TSSS DUFFERIN

1615 DUFFERIN ST
TORONTO, ON

FOR

TORONTO SHELTER & SUPPORT SERVICES (TSSS)

SPECIFICATIONS
DEMOLITION SCOPE

ISSUED FOR TENDER
05 FEBRUARY 2025

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Designated Substances and Hazardous Building Materials Assessment Report, dated 13 January 2025, prepared by Safetech Environmental Ltd., Project No. 1-3240937 (90 pages)

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Description of Work

In general, the scope of work of this project includes the demolition of all interior non-load bearing walls, finishes, etc., removal and reinstatement of windows, localized/destructive investigation of existing exterior wall and roof assemblies, and the abatement of designated substances and hazardous materials. Specifically, the work includes, but is not necessarily limited to, the following:

.1 Provide all labour, material, equipment and supervision to complete the repairs outlined in this specification taking into account all site conditions, noise restriction, work area restrictions, protection requirements, accessibility restrictions, etc. No extras will be entertained for inconveniences after the award of this Contract.

.2 In particular, the work includes but is not necessarily limited to the following:

.1 The removal and disposal of asbestos containing materials, the removal and disposal of lead-based or lead-containing construction materials, removal of all mould-affected building materials, removal and disposal of mercury containing thermostats, and removal and disposal of fluorescent light tubes in accordance with O,Reg 490/09 per locations identified in the attached Designated Substance and Hazardous Materials Assessment Prepared by ECOH and dated January 13 2025 as described in Section 02 82 00 – Abatement Scope and Details.

.2 Removal and disposal of all interior non-load bearing walls, ceiling finishes, flooring finishes, millwork, furniture, fixtures, accessories, etc. that have not been otherwise demolished or removed as part of the designated substance and hazardous material abatement work above, is present on site and not designated for salvage by the Owner and as identified on the Drawings.

.3 Removal of all interior doors, door frames, and door hardware as identified on the Drawings.

.4 Removal, disposal, cut and/or capping of all mechanical systems as identified on the Drawings, including coordination with relevant utility providers.

.5 Removal, disposal, cut and/or capping of all electrical systems as identified on the Drawings, including coordination with relevant utility providers.

~~.6 Demolition of existing bay window, associated wood stud exterior wall, and cantilevered floor structure. Provide temporary weather-tight enclosure as identified on the Drawings.~~

.7 Removal and re-instatement of (3) window modules as indicated on the Drawings to facilitate investigation and assessment by Consultants. Allow for 2 hours of inspection time before re-instating module.

.8 Complete (3) exploratory openings and replacement at exterior masonry walls as indicated on the Drawings. Allow for 2 hours of inspection time before masonry replacement. Ensure watertightness following inspection and masonry replacement. Assume each opening is maximum of 10 bricks.

.9 Complete (3) exploratory openings and patching: (2) at Level 1 flat roof, (1) at Level 2 flat roof at east stair. Allow for 2 hours of inspection time before patching. Ensure watertightness following inspection and patching. Assume each opening is approximately 300x300mm.

.10 Excavate and expose foundation walls and bearings, including demolition of concrete slab-on-grade as needed.

.11 Retention of consultants, coordination and access provision of material testing and sampling via Cash Allowances. Scope includes scanning of CMU block walls and verification of fire rating at spray fireproofing.

.12 Repair all areas damaged by construction activity; specifically, the Contractor shall repair all damage resulting from the Construction to the satisfaction of the Consultant including repair of existing masonry and structure that has been damaged in accordance with these Specifications.

.13 Final cleaning of structure, fixtures, piping, etc., and the disposal all waste products and/ or debris generated by the construction activity as well as any material present in the work area prior to the commencement of the Work. The areas requiring cleaning shall consist of all areas affected by the Work.

Pricing Form (blank):

Item	Description	Unit	Quantity	Unit Rate	Total Price (Quantity x Unit Rate)
Division 01 – General Requirements					
1	<u>Bonding</u> Provide the specified bonding for the project.	L.S.	N/A	N/A	Included in General Requirements
2	<u>General Requirements</u> General requirements, mobilization, demobilization, hoarding, dust protection, site protection, signage, special costs, OH&P, management, supervision, any costs not specifically identified, etc.	L.S.	N/A	N/A	$_____
3	<u>Cleaning</u> Cleaning of the site, and disposal of all waste products and/or debris generated by construction activity, as well as any material present in work area prior to commencement of work.	L.S.	N/A	N/A	Included in General Requirements
Division 02 – Demolition					
4	<u>Interior walls and Finishes</u> Removal and disposal of interior non-load bearing walls, ceiling finishes, floor finishes, millwork, doors, door frames, door hardware, fixtures, furniture, accessories, etc. that have not been otherwise demolished or removed as part of the abatement work, as indicated on the drawings.	L.S.	N/A	N/A	$_____

Item	Description	Unit	Quantity	Unit Rate	Total Price (Quantity x Unit Rate)
5	<u>Removal and Re-instatement of Windows</u> Removal and re-instatement of (3) window modules to facilitate investigation and assessment by Consultants. Allow for 2 hours of inspection time before re-instating module. EA = window module	EA	3		$_____
6	<u>Excavation of Foundation Walls</u> Excavate around foundation walls and bearings, including demolition of concrete slab-on-grade as needed, as indicated on the drawings. EA = test pit.	L.S.	N/A	N/A	$_____
7	<u>Exploratory Wall Openings</u> Complete (3) exploratory openings and replacement at exterior masonry walls as indicated on the Drawings. Allow for 2 hours of inspection time before masonry replacement. Ensure watertightness following inspection and masonry replacement. Assume each opening is maximum of 10 bricks. EA = roof opening.	EA	3		$_____
8	<u>Exploratory Roof Openings</u> Complete (2) exploratory openings and replacement at: (1) at Level 1 flat roof, (1) at Level 2 flat roof at east stair. Allow for 2 hours of inspection time before patching. Ensure watertightness following inspection and patching. EA = roof opening.	EA	3		$_____
9	<u>Mechanical Systems</u> Removal, disposal cut and/or capping of all mechanical systems as identified on the drawings.	L.S.	N/A	N/A	$_____

Item	Description	Unit	Quantity	Unit Rate	Total Price (Quantity x Unit Rate)
10	<u>Plumbing Systems</u> Removal, disposal cut and/or capping of all plumbing systems as identified on the drawings.	L.S.	N/A	N/A	$_____
11	<u>Electrical Systems</u> Removal, disposal cut and/or capping of all electrical systems as identified on the drawings, including coordination with relevant utility providers.	L.S.	N/A	N/A	$_____
12	<u>Hazardous Material Abatement</u> Installation of hoarding, protection, dust control and ventilation, removal and disposal of all hazardous building materials identified on the Drawings, per the Hazardous Building Material Report.	L.S.	N/A	N/A	$_____
Allowances					
13	<u>Hazardous Material Abatement</u> Installation of hoarding, protection, dust control and ventilation, removal and disposal of all hazardous building materials identified on the Drawings, not identified in the Hazardous Building Material Report.	L.S.	N/A	N/A	$50,000.00
14	<u>Material Testing & Assessment</u> Scanning of existing CMU to determine if solid or reinforced. Testing of existing spray fireproofing to confirm rating.	L.S.	N/A	N/A	$15,000.00
Totals					
15	**Total Base Bid Price** (Sum of Items 1 to 14) Exclusive of HST	$_____			

Item	Description	Unit	Quantity	Unit Rate	Total Price (Quantity x Unit Rate)
16	**HST (13% of Item 15)**	$_____			
17	**Total of Tender Call** Sum of Items 15 and 16	$_____			

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Division 01 - General Requirements

Division 02 - Existing Conditions

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AD.1	Demolition Plans - Basement	Feb 2025
AD.2	Demolition Plans - First Floor	Feb 2025
AD.3	Demolition Plans - Second Floor	Feb 2025
AD.4	Demolition Plans - Roof	Feb 2025

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M1.1	Basement Floor Plumbing Demolition	Feb 2025
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E1.6	Second Floor Lighting Demolition	Feb 2025

1 GENERAL

.1 The requirements of the Articles of Agreement, Conditions of the Contract, Division 1 apply to and form all Sections of the Contract Documents and the Work.

.2 No person(s), firm or corporation other than the Contractor and their Subcontractor(s) have any interest in this Contract, or in the proposed Subcontractors.

.3 It is intended that Work supplied under this Specification shall be complete in every detail for the purpose required. This Contract shall include materials not herein mentioned, but which may be found necessary to complete or perfect any portion of Work in accordance with requirements and intent of this Specification. Work not specified or shown in either the Drawings or in Specifications, but involved in carrying out their intent, or in the complete and proper execution of the Work, is required and shall be performed by the Contractor as though it were specifically delineated or described.

.4 Work in this Specification is divided into descriptive Sections which are not intended to identify absolute contractual limits between Subcontractors, nor between the Subcontractor and their Trades. The Subcontractor is responsible for organizing division of labour and supply of materials essential to complete the Contract.

.5 Specifications, Schedules and Drawings are complementary and items mentioned or indicated on one may not be mentioned or indicated on the others.

.6 Contractors finding discrepancies or ambiguities in, or omissions from the Drawings, Specifications or other Contract Documents, or having doubt as to the meaning and intent of any part thereof shall contact the Consultant for clarification.

.7 Where the singular or masculine is used in the Contract Documents, it shall be read and construed as if the plural, feminine or neuter had been used when the context or the statement so requires and as required to complete the Work, and the rest of the sentence, clause, paragraph, or Article shall be construed as if all changes in grammar, gender or terminology thereby rendered necessary had been made.

.8 The terms “approved”, “review", “reviewed”, “accepted”, “acceptance", “acceptable", “satisfactory”, “selected", “directed”, “instructed”, “required”, “submit", “permitted", “approved alternative”, “approved equal” or similar words or phrases are used in standards or elsewhere in Contract Documents, it shall be understood, that words “by (to) the Consultant" follow, unless context provides otherwise.

.9 The term ‘or approved alternative’ following a list of Products, systems, or manufacturers used in the Contract Documents shall be construed to mean approved by Consultant. Specified Products to be Base Bid. Subcontractor to follow 'Substitution’ procedures specified in this Section for submitting proposed Products, systems, and manufacturers and obtain Consultant’s approval of the same prior to proceeding with ordering proposed Products and systems or engaging manufacturers. Subcontractors who purchase Products and systems or engage manufacturers prior to Consultant’s review and acceptance do so at their own risk.

.10 Where the words ’submit’, 'acceptable’ and 'satisfactory’ are used in the Contract Documents, they shall be considered to be followed by the words 'to the Consultant’ unless the context provides otherwise.

.11 The terms “exposed" or “exposed to view” refers to surfaces that are within the line of vision of persons from any accessible viewpoint, both within and without the building. Where any part of a surface is exposed to view, all other portions of that surface shall also be considered as exposed to view.

2 USE OF PREMISES AND SITE

.1 The Work shall be confined to the area defined on the drawings except that services connections and certain portions of landscaping, hard paving and curb Work shall be executed on Municipal property under regulations of authorities having jurisdiction.

.2 Certain restrictions exist as to the use by the Trades of various portions of the place of Work. The Trades shall familiarize themselves with these restrictions and shall establish their Work plan to accommodate these restrictions. No claims for extra costs due to such restrictions will be considered by the Owner.

.3 Individual Trades shall have partial use of premises for performance of the Work, in which case Trades shall assume responsibility for premises assigned to them for performance of the Work.

.4 Traffic or storage of materials, debris, offices, storage sheds, is permitted only in locations specifically designated by Contractor; use only access routes to and from such storage areas as permitted by Contractor.

.5 Trades shall limit their use of premises to areas as designated by Contractor.

3 OWNER OCCUPANCY

.1 The Owner reserves the right to occupy and use portions of the premises, whether partially or entirely completed, or whether completed on schedule or not, provided such occupancy does not interfere with the Trade’s continuing Work.

.2 Partial occupancy or installation by the Owner of his equipment shall not imply acceptance of the Work in whole, or in part, nor shall it imply acknowledgment that terms of the agreement are fulfilled.

.3 The Trades shall not be entitled to indemnity for interference with performance of the Work due to Owner’s occupancy of areas of Project prior to Completion of the Contract, but after date of Substantial Performance.

4 EXISTING SITE CONDITIONS

.1 Make a careful examination of the site and investigate and be satisfied as to all matters relating to the nature of the Work to be undertaken, as to the means of access and egress thereto and therefrom, as to the obstacles to be met with, as to the extent of the Work to be performed and any and all matters which are referred to in the Contract Documents.

.2 Report any inconsistencies, ambiguities, discrepancies, omissions, and errors between Site conditions and Contract Documents to the Contractor prior to the commencement of Work. If inconsistencies, ambiguities, discrepancies, omissions, and errors are not reported and clarified, the most stringent requirement shall govern, as determined by the Contractor.

5 ACCESS/PROPERTY CONSTRAINTS

.1 Confine Work and operations of employees to limits indicated by the Contract Documents. Do not unreasonably encumber the premises with Products.

.2 Organize delivery of materials/equipment to and removal of debris and equipment from place of Work to permit continual progress of Work and suitable for restricted site conditions.

.3 Determine and make arrangement as required for loading and unloading of equipment and Products with the Contractor. Conform to Owner's requirements with regard to parking restrictions and other conditions.

.4 All Products, materials and equipment required on Site shall be portable and/or size suitable for access and movement on Site and without causing damage to buildings.

.5 Personnel access and material deliveries to the Site shall be only by routes designated by the Contractor.

.6 At no time shall any vehicle be parked along the private roadway to the west of the site, or obstruct the roadway in any manner, either during or after business hours. Always keep this roadway free of dirt and debris.

6 PARKING

.1 Parking may be permitted on Site provided it does not disrupt the performance of Work, Site safety or the movement of vehicular or pedestrian traffic and is acceptable to the Owner.

7 COORDINATION

.1 Cooperate and coordinate with Other Subcontractors including Other Subcontractors employed by Owner. Ensure that Trades coordinate their Work to have the Work performed expeditiously and to be satisfactory in all respects at completion. Ensure cooperation of workers in laying out and performing Work. Maintain efficient and continuous supervision.

.2 Ensure that Trades cooperate with other Trades whose Work attaches to or is affected by their own Work. Ensure that minor adjustments are made to make adjustable Work fit fixed Work.

.3 Ensure Trades coordinate and make reasonable provision in the Work for the Work of other Trades including splicing and sequencing of installation at no extra cost to the Owner.

.4 Allow access of Other Subcontractors on Site and to areas of Work. Cooperate and coordinate with such Other Subcontractors. Schedule Work to complement Work of such Other Subcontractors.

.5 Placing, installation, application and connection of Work by the Owner's own forces or by Other Subcontractors on and to the Subcontractor's Work shall not relieve the Subcontractor of his responsibility to provide and maintain the specified warranties.

.6 Coordinate with removals/installations specified in other Divisions and Other Contracts.

.7 Pay particular attention to types of ceiling construction and clearances throughout, especially

where recessed fixtures are required. Coordinate Work with Other Subcontractors and Trades wherever ventilation ducts or piping installations occur to ensure that conflicts are avoided.

.8 Install ceiling mounted components in accordance with final ceiling plans. Inform Contractor of conflicting installations.

.9 Install and arrange ducts, piping, tubing, conduit, equipment, fixtures, materials and products to conserve headroom and space with minimum interference and in neat, orderly and tidy arrangement. Run pipes, ducts, tubing and conduit, vertical, horizontal and square with building grid unless otherwise indicated. Install piping, ducts, and conduit as close to underside of structure as possible unless shown otherwise.

.10 Make provision for unrestricted relocation of light fixtures to replace ceiling panels at grid spaces of the same size, without interference or restriction by items located within the ceiling space.

.11 Coordinate the Work of the Trades on site to ensure all linear and/or planar alignments, as noted and intended explicitly or reasonably implied from the drawings, can be achieved to the satisfaction of the Consultant.

.12 Where supports or openings are to be left for the installation of various parts of the Work furnish the necessary information to those concerned in ample time so that proper provision can be made for such items. Have cutting, drilling and other remedial Work, and the subsequent patching or other Work required for failing to comply with this requirement, performed at a later date at no additional Cost to Owner.

.13 Ensure that setting drawings, templates, and all other information necessary for the location and installation of materials, fixtures, equipment, holes, sleeves, inserts, anchors, accessories, fastenings, connections, and access panels are provided by each Section whose Work requires cooperative location and installation by other Sections, and that such information is communicated to the applicable installer. Have cutting, fixing and making good to the Work of Other Subcontractors, Subcontractor required for, and make up time lost as result of, failure to comply with this requirement, at no additional cost to Owner.

.14 Be responsible for coordinating Products supplied in metric (SI) and imperial units into the overall layout.

.15 Properly coordinate the Work of the various Sections and Trades to assure the best arrangement of pipes, conduits, ducts and mechanical, electrical and other equipment, in the available space. Under no circumstances will any extra payment be allowed due to the failure by the Subcontractor to coordinate the Work. If required, in critical locations, prepare interference and/or installation drawings showing the Work of the various Sections and submit these drawings to the Contractor for review before the commencement of Work. If the Subcontractor fails to or decides not to produce interference drawings, any changes to the Work or additional Work necessitated by failure to produce interference drawings will be the responsibility of the Subcontractor. No additional costs will be paid by the Owner for the resolution of interferences that could have been resolved with the production of interference drawings.

.16 Unless otherwise agreed to with Owner and Consultants, changes required by Authorities Having Jurisdiction shall be corrected at no cost to the Owner.

.17 In case of damage to active services or utilities, notify Contractor and respective authorities immediately and make all required repairs under direction of Contractor and respective

authorities. Carry out repairs to such damaged services and utilities continuously to completion, including working beyond regular working hours.

.18 Blocking:

.1 Coordinate and inform the Contractor of all blocking and other provisions by other Subcontractors required for the completion of the Work, well in advance so as not to disrupt the Work of other Subcontractors. The Subcontractor is fully responsible for the planning, installation and execution of required blocking for their respective Work.

8 CUTTING AND PATCHING

.1 Execute Work to avoid damage to other Work.

.2 Execute cutting, fitting and patching including excavation and fill to complete the Work.

.3 Employ appropriate Trades with skilled labour to perform cutting Work.

.4 Fit Work segments together, to integrate with penetrations through surfaces and with other Work.

.5 Remove and replace defective and non-conforming Work.

.6 Do any drilling, cutting, fitting, patching and finishing that may be required to make the various classes and kinds of other Work fit together in a professional and finished manner. Make watertight connections with adjoining structures.

.7 Provide openings in non-structural elements of Work for penetrations of mechanical and electrical Work.

.8 Execute Work by methods to avoid damage to other Work and which will provide proper surfaces to receive patching and finishing.

.9 Cut Products using proper equipment and methods. On rigid materials, use a masonry saw or core drill. Pneumatic or impact tools are not allowed on masonry Work without prior approval.

.10 Be responsible for correct formation and bridging of openings in masonry and structural walls as required.

.11 Ensure compatibility between installed Products and security of installation.

.12 Restore Work with new Products in accordance with requirements of the Contract Documents.

.13 Fit Work airtight to pipes, sleeves, ducts, conduits and other penetrations through surfaces.

.14 Properly prepare surfaces to receive patching and finishing.

.15 Refinish surfaces to match adjacent finishes; for continuous surfaces refinish to nearest intersection; for an assembly, refinish entire unit.

9 FIRE SEPARATIONS

.1 Conform to following requirements to maintain continuity of fire separations whether or not shown on the Contract Drawings.

.2 Fire separations may be pierced by openings for electrical and similar service outlets provided such boxes are non-combustible and are tightly fitted and sealed with a ULC approved sealant for the assembly being sealed.

.3 Construction that abuts on or is supported by a non-combustible fire separation shall be constructed so that its collapse under fire conditions will not cause the collapse of the fire separation.

.4 Do not use combustible members, fastenings, attachments and similar items to anchor electrical, mechanical or other fixtures to fire separations.

.5 At penetration through fire rated walls, ceilings or floors, completely seal voids with ULC approved firestopping material; full thickness of the construction element. In locations that require a smoke seal, provide appropriate ULC approved system installed in accordance with the manufacturer's recommendations.

.6 Construct fire separations as continuous, uninterrupted elements except for permitted openings. Extend fire rated walls and partitions from the floor to the underside of the structural deck above.

10 PRECONSTRUCTION MEETING

.1 Within 3 days after award of Contract, the Contractor will arrange a Preconstruction meeting of parties in the Contract to discuss and resolve administrative procedures and responsibilities at the Owners' offices, and set all construction meetings for each portion of the project.

11 PROGRESS MEETINGS

.1 The Contractor's Project Manager shall schedule, administrate and chair all site meetings every 2 weeks (or more often as required) which shall be attended by the Owner throughout the progress of the Work. Schedules shall be update every 2 weeks by the Site Superintendent for distribution at each meeting.

.2 Attend regularly scheduled progress meetings to be held on Site at times and dates that are mutually agreed to by the Owner, Contractor, and Subcontractor.

.3 Co-ordinate and organize attendance of individual Trades and material suppliers when requested. Relationships and discussions between Trades participants are not the responsibility of the Contractor and do not form part of the meetings content.

.4 Coordinate date and time of destructive investigations and exploratory openings with Consultant review. Provide Consultant with minimum 2 weeks notice of proposed date of work for coordination.

.5 Ensure that Subcontractor representatives in attendance at meetings have required authority to commit Subcontractor to actions agreed upon. Assign same persons to attend such meetings throughout the Contract period.

.6 The Project Manager shall prepare the Agenda for all site meetings in consultation with the Consultant's Contract Administrator, and shall distribute written, either via fax or by e-mail, notice of each meeting minimum 4 days in advance of meeting date to all parties required to attend.

.7 Be prepared to provide specific information relative to agenda items at each meeting as they are pertinent to the Contract.

.8 Agenda will include but not be limited to the following topics as are pertinent to the Contract.

.1 Review and agreement of previous minutes.

.2 Safety.

.3 Status of submittals.

.4 Quality control.

.5 Co-ordination.

.6 Contract Schedule

.7 Work plan up to next scheduled meeting.

.8 Requests for information/clarification.

.9 Contemplated changes.

.10 Substantial performance date.

.9 Contractor shall record minutes of meetings and distribute type written copies to all participants and other interested parties, within one week of meeting date

12 SCHEDULING

.1 Be responsible for planning and scheduling of the Work. Be responsible for ensuring that Trades plan and schedule their respective portions of the Work. Trades schedules shall form part of the above mentioned schedules.

.2 Prepare and submit the Contract Schedule within two weeks following award of Contract. This schedule, once it is reviewed by the Contractor and if it meets the Contractor's project requirements, will become contractual.

.3 The Contract Schedule shall be developed using a logic network technique for planning and scheduling.

.4 The Contract Schedule shall be submitted for approval in its optimum levelled form. This presentation may be in either a time scaled network or a bar chart form. It shall be subdivided into either Work areas or systems as applicable.

.5 The Contract Schedule shall include the following information:

.1 Starting and ending dates of each activity including the float periods;
.2 Manpower requirements for each activity;

.3 Interdependency with activities of other Subcontractors

.4 Dates specified in the Contract Documents;

.5 Dates on which specific data will be required for submittal, i.e., Vendor data,
.6 drawings for review, etc.

.7 Order and delivery dates for major or critical material and equipment.

.8 Submittals submission dates, consultant periods for review as per contract, contractor subsequent revisions and re-submission, and consultant revised review. Allow for 1 revision on all submittals.

.9 Substantial Performance date.

.10 Occupancy date.

.6 This schedule shall be reviewed at all project meetings and updated monthly by the Subcontractor so as to reflect any Contract changes as well as major changes to the schedule.

15 CASH FLOW CHART

.1 Within 7 days after award of Contract, submit in form approved by Consultant, cash flow chart broken down on a monthly basis in an approved manner. Cash flow chart shall indicate anticipated Contractor's monthly progress billings from commencement of work until completion.

.2 Update cash flow chart at every application for payment and whenever changes occur to scheduling and in manner at times satisfactory to Consultant.

16 SUBMITTALS

.1 Provide labour, products, equipment, services tools and supervision necessary for submittals. Make submittals specified in this section to Contractor and Consultant unless otherwise specified.

.1 Verify accuracy and completeness of submittals prior to submission

.2 Verify field measurements, field construction criteria, catalogue numbers and similar data

.3 Co-ordinate each submittal with requirements of the Work and the Contract Documents

.4 Notify Contractor in writing at time of submission, on a separate accompanying letter complete with Contractor letterhead of any deviation in submittals from requirements of the Contract Doccuments

.2 Submit in accordance with dates established; shop drawings, fabrication, manufacture, erection and installation to provide adequate time for reviews, securing necessary approvals, possible revisions and resubmittals, placing orders, securing delivery and to avoid construction delays.

.3 Accompany each submittal with a letter of transmittal containing all pertinent information required for identification and checking of submittals including but not limited to the following:

.1 Date of initial submission and date of each subsequent submission if required.

.2 Project title and Contractor's project number.

.3 Names of:

.1 Subcontractor.
.2 Trades.
.3 Supplier/manufacturer as applicable.

.4 Specification Section numbers to which submission is related.

.5 Countersigned stamp of Subcontractor certifying that they have reviewed the submission.

.4 Allow two weeks for the Contractor's review of each submission, unless otherwise noted in specific Section's submittal requirements.

.5 When submittals are resubmitted, transmit under a new letter of transmission.

.6 Do not carry out Work until Consultants review of submittals has been completed.

.7 Be responsible for payment of charges for delivery of submissions and resubmission to Contractor.

.8 If Work has been completed without consultants review it will be the full responsibility of the Trade to make any and all required remediations.

17 PRODUCT DATA

.1 Before delivery of Products to the Site, submit Product data as specified in each Section or as requested by the Contractor.

.2 Submit manufacturer's Product data for systems, materials, and methods of installation proposed for use. Such literature shall identify systems, each component, and shall certify compliance of each component with applicable standards.

20 CERTIFICATES

.1 Submit certificates that are required by authorities having jurisdiction or that are requested in the Specification Sections.

.2 Clearly show on each certification the name and location of the Work, name and address of Subcontractor, quantity and date of shipment and delivery and name of certifying company.

.3 Certificates shall verify that Products and/or methods meet the specified requirements and shall include test reports of acceptable testing laboratories to validate certificates.

.4 Submit certificates in duplicate and signed by an authorized representative of the certifying company.

21 REGULATORY REQUIREMENTS

.1 The Building Code - Ontario Regulation 332/12, including all amendments, shall govern the

construction of the Work.

.2 Provide Labour, Products, equipment, services, tools and Supervision to ensure that Work complies with minimum acceptable standards of materials and performance of Work in accordance with codes and standards referenced in the Specification.

.3 Consider Contract forms, codes, Specifications, standards, manuals, and installation and application instructions referred to in these Specifications to be the latest published editions at the date of submission of the bid unless otherwise stated in the Specifications or otherwise required by the authorities having jurisdiction.

22 CODES

.1 Reference is made to standards in the Specifications to establish minimum acceptable standards of materials, Products and workmanship. Ensure that materials, Products and workmanship meet or exceed requirements of the reference standards specified.

.2 In the event of conflict between documents specified herein, execute the Work in accordance with the most stringent requirements.

23 QUALITY CONTROL

.1 Be responsible for inspection and testing as required by the Contract Documents, statutes, regulations, by-laws, standards or codes or any other jurisdictional authority. Give the Contractor and Consultant timely notice of the readiness for inspection, date and time for such inspection for attendance by the Contractor and Consultant.

.2 Verify by certification that specified Products meet the requirements of reference standards specified in the applicable Specification Sections.

.3 Conduct testing, balancing and adjusting of equipment and systems specified in applicable mechanical and electrical Specifications Sections by independent testing company.

24 REFERENCE STANDARDS

.1 Perform inspection and testing in accordance with Standards quoted and as required by procedures described in specified reference standards that are applicable to the Work being inspected and tested.

25 RESPONSIBILITIES OF THE SUBCONTRACTORS

.1 Be responsible for quality control methods and procedures to ensure performance of the Work in accordance with the Contract Documents.

26 RESPONSIBILITIES OF INSPECTION AND TESTING COMPANIES

.1 Determine from Specifications and Drawings the extent of inspection and testing required for Work of the Contract. Subcontractors shall notify Contractor of any omissions or discrepancies in the Work inspected and/or tested.

.2 Perform applicable inspection and testing described in the Specifications and as may be additionally directed.

.3 Provide competent inspection and testing personnel when notified by the Subcontractor that applicable Work is proceeding. Inspection personnel shall cooperate with the Consultant, Contractor and Subcontractor to expedite the Work.

.4 Subcontractors shall notify the Consultant and Contractor of deficiencies and irregularities in the Work immediately when they are observed in the course of inspection and testing.

.5 Inspection and testing companies shall not perform or supervise any of the Subcontractor's Work, and shall not authorize:

.1 Performance of Work that is not in strict accordance with the Contract Documents.

.2 Approval or acceptance of any part of the Work.

27 INSPECTION AND TESTING PROCEDURES

.1 Perform specified inspection and testing only in accordance with specified reference standards, or as otherwise approved.

.2 Observe and report on compliance of the Work to requirements of Contract Documents.

.3 Ensure that inspectors are on site or at fabricator's operations for full duration of critical operations, and as otherwise required to determine that the Work is being performed in accordance with the Contract Documents.

