and is shown on the appended drawings.

2.0 BACKGROUND INFORMATION

Building Description Item	Details
Building Use	Fire Hall
Floor Level Assessed	Main floor area
Total Area of Assessed area of Building (Square Feet)	100 square feet at ceiling area between Men's Washroom and Training Room 100 square feet of concrete block wall that separates the Compressor Room (Location 118) and the Study Room (Location 119)
Year of Construction/Significant Additions/Renovations (area assessed)	Circa 1970's
Structure	Structural steel, concrete
Exterior Cladding	Brick Veneer

Building Description Item	Details
HVAC	Rooftop AC, Boiler and hot water heating to radiators
Roof	No Access
Flooring	Concrete, carpet, ceramic tiles
Interior Walls	Drywall, concrete block,
Ceilings	Drywall, acoustic ceiling tiles

2.1 Existing Reports

PWL was provided, and instructed to rely upon, the following existing reports:

- Fire Hall #6 – Asbestos Registry Report, Bersch & Associates Ltd., Dated July 25, 2013.

No existing reports were provided for reference.

3.0 FINDINGS

3.1 Asbestos

3.1.1 Suspect Building Materials Not Found

The following types of building materials may historically contain asbestos but were not observed in the assessed area of the building and are not discussed in the report findings:

- Spray-applied fireproofing or thermal insulation
- Texture finishes (acoustic/decorative)
- Pipe insulation
- Duct insulation
- Mechanical equipment insulation
- Drywall joint compound

3.1.1.1 Pipe Insulation

Pipes are insulated with fibreglass, or other non-asbestos insulation such as mineral fibre or elastomeric foam insulation.

3.1.1.2 Duct Insulation

Ducts are not insulated.



Photo 1: Un-insulated metal duct, structural steel, and metal roof decking above acoustic ceiling tiles in Men's Washroom (Location 105)



Photo 2: Un-insulated metal duct with no mastic above acoustic ceiling tiles in Men's Washroom (Location 105).

3.1.2 Vermiculite

Destructive testing was conducted of masonry block walls. The masonry block wall, between the Study (Location 119) and the Compressor Room (Location 118), was penetrated in one location, loose fill vermiculite is not present. The location of destructive testing are indicated on the drawings in Appendix I.

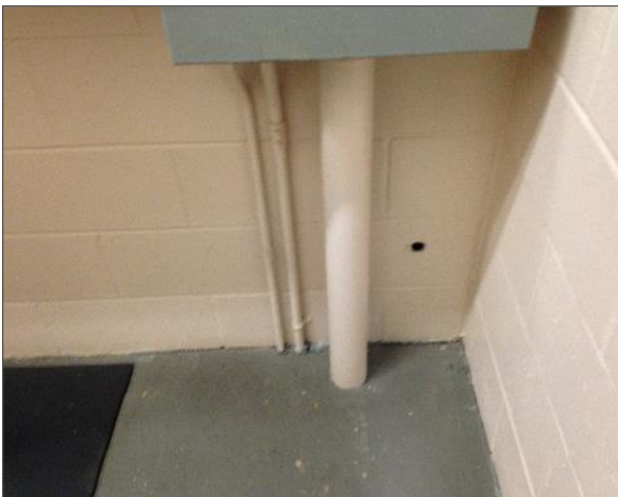


Photo 3: Intrusive hole in concrete block wall that separates the Compressor Room (Location 118) and the Study Room (Location 119). No insulation was found.



Photo 4: Compressor Room (Location 118) on left and the Study Room (Location 119) on the right.

3.1.3 Acoustic Ceiling Tiles

All ceiling tiles are presumed to be non-asbestos based on the date of manufacture determined from the date stamp applied to the top of the tiles or the age of the materials determined from the age of the building or the renovation. The tiles were manufactured after asbestos stopped being used in acoustic ceiling tiles.



