

School District 85



Woss Elementary
4500 MacRae Drive, Woss, BC
Asbestos Management Inventory



North West
Environmental Group Ltd.

NWest File: 39957 AMI1 V1.0
Date Issued: April 20, 2021

Report Information

| | |
|------------------------|--------------------|
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1 Introduction

North West Environmental Group Ltd. (NWest) was retained by School District 85 (the Client) to conduct an asbestos management inventory (AMI) at Woss Elementary located at 4500 MacRae Drive, Woss, BC (site). The non-destructive assessment was conducted by NWest representatives, Luke Kozlowski and Paddy Greig on August 21, 2020.

The purpose of this assessment is to provide information regarding the presence and condition of asbestos and suspect asbestos containing building materials in the building structure. This inventory assessment involved the identification of asbestos containing materials and a condition assessment in support of the building owner/manager's regular monitoring of asbestos containing material conditions so that materials in good condition may be safely managed in place until they are removed, and damaged materials can be repaired or otherwise addressed in a timely manner. Regular inspections of asbestos containing building materials are required to mitigate the potential for occupant and worker exposure. This report may be used for day to day building maintenance activities involving minor disturbance of materials.

This assessment supports compliance with the following provincial legislation:

-) BC Workers Compensation Act – Part 2, Division 4 (General Duties of Employers, Workers and Others), Section 25 (General duties of owner).
-) BC Occupational Health and Safety Regulation – Part 6.4 (Asbestos-General Requirements, Inventory).

This asbestos management inventory assessment does not replace the requirement for the owner to undertake a pre-renovation or pre-demolition project-specific hazardous materials assessment as required by the BC Occupational Health and Safety Regulation section 20.112.

Note: ongoing repairs, maintenance, and renovations may result in some changes to the building after this report was printed.

2 Scope of Work and Exclusions

All accessible areas of the facility were included in this assessment. Whenever practicable, representative building material samples were collected for asbestos analysis. See Appendix E for assessment methodologies.

This assessment was non-destructive (e.g., inspection holes to assess otherwise intact systems such as wall cavities were not made) and non-invasive (e.g., assessment of cupboards, closets, and similar personal spaces were not undertaken; ceiling tiles were not removed to assess above-ceiling materials). As such, concealed asbestos containing materials may be present.

The following NWest historical data and information is included herein:

-) Project number 10584 “Woss Elementary Asbestos Survey and Assessment”, issued 2009.
-) Project number 30015, “Asbestos Inventory and Condition Assessment Woss Elementary”, issued on November 10, 2016.
-) Project number 39956, “Woss Lake School Partial Demolition”, issued on August 14, 2020.

Areas/systems not included in the assessment are summarised in the following table.

Table 2-1. Assessment Exclusions

| Area/System | Rationale |
|--|----------------------------------|
| Roof | Non-destructive assessment |
| Attic | Non-destructive assessment |
| Wall/ceiling cavities | Non-destructive assessment |
| Concrete block walls | Non-destructive assessment |
| Equipment/System | Outside assessment scope of work |
| Underground/buried equipment and systems | Outside assessment scope of work |
| Indoor air quality assessment | Outside assessment scope of work |
| Contents | Outside assessment scope of work |

3 Regulatory Framework

The methods used for assessment, sample collection, and analysis were in accordance with applicable regulations and are acceptable to WorkSafeBC. See Appendix D for details on the applicable regulatory framework and additional standards that apply to this project.

4 Facility Description

The following is a summary of the building. Area calculations are approximate.

Table 4-1. Building Summary

| Building System | Details |
|--|---|
| Construction date | 1963 |
| Number of floors/levels | One |
| Area | 20,236 ft ² |
| Exterior Materials | |
| Roofing | Asphalt torch-on membrane |
| Exterior | Wood siding |
| Interior Materials | |
| Ceiling | Acoustic ceiling tile, |
| Walls | Drywall, wood panel |
| Floors | Sheet flooring, floor tile, carpet, concrete and wood |
| Insulation | Fibreglass and mineral fibre |
| HVAC (system type and insulation type) | Boiler servicing hot water radiators |
| Pipe lagging | Fibreglass pipe runs and cementitious pipe elbows |
| Lighting | Fluorescent light tubes and incandescent |

5 Asbestos Management Inventory and Recommendations

This section summarises the observations made, and the analytical results for material samples collected during the site assessment. Photo plates are presented in Appendix A, analytical laboratory reports are included in Appendix B, and drawings showing sample locations are presented in Appendix C.

The following table summarizes the results of the inventory, condition assessment, and recommended management actions for known and suspect asbestos-containing materials (ACMs). The recommendations are derived by the friability, accessibility, and condition of the ACMs. See Appendix F for details. Quantities are estimated.

Table 5-1. Asbestos-Containing Materials Summary

| Description | System | Locations | Status | Quantity | Accessibility | Friability | Condition | Mgmt Recommendation |
|---------------------------------------|---------------|----------------------------------|-----------|---|--|-------------|-----------|--|
| Mastic (Black/Grey) | Roof Flashing | Roof | Confirmed | Unknown – no access at time of assessment | Access B – Accessible to maintenance workers | Non friable | Good | Action 5 – Proactive ACM removal / Action 7 – Routinely monitor condition Test prior to impact |
| Mastic (Black) | Roof | Roof | Confirmed | Unknown – no access at time of assessment | Access B – Accessible to maintenance workers | Non friable | Good | Action 5 – Proactive ACM removal / Action 7 – Routinely monitor condition Test prior to impact |
| Mastic (Black with white specks) | Roof | Roof | Confirmed | Unknown – no access at time of assessment | Access B – Accessible to maintenance workers | Non friable | Good | Action 5 – Proactive ACM removal / Action 7 – Routinely monitor condition Test prior to impact |
| Pipe mastic – black | Plumbing | Janitors Closet | Suspect | Patches on piping in areas listed | Access B – Accessible to maintenance workers | Non friable | Good | Action 5 – Proactive ACM removal / Action 7 – Routinely monitor condition Test prior to impact |
| Acoustic sink insulation – black/gold | Sink | Classroom 5, Classroom 6, Office | Confirmed | 2 sinks | Access A – Accessible to all building users | Non friable | Good | Action 5 – Proactive ACM removal / Action 7 – Routinely monitor condition Test prior to impact |
| Pipe insulation debris remnants | Debris | Crawlspace | Confirmed | Suspect to be present throughout crawlspace | Access B – Accessible to maintenance workers | Friable | Poor | Action 1 – Immediate clean-up of debris and Action 3 –ACM removal required for compliance |

| Description | System | Locations | Status | Quantity | Accessibility | Friability | Condition | Mgmt Recommendation |
|---------------------------------------|-----------------|--|-----------|---|--|-------------|-----------|---|
| Window putty/caulking - off-white | Windows | Exterior | Confirmed | All exterior windows | Access A – Accessible to all building users | Non friable | Good | Action 5 – Proactive ACM removal / Action 7 – Routinely monitor condition Test prior to impact |
| Pipe elbow insulation | Plumbing | Crawlspace | Confirmed | Suspect to be present throughout crawlspace | Access B – Accessible to maintenance workers | Non friable | Fair | Action 5 – Proactive ACM removal / Action 6 – ACM Repair Test prior to impact |
| Drywall Joint Compound | Wall | Boiler Room, Chair Storage Under Stare | Confirmed | 710 ft ² | Access A – Accessible to all building users | Non friable | Fair | Action 5 – Proactive ACM removal / Action 6 – ACM Repair Test prior to impact |
| Drywall Joint Compound | Ceiling | Boiler Room, Chair Storage Under Stare | Confirmed | 360 ft ² | Access A – Accessible to all building users | Non friable | Fair | Action 5 – Proactive ACM removal / Action 6 – ACM Repair Test prior to impact |
| Gasket | Plumbing | Boiler Room | Suspect | 4 gaskets | Access B – Accessible to maintenance workers | Non friable | Good | Action 5 – Proactive ACM removal / Action 7 – Routinely monitor condition Test prior to impact |
| Brick and mortar | Chimney | Furnace Room | Suspect | 55 ft ² | Access B – Accessible to maintenance workers | Non friable | Good | Action 5 – Proactive ACM removal / Action 7 – Routinely monitor condition Test prior to impact |
| Textile wrapped fibreglass insulation | Pipe insulation | Maintenance Shop | Suspect | 50 linear feet | Access B – Accessible to maintenance workers | Non friable | Good | Action 5 – Proactive ACM removal / Action 7 – Routinely monitor condition Test prior to impact |
| Bell and spigot pipe gaskets | Plumbing | Maintenance Shop, Gym Stage | Suspect | 6 gaskets | Access A – Accessible to all building users | Non friable | Good | Action 5 – Proactive ACM removal / Action 7 – Routinely monitor condition Test prior to impact |

Note: asbestos-containing materials may be present in concealed or excluded locations and/or systems. See Section 2 of this report.