.4 Identify samples and sources of materials.

.5 Review and report on progress of the Work. Report on count of units fabricated and inspected at fabricator's operations.

.6 Observe and report on conditions of significance to Work in progress at time of inspection or at fabricator's operations. Include where applicable and if critical to the Work in progress:

.1 Time and date of inspection.

.2 Temperature of air, materials, and adjacent surfaces.

.3 Humidity of air, and moisture content of materials and adjacent materials.

.4 Presence of sunlight, wind, rain, snow and other weather conditions.

.7 Include in reports all information critical to inspection and testing.

.8 Ensure that only materials from the Work and intended for use therein are tested.

.9 Determine locations for Work to be tested.

35 DEFECTS

.1 Defective Products, materials and workmanship found at any time prior to Contract Completion will be rejected regardless of previous inspections, testing, and reviews of the Work. Inspections, testing, and reviews shall not relieve the Subcontractor from their responsibility, but are a precaution against oversight or error. Remove and replace defective and rejected Products, materials, systems, and workmanship. Be responsible for delays and expenses caused byrejection.

36 SPECIFIED PRODUCTS

.1 Work of this Contract is based on Products specified by:

.1 Manufacturer's catalogued Trade names and/or;
.2 References to standards (i.e. CAN, CGSB, CSA, ASTM) or;
.3 Prescriptive Specifications or;
.4 Performance Specifications.

.2 When one or more manufacturer's Trade name is specified for a Product, any one of the specified Products will be acceptable. Products by other manufacturers are subject to the Consultant's acceptance as an equivalent substitution in accordance with the specified requirements of substitutions.

.3 When more than one manufacturer's catalogued Trade name Product is specified along with a referenced standard, any one of the specified Products will be acceptable on condition the Product complies with the referenced standard.

.4 When a Product is specified by reference to a standard only, the Subcontractor may select any Product that meets or exceeds the specified standard for the intended purpose. The onus shall be on the Subcontractor to establish that such Products meet the reference standard requirements. Products exceeding minimum requirements established by reference standards will be accepted for the Work if such Products are compatible with the Work with which they are incorporated.

.5 When a Product is specified by prescriptive or performance Specification, any Product meeting or exceeding the Specification will be accepted.

.6 When a Product is specified by reference to a standard or by prescriptive or performance Specification, upon request of the Contractor, obtain from the manufacturer, an independent testing laboratory report showing that the Product meets or exceeds the specified requirements.

.7 Unless otherwise indicated in the Specifications, maintain uniformity of manufacture for any particular or like item throughout the Work.

37 SUBSTITUTIONS

.1 Requests for substitutions will not be accepted prior to the Notification of Award. Substitutions will be considered by the Consultant provided that:

.1 The proposed substitutions have been investigated and complete data are submitted in accordance with the Specifications.

.2 Data relating to changes in the Contract Schedule, if any, and relation to other Work have been submitted.

.3 Same warranty is given for the substitution as for the original Product specified.

.4 All claims are waived for additional costs related to the substitution which may subsequently arise.

.5 Installation of the accepted substitution is coordinated into the Work and that full responsibility is assumed when substitutions affect other Work. Make any necessary changes required to complete the Work. Revisions to the drawings for incorporation of the substitutions shall be made by the Consultant and all costs associated with the revisions shall be borne by the Subcontractor.

.2 Substitutions to methods or process described in the Specifications or drawings, may be proposed for the consideration of the Consultant. Ensure that such substitutions are in

accordance with the following requirements:

.1 Time spent by the Consultant in evaluating the substitution shall not be the basis for a claim by the Subcontractor for extensions to the Contract Time.

.2 Clearly indicate how the proposed substitutions would be advantageous to the Owner or in the opinion of the Subcontractor would improve the operation of the installation.

.3 Be responsible for substitutions to methods or processes concerning such Work and ensure that the warranty covering all parts of the Work will not be affected.

.4 The cost of all changes in the Work of Other Subcontractors, necessitated by the substituted methods or processes, if accepted, is borne by the Subcontractor.

.5 The substituted methods or processes fit into space allotted for the specified methods or processes. Revisions to the drawings for incorporation of the substitutions shall be made by the Consultant at a rate of $200/hour, and all costs associated with the revisions shall be borne by the Subcontractor.

.6 Substitutions will not be considered if:

.1 They are indicated or implied on shop drawings or Product data, samples, or mock- ups without formal request.

.2 Acceptance will require substantial revision of the Specifications and Drawings.

.7 Do not substitute Products or methods or processes into the Work unless such substitutions have been specifically approved for the Work by the Consultant.

.8 Approved substituted Products shall be subject to the Consultant's inspection and testing procedures. Approved substituted Products shall only be installed after receipt of the Consultant's written approval.

.9 The Contract Price will be adjusted accordingly to any and all credits arising from the substitutions mentioned above.

38 APPROVAL OF PRODUCTS AND INSTALLATION METHODS

.1 Wherever in the Specifications it is specified that Products and installation methods shall meet approval of Authorities having Jurisdiction, underwriters, the Contractor, or others, such approval shall be in writing.

39 AVAILABILITY

.1 If delays in supply of Products are foreseeable, notify the Contractor of such, in order that remedial action may be authorized in ample time to prevent delay in performance of Work.

.2 In the event of failure to notify the Contractor at commencement of Work and should it subsequently appear that Work may be delayed for such reason, the Contractor reserves the right to direct the Subcontractor to take the following measures at no increase in Contract Price:

.1 Substitute more readily available Products of similar or better quality and character, or

.2 Temporarily install another Product until such time as the specified Product becomes available, at which time the temporarily installed Product shall be removed and the specified Product installed.

40 TRADEMARKS AND LABELS

.1 Permanent labels, trademarks and nameplates on Products are not acceptable in the finished Work, except where required by authorities having jurisdiction, for operating instructions, or when located in service rooms.

.2 Remove trademarks and labels by grinding, if necessary, painting out where the particular surface is being painted, or if on plated parts, replace with new plain plated or non-ferrous metal parts.

41 DELIVERY, STORAGE, HANDLING AND PROTECTION

.1 Be responsible for handling and delivery of Products. Protect Products from damage during handling, storage and installation. Deliver store and handle items in accordance with manufacturer's instructions and as specified. Be responsible for all costs of delivery, loading and off-loading, and for transportation back to its origin for correction, if required, due to damage or defect. Reject materials and Products delivered to the Site which are damaged.

.2 Manufacture, pack, ship, deliver, and handle Products so that no damage occurs to structural qualities and finish appearance, nor in any other way which is detrimental to their function and appearance.

.1 Ensure that Products, while transported, are not exposed to an environment which would increase their moisture content beyond the maximum specified.

.2 Organize delivery of materials, Products and equipment to, and removal of debris and equipment from, the site and surrounding property.

.3 Schedule early delivery of Products to enable Work to be executed without delay. Before delivery, arrange for receiving at the Place of the Work.

.4 Coordinate mechanical and electrical equipment and apparatus deliveries with the manufacturers and suppliers such that equipment and apparatus is delivered to the site when it is required, or so that it can be stored within the building and protected from the elements.

.5 Shop assemble Work for delivery to Site in size easily handled and to ensure passage through building openings.

.6 Deliver packaged Products, in original unopened wrapping or containers, with manufacturer's seals and labels intact.

.7 Label packaged Products to describe contents, quantity, and other information as specified.

.8 Labels attesting that materials conform to specified reference standards will be acceptable as verification that contents meet specified

requirements. In the absence of labels, submit affidavits to validate conformance of Product to reference standards, as requested by the Contractor.

.9 Label fire-rated Products to indicate Underwriters' Laboratories of Canada approval.

.10 Handle and store materials and Products in such a manner that no damage is caused to the materials and Products, the Work, the Site and surrounding property.

.3 Allocate an area within the limits of the Work acceptable to the Owner for storage of Products brought to the Site. Keep storage area tidy at all times and do not use other parts of he property for storage. Arrange and pay for off-site storage when required.

.4 Locate Products on Site in a manner to cause minimal interference with the Work.

.5 Store Products off the ground, in a manner to prevent damage, adulteration, deterioration and soiling to the Products, other building components, assemblies, other Products, the structure, the Site and surrounding property, and in accordance with manufacturer's instructions when applicable.

.6 Store packaged or bundled Products in original and undamaged condition complete with written application instructions. Keep manufacturer's seals and labels intact. Do not remove from packaging or bundling until required in the Work.

.7 Store Products subject to damage from weather in weatherproof enclosures.

.8 Store and handle flammable liquids and other hazardous materials in approved safety containers and as otherwise prescribed by safety authorities. Store no flammable liquids or other hazardous material in bulk within the Work.

.9 Make good or replace damaged materials to the satisfaction of the Contractor.

.10 Hazardous Materials Information:

.1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of Material Safety Data Sheets (MSDS) in accordance with jurisdictional authorities.

.2 Deliver copies of Material Safety Data Sheets (MSDS) to the Contractor on all Products intended for use in the Work and designated as a "controlled Product."

42 MANUFACTURER'S INSTRUCTIONS

.1 Unless otherwise indicated in the Specifications, fabricate, install, apply, connect, install, erect, use, clean, and condition Products in accordance with manufacturer's instructions except where more stringent requirements are specified. Do not rely on labels or enclosures provided with Products. Obtain written instructions directly from manufacturers.

.2 Notify the Contractor in writing, of conflicts between the Specifications and manufacturer's instructions, so that the Contractor may establish the course of action. If requested, make a copy of those instructions available at the Site.

.3 In cases of improper installation or erection of Products, due to failure in complying with these requirements, the Contractor may direct removal and re-installation at no increase in Contract Price.

43 WORKMANSHIP

.1 Workmanship shall be of the best quality, executed by workers experienced and skilled in the respective duties for which they are employed. Immediately notify the Contractor if required Work is such as to make it impractical to produce required results.

.2 Do not employ any unfit person or anyone unskilled in their required duties. The Contractor reserves the right to require the dismissal from the Place of Work workers deemed incompetent, careless, insubordinate or otherwise objectionable.

.3 Decisions as to the quality or fitness of workmanship in cases of dispute rest solely with the Contractor, whose decision is final.

.4 Give particular attention to finished dimensions and elevations of the Work. Make finished Work fit indicated spaces accurately. Make finished Work flush, plumb, true to lines and levels and accurate in all respects.

.5 Ensure that integrity of fire separations is maintained where they are penetrated.

.6 Keep surfaces, on which finished materials will be applied, free from grease, oil, and other contamination which would be detrimental in any way to the application of finish materials.

.7 Enforce fire prevention methods at Site. Do not permit fires, open flame heating devices or accumulation or debris. Use flammable materials only if all safety precautions are taken. Provide and maintain in working order ULC labelled fire extinguishers of types suitable for fire hazard in each case, and locate them in prominent locations and to the approval of jurisdictional authorities.

.8 Where flammable materials are being applied, ensure that adequate ventilation is provided, spark-proof equipment is used, and smoking and open flames are prohibited.

44 GARBAGE DISPOSAL AND CLEANUP

.1 Subcontractors shall provide waste containers for the disposal of all waste materials resulting from performance of their Work.

.2 No hazardous or contaminated waste material shall be placed in owner's or Contractor's waste containers and Subcontractors shall make their own arrangements for the disposal off site of any such material resulting from performance of their Work.

.3 Subcontractors shall remove all regular waste material and debris from their Work areas and deposit in the waste containers at the end of each working day. Any cleanup Work not performed as requested will be carried out by the Contractor with all resultant costs being charged to the Subcontractor.

45 CLEANING

.1 Ensure that splatters, droppings, soil, labels, and debris are removed from surfaces to

receive finishes, before they set up. Leave Work and adjacent finished Work in new condition.

.2 Maintain premises “broom clean" during progress of the Work.

.3 Do not allow waste material and debris to accumulate in an unsightly or hazardous manner. Provide containers in which to collect waste material and debris.

.4 Use cleaning materials recommended for the purpose by both the manufacturer of Products forming surfaces to be cleaned and cleaning material.

.5 Conduct cleaning operation in compliance with the occupational health and safety regulations, with local ordinances and anti-pollution laws.

.6 Remove grease, dust, dirt, stains, labels, fingerprints, oxidization, excess adhesive and other contaminates from interior and exterior surfaces including glass, plastic laminate, plastic and other Products. Clean lighting components including lighting reflectors, lenses and other lighting surfaces.

.7 When the Work is substantially performed, remove surplus Products, tools, construction machinery and equipment not required for the performance of the remaining Work.

.8 Leave Work in a broom clean condition before the inspection process commences.

.9 Broom clean and wash exterior walks, steps and surfaces.

.10 Rake clean exterior grassed areas and planting beds.

.11 Remove dust, dirt and other foreign materials from exposed surfaces.

.12 Vacuum clean and dust building interiors, including grilles, louvres and screens.

.13 Remove stains, spots, marks and dirt from decorative Work, electrical and mechanical fixtures, floors and walls.

46 FINAL INSPECTIONS AND CLOSE OUT

.1 Submit proposed closeout procedures and schedule of inspection to Contractor for approval before final demonstrations and inspections commence.

.2 Arrange for, conduct and document final demonstrations, inspections, close-out and take-over at completion of the Work to the satisfaction of the Contractor.

.3 Where a licensed Professional Engineer registers in the province where the project is being undertaken is required to design, sign and stamp the shop drawings, they shall also be responsible for periodic reviews during fabrication, installation, erection and construction of the delegated design scope for which they are responsible. On completion of the delegated design scope, they shall provide a signed and stamped sign off letter on their company letterhead stating the following:

- .1 Name and address of the project.
- .2 Parts of the Work
- .3 Periodic reviews of the delegated design Work have been conducted and,
- .4 Based on these reviews and inspections, the Professional Engineer is satisfied that the delegated design work has been fabricated, erected, and installed in compliance with their designed, signed and stamped shop

drawings – as reviewed by the Consultants, dated mm,dd,yy – and applicable codes, regulations, and standards.

47 RECORD DRAWINGS

.1 Authorized deviations from drawings shall be marked in red accurately on one set of drawing prints in a neat, legibly printed manner and shall be dated. Prior to final inspection, neatly transfer the recorded information to a second set of drawing prints of the most recent revision to the drawings and submit both sets to the Contractor.

.2 Maintain record drawings up to date as Work progresses. Status of maintained record drawings may be considered as a condition for validation of applications for payment.

.3 Identify each record drawing as "Contract Record Copy" and maintain the record drawings in good condition. Make record drawings available to the Contractor at all times.

.4 Record drawings shall include accurate dimensioned record of deviations and changes in Work from drawings.

.5 Record drawings shall be signed and dated by Subcontractor.

.6 Submit record drawing to Contractor for review and make corrections as directed by Contractor.

.7 Record accurately all deviations in the Work.

.8 Accurately record locations of concealed structure, mechanical and electrical services and similar Work not clearly in view, the location of which is required for maintenance, alteration Work and future additions. Do not conceal such Work until the location has been recorded.

.9 Accurately record locations of equipment bases, anchors, concrete pads and roof curbs, sleeves, piping, conduits, ducts, maintenance holes and valves, etc. located either below, outside or within structure.

.10 Where piping, conduits and ducts are underground, underfloor, embedded in concrete or otherwise in inaccessible locations, accurately record with respect to structure column lines or walls and elevations with respect to finished floor levels or grades referenced to the centre line of components.

.11 Accurately record any components which will be in inaccessible locations for Contractor's review before the component is covered, or buried, or made inaccessible.

.12 Transfer records from the "As-Built Copy" to AutoCAD format matching the Consultant's documents. Arrange computer file in layers to exactly match the layering system of the Consultant.

.13 Submit the "As-Built Copy" on one or more Memory/USB stick with PDF prints of each drawing to the Consultant at the time of Substantial Performance.

.14 Electronic copies of Contract Drawings can be obtained from Consultant in AutoCAD format at a cost of $150 plus HST per sheet for Architectural Drawings. A ‘Release/Terms of Use’ waiver may be required to be signed at the Consultant’s sole discretion.

.15 Clearly and prominently mark each drawing “AS-BUILT DRAWING prepared by

_____(name of Contractor)"

END OF SECTION

ASBESTOS REMOVAL SPECIFICATION

1615 Dufferin Street
Toronto, ON

Section(s):

Section 02 13 81 – Type 1 Asbestos Removal
Section 02 13 82 – Type 2 Asbestos Removal
Section 02 13 83 – Type 3 Asbestos Removal
Section 02 13 84 – Type 2 Glove Bag Asbestos Removal

Prepared for:

Inder Bhamra (he/him/his), EP, PMP, CSM
Environmental Coordinator - Project Management Office

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Corporate Real Estate Management
55 John Street, 2nd Floor
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January 2025

1 PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

1.2 Conform to Sections of Division 1 as applicable.

1.3 Section 02 13 81, Type 1 Asbestos Removal defines procedures and requirements only for handling non-friable asbestos. Performance of such work is responsibility of each Section required to handle, cut, drill, or remove non-friable asbestos as necessary to perform work of their respective Sections. Such work shall be done in strict accordance with handling requirements specified in Section 02 13 81, Type 1 Asbestos Removal.

1.2 RELATED WORK

1.2.1 Section 02 13 82 – Type 2 Asbestos Removal

1.2.2 Section 02 13 83 – Type 3 Asbestos Removal

1.2.3 Section 02 13 84 – Type 2 Asbestos Glove Bag Removal

1.3 DESCRIPTION OF WORK

1.3.1 Types of asbestos present: Chrysotile present in non-friable asbestos containing materials.

1.3.2 Remove and dispose of as required, all non-friable asbestos containing products, such as, but not limited to, vinyl asbestos floor tile (VFT), mastic on floor or caulking, etc.

1.3.3 Non-Friable asbestos containing materials identified can be found within the Safetech Environmental Ltd. report titled "*Designated Substances and Hazardous Building Materials Assessment Report, Demolition Project, 1615 Dufferin Street, Toronto, Ontario"* issued January 13, 2025. A copy of this report can be found within the contract documents.

1.3.4 Non-friable asbestos handling shall be performed by firms and workers fully experienced in asbestos control.

1.3.5 Handle non-friable asbestos materials required to be removed as specified herein.

1.3.6 Seal asbestos waste receptors promptly when filled.

1.3.7 Obtain and submit copy of necessary permits for transporting and disposal of asbestos waste.

1.3.8 Protect surfaces in asbestos work area(s) and prevent spread of asbestos dust, by use of drop sheets of polyethylene sheeting or other acceptable material.

1.3.9 During, and at completion of work, clean asbestos work area(s) as specified.

1.3.10 All work will be subject to review and air monitoring both inside and outside asbestos work area(s) by Owner's Consultant. Clean-up contamination of surrounding areas, indicated by visual inspection or air monitoring, caused by this work.

1.4 **DEFINITIONS**

1.4.1 **HEPA Filter:** High Efficiency Particulate Aerosol filter at least 99.97 percent efficient in collecting 0.3 micrometer aerosol.

1.4.2 **Non-Friable Material:** Material that when dry cannot be crumbled, pulverized or powdered by hand pressure. Includes, but not limited to, following asbestos containing products: vinyl asbestos floor tiles, resilient sheet flooring, acoustic ceiling and wall tiles, gaskets, seals, packings, friction products, drywall joint compounds and asbestos cement panels, shingles and piping.

1.4.3 **Polyethylene Sheeting:** Polyethylene sheeting of 0.15 mm (6 mil) minimum thickness with tape seals along edges, around penetrating objects, over cuts and tears, and elsewhere as required to provide continuous membrane protection.

1.4.4 **Authorized Visitor(s):** Owner's Consultant or person(s) representing regulatory agencies, and person(s) authorized by them.

1.4.5 **Asbestos Work Area(s):** Area(s) where work takes place which will, or may, disturb asbestos-containing material.

1.5 **REGULATIONS**

1.5.1 Comply with Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations made under Occupational Health and Safety Act, Reg. 278/05, as amended, and local requirements pertaining to asbestos; provided that in case of conflict with these Specifications most stringent requirements shall apply.

1.5.2 Handle and dispose of contaminated waste as required by Ontario Regulation 347 as amended to 217/08, made under The Environmental Protection Act.

1.6 **WORKER PROTECTION**

1.6.1 Respirators are not mandatory for work with non-friable asbestos-containing materials, however, for this project, provide non-powered air half face respirator with minimum P00 filter cartridges in accordance with NIOSH Part 84 requirements. Provide proper instruction to workers in use of respirators including qualitative fit testing. Replace filters as necessary, according to manufacturer's instructions. Workers shall not wear facial hair that affects seal between respirator and face. Contractor to post on job bulletin Owner instructions, procedures and information pertaining to abatement work.

1.6.2 Provide, and insist on using, facilities for washing of hands and face by every worker when leaving asbestos work area. Prohibit smoking, eating and drinking in asbestos work area.

2 **PART 2 - PRODUCTS**

2.1 **MATERIALS**

2.1.1 **Asbestos Waste Receptors:** 2 separate containers of which 1 shall consist of 0.15 mm (6

mil) minimum thickness sealable polyethylene bag. Other container may be 0.15 mm (6 mil) minimum thickness polyethylene bag or rigid sealable container such as cardboard or metal or fibre drum or wood box. Other container shall be adequate to prevent perforating rips or tears in first container during filling, transport or disposal. Containers must be acceptable to disposal site selected and Ministry of Environment. Containers shall be labelled in accordance with Ministry of Environment regulations.

2.1.2 **HEPA Vacuum:** Vacuum with all necessary fittings, tools and attachments. Air must pass HEPA filter before discharge.

2.1.3 **Sprayer:** Garden-type portable manual sprayer, low velocity, capable of producing mist or fine spray.

2.1.4 **Polyethylene Sheeting:** 0.15 mm (6mil) minimum thickness unless otherwise specified; in sheet size to minimize joints.

2.1.5 **Tape:** Tape suitable for sealing polyethylene to surface encountered under wet conditions using amended water and under dry conditions.

2.1.6 **Amended Water:** Water with non-ionic water wetting agent added.

3 PART 3 - EXECUTION

3.1 PREPARATION

3.1.1 Before disturbing non-friable asbestos materials except those used as flooring, cover floor and furnishings below work with polyethylene sheeting.

3.1.2 Wherever dust on surface within asbestos work area is likely to be disturbed, remove beforehand with HEPA vacuum or damp cloth.

3.2 REMOVAL OF VINYL ASBESTOS TILE

3.2.1 Start removal by wedging heavy-duty scraper in seam of 2 adjoining tiles and gradually forcing edge of 1 tile up and away from floor. Do not break off pieces of tile, but continue to force balance of tile up.

3.2.2 When first tile is removed, place it, without breaking into smaller pieces, into asbestos waste receptor.

3.2.3 Continue removal of tiles using hand tools and removing tiles intact wherever possible. When adhesive is spread heavily or is quite hard, it may prove easier to force scraper through tightly adhered areas by striking scraper handle with hammer using blows of moderate force while maintaining scraper at 25^{o} to 30^{o} angle to floor. When even this technique cannot loosen tile, removal can be simplified by heating tile with hot air gun or infrared heaters until heat penetrates through tile and softens adhesive. Do not use powered electric scrapers.

3.2.4 After removal of small area scrape up adhesive remaining on floor with hand scraper until only thin smooth film remains. Where deposits are heavy or difficult to scrape, hot air gun or infrared heaters may be used. Deposit scrapings into asbestos waste receptors. Do not dry

scrape surface of adhering pieces of tile.

3.2.5 On completion of area, clean floor with HEPA vacuum.

3.3 **REMOVAL OF ASBESTOS-CONTAINING MASTIC**

3.3.1 Apply mastic removal agent to asbestos-containing mastic with sprayer. Allow mastic removal agent to dwell according to the manufacturers specifications.

3.3.2 After appropriate dwelling time, using a hand scraper, remove asbestos-containing mastic (an absorbant material may be used to aid in controlling the spread of the liquefied mastic).

3.3.3 Using a shovel (or equivalent tool), transfer removed mastic from floor surfaces to asbestos waste receptor.

3.3.4 Should areas of mastic still remain, repeat paragraphs 3.2.1, 3.2.2 and 3.2.3 until all floor mastic has been removed.

3.3.5 On completion of removal, mop the floor with a detergent solution followed by HEPA vacuuming.

3.4 **REMOVAL OF ASBESTOS CAULKING**

3.4.1 Where possible wet material to be disturbed.

3.4.2 As necessary, use hand powered tools (i.e. hook knife, utility knife, etc) for removing asbestos-containing caulking. Use of power tools (with or without a HEPA filtered dust collection device) is strictly prohibited as a Type 1 operation.

3.4.3 Immediately place asbestos-containing caulking in asbestos waste receptor. Clean area frequently during work with HEPA vacuum or with wet methods.

3.4.4 Once the bulk of asbestos-containing caulking had been removed, use hand-powered tools (e.g. wire brush, steel wool, etc) to remove remaining remnants affixed to fire hose cabinets.

3.4.5 At the completion of removal, HEPA vacuum or wet wipe all abated surfaces to remove any visible dust or debris that may contain asbestos.

3.4.6 Dispose of drop sheets as asbestos waste. Do not reuse.

3.4.7 Sealed asbestos waste shall be transported in a bin equipped with wheels (or equivalent) to the ground floor of the parking garage where they will then be transferred to the disposal bin located on the south side of the building (i.e. adjacent parking lot). Please refer to location of disposal bin in the attached drawing found in Appendix A.

3.5 **WASTE TRANSPORT AND DISPOSAL**

3.5.1 Conform to requirements of Ontario Regulation 347 amended to 217/08, made under The Environmental Protection Act for Waste Management, transporting and disposal of hazardous waste.

3.5.2 Check with dump operator to determine type of waste containers acceptable.

3.5.3 Ensure shipment of containers to dump is taken by waste hauler licensed to transport asbestos waste.

3.5.4 Each load requires completion of bill of lading showing type and weight of hazardous waste being transported.

3.5.5 Co-operate with Ministry of Environment inspectors and immediately carry out instructions for remedial work at dump to maintain environment, at no additional cost to Owner.

3.5.6 Ensure dump operator is fully aware of hazardous material being dumped.

3.5.7 Ensure that containers used for dumping are locked and covered at all times.

End of Section

1 PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to Sections of Division 1 as applicable.

1.2 RELATED WORK

1.2.1 Section 02 13 81 – Type 1 Asbestos Removal

1.2.2 Section 02 13 83 – Type 3 Asbestos Removal

1.2.3 Section 02 13 84 – Type 2 Asbestos Glove Bag Removal

1.3 DESCRIPTION OF WORK

1.3.1 Friable and non-friable asbestos-containing materials (and types of asbestos present) identified can be found within the Safetech Environmental Limited report titled "*Designated Substances and Hazardous Building Materials Assessment Report, Demolition Project, 1615 Dufferin Street, Toronto, Ontario"* issued January 13, 2025.

1.3.1 Type 2 operations can be applied for removing all or part of a false ceiling to obtain access to a work area, if asbestos-containing material is likely to be lying on the surface of the false ceiling.

1.3.2 Type 2 operations can be applied for the repair of friable materials or, removal of less than one square metre of friable asbestos containing materials. In addition, Type 2 Glove Bag operations can be applied for the removal of asbestos containing mechanical pipe insulation fittings (see Section 02 13 84).

1.3.3 Type 2 operations can be applied for enclosing friable asbestos-containing material.

1.3.4 Type 2 operations can be applied for applying tape or a sealant or other covering to pipe insulation that is asbestos-containing material.

1.3.5 Type 2 operations can be applied for disturbing or removing non-friable asbestos-containing material if the material is not wetted to control the spread of dust or fibres, and the work is done only by means of non-powered hand-held tools.

1.3.6 Type 2 operations can be applied for removing or disturbing non-friable asbestos-containing material if the work is done by means of power tools that are attached to dust collecting devices equipped with HEPA filters.

1.3.7 Perform asbestos removal by full enclosure method.

1.3.8 Maintain electrical and mechanical services passing through asbestos work area.

1.3.9 Seal all surfaces from which asbestos has been cleaned or removed with slow drying sealer.

1.3.10 Dispose of temporary enclosures, disposable equipment and any asbestos-containing or

contaminated materials removed, as asbestos waste.

1.3.11 All work will be subject to inspection and air monitoring both inside and outside asbestos work area by Owner's Consultant. Any contamination of surrounding areas (indicated by visual inspection or air monitoring) shall necessitate complete enclosure and clean-up of affected areas.

1.4 **DEFINITIONS**

1.4.1 **HEPA Filter**: High Efficiency Particulate Aerosol filter at least 99.97 percent efficient in collecting 0.3 micrometer aerosol.

1.4.2 **Friable Material**: Material that when dry can be crumbled, pulverized or powdered by hand pressure and includes such material that is crumbled, pulverized or powdered.

1.4.3 **Polyethylene Sheeting:** Polyethylene sheeting 0.15 mm (6 mil) minimum thickness; with tape seals along edges, around penetrating objects, over cuts and tears, and elsewhere as required to provide continuous polyethylene membrane protection.

1.4.4 **Authorized Visitor(s):** Construction Manager or person(s) representing regulatory agencies, and person(s) authorized by them.

1.4.5 **Asbestos Work Area(s):** Area(s) where work takes place which will, or may disturb asbestos-containing material, including overspray and fallen material, or settled dust that may contain asbestos.