Photo 5: Acoustic Ceiling Tiles, 24"x48" Pinhole and Fissure (Non-asbestos containing Date Stamp 02/08/16), Men's Washroom (Location 105)

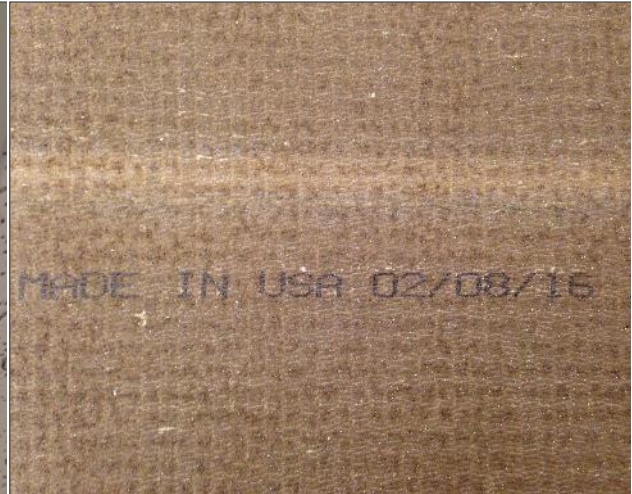


Photo 6: Acoustic Ceiling Tiles, 24"x48" Pinhole and Fissure (Non-asbestos containing Date Stamp 02/08/16), Men's Washroom (Location 105)

3.1.4 Presumed Asbestos Materials

A number of materials which might contain asbestos were not sampled during the assessment due to limitations in scope and methodology. Where present, these materials must be presumed to be an asbestos material and are best sampled during project planning and preparation of contract documents for their removal. Materials presumed to contain asbestos are listed in the Methodology.

4.0 RECOMMENDATIONS

Provide this report and the detailed plans to the contractor prior to bidding or commencing work..

5.0 LIMITATIONS

Specific limitations related to the legal and financial and limitations to the scope of the current work are outlined in our proposal, the attached Methodology and the Authorization to Proceed which accompanied the proposal.

The work performed by PWL was conducted in accordance with generally accepted engineering or scientific practices current in this geographical area at the time the work was performed. No warranty is either expressed or implied by furnishing written reports or findings. The Client acknowledges that subsurface and concealed conditions may vary from those encountered or inspected. PWL can only comment on the environmental conditions observed on the date(s) the survey is performed. The work is limited to those materials or areas of concern identified by the Client or outlined in our proposal. Other areas of concern may exist but were not investigated within the scope of this assignment.

PWL makes no other representations whatsoever, including those concerning the legal significance of its findings or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issue, regulatory statutes are subject to interpretation and these interpretations may change over time. PWL accepts no responsibility for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The liability of PWL or our officers, directors, shareholders or staff will be limited to the lesser of the fees paid or actual damages incurred by the Client. PWL will not be responsible for any consequential or indirect damages. PWL will only be liable for damages resulting from the negligence of PWL. PWL will not be liable for any losses or damage if the Client has failed, within a period of two years following the date upon which the claim is discovered (Claim Period), to commence legal proceedings against PWL to recover such losses or damage unless the laws of the jurisdiction which governs the Claim Period which is applicable to such claim provides that the applicable Claim Period is greater than two years and cannot be abridged by the contract between the Client and PWL, in which case the Claim Period shall be deemed to be extended by the shortest additional period which results in this provision being legally enforceable.

Information provided by PWL is intended for Client use only. PWL will not provide results or information to any party unless disclosure by PWL is required by law. Any use by a third party of reports or documents authored by PWL or any reliance by a third party on or decisions made by a third party based on the findings described in said documents, is the sole responsibility of such third parties. PWL accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted. No other warranties are implied or expressed.

6.0 REFERENCES

The following legislation and documents were referenced in completing the assessment and this report:

1. Occupational Health and Safety Regulations, Saskatchewan Labour, (O-1.1 Reg 1).
2. The Hazardous Substances and Waste Dangerous Goods Regulations, Environmental Management and Protection Act, Saskatchewan Environment, 1989.
3. Halocarbon Control Regulations, Saskatchewan Environment, 2005.
4. PCB Regulations, SOR/2008-273, Canadian Environmental Protection Act.
5. Surface Coating Materials Regulations, SOR/2005-109, Hazardous Products Act.
6. Transportation of Dangerous Goods Regulations SOR/2008-34, Transportation of Dangerous Goods Act.
7. Mould Guidelines for the Canadian Construction Industry, Standard Construction Document CCA 82 – 2004, Canadian Construction Association.
8. Saskatchewan Asbestos Abatement Manual, Guidelines for Asbestos Processes in Building Demolition and Renovation, 2016.

