



March 14, 2024

**CITY OF COQUITLAM**  
**Parks, Recreation, Culture & Facilities**  
640 Poirier Street  
Coquitlam, BC V3J 6B1

Attention: Mr. Noel Tracey  
Building Technician | Capital Projects and Facilities

**Ref: REVISED PRE-PROJECT HAZARDOUS BUILDING MATERIALS SURVEY FOR THE PLANNED EXTERIOR RENOVATION OF THE AUSTIN HEIGHTS FIRE HALL LOCATED AT 428 NELSON STREET, COQUITLAM, BC**

## 1.0 INTRODUCTION

Astech Consultants Ltd. (Astech) was retained by City of Coquitlam to conduct a Pre-Project Hazardous Building Materials Survey and compile a detailed report on the presence and location of asbestos containing building materials, lead, polychlorinated biphenyls (PCBs), mercury, stored chemicals, and silica to be impacted by the planned exterior renovation of the Austin Heights Fire Hall located at 428 Nelson Street, Coquitlam, BC. The subject areas of this report includes areas listed in Section 4.1 below. This revised report includes for the current condition of the exterior facade.

Astech's survey and report format is designed specifically to satisfy the current applicable regulation from the Workers' Compensation Board of British Columbia (WCB) Occupational Health and Safety Regulation 20.112 regarding hazardous building material assessments by a Qualified Person for buildings and structures.

This survey was conducted on March 21, 2023 by Scott Price assisted by Richard Skrukwa of Astech. It must be emphasized that this survey was concerned exclusively with the exterior facade attached to the building. The site survey was only partially destructive due to building occupancy. Also, inaccessible areas which would require the actual dismantling of substantial portions of the facade in order to gain access were not investigated. No attempt was made to investigate other areas of the building. Therefore, if during work activities, other hazardous materials, asbestos containing materials, or potential asbestos containing materials not included in this report are discovered, work should immediately cease in the affected area. At that time, Astech should be contacted so that they can initiate immediate appropriate action so that there are no undue delays.

## 2.0 BUILDING DESCRIPTION

The subject building on site is described as a two-storey fire hall faced with brick and an attached external insulation and finishing system. The building has had a few renovations over the years. The building is heated by a forced air natural gas furnace and ductwork.

## 3.0 METHODOLOGY

### 3.1 ASBESTOS CONTAINING MATERIALS

A visual inspection was undertaken in order to determine the type, location, and homogeneous nature of asbestos and potential asbestos containing building materials located at the subject renovation areas. During this inspection, sixteen (16) bulk samples of potential asbestos containing materials were collected from specific locations of the building. The number of samples collected during this survey are in accordance with the guidelines established by the WCB in their 2020 publication Safe Work Practices for Handling Asbestos, and as indicated by actual site conditions. The samples collected were submitted for analysis at our in-house laboratory in accordance with the WCB Occupational Health and Safety Regulation, utilizing polarized light microscopy, and dispersion staining techniques. Results of laboratory analysis of the samples collected during this survey are attached.

### 3.2 LEAD FINISHES

A visual inspection was undertaken in order to determine the type and location of paints, primers, coatings, and/or glazing finishes suspected of containing lead at the subject renovation areas. During this inspection, three (3) potential lead finishes were analyzed from specific locations of the building. The finishes were analyzed in accordance with US EPA methods and the requirements of the WCB Occupational Health and Safety Regulation. Results of the finishes analyzed during this survey are attached.

### 3.3 LEAD CONSTRUCTION MATERIALS, SOLID PCBs, MERCURY, STORED CHEMICALS, AND SILICA

A visual inspection was undertaken at the subject areas in order to determine the presence of:

- construction materials suspected of containing lead and other heavy metals,
- fluorescent and high intensity discharge (HID) light fixtures suspected of containing PCB ballasts or capacitors,
- thermostats, light tubes/bulbs, and associated equipment suspected of containing mercury,
- stored chemicals suspected of being toxic, flammable, or explosive, and
- building materials suspected of containing silica in crystalline and non-crystalline forms.