1.4.6 **Curtained Doorway:** Device to allow ingress or egress from enclosure while permitting minimal air movement, typically constructed by placing 2 overlapping flaps of polyethylene sheeting (2 sheets of polyethylene per flap) attached to head and 1 jamb of existing or temporarily constructed door frame. Secure vertical edge of 1 flap along 1 vertical side of door frame, and vertical edge of other flap along opposite vertical side of door frame. Reinforce free edges of polyethylene with duct tape.

1.4.7 **Negative Pressure:** Reduced pressure within asbestos work area(s) established by extracting air directly from work area, and discharging directly to exterior of building. Discharged air first passes through HEPA filter. Extract sufficient air to ensure constant reduced pressure at perimeter of work area with respect to surrounding areas.

1.4.8 **Airlock:** 2 curtained doorways spaced minimum of 2 m (6') apart.

1.5 **QUALITY ASSURANCE**

1.5.1 Ensure work proceeds to Schedule and meets all requirements of this Section. Perform work so airborne asbestos, asbestos waste or water run off does not contaminate areas outside asbestos work enclosure.

1.5.2 Pay cost to Owner of inspection and air monitoring performed as result of failure to perform work satisfactorily.

1.5.3 Use only skilled and qualified workers for all trades required for this work.

1.6 **REGULATIONS**

1.6.1 Comply with Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations made under Occupational Health and Safety Act, Reg. 278/05, as amended, and local requirements pertaining to asbestos; provided that in case of conflict with these Specifications most stringent requirements shall apply.

1.6.2 Handle and dispose of contaminated waste as required by Ontario Regulation 347 as amended by 234/11, made under The Environmental Protection Act, as amended.

1.7 **SUBMITTALS**

1.7.1 Before Commencing Work:

1.7.1.1 Obtain and submit all necessary permits for transporting and disposal of asbestos waste.

1.7.1.2 Submit names of supervisory personnel who will be responsible for asbestos work area(s). One supervisor must remain on-site at all times while asbestos removal or clean-up is occurring. Submit proof that supervisory personnel have attended training course on asbestos control (2 day minimum duration) and have performed supervisory function on at least 2 other asbestos control projects.

1.7.1.3 Submit proposed schedule showing phasing and proposed workforce related to each work area enclosure or repair operation.

1.7.1.4 Submit list of existing damage for acceptance.

1.8 **WORKER AND VISITOR PROTECTION**

1.8.1 **Instructions**: Before entering asbestos work area(s), instruct workers and visitors in use of respirators, entry and exit from enclosures and all aspects of work procedures and protective measures. Instruction shall be provided by competent person as defined by Occupational Health and Safety Act.

1.8.2 **Full Face Respirator**: Provide appropriate respiratory equipment for all persons within asbestos work area including authorized visitors. During specified work, workers, supervisors, and authorized visitors shall wear negative pressure full-face respirators with minimum P100 filter cartridges in accordance with NIOSH Part 84 requirements (Formerly

high efficiency particulate aerosol (HEPA) cartridge filters). Replace filters daily or test according to manufacturer's specifications and replace as indicated. Respirators shall be acceptable to Occupational Health Branch of Ministry of Labour. Provide proper instruction to workers and visitors on use of respirators, including qualitative fit testing. No supervisor, worker or authorized visitor shall wear facial hair which affects seal between respirator and face. Maintain respiratory protection equipment in proper functioning and clean condition, or remove from site.

1.8.3 **Protective Clothing:** Provide workers and visitors in full-enclosure sites with full body coveralls with integral hoods. Once coveralls are worn in asbestos work area, treat and dispose of as asbestos contaminated waste. Workers and visitors shall also wear other protective apparel required by Ministry of Labour construction regulations.

1.8.4 Before entering enclosure(s) put on respirator with new or tested filters, clean coveralls and head covers. Wear coveralls with hoods up at all times.

1.8.5 Workers may leave enclosure, only after all disturbance of asbestos-containing materials is complete and enclosure has been cleaned-up. When leaving enclosure workers and visitors use HEPA vacuum to clean exterior of respirator to remove visible contamination, and remove gross contamination from coveralls and other protective equipment. Immediately upon leaving enclosure workers and visitors shall remove coveralls and wash face and hands thoroughly with soap and water; wet clean inside of respirator. Remove filters and dispose of or test filters according to manufacturer's specifications. Place coveralls and used filters in receptacles for disposal with other asbestos contaminated materials. Coveralls can be reused, to maximum of 8 hours wear, if coveralls remain inside work area.

1.8.6 Do not eat, drink, smoke or chew gum or tobacco in enclosures.

1.8.7 Workers and visitors shall be fully protected as specified herein whenever possibility of disturbance of asbestos exists.

2 PART 2 - Products

2.1 MATERIALS

2.1.1 **Polyethylene Sheeting:** 0.15 mm (6 mil) minimum thickness unless otherwise specified; in sheet size to minimize joints.

2.1.2 **Rip-Proof Polyethylene:** 0.20 mm (8 mil) fabric made up from 0.13 mm (5 mil) weave and 2 layers 0.04 mm (1.5 mil) poly laminate, in sheet size to minimize joints.

2.1.3 **Tape:** Tape suitable for sealing polyethylene to surface encountered under both wet conditions using amended water, and dry conditions.

2.1.4 **Wetting Agent:** Non-sudsing surface active agent; mixed with water in concentration to provide thorough wetting of asbestos fibre: Asbestos-Wet, distributed by Asbetec Distributors, Richmond Hill, Ontario.

2.1.5 **Amended Water:** Water with wetting agent added.

2.1.6 **Asbestos Waste Receptors:** 2 separate containers of which 1 shall consist of 0.15 mm (6 mil) minimum thickness polyethylene bag. Other container may be 0.15 mm (6 mil) minimum thickness polyethylene bag or rigid sealable container such as metal or cardboard, fibre drum or wood box. Other container shall be adequate to prevent perforating rips, or tears in first container during filling, transport or disposal. Containers must be acceptable to disposal Site selected and Ministry of Environment and Energy.

2.1.7 **Sealer:** Sealer for purpose of trapping residual fibre debris. Product must have flame spread and smoke development ratings both less than 25. Product shall leave no stain when dry: TC-55 (clear), A/D Fire Protection Systems Inc., Scarborough, Ontario. For mechanical equipment, pipes, boilers, etc. use high temperature sealer only: Chil-Abate CP210, Childers Products Company, Mississauga, Ontario.

2.1.8 **Sprayer:** Garden-type portable manual sprayer, low velocity, capable of producing mist or fine spray.

2.1.9 **HEPA Vacuum:** Vacuum with all necessary fittings, tools and attachments. Air must pass HEPA filter before discharge.

3 PART 3 - Execution

3.1 FULL-ENCLOSURE ASBESTOS WORK AREAS

3.1.1 Move equipment, tools, and stored materials which can be moved without disturbing asbestos-containing materials.

3.1.2 Remove elements which can be removed without disturbing friable asbestos material.

3.1.3 If working from within building, request building personnel to shut off air handling and ventilation systems supplying or exhausting from asbestos work area enclosure(s). Ensure air-handling systems remain shut off for duration of work.

3.1.4 Erect wood or metal framing between asbestos work area and remaining building area, as necessary to support polyethylene sheeting enclosures. Free standing enclosure shall have completely sealed polyethylene top.

3.1.5 Use sufficient layers to provide adequate protection. Protect floors with at least 1 layer of polyethylene sheeting. Where walls are protected with sheeting, cover floors first so that wall polyethylene overlaps floor layer by at least 300 mm (12").

3.1.6 Where applicable clean previously contaminated surfaces with HEPA vacuum before covering with sheeting.

3.1.7 If enclosure is used for more than 1 shift, construct airlock for entry to and exit from enclosure. Clean enclosure prior to exiting at completion of each shift.

3.1.8 Establish negative pressure in asbestos work area. Operate negative pressure units or HEPA vacuums continuously from this time until completion of contaminated work.

3.1.9 Provide soap, water and towels for washing of worker's face and hands when exiting enclosure.

3.1.10 Maintain emergency and fire exits from asbestos work area, or establish alternative exits satisfactory to authorities having jurisdiction.

3.1.11 Ensure existing power supply to asbestos work area is isolated and disconnected where necessary. Do not disrupt power supply to remainder of building.

3.2 MAINTENANCE OF ENCLOSURES

3.2.1 Maintain enclosures in tidy condition.

3.2.2 Ensure barriers and polyethylene linings are effectively sealed and taped. Repair damaged barriers and remedy defects immediately upon discovery.

3.2.3 Visually inspect enclosures at beginning and end of each working period.

3.3 COMMENCE ASBESTOS REMOVAL OR CLEANUP WORK WHEN

3.3.1 Arrangements have been made for disposal of waste.

3.3.2 Asbestos work areas enclosures and parts of building required to remain in use are effectively segregated. Negative pressure equipment is operating continuously.

3.3.3 Tools, equipment and materials waste receptors are inside enclosure.

3.3.4 Arrangements have been made for work area security.

3.3.5 Signs are displayed in all areas where access to sealed asbestos work areas possible. Signs shall read:

CAUTION
Asbestos Hazard Area
No Unauthorized Entry
Wear assigned protective equipment
Breathing asbestos dust may cause serious bodily harm.

3.3.6 Owner’s Consultant has been notified of intention to proceed and has reviewed enclosures and equipment.

3.4 ASBESTOS DISTURBANCE IN ENCLOSURE

3.4.1 Before commencing work, prepare Site as described in articles 3.1, 3.2 and 3.3.

3.4.2 Seal opening to enclosure with tape after entry of worker. Worker shall remain inside enclosure until disturbed asbestos-containing materials are removed and enclosure has been effectively cleaned.

3.4.3 Perform work required inside enclosure. Trades personnel may enter enclosure to perform Type 2 operations under the guidance of competent worker.

3.4.4 When cleaning or removing asbestos-containing drywall walls within enclosure, spray asbestos-containing material with amended water. Saturate asbestos to prevent release of airborne fibres during removal. Place fully saturated asbestos directly into waste containers.

3.4.5 Treat materials removed including used polyethylene sheeting as asbestos contaminated waste and dispose of as such.

3.4.6 Following completion of work, clean surfaces from which asbestos has been disturbed with HEPA vacuum, or wet-sponge if appropriate to remove all visible material.

3.4.7 Carefully place asbestos waste in inner bag of asbestos waste receptor. Clean inner bag surface of gross contamination and place in clean 6 mil outer bag. If waste is likely to tear inner bag, then instead of outer bag use fibre or metal drum, cardboard or wood box, or other suitably sturdy container.

3.4.8 After wet-sponging or vacuuming to remove visible asbestos, wet clean entire enclosure. Apply coat of sealer to all surfaces from which asbestos has been disturbed. Apply thinned coat (sufficient to coat all surfaces) to interior of polyethylene enclosure prior to tear down.

3.5 TEAR DOWN OF PROTECTION

3.5.1 When dismantling enclosure, carefully roll polyethylene toward centre of enclosure. As polyethylene is rolled away, immediately remove any visible debris with HEPA vacuum.

3.5.2 Place polyethylene sheeting seals, tape, cleaning material, coveralls, and other contaminated waste in asbestos waste receptors for transport. Remove any debris fallen behind plastic with HEPA vacuum.

3.5.3 Clean up asbestos waste receptors and equipment used in work, and remove from asbestos work area(s) via drum and equipment decontamination enclosure systems, at appropriate time in sequence. Double bag waste immediately prior to transport from site to disposal bin.

3.5.4 Final review may be carried out by Owner’s Consultant to ensure no dust or debris remains.

3.6 RE-ESTABLISHMENT OF OBJECTS AND SYSTEMS

3.6.1 When clean-up is complete reinstall items removed to facilitate asbestos related operation, in their proper positions. Reconstruction and reinstallation shall be by tradesmen qualified in work being reinstalled or reconstructed.

3.6.2 At completion of work make good all damage not identified in pre-removal survey referred to in para. 1.7.1.4.

3.7 AIR MONITORING

3.7.1 Owner's Consultant may arrange for air samples to be taken from commencement of work until completion of cleaning operations, both inside and outside of asbestos work area(s) enclosures in accordance with NIOSH methods.

3.7.2 If air sampling is conducted, results of phase contrast microscopy analysis of the sample(s) must be lower than the criteria of 0.01 fibers/cc.

3.8 INSPECTION

3.8.1 From commencement of work until completion of clean-up operations, Client's Consultant may be present.

3.8.2 If visual inspection indicates that areas outside current asbestos work area enclosures are contaminated, these areas are to be cleaned in same manner as that applicable to asbestos work areas, at no cost to Client.

3.8.3 Pay cost to provide re-inspection of work found not to be in accordance with these specifications and requirements of authorities having jurisdiction.

3.9 WASTE TRANSPORT AND DISPOSAL

3.9.1 Conform to requirements of Regulation 347 as amended by 234/11, made under Environmental Protection Act for Waste Management, transporting and disposal of hazardous waste.

3.9.2 Obtain Certificate of Approval from Ministry of Environment for waste management disposal system for asbestos.

3.9.3 Check with dump operator to determine type of waste containers acceptable.

3.9.4 Ensure shipment of containers to dump is taken by waste hauler licensed to transport asbestos waste.

3.9.5 Each load requires completion of bill of lading showing type and weight of hazardous waste being transported.

3.9.6 Co-operate with Ministry of Environment inspectors and immediately carry out instructions for remedial work at dump to maintain environment, at no additional cost to Owner.

3.9.7 Ensure dump operator is fully aware of hazardous material being dumped.

End of Section

1 PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

1.1.1 Conform to Sections of Division 1 as applicable.

1.2 RELATED WORK

1.2.1 Section 02 13 81 – Type 1 Asbestos Removal

1.2.2 Section 02 13 82 – Type 2 Asbestos Removal

1.2.3 Section 02 13 84 – Type 2 Asbestos Glove Bag Removal Procedures

1.3 DESCRIPTION OF WORK

1.3.1 Friable and non-friable asbestos-containing materials (and types of asbestos present) identified can be found within the Safetech Environmental Limited report titled "*Designated Substances and Hazardous Building Materials Assessment Report, Demolition Project, 1615 Dufferin Street, Toronto, Ontario" issued January 13, 2025*.

1.3.2 Friable asbestos containing materials to be removed utilizing Type 3 operations. Type 2 operations can be applied for the repair of friable materials or removal of less than 1.0 square metre of friable asbestos containing materials. In addition, Type 2 Glove Bag operations can be applied for the removal of asbestos containing mechanical pipe insulation fittings.

1.3.3 Perform asbestos removal by full enclosure method.

1.3.4 Seal surfaces from which asbestos has been removed and surfaces potentially contaminated with asbestos, with sealer.

1.3.5 Maintain only emergency electrical and mechanical services passing through asbestos work areas. All other services must be deactivated during abatement work.

1.3.6 All work will be subject to inspection and air monitoring inside and outside asbestos work area by the Owner's Consultant. Any contamination of surrounding areas, indicated by visual inspection or air monitoring, shall necessitate complete cleanup of affected areas at no additional cost to the Owner.

1.3.7 Protect surfaces remaining within asbestos work area.

1.3.8 All upper seals to be constructed with fire-rated rip-proof polyethylene sheeting, adhered to building components with construction grade adhesive, mechanically fastened to concrete deck (anchors every metre) and labelled with asbestos cautionary stickers (every metre).

1.4 DEFINITIONS

1.4.1 **HEPA Filter**: High Efficiency Particulate Aerosol filter at least 99.97 percent efficient in collecting 0.3-micrometer aerosol.

1.4.2 **Friable Material**: Material that when dry can be crumbled, pulverized or powdered by hand pressure and includes such material that is crumbled pulverized or powdered.

1.4.3 **Polyethylene Sheeting:** Polyethylene sheeting of 0.15 mm (6 mil) minimum thickness with tape seals along edges, around penetrating objects, over cuts and tears, and elsewhere as required to provide continuous membrane protection.

1.4.4 **Asbestos Work Area(s)**: Area(s) where work takes place which will, or may, disturb asbestos-containing material, including overspray and fallen material, or settled dust that may contain asbestos.

1.4.5 **Curtained Doorway:** Device to allow ingress or egress from one room to another while permitting minimal air movement between rooms, typically constructed by placing 2 overlapping sheets of polyethylene sheeting (2 sheets of polyethylene sheeting per flap) attached to head and one jamb of existing or temporarily constructed door frame. Secure vertical edge of 1 flap along 1 vertical side of doorframe and vertical edge of other flap along opposite vertical side of doorframe. Reinforce free edges of polyethylene sheeting with duct tape.

1.4.6 **Negative Pressure**: Reduced pressure within asbestos work area(s) established by extracting air directly from work area, and discharging it directly to exterior of building. Discharged air first passes through HEPA filter. Extract sufficient air to ensure constant reduced pressure at perimeter of work area with respect to surrounding areas.

1.4.7 **DOP Test:** A testing method employing dioctyl phthalate aerosol for purpose of leak testing negative air units. Provide documentation that negative air units have been DOP tested within the last thirty days.

1.5 **REGULATIONS**

1.5.1 Comply with Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations made under The Occupational Health and Safety Act, Ontario Regulation 278/05 and local requirements pertaining to asbestos, provided that in case of conflict with these Specifications. Most stringent requirements shall apply.

1.5.2 Handle and dispose of contaminated waste as required under Ontario Regulation 347/90 as amended, General Waste Management made under The Environmental Protection Act.

1.5.3 Not later than ten days before commencing asbestos work on this project, notify in writing Ontario Ministry of Labour, Construction Health and Safety Branch located nearest to the area the abatement is being conducted. The information provided to the Ontario Ministry of Labour must comply with the requirements outlined in Section 11, subsection 3 of Ontario Regulation 278/05. Orally notify them before commencing work.

1.5.4 Notify sanitary landfill site in accordance with requirements of Ontario Regulation 347/90, as amended, General Waste Management.

1.5.5 Contractor shall ensure that:

1.5.5.1 Measures and procedures prescribed under the Occupational Health & Safety Act and regulations are carried out.

1.5.5.2 Every employee and every worker on project complies with applicable act and regulations.

1.5.5.3 Health & safety of workers and public is protected.

1.5.5.4 All material handling, and associated equipment conform to and are operated in accordance with "Workplace Hazardous Materials Information System" (WHMIS).

1.5.5.5 Advise the Owner whenever work is expected to be hazardous to employees and/or public.

1.5.6 Contractor may be requested to provide information on their health & safety record.

1.6 **QUALITY ASSURANCE**

1.6.1 Ensure work proceeds to schedule, and meets all requirements of this Section. Perform work so that airborne asbestos, asbestos waste, or water runoff do not contaminate areas outside asbestos work enclosure.

1.6.2 Pay cost to the Owner of inspection and air monitoring performed as result of failure to perform work satisfactorily regarding quality, safety, or schedule.

1.6.3 Use only skilled and qualified workers for all trades required for this work.

1.7 **SUBMITTALS**

1.7.1 Before commencing work

1.7.2 Obtain and submit all necessary permits for transporting and disposal of asbestos waste.

1.7.3 Notice of Project and/or Notice to Inspector issued by the Ontario Ministry of Labour for the planned work.

1.7.4 Submit names of supervisory personnel who will be responsible for asbestos work area(s). One of these supervisors must remain on Site at all times asbestos removal or clean-up is occurring. Submit proof that supervisory personnel have attended training course on asbestos control (2 day minimum duration) and have performed supervisory function on at least 2 other asbestos removal projects.

1.7.5 Submit proof that all workers conducting abatement activities have successfully completed the Asbestos Abatement Worker Training Program approved by the Ministry

of Training, Colleges and Universities and supervisors conducting abatement activities have successfully completed the Asbestos Abatement Supervisor Training Program approved by the Ministry of Training, Colleges and Universities as outlined in Section 20 of Ontario Regulation 278/05.

1.7.6 Submit list of existing damage for acceptance.

1.7.7 Laws of province of Ontario shall govern this work. Contractor shall observe all such laws and shall obtain and/or pay all permits, notices, fees, taxes, duties as may be required. Likewise, it is responsibility of the contractor to comply with Workers Safety and Insurance Board and Occupational Health and Safety Act.

1.7.8 Before commencing any work, Contractor shall submit, in writing, confirmation of good standing with Workplace Safety and Insurance Owner (WSIB).

1.8 WORKER AND VISITOR PROTECTION

1.8.1 **Instructions:** Before entering asbestos work area, instruct workers and visitors in use of respirators, dress, showers, entry and exit from asbestos work areas, and all aspects of work procedures and protective measures. Instruction shall be provided by Competent Person as defined by Occupational Health and Safety Act.

1.8.2 **Full Face Respirator:** During wet removal and cleanup in enclosed asbestos work area workers, supervisors, and authorized visitors shall be supplied with and use air-purifying full-face respirator (APR) with P100 cartridge filters. Replace filters daily or test according to manufacturer's specifications and replace as indicated. Respirators shall be acceptable to Occupational Health Branch of Ministry of Labour. Provide proper instruction to workers and visitors in use of respirators, including qualitative fit testing. Maintain respiratory protection equipment in proper functioning and clean condition.

1.8.3 **Protective Clothing**: Provide workers and visitors in full-enclosure sites with full body coveralls with integral hoods. Once coveralls are worn in asbestos work area, dispose of as contaminated waste. Workers and visitors shall wear other protective apparel required by Ministry of Labour regulations.

1.8.4 Before entering full-enclosure asbestos work area(s) remove street clothes in clean change room and put on respirator with new or tested filters, clean coveralls and head covers before entering equipment and access areas or asbestos work area. Store street clothes, uncontaminated footwear, towels etc. in clean change room.

1.8.5 Persons leaving full-enclosure asbestos work area(s) shall remove gross contamination from clothing before leaving asbestos work area. Proceed to equipment and access area and remove all clothing except respirator. Place contaminated work suit in receptacles for disposal with other asbestos contaminated materials. Footwear, clothing, hardhats, protective eyewear, etc., shall be left in equipment and access area to dry for later use. While still wearing respirator, proceed naked to showers. Clean respirator to ensure that visible contamination is removed. After having thoroughly washed hair and body with shampoo and soap, remove respirator. Remove filters and dispose of in container provided for this purpose or test filters according to manufacturer's recommendation. Dispose of filters as necessary. Wet clean inside of

respirator. Upon completion of asbestos abatement, dispose of footwear as contaminated waste or clean before removing from equipment and access area, or carry in sealed plastic bag to next site.

1.8.6 Following showering, proceed to clean change room, dry off and dress in street clothes. Store respirators in fashion to allow them to be put on prior to entering asbestos work area at start of next shift without contaminating clean area. If re-entry to asbestos work area is to take place after having left for eating or drinking, follow procedures in para. 1.8.5.

1.8.7 Removal of waste and equipment from holding room of waste decontamination enclosure system shall be performed by workers entering from outside. These workers shall wear clean coveralls and half-face, asbestos approved, respirator as specified in para 1.8.2 and 1.8.3. No worker shall use this system as means to leave or enter asbestos work area.

1.8.8 Do not eat, drink smoke or chew gum or tobacco at work site. Tobacco products are not allowed on property.

1.8.9 Workers and visitors shall be fully protected as specified herein when possibility of disturbance of asbestos exists.

2 PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 **Polyethylene**: 0.15 mm (6 mil) minimum thickness unless otherwise specified.

2.1.2 **Rip-Proof Polyethylene**: 0.20 mm (8 mil) fabric made up from 0.13 mm (5 mil weave and 2 layers 0.04 mm (1.5 mil).

2.1.3 **Tape**: Tape suitable for sealing polyethylene to surface encountered, under both wet conditions using amended water, and dry conditions.

2.1.4 **Wetting Agent**: Non-foaming surface active agent; mixed with water in concentration to provide thorough wetting of asbestos fibre: Standard of Acceptance, Asbesto-Wet, distributed by Asbetec Distributors, or equivalent.

2.1.5 **Amended Water**: Water with wetting agent added.

2.1.6 **Asbestos Waste Receptors**: Two separate containers of which 1 shall consist of 0.15 mm **(true 6 mil)** minimum thickness sealable polyethylene bag. Other container may be 0.15 mm **(true 6 mil)** minimum thickness polyethylene bag. Outer container shall be adequate to prevent perforating rips, or tears during filling, transport or disposal. Containers must be acceptable to disposal site selected, and the Ministry of Environment, and shall be clearly marked to indicate that contents contain asbestos.

2.1.7 **Sealer**: Sealer for purpose of trapping residual fibre debris. Product must have flame spread and smoke development ratings both less than 25. Product shall leave no stain when dry: Standard of acceptance - TC-55 (clear), A/D Fire Protection Systems Inc.,

Scarborough, Ontario, or equivalent. For mechanical equipment, piping and boilers, etc. use high temperature sealer only: Standard of acceptance - Chil-Abate CP210, Childers Products Company, or equivalent.

2.1.8 **Ground Fault Panel**: Portable electrical panel equipped with ground fault circuit interrupters (5 mA protection) of sufficient capacity to power all electrical equipment and lights in asbestos work enclosure. Panel complete with ground fault interrupter lights, test switch to ensure unit is working, and reset switch

2.1.9 **HEPA Vacuum:** Vacuum with all necessary fittings, tools and attachments. Air must pass HEPA filter before discharge.

2.1.10 **Protective Coveralls**: Disposable full body coveralls complete with elasticized hoods made of spun polyolefin material Tyvek by Dupont or nonwoven material Kleenguard by Kimberley Clark.

2.1.11 **Flexible ducting**: Metal reinforced flexible ductwork, 12" diameter minimum.

2.1.12 **Negative Air Unit**: Portable air handling system, which extracts air directly from asbestos work area and discharges air outside building. Unit shall be fitted with prefilter and HEPA final filter. Air shall pass HEPA filter before discharge. Unit shall have pressure differential gauge to monitor filter loading. Unit shall have auto shut-off and warning system for HEPA filter failure. HEPA filter shall have separate hold down clamps to retain filter in place.

2.1.13 **Power Sprayer**: Standard of acceptance - Graco Maxi-wetter, or equivalent.

2.1.14 **Encapsulant**: Standard of acceptance - Ocean No. 666, Ocean Fire Retardants Inc., or equivalent, coloured bright red.

PART 3 - EXECUTION

3 PREPARATION

3.1 Full-enclosure Asbestos Work Area(s).

3.1.1 The Owner will move equipment, tools, furnishings, and stored materials that can be moved without disturbing asbestos-containing materials.

3.1.2 Request building personnel to deactivate air handling and ventilation systems supplying or exhausting from asbestos work area(s).

3.1.3 All wall and horizontal surfaces shall be pre-cleaned using damp cloth or sponge techniques prior to placement of polyethylene sheeting to any wall or floor surfaces. H.E.P.A. equipped vacuum cleaners may also be used to perform this task.

3.1.4 If necessary, caulk and seal ducts and duct shafts to remain in service as required, to make airtight. Cut and cap supply ducts with rigid sheet metal caps and seal. Perform work at appropriate time under contaminated conditions if necessary.

3.1.5 Seal off openings such as doorways, windows, vents, service holes in walls and grilles to non-operating ducts with polyethylene sheeting with tape or with polyurethane foam as appropriate.

3.1.6 Cover wall and floor surfaces with polyethylene sheeting sealed with tape. Provide two separately sealed layers of reinforced polyethylene sheeting. Separately seal floor drains or openings. Use sufficient layers (2) and necessary sheathing for walking surface to protect floors which may be damaged. Cover floors first so that polyethylene extends at least 300 mm (12") up walls then cover walls to overlap floor sheeting. Provide additional protection for floors likely to be damaged by amended water, by covering floor with rip-proof polyethylene sheeting sealed with tape.

3.1.7 Cover with polyethylene sheeting, motors, heating units, fire apparatus, door closers, benches, shelving, storage racks, valves, taps, controllers, lights, and other fixtures and furnishings which are not being removed from asbestos work area and which could be damaged and/or which cannot be readily cleaned at completion of this work. Pre-clean surfaces potentially contaminated with asbestos, with HEPA vacuum or damp cloth prior to installing protection.

3.1.8 Install plywood enclosures, covered with rip-proof polyethylene sheeting to protect equipment or fixtures in asbestos work area(s) that may be damaged.

3.1.9 Establish negative pressure in asbestos work area as described in Para. 1.4.7. Negative pressure units shall have total rated capacity with filters in place sufficient to provide minimum 1 air change every 20 minutes in wet removal sites. Volume of air shall be sufficient to ensure airflow is maintained from clean areas into asbestos work area. Vent units to outside of building by removing, and later replacing, windows, and/or providing flexible ducting. Locate vents to discharge air away from building access points or sidewalks. Do not discharge air into building interior without obtaining approval from The Owner’s Consultant. Leak test negative air units prior to commencement of abatement at operating position, using DOP method. Provide reports for unit efficiency test results within 48 hours of testing, including calibration certificates for testing equipment. Venting of exhaust air through occupied area shall be in rigid airtight ductwork. Operate negative pressure units continuously from this time until completion of final air monitoring. Replace pre-filters as necessary to maintain airflow. Maintain negative air pressure of 5 Pascal (0.02 inches water column) pressure reduction within asbestos enclosure with respect to surrounding areas.

3.1.10 Maintain emergency and fire exits from asbestos work area, or establish alternative exits satisfactory to authorities having jurisdiction.