Materials suspected to contain asbestos which are often concealed in buildings and require destructive assessment to evaluate may be present which include, but are not limited to:

-) Electrical wiring and cables
-) Buried asbestos cement pipes
-) Floor leveling compound



Warning: in the event any additional suspect materials are encountered during renovation/repair activities, work on those materials should stop immediately and remain undisturbed until testing confirms the presence or absence of asbestos or other hazardous material

-) Formed cement products
-) Bell and spigot piping gaskets
-) Incandescent light fixtures (heat shields)
-) Vermiculite in wall cavities including concrete block void spaces
-) Penetration caulking and/or parging

A summary of materials known or presumed not to contain asbestos is presented as follows:

Table 5-2. Non-Asbestos-Containing Materials

| Location(s) | Material Description | Sample Quantity | Comments |
|--|--|-----------------|---|
| Throughout building | Baseboard adhesive (dark brown) | 3 | None |
| Crawlspace | Mastic (black) | 3 | Observed on concrete knee wall |
| Copy Room, Store Room Adjacent Classroom 6, Hallways, Janitors Closet, Electrical | Sheet flooring type 1 - brown with peach and cream streaks | 1 | None |
| Classroom 5, Gym Storage Room, Hallways | Sheet flooring type 2 - rose with peach and cream streaks | 1 | None |
| Classroom 5 | Sheet flooring type 5 – beige mosaic | 1 | None |
| Classroom 5 | Sheet flooring type 6 – brown | 1 | None |
| Classroom 6 | Sheet flooring 7 – grey with dark grey and white | 1 | None |
| Girls Washroom by Classroom 5, Staff Washroom | Sheet flooring type 8 – green blue and gray speckles | 1 | None |
| Boys Washroom by Classroom 5, Hallways | Acoustic ceiling tile 1 – donna cona 1’x1’ | 0 | Wood fibre ceiling tile not suspected of containing asbestos |
| Classroom 5, Classroom 6, Copy Room, Office Adjacent Main Entry, Store Room Adjacent Classroom 6, Girls Washroom by Classroom 5, Hallways, Janitors Closet, Electrical, Office, Staff Washroom | Acoustic ceiling tile 2 – donna cona 1’x2’ | 0 | Wood fibre ceiling tile not suspected of containing asbestos |
| Gym | Perforated wood board | 0 | Not suspect to contain asbestos |
| Classroom 6, Furnace Room, Hallways, Maintenance Shop | Drywall with no joint compound | 0 | Drywall with no joint compound not suspected of containing asbestos |
| Furnace Room | Foil faced fibreglass insulation | 0 | Not suspect to contain asbestos |

Materials assumed not to contain asbestos include:

-) post-1990 construction materials with the exception of formed cement products, vermiculite, fire stop caulking, gaskets.
-) wood and wood composite materials
-) carpet
-) plastics in non-industrial applications
-) metals
-) glazing



Warning: in the event any additional suspect materials are encountered during renovation/repair activities, work on those materials should stop immediately and remain undisturbed until testing confirms the presence or absence of asbestos or other hazardous material

-) exterior below-grade drainage and plumbing systems
-) ceramic tile, excluding adhesives, grout, and thinset mortar

6 General Recommendations

Based on observations made and analytical results, NWest makes the following recommendations.

1. Ensure that the inventory is kept current with respect to presence and condition of asbestos-containing materials, and a record is kept of any changes made to the inventory.
2. Retain a current version of the inventory until all the asbestos-containing materials are removed from the Site.
3. Ensure that a copy of the current version of the inventory is readily available at the Site.
4. Ensure that all asbestos-containing materials present at the Site are identified by signs, labels or, when these are not practicable, other effective means.
5. A qualified person must undertake a pre-renovation/demolition project-specific hazardous materials assessment prior to planned work other than minor maintenance activities that impacts building materials or systems that conforms to the requirements of the BC Occupational Health and Safety Regulation section 20.112. A qualified person must complete a risk assessment and safe work procedures for all hazardous materials that may be impacted by maintenance and/or renovation work. Removal or disturbance of hazardous materials must be undertaken by a qualified contractor employing WorkSafeBC-approved procedures.
6. Maintenance work must STOP if previously unidentified suspected hazardous materials are encountered or inadvertently damaged or disturbed during maintenance activities. These suspect materials must be left undisturbed until a qualified person has determined the status of the material.
7. Damage to asbestos-containing materials must be repaired or otherwise rendered non-hazardous to unprotected workers and occupants without delay (e.g. enclose damaged materials with a dust barrier).

Appendix A. Photo Plates

The following photo plates provide a general documentation of the building materials that were sampled and analyzed, and observations made during the assessment. They are meant to summarize the results of analysis and observations and are not intended to include all hazardous materials, or their locations, observed during the assessment.



Photo 1
 Description: Mastic (Black/Grey)
 Location: Roof Flashing
Asbestos: 7% chrysotile
 Sample(s): 39956-8b



Photo 2
 Description: Mastic (Black)
 Location: Roof
Asbestos: 9% chrysotile
 Sample(s): 39956-11b



Photo 3
 Description: Mastic (Black with white specks)
 Location: Roof
Asbestos: 9% chrysotile
 Sample(s): 39956-14b



Photo 4
 Description: Acoustic sink insulation – black/gold
 Location: Classroom 6
Asbestos: 20% chrysotile
 Sample(s): 30015-10



Photo 5
Description: Pipe insulation debris remnants

Location: Crawlspace
Asbestos: 60% chrysotile
Sample(s): 30015-15



Photo 6
Description: Window putty/caulking - off-white

Location: Exterior
Asbestos: 0.5% chrysotile
Sample(s): 30015-26



Photo 5
Description: Drywall Joint Compound

Location: Boiler Room
Asbestos: 1.5% chrysotile
Sample(s): 30015-24



Photo 6
Description: Bell and spigot pipe gaskets

Location: Maintenance Shop
Asbestos: Suspect



Photo 5
Description: Pipe mastic – black
Location: Janitors Closet
Asbestos: Suspect



Photo 6
Description: Gasket
Location: Boiler Room
Asbestos: Suspect



Photo 5
Description: Brick and mortar
Location: Furnace Room
Asbestos: Suspect



Photo 6
Description: Textile wrapped fibreglass insulation
Location: Maintenance Shop
Asbestos: Suspect



Photo 5

Description: Pipe elbow insulation
Location: Crawlspace
Asbestos: 65% chrysotile
Sample: Furnace Room

Appendix B. Analytical Reports

Bulk Sample Report

Asbestos Analysis of Bulk Materials using Polarized Light Microscopy

Client: School District 85 - Vancouver Island North

Date: August 12, 2016

Contractor: School District 85 - Vancouver Island North

Client Job or PO#:

Project: Woss Elementary AB Inventory

Project number: 30015

| Sample No | Location | Date Analysed | Analyst | Client Description | Phase | % | Asbestos | % | Other Materials | % | Comments |
|--------------------|-------------------|---------------|---------|---|--|-----|-------------------|------------|--|------|----------|
| 30015-1 Layer 1 | Janitors Closet | Aug-10-2016 | PG | Floor Tile - FT1- Beige 12x12 with White and Brown Streaks | Floor Tile - Beige | 99 | Chrysotile | 0.5 | Non-Fibrous | 99.5 | |
| 30015-1 Layer 2 | Janitors Closet | Aug-10-2016 | PG | Floor Tile - FT1- Beige 12x12 with White and Brown Streaks | Mastic - Black | 1 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-2 Layer 1 | Hallway East Side | Aug-10-2016 | PG | Sheet Flooring - SF1- Brown with Peach and Cream streaks | Asphalt Sheet Flooring - Brown/ Peach/ Cream | 50 | None Detected | 0 | Cellulose (10%) Non-Fibrous (90%) | 100 | |
| 30015-2 Layer 2 | Hallway East Side | Aug-10-2016 | PG | Sheet Flooring - SF1- Brown with Peach and Cream streaks | Backing - Black | 50 | None Detected | 0 | Cellulose (40%) Synthetic (5%) Non-Fibrous (55%) | 100 | |
| 30015-3 | Hallway East Side | Aug-10-2016 | PG | Sheet Flooring - SF2- Rose with Peach and Cream streaks | Rose/ Peach/ Cream | 100 | None Detected | 0 | Cellulose (15%) Non-Fibrous (85%) | 100 | |
| 30015-4 Layer 1 | Classroom 1 | Aug-10-2016 | PG | Sheet Flooring - SF3- Cream with Brown and Tan speckles | Wear Surface - Cream/ Speckled | 33 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-4 Layer 2 | Classroom 1 | Aug-10-2016 | PG | Sheet Flooring - SF3- Cream with Brown and Tan speckles | Paper Backing - Grey | 33 | None Detected | 0 | Cellulose (35%) Non-Fibrous (65%) | 100 | |
| 30015-4 Layer 3 | Classroom 1 | Aug-10-2016 | PG | Sheet Flooring - SF3- Cream with Brown and Tan speckles | Sheet Flooring - Brown | 34 | None Detected | 0 | Cellulose (15%) Non-Fibrous (85%) | 100 | |
| 30015-5 Layer 1 | Classroom 1 | Aug-10-2016 | PG | Sheet Flooring - SF4- Brown unknown (covered with adhesive) | Adhesive - Yellow | 2 | None Detected | 0 | Non-Fibrous | 100 | |