## 4.0 INSPECTION RESULTS

### 4.1 ASBESTOS CONTAINING MATERIALS

#### GENERAL NOTE

**#1 Potential Asbestos Containing Building Materials:** The potential asbestos containing building materials listed below are not planned to be impacted by project and must be considered asbestos containing until laboratory results determine otherwise. In order to test the materials destructive testing may be required.

The visual inspection and/or analytical results determined that asbestos containing materials and/or potential asbestos containing materials are located at the following specific locations:

#### **AUSTIN HEIGHTS FIRE HALL - EXTERIOR FACADE**

##### **Semi-Attached External Insulation and Finishing System (EIFS)**

- **Asbestos** containing caulking where EIFS and building connect at metal flashings (some concealed and some on adjoining building materials).
- Potential **asbestos** containing caulking at joints of building rooftop metal perimeter flashing (see General Note #1 above).

##### **Non-Asbestos Containing Materials**

- Non-asbestos finishing of EIFS.
- Non-asbestos patching on EIFS.
- Non-asbestos caulking between EIFS and rooftop metal perimeter flashing.
- Non-asbestos rubberized membrane behind metal flashings between EIFS and building.

#### **4.2 LEAD**

The visual inspection and/or laboratory analytical results determined the following at the subject areas:

##### **AUSTIN HEIGHTS FIRE HALL - EXTERIOR FACADE**

- brown paint containing 10,300 parts per million (PPM) of **lead** was used on metal flashings between facade and building,
- red paint containing 2,983 PPM of **lead** was used on metal flashing of facade, and
- red paint containing 12 PPM of **lead** was used on finishing of facade EIFS.

#### **4.3 PCBs**

The visual inspection determined that there are no fluorescent or HID light fixtures at the subject areas suspected of having PCB containing ballasts or capacitors.

#### **4.4 MERCURY**

The visual inspection determined that there are no wall mounted thermostats at the subject areas that contain mercury. However, there are a few fluorescent light bulbs at the subject areas that contain mercury.

#### **4.5 STORED CHEMICALS AND OTHER HAZARDOUS MATERIALS**

The following list of materials were present in and around the subject areas at time of inspection:

##### **AUSTIN HEIGHTS FIRE HALL - EXTERIOR FACADE**

- numerous areas with bird droppings on as well as within exterior facade, and
- numerous areas with mould present on EIFS, foam, and gypsum board of exterior facade.

**Note:** The interior and exterior of the facade is in poor condition due to its use from migratory birds for nesting purposes. Therefore, it must be assumed there is a substantially large amount of bird droppings (including the potential for bird carcasses) and mould located within the facade on EIFS, foam, gypsum board, and other surfaces.

## 4.6 SILICA

All concrete, cement, brick, gypsum board, and any other cementitious building materials located at the subject areas are suspected of containing silica in crystalline and non-crystalline forms.

## 4.7 GYPSUM BOARD

Documentation provided by client states that there is unfinished gypsum board located within the EIFS.

# 5.0 RECOMMENDATIONS

## 5.1 ASBESTOS CONTAINING MATERIALS

Prior to the renovation or demolition of a building or it's components, the asbestos containing materials (or potential asbestos containing materials) that are **directly impacted by the work or are damaged and require remedial action** must first be removed and disposed of as asbestos waste by a qualified hazardous materials abatement contractor's trained and authorized personnel, or for renovations may be repaired and left in place where and when possible. Asbestos and assumed asbestos containing materials not impacted by the work and not requiring remedial action may remain in place as long as they are in a stable condition in which would be considered to be safely enclosed or encapsulated. Workers must be advised in writing of their presence and location so that the asbestos containing materials are not inadvertently disturbed. Removing, enclosing, encapsulating, or otherwise disturbing (e.g. drilling) asbestos containing materials must be performed by a qualified contractor's trained personnel in accordance with the WCB Occupational Health and Safety Regulation. Disposal of asbestos containing materials must be performed in accordance with the BC Ministry of Environment and Climate Change Strategy - *Environmental Management Act - Hazardous Waste Regulation*.