3.1.11 Ensure existing power supply to asbestos work area is isolated and disconnected where necessary. Do not disrupt power supply to remaining areas of building. Provide ground fault electrical system where application of amended water is required for wetting asbestos containing materials. Supply all electrical apparatus from this ground fault system. Ensure safe installation of electrical lines and equipment.

3.1.12 Provide temporary lighting in asbestos work area to levels that will permit work to be done safely and well.

3.1.13 Provide fire extinguisher at each emergency exit, and in decontamination facilities. Protect extinguishers with polyethylene sheeting in manner that will not hamper emergency use.

3.2 WORKERS' DECONTAMINATION ENCLOSURE SYSTEM

3.2.1 Construct workers' decontamination enclosure at entrance to each asbestos work area. Worker decontamination enclosure system shall comprise three interconnecting rooms as follows:

3.2.2 Provide a set of curtain doorways between each room, and at both dirty and clean entrances to enclosure systems.

3.2.3 **Equipment and Access Room**: Build room between shower room and asbestos work area. Install waste receptor, and storage facilities for worker's shoes and any protective clothing to be reworn in asbestos work areas. Equipment and access room shall be large enough to accommodate specified facilities, and other equipment needed, and at least one worker allowing sufficient space to undress comfortably. Minimum size 3 square metres (30 sq. ft.).

3.2.4 **Shower Room**: Build room between clean room and equipment and access room. Provide constant separate supplies of hot and cold water. Provide valves controllable at shower(s) to regulate water temperature. Provide rigid piping with watertight connections and connect to water sources and drains. Provide soap, clean towels and appropriate containers for disposal of used respirator filters. Direct wastewater to sanitary sewer drains via water filtering system consisting of a minimum 2-stage filtering system (25-micron and 5-micron filters).

3.2.5 **Clean Room**: Build room between shower room and clean areas outside of enclosures. At doorway to clean room, provide vented wood door, with locking passage set. Provide hangers for workers' street clothes and personal belongings. Provide storage for clean protective clothing and respiratory equipment. Install water heater, if required.

3.3 WASTE AND EQUIPMENT DECONTAMINATION ENCLOSURE SYSTEM

3.3.1 Construct system comprised of three linked rooms: Purpose of this system is to provide means to decontaminate drums, scaffolding, material containers, vacuum and spray equipment; and other tools and equipment for which worker decontamination system is not suitable. Provide curtain doorways between rooms, and at both dirty and clean entrances to Enclosure System.

3.3.2 **Staging Area:** Build staging area in asbestos work area for gross removal of dust and debris from waste containers and equipment, labeling and sealing of waste containers, and temporary storage pending removal to container cleaning room.

3.3.3 **Container Cleaning Room**: Build container cleaning room between staging area and holding room. Room shall be of sufficient size to allow proper washing of equipment and drums or double bagging of asbestos waste. Treat wash water as asbestos contaminated waste.

3.3.4 **Holding Room**: Build holding room between container cleaning room and uncontaminated area. Holding room shall be of sufficient size to accommodate largest item of equipment used and ten waste containers.

3.4 **CONSTRUCTION OF DECONTAMINATION ENCLOSURES**

3.4.1 **Floor**: Prior to erecting wall framing, lay 1 sheet of rip-proof polyethylene sheeting over floor area to be covered by enclosures. Turn 600 mm (24") of rip-proof polyethylene sheeting up outside of enclosure, overlapping with polyethylene sheeting covering perimeter walls. Provide second layer of rip-proof polyethylene sheeting to all floors, extending 600 mm up inside of enclosure walls.

3.4.2 **Walls**: Build load-bearing walls of 39 mm x 89 mm (2" x 4") wood framing, 400 mm (16") o.c. with continuous top and sill plates. Cover both sides walls with polyethylene sheeting. Walls exposed to asbestos work area shall be covered with min. 9 mm (3/8") plywood sheeting or hardboard. Caulk seal and tape plywood joints. Walls exposed to occupied area shall be covered with good one side 9 mm plywood.

3.4.3 **Roof:** Size of joists shall be determined by span, loads, use and Code. Use as a minimum 39 mm x 138 mm (2" x 6") joists. Cover joists with 19 mm (3/4") plywood sheeting. Seal and tape joints, and cover with two layers of rip-proof polyethylene sheeting. At underside of joists install one layer of polyethylene sheeting.

3.4.4 **Doorways**: Build curtain doorways designed so that when workers or drums and equipment move through doorway, one of two barriers comprising doorway always remains closed.

3.5 **MAINTENANCE OF ENCLOSURES**

3.5.1 Maintain enclosures in tidy condition.

3.5.2 Ensure barriers and polyethylene sheeting linings are effectively sealed and taped. Repair damaged barriers and remedy defects immediately upon discovery.

3.5.3 Visually inspect enclosures at beginning and end of each working period and on days when there are no shifts.

3.6 **DO NOT COMMENCE ASBESTOS REMOVAL WORK UNTIL**

3.6.1 Arrangements have been made for disposal of waste.

3.6.2 Asbestos work areas and decontamination enclosures are effectively segregated. Negative pressure equipment is operating continuously.

3.6.3 Tools, equipment and waste materials receptors are on hand.

3.6.4 Arrangements have been made with The Owner’s Consultant for work area security.

3.6.5 Signs are displayed in areas where access to sealed asbestos work area is possible. Signs shall read:

CAUTION
Asbestos Hazard Area
No Unauthorized Entry
Wear assigned protective equipment
Breathing asbestos dust may cause serious bodily harm.

3.6.6 Proof of notification to Ministry of Labour has been submitted.

3.6.7 The Owner's Consultant has been notified of intention to proceed and has reviewed enclosures, equipment and procedures.

3.7 CONTAMINATED PREPARATION FOR FULL-ENCLOSURE ASBESTOS WORK AREA

3.7.1 Before performing any contaminated work, prepare site as described in articles 3.1, 3.2, 3.3, 3.4, 3.5, and 3.6. Perform work of 3.7.2 and 3.7.3 with air handling system disabled and during quiet hours.

3.7.2 Using full protective procedures including amended water and HEPA vacuum, install upper seals as necessary to allow polyethylene sheeting to be fastened to structure. Each of two sheets forming wall of enclosure shall be fastened separately to deck using tape, spray adhesive, rapid setting foam or other suitable method. Provide suitable framing to support polyethylene sheeting. Seal holes in existing perimeter walls, columns, deck etc., to ensure an airtight asbestos work area.

3.7.3 Promptly seal holes or penetrations in structure above ceiling, ducts, etc. to provide airtight enclosure around asbestos work area(s).

3.7.4 Protect electrical, communication, life safety and control systems to remain in place in asbestos work area with polyethylene sheeting.

3.7.5 Seal joints and holes in uninsulated HVAC ductwork to remain operational through an asbestos work area, using tape and rip-proof polyethylene sheeting.

3.8 **REMOVAL**

3.8.1 In areas of wet removal of spray or trowel applied material, spray asbestos with amended water using airless spray equipment. Saturate asbestos to prevent release of airborne fibres during removal. Fully saturated asbestos may be scraped directly into waste containers or may be allowed to fall to floor.

3.8.2 Remove asbestos-containing mechanical insulation in layers, while maintaining all exposed surfaces of insulation or lagging in wet condition. Full saturation of insulation will not be required if material is immediately bagged and not allowed to fall to floor.

3.8.3 Following bulk removal of above noted asbestos containing materials, demolish section(s) of mechanical systems as required to access asbestos-containing material. Bag all waste and dispose of as asbestos waste.

3.8.4 Seal ends of pipe insulation at perimeters of asbestos work area with heavy coat of high temperature sealer.

3.8.5 Place asbestos waste into asbestos waste receptors. Double polyethylene bags are to be used, inner bag shall be cleaned of gross contamination and placed in a clean **6 mil** outer polyethylene bag in container cleaning room immediately prior to transfer from Site.

3.8.6 Treat all materials removed to expose asbestos, as asbestos-contaminated waste unless such materials are specified to be re-used.

3.9 **CLEAN-UP**

3.9.1 Clean surfaces from which asbestos has been removed with brushes and vacuum or wet-sponge to remove visible dust and debris.

3.9.2 Remove sealed and labeled asbestos waste receptors and dispose of in authorized disposal area in accordance with requirements of disposal authority.

3.9.3 After brushing and wet-sponging to remove visible asbestos, wet clean entire asbestos work area including equipment and access area, polyethylene sheeting and equipment used in process. Floor and wall surfaces, ducts, and similar items not covered with polyethylene sheeting must be wet cleaned.

3.9.4 Request visual inspection and acceptance. Following inspection and acceptance, apply heavy coat of slow drying sealer to all surfaces from which asbestos has been removed. Apply thinned coat (sufficient to coat all surfaces) to other surfaces in asbestos work area including all polyethylene sheeting and surfaces scheduled for demolition. Allow minimum of 12 hours flushing time with no disturbance of asbestos work area. Operate negative air units during this period.

3.10 **DISMANTLING OF PROTECTION**

3.10.1 If air sampling by The Owner's Consultant shows that levels in asbestos work area do not exceed 0.01 fibres/cc. as determined by NIOSH 7400 Method, A counting rules, proceed with final dismantling of enclosure.

3.10.2 Remove polyethylene sheeting exposed during contaminated work including upper surfaces plus any underlying sheeting contaminated by water leaks, rips, tears, or exposed by failure of upper layer. Wear half face piece respirator and disposable coveralls during removal of sheeting. Carefully roll sheeting away from walls to centre of asbestos work area. As sheeting is rolled away from walls and corners, HEPA vacuum visible debris.

3.10.3 While removing top layer of sheeting from surfaces protected by two layers of sheeting, cut lower sheeting so as to expose horizontal surfaces that may be contaminated with asbestos debris. HEPA vacuum any visible debris.

3.10.4 Place polyethylene sheeting, seals, tape, cleaning material, clothing, and other contaminated waste in asbestos waste receptors for transport. Remove with HEPA vacuum any debris which may have fallen behind sheeting.

3.10.5 Clean asbestos work area(s), equipment and access area, washing/showering room, and other enclosures that may have been contaminated during work.

3.10.6 Clean asbestos waste receptors and equipment used in work and remove from asbestos work area(s) via drum and equipment decontamination enclosure system, at an appropriate time in sequence.

3.10.7 Remove hoardings, temporary lighting, equipment and facilities provided for work. A final review may be carried out by the Owner's Consultant to ensure that no dust or debris remains. Asbestos abatement contractor responsible for inspecting and cleaning all adjacent spaces to the asbestos abatement work area. Adjacent work areas to be left free of construction related dust and debris.

3.11 **RE-ESTABLISHMENT OF OBJECTS AND SYSTEMS**

3.11.1 When cleanup is complete re-establish mechanical and electrical systems to remain operative in proper working order. Arrange for, and pay costs of electrical or mechanical repairs needed due to work of this Section.

3.11.2 Make good all damage at completion of work not identified in pre-removal survey.

3.12 **AIR MONITORING**

3.12.1 The Owner's Consultant may arrange for air samples to be taken from commencement of work until completion of cleaning operations, both inside and outside of asbestos work area(s) enclosures in accordance with NIOSH methods or with Fibrous Aerosol Monitor manufactured by MIE Inc., Bedford, Mass.

3.12.2 If air monitoring or visual inspection shows that areas outside current asbestos work area(s) enclosure or decontamination facilities are contaminated above 0.01 fibre/cc., clean these areas in same manner as that applicable to asbestos work areas, at no cost to the Owner.

3.12.3 Air clearance sampling will be done in accordance with O. Reg. 278/05. The air clearance sampling will be conducted following aggressive air sampling methods as outlined in US Environmental Protection Agency “Guidance for Controlling Asbestos-Containing Materials in Buildings – Published June 1985 – Appendix M – Section M.1.5”. All equipment required for aggressive air sampling (other than pumps for samples) will be provided by contractor conducting abatement work. A minimum of 2,400 L of air will be collected for each sample. An abatement area is deemed clear only if every air sample collected within the affected area has a concentration of fibres that does not exceed 0.01 fibres/cc. The number of air clearance samples to be collected are based requirements of Table 3 within Ontario Regulation 278/05.

3.12.4 If air monitoring in work areas shows airborne fibre levels exceed normal levels for wet removal, workers shall use positive pressure supplied air respirators with full-face piece.

3.12.5 If final air sampling by the Owner’s Consultant shows that levels in completed asbestos work area do not exceed 0.01 fibres/cc. as determined by NIOSH 7400 Method - "A" counting rules, proceed with dismantling of enclosures.

3.12.6 Clearance level is < 0.01 f/cc.

3.13 INSPECTION

3.13.1 From commencement of work until completion of clean-up operations, the Owner’s Consultant may be present on a full time basis both inside and outside asbestos work area(s).

3.13.2 If asbestos work area(s) or adjacent areas are found unacceptable in accordance with standards specified or required by authorities having jurisdiction, correct such deficiencies at no cost to the Owner.

3.13.3 Pay cost to provide re-inspection of work found not to be in accordance with these specifications and requirements of authorities having jurisdiction.

3.14 WASTE TRANSPORT AND DISPOSAL

3.14.1 Conform to requirements of Regulation 347/90 as amended - General Waste Management under Environmental Protection Act for Waste Management, transporting and disposal of hazardous waste.

3.14.2 Check with dump operator to determine type of waste containers acceptable.

3.14.3 Ensure shipment of containers to dump is taken by waste hauler licensed to transport asbestos waste. Waste hauler in possession of valid Ministry of Environment Certificate

of Approval to transport asbestos waste.

3.14.4 Each load requires completion of bill of lading showing type and weight of hazardous waste being transported. Provide copies of bill of lading indicating acceptance of waste at landfill.

3.14.5 Co-operate with Ministry of Environment inspectors and immediately carry out instructions for remedial work at dump to maintain environment, at no additional cost to the Owner.

3.14.6 Ensure dump operator is fully aware of hazardous material being dumped.

3.14.7 Ensure that containers used for dumping are locked and covered at all times.

END OF SECTION

1 General

1.1 **GENERAL REQUIREMENTS**

1.1.1 Conform to Sections of Division 1 as applicable.

1.2 **RELATED WORK**

1.2.1 Section 02 13 81 – Type 1 Asbestos Removal

1.2.2 Section 02 13 82 – Type 2 Asbestos Removal

1.2.3 Section 02 13 83 – Type 3 Asbestos Removal

1.3 **DESCRIPTION OF WORK**

1.3.1 Types of asbestos present: Chrysotile present within mechanical pipe fitting insulation and heat shield on light fixture.

1.3.2 Friable and non-friable asbestos-containing materials (and types of asbestos present) identified can be found within the Safetech Environmental Limited report titled "*Designated Substances and Hazardous Building Materials Assessment Report, Demolition Project, 1615 Dufferin Street, Toronto, Ontario"* issued January 13, 2025.

1.3.3 Type 2 Glove Bag operations can be applied for the removal of asbestos containing mechanical pipe fittings and heat shield insulation. Glove bag removal will only be permitted where materials noted for removal are in good condition and no asbestos-containing debris is present. Include all jacketing or covering on insulation. Use glove bag and dispose of as specified in Section 02 13 84.

1.3.4 Seal surfaces from which asbestos has been removed and surfaces contaminated with asbestos with slow drying sealer.

1.4 **DEFINITIONS**

1.4.1 **HEPA Filter:** High Efficiency Particulate Aerosol filter that is at least 99.97 percent efficient in collecting 0.3 micrometer aerosol.

1.4.2 **Friable Material:** Material that when dry can be crumbled, pulverized or powdered by hand pressure and includes such material that is crumbled, pulverized or powdered.

1.4.3 **Authorized Visitor(s):** Owner's Consultant or persons representing regulatory agencies, and person(s) authorized by either party.

1.4.4 **Asbestos Work Area(s):** Area(s) where work takes place which will, or may disturb asbestos-containing material, including overspray and fallen material, or settled dust that may contain asbestos.

1.4.5 **Glove Bag:** Prefabricated, 0.25 mm (10 mil) minimum thickness polyvinyl-chloride bag with integral 0.25 mm (10 mil) thick polyvinyl-chloride gloves and elasticized ports. Bag

equipped with reversible double-pull double throw zipper on top to facilitate installation on pipe and progressive movement along pipe and with straps for sealing ends to bag around pipe:

1.5 **REGULATIONS**

1.5.1 Comply with Regulation respecting Asbestos on Construction Projects and in Buildings and Repair Operations made under The Occupational Health and Safety Act, Ontario Regulation 278/05 and local requirements pertaining to asbestos, provided that in case of conflict with these Specifications, the most stringent requirements shall apply.

1.5.2 Handle and dispose of contaminated waste as required under Ontario Regulation 347/90, as amended by O. Reg. 234/11, General Waste Management made under The Environmental Protection Act.

1.5.3 Not later than ten days before commencing asbestos work on this project, notify in writing Ontario Ministry of Labour, Construction Health and Safety Branch, that hazardous asbestos work area will exist. Orally notify them before commencing work.

1.5.4 Notify sanitary landfill site in accordance with requirements of Ontario Regulation 347/90, as amended by O. Reg. 234/11, General Waste Management.

1.5.5 Contractor shall ensure that:

1.5.5.1 Measures and procedures prescribed under Occupational Health & Safety Act and regulations are carried out.

1.5.5.2 Every employee and every worker on project complies with applicable act and regulations.

1.5.5.3 Health and safety of workers and public is protected.

1.5.5.4 All material handling, and associated equipment conform to and are operated in accordance with "Workplace Hazardous Materials Information System" (WHMIS).

1.5.5.5 Advise Owner whenever work is expected to be hazardous to employees and/or public.

1.5.5.6 Contractor may be requested to provide information on their health and safety record.

1.6 **QUALITY ASSURANCE**

1.6.6 Ensure work proceeds to schedule and meets all requirements of this Section. Perform work so airborne asbestos and asbestos waste does not contaminate areas outside glove bag.

1.6.7 Pay cost to Owner of inspection and air monitoring performed as result of failure to perform work satisfactorily regarding quality, safety, or schedule.

1.6.8 Use only skilled and qualified workers for all trades required for this work.

1.7 **SUBMITTALS**

1.7.1 **Before commencing work**

1.7.1.1 Obtain and submit all necessary permits for transporting and disposal of asbestos waste.

1.7.1.2 Submit names of supervisory personnel who will be responsible for asbestos work area(s). One of supervisors must remain on Site at all times asbestos removal or clean-up is occurring. Submit proof that supervisory personnel have attended training course on asbestos control (2 day minimum duration) and have performed supervisory function on at least two other asbestos removal projects.

1.7.1.3 Submit proposed schedule showing phasing and scheduling for glove bag removal.

1.7.1.4 Submit list of pre-existing damages for acceptance by Owner's Consultant.

1.8 **WORKER AND VISITOR PROTECTION**

1.8.1 **Instructions:** Before entering asbestos work area(s), instruct workers and visitors in use of respirators, use of glove bags, and all aspects of work procedures and protective measures. Instruction shall be provided by a competent person as defined by Occupational Health and Safety Act.

1.8.2 **Respirators:** Workers performing glove bag removal shall use non-powered air half face respirator with minimum P100 filter cartridges in accordance with NIOSH Part 84 requirements. Provide approved respirators to visitors. Replace filters daily or test according to manufacturer's specifications and replace as indicated. Respirators shall be acceptable to Occupational Health Branch of Ministry of Labour. Provide instruction to users in use of respirators, including qualitative fit testing. No user shall wear facial hair which affects seal between respirator and face. Maintain respirators in proper functioning and clean condition, or remove from site.

1.8.3 **Protective Clothing:** Provide workers and visitors with full body coveralls with integral hoods. Protective coveralls are required only if glove bag is ripped, cut or otherwise opened and cannot be easily and quickly repaired. Once coveralls are worn in asbestos work area, dispose of as contaminated waste. Workers and visitors shall also wear other protective apparel required by Ministry of Labour construction regulations.

1.8.4 Do not eat, drink, smoke or chew gum or tobacco in asbestos work area.

2 **PART 2 - PRODUCTS**

2.1 **MATERIALS**

2.1.1 **Tape:** Tape suitable for sealing polyethylene to surface encountered under both wet conditions using amended water, and dry conditions.

2.1.2 **Wetting Agent:** Non-foaming surface active agent; mixed with water in concentration to provide thorough wetting of asbestos fibre: Asbesto-Wet or equivalent.

2.1.3 **Amended Water:** Water with wetting agent added.

2.1.4 **Asbestos Waste Receptors:** Two separate containers of which at least one shall consist of 0.15 mm (6 mil) minimum thickness sealable polyethylene bag. Other container may be 0.15 (6 mil) minimum thickness polyethylene bag. Other container shall be adequate to prevent perforating rips, or tears during filling, transport or disposal. Containers must be acceptable to disposal site selected and Ministry of Environment, and shall be clearly marked to indicate that contents contain asbestos.

2.1.5 **Sealer:** Sealer for purpose of trapping residual fibre debris. Product must have flame spread and smoke development ratings both less than 25. Product shall leave no stain when dry. Chil-Abate CP 210, Childers Products Company, Mississauga, Ontario.

2.1.6 **Glove Bag:** Prefabricated, 0.25 mm (10 mil) minimum thickness polyvinyl-chloride bag with integral 0.25 mm (10 mil) thick polyvinyl-chloride gloves and elasticized ports. Bag equipped with reversible double-pull double throw zipper on top to facilitate installation on pipe and progressive movement along pipe and with straps for sealing ends to bag around pipe: Safe-T-Strip manufactured by Hazmasters Equipment Inc., Pickering Ontario, in configurations suitable for work.

2.1.7 **Sprayer:** Garden type portable manual sprayer, low velocity, capable of producing of fine spray.

2.1.8 **HEPA Vacuum:** Vacuum with all necessary fittings, tools and attachments. Air must pass HEPA filter before discharge.

2.1.9 **Securing Straps:** For glove bag, reusable nylon straps at least 1" wide with metal tightening buckle for sealing ends of bags around pipe and/or insulation.

2.1.10 **Knife:** Knife with fully retractable blade for use inside glove bag.

3 PART 3 - EXECUTION

3.1 COMMENCE ASBESTOS REMOVAL WORK WHEN

3.1.1 Equipment, tools, furnishings, and stored materials which can be moved without disturbing asbestos-containing materials have been moved by Contractor.

3.1.2 Arrangements have been made for disposal of waste.

3.1.3 Asbestos work areas and parts of building required to remain in use are effectively segregated by walls or barricades.

3.1.4 Tools, equipment and materials waste receptors are on hand.

3.1.5 Arrangements have been made with Owner for work area security.

3.1.6 Signs are displayed in all areas where access to asbestos work area is possible. Such signs shall read:

CAUTION
Asbestos Hazard Area
No Unauthorized Entry
Wear assigned protective equipment
Breathing asbestos dust may cause serious bodily harm.

3.1.7 Owner's Consultant has been notified of intention to proceed and has reviewed equipment and procedures.

3.1.8 Proof of notification to Ministry of Labour has been submitted (greater than one square metre of pipe or pipe fitting insulation).

3.2 **FITTING INSULATION AND HEAT SHIELD REMOVAL**

3.2.1 Isolate asbestos work area with tape barriers, saw-horses, or other barriers posted with notices marking area as asbestos removal area. Workers performing glove bag removal shall wear half face piece air purifying respirators with P100 HEPA filter cartridges.

3.2.2 Pre-clean surface of fitting of fallen or damaged insulation by HEPA vacuuming or damp wiping.

3.2.3 Spray areas of damaged jacketing with mist of amended water. Tape over damage, or wrap with polyethylene sheeting, to provide temporary repair.

3.2.4 If fitting insulation is not jacketed spray surface with mist of amended water and wrap entire length of fitting with 0.15 mm (6 mil) polyethylene sheeting taped in place.

3.2.5 Place tools necessary to remove insulation in tool pouch. Zip bag onto fitting and seal all openings to fitting with cloth securing straps. For valve bags seal valve cover with wire tie or equivalent.

3.2.6 Place hands into gloves and use necessary tools to remove insulation. Arrange insulation in bag to obtain full capacity of bag. Roll jacketing carefully to minimize possibility of ripping or puncturing bags.

3.2.7 Insert nozzle of spray pump into bag through valve and wash down fitting and interior of bag thoroughly. Use one hand to aid washing process. Wet surface of insulation in lower section of bag and exposed end of asbestos insulation remaining on fitting by spraying with water prior to moving bag.

3.2.8 If bag is to be moved along fitting, move bag, re-seal to fitting using double-pull zipper to pass hangers. Repeat stripping operation.

3.2.9 If bag is removed from fitting for use on new fitting, seal interior zip lock. Reinstall in new location before opening zip lock.

3.2.10 If glove bag is ripped, cut or opened in any way, cease work and repair with tape before continuing work. If opening is not easily repaired workers in area shall put on disposable coveralls. Clean spilled material with HEPA vacuum or wet washing.

3.2.11 To remove bag once filled, wash top section and tools thoroughly. Place tools in one hand (glove), pull hand out inverted, twist to create separate pouch, double tape to seal. Cut between tape and place pouch with tools in next glove bag; or into water bucket, open pouch underwater, clean tools and allow to dry.

3.2.12 Pull waste disposal bag over glove bag before removing from fitting. Remove securing straps. Unfasten zipper.

3.2.13 After removal of bag ensure fitting is clean of residue. If necessary, after removal of each section of asbestos, HEPA vacuum surfaces of fitting or wipe with wet cloth. Ensure that surfaces are kept free of wet sludge.

3.2.14 Before completion of shift, apply sealer to all surfaces of freshly-exposed fitting. Apply heavy coat of sealer to exposed ends of asbestos insulation to remain.

3.2.15 Once bag filled dispose of as contaminated waste. Do not reuse bag.

3.3 RE-ESTABLISHMENT OF OBJECTS AND SYSTEMS

3.3.1 Reconstruct items demolished (if required) which are to remain and reinstall objects and items in their proper positions, which were removed to facilitate asbestos removal operation. Reconstruction and reinstallation shall be by tradesmen qualified in work being reinstalled or reconstructed.

3.3.2 Re-establish mechanical and electrical systems in proper working order. Arrange for, and pay costs of, electrical or mechanical repairs needed due to this work.

3.3.3 Make good all damage at completion of work not identified in pre-removal survey referred to in para. 1.7.1.4.

3.4 AIR MONITORING

3.4.1 Owner’s Consultant may arrange for air samples to be taken from commencement of work until completion of cleaning operations in accordance with NIOSH methods or with Fibrous Aerosol Monitor, MIE Corporation, Bedford, Mass.

3.4.2 If air monitoring shows that asbestos work area is contaminated above 0.01 fibre/mL, clean these areas by HEPA vacuum or wet methods.

3.5 INSPECTION

3.5.1 From commencement of work until completion of clean up operations, Owner’s Consultant may be present periodically both inside and outside asbestos work area(s).

3.5.2 If asbestos work area(s), or adjacent areas, are found unacceptable in accordance with standards specified or required by authorities having jurisdiction correct such deficiencies at no cost to Owner.

3.5.3 Pay cost to provide inspections of work found not in accordance with these specifications and requirements of authorities having jurisdiction.

3.6 WASTE TRANSPORT AND DISPOSAL

3.6.1 Conform to requirements of Regulation 347 as amended by O. Reg. 234/11, General Waste Management, under Environmental Protection Act for transporting and disposal of hazardous waste.

3.6.2 Check with dump operator to determine type of waste containers acceptable.

3.6.3 Ensure shipment of containers to dump is by waste hauler licensed to transport asbestos waste.

3.6.4 Each load requires completion of bill of lading showing type and weight of hazardous waste being transported. Provide proof (waste receipts) of proper disposal of asbestos material upon request by Owner's Consultant.

3.6.5 Co-operate with Ministry of Environment inspectors and immediately carry out instructions for remedial work at dump to maintain environment, at no additional cost to Owner.

3.6.6 Ensure dump operator is fully aware of hazardous material being dumped.

3.6.7 Ensure disposal bins are covered and locked at all times.

End of Section

1 General

1.1 SUMMARY

.1 Review drawings, site conditions, and other specification sections to ascertain the extent and nature of work of this section.

.2 The Work of this Section includes, but is not limited to the following:

.1 Demolish and removal of the following where indicated on the Drawings:

.1 Floor, base and wall finishes;

.2 Millwork, counter, cabinets, plumbing, backsplash;

.3 Plumbing fixtures;

.4 Windows;

.5 Furniture and equipment where indicated;

.6 Mirrors;

.7 Doors, frames and associated hardware;

.8 Plaster ceiling, and associated framing and supports;

.9 Acoustic ceiling tile, grids and supports;

.10 Blinds;

.2 Disconnect/cap existing service in areas of demolition.

.3 Trace, demolish and remove decommissioned mechanical and electrical services found during demolition. Remove decommissioned services to the area of demolition to the source, leaving no buried services in walls and floors, unless otherwise approved by written notice from the Owner.

.4 Dispose of demolished materials except where required to be salvaged or reused.

.5 Remove and reinstall existing windows where indicated on the Drawings.

.6 Provide investigative test openings in existing wall, roof, and floor assemblies where indicated on the Drawings.

.7 Refer to demolition notes indicated on all disciplines Drawings.

.3 Drawings contain details that suggest directions for solving some of the major demolition and removal requirements for this project; Contractor is required to develop these details further by submitting a demolition plan prepared by a professional engineer employed by the Contractor.