Note: Samples were analyzed by method: EPA/600/R-93/116" Bulk Asbestos Analysis by Polarized Light Microscopy". For heterogenous materials the concentration may vary. No reproduction without permission.

| Sample No | Location | Date Analysed | Analyst | Client Description | Phase | % | Asbestos | % | Other Materials | % | Comments |
|------------------|---------------|---------------|---------|--|-----------------------------|-----|---------------|----|---|-----|----------|
| 30015-5 Layer 2 | Classroom 1 | Aug-10-2016 | PG | Sheet Flooring - SF4-Brown unknown (covered with adhesive) | Jute Sheet Flooring - Brown | 95 | None Detected | 0 | Cellulose (15%) Non-Fibrous (85%) | 100 | |
| 30015-5 Layer 3 | Classroom 1 | Aug-10-2016 | PG | Sheet Flooring - SF4-Brown unknown (covered with adhesive) | Jute Scrim - Tan | 3 | None Detected | 0 | Cellulose | 100 | |
| 30015-6 | Classroom 1 | Aug-10-2016 | PG | Caulking - Sink Acoustical Insulation | Insulation - Off White | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-7 Layer 1 | Classroom 5 | Aug-10-2016 | PG | Sheet Flooring - SF5-Beige Mosaic | Wear Surface - Beige Mosaic | 50 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-7 Layer 2 | Classroom 5 | Aug-10-2016 | PG | Sheet Flooring - SF5-Beige Mosaic | Paper Backing - Grey | 49 | None Detected | 0 | Cellulose (25%) Synthetic (10%) Glass (3%) Non-Fibrous (62%) | 100 | |
| 30015-7 Layer 3 | Classroom 5 | Aug-10-2016 | PG | Sheet Flooring - SF5-Beige Mosaic | Adhesive - Yellow | 1 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-8 | Classroom 5 | Aug-11-2016 | PG | Sheet Flooring - SF6-concealed (Brown) | Brown | 100 | None Detected | 0 | Cellulose (15%) Non-Fibrous (85%) | 100 | |
| 30015-9 Layer 1 | Classroom 6 | Aug-11-2016 | PG | Sheet Flooring - Carpet over SF7-Gray with Dark Gray and White | Wear Surface - Grey/ White | 50 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-9 Layer 2 | Classroom 6 | Aug-11-2016 | PG | Sheet Flooring - Carpet over SF7-Gray with Dark Gray and White | Paper Backing - Light Grey | 49 | None Detected | 0 | Cellulose (30%) Synthetic (5%) Non-Fibrous (65%) | 100 | |
| 30015-9 Layer 3 | Classroom 6 | Aug-11-2016 | PG | Sheet Flooring - Carpet over SF7-Gray with Dark Gray and White | Adhesive - Yellow | 1 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-10 | Classroom 6 | Aug-11-2016 | PG | Caulking - Sink Acoustical Insulation | Mastic - Black | 100 | Chrysotile | 20 | Non-Fibrous | 80 | |
| 30015-11 Layer 1 | Boys Washroom | Aug-11-2016 | PG | Sheet Flooring - SF8-Green Blue and Gray Speckles | Wear Surface - Grey | 50 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-11 Layer 2 | Boys Washroom | Aug-11-2016 | PG | Sheet Flooring - SF8-Green Blue and Gray Speckles | Paper Backing - Grey | 50 | None Detected | 0 | Cellulose (30%) Non-Fibrous (70%) | 100 | |
| 30015-12 | Furnace Room | Aug-11-2016 | PG | Caulking - Gray | Grey | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-13 | Furnace Room | Aug-11-2016 | PG | Other - Drywall with no Joint Compound present | Grey | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-14 Layer 1 | Classroom 7 | Aug-11-2016 | PG | Sheet Flooring - SF9-9x9 pattern, off white | Wear Surface - Off White | 25 | None Detected | 0 | Non-Fibrous | 100 | |

Note: Samples were analyzed by method: EPA/600/R-93/116" Bulk Asbestos Analysis by Polarized Light Microscopy". For heterogenous materials the concentration may vary. No reproduction without permission.

| Sample No | Location | Date Analysed | Analyst | Client Description | Phase | % | Asbestos | % | Other Materials | % | Comments |
|---------------------|------------------|---------------|---------|--|-----------------------------|-----|-------------------|------------|--------------------------------------|------|----------|
| 30015-14 Layer 2 | Classroom 7 | Aug-11-2016 | PG | Sheet Flooring - SF9-9x9 pattern, off white | Paper Backing - Light Grey | 25 | None Detected | 0 | Cellulose (35%) Non-Fibrous (65%) | 100 | |
| 30015-14 Layer 3 | Classroom 7 | Aug-11-2016 | PG | Sheet Flooring - SF9-9x9 pattern, off white | Jute Sheet Flooring - Brown | 35 | None Detected | 0 | Cellulose (15%) Non-Fibrous (85%) | 100 | |
| 30015-14 Layer 4 | Classroom 7 | Aug-11-2016 | PG | Sheet Flooring - SF9-9x9 pattern, off white | Jute Scrim - Tan | 15 | None Detected | 0 | Cellulose | 100 | |
| 30015-15 | Classroom 7 | Aug-11-2016 | PG | Pipe Insulation - Pipe Remnants in Crawl Space | Brown/ White | 100 | Chrysotile | 60 | Non-Fibrous | 40 | |
| 30015-16 | Classroom 8 | Aug-11-2016 | PG | Other - Weathertite Board | Brown | 100 | None Detected | 0 | Cellulose | 100 | |
| 30015-17 | Classroom 8 | Aug-11-2016 | PG | Other - Chemistry Sink | Insulation - Grey | 100 | Chrysotile | 25 | Non-Fibrous | 75 | |
| 30015-18 Layer 1 | Classroom 10 | Aug-11-2016 | PG | Elbow Insulation - Debris in Crawl Space | Off White | 70 | Chrysotile | 65 | Non-Fibrous | 35 | |
| 30015-18 Layer 2 | Classroom 10 | Aug-11-2016 | PG | Elbow Insulation - Debris in Crawl Space | Yellow | 30 | None Detected | 0 | Glass | 100 | |
| 30015-19 | Classroom 10 | Aug-11-2016 | PG | Mastic - On Wall. | Black | 100 | None Detected | 0 | None Detected | 0 | |
| 30015-20 | Classroom 10 | Aug-11-2016 | PG | Ceiling Tile - DC2-1x2 | White/ Brown | 100 | None Detected | 0 | Cellulose (99%) Non-Fibrous (1%) | 100 | |
| 30015-21 | Copy Room | Aug-11-2016 | PG | Ceiling Tile - DC1-2x1 | White/ Brown | 100 | None Detected | 0 | Cellulose (99%) Non-Fibrous (1%) | 100 | |
| 30015-22 | Gym | Aug-11-2016 | PG | Drywall Joint Compound - Under Stage Area | White | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-23 | Gym | Aug-12-2016 | PG | Drywall Joint Compound | White | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 30015-24 | Boiler Room | Aug-12-2016 | PG | Drywall Joint Compound | Off White | 100 | Chrysotile | 1.5 | Non-Fibrous | 98.5 | |
| 30015-25 Layer 1 | Gym Storage Room | Aug-12-2016 | PG | Sheet Flooring - SF2-Rose with Peach and Cream streaks | Jute Sheet Flooring - Brown | 80 | None Detected | 0 | Cellulose (15%) Non-Fibrous (85%) | 100 | |
| 30015-25 Layer 2 | Gym Storage Room | Aug-12-2016 | PG | Sheet Flooring - SF2-Rose with Peach and Cream streaks | Jute Scrim - Tan | 20 | None Detected | 0 | Cellulose | 100 | |
| 30015-26 | Overview | Aug-12-2016 | PG | Caulking - Cementitious | Window Putty - Off White | 100 | Chrysotile | 0.5 | Non-Fibrous | 99.5 | |
| 30015-27 | Overview | Aug-12-2016 | PG | Caulking - Cementitious | Window Putty - Off White | 100 | Chrysotile | 0.5 | Non-Fibrous | 99.5 | |

Note: Samples were analyzed by method: EPA/600/R-93/116" Bulk Asbestos Analysis by Polarized Light Microscopy". For heterogenous materials the concentration may vary. No reproduction without permission.