## 5.2 LEAD

### Paints/Primers

Where lead (or considered to be lead) based paints and/or primers are affected by a project, the work must be performed by a qualified contractor in accordance with the WCB Occupational Health and Safety Regulation and their 2020 publication entitled Safe Work Practices For Handling Lead.

Where the base substrate material is to be removed in conjunction with lead paint removal, the base substrate and lead based paints and/or primers should be removed intact by the contractor, in accordance with the contractor's risk assessment and site specific work procedures. The workers conducting the work and workers in close proximity to the work being performed, should be protected with personal protective equipment as determined by the contractor's risk assessment and site specific work procedures.

Lead containing paints which remain attached to wood and/or other building materials must be labelled as lead based paints (LBP) for transporting to a licensed/approved disposal site or recycling facility. A licensed/approved facility receiving the waste must be informed of the lead content of these materials and be agreeable to receiving these materials. Prior to acceptance of waste with lead paints at a licensed/approved disposal facility, the contractor generating the waste must ensure that all waste materials containing LBP's are sampled intact, fastened directly to the base substrate, and representative of the waste stream created by demolition. The contractor shall have any representative samples analyzed utilizing a Toxicity Characteristic Leachate Procedure for lead (TCLP lead) test to determine the potential for soil and/or groundwater contamination, if deemed necessary by the site receiving the waste.

If the lead paints are to be separated or removed from the building materials by means of sanding, scraping, abrading, blasting, etc., more stringent work procedures would apply. The removed lead paints, depending on lead concentrations and leachate results, may become a Hazardous Waste and therefore must be disposed of in accordance with the BC Ministry of Environment and Climate Change Strategy - *Environmental Management Act* - Hazardous Waste Regulation.

### 5.3 MERCURY

Where affected by a renovation project, the mercury containing light bulbs must first be removed, and be salvaged, recycled or disposed of, in accordance with the BC Ministry of Environment and Climate Change Strategy - *Environmental Management Act* - Hazardous Waste Regulation.

### 5.4 OTHER HAZARDOUS MATERIALS

#### **Bird Droppings/Carcasses**

Bird droppings which can cause infectious disease and/or respiratory disease in humans should be removed as biohazardous waste by a qualified abatement contractor in accordance with the WCB Occupational Health and Safety Regulation, prior to unprotected trades performing work in or conducting selective demolition of a building. In lieu of removing droppings/carcasses, workers shall wear respirators and protective clothing while in contaminated areas of a building, and while conducting selective demolition of a building.

#### **Mould**

The differing types of moulds and/or fungi which can cause infectious disease and/or respiratory disease in humans should be removed as biohazardous waste by a qualified abatement contractor in accordance with the WCB Occupational Health and Safety Regulation, prior to unprotected trades performing work in affected areas of a building. In lieu of removing moulds and fungi, workers shall wear respirators and protective clothing while in contaminated areas of a building.

Where affected by a project, mould which is attached to building materials such as wood, metal and concrete may be disposed of in a manner applicable to normal demolition waste. Workers conducting selective demolition of a building shall wear respirators and protective clothing while in contaminated areas of a building.

### 5.5 SILICA

Where cementitious building materials that are suspected of containing silica in crystalline form are directly impacted by the project (i.e. drilling, cutting, abrading, etc.), the work should be performed in a controlled manner to avoid the release of crystalline silica dust. Cutting, drilling, or otherwise disturbing these building materials must be performed by a qualified contractor's trained personnel in accordance with the WCB Occupational Health and Safety Regulation.

### 5.6 RECYCLABLE GYPSUM BOARD

Where affected by a renovation project, the gypsum board with no asbestos finishes (a provincially regulated construction waste) must first be removed by a qualified contractor, and be recycled or disposed of in accordance with the BC Ministry of Environment and Climate Change Strategy - *Environmental Management Act* - Hazardous Waste Regulation. Landfills are issued operational certificates from the BC Ministry of Environment, and for local landfills and others their certificate specifies that gypsum board cannot be accepted for disposal, and therefore local depots offer recycling services.