1.2 REFERENCE STANDARDS

.1 American National Standards Institute (ANSI):

.1 ANSI A10.8-2011, Scaffolding Safety Requirements

.2 Canadian Standards Association (CSA):

.1 CSA S350- M1980 (R2003), Code of Practice for Safety in Demolition of Structures.

.3 National Fire Protection Association (NFPA):

.1 NFPA 241-09, Standard for Safeguarding Construction, Alteration, and Demolition Operations

.4 Provincial Legislation:

.1 Legislation specific to Authority Having Jurisdiction for work governed by this Section.

1.3 DEFINITIONS

.1 Demolish: Detach items from existing construction and legally dispose of them off site, unless indicated to be removed and salvaged or removed and reinstalled.

.2 Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.

.3 Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

.4 Existing to Remain: Existing items of construction that are not removed and that are not otherwise indicated as being removed, removed and salvaged, or removed and reinstalled.

1.4 EXAMINATION

.1 Visit and examine the site and note all characteristics and irregularities affecting Work of this Section. Submit a pre-demolition inspection report. Ensure the Owner of premises being inspected is represented at inspection.

.2 Where appropriate prepare a photographic or video record of existing conditions, particularly of existing work scheduled to remain.

.3 Where applicable, examine adjacent tenancies not part of the scope of work. Determine extent of protection required to areas and related components not subject to demolition.

1.5 SUBMITTALS

.1 Provide required information in accordance with Division 01.

.2 Action Submittals: Provide the following submittals before starting any work of this Section:

.1 Prepare schedule in conjunction with overall project schedule and outline proposed methods in writing. Obtain approval before commencing demolition work, and indicate the following:

.1 Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity

.2 Interruption of utility services

.3 Coordination for shutoff, capping, and continuation of utility services

1.6 QUALITY ASSURANCE

.1 Conform to requirements of all authorities having jurisdiction.

.2 Comply with applicable requirements of CSA S350-M "Code of Practice for Safety in Demolition of Structures".

.3 Work of this Contract shall be executed by an approved company having a minimum of five (5) years continuous experience and able to deploy adequate equipment and skilled personnel to complete work expediently in an efficient and orderly manner.

.4 Perform cutting and coring, where applicable, by a firm specializing in this type of work, able to produce evidence of successful completion of similar work over a period of at least five (5) years immediately prior to date of contract.

.5 Apply for, secure, arrange and pay for all permits, notices and inspections necessary for proper execution and completion of work in this Section.

.6 Professional Engineer Qualifications: Procure the services of a professional engineer who is experienced in providing relevant engineering services to perform the following:

.1 Review portions of the Work requiring structural performance, prepare plan of action, engineer temporary shoring and bracing, and Provide site administration and inspection for work of this Section.

1.7 PROTECTION

.1 Prevent movement or settlement of adjacent work. Provide and place bracing or shoring and be responsible for safety and support of such work. Be liable for any such movement or settlement, and any damage or injury caused.

.2 Cease operations and notify Consultant if safety of any adjacent work or structure appears to be endangered. Take all precautions to support the structure. Do not resume operations until reviewed with the Consultant.

.3 Prevailing weather conditions and weather forecasts shall be considered. Demolition work shall not proceed when weather conditions constitute a hazard to the workers and site.

.4 Prevent damage of surrounding vegetation by construction. Install tree protection barriers to trees that are scheduled to remain.

.5 Prevent debris from blocking surface drainage inlets and mechanical and electrical systems which remain in operation.

.6 Temporarily suspended work that is without continuous supervision shall be closed to prevent entrance of unauthorized persons.

1.8 REMAINING AND ADJACENT STRUCTURES

.1 Do not interfere with, encumber, endanger or create nuisance, from any cause due to demolition work, to public property or any adjacent attached and/or detached structures in possession of Owner or others, which are to remain, whether occupied or unoccupied during this work.

.2 Make good damage to such structures resulting from work under this Section at no cost to Owner. Make good adjacent building surfaces damaged by work of this Section.

1.9 PROTECTION OF SERVICES AND STRUCTURES

.1 Take necessary precautions to guard against movement, settlement or collapse of existing adjacent utility services, public property and/or structures, whether to remain or not. If these or other unforeseen conditions develop, take immediate emergency measures, report to Consultant, confirm in writing, and await instructions before proceeding with any further related demolition work.

.2 Prior to saw cutting or core drilling of existing concrete slabs, use ground penetrating radar (GPR) to detect utilities and structural reinforcing. Concrete X-Rays can be used when access to both sides of concrete slab is accessible for placement of required x-ray film.

1.10 EXISTING SERVICES

.1 Prior to start of demolition disconnect all electrical service lines in the areas to be demolished. Post warning signs on all electrical lines and equipment which must remain energized to serve other areas during period of demolition. Disconnect electrical service lines in demolition areas to the requirements of local authority having jurisdiction.

.2 In each case, notify the affected utility company in advance and obtain approval where required before commencing with the work on main services.

.3 Arrange with utility companies for locating of such services and for disconnection of existing services owned by utility companies and which will be disconnected by said utility companies, provided such services do not interfere with adjacent tenancy operators.

.4 Remove sewer and water lines where required within existing building as deemed necessary, and cap to prevent leakage, in accordance with authorities having jurisdiction.

.5 Existing services are to be maintained where required for normal tenant operation during regular hours of operation and/or as deemed necessary by Owner.

1.11 DECOMMISSIONED SERVICES

.1 Remove fully decommissioned electrical and mechanical service lines, plumbing, ducting, fixtures and all fasteners and supports for decommissioned items.

.1 Remove sewer and water lines where required within existing building as deemed necessary, and cap to prevent leakage, in accordance with authorities having jurisdiction.

.2 Patch and repair surfaces affected by this selective demolition to match existing adjacent surfaces, as approved by the Consultant.

1.12 EXISTING WARRANTIES

.1 Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

2 Products

2.1 DEBRIS, SALVAGED MATERIAL AND EQUIPMENT DISPOSAL

.1 All materials and or equipment salvaged from demolition work becomes property of demolition Contractor unless designated otherwise.

.2 At no cost to Owner repair or replace material and/or equipment scheduled to remain which is damaged by demolition work. Do not sell any salvaged material or equipment directly from project site.

.3 Remove waste debris continually and entirely from project site during demolition work. Do not load vehicles transporting such debris beyond their safe capacity or in a manner which might cause spillage on public or private property. If spillage does occur, clean up immediately to prevent traffic hazards or nuisance.

2.2 PROTECTION

.1 Temporary Protection:

.1 Erect temporary hoarding protection, to enclose openings in exterior walls, and/or provide security to partially occupied interior spaces, as indicated in Division 01 and as suggested by the Drawings.

.2 Erect temporary dust screens to prevent dust and debris to enter areas of the building which are not scheduled for demolition. Remove temporary dust screens when no longer required.

2.3 REPAIR MATERIALS

.1 Use repair materials identical to existing materials:

.1 If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.

.2 Use a material whose installed performance equals or surpasses that of existing material.

.3 Comply with material and installation requirements specified in individual Specification Sections.

.2 Floor Patching and Levelling Compounds: Cement based, trowelable, self-levelling compounds compatible with specified floor finishes; as indicated in Section 03 35 00.

.3 Concrete Unit Masonry: Lightweight concrete masonry units, and mortar, cut and trimmed to fit existing opening to be filled. Provide standard hollow core units, square end units and bond beam units as indicated on drawings.

.4 Gypsum Board Patching Compounds: Joint compound to ASTM C475, bedding and finishing types thinned to provide skim coat consistency to patch and prepare existing gypsum board walls ready for new finishes in accordance with Section 09 29 00.

.5 Fireproofing: Patch and repair all fireproofing damaged during demolition of adjacent surfaces with compatible fireproofing materials. Provide test reports from fireproofing manufacture warranting installation, adhesion and compatibility between existing and new fireproofing materials.

2.4 EXISTING MATERIALS

.1 Confirm with Consultant any materials that appear to be in re-usable condition prior to disposal.

3 Execution

3.1 GENERAL

.1 Exercise caution in dismantling, disconnecting of work adjacent to existing work designated to remain.

.2 Carry out demolition in a manner to cause as little inconvenience to the adjacent properties as possible.

.3 Carry out demolition in an orderly and careful manner.

.4 Demolition by explosives is not permitted.

.5 Selling or burning of materials on site is not permitted.

.6 Sprinkle exterior debris with water to prevent dust. Do not cause flooding, contaminated run-off or icing. Do not allow waste material, rubbish, and windblown debris to reach and contaminate adjacent properties.

.7 Lower waste materials in a controlled manner; do not drop or throw materials from heights.

.8 At end of each day's work, leave in safe condition so that no part is in danger of toppling or falling.

3.2 PREPARATION

.1 Although possible (with additional precautions), openings through existing concrete columns and beams are generally not permitted; the structural engineer must be contacted for such proposed openings for specific additional requirements.

.2 For all openings to be located through existing structural components, the following requirements for coring or sawcutting openings through existing reinforced concrete floor slabs, roof slab and shear walls for mechanical and electrical services must be followed:

.1 Prior to installation of openings, a testing agency is to be engaged to accurately scan the areas of the proposed openings to locate existing reinforcing steel, electrical conduit and cast-in mechanical services (i.e. pipes). Electromagnetic scanning or ground-penetrating radar are acceptable methods of scanning for these purposes. Note that x-ray technology will not be permitted as this will be an occupied building during construction.

.2 During/after conducting the scanning procedures, the testing agency is to clearly and accurately mark the surfaces of the concrete elements identifying individual existing reinforcing bars and electrical/mechanical services.

3.3 SAFETY AND SECURITY

.1 Maintain security of the building at all times during demolition work.

.2 Provide and maintain fire prevention equipment and alarms accessible during demolition.

3.4 ACCESS ROUTES

.1 Restrict operations to designated access routes.

.2 Do not obstruct roads, parking lots, sidewalks, hydrants and the like.

3.5 SELECTIVE DEMOLITION

.1 Provide necessary shoring and supports to assure safety of structure prior to cutting and coring.

.2 Where practical, sawcut and remove material as required.

.3 Where sawcutting is not appropriate, use suitable hand tools.

.4 Demolish, cut-out and remove from site all other work noted on drawings or required to permit new construction.

.5 Do not allow water to accumulate or flow beyond work area. Provide receptacles and mop-up as work proceeds.

.6 Demolish existing flooring and wall finishes, and adhesive remnants as follows:

.1 Floor and wall substrate shall be smooth, free from ridges and depressions, and adhesive remnants that could telegraph through new flooring and wall finishes.

.7 Demolish completely all ceiling panels and grid as indicated.

.8 Patch and repair all walls, floor and ceilings damaged during demolition with material matching adjacent walls, prepare ready for new finishes.

.1 Prepare existing surfaces schedule to receive new finish by grinding, filling, over-coating, stripping, washing, etching, shot blasting or other chemical or mechanical means, as required to ensure satisfactory installation of new finish.

3.6 EQUIPMENT

.1 The Testing Agency shall provide and operate all necessary equipment for conducting accurate scans of existing reinforced concrete components for which openings are required.

.2 Equipment and methodology to be capable of scanning concrete elements to a maximum of 400 mm thickness.

3.7 EXCESSIVE DEMOLITION

.1 Where excessive demolition occurs, be responsible for cost of replacing such work.

.2 Consultant shall determine extent of such 'over-demolition' and method of rectification.

3.8 COMPLETION

.1 Leave project site as directed, reasonably clean and presentable, free from above grade debris, any salvaged material and/or equipment except those designated to remain.

.2 Maintain access to exits clean and free of obstruction during removal of debris.

END OF SECTION

DESIGNATED SUBSTANCES AND HAZARDOUS BUILDING MATERIALS ASSESSMENT REPORT

Demolition Project
1615 Dufferin Street
Toronto, Ontario

Prepared for:
Inder Bhamra (he/him/his), EP, PMP, CSM
Environmental Coordinator - Project Management Office

City of Toronto
Corporate Real Estate Management
55 John Street, 2nd Floor
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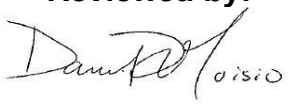
Prepared by:
Safetech Environmental Limited

Amit Kaul, B.Eng., EIT, WRT
Project Coordinator
Occupational Hygiene/Hazardous Building Materials Groups

Reviewed by:



Daniel D'Aloisio B.Sc., AMRT
Operations Manager - Hazardous Materials

Safetech Project Number: 1-3240937

Date of Site Work: December 18, 2024
Date of Issue: January 13, 2025

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EXECUTIVE SUMMARY

Safetech Environmental Limited (Safetech) was commissioned by City of Toronto to conduct a designated substances and hazardous materials assessment of the commercial building located at 1615 Dufferin Street, Toronto, Ontario.

The objective of the assessment was to determine the presence, location, condition and quantities of designated substances and other hazardous materials that have the potential to be disturbed as part of planned construction activities (i.e. Demolition Project) so that appropriate control measures can be implemented to protect workers during the work.

A summary of the assessment results and general recommendations based on our findings are provided in the following table. This table should be considered a summary only. Please refer to the Results (Section 2.0), Conclusions and Recommendations (Section 3.0), Summary of ACM Occurrences (Appendix A) and Site Drawings (Appendix B) of our report for additional details.

Table 1: Summary of Hazardous Materials and Designated Substances

Designated Substance	Findings	Recommendations
Asbestos	The following asbestos-containing materials were identified in the subject area that may be impacted during the project: - Texture Finish on ceilings - Heat Shield on light fixture - pipe fitting insulation - Yellow Floor Mastic - Vinyl Floor Tile 6 - 9"x9" Grey with Green Streaks - Vinyl Floor Tile 2 - 12"x12" Beige with Brown Streaks - Grey/black caulking window glass - Beige caulking on windows and interior expansion joints - VFT10 - 12"x12" White with Grey Smudges - Black Mastic on 9”x9” Vinyl Floor Tiles - Black Mastic - Underlying beige vinyl floor tiles.	Disturbance of asbestos-containing materials must be conducted in accordance with Ontario Regulation 278/05 *Designated Substance – Asbestos on Construction Projects and in Building and Repair Operations.* Refer to Table 3 (Results of Assessment for Asbestos-Containing Materials), Section 3.1.1 (Conclusions and Recommendations), Appendix A (Summary of ACM Occurrences) and Appendix B (Site Drawings). Asbestos-containing waste must be disposed of in accordance with R.R.O. 1990, Regulation 347, *General - Waste Management*.

Lead	Beige paint was confirmed to be a low-level lead-containing paint (≤0.1% lead content). Blue and light pink paint were confirmed to be not lead-containing paint (≤0.0090% lead content). Off-white paint was confirmed to be a lead-containing paint (>0.1% lead content). The following materials are assumed to be lead-containing: - paints and surface coatings (not sampled) - glazing associated with ceramic tiles - batteries associated with emergency lighting - solder in copper pipe fittings	Disturbance of lead-containing materials must be conducted in accordance with the Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD) *Lead on Construction Projects* guideline (2011) and/or the Environmental Abatement Council of Canada (EACC) *Lead Guideline* (October 2014). For additional details, refer to Section 2.1.2 (Results) and Section 3.1.2 (Conclusions and Recommendations). Lead-containing wastes should be recycled if practicable or handled and disposed of according to R.R.O. 1990, Regulation 347, *General- Waste Management.*
Mercury	Sources of mercury were observed in the subject area and include the following: - vapour in fluorescent lamps - liquid in thermostats - thermometers associated with mechanical equipment	If required, handle lamps and vials with care and keep intact. All waste lamps and vials are recommended to be sent to a lamp recycling facility.
Silica	Building materials identified that are suspected to contain crystalline silica and may be disturbed as part of the planned construction project include: - plaster - drywall walls/drywall joint compound - concrete - mortar - sprayed fireproofing	Any work involving the disturbance of silica-containing materials should follow the procedures outlined in the Ontario MLITSD *"Silica on Construction Projects"* guideline. For additional information, refer to Section 2.1.4 (Results) and Section 3.1.4 (Conclusions and Recommendations).
Other Designated Substances	No other designated substances are expected to be present in any significant quantities or in a form that would represent an exposure concern.	No protective measures or procedures specific to acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, and vinyl chloride are considered necessary.
Other Hazardous Materials	**Findings**	**Recommendations**
Urea Formaldehyde Foam Insulation	No UFFI was identified or is suspected in the subject area.	No action required.
Mould Contamination	Suspect mould growth and water staining was identified to be present on drywall finishes and concrete block wall in Stairwell 2-33	Remove following Level 2 mould remediation procedures as outlined in EACC "Mould Abatement Guidelines". For additional information refer to Section 2.2.2.1 (Results) and Section 3.2.2.1 (Conclusions and Recommendations).

Pest Infestation	No pest infestations were observed in the areas assessed.	No action required.
Polychlorinated Biphenyls	Fluorescent light ballasts are assumed to contain PCB's.	PCB-containing ballasts should be removed, separated from other waste and disposed of as PCB waste at an authorized destruction facility.
Ozone Depleting and Global Warming Substances	No equipment was observed that is suspected to contain ozone depleting and/or global warming substances	No action required.

This assessment satisfies the Owner's requirements under Section 30 of the Ontario Occupational Health and Safety Act (OHSA), Revised Statutes of Ontario 1990, as amended.

Should you have any questions regarding the information contained in the report, please contact our office.

Safetech Environmental Limited

Amit Kaul, B.Eng., EIT, WRT
Project Coordinator
Occupational Hygiene/Hazardous Building Materials Groups

Reviewed by:

Daniel D'Aloisio B.Sc., AMRT
Operations Manager - Hazardous Materials

January 13, 2025

City of Toronto
Corporate Real Estate Management
55 John Street, 2nd Floor
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Attention: Inder Bhamra (he/him/his), EP, PMP, CSM
Environmental Coordinator - Project Management Office

RE: Designated Substances and Hazardous Materials Assessment
Demolition Project
1615 Dufferin Street, Toronto, Ontario

1.0 INTRODUCTION

1.1 Background and Objectives

Safetech Environmental Limited (Safetech) was commissioned by City of Toronto to conduct a designated substances and hazardous materials assessment in the commercial building located at 1615 Dufferin Street, Toronto, Ontario (subject building). The objective of the assessment was to determine the presence, location, condition and quantities of designated substances and other hazardous materials in the subject building that have the potential to be disturbed as part of planned construction activities (i.e. Demolition Project) so that appropriate control measures can be implemented to protect workers during the work.

This assessment satisfies the Owner's requirements under Section 30 of the Ontario Occupational Health and Safety Act (OHSA), Revised Statutes of Ontario 1990, as amended. Section 30(1) requires a building owner to determine if there are any designated substances present at a project site prior to construction or demolition activities. Sections 30(2), (3) and (4) require the Owner and constructors for a project to provide the findings in this report as part of the tendering information for any tendered project or to prospective contractors (and subcontractors) of a project before entering into a binding contract.

This report documents findings of our on-site inspection that was conducted on December 18, 2024 and provides conclusions and recommendations based on our findings and knowledge of the planned construction project.

1.2 Scope of Work

In accordance with our fee proposal document, our scope of work included the following activities:

- A review of existing documents, including renovation documents and drawings, floor plans and existing environmental assessment reports, etc., where available;
- A visual assessment of accessible area(s) in the subject building to identify the presence, location, condition and quantities of designated substances and other hazardous materials;
- Collection, analysis and interpretation of representative bulk samples of suspect asbestos-containing building materials for the determination of asbestos content and material classification;
- Collection, analysis and interpretation of representative paint chip samples for the determination of lead content; and
- Preparation of a report to document findings and provide recommendations regarding control measures and/or special handling procedures for designated substances or specific hazardous materials that may be disturbed as part of planned construction activities.

Documents reviewed to aid in the assessment included the following:

- Designated Substances and Hazardous Materials Survey, 1615 Dufferin Street, Toronto, Ontario, by ECOH Management Inc. ECOH Project No.: 28697-01, Dated August 23, 2024.
- Demolition drawings "*2422_TSSS Dufferin_Demolition Permit_DWGS*" dated December 2024 were provided.

This assessment only identified designated substances and hazardous materials that were deemed to be part of the building or somehow otherwise incorporated into the building structure and its finishes. **The following items were not included in our scope of work:**

- Assessing occupant items such as stored products, furnishings, items and materials used or produced as part of a manufacturing process;
- Investigating underground materials or equipment (vessels, drums, underground storage tanks, duct-banks, pipes, or cables);
- Assessing enclosed wall or ceiling cavities; and
- Assessing risers, pipe chases or elevator shafts.

1.3 Description of Area(s) Assessed

The area(s) investigated included all accessible locations of the subject building. The extent of the area investigated is indicated on the floor plan(s) provided in Appendix B.

2.0 RESULTS

Results of our visual assessment and bulk sample analytical findings are summarized in the sections below.

2.1 Designated Substances

2.1.1 Asbestos

Results of bulk sample analysis for the determination of asbestos content are summarized in the following table. Materials have been classified as “ACM”, “Non-ACM”, “Suspected ACM” or “Presumed Non-ACM” based on analytical results. Materials classified as Suspected ACM or Presumed Non-ACM may require further analysis (depending on site-specific conditions) to verify whether the material should be classified as ACM or Non-ACM. Please refer to the Limitations section of this report (Section 4.0) for additional details. The Laboratory Certificate of Analysis is included in Appendix C.

Table 2*:* Bulk Sample Analytical Results for Determination of Asbestos Content

Sample No.	Layers	Material Description	Sample Location	Asbestos Content	Material Classification
1A		1’x1’ ceiling tile – medium and large pinholes	3-01	None Detected	Non-ACM
1B					
1C			3-09		
2A	**a) Black, mastic**	**Mortarbed on Red Ceramic Floor Tiles**	**B-42**	**1% Chrysotile**	**ACM**
	b) Grey, cementitious material			**None Detected**	
	c) Red, cementitious material				
2B				**Not Analyzed**	
2C					
3A		Grout on Red Ceramic Floor Tiles	B-42	None Detected	Non-ACM
3B					
3C					
4A		Mortarbed on Ceramic Floor Tiles	2-01	None Detected	Non-ACM
4B					
4C					
5A	a) White, cementitious material	Grout on Ceramic Floor Tiles	2-01	None Detected	Non-ACM
	b) Red, cementitious material				
5B	a) White, cementitious material				
	b) Red, cementitious material				

Sample No.	Layers	Material Description	Sample Location	Asbestos Content	Material Classification
5C	a) White, cementitious material b) Red, cementitious material				
6A		Brick Mortar	Basement Corridor B-42	None Detected	Non-ACM
6B			Roof Chimney		
6C			Exterior		
7A		Mortarbed on White Ceramic Floor Tiles	3-19	None Detected	Non-ACM
7B					
7C			Basement Janitor Closet		
8A		Grout on White Ceramic Floor Tiles	3-19	None Detected	Non-ACM
8B					
8C			Basement Janitor Closet		
9A	a) Black, tar b) Black, tar with fibres	Roof Membrane (Capsheet)	Above Back Stairwell 3-30	None Detected	Non-ACM
9B	a) Black, tar b) Black, tar with fibres				
9C	a) Black, tar b) Black, tar with fibres				
10A	a) Black, tar b) Black, tar with fibres	Roof Membrane (Capsheet)	Pitched Roof	None Detected	Non-ACM
10B	a) Black, tar b) Black, tar with fibres				
10C	a) Black, tar b) Black, tar with fibres				
11A	a) Brown, paper b) Black, tar (between paper)	Vapour Barrier/Craft Paper	Pitched Roof	None Detected	Non-ACM
11B	a) Brown, paper b) Black, tar (between paper)				
11C	a) Brown, paper b) Black, tar (between paper)				
12A	a) Black, tar b) Black, tar with fibres	Roof Membrane (Capsheet) – New	Southeast Roof (Lower)	None Detected	Non-ACM
12B	a) Black, tar b) Black, tar with fibres				
12C	a) Black, tar				

Sample No.	Layers	Material Description	Sample Location	Asbestos Content	Material Classification
	b) Black, tar with fibres				
13A	a) Black, tar	Roof Felt – Old /Underlying	Southeast Roof (Lower)	None Detected	Non-ACM
	b) Black, tar with fibres				
13B	a) Black, tar				
	b) Black, tar with fibres				
13C	a) Black, tar				
	b) Black, tar with fibres				
14A		Black Mastic	On Pitch pocket - Southeast Roof (Lower)	None Detected	Non-ACM
14B			On AHU Support - Southeast Roof (Lower)		
14C					
15A		Concrete Block Mortar	2-21	None Detected	Non-ACM
15B					
15C			B-37		
16A		Black Caulking	on Flashing - Southeast Roof (Lower)	None Detected	Non-ACM
16B					
16C			Roof Vent – Pitched Roof		
17A		**Grey/Black Caulking Window Glass**	**Exterior**	**3% Chrysotile**	**ACM**
17B				**Not Analyzed**	
17C			**2-01**		
18A		White Window Caulking	Exterior	None Detected	Non-ACM
18B					
18C					
19A		**Beige Caulking**	**Expansion Joint – 3-06**	**None Detected**	**ACM**
19B			**On Windows – 3-18**	**0.5% Chrysotile**	
19C			**Door - Main Vestibule**	**Not Analyzed**	
20A		Grey Mastic on Duct	Roof	None Detected	Non-ACM
20B					
20C					
21A		Black Building Paper in Wall Cavity	By Entrance – 2-01	None Detected	Non-ACM
21B					
21C					
22A			By Entrance – 2-01	None Detected	Non-ACM
22B					

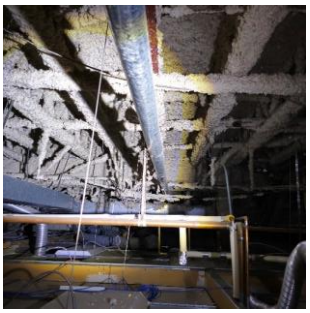
Sample No.	Layers	Material Description	Sample Location	Asbestos Content	Material Classification
22C		Grey Plaster on Exterior Wall Backing			
23A		Drywall Joint Compound	2-01	None Detected	Non-ACM
24A		Sprayed Fireproofing	2-01	None Detected	Non-ACM
25A		**Black Mastic on 9”x9” Vinyl Floor Tiles**	**B-03**	**2% Chrysotile**	**ACM**
25B				**Not Analyzed**	
25C					
26A		VFT10 - 12"x12" White with Grey Smudges	B-13 / Unit 102	None Detected	Non-ACM
27A		**Black Mastic on Sample Set 26**	**B-13 / Unit 102**	**1% Chrysotile**	**ACM**
27B				**Not Analyzed**	
27C					
28A	a) Pink, vinyl floor tile b) Off white, mastic	VFT3 - 12"x12" Pink with Light Pink and Dark Pink Smudges	3-21	None Detected	Non-ACM
29A		Underlying Beige Vinyl Floor Tiles	3-16	None Detected	Non-ACM
29B			2-12		
29C					
30A		VFT5 - 12"x12" Purple with White and Dark Purple Smudges	2-12	None Detected	Non-ACM
31A		Mastic on Ceramic Wall Tiles	3-19	None Detected	Non-ACM
31B					
31C					
32A		Grout Ceramic Wall Tiles	3-19	None Detected	Non-ACM
32B					
32C					
33A		Underlying White Vinyl Floor Tiles (Bottom Layer)	3-01	None Detected	Non-ACM
33B					
33C					
34A		Yellow Mastic on Sample Set 33	3-01	None Detected	Non-ACM
34B					
34C					
35A		FT9 - 12"x12" White with Blue Streaks	B-27	None Detected	Non-ACM
36A	a) Black, mastic b) Grey and white, cementitious material	Black Mastic on Sample Set 35	B-27	None Detected	Non-ACM

Sample No.	Layers	Material Description	Sample Location	Asbestos Content	Material Classification
36B	a) Black, mastic b) Grey and white, cementitious material				
36C	a) Black, mastic b) Grey and white, cementitious material				
37A		VFT4 - 12"x12" Beige with White and Brown Smudges	2-33	None Detected	Non-ACM
38A	**a) Black, mastic** **b) Yellow, mastic**	**Black Mastic on Sample Set 37**	**2-33**	**3% Chrysotile** **None Detected**	**ACM**
38B				**Not Analyzed**	
38C					
39A		VFT1 - 12"x12" Brown with White and Black Smudges Under Wood Floor)	3-01	None Detected	Non-ACM
40A 40B 40C		Glass Block Mortar	3-18	None Detected	Non-ACM
41A		VFT11 - 12"x12" White and Brown Smudges	B-24	None Detected	Non-ACM
42A 42B 42C		Yellow Mastic on Sample Set 41	B-24	None Detected	Non-ACM
43A		VFT8 - 12"x12" Off-white with Blue Streaks	B-25	None Detected	Non-ACM
44A		CT1 - 2'x4' Small Fissures and Pinholes	3-01	None Detected	Non-ACM

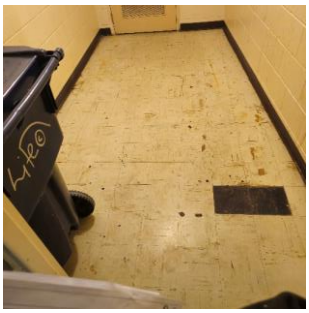
As per O.Reg. 278/05, ACM contains ≥0.5% asbestos by dry weight.

Materials assessed for asbestos content are summarized in the following table based on the type/use of the material.