Bulk Samples Report

Asbestos Analysis of Bulk Materials using Polarized Light Microscopy

Client: School District 85 - Vancouver Island North

Date: August 14, 2020

Contractor: School District 85 - Vancouver Island North

Purchase Order: .

Project: LHMA - Woss Elementary School

Project Number: 39956

| Sample No. | Location | Date Analysed | Analyst | Client Description | Phase | % | Asbestos | % | Other Materials | % | Comments |
|------------------|--|---------------|---------|--------------------------------|-----------------------|-----|---------------|-----|--------------------------------------|-----|---|
| 39956-4b Layer 1 | Exterior - Roof East Wing | Aug 13, 2020 | BR | Roof Core 1 - Torch On (Black) | Torch-On - Black | 50 | None Detected | 0 | Synthetic (28%) Non-Fibrous (72%) | 100 | |
| 39956-4b Layer 2 | Exterior - Roof East Wing | Aug 13, 2020 | BR | Roof Core 1 - Torch On (Black) | Asphalt Paper - Black | 10 | None Detected | 0 | Cellulose (85%) Non-Fibrous (15%) | 100 | |
| 39956-4b Layer 3 | Exterior - Roof East Wing | Aug 13, 2020 | BR | Roof Core 1 - Torch On (Black) | Fiberboard - Brown | 40 | None Detected | 0 | Cellulose (96%) Non-Fibrous (4%) | 100 | |
| 39956-5b Layer 1 | Exterior - Roof East Wing | Aug 13, 2020 | BR | Roof Core 2 - Torch On (Black) | Torch-On - Black | 50 | None Detected | 0 | Synthetic (28%) Non-Fibrous (72%) | 100 | |
| 39956-5b Layer 2 | Exterior - Roof East Wing | Aug 13, 2020 | BR | Roof Core 2 - Torch On (Black) | Fiberboard - Brown | 50 | None Detected | 0 | Cellulose (96%) Non-Fibrous (4%) | 100 | |
| 39956-6b Layer 1 | Exterior - Roof West Wing | Aug 13, 2020 | BR | Roof Core 3 - Torch On (Black) | Torch-On - Black | 50 | None Detected | 0 | Synthetic (28%) Non-Fibrous (72%) | 100 | |
| 39956-6b Layer 2 | Exterior - Roof West Wing | Aug 13, 2020 | BR | Roof Core 3 - Torch On (Black) | Fiberboard - Brown | 30 | None Detected | 0 | Cellulose (96%) Non-Fibrous (4%) | 100 | |
| 39956-6b Layer 3 | Exterior - Roof West Wing | Aug 13, 2020 | BR | Roof Core 3 - Torch On (Black) | Asphalt Paper - Black | 20 | None Detected | 0 | Cellulose (85%) Non-Fibrous (15%) | 100 | |
| 39956-7b | Exterior - Roof East Wing @ Drain | Aug 13, 2020 | BR | Roof Sealant (Grey) | Black | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-8b | Exterior - Roof Flashing East Wing | Aug 13, 2020 | BR | Mastic | Black/Grey | 100 | Chrysotile | 7 | Non-Fibrous | 93 | |
| 39956-9b | Exterior - Roof Flashing East Wing | | | Mastic | N/A | N/A | N/A | N/A | N/A | N/A | Sample Not Analyzed - Stop Positive Requested |
| 39956-10b | Exterior - Roof Flashing West Wing | | | Mastic | N/A | N/A | N/A | N/A | N/A | N/A | Sample Not Analyzed - Stop Positive Requested |
| 39956-11b | Exterior - Roof East Wing @ Vent Stack | Aug 13, 2020 | BR | Vent Stack Mastic (Black) | Black | 100 | Chrysotile | 9 | Non-Fibrous | 91 | |
| 39956-12b | Exterior - Roof East Wing @ Vent Stack | | | Vent Stack Mastic (Black) | N/A | N/A | N/A | N/A | N/A | N/A | Sample Not Analyzed - Stop Positive Requested |



| Sample No. | Location | Date Analysed | Analyst | Client Description | Phase | % | Asbestos | % | Other Materials | % | Comments |
|-------------------|--|---------------|---------|--------------------------------------|--------------------------------|-----|---------------|-----|--------------------------------------|-----|---|
| 39956-13b | Exterior - Roof West Wing @ Vent Stack | | | Vent Stack Mastic (Black) | N/A | N/A | N/A | N/A | N/A | N/A | Sample Not Analyzed - Stop Positive Requested |
| 39956-14b | Exterior - Roof West Wing Round Vent | Aug 13, 2020 | BR | Mastic (Black w/ White Specks) | Black | 100 | Chrysotile | 9 | Non-Fibrous | 91 | |
| 39956-15b | Exterior - Roof West Wing Round Vent | | | Mastic (Black w/ White Specks) | N/A | N/A | N/A | N/A | N/A | N/A | Sample Not Analyzed - Stop Positive Requested |
| 39956-16b | Exterior - Roof West Wing Round Vent | | | Mastic (Black w/ White Specks) | N/A | N/A | N/A | N/A | N/A | N/A | Sample Not Analyzed - Stop Positive Requested |
| 39956-17b Layer 1 | Exterior - Roof West Wing (Lower) | Aug 13, 2020 | BR | Roof Core 4 | Torch-On - Black/Red | 10 | Chrysotile | 6 | Synthetic (28%) Non-Fibrous (66%) | 94 | |
| 39956-17b Layer 2 | Exterior - Roof West Wing (Lower) | Aug 13, 2020 | BR | Roof Core 4 | Fiberboard - Brown | 15 | None Detected | 0 | Cellulose (96%) Non-Fibrous (4%) | 100 | |
| 39956-17b Layer 3 | Exterior - Roof West Wing (Lower) | Aug 13, 2020 | BR | Roof Core 4 | Building Paper/Bitumen - Black | 5 | None Detected | 0 | Cellulose (36%) Non-Fibrous (64%) | 100 | |
| 39956-17b Layer 4 | Exterior - Roof West Wing (Lower) | Aug 13, 2020 | BR | Roof Core 4 | Rigid Insulation - Blue | 50 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-17b Layer 5 | Exterior - Roof West Wing (Lower) | Aug 13, 2020 | BR | Roof Core 4 | Tar & Gravel - Black/Grey | 20 | None Detected | 0 | Cellulose (36%) Non-Fibrous (64%) | 100 | |
| 39956-19b | Exterior East | Aug 13, 2020 | BR | Asphalt Stair Tread | Black/Grey | 100 | None Detected | 0 | Synthetic (28%) Non-Fibrous (72%) | 100 | |
| 39956-20b | C.R. 10 Ceiling Cavity | Aug 13, 2020 | BR | Pipe Mud (White) | Beige | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-21b | C.R. 8 | Aug 13, 2020 | BR | Fumehood Panel | Grey/White | 100 | Chrysotile | 37 | Non-Fibrous | 63 | |
| 39956-22b | C.R. 7 | Aug 13, 2020 | BR | Laminate Counter | Red/Brown | 100 | None Detected | 0 | Cellulose (42%) Non-Fibrous (58%) | 100 | |
| 39956-23b | East Janitor Room | Aug 13, 2020 | BR | Baseboard Adhesive (Black Baseboard) | Dark Brown | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-24b | C.R. 10 | Aug 13, 2020 | BR | Baseboard Adhesive (Black Baseboard) | Dark Brown | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-25b | C.R. 10 | Aug 13, 2020 | BR | Baseboard Adhesive (Black Baseboard) | Dark Brown | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-26b | C.R. 7 | Aug 13, 2020 | BR | Window Putty (Black) | Black | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-27b | C.R. 7 | Aug 13, 2020 | BR | Window Putty (Black) | Black | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-28b | East End of Corridor | Aug 13, 2020 | BR | Window Putty (Black) | Black | 100 | None Detected | 0 | Non-Fibrous | 100 | |