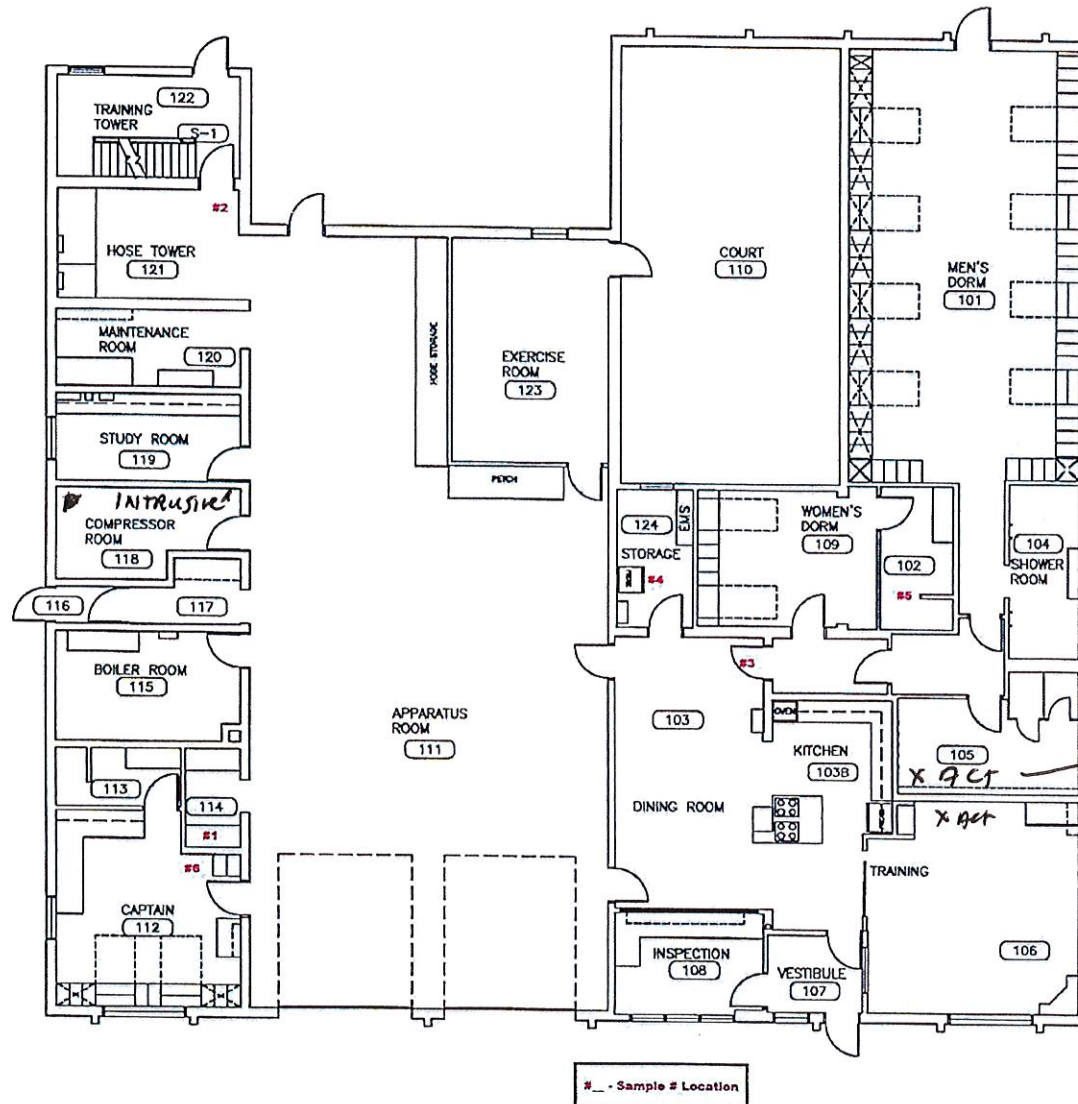
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Template: Master Report for Hazardous Materials Assessment Report (Pre-Construction), Haz, February 1, 2016

APPENDIX I

Drawings

7141AC-002



INTRUSIVE
Itcl IN
CONCATR
BLACK
WALL -
- NO
VERMICULITE

Acoustic
Celline
Fire.
02/08/16.

NO DUCT OR
PIPE
INSULATION



City of
Saskatoon

Infrastructure Services
Department

Facilities Branch
308-975-3300

GENERAL NOTES:

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5. Report all discrepancies to the Consultant.
6. If in doubt, ask.

REV		SHEET FOR		DATE	
APPROVED BY	OWNER BY	ENGINEER BY	REGISTRATION NO.		
SHEET	J8/M9		DATE	Nov, 2003	
SHEET NAME			AUBURN		
Main Floor Base Plan					
PROJECT TITLE					
826 Firehall #6 3309 Taylor St.E					
PROJECT NO.			SHEET		
			REV. NO.		