Table 3: Results of Assessment for Asbestos-Containing Materials

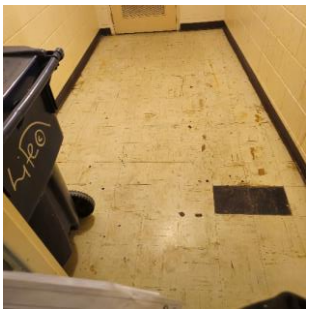
Sprayed and Loose Fill Insulating Materials	Location/Description	
Sprayed Fireproofing	Sprayed fireproofing was observed in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 24 in Table 2.	
Sprayed Insulation	None identified in subject building.	
Loose Fill / Vermiculite Insulation	None identified in subject building. Interior portions of concrete block walls could not be assessed. However, it is not expected that these walls are insulated with loose fill or vermiculite insulation	
Thermal System Insulation	**Location/Description**	
Mechanical Pipe Insulation – Straights	Mechanical pipe straight were observed to be either insulated with fiberglass insulation or not insulated.	
Mechanical Pipe Insulation – Fittings (elbows, valves, tees, hangars, etc.)	**Pipe fitting insulation** was observed in the subject building. Based on the existing report this building material contains **60% chrysotile** asbestos. Refer to the location, condition, friability, and estimated quantity in Appendix A.	
HVAC Duct Mastic	None identified in subject building.	
Breeching / Exhaust Insulation	None identified in subject building.	
Tank Insulation	None identified in subject building.	
Boiler Insulation	None identified in subject building.	

Other Mechanical Equipment Insulation	None identified in subject building.	
Architectural Finishes & Finishing Materials	**Location/Description**	
Sprayed Texture / Stucco Finishes	**Texture Finish on ceilings** was observed in the subject building. Based on the existing report this building material contains **3% chrysotile** asbestos. Refer to the location, condition, friability, and estimated quantity in Appendix A.	
Plaster Finishes	Grey Plaster on Exterior Wall Backing (in wall cavity) was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 22 in Table 2.	
Drywall Joint Compound	Drywall joint compound was observed on drywall walls and ceiling finishes in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 23 in Table 2.	
Ceiling Tiles	**Location/Description**	
Lay-in Acoustic Ceiling Tiles	CT1 - 2'x4' Small Fissures and Pinholes was observed in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 44 in Table 2.	

Lay-in Acoustic Ceiling Tiles	2'x4' Small Fissures and Pinholes was observed in the subject building. Based on the date stamp (06/21/05) observed on the back of the ceiling tiles, the tiles are expected to be not asbestos-containing.	
Glued-on Acoustic Ceiling Tiles	1'x1' ceiling tile – medium and large pinholes were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 1 in Table 2.	
Cement Ceiling Panels	None identified in subject building.	
Flooring	**Location/Description**	
Vinyl Floor Tiles	**Vinyl Floor Tile 2 - 12"x12" Beige with Brown Streaks** was observed in the subject building. Based on the existing report this building material contains **4% chrysotile** asbestos. Refer to the location, condition, friability, and estimated quantity in Appendix A.	
	Vinyl Floor Tile 6 - 9"x9" Grey with Green Streaks was observed in the subject building. Based on the existing report this building material contains **5% chrysotile** asbestos. Refer to the location, condition, friability, and estimated quantity in Appendix A.	

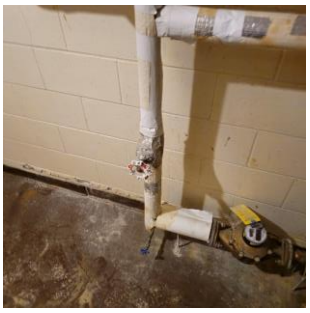
Vinyl Floor Tiles	VFT10 - 12"x12" White with Grey Smudges was observed in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 26 in Table 2.	
	VFT3 - 12"x12" Pink with Light Pink and Dark Pink Smudges was observed in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 28 in Table 2.	
	Underlying Beige Vinyl Floor Tiles were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 29 in Table 2.	
	VFT5 - 12"x12" Purple with White and Dark Purple Smudges was observed in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 30 in Table 2.	
	Underlying White Vinyl Floor Tiles (Bottom Layer)were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 33 in Table 2.	

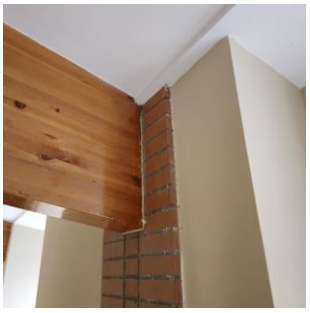
Vinyl Floor Tiles	FT9 - 12"x12" White with Blue Streaks was observed in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 35 in Table 2.	
	VFT4 - 12"x12" Beige with White and Brown Smudges was observed in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 37 in Table 2.	
	VFT1 - 12"x12" Brown with White and Black Smudges (Under Wood Floor)was observed in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 39 in Table 2.	
	VFT11 - 12"x12" White and Brown Smudges was observed in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 41 in Table 2.	
	VFT8 - 12"x12" Off-white with Blue Streaks was observed in the subject building. Based on the existing report the material is considered to be not asbestos-containing. Confirmatory bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 43 in Table 2.	
Vinyl Sheet Flooring	None identified in subject building.	

Mastic	**Yellow Floor Mastic** was observed in the subject building. Based on the existing report this building material contains **1% chrysotile** asbestos. Refer to the location, condition, friability, and estimated quantity in Appendix A.	
	Black Mastic on 9"x9" Vinyl Floor Tiles was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material contains **2% chrysotile** asbestos. Refer to sample set 25 in Table 2 and the location, condition, friability, and estimated quantity in Appendix A.	
	Black Mastic on Sample Set 26 was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material contains **1% chrysotile** asbestos. Refer to sample set 27 in Table 2 and the location, condition, friability, and estimated quantity in Appendix A.	
	Yellow Mastic on Sample Set 33 was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 34 in Table 2.	
	Black Mastic on Sample Set 35 was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 36 in Table 2.	

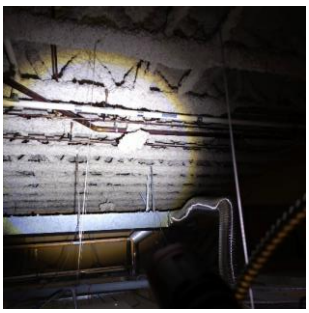
Mastic	**Black Mastic on Sample Set 37** was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material contains **3% chrysotile** asbestos. Refer to sample set 38 in Table 2 and the location, condition, friability, and estimated quantity in Appendix A.	
	Yellow Mastic on Sample Set 41 was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 42 in Table 2.	
Asbestos Cement Products	**Location/Description**	
Piping	None identified in subject area.	
Roofing, Siding, Wallboard	None identified in subject building.	
Other Cement Products	Mortarbed on Red Ceramic Floor Tiles was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 2 in Table 2. **Black mastic under mortar associated with ceramic floor tiles** was identified to **1% chrysotile** asbestos.	
	Grout on Red Ceramic Floor Tiles was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 3 in Table 2.	

Other Cement Products	Mortarbed on Ceramic Floor Tiles was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 4 in Table 2.	
	Grout on Ceramic Floor Tiles was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 5 in Table 2.	
	Brick Mortar was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 6 in Table 2.	
	Mortarbed on White Ceramic Floor Tiles was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 7 in Table 2.	
	Grout on White Ceramic Floor Tiles was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 8 in Table 2.	

Other Cement Products	Concrete Block Mortar was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 15 in Table 2.	
	Mastic on Ceramic Wall Tiles was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 31 in Table 2.	
	Grout Ceramic Wall Tiles was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 32 in Table 2.	
	Glass Block Mortar was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 40 in Table 2.	
Exterior Building Materials	**Location/Description**	

Caulking	Black Caulking was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 16 in Table 2.	
	Grey/Black Caulking Window Glass was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material contains **3% chrysotile** asbestos. Refer to sample set 17 in Table 2 and the location, condition, friability, and estimated quantity in Appendix A.	
	White Window Caulking was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 18 in Table 2.	
	Beige Caulking was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material contains **0.5% chrysotile** asbestos. Refer to sample set 19 in Table 2 and the location, condition, friability, and estimated quantity in Appendix A.	
Roof Membrane	Roof Membrane (Capsheet) were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 9 in Table 2.	

Roof Membrane	Roof Membrane (Capsheet) were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 10 in Table 2.	
	Vapour Barrier/Craft Paper were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 11 in Table 2.	
	Roof Membrane (Capsheet) – New were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 12 in Table 2.	
	Roof Felt – Old /Underlying were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 13 in Table 2.	
Mastic	Black Mastic were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 14 in Table 2.	

Mastic	Grey Mastic on Duct were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 20 in Table 2.	
Misc. Materials	**Location/Description**	
Building Paper	Black Building Paper in Wall Cavity were observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 21 in Table 2.	
Heat Shield	**Heat Shield on light fixture** was observed in the subject building. Based on the existing report this building material contains **70% chrysotile** asbestos. Refer to the location, condition, friability, and estimated quantity in Appendix A.	

2.1.2 Lead

Laboratory analytical results for paints tested to determine lead content are summarized in the following table. The Laboratory Certificate of Analysis is included in Appendix D. Refer to Section 3.1.2 of this report for recommended lead abatement procedures (if any) that correspond to the type of proposed construction, renovation, or demolition work.

Table 4: Results of Paint Condition and Lead Content Assessment

Sample No.	Location	Surface	Paint Colour	Condition	Lead Conc. (% by wt.)	Material Classification
P-1	B-45	Wall	Beige	Good	0.0681	LLLM
P-2	2-21	Wall	Blue	Good	0.0023	Non-LCM

Sample No.	Location	Surface	Paint Colour	Condition	Lead Conc. (% by wt.)	Material Classification
P-3	3-31	Wall	Beige	Good	0.0405	LLLM
P-4	B-19	Wall	Light Pink	Good	0.0019	Non-LCM

Non-LCM: Non-Lead-Containing Material (<0.009% Lead Content)
LLLM: Low-Level Lead-Containing Material (≥0.009% and <0.1% Lead Content)
LCM: Lead-Containing Material (≥ 0.1% Lead Content)

Suspect lead-containing materials observed in the subject building included the following:

- paints and surface coatings (not sampled)
- glazing associated with ceramic tiles
- batteries associated with emergency lighting
- solder in copper pipe fittings

2.1.3 Mercury

Mercury is present in the subject building in the form of:

- vapour in fluorescent lamps
- liquid in thermostats
- thermometers associated with mechanical equipment

2.1.4 Silica

A number of building materials were identified in the subject building that are ***suspected to contain crystalline silica***. This includes the following materials:

- plaster
- drywall walls/drywall joint compound
- concrete
- mortar
- sprayed fireproofing

2.1.5 Other Designated Substances

Acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, and vinyl chloride were not included in the assessment as these substances are not expected to be a significant component of building materials or present in a form that would represent an exposure concern. Additionally, no specific information regarding their use was provided to us.

2.2 Other Hazardous Materials

2.2.1 Chemical Hazards

No visible evidence of UFFI installation (i.e. injection openings) or overspray of foam insulation at wall/ceiling joints was identified in the subject building.

2.2.2 Biological Hazards

2.2.2.1 Mould Contamination

Findings from our assessment for the presence of mould growth in subject areas of the building are provided in the following table.

Table 5: Results of Assessment for Mould Contamination

2-23 Stairwell	
Findings: • Water damage and mould growth was observed to drywall ceiling and drywall wall and concrete block wall by the door.	

2.2.2.2 Pest Infestation

There was no visible evidence of a pest infestation in the subject building.

2.2.3 Environmental Hazards

2.2.3.1 Polychlorinated Biphenyls (PCBs)

The assessment for potential PCB-containing electrical equipment is summarized in the following table. Equipment where the presence/absence of PCBs could be verified are indicated as such in the table. Equipment where the absence of PCBs could not be verified based on the information available are assumed to contain PCBs.

Table 6: Results of Assessment for PCB-Containing Electrical Equipment

Location	Electrical Equipment	Manufacturer	PCB Identification Information	PCB Content
3-33	Fluorescent Light Ballast (4 foot, 2 tube, T12)	Phillips	Marked “non-PCB” on label	Non-PCB

Location	Electrical Equipment	Manufacturer	PCB Identification Information	PCB Content
3-18	Fluorescent Light Ballast (4 foot, 2 tube, T12)	Phillips	Marked “non-PCB” on label	Non-PCB

2.2.3.2 Ozone Depleting and Global Warming Substances

No fixed equipment suspected to contain ODS/GWS was observed in the subject building.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 Designated Substances

3.1.1 Asbestos

As results summarized in Table 2 indicate, no asbestos was detected in any of the bulk samples of drywall joint compound, roof membrane, ceiling tiles, sprayed fireproofing, various styles of vinyl floor tiles or mortar retrieved for analysis. Therefore, these building materials are considered to be Non-ACM and there are no requirements for management, disturbance or removal of these materials under O. Reg. 278/05.

Results of the assessment indicated that the following asbestos-containing materials are present in the subject building that may be disturbed as part of the construction project.

- Texture Finish on ceilings
- Heat Shield on light fixture
- pipe fitting insulation
- Yellow Floor Mastic
- Vinyl Floor Tile 6 - 9"x9" Grey with Green Streaks
- Vinyl Floor Tile 2 - 12"x12" Beige with Brown Streaks
- Grey/black caulking window glass
- Beige caulking on windows and interior expansion joints
- VFT10 - 12"x12" White with Grey Smudges
- Black Mastic on 9”x9” Vinyl Floor Tiles
- Black Mastic
- Underlying beige vinyl floor tiles.

Refer to Appendix A (Summary of ACM Occurrences) and Appendix B (Site Drawings) for types, locations, estimated quantities, and condition of asbestos-containing materials identified in the subject area.

In accordance with O.Reg. 278/05, prior to the demolition of the subject building, any identified asbestos-containing materials must be removed. However, this does not apply

so as to prevent work necessary to gain access to the asbestos-containing material that is to be removed, if the workers doing the work are protected from the hazard. Our recommendations for the removal of the aforementioned asbestos-containing materials can be found below.

Texture Coat: Analysis of the texture coat indicates that this material contains 1.5% chrysotile asbestos. Therefore, the texture coat is considered to be asbestos-containing and specific measures and procedures are required to be followed during renovation or demolition projects that have the potential to disturb this material. Texture coat identified to be asbestos-containing is recommended to be treated as friable ACM since disturbance of this material typically results in significant degradation and subsequent dust/debris generation that cannot be adequately controlled through wetting. Therefore, removal or disturbance of 1 square metre or less of texture coat should be conducted following Type 2 operations. If more than 1 square metre of texture coat is to be removed or disturbed then work should be conducted following Type 3 operations.

Non-Friable: The caulking, vinyl floor tiles and mastic associated with vinyl floor tiles considered to be a non-friable ACM. As per O. Reg. 278/05, removal of non-friable ACM can be conducted following Type 1 operations; as long as the material can be removed without being broken, cut, drilled or otherwise similarly disturbed. If the material cannot be removed without it breaking or being similarly disturbed then the work should be conducted using non-powered hand tools and the material should be wetted to control the spread of dust. If the material cannot be wetted or if power tools attached to dust-collecting devices equipped with HEPA (high efficiency particulate aerosol) filters are used during removal or disturbance, then work should be performed following Type 2 operations. If non-friable materials are removed or disturbed using power tools that are not attached to dust-collecting devices that are equipped with HEPA filters then work should be conducted following Type 3 operations.

Heat Shield and Pipe Fitting Insulation: The heat shield and pipe insulation is considered to be a friable ACM. As per O. Reg. 278/05, removal or disturbance of 1 square metre or less of friable ACM is classified as a Type 2 operation. If more than 1 square metre of friable ACM is to be removed or disturbed then work should be conducted following Type 3 operations; unless the material is removed using a glove bag, in which case Type 2 operations are applicable.

General Recommendations: The removal or disturbance of ACM must follow the measures and procedures indicated in O. Reg. 278/05. This work should be conducted by workers who have received proper training by a “competent person” in the hazards of asbestos exposure, personal hygiene and work practices, and the use and care of respirators and protective clothing. Any worker/supervisor who works in a Type 3 operation must successfully complete the Asbestos Abatement Worker or Supervisor Training Program approved by the Ministry of Labour, Immigration, Training and Skills Development. It is recommended that all work involving the removal or disturbance of ACM be subject to inspection and testing to document conformance with O. Reg. 278/05 requirements. The degree of inspection and testing is dependent on site-specific

conditions such as the type, duration, size and location of the work. In most circumstances Type 3 operations require a visual inspection and clearance air testing to be conducted by a competent worker on completion of the work. The inspection should be conducted to ensure that the enclosure and the work area inside the enclosure are free from visible dust, debris or residue that may contain asbestos. Clearance air testing for Type 3 operations requires a minimum number of air samples to be taken (depending on the size of the work area) following specific sampling and analytical procedures and all samples taken must meet the clearance criteria set out in O. Reg. 278/05.

3.1.2 Lead

Based on the existing report result of paint chip analysis for the determination of lead content indicated that off-white paint associated with walls in Basement Corridor was confirmed to be lead-containing (>0.1% lead content based on required of Environmental Abatement Council of Canada (EACC) “Lead Guideline” (October 2014)).

As indicated in Table 5 results of paint chip analysis indicated that this material is not lead-containing (<0.009%) based on the *Surface Coating Materials Regulation* made under the Federal Hazardous Product Act. As such, no lead-related precautions are considered necessary for the disturbance of this material.

Results of paint chip analysis for the determination of lead content indicated that beige paints associated with drywall is considered a ‘low-level lead paint’ (≤0.1% based on requirements of the Environmental Abatement Council of Canada (EACC) Lead Guideline (2014)). If the ‘low-level lead paint’ is disturbed in a non-aggressive manner (no use of power tools/abrasive blasting, grinding, welding, heating, etc.), then respirators are not considered necessary. However, Class 1 measures and procedures should still be implemented during the non-aggressive disturbance of ‘low-level lead paints’, including, but not limited to, no smoking, eating, drinking and chewing gum in the work area; dust suppression methods must be implemented; and facilities must be made available so that workers can wash their hands and face.

Paints and surface coatings not sampled are assumed to be lead-containing (>0.1% lead content) in the subject area.

Emergency lighting is present on perimeter walls in the subject building and are suspected to contain lead-acid batteries. If emergency lighting is removed/replaced as part of the scheduled work activities, the batteries are recommended to be sent to a recycling facility for proper treatment.

Additional suspect lead-containing products includes solder on pipe fittings and electrical components. Future testing of these materials and specific handling/disposal requirements may be necessary if/when these materials are to be disturbed.

At this time the method of disturbance, if any, of lead-containing materials is unknown. It is recommended that any contractor whose work requires lead-containing materials to be

disturbed consult the EACC or Ontario MLITSD guidelines prior to the start of work to determine the Class/Type of operation(s) and the corresponding control measures (engineering controls, work/hygiene practices, protective clothing and equipment and worker training) necessary to conduct the work in a manner that will prevent worker overexposure to lead. The following table outlines the classification of lead disturbance based on the EACC guideline.

Operation	Description
Class 1	1. Removal of lead-containing or lead-based paints and surface coatings with a chemical gel/stripper or paste; 2. Application of lead-containing or lead-based paints and surface coatings with a brush, roller or sponge. 3. Installation or removal of lead sheeting or flashing. 4. Installation or removal of lead-containing packing, babbitt, caulking, gasket or similar material. 5. Removal of materials coated with lead-containing or lead-based paints and surface coatings, using non-powered hand tools, where the material remains chiefly intact and is not crumbled, pulverized or powdered. 6. Operating construction or demolition equipment (e.g. excavator, bulldozer) during building renovation or demolition where lead-based paints or surface coatings are present on building materials and are being disturbed. 7. Soldering with lead solder. 8. Removing lead-containing or lead-based paints or surface coatings with a heat gun. 9. Removing lead-containing and lead-based paints and surface coatings using a high-pressure water jet (e.g. pressure washer).
Class 2a	1. Removal of lead-containing or lead-based paints and surface coatings or lead-containing materials using a power tool that has an effective dust collection system equipped with a HEPA filter*. 2. Welding, torching or high temperature cutting of lead-containing materials indoors when using an effective fume collector or smoke eater that filters and exhausts lead fume and expels it directly outdoors (away from occupants, entrances, walkways, rest areas, etc.). Fume collector or smoke eater must have effective source control and capture velocity, minimum of 0.5 metres per second (100 feet per minute) at the work surface. 3. Welding, torching or high temperature cutting of lead-containing and lead-based paints and surface coatings or lead-containing materials outdoors. 4. Removal of lead-containing mortar using handheld non-powered tools. 5. Removal of lead-containing and lead-based paints and surface coatings or lead-containing materials by scraping or sanding (including wet sanding) using non-powered hand tools. 6. Demolition of plaster or building components that crumble, pulverize or powder and are covered with lead-containing or lead-based paints or surface coatings. 7. Clean up and removal of a significant amount of lead-containing dust and debris (that can be made easily airborne) using wet methods or HEPA vacuums.
Class 2b	1. Spray application of lead-containing paints and surface coatings

Operation	Description
Class 3a	1. Removal of lead-containing or lead-based paints and surface coatings or lead-containing materials using a power tool without an effective dust collection system equipped with a HEPA filter. 2. Welding, torching or high temperature cutting of lead-containing materials indoors or in a confined space (e.g. within a ditch or pit). 3. Removal of lead-containing mortar using a powered cutting device. 4. Burning of a material containing lead. 5. Removal, cleaning or repair of a ventilation system or ductwork used for controlling lead exposure. 6. Spray application of lead-based paints and surface coatings. 7. In the absence of an exposure assessment: a. demolition or cleanup of a facility where lead-containing products were manufactured and significant dust and debris, which can be made easily airborne, is present. b. cleanup of dust and debris down range of a firing station in an indoor firing range.an operation that may expose a worker to lead dust, fume or mist that is not a Class 1, Class 2, or Class 3B operation.
Class 3b	1. Abrasive blasting of lead-containing and lead-based paints and surface coatings or lead-containing materials (including wet, slurry and dry abrasive blasting and dry-ice blasting).

* Effective implies that the dust collection system should be capable of controlling airborne lead concentration levels to below 0.05 mg/m^3. Employers should follow manufacturer's recommendations and maintenance specifications for optimal function.

If practicable, all bulk lead waste materials should be separated from other wastes and sent to a recycling facility. If not practicable, lead-containing waste should be handled and disposed of according to R.R.O. 1990, Regulation 347, *General - Waste Management* (Reg. 347) made under the Environmental Protection Act. Under this regulation (and depending on the quantity of waste generated) the waste may be subject to analysis following the Toxicity Characteristic Leaching Procedure (TCLP) to determine if it is a “leachate toxic waste” based on the leachate quality criteria provided in Schedule 4 of the regulation. Such wastes must meet specific treatment requirements (Schedule 5) or undergo alternative treatment for hazardous debris (Schedule 8) prior to land disposal.

3.1.3 Mercury

Fluorescent lamps that require removal should be handled with care and kept intact to avoid potential exposure to mercury vapour present within the lamps. Under Reg. 347, waste mercury produced in amounts less than 5 kilograms (kg) in any month or otherwise accumulated in an amount less than 5 kg are exempt from hazardous waste registration, treatment and disposal requirements and can be disposed of in landfill as regular waste. Larger quantities of waste mercury must be treated and disposed of in accordance with the requirements of Reg. 347. Although it is anticipated that less than 5 kg of waste lamps will be produced as part of the Demolition Project, to prevent the release of mercury into the environment, Safetech recommends that all waste lamps be sent to a lamp recycling facility and not disposed of in landfill.

A mercury-containing thermostat, gauges and thermometers associated with the boiler and other mechanical equipment were observed in the subject building. These items are not expected to be removed as part of the construction project. However, care should be taken not to disturb these items during the work as breakage could cause a spill of liquid mercury. If any of these items are to be removed it should be done so carefully to avoid spillage and stored/packaged in a manner that will prevent breakage or spillage. Any mercury-containing equipment that is to be removed is recommended to be recycled rather than disposed of in landfill.

3.1.4 Silica

Suspect silica-containing materials were identified to be present in the subject building. In their current state, building materials containing silica do not represent a risk to building occupants or construction workers. Risks associated with exposure to silica arise during demolition activities that cause silica dust to be created (particularly grinding, drilling or cutting operations and during major demolition), resulting in a crystalline silica inhalation hazard.

If any materials suspected to contain silica are to be removed or otherwise disturbed as a result of renovation/demolition activities it is recommended that procedures be put in place to control the generation of dust (such as routine water misting) and thus reduce the potential for worker exposure. Workers that have the potential to be exposed to airborne silica should also wear appropriate protective clothing and respiratory protection. Any work involving the disturbance of silica-containing materials should follow the procedures outlined in the Ontario MLITSD “Silica on Construction Projects” guideline (April 2011). The appropriate engineering controls, work practices, hygiene practices, personal protective measures and training necessary to conduct the work in a safe manner are provided in this guideline. The general measures and procedures (or Type of operation) necessary depends on the type of work to be conducted. The following table outlines the classification of silica disturbance based on the Ontario MLITSD guideline.

Operation	Description
Type 1	1. The drilling of holes in concrete or rock that is not part of a tunneling operation or road construction. 2. Milling of asphalt from concrete highway pavement 3. Charging mixers and hoppers with silica sand (sand consisting of at least 95% silica) or silica flour (finely ground sand consisting of at least 95% silica) 4. Any other operation at a project that requires the handling of silica-containing material in a way that may results in a worker being exposed to airborne silica. 5. Entry into a dry mortar removal or abrasive blasting area while airborne dust is visible for less than 15 minutes for inspection and/or sampling. 6. Working within 25 metres of an area where compressed air is being used to remove silica-containing dust outdoors.

Operation	Description
Type 2	1. Removal of silica containing refractory materials with a jackhammer 2. The drilling of holes in concrete or rock that is part of a tunneling or road construction. 3. The use of a power tool to cut, grind, or polish concrete, masonry, terrazzo or refractory materials. 4. The use of a power tool to remove silica containing materials. 5. Tunneling (operation of the tunnel boring machine, tunnel drilling, and tunnel mesh installation). 6. Tuckpoint and surface grinding 7. Dry mortar removal with an electric or pneumatic cutting device 8. Dry method dust cleanup from abrasive blasting operations 9. The use of compress air outdoors for removing silica dust 10. Entry into area where abrasive blasting is being carried out for more than 15 minutes
Type 3	1. Abrasive blasting with an abrasive that contains >1% silica 2. Abrasive blasting or a material that contains >1% silica

3.1.5 Other Designated Substances

No other designated substances are expected to be a component of building materials in the subject building in a form that would represent an exposure concern. Therefore, no protective measures or procedures specific to acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, and vinyl chloride are considered necessary.

3.2 Other Hazardous Materials

3.2.1 Chemical Hazards

As no UFFI was identified or is suspected to be present in the subject building, no further action is required. However, given that no destructive testing was conducted, there is a remote possibility that UFFI could be hidden within locations such as exterior wall cavities. If suspect foam insulation is identified during renovation/demolition activities work should be stopped and the area should be re-assessed to evaluate conditions and determine appropriate control measures and worker protection, if necessary.

3.2.2 Biological Hazards

3.2.2.1 Mould Contamination

Suspect mould growth was identified on drywall finishes and concrete block wall. Removal should follow Level 2 mould remediation procedures following the methods outlined in the Environmental Abatement Council of Canada's (EACC) *Mould Abatement Guidelines* (Edition 3).

3.2.2.2 Pest Infestation

No visual evidence of any significant pest infestation was observed in the subject building. Therefore, no additional precautionary measures are deemed necessary for protection against biological contaminants potentially associated with pest infestation.

3.2.3 Environmental Hazards

3.2.3.1 Polychlorinated Biphenyls (PCBs)

The federal government has set strict regulations for the handling, storage and disposal of PCBs. The PCB Regulations (SOR/2008-273) came into effect on September 5th, 2008 and consolidates and replaces the Chlorobiphenyls Regulations (SOR/91-152) and the Storage of PCB Material Regulations (SOR/92-507). The purpose of the PCB Regulations is to improve the protection of Canada's environment and the health of Canadians by minimizing the risks posed by the use, storage and release of PCBs by accelerating the elimination of these substances.

Newer T8 lamps present in some of the four-feet lamp fluorescent light fixtures indicate that a lighting retrofit has taken place. These newer T8 lamps use ballasts that do not contain PCBs. Therefore, light fixtures containing T8 lamps are not expected to contain PCB ballasts. However, should renovation/demolition work result in removal and disposal of existing fluorescent light fixtures containing T8 lamps it is still recommended that each fixture is individually assessed for the presence of PCB-containing ballasts and if discovered should be handled and disposed of accordingly as described above.

3.2.3.2 Ozone Depleting and Global Warming Substances

No equipment was identified in the subject building that is expected to contain ozone depleting or global warming substances. As such, no recommendations are considered necessary at this time.

4.0 LIMITATIONS

The information and recommendations detailed in this report were carried out by trained professional and technical staff in accordance with generally accepted environmental and industrial hygiene work practices and procedures. Recommendations provided in this report have been generated in accordance with accepted industry guidelines and practices. These guidelines and practices are considered acceptable as of the date of this report.

In preparation of this report, Safetech relied on information supplied by others, including without limitation, information pertaining to the history and operation of the site, test results and reports of other consultants and testing services provided by independent laboratories. Except as expressly set out in this report, Safetech has not made any independent verification of information provided by independent entities.