| Sample No. | Location | Date Analysed | Analyst | Client Description | Phase | % | Asbestos | % | Other Materials | % | Comments |
|-------------------|---------------------------------|---------------|---------|--|----------------------------|-----|---------------|---|--------------------------------------|-----|----------|
| 39956-38b | Hallway (East) Sub Floor | Aug 13, 2020 | BR | Building Paper (Black) | Black | 100 | None Detected | 0 | Cellulose (85%) Non-Fibrous (15%) | 100 | |
| 39956-42b | C.R. 10 - Crawl Space East Wing | Aug 13, 2020 | BR | Duct Tape | Silver/White | 100 | None Detected | 0 | Cellulose (62%) Non-Fibrous (38%) | 100 | |
| 39956-43b | C.R. 10 - Crawl Space East Wing | Aug 13, 2020 | BR | Mastic (Black) on Concrete Knee Wall | Black | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-44b | C.R. 10 - Crawl Space East Wing | Aug 13, 2020 | BR | Mastic (Black) on Concrete Knee Wall | Black | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-45b | C.R. 10 - Crawl Space East Wing | Aug 13, 2020 | BR | Mastic (Black) on Concrete Knee Wall | Black | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-46b | C.R. 10 - Crawl Space East Wing | Aug 13, 2020 | BR | Parging at Concrete Knee Wall | Grey | 100 | None Detected | 0 | Cellulose (7%) Non-Fibrous (93%) | 100 | |
| 39956-47b | C.R. 10 - Crawl Space East Wing | Aug 13, 2020 | BR | Parging at Concrete Knee Wall | Grey | 100 | None Detected | 0 | Cellulose (7%) Non-Fibrous (93%) | 100 | |
| 39956-48b | C.R. 10 - Crawl Space East Wing | Aug 13, 2020 | BR | Parging at Concrete Knee Wall | Grey | 100 | None Detected | 0 | Cellulose (7%) Non-Fibrous (93%) | 100 | |
| 39956-49b Layer 1 | Boys Washroom (East) | Aug 13, 2020 | BR | SF 10 - 4"x4" - Yellow & Brown Tile Pattern | Wear Surface - Beige/Brown | 50 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-49b Layer 2 | Boys Washroom (East) | Aug 13, 2020 | BR | SF 10 - 4"x4" - Yellow & Brown Tile Pattern | Paper Backing - Grey | 50 | None Detected | 0 | Cellulose (35%) Non-Fibrous (65%) | 100 | |
| 39956-50b | C.R. 3 Crawl Space West Wing | Aug 13, 2020 | BR | Cementitious Debris at Wood Framed Knee Wall | Grey/Brown | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-51b | C.R. 3 Crawl Space West Wing | Aug 13, 2020 | BR | Cementitious Debris at Wood Framed Knee Wall | Grey/Brown | 100 | None Detected | 0 | Non-Fibrous | 100 | |
| 39956-52b | C.R. 3 Crawl Space West Wing | Aug 13, 2020 | BR | Cementitious Debris at Wood Framed Knee Wall | Grey/Brown | 100 | None Detected | 0 | Non-Fibrous | 100 | |

Bulk asbestos analysis was conducted using calibrated visual estimation in conjunction with polarized light microscopy as detailed in EPA method 600/R-93/116. Sample(s) not destroyed in the testing will be kept for 30 days before disposal.

Note that EPA 600-R93-116 is not an acceptable method for quantifying asbestos concentrations that are lower than 0.5%.

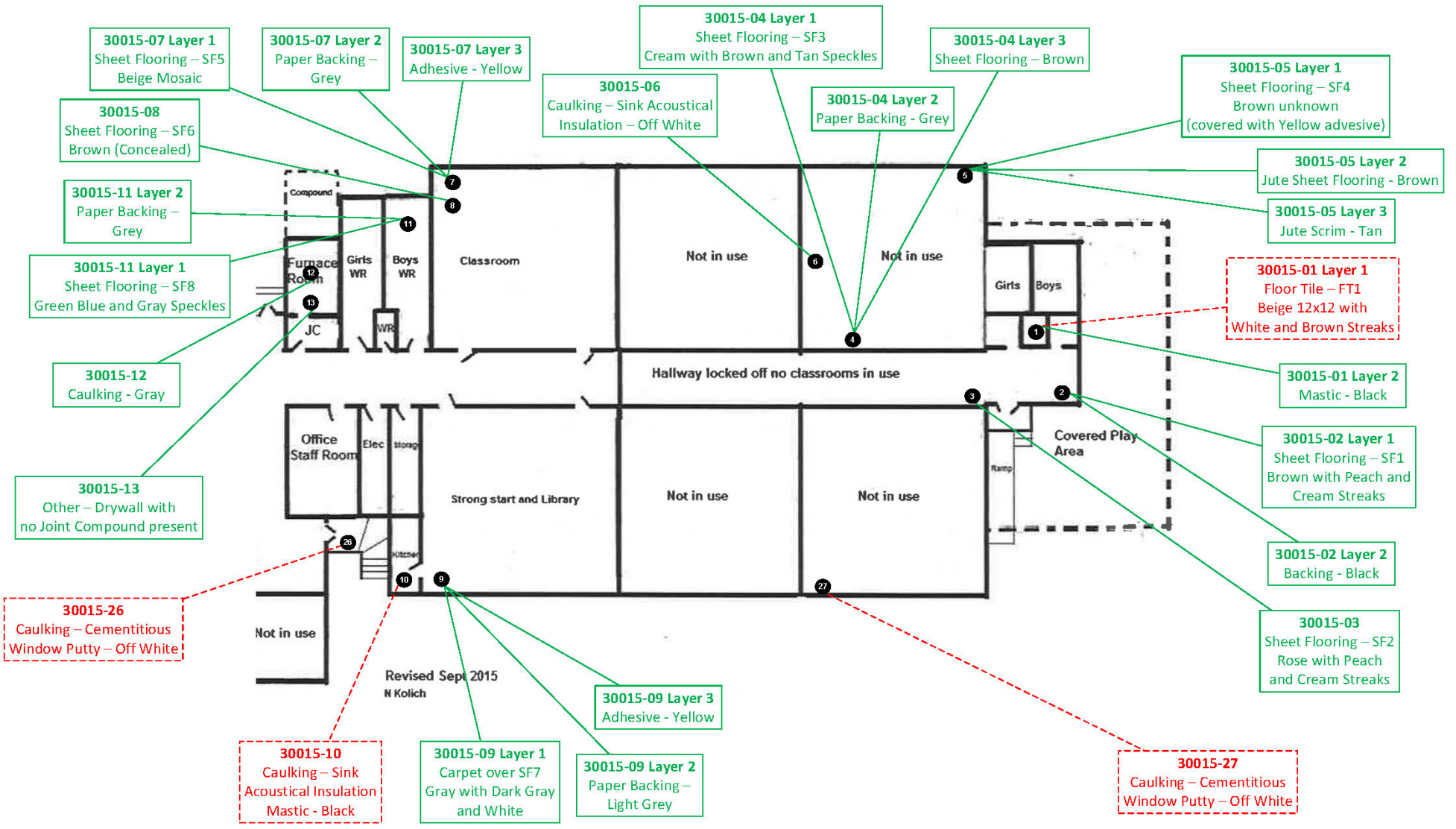
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AIHA PROFICIENCY ANALYTICAL TESTING PROGRAMS