APPENDIX II

Methodology

1.0 GENERAL

PWL conducts a room-by-room survey (rooms, corridors, service areas, exterior, etc.) to identify the asbestos building materials defined by the scope of the work. All work is conducted in accordance with our own internal Standard Operating Procedures.

Information regarding the location and condition of asbestos building materials encountered and visually estimated quantities are recorded. The locations of any samples collected are recorded on small-scale plans.

As-built drawings and previous reports are referenced where provided.

1.1 Scope Limitations

The assessment excludes the following:

- Articles belonging to the owner, tenant or occupant (e.g. stored items, furniture, appliances, etc.);
- Underground materials or equipment (e.g. vessels, drums, underground storage tanks, pipes, etc.);
- Building envelope, structural components, inaccessible or concealed materials or other items where sampling may cause consequential damage to the property.
- Energized systems (e.g. internal boiler components, elevators, mechanical or electrical components);
- Controlled products (e.g. stored chemicals, operational or process-related substances); and
- Materials not typically associated with construction (e.g. settled dust, spills, residual contamination from prior spills, etc.).

The assessment includes limited demolition of wall and ceiling finishes (drywall or plaster) to view concealed conditions at representative areas as permitted by the current building use. Limited destructive testing of flooring is conducted where possible (under carpets or multiple layers of flooring). Demolition of masonry walls (chases, shafts etc.), structural items or exterior building finishes is not conducted. PWL conducts limited demolition of masonry block walls (core holes) to investigate for loose fill insulation.

1.2 Detailed Methodology

PWL conducts an inspection for the presence of friable and non-friable asbestos-containing materials (ACM). A friable material is a material that when dry can be crumbled, pulverized or powdered by hand pressure.

A separate set of samples is collected of each type of homogenous material suspected to contain asbestos. A homogenous material is defined by the US EPA as material that is uniform in texture and appearance, was installed at one time, and is unlikely to consist of more than one type or formulation of material. The homogeneous materials are determined by visual examination and available information on the phases of construction and prior renovations.

PWL collects samples at a rate that is in compliance with the requirements of local regulations and guidelines.

The sampling strategy is also based on known ban dates and phase out dates of the use of asbestos; sampling of certain building materials is not conducted after specific construction dates. In addition, to be conservative, several years past these dates are added to account for some uncertainty in the exact start/finish date of construction and associated usage of ACM.

In some cases, manufactured products such as asbestos cement pipe are visually identified without sample confirmation.

Drywall joint compound is sampled at exterior walls, columns or other locations that are unlikely to have been renovated in an attempt to determine the presence of asbestos in the original drywall compound. Delineation of asbestos-containing drywall compound from newer, non-asbestos drywall compound is not conducted.

Flooring mastic or adhesive is sampled and analyzed if present on the underside of flooring samples (vinyl floor tile and vinyl sheet flooring).

If present, the following materials are presumed to be asbestos-containing and are best sampled immediately prior to commencing renovation/disturbance:

- electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring

PWL submits the bulk samples to a NVLAP accredited laboratory for analysis. The analysis is performed in accordance with Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, July 1993.

In Saskatchewan an ACM is defined as materials containing >1% asbestos by weight for non-friable materials, or >0.5% for friable materials or any amount if vermiculite.

The asbestos analysis is completed using a stop positive approach. Only one result meeting the above regulated criteria is required to determine that a material is asbestos-containing, but all samples must be analyzed to conclusively determine that a material is non-asbestos. The laboratory stops analyzing samples from a homogeneous material once a result equal to or greater than the regulated criteria is

detected in any of the samples of that material. All samples of a homogeneous material are analyzed if no asbestos is detected. In some cases, all samples are analyzed in the sample set regardless of result. Where building materials are described in the report as non-asbestos, this means that either no asbestos was detected by the analytical method utilized in any of the multiple samples or, if detected, it is below the lower limit of an asbestos-containing material in the applicable regulation.

Asbestos materials are evaluated in order to make recommendations regarding remedial work. The priority for remedial action is based on several factors:

- Friability (friable or non-friable).
- Condition (good, fair, poor, debris).
- Accessibility (ranking from accessible to all building users to inaccessible).
- Visibility (whether the material is obscured by other building components).
- Air movement or air erosion (present, not present).
- Efficiency of the work (for example, if damaged ACM is being removed in an area, it may be most practical to remove all ACM in the area even if it is in good condition).

Master Template: Methodology Document for Asbestos Assessment, HAZ, October 18, 2016