The collection of samples at the location noted was consistent with the scope of work agreed-upon with the person or entity to whom this report is addressed and the information obtained concerning prior site investigations. As conditions between samples may vary, the potential remains for the presence of unknown additional contaminants for which there were no known indicators.

The analytical method used for determination of asbestos content meets the requirements of O. Reg. 278/05. However, small asbestos fibres may be missed by PLM due to resolution limitations of the optical microscope. Interfering binder/matrix and/or low asbestos content may also hinder positive identification by PLM. These conditions are common for vermiculite attic insulation (VAI) and non-friable organically bound (NOB) materials such as vinyl floor tiles, roofing materials, mastics and caulking and can lead to "false negative" results. If PLM analytical results for these types of materials indicate no asbestos detected they have been reported as "Presumed Non-ACM". Due to limitations of the analytical method we cannot confirm that low quantities of asbestos are not present in these samples using solely PLM analysis. Additional analytical procedures should be considered for such materials to rule out false negative results.

Conclusions are based on site conditions at the time of inspection and can only be extrapolated to an undefined limited area around inspected locations. The extent of the limited area depends on building construction and conditions. Building materials that are not detailed within this survey due to inaccessibility during the time of survey and/or are uncovered during renovation/demolition activities should be properly assessed by a qualified person prior to their disturbance. Safetech cannot warrant against undiscovered environmental liabilities. If any information becomes available that differs from the findings in this report, we request that we be notified immediately to reassess the conclusions provided herein.

No other person or entity is entitled to use or rely upon this report without the express written consent of Safetech and the person or entity to who it is addressed. Any use that a third party makes of this report, or any reliance based on conclusions and recommendations made, are the responsibility of such third parties. Safetech accepts no responsibility for damages suffered by third parties as a result of actions based on this report.

Appendix A: Summary of ACM Occurrences

APPENDIX I - Summary of ACM Occurrences

Building Address		1615 Dufferin Street, Toronto, Ontario	Date(s) of Current Assessment:		December 18, 2024
Building Name			Organization completing Assessment:		Safetech

Summary of Findings:

Location Number	*Location Name*	*Building System*	*Material Observed*	*Potential Hazardous Material*	*Sample ID*	*Asbestos Type/Content*	*Quantity*	*Condition*	*Notes/Required Action*
0-000	Exterior	Roof	Roofing Material	Asbestos	9A-9C, 10A-10C, 11A-11C, 12A-12C, 13A-13C	None Detected	N/A	N/A	Sampled During 2024 DSS by Safetech
0-000	Exterior	Walls	Window Caulking	Asbestos	18A-18C	None Detected	N/A	N/A	White Window Caulking
0-000	Exterior	Walls	Flashing Caulking	Asbestos	16A-16C	None Detected	N/A	N/A	Black Caulking
0-000	Exterior	Roof	Mastic	Asbestos	14A-14C	None Detected	N/A	N/A	Black Mastic on Pitch Pocket
0-000	Exterior	Walls	Window Caulking	Asbestos	17A-17C	**3% Chrysotile**	1000 LF	Good	Grey/Black Caulking Window Glass
2/3	Various Locations	Walls	Window Caulking	Asbestos	17A-17C	**0.5% Chrysotile**	500 LF	Good	Beige Caulking on Expansion joint and curtain walls
1	Exits	Walls	Door Caulking	Asbestos	17A-17C	**0.5% Chrysotile**	100 LF	Good	Beige caulkingaround doors
B	**Various Locations (including Units 103, 102)**	Other	Heat Shield	Asbestos	B-1 to B-3	**70% Chrysotile**	~40	Good	Heat shield on light fixture Sampled 2020 by Kempo **Observed to covered with sprayed fireproofing**
B-01	Utility Room	Floor	Concrete	N/A	N/A	N/A	N/A	N/A	
B-01	Utility Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
B-01	Utility Room	Ceiling	Concrete	N/A	N/A	N/A	N/A	N/A	
B-02	Elevator Room/ Maintenance Room	Floor	Vinyl Floor Tile 6	Asbestos	28697-01-ASB-6A-C	**5% Chrysotile**	100 sf	Good	VFT6 - 9"x9" Grey with Green Streaks
B-02	Elevator Room/ Maintenance Room	Floor	Mastic	Asbestos	25A-25C	**2% Chrysotile**	150 sf	Good	Black Mastic associated with VFT6 - 9"x9" Grey with Green Streaks
B-02	Elevator Room/ Maintenance Room	Floor	Vinyl Floor Tile 7	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-7A-C (None Detected)	N/A	N/A	VFT7 - 12"x12" Grey with Blue Streaks
B-02	Elevator Room/ Maintenance Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
B-02	Elevator Room/ Maintenance Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-03	Garbage Room	Floor	Vinyl Floor Tile 6	Asbestos	Not Sampled	**Visually Consistent with 28697-01-ASB-6A-C (5% Chrysotile)**	150 sf	Good	VFT6 - 9"x9" Grey with Green Streaks
B-03	Garbage Room	Floor	Mastic	Asbestos	25A-25C	**2% Chrysotile**	150 sf	Good	Black Mastic associated with VFT6 - 9"x9" Grey with Green Streaks
B-03	Garbage Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
B-03	Garbage Room	Ceiling	Texture Finish	Asbestos	A-1 to A-3, E-1 to E-3, G-1 to G-3, H-1 to H-3	**3% Chrysotile**	200 sf	Good	Sampled 2020 by Kempo
B-03	Garbage Room	Other	Heat Shield	Asbestos	B-1 to B-3	**70% Chrysotile**	1 EA	Good	Heat shield on light fixture Sampled 2020 by Kempo
B-04	Elevator Lobby	Floor	Vinyl Floor Tile 7	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-7A-C (None Detected)	N/A	N/A	VFT7 - 12"x12" Grey with Blue Streaks

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
B-04	Elevator Lobby	Floor	Vinyl Floor Tile 8	Asbestos	28697-01-ASB-8A-C	None Detected	N/A	N/A	VFT8 - 12"x12" Off-white with Blue Streaks
B-04	Elevator Lobby	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-04	Elevator Lobby	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-05	Storage Room	Floor	Vinyl Floor Tile 7	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-7A-C (None Detected)	N/A	N/A	VFT7 - 12"x12" Grey with Blue Streaks
B-05	Storage Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-05	Storage Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-06	Unit 101 Entrance	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-06	Unit 101 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-06	Unit 101 Entrance	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-06	Unit 101 Entrance	Deck	Fireproofing	Asbestos	I-1 to I-6	None Detected	N/A	N/A	Observed throughout Unit Sampled 2020 by Kempo
B-07	Corridor	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-07	Corridor	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-07	Corridor	Walls	Paint - Yellow	Lead	28697-01-Pb-10	<98 ppm (NEGATIVE - Trace concentrations only)	N/A	N/A	
B-07	Corridor	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-08	Room	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-08	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-08	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-09	Washroom	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-09	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-09	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-10	Room	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-10	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-10	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
B-11	Room	Floor	Carpet	N/A	N/A	N/A	N/A	N/A	
B-11	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-11	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-12	Room	Floor	Vinyl Floor Tile 8	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-8A-C (None Detected)	N/A	N/A	VFT8 - 12"x12" Off-white with Blue Streaks
B-12	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-12	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-13	Unit 102 Entrance	Floor	Vinyl Floor Tile 10	Asbestos	28697-01-ASB-10A-C	None Detected	N/A	N/A	VFT10 - 12"x12" White with Grey Smudges
B-13	Unit 102 Entrance	Floor	Mastic	Asbestos	27A-27C	**1% Chrysotile**	150 sf	Good	**Asbestos-containing floor mastic present throughout the unit 102**
B-13	Unit 102 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-13	Unit 102 Entrance	Walls	Paint - Peach	Lead	28697-01-Pb-07	<91 ppm (NEGATIVE - Trace concentrations only)	N/A	N/A	
B-13	Unit 102 Entrance	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-13	Unit 102 Entrance	Deck	Fireproofing	Asbestos	I-1 to I-6	None Detected	N/A	N/A	Observed throughout Unit Sampled 2020 by Kempo
B-13	Unit 102 Entrance	Other	Thermostat	Mercury	N/A	**Assumed Mercury**	1 EA	Good	
B-14	Room	Floor	Vinyl Floor Tile 8	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-8A-C (None Detected)	N/A	N/A	VFT8 - 12"x12" Off-white with Blue Streaks
B-14	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-14	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-15	Corridor	Floor	Mastic	Asbestos	28697-01-ASB-16A-C	**1% Chrysotile**	800 sf	Good	Yellow floor mastic
B-15	Corridor	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-15	Corridor	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-16	Room	Floor	Mastic	Asbestos	Not Sampled	**Visually Consistent with 28697-01-ASB-16A-C (1% Chrysotile)**	100 sf	Good	Yellow floor mastic
B-16	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-16	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
B-18	Room	Floor	Vinyl Floor Tile 8	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-8A-C (None Detected)	N/A	N/A	VFT8 - 12"x12" Off-white with Blue Streaks
B-18	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-18	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-19	Unit 103 Entrance	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
B-19	Unit 103 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-19	Unit 103 Entrance	Ceiling	Texture Finish	Asbestos	A-1 to A-3, E-1 to E-3, G-1 to G-3, H-1 to H-3	**3% Chrysotile**	100 sf	Good	Observed above drop ceiling Sampled 2020 by Kempo
B-19	Unit 103 Entrance	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-19	Unit 103 Entrance	Deck	Fireproofing	Asbestos	I-1 to I-6	None Detected	N/A	N/A	Observed throughout Unit Sampled 2020 by Kempo
B-20	Room	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-20	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-20	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-21	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
B-21	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-21	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-22	Washroom	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
B-22	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-22	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-23	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
B-23	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-23	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-24	Room	Floor	Vinyl Floor Tile 11	Asbestos	28697-01-ASB-11A-C	None Detected	N/A	N/A	VFT11 - 12"x12" White and Brown Smudges
B-24	Room	Floor	Vinyl Floor Tile 12	Asbestos	28697-01-ASB-12A-C	None Detected	N/A	N/A	VFT12 - 12"x12" Grey with White and Brown Smudges
B-24	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
B-24	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-25	Unit 104	Floor	Vinyl Floor Tile 8	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-8A-C (None Detected)	N/A	N/A	VFT8 - 12"x12" Off-white with Blue Streaks
B-25	Unit 104	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-25	Unit 104	Walls	Paint - Light Pink	Lead	28697-01-Pb-02	<80 ppm (NEGATIVE - Trace concentrations only)	N/A	N/A	
B-25	Unit 104	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-25	Unit 104	Ceiling	Texture Finish	Asbestos	A-1 to A-3, E-1 to E-3, G-1 to G-3, H-1 to H-3	**3% Chrysotile**	400 sf	Good	Observed above drop ceiling throughout Unit Sampled 2020 by Kempo
B-26	Unit 105 Entrance	Floor	Vinyl Floor Tile 7	Asbestos	28697-01-ASB-7A-C	None Detected	N/A	N/A	VFT7 - 12"x12" Grey with Blue Streaks
B-26	Unit 105 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-26	Unit 105 Entrance	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-26	Unit 105 Entrance	Ceiling	Texture Finish	Asbestos	A-1 to A-3, E-1 to E-3, G-1 to G-3, H-1 to H-3	**3% Chrysotile**	1000 sf	Good	Observed above drop ceiling throughout Unit Sampled 2020 by Kempo
B-26	Unit 105 Entrance	Other	Thermostat	Mercury	N/A	**Assumed Mercury**	1 EA	Good	
B-27	Corridor	Floor	Vinyl Floor Tile 7	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-7A-C (None Detected)	N/A	N/A	VFT7 - 12"x12" Grey with Blue Streaks
B-27	Corridor	Floor	Vinyl Floor Tile 9	Asbestos	28697-01-ASB-9A-C	None Detected	N/A	N/A	VFT9 - 12"x12" White with Blue Streaks
B-27	Corridor	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-27	Corridor	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-28	Washroom	Floor	Vinyl Floor Tile 7	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-7A-C (None Detected)	N/A	N/A	VFT7 - 12"x12" Grey with Blue Streaks
B-28	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-28	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-29	Room	Floor	Vinyl Floor Tile 7	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-7A-C (None Detected)	N/A	N/A	VFT7 - 12"x12" Grey with Blue Streaks
B-29	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-29	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-30	Room	Floor	Vinyl Floor Tile 7	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-7A-C (None Detected)	N/A	N/A	VFT7 - 12"x12" Grey with Blue Streaks
B-30	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
B-30	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-31	Room	Floor	Vinyl Floor Tile 7	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-7A-C (None Detected)	N/A	N/A	VFT7 - 12"x12" Grey with Blue Streaks
B-31	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-31	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-32	Unit 106 Entrance	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
B-32	Unit 106 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-32	Unit 106 Entrance	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-32	Unit 106 Entrance	Ceiling	Texture Finish	Asbestos	A-1 to A-3, E-1 to E-3, G-1 to G-3, H-1 to H-3	**3% Chrysotile**	1000 sf	Good	Observed above drop ceiling throughout Unit Sampled 2020 by Kempo
B-33	Storage Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
B-33	Storage Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-33	Storage Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-34	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
B-34	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-34	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-35	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
B-35	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-35	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-36	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
B-36	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-36	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-37	Electrical Room	Floor	Concrete	N/A	N/A	N/A	N/A	N/A	
B-37	Electrical Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
B-37	Electrical Room	Deck	Metal	N/A	N/A	N/A	N/A	N/A	
B-38	Washroom	Floor	Wood	N/A	N/A	N/A	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
B-38	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-38	Washroom	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-39	Corridor	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
B-39	Corridor	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-39	Corridor	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
B-40	Washroom	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-40	Washroom	Walls	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-40	Washroom	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-41	Janitor Room	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-41	Janitor Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
B-41	Janitor Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-42	Corridor	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-42	Corridor	Floor	Mastic	Asbestos	2A-2C	**1% Chrysotile**	800 sf	Good	**Asbestos-containing floor mastic present under ceramic floor tiles**
B-42	Corridor	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
B-42	Corridor	Walls	Paint - Off-White	Lead	L1	**0.11% or 1100 ppm (POSITIVE)**	2000 sf	Good	Sampled 2020 by Kempo
B-42	Corridor	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-43	South Stairwell	Floor	Terrazzo	N/A	N/A	N/A	N/A	N/A	
B-43	South Stairwell	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
B-43	South Stairwell	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-43	South Stairwell	Ceiling	Texture Finish	Asbestos	A-1 to A-3, E-1 to E-3, G-1 to G-3, H-1 to H-3	**3% Chrysotile**	300 sf	Good	Sampled 2020 by Kempo
B-44	North Stairwell	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
B-44	North Stairwell	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
B-44	North Stairwell	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
B-44	North Stairwell	Walls	Drywall Joint Compound	Mould	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	50 sf	Poor	Mould observed in 2024 DSS

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
B-44	North Stairwell	Ceiling	Texture Finish	Asbestos	A-1 to A-3, E-1 to E-3, G-1 to G-3, H-1 to H-3	**3% Chrysotile**	100 sf	Good	Sampled 2020 by Kempo
B-44	North Stairwell and Area under Stair	Pipe	Pipe Fitting Insulation	Asbestos	D-1 to D-3	**60% Chrysotile**	~15 EA	Good	Sampled 2020 by Kemp within stairwell closet
2-01	South Stairwell	Floor	Terrazzo	N/A	N/A	N/A	N/A	N/A	
2-01	South Stairwell	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
2-01	South Stairwell	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-01	South Stairwell	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-01	South Stairwell	Deck	Fireproofing	Asbestos	I-1 to I-6	None Detected	N/A	N/A	Sampled 2020 by Kempo
2-02	Pharmacy	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-02	Pharmacy	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-02	Pharmacy	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-03	Washroom	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-03	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-03	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-04	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-04	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-04	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-05	Unit 202 Entrance	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-05	Unit 202 Entrance	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-05	Unit 202 Entrance	Walls	Drywall Joint Compound	Asbestos	28697-01-ASB-17F	None Detected	N/A	N/A	
2-05	Unit 202 Entrance	Walls	Paint - Purple Pink	Lead	28697-01-Pb-09	<98 ppm (NEGATIVE - Trace concentrations only)	N/A	N/A	
2-05	Unit 202 Entrance	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-06	Room	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-06	Room	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-06	Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
2-06	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-07	Room	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-07	Room	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-07	Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
2-07	Room	Deck	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-08	Washroom	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-08	Washroom	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-08	Washroom	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
2-08	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-09	Corridor	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-09	Corridor	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	250 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-09	Corridor	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
2-09	Corridor	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-10	Room	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-10	Room	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-10	Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
2-10	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-11	Room	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-11	Room	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-11	Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
2-11	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-12	Unit 203 Entrance	Floor	Vinyl Floor Tile 5	N/A	28697-01-ASB-5A-C	None Detected	N/A	N/A	VFT5 - 12"x12" Purple with White and Dark Purple Smudges
2-12	Unit 203 Entrance	Walls	Drywall Joint Compound	Asbestos	28697-01-ASB-17G	None Detected	N/A	N/A	
2-12	Unit 203 Entrance	Walls	Paint - Brown	Lead	28697-01-Pb-08	<80 ppm (NEGATIVE - Trace concentrations only)	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
2-12	Unit 203 Entrance	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-13	Room	Floor	Vinyl Floor Tile 5	N/A	Not Sampled	Visually Consistent with 28697-01-ASB-5A-C (None Detected)	N/A	N/A	VFT5 - 12"x12" Purple with White and Dark Purple Smudges
2-13	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-13	Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-14	Room	Floor	Vinyl Floor Tile 5	N/A	Not Sampled	Visually Consistent with 28697-01-ASB-5A-C (None Detected)	N/A	N/A	VFT5 - 12"x12" Purple with White and Dark Purple Smudges
2-14	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-14	Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-15	Corridor	Floor	Vinyl Floor Tile 5	N/A	Not Sampled	Visually Consistent with 28697-01-ASB-5A-C (None Detected)	N/A	N/A	VFT5 - 12"x12" Purple with White and Dark Purple Smudges
2-15	Corridor	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-15	Corridor	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-16	Washroom	Floor	Vinyl Floor Tile 5	N/A	Not Sampled	Visually Consistent with 28697-01-ASB-5A-C (None Detected)	N/A	N/A	VFT5 - 12"x12" Purple with White and Dark Purple Smudges
2-16	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-16	Washroom	Deck	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-17	Room	Floor	Vinyl Floor Tile 5	N/A	Not Sampled	Visually Consistent with 28697-01-ASB-5A-C (None Detected)	N/A	N/A	VFT5 - 12"x12" Purple with White and Dark Purple Smudges
2-17	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-17	Room	Deck	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-18	Room	Floor	Vinyl Floor Tile 5	N/A	Not Sampled	Visually Consistent with 28697-01-ASB-5A-C (None Detected)	N/A	N/A	VFT5 - 12"x12" Purple with White and Dark Purple Smudges
2-18	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-18	Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-19	Room	Floor	Vinyl Floor Tile 5	N/A	Not Sampled	Visually Consistent with 28697-01-ASB-5A-C (None Detected)	N/A	N/A	VFT5 - 12"x12" Purple with White and Dark Purple Smudges
2-19	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-19	Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
2-20	Room	Floor	Vinyl Floor Tile 5	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-5A-C (None Detected)	N/A	N/A	VFT5 - 12"x12" Purple with White and Dark Purple Smudges
2-20	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-20	Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-21	Unit 204 Entrance	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-21	Unit 204 Entrance	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-21	Unit 204 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-21	Unit 204 Entrance	Ceiling	Ceiling Tile 2	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-14A-C (None Detected)	N/A	N/A	CT2 - 2'x2' Ornate
2-21	Unit 204 Entrance	Ceiling	Texture Finish	Asbestos	A-1 to A-3, E-1 to E-3, G-1 to G-3, H-1 to H-3	**3% Chrysotile**	400 sf	Good	Observed above drop ceiling throughout Unit Sampled 2020 by Kempo
2-22	Board Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-22	Board Room	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-22	Board Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-22	Board Room	Ceiling	Ceiling Tile 2	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-14A-C (None Detected)	N/A	N/A	CT2 - 2'x2' Ornate
2-23	North Stairwell	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-23	North Stairwell	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
2-23	North Stairwell	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-23	North Stairwell	Walls	Drywall Joint Compound	Mould	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	50 sf	Poor	Mould observed in 2024 DSS
2-24	Unit 205 Entrance	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-24	Unit 205 Entrance	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-24	Unit 205 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-24	Unit 205 Entrance	Walls	Paint - Brown	Lead	Not Sampled	Visually Consistent with 28697-01-Pb-08 (NEGATIVE - Trace concentrations only))	N/A	N/A	
2-24	Unit 205 Entrance	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-24	Unit 205 Entrance	Ceiling	Texture Finish	Asbestos	A-1 to A-3, E-1 to E-3, G-1 to G-3, H-1 to H-3	**3% Chrysotile**	1000 sf	Good	Observed above drop ceiling throughout Unit Sampled 2020 by Kempo
2-25	Corridor	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
2-25	Corridor	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	400 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-25	Corridor	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-25	Corridor	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-25	Corridor	Ceiling	Ceiling Tile 1	Mould	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	2 sf	Poor	Mould observed on two ceilings tiles in 2024 DSS
2-26	Room	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-26	Room	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	200 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-26	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-26	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-27	Room	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-27	Room	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-27	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-27	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-27	Room	Ceiling	Ceiling Tile 1	Mould	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	1 sf	Poor	Mould observed on one ceiling tile in 2024 DSS
2-28	Washroom	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-28	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-28	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-29	Room	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-29	Room	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-29	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-29	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-30	Washroom	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
2-30	Washroom	Walls	Ceramic	N/A	N/A	N/A	N/A	N/A	
2-30	Washroom	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
2-30	Washroom	Ceiling	Drywall Joint Compound	Mould	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	1 sf	Poor	Mould observed in 2024 DSS
2-30	Washroom	Ceiling	Paint -White	Lead	28697-01-Pb-01	<80 ppm (NEGATIVE - Trace concentrations only)	N/A	N/A	
2-31	Janitor Room	Floor	Vinyl Floor Tile 4	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-4A-C (None Detected)	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-31	Janitor Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
2-31	Janitor Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-32	Washroom	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
2-32	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-32	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-33	Unit 206 Entrance	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-33	Unit 206 Entrance	Floor	Vinyl Floor Tile 4	Asbestos	37A	None Detected	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-33	Unit 206 Entrance	Floor	Mastic	Asbestos	38A-38C	**3% Chrysotile**	250 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-33	Unit 206 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-33	Unit 206 Entrance	Walls	Paint - Purple Pink	Lead	Not Sampled	Visually Consistent with 28697-01-Pb-09 (NEGATIVE - Trace concentrations only)	N/A	N/A	
2-33	Unit 206 Entrance	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-33	Unit 206 Entrance	Ceiling	Texture Finish	Asbestos	A-1 to A-3, E-1 to E-3, G-1 to G-3, H-1 to H-3	**3% Chrysotile**	1000 sf	Good	Observed above drop ceiling throughout Unit Sampled 2020 by Kempo
2-34	Corridor	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-34	Corridor	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	250 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-34	Corridor	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-34	Corridor	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-35	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-35	Room	Floor	Mastic	Asbestos	38A-38C	**3% Chrysotile**	250 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-35	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-35	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
2-35	Room	Ceiling	Ceiling Tile 1	Mould	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	2 sf	Poor	Mould observed on two ceilings tiles in 2024 DSS
2-36	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-36	Room	Floor	Mastic	Asbestos	Similar to 38A-38C	**3% Chrysotile**	150 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-36	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-36	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-37	Washroom	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-37	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-37	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-38	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-38	Room	Floor	Mastic	Asbestos	38A-38C	**3% Chrysotile**	250 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-38	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-38	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-39	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
2-39	Room	Floor	Mastic	Asbestos	38A-38C	**3% Chrysotile**	300 sf	Good	Black Mastic associated with VFT4 - 12"x12" Beige with White and Brown Smudges
2-39	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
2-39	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
2-40	Corridor	Floor	Vinyl Floor Tile 4	Asbestos	28697-01-ASB-4A-C	None Detected	N/A	N/A	VFT4 - 12"x12" Beige with White and Brown Smudges
2-40	Corridor	Walls	Drywall Joint Compound	Asbestos	28697-01-ASB-17E	None Detected	N/A	N/A	
2-40	Corridor	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-01	Unit 304 Entrance	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
3-01	Unit 304 Entrance	Walls	Drywall Joint Compound	Asbestos	28697-01-ASB-17C	None Detected	N/A	N/A	
3-01	Unit 304 Entrance	Ceiling	Ceiling Tile 2	Asbestos	28697-01-ASB-14A-C	None Detected	N/A	N/A	CT2 - 2'x2' Ornate
3-01	Unit 304 Entrance	Ceiling	Ceiling Tile 3	Asbestos	Not Sampled	**Assumed ACM**	4000 sf	N/A	CT3 - 1'x1' Glue-on Small and Medium Holes Observed above drop ceiling throughout Unit * too high to sample
3-02	Washroom	Floor	Wood	N/A	N/A	N/A	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
3-02	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-02	Washroom	Ceiling	Ceiling Tile 2	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-14A-C (None Detected)	N/A	N/A	CT2 - 2'x2' Ornate
3-03	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
3-03	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-03	Room	Ceiling	Ceiling Tile 2	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-14A-C (None Detected)	N/A	N/A	CT2 - 2'x2' Ornate
3-04	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
3-04	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-04	Room	Ceiling	Ceiling Tile 2	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-14A-C (None Detected)	N/A	N/A	CT2 - 2'x2' Ornate
3-05	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
3-05	Room	Walls	Drywall Joint Compound	Asbestos	28697-01-ASB-17B	None Detected	N/A	N/A	
3-05	Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-06	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
3-06	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-06	Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-07	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
3-07	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-07	Room	Ceiling	Ceiling Tile 2	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-14A-C (None Detected)	N/A	N/A	CT2 - 2'x2' Ornate
3-08	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
3-08	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-08	Room	Ceiling	Ceiling Tile 2	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-14A-C (None Detected)	N/A	N/A	CT2 - 2'x2' Ornate
3-09	Unit 303 Entrance	Floor	Vinyl Floor Tile 1	Asbestos	28697-01-ASB-1A-C	None Detected	N/A	N/A	VFT1 - 12"x12" Brown with White and Black Smudges
3-09	Unit 303 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-09	Unit 303 Entrance	Walls	Paint - Pink	Lead	28697-01-Pb-06	<98 ppm (NEGATIVE - Trace concentrations only)	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
3-09	Unit 303 Entrance	Ceiling	Ceiling Tile 1	Asbestos	28697-01-ASB-13A-C	None Detected	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-09	Unit 303 Entrance	Ceiling	Ceiling Tile 3	Asbestos	Not Sampled	**Assumed ACM**	4000 sf	N/A	CT3 - 1'x1' Glue-on Small and Medium Holes Observed above drop ceiling throughout Unit * too high to sample
3-10	Washroom	Floor	Vinyl Floor Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-1A-C (None Detected)	N/A	N/A	VFT1 - 12"x12" Brown with White and Black Smudges
3-10	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-10	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-11	Room	Floor	Vinyl Floor Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-1A-C (None Detected)	N/A	N/A	VFT1 - 12"x12" Brown with White and Black Smudges
3-11	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-11	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-12	Room	Floor	Vinyl Floor Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-1A-C (None Detected)	N/A	N/A	VFT1 - 12"x12" Brown with White and Black Smudges
3-12	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-12	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-13	Room	Floor	Carpet	N/A	N/A	N/A	N/A	N/A	
3-13	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-13	Room	Ceiling	Drywall Joint Compound	Asbestos	28697-01-ASB-17A	None Detected	N/A	N/A	
3-14	Room	Floor	Carpet	N/A	N/A	N/A	N/A	N/A	
3-14	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-14	Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-15	Room	Floor	Vinyl Floor Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-1A-C (None Detected)	N/A	N/A	VFT1 - 12"x12" Brown with White and Black Smudges
3-15	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-15	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-16	Room	Floor	Vinyl Floor Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-1A-C (None Detected)	N/A	N/A	VFT1 - 12"x12" Brown with White and Black Smudges
3-16	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
3-16	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-17	Lobby	Floor	Vinyl Floor Tile 2	Asbestos	**28697-01-ASB-2A-C**	**4% Chrysotile**	800 sf	Good	VFT2 - 12"x12" Grey with Brown Streaks
3-17	Lobby	Walls	Drywall Joint Compound	Asbestos	28697-01-ASB-17D	None Detected	N/A	N/A	
3-17	Lobby	Walls	Paint - Pink Peach	Lead	28697-01-Pb-04	<80 ppm (NEGATIVE - Trace concentrations only)	N/A	N/A	
3-17	Lobby	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-18	Elevator Lobby	Floor	Vinyl Floor Tile 2	Asbestos	Not Sampled	**Visually Consistent with 28697-01-ASB-2A-C (4% Chrysotile)**	600 sf	Good	VFT2 - 12"x12" Grey with Brown Streaks
3-18	Elevator Lobby	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-18	Elevator Lobby	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-19	Washroom	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
3-19	Washroom	Walls	Ceramic	N/A	N/A	N/A	N/A	N/A	
3-19	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-20	Unit 302 Entrance	Floor	Vinyl Floor Tile 3	Asbestos	28697-01-ASB-3A-C	None Detected	N/A	N/A	VFT3 - 12"x12" Pink with Light Pink and Dark Pink Smudges
3-20	Unit 302 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-20	Unit 302 Entrance	Walls	Paint - White	Lead	Not Sampled	Visually Consistent with 28697-01-Pb-01 (NEGATIVE - Trace concentrations only)	N/A	N/A	
3-20	Unit 302 Entrance	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-21	Room	Floor	Vinyl Floor Tile 3	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-3A-C (None Detected)	N/A	N/A	VFT3 - 12"x12" Pink with Light Pink and Dark Pink Smudges
3-21	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-21	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-22	Room	Floor	Vinyl Floor Tile 3	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-3A-C (None Detected)	N/A	N/A	VFT3 - 12"x12" Pink with Light Pink and Dark Pink Smudges
3-22	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-22	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-23	Washroom	Floor	Vinyl Floor Tile 3	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-3A-C (None Detected)	N/A	N/A	VFT3 - 12"x12" Pink with Light Pink and Dark Pink Smudges