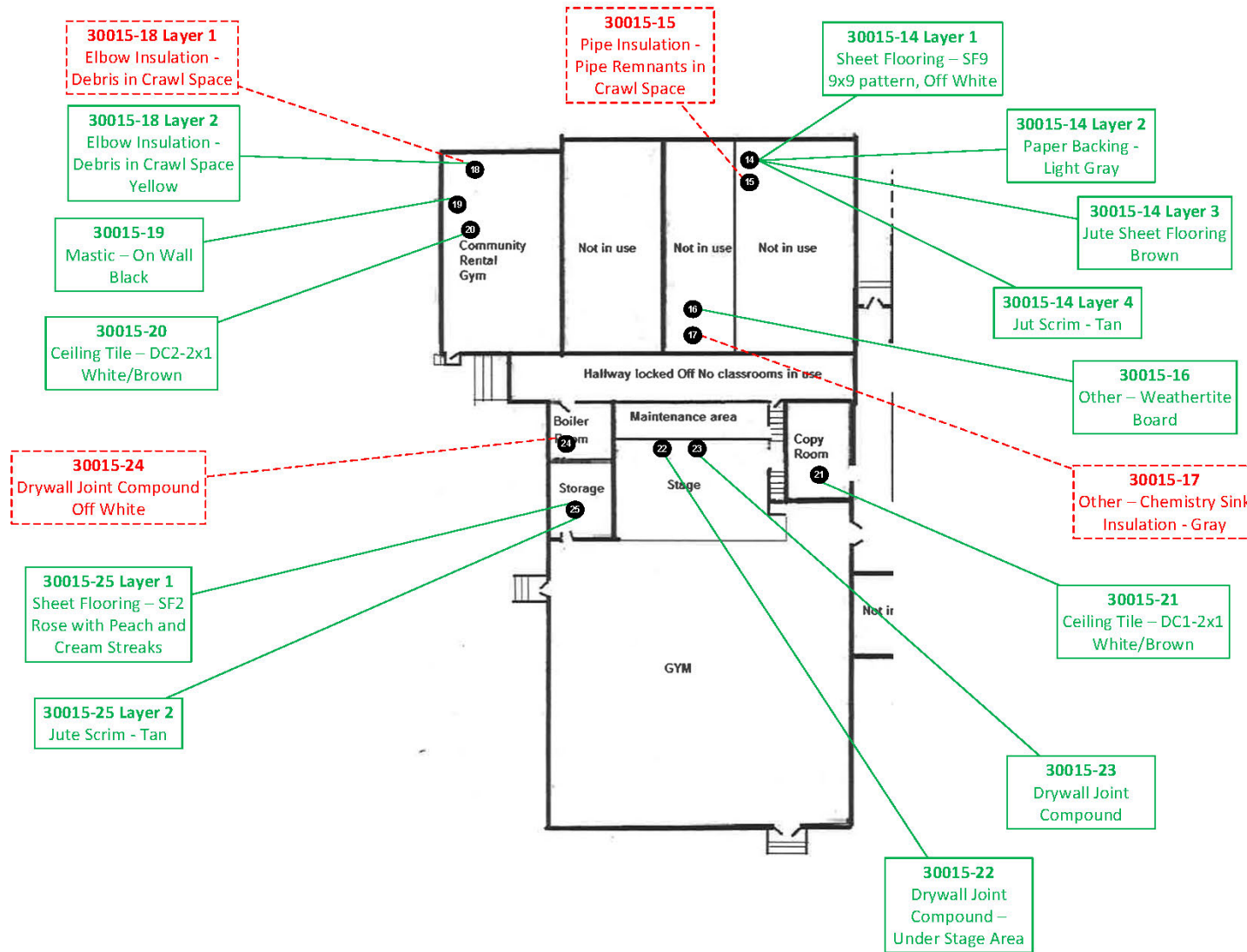
LAB# 202314

Appendix C. Sample Location Drawings



Drawing Not to Scale

| | | | | |
|---|--|---|--|---|
| <p>Sample Result Key</p> <p>123 No Asbestos Detected</p> <p>123 Material Contains Asbestos</p> <p>123 Lead (Pb) Sample</p> | | <p>ADDRESS/LOCATION: Woss Lake Elementary – Part A</p> <p>DRAWING TITLE: School District 85</p> | <p>PROJECT NO.: 30015</p> <p>DATE: 07/07/2016</p> <p>SURVEYED BY: Julie Scott/Moncrieff/ Bill Sullivan</p> <p>DRAWING NO.: 005</p> |  <p>North West Environmental Group Ltd.</p> <p>#201-415 Gorge Road East Victoria B.C. V8T 2W1</p> |
|---|--|---|--|---|



Drawing Not to Scale

Sample Result Key

123 No Asbestos Detected

123 Material Contains Asbestos

123 Lead (Pb) Sample

ADDRESS/LOCATION:

Woss Lake Elementary – Part B

DRAWING TITLE:

School District 85

PROJECT NO.: 30015

DATE: 07/07/2016

SURVEYED BY: Julie Scott/Moncrieff/
Bill Sullivan

DRAWING NO.: 006

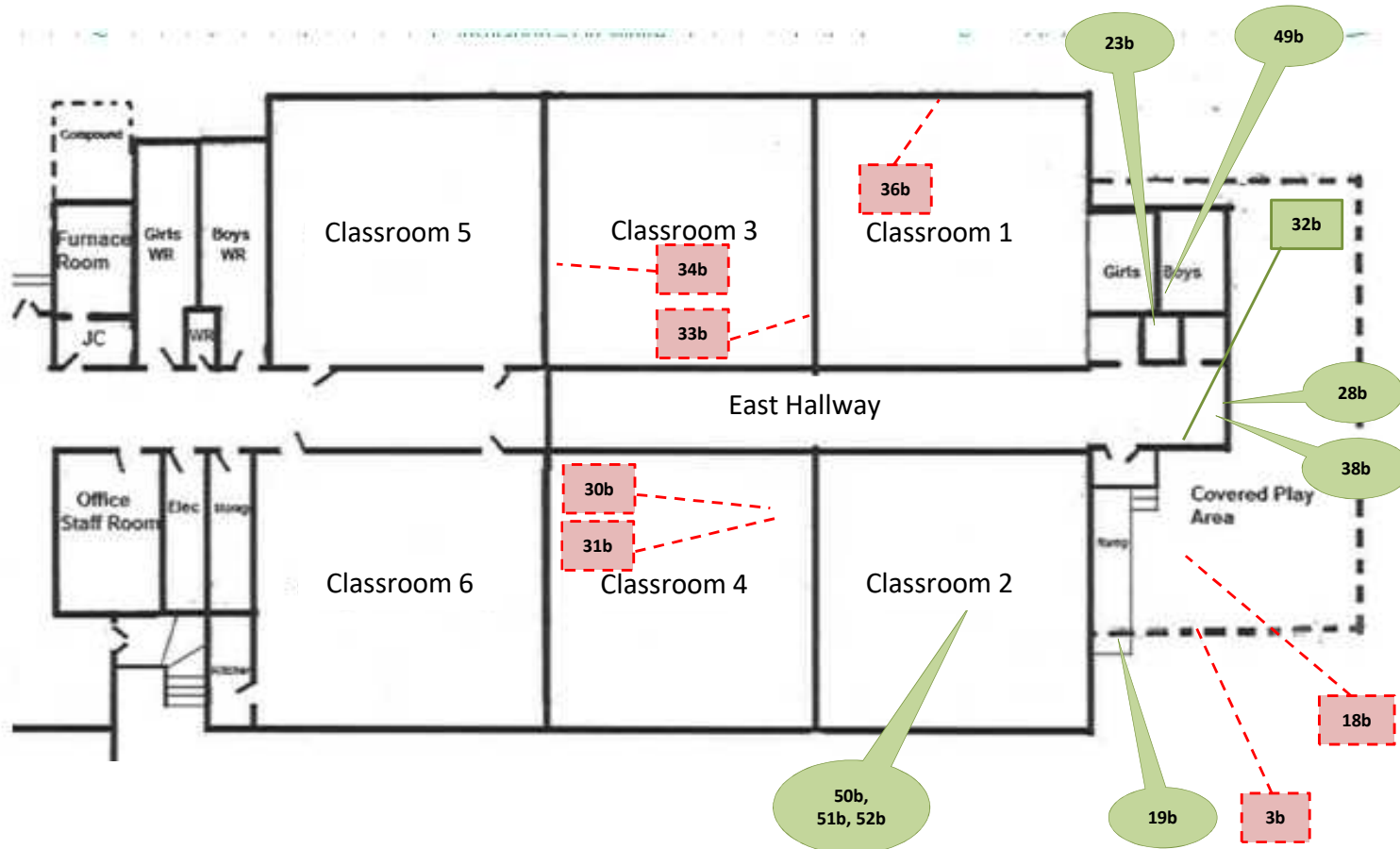


#201-415 Gorge Road East

Victoria B.C. V8T 2W1



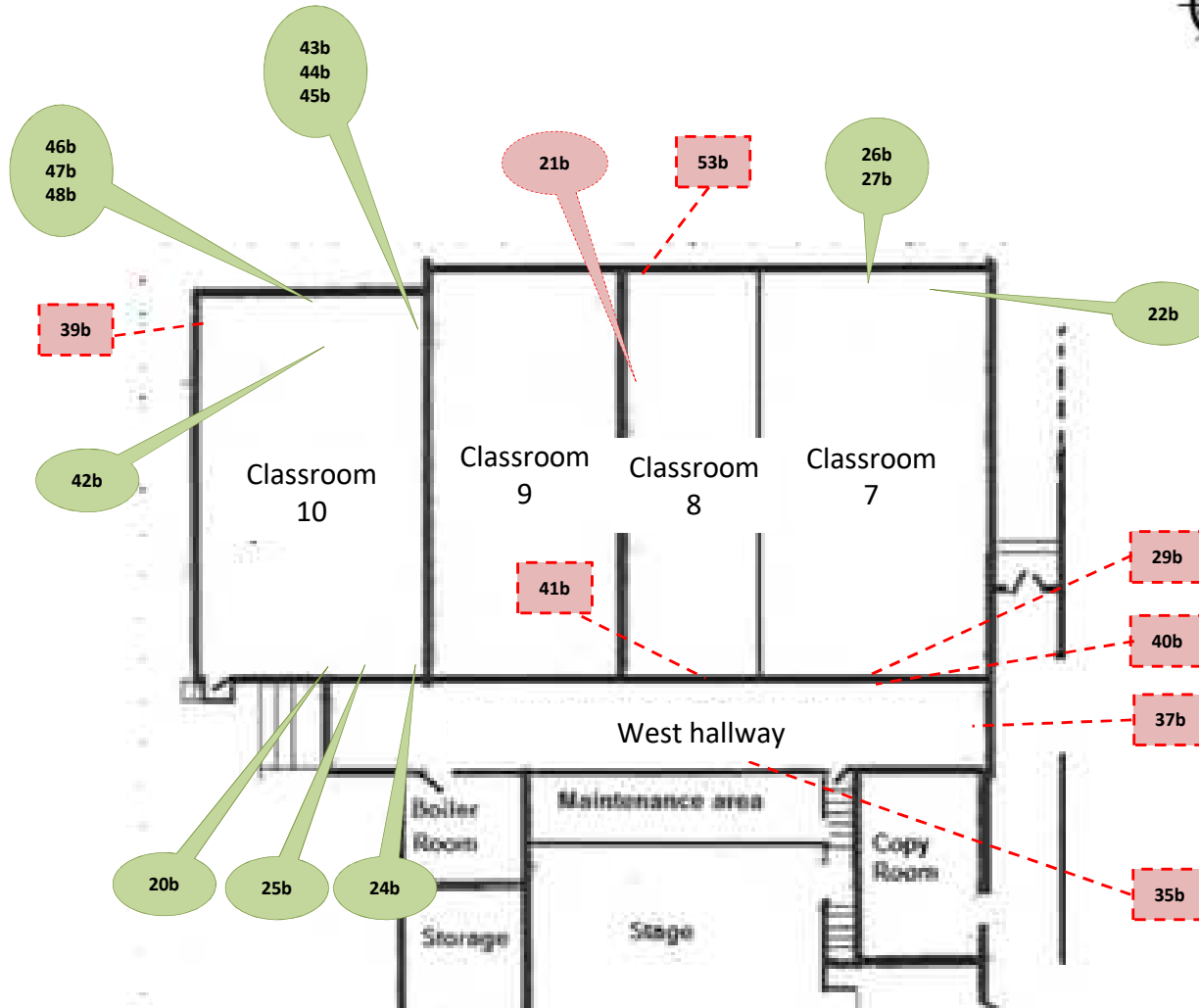
Location: 4500 McRae Drive, Woss, BC
Drawing Title: East Wing Sample Locations
Project No: 39956
Drawing No: 001
Surveyed By: PG & LK
Survey Date: August 11, 2020



| | |
|-----|---|
| 3b | Green paint on metal posts |
| 18b | White paint on ceiling/soffit |
| 19b | Asphalt stair tread |
| 23b | Baseboard adhesive (dark brown) |
| 28b | Window putty (black) |
| 30b | White paint over light green over mint on wood panel and trim |
| 31b | White paint over red over green on wood shelving |
| 32b | White paint on drywall |
| 33b | Black paint on wood baseboard |
| 34b | Grey paint over red on wood shelving |
| 36b | Mustard yellow paint on wood window frame |
| 38b | Subfloor - Building paper (black) |
| 49b | Sheet flooring type 10 - 4"x4" yellow and brown tile pattern |
| 50b | Crawlspace - Cementitious debris at wood framed knee wall |
| 51b | Crawlspace - Cementitious debris at wood framed knee wall |
| 52b | Crawlspace - Cementitious debris at wood framed knee wall |

Sample Results





| | | | |
|--|--|--|--|
| | Asbestos Not Detected | | Material Contains Asbestos |
| | Lead Sample (concentration below 90 mg/kg) | | Lead Sample (concentration above 90 mg/kg) |



Location: 4500 McRae Drive, Woss, BC
Drawing Title: West Wing Sample Locations
Project No: 39956
Drawing No: 002
Surveyed By: PG & LK
Survey Date: August 11, 2020

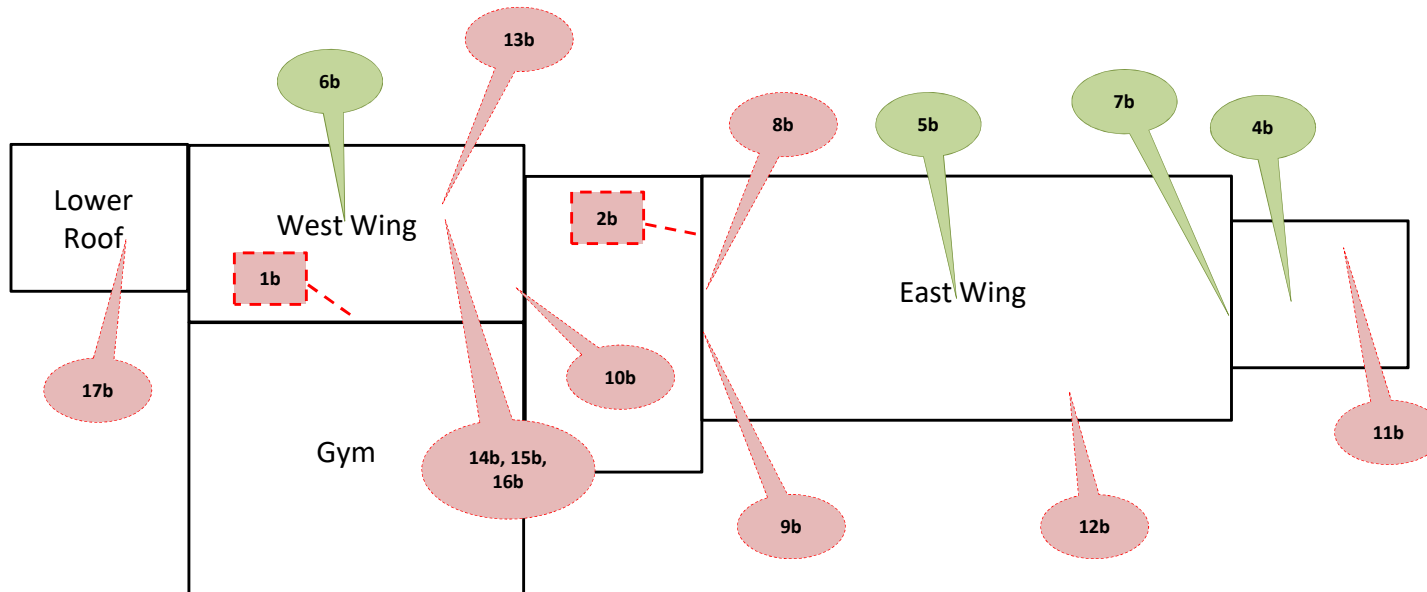
| | |
|-----|--|
| 20b | Pipe mud (white) |
| 21b | Fumehood panel |
| 22b | Laminate counter |
| 24b | Baseboard adhesive (dark brown) |
| 25b | Baseboard adhesive (dark brown) |
| 26b | Window putty (black) |
| 27b | Window putty (black) |
| 29b | Beige and white paint over brown on metal door frame |
| 35b | Light and dark blue paint on wood locker |
| 37b | Yellow paint on wood door |
| 39b | Red paint on wood door |
| 40b | Beige paint over orange on wood door |
| 41b | Medium blue paint over orange on wood shelving |
| 42b | Crawlspace - Duct tape |
| 43b | Crawlspace - Mastic (Black) on Concrete knee wall |
| 44b | Crawlspace - Mastic (Black) on Concrete knee wall |
| 45b | Crawlspace - Mastic (Black) on Concrete knee wall |
| 46b | Crawlspace - Parging at concrete knee wall |
| 47b | Crawlspace - Parging at concrete knee wall |
| 48b | Crawlspace - Parging at concrete knee wall |
| 53b | Yellow stain on wood window sill |

Sample Results

| | | | |
|--|--|---|--|
|  | Asbestos Not Detected |  | Material Contains Asbestos |
|  | Lead Sample (concentration below 90 mg/kg) |  | Lead Sample (concentration above 90 mg/kg) |



Location: 4500 McRae Drive, Woss, BC
Drawing Title: Roof Sample Locations
Project No: 39956
Drawing No: 003
Surveyed By: PG & LK
Survey Date: August 11, 2020



| | |
|-----|---|
| 1b | Light grey paint on wood |
| 2b | Brown paint on wood |
| 4b | Roof Core |
| 5b | Roof Core |
| 6b | Roof Core |
| 7b | Roof Sealant (Grey) |
| 8b | Flashing mastic (Black/grey) |
| 9b | Flashing mastic (Black/grey) Visually similar to sample 39956-8b |
| 10b | Flashing mastic (Black/grey) Visually similar to sample 39956-8b |
| 11b | Vent stack mastic (Black) |
| 12b | Vent stack mastic (Black) – Visually similar to sample 39956-11b |
| 13b | Vent stack mastic (Black) – Visually similar to sample 39956-11b |
| 14b | Mastic (Black) on large round vent |
| 15b | Mastic (Black) on large round vent – Visually similar to 39956-14b |
| 16b | Mastic (Black) on large round vent – Visually similar to 39956-14b |
| 17b | Roof Core |

Sample Results

| | | | |
|--|--|--|--|
| | Asbestos Not Detected | | Material Contains Asbestos |
| | Lead Sample (concentration below 90 mg/kg) | | Lead Sample (concentration above 90 mg/kg) |

Appendix D. Regulatory Framework

1. **Workers Compensation Act**, Part 2, Division 4 (General Duties of Employers, Workers and Others), Section 25 (General duties of owner).
2. **BC Occupational Health and Safety Regulation**, BC Reg. 296/97, including amendments.
3. **Safe Work Practices for Handling Asbestos**, WorkSafeBC, current edition.
4. **Hazardous Waste Regulation**, BC Ministry of Environment, including amendments.
5. **Transportation of Dangerous Goods Regulations SOR / 2008-34**, Transportation of Dangerous Goods Act, SOR/2008/34 including amendments.