## 6.0 OWNER'S AND ABATEMENT CONTRACTOR'S RESPONSIBILITIES

### Owner's Responsibilities

For the remediation of hazardous building materials, contract specifications, quality control, and final acceptance of the work remain the responsibility of the Owner. In order to ensure that the Owner has acted in a responsible manner, and to ensure regulatory board compliance, it is recommended that the work and project air monitoring be performed by a qualified and properly insured (with proof of necessary asbestos inclusion rider) Hazardous Materials Abatement Contractor.

### Abatement Contractor's Responsibilities

The Abatement Contractor upon completing the work shall have their "Qualified Person" inspect the worksite in its entirety to confirm that asbestos and other hazardous building materials have been properly removed, then promptly provide the Owner with a signed Letter of Completion.

As well, prior to transport of hazardous waste, the Abatement Contractor shall assist the Owner by completing and submitting the BC Ministry of Environment and Climate Change Strategy Waste Generator Number Registration Form (Schedule 5 Form 1), once signed by the Owner, if no BC Generator number exists. If a BC Generator number exists and requires updating for this specific project, the Abatement Contractor shall assist with completing and submitting the update.

Project Documentation should also be provided to the Owner including, but not necessarily limited to, a Notice of Project for work involving Asbestos and/or Lead Paint, Risk Assessment, Exposure Control Plan, and Site Specific Work Procedures, Worker Respirator Fit Test Forms/Logs and Training Acknowledgement Forms, Certification of DOP Testing of HEPA Filtered Equipment used on site, Air Sample Results, Material Safety Data Sheets (MSDS) for products used on site, Transportation Waybills, and Waste Manifest Forms.

Additionally, if current site conditions do not accurately reflect the state of the building(s) as it was when originally surveyed, Astech should be contacted so that they can revisit the site and revise the hazardous materials report as necessary. Also, if during work activities, other hazardous materials, asbestos containing materials, or potential asbestos containing materials not included in this report are discovered, work should immediately cease in the affected area. At that time, Astech should be contacted so that they can initiate immediate appropriate action so that there are no undue delays.

## 7.0 APPROXIMATE QUANTITIES FOR HAZARDOUS MATERIALS

The following approximate quantities for hazardous materials are provided as a means to satisfy the requirements of the WCB, and are provided for reference only. Contractors shall be responsible for verifying exact quantities for the purpose of bidding the work.

<b>ASBESTOS CONTAINING MATERIALS</b>	<b>APPROXIMATE QUANTITIES</b>
<b>Confirmed Asbestos Containing Materials</b>	
Asbestos Caulkings where EIFS and Building Connect at Metal Flashings, and Contaminated Building Materials	14 flashings
<b>Potential Asbestos Containing Materials</b>	
Potential Asbestos Containing Caulking at Joints of Rooftop Metal Perimeter Flashing	Not Determined
<b>OTHER HAZARDOUS MATERIALS</b>	
Lead Paint Remaining Attached to Building Materials for Recycle/Disposal	Not Determined
Bird Droppings and Mould on EIFS, Foam, Gypsum Board, and Other Contaminated Building Materials (see Section 4.5 above)	substantially large quantities within facade
Mercury Containing Light Bulbs	8 bulbs

We hope you have found the above information useful. If you have any questions, or require clarification please contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Price", enclosed within a circular scribble.

Scott Price, Principal  
Astech Consultants Ltd.  
Ref: 26364HE01R1.SP



# ASBESTOS BULK SAMPLE REPORT

Date: March 14, 2024

Client: CITY OF COQUITLAM

Location: **Austin Heights Fire Hall - Semi-Attached External Insulation and Finishing System (EIFS)  
428 Nelson Street  
Coquitlam, BC**

Comments:

- 1) Asbestos (bulk) by PLM analyzed as per NIOSH 9002 Issue 2.
- 2) Workers' Compensation Board of British Columbia (WCB) defines asbestos containing material as 0.5% or more asbestos, with the exception of Vermiculite Insulation which is defined as "any asbestos".
- 3) Samples will be disposed of after 90 days, unless the Client requests otherwise.