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
3-23	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-23	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-24	Unit 301 Entrance	Floor	Vinyl Floor Tile 2	Asbestos	Not Sampled	**Visually Consistent with 28697-01-ASB-2A-C (4% Chrysotile)**	600 sf	Good	VFT2 - 12"x12" Grey with Brown Streaks
3-24	Unit 301 Entrance	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-24	Unit 301 Entrance	Walls	Paint - Pink	Lead	Not Sampled	Visually Consistent with 28697-01-Pb-06 (NEGATIVE - Trace concentrations only)	N/A	N/A	
3-24	Unit 301 Entrance	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-25	Room	Floor	Vinyl Floor Tile 2	Asbestos	Not Sampled	**Visually Consistent with 28697-01-ASB-2A-C (4% Chrysotile)**	100 sf	Good	VFT2 - 12"x12" Grey with Brown Streaks
3-25	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-25	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-26	Room	Floor	Vinyl Floor Tile 2	Asbestos	Not Sampled	**Visually Consistent with 28697-01-ASB-2A-C (4% Chrysotile)**	100 sf	Good	VFT2 - 12"x12" Grey with Brown Streaks
3-26	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-26	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-27	Washroom	Floor	Vinyl Floor Tile 2	Asbestos	Not Sampled	**Visually Consistent with 28697-01-ASB-2A-C (4% Chrysotile)**	100 sf	Good	VFT2 - 12"x12" Grey with Brown Streaks
3-27	Washroom	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-27	Washroom	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-28	Room	Floor	Vinyl Floor Tile 2	Asbestos	Not Sampled	**Visually Consistent with 28697-01-ASB-2A-C (4% Chrysotile)**	100 sf	Good	VFT2 - 12"x12" Grey with Brown Streaks
3-28	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-28	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-29	Room	Floor	Vinyl Floor Tile 2	Asbestos	Not Sampled	**Visually Consistent with 28697-01-ASB-2A-C (4% Chrysotile)**	100 sf	Good	VFT2 - 12"x12" Grey with Brown Streaks
3-29	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-29	Room	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes

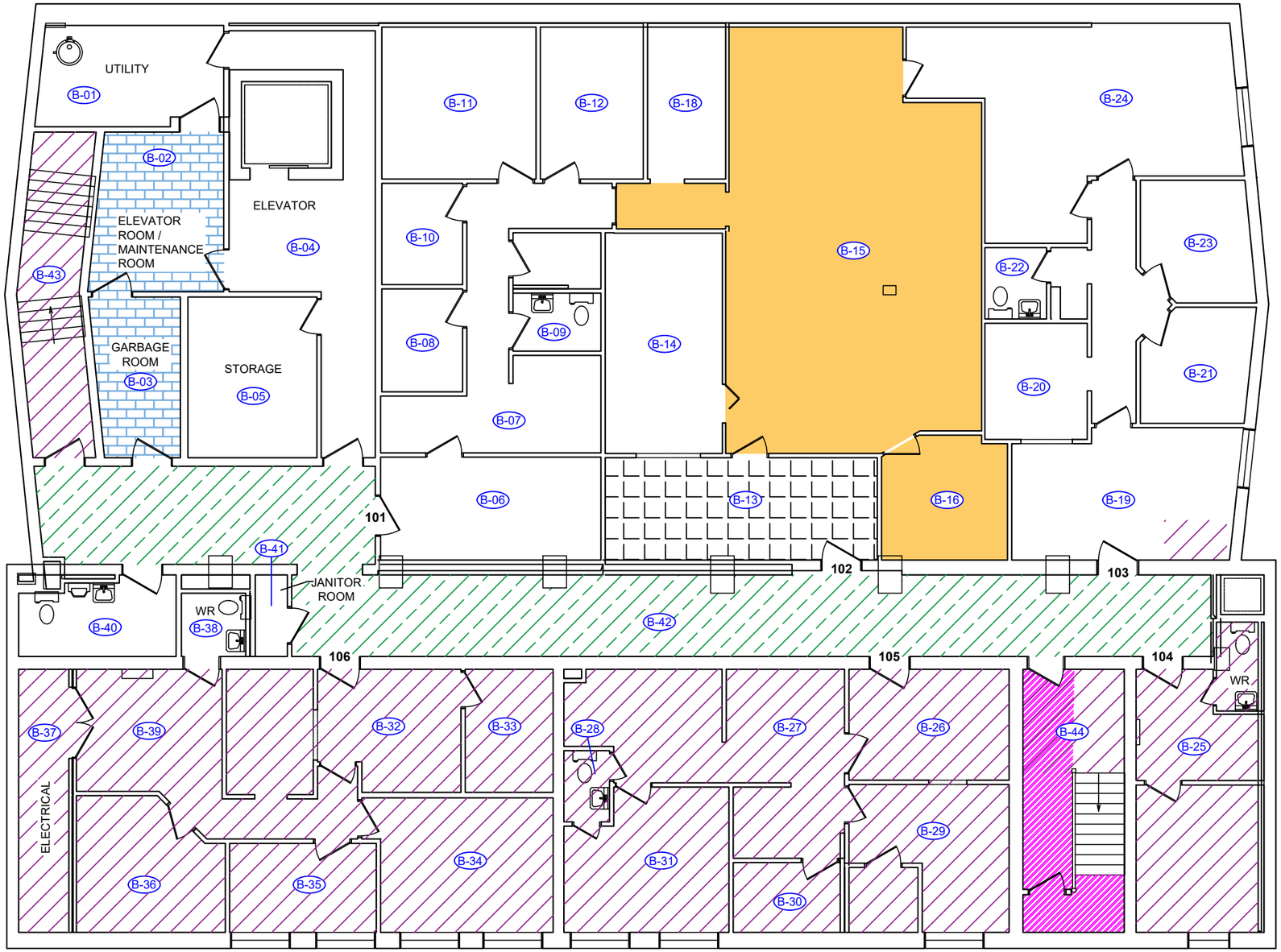
Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Asbestos Type/Content	Quantity	Condition	Notes/Required Action
3-29	Room	Ceiling	Ceiling Tile 4	Asbestos	28697-01-ASB-15A-C	None Detected	N/A	N/A	CT4 - 2'x4' Large Fissures and Pinholes
3-30	South Stairwell	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
3-30	South Stairwell	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-30	South Stairwell	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-31	Room	Floor	Wood	N/A	N/A	N/A	N/A	N/A	
3-31	Room	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-31	Room	Ceiling	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-32	Corridor	Floor	Vinyl Floor Tile 2	Asbestos	Not Sampled	**Visually Consistent with 28697-01-ASB-2A-C (4% Chrysotile)**	100 sf	Good	VFT2 - 12"x12" Grey with Brown Streaks
3-32	Corridor	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-32	Corridor	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
3-33	North Stairwell	Floor	Concrete	N/A	N/A	N/A	N/A	N/A	
3-33	North Stairwell	Floor	Paint - Brown	Lead	28697-01-Pb-03	<440 ppm (NEGATIVE - Trace concentrations only)	N/A	N/A	
3-33	North Stairwell	Walls	Drywall Joint Compound	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-17A-G (None Detected)	N/A	N/A	
3-33	North Stairwell	Walls	Paint - Beige	Lead	28697-01-Pb-05	590 ppm (NEGATIVE - Trace concentrations only)	N/A	N/A	
3-33	North Stairwell	Ceiling	Ceiling Tile 1	Asbestos	Not Sampled	Visually Consistent with 28697-01-ASB-13A-C (None Detected)	N/A	N/A	CT1 - 2'x4' Small Fissures and Pinholes
Surveyor's Field Notes									

Appendix B: Site Drawings

LEGEND

- Vinyl Floor Tiles and Mastic (ACM)
- B-05 Location Number
- Yellow Mastic (ACM)
- Mastic associated with Vinyl Floor Tiles (ACM)
- Texture Finish (ACM)
- Remnant Mastic Under Ceramic Floor Tiles (ACM)
- Pipe Insulation (ACM)

Please note:
1) Asbestos-containing heat shields were present above ceiling tiles (covered by sprayed fireproofing insulation) in various areas
2) Asbestos-containing caulking was identified on interior and exterior areas of the building



1) THIS FLOOR PLAN MUST BE READ IN CONJUNCTION WITH THE DESIGNATED SUBSTANCE AND HAZARDOUS MATERIALS ASSESSMENT REPORT.
2) NOT ALL ASBESTOS-CONTAINING MATERIALS ARE INDICATED IN THE FLOOR PLAN. REFER TO THE DESIGNATED SUBSTANCE AND HAZARDOUS MATERIALS REPORT FOR FURTHER DETAILS.
3) REMOVAL OR DISTURBANCE OF ASBESTOS-CONTAINING BUILDING MATERIALS MUST BE CONDUCTED IN ACCORDANCE WITH ONTARIO REGULATION 278/05 "DESIGNATED SUBSTANCE-ASBESTOS ON CONSTRUCTION PROJECTS AND IN BUILDINGS AND REPAIR OPERATIONS".

BASEMENT

DEMOLITION PROJECT

1615 DUFFERIN STREET

DRAWING NO.

DS-1

DATE: DECEMBER 2024

SAFETECH PROJECT NO.
1-3240934

safeTECH ENVIRONMENTAL LTD.
3045 SOUTHCREEK ROAD, UNIT 14
MISSISSAUGA, ONTARIO
L4X 2X7

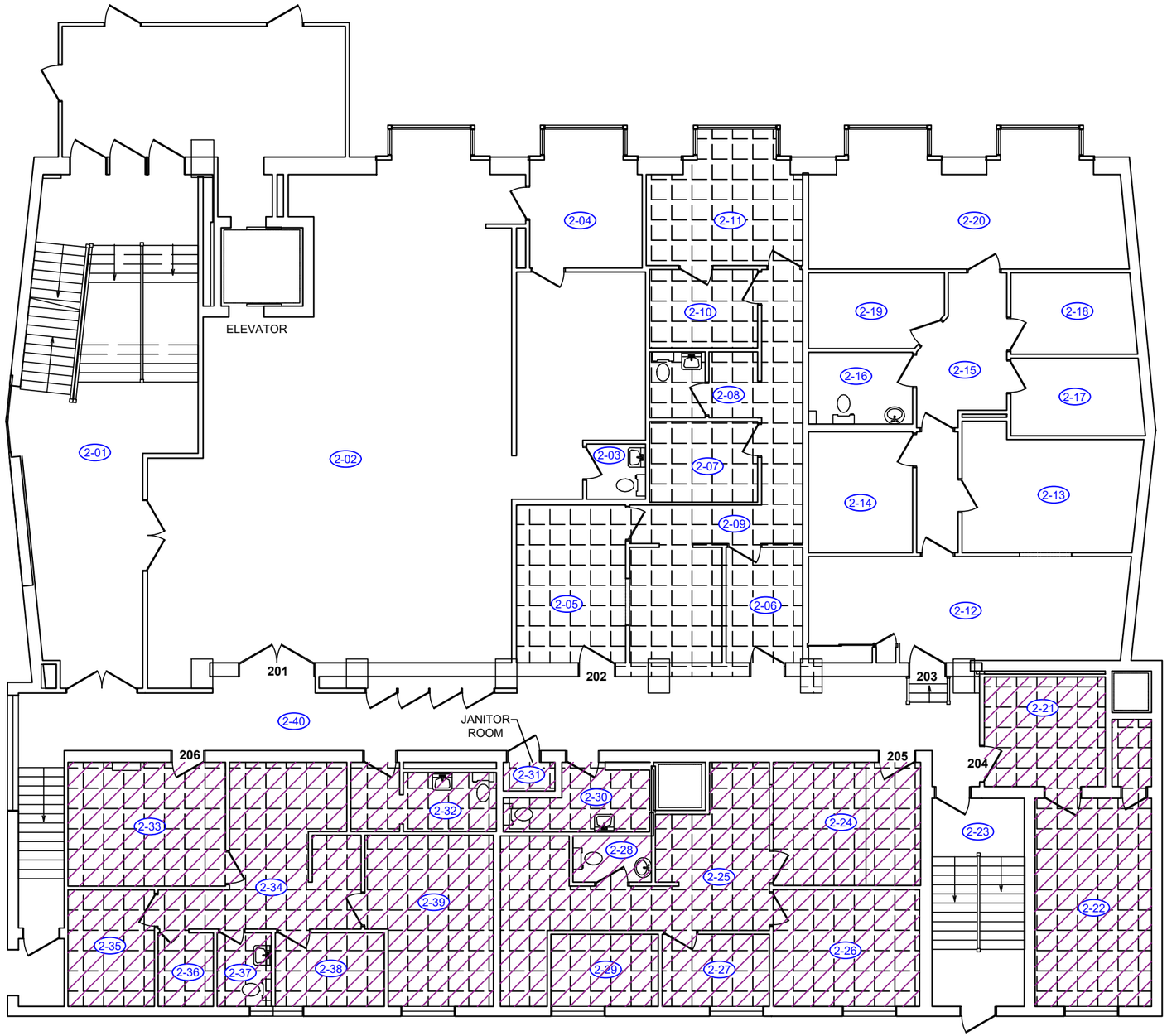
LEGEND

B-05 Location Number

Mastic associated with Vinyl Floor Tiles (ACM)

Texture Finish (ACM)

Please note:
1) Asbestos-containing heat shields were present above ceiling tiles (covered by sprayed fireproofing insulation) in various areas
2) Asbestos-containing caulking was identified on interior and exterior areas of the building



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2ND FLOOR

DEMOLITION PROJECT

1615 DUFFERIN STREET

DRAWING NO.

DS-2

DATE: DECEMBER 2024

SAFETECH PROJECT NO.
1-3240934

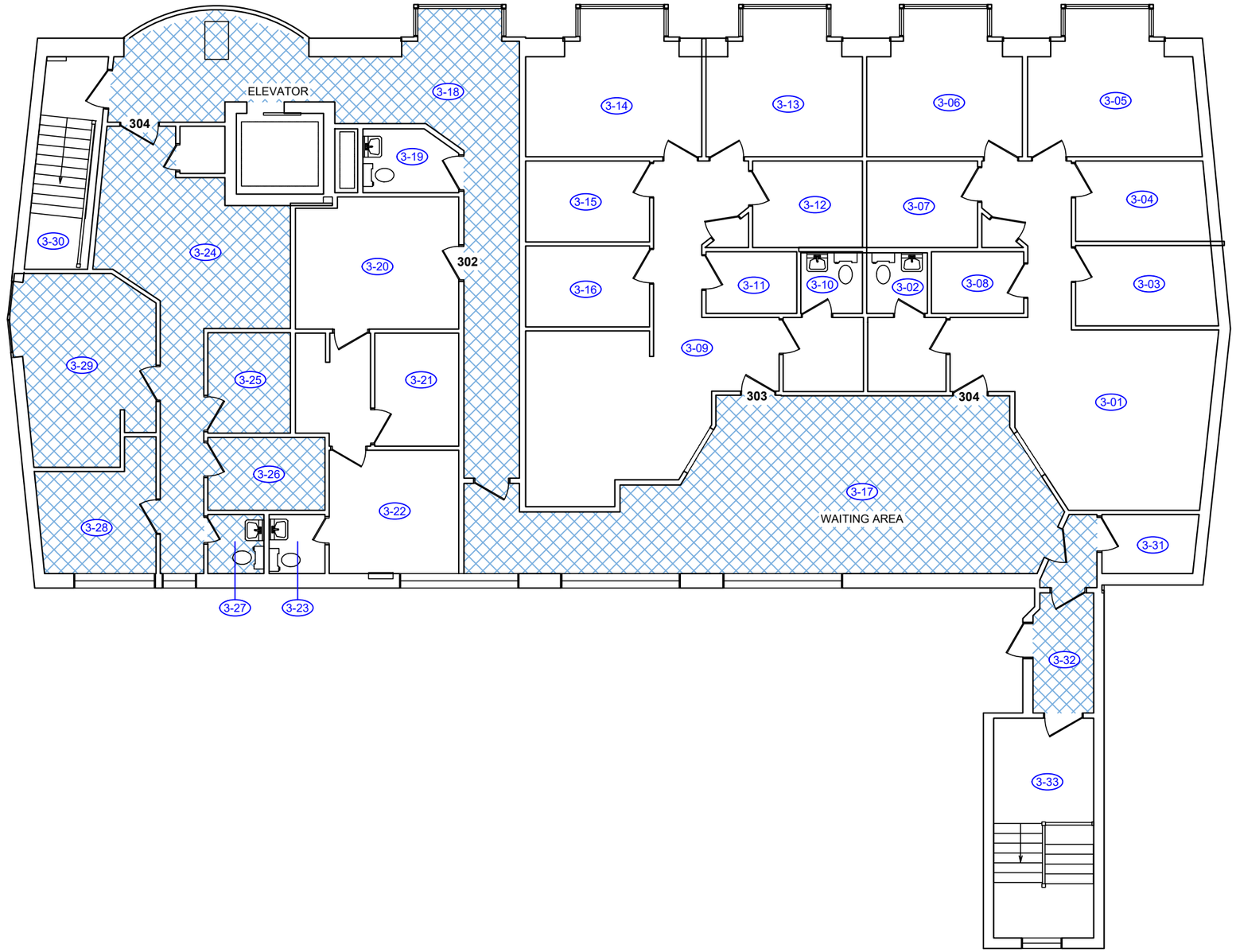
safeTECH ENVIRONMENTAL LTD.
3045 SOUTHCREEK ROAD, UNIT 14
MISSISSAUGA, ONTARIO
L4X 2X7

LEGEND

Vinyl Floor Tiles (ACM)

B-05 Location Number

Please note:
1) Asbestos-containing heat shields were present above ceiling tiles (covered by sprayed fireproofing insulation) in various areas
2) Asbestos-containing caulking was identified on interior and exterior areas of the building



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3RD FLOOR

DEMOLITION PROJECT

1615 DUFFERIN STREET

DRAWING NO.

DS-3

DATE: DECEMBER 2024

SAFETECH PROJECT NO.
1-3240934

safeTECH ENVIRONMENTAL LTD.
3045 SOUTHCREEK ROAD, UNIT 14
MISSISSAUGA, ONTARIO
L4X 2X7

Appendix C: Laboratory Certificate of Analysis – Asbestos

emcscientific
INCORPORATED

Laboratory Analysis Report

To:

Amit Kaul
Safetech Environmental Ltd.
3045 Southcreek Road, Unit 14
Mississauga, Ontario
L4X 2X7

EMC LAB REPORT NUMBER: A113351
Job/Project Name: 1615 Dufferin St
Analysis Method: Polarized Light Microscopy – EPA 600
Date Received: Dec 24/24 **Date Analyzed:** Jan 3/25
Analyst: Rahul Patel & Jayoda Perera
Reviewed By: Malgorzata Sybydlo

No. of Phases Analyzed: 134
Job No: 1-3240937
Number of Samples: 110
Date Reported: Jan 6/25

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
1A	A113351-1	1'x1' Ceiling tile – medium and large pinholes/ 3-01	Grey, ceiling tile	**ND**		75	25
1B	A113351-2	1'x1' Ceiling tile – medium and large pinholes/ 3-01	Grey, ceiling tile	**ND**		75	25
1C	A113351-3	1'x1' Ceiling tile – medium and large pinholes/ 3-09	Grey, ceiling tile	**ND**		75	25
2A	A113351-4	Mortarbed on Red Ceramic Floor Tiles/ B-42	3 Phases: a) Black, mastic b) Grey, cementitious material c) Red, cementitious material	**Chrysotile** **ND** **ND**	**1**		99 100 100
2B	A113351-5	Mortarbed on Red Ceramic Floor Tiles/ B-42	NA	**NA**			
2C	A113351-6	Mortarbed on Red Ceramic Floor Tiles/ B-42	NA	**NA**			
3A	A113351-7	Grout on Red Ceramic Floor Tiles/ B-42	Grey, cementitious material	**ND**			100
3B	A113351-8	Grout on Red Ceramic Floor Tiles/ B-42	Grey, cementitious material	**ND**			100
3C	A113351-9	Grout on Red Ceramic Floor Tiles/ B-42	Grey, cementitious material	**ND**			100
4A	A113351-10	Mortarbed on Ceramic Floor Tiles/ 2-01	White, cementitious material	**ND**			100
4B	A113351-11	Mortarbed on Ceramic Floor Tiles/ 2-01	White, cementitious material	**ND**			100

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
4C	A113351-12	Mortarbed on Ceramic Floor Tiles/ 2-01	White, cementitious material	**ND**			100
5A	A113351-13	Grout on Ceramic Floor Tiles/ 2-01	2 Phases: a) White, cementitious material b) Red, cementitious material	 **ND** **ND**			 100 100
5B	A113351-14	Grout on Ceramic Floor Tiles/ 2-01	2 Phases: a) White, cementitious material b) Red, cementitious material	 **ND** **ND**			 100 100
5C	A113351-15	Grout on Ceramic Floor Tiles/ 2-01	2 Phases: a) White, cementitious material b) Red, cementitious material	 **ND** **ND**			 100 100
6A	A113351-16	Brick mortar/ basement corridor b-42	Grey, cementitious material	**ND**			100
6B	A113351-17	Brick mortar/ roof chimney	Grey, cementitious material	**ND**			100
6C	A113351-18	Brick mortar/ exterior	Grey, cementitious material	**ND**			100
7A	A113351-19	Mortarbed on White Ceramic Floor Tiles/ 3-19	Grey, cementitious material	**ND**			100
7B	A113351-20	Mortarbed on White Ceramic Floor Tiles/ 3-19	Grey, cementitious material	**ND**			100
7C	A113351-21	Mortarbed on White Ceramic Floor Tiles/ Basement Janitor Closet	Grey, cementitious material	**ND**			100
8A	A113351-22	Grout on White Ceramic Floor Tiles/ 3-19	Off white, cementitious material	**ND**			100
8B	A113351-23	Grout on White Ceramic Floor Tiles/ 3-19	Grey, cementitious material	**ND**			100

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
8C	A113351-24	Grout on White Ceramic Floor Tiles/ Basement Janitor Closet	Grey, cementitious material	**ND**			100
9A	A113351-25	Roof membrane (capsheet)/ above back stairwell 3-30	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
9B	A113351-26	Roof membrane (capsheet)/ above back stairwell 3-30	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
9C	A113351-27	Roof membrane (capsheet)/ above back stairwell 3-30	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
10A	A113351-28	Roof membrane (capsheet)/ pitched roof	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
10B	A113351-29	Roof membrane (capsheet)/ pitched roof	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
10C	A113351-30	Roof membrane (capsheet)/ pitched roof	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
11A	A113351-31	Vapour barrier/craft paper/ pitched roof	2 Phases: a) Brown, paper b) Black, tar (between paper)	 **ND** **ND**		 90 	 10 100
11B	A113351-32	Vapour barrier/craft paper/ pitched roof	2 Phases: a) Brown, paper b) Black, tar (between paper)	 **ND** **ND**		 90 	 10 100

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
11C	A113351-33	Vapour barrier/craft paper/ pitched roof	2 Phases: a) Brown, paper b) Black, tar (between paper)	 **ND** **ND**		90	10 100
12A	A113351-34	Roof membrane (capsheet) – new/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
12B	A113351-35	Roof membrane (capsheet) – new/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
12C	A113351-36	Roof membrane (capsheet) – new/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
13A	A113351-37	Roof felt – old /underlying/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
13B	A113351-38	Roof felt – old /underlying/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
13C	A113351-39	Roof felt – old /underlying/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
14A	A113351-40	Black Mastic/ On Pitch pocket - Southeast Roof (Lower)	Black, tar with fibres	**ND**		20	80
14B	A113351-41	Black mastic/ on ahu support - southeast roof (lower)	Black, tar with fibres	**ND**		20	80
14C	A113351-42	Black mastic/ on ahu support -	Black, tar with fibres	**ND**		20	80

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
		southeast roof (lower)					
15A	A113351-43	Concrete block mortar/ 2-21	Grey, cementitious material	**ND**			100
15B	A113351-44	Concrete block mortar/ 2-21	Grey, cementitious material	**ND**			100
15C	A113351-45	Concrete block mortar/ b-37	Grey, cementitious material	**ND**			100
16A	A113351-46	Black Caulking/ on Flashing - Southeast Roof (Lower)	Black, tar with fibres	**ND**			100
16B	A113351-47	Black Caulking/ on Flashing - Southeast Roof (Lower)	Black, tar with fibres	**ND**			100
16C	A113351-48	Black caulking/ roof vent – pitched roof	Black, tar with fibres	**ND**			100
17A	A113351-49	Grey/black caulking window glass/ exterior	Black and grey, caulking	**Chrysotile**	**3**		97
17B	A113351-50	Grey/black caulking window glass/ exterior	NA	**NA**			
17C	A113351-51	Grey/black caulking window glass/ 2-01	NA	**NA**			
18A	A113351-52	White window caulking/ exterior	White, caulking	**ND**			100
18B	A113351-53	White window caulking/ exterior	White, caulking	**ND**			100
18C	A113351-54	White window caulking/ exterior	White, caulking	**ND**			100
19A	A113351-55	Beige caulking/ expansion joint – 3-06	Beige, caulking	**ND**			100
19B	A113351-56	Beige caulking/ on windows – 3-18	Off white, caulking	**Chrysotile**	**0.5**		99.5

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
19C	A113351-57	Beige caulking/ door - main vestibule	NA	**NA**			
20A	A113351-58	Grey Mastic on Duct/ Roof	Brown, caulking	**ND**			100
20B	A113351-59	Grey Mastic on Duct/ Roof	Brown, caulking	**ND**			100
20C	A113351-60	Grey Mastic on Duct/ Roof	Brown, caulking	**ND**			100
21A	A113351-61	Black Building Paper in Wall Cavity/ By Entrance – 2-01	3 Phases: a) Black, tar b) Brown, paper c) Pink, fibrous material	 **ND** **ND** **ND**		 80 90	 100 20 10
21B	A113351-62	Black Building Paper in Wall Cavity/ By Entrance – 2-01	3 Phases: a) Black, tar b) Brown, paper c) Pink, fibrous material	 **ND** **ND** **ND**		 80 90	 100 20 10
21C	A113351-63	Black Building Paper in Wall Cavity/ By Entrance – 2-01	3 Phases: a) Black, tar b) Brown, paper c) Pink, fibrous material	 **ND** **ND** **ND**		 80 90	 100 20 10
22A	A113351-64	Grey Plaster on Exterior Wall Backing/ By Entrance – 2-01	Grey, plaster	**ND**			100
22B	A113351-65	Grey Plaster on Exterior Wall Backing/ By Entrance – 2-01	Grey, plaster	**ND**			100
22C	A113351-66	Grey Plaster on Exterior Wall Backing/ By Entrance – 2-01	Grey, plaster	**ND**			100
23A	A113351-67	Drywall joint compound/ 2-01	Off white, joint compound	**ND**			100

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
24A	A113351-68	Sprayed fireproofing/ 2-01	White, fibrous material	**ND**		90	10
25A	A113351-69	Black Mastic on 9"x9" Vinyl Floor Tiles/ B-03	Black, mastic	**Chrysotile**	**2**		98
25B	A113351-70	Black Mastic on 9"x9" Vinyl Floor Tiles/ B-03	NA	**NA**			
25C	A113351-71	Black Mastic on 9"x9" Vinyl Floor Tiles/ B-03	NA	**NA**			
26A	A113351-72	VFT10 - 12"x12" White with Grey Smudges/ B-13 / Unit 102	White, vinyl floor tile	**ND**			100
27A	A113351-73	Black Mastic on Sample Set 26/ B-13 / Unit 102	Black, mastic	**Chrysotile**	**1**		99
27B	A113351-74	Black Mastic on Sample Set 26/ B-13 / Unit 102	NA	**NA**			
27C	A113351-75	Black Mastic on Sample Set 26/ B-13 / Unit 102	NA	**NA**			
28A	A113351-76	VFT3 - 12"x12" Pink with Light Pink and Dark Pink Smudges/ 3-21	2 Phases: a) Pink, vinyl floor tile b) Off white, mastic	 **ND** **ND**			 100 100
29A	A113351-77	Underlying beige vinyl floor tiles/ 3-16	3 Phases: a) Beige, vinyl floor tile b) Yellow, mastic c) Grey, cementitious material	