Appendix E. Methodology

The assessment adhered to applicable regulations and followed industry-accepted standards and methodologies.

Note: Not all of the following materials and/or methods were necessarily included in this assessment.

Asbestos

An initial walk-through was conducted of the assessment areas for building materials and machinery or equipment to make a preliminary determination if asbestos could be present.

To confirm or discount the presence of asbestos, representative bulk samples were collected. The sample locations in the building are identified with a unique sample number. Whenever practicable, a representative number of material samples were collected as per WorkSafeBC guidance. Some materials could not be representatively sampled due to accessibility or if sample collection would damage the remaining material.

Bulk samples were submitted for analysis in accordance with the following method: EPA 600 R-93 / 116-1993. Samples consisting of greater than 0.5% asbestos were reported as an asbestos-containing material as per WorkSafeBC. See Appendix G for details on how asbestos-containing materials are evaluated to determine management actions.

Vermiculite samples were submitted for analysis in accordance with the Research Method for Sampling and Analysis of Fibrous Amphibole in Vermiculite Attic Insulation (EPA/600/R-04/004, January 2004, US EPA.) Samples of loose fill vermiculite insulation found to contain any trace of asbestos were reported as

Appendix F. Evaluation of Asbestos-Containing Materials

Evaluation of asbestos-containing materials (ACMs) is based on the condition of the material, its accessibility, and its friability. The following are guidelines used to evaluate ACMs and the action, if any, required to safely manage them.

Spray Applied Fireproofing, Insulation and Texture Finishes

In evaluating the condition of ACM spray applied as fireproofing, thermal insulation or texture, decorative or acoustic finishes, the following criteria apply.

| | |
|---------------|---|
| GOOD | Surface of material shows no significant signs of damage, deterioration or delamination. Up to one percent visible damage to surface is allowed within range of GOOD. Evaluation of sprayed fireproofing requires the assessor to be familiar with the irregular surface texture typical of sprayed asbestos products. GOOD condition includes un-encapsulated or unpainted fireproofing or texture finishes, where no delamination or damage is observed, and encapsulated fireproofing or texture finishes where the encapsulation has been applied after the damage or fallout occurred. |
| POOR | Sprayed materials show signs of damage, delamination or deterioration. More than one percent damage to surface of ACM spray. |
| DEBRIS | Spray materials are dislodged from surface application source. The identified debris is noted as being separated from the original source. |

Mechanical Insulation

In evaluating the condition of mechanical insulation (on boilers, breeching, ductwork, piping, tanks, equipment etc.) the following criteria are used.

| | |
|---------------|---|
| GOOD | Insulation is completely covered in jacketing and exhibits no evidence of damage or deterioration. No insulation is exposed. Includes conditions where the jacketing has minor surface damage (i.e., scuffs or stains), but the jacketing is not penetrated. |
| FAIR | Minor penetration damage to jacketed insulation (cuts, tears, nicks, deterioration or delamination) or undamaged insulation that has never been jacketed. Insulation is exposed but not showing surface disintegration. The extent of missing insulation should be minor to none. |
| POOR | Original insulation jacket is missing, damaged, deteriorated or delaminated. Insulation is exposed and significant areas have been dislodged. Damage cannot be readily repaired. |
| DEBRIS | Insulation materials are dislodged from surface application source. The identified debris is noted as being separated from the original source. |

Non-Friable and Potentially Friable Materials

Non-friable materials generally have little potential to release airborne fibres, even when damaged by mechanical breakage. However, some non-friable materials, i.e., exterior asbestos concrete products, may have deteriorated so that the binder no longer effectively contains the asbestos fibres. In such cases of significantly deteriorated non-friable material, the material will be treated as a friable product.

Accessibility

The accessibility of building materials known or suspect of being ACM is rated according to the following criteria.

| | |
|-------------------|--|
| Access (A) | Areas of the building within reach (from floor level) of all building users. Includes areas such as gymnasiums, workshops, and storage areas where activities of the building users may result in disturbance of ACM not normally within reach from floor level. |
|-------------------|--|

| | |
|-----------------------------|--|
| Access (B) | Frequently entered maintenance areas within reach of maintenance staff, without need for a ladder. Includes: frequently entered pipe chases, tunnels and service areas or areas within reach from a fixed ladder or catwalk (e.g., tops of equipment, mezzanines). |
| Access (C) Exposed | Areas of the building above 2.5 metres where use of a ladder is required to reach the ACM. Only refers to ACM materials that are exposed to view, from the floor or ladder, without removing or opening other building components such as ceiling tiles, or service access doors or hatches. Does not include infrequently accessed service areas of the building. |
| Access (C) Concealed | Areas of the building which require removal of a building component including lay-in ceilings and access panels into solid ceiling systems. Includes rarely entered crawlspaces, attic spaces etc. Observations are limited to the extent visible from the access points. |
| Access (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 ACM. Evaluation of condition and extent of ACM is limited or impossible, depending on the assessor's ability to visually examine the materials in Access D. |
| ACM in Plenum | Areas of the building where air movement through open or closed air spaces or plenums can be accesses by Access X, where X is any of the Accesses A-D, inclusive. |

Action Matrix

The following Action Matrix determines what, if any, action is required to safely manage ACMs.

| Access | Condition | | | |
|---------------|------------|------------|----------|----------|
| | Good | Fair | Poor | Debris |
| (A) | Action 5/7 | Action 5/6 | Action 3 | Action 1 |
| (B) | Action 7 | Action 6/5 | Action 3 | Action 1 |
| (C) Exposed | Action 7 | Action 6 | Action 4 | Action 2 |
| (C) Concealed | Action 7 | Action 7 | Action 4 | Action 2 |
| (D) | Action 7 | Action 7 | Action 7 | Action 7 |
| (X) | Action 5/7 | Action 5/6 | Action 3 | Action 1 |

Action Table

The following is a description of the action required to manage ACMs, based on the outcome of the evaluation.

| | |
|-----------------|--|
| Action 1 | Immediate Clean Up of Debris That is Likely to be Disturbed Restrict access/shut off air handling system if disturbance of the ACM DEBRIS is likely, and clean up ACM DEBRIS immediately. Utilize proper asbestos procedures. This action is required for compliance with regulatory requirements. |
| Action 2 | Entry into Areas with ACM Debris At locations where ACM DEBRIS can be isolated in lieu of removal or clean up, use appropriate means to limit entry to the area. Restrict access to the area to persons utilizing moderate risk asbestos-work precautions. The precautions will be required until the ACM DEBRIS has been cleaned up, and the source of the DEBRIS has been stabilized or removed. |
| Action 3 | ACM Removal Required for Compliance Remove ACM for compliance with regulatory requirements. Utilize asbestos procedures appropriate to the scope of the removal work. |
| Action 4 | Access into Areas Where ACM is Present and Likely to be Disturbed by Access Use asbestos precautions when entry or access into an area is likely to disturb the ACM. ACTION 4 must be used until the ACM is removed (Use ACTION 1 or 2 if DEBRIS is present). |
| Action 5 | Proactive ACM Removal |

| | |
|-----------------|--|
| | Remove ACM in lieu of repair, or at locations where the presence of asbestos in GOOD condition is not desirable. |
| Action 6 | ACM Repair Repair ACM found in FAIR condition, and not likely to be damaged again or disturbed by normal use of the area or room. Upon completion of the repair work, treat ACM as material in GOOD condition and implement ACTION 7. If ACM is likely to be damaged or disturbed during normal use of the area or room, implement ACTION 5. |
| Action 7 | Routine Surveillance Institute routine surveillance of the ACM. Trained workers or contractors must use appropriate asbestos precaution during disturbance of the remaining ACM. |

End of report. This page intentionally left blank.