## Sample(s) Collected on March 21, 2023

Sample	Location	Description	Layer: Colour	Non-Asbestos		Asbestos	
				%	Type	%	Type
26364 BS01	Exterior EIFS (North Section)	Caulking (where Metal Flashing abuts Stucco)	1: Grey	98%	Non-Fibrous	2%	Chrysotile
26364 BS02	Exterior EIFS (North Section)	Caulking (where Stucco abuts Metal Perimeter Roof Flashing)	1: Grey	100%	Non-Fibrous	None	Detected
26364 BS03a	Exterior EIFS (North Section)	Stucco (Outer Layer)	1: Red	100%	Non-Fibrous	None	Detected
26364 BS03b	Exterior EIFS (North Section)	Stucco (Inner Layer)	2: Grey	5%	Glass	95%	Non-Fibrous
26364 BS04	Exterior EIFS (North Section)	Patch Compound (on Stucco)	1: Beige	100%	Non-Fibrous	None	Detected
26364 BS05	Exterior EIFS (North Section)	Caulking (where Metal Flashing abuts Brick Wall)	1: Brown	98%	Non-Fibrous	2%	Chrysotile
26364 BS06a	Exterior EIFS (North Section)	Stucco (Outer Layer)	1: Red	100%	Non-Fibrous	None	Detected
26364 BS06b	Exterior EIFS (North Section)	Stucco (Inner Layer)	2: Grey	5%	Glass	95%	Non-Fibrous
26364 BS07a	Exterior EIFS (Centre Section)	Stucco (Outer Layer)	1: Red	100%	Non-Fibrous	None	Detected
26364 BS07b	Exterior EIFS (Centre Section)	Stucco (Inner Layer)	2: Grey	5%	Glass	95%	Non-Fibrous



Sample	Location	Description	Layer: Colour	Non-Asbestos	Asbestos
				% Type	% Type
26364 BS08a	Exterior EIFS (South Section)	Stucco (Outer Layer)	1: Red	100% Non-Fibrous	None Detected
26364 BS08b	Exterior EIFS (South Section)	Stucco (Inner Layer)	2: Grey	5% Glass 95% Non-Fibrous	None Detected
26364 BS09a	Exterior EIFS (South Section)	Stucco (Outer Layer)	1: Red	100% Non-Fibrous	None Detected
26364 BS09b	Exterior EIFS (South Section)	Stucco (Inner Layer)	2: Grey	5% Glass 95% Non-Fibrous	None Detected
26364 BS10	Exterior EIFS (Centre Section)	Caulking (where Metal Flashing abuts Stucco)	1: Brown	97% Non-Fibrous	<b>3% Chrysotile</b>
26364 BS11	Exterior EIFS (South Section)	Rubberized Membrane	1: Black	100% Non-Fibrous	None Detected

Analyst(s): Oliver Collett



American Industrial Hygiene Association (AIHA) Bulk Asbestos Proficiency Analytical Testing (BAPAT)  
Astech Consultants Ltd. Laboratory Participant ID# 200542



# LEAD BULK SAMPLE REPORT

Date: March 14, 2024  
Client: CITY OF COQUITLAM  
Location: **Austin Heights Fire Hall - Semi-Attached External Insulation and Finishing System (EIFS)  
428 Nelson Street  
Coquitlam, BC**

Comments: 1) The Workers' Compensation Board of British Columbia (WCB) no longer allows reference to Health Canada's definition of a lead-containing surface coating material.  
2) WCB does not define a safe level for a lead-containing surface coating material.  
3) Analyzed by X-Ray Fluorescence (XRF) with direct read parts per million (PPM).  
4) Sample results report lead only.  
5) < means less than, > means more than.

Sample(s) Analyzed on March 21, 2023

Sample	Location	Description	Colour	Lead PPM
26364 LS01	Exterior EIFS (North Section)	Paint (on EIFS)	Red	12 PPM
26364 LS02	Exterior EIFS (North Section)	Paint (on Metal Perimeter Flashing)	Red	2,983 PPM
26364 LS03	Exterior EIFS (North Section)	Paint (on Metal Flashing)	Brown	10,300 PPM

Analyst(s): Scott Price



Certified to ISO:20807; and Health Canada's and Natural Resources Canada's requirements for compliance with Health Canada Safety Code 32 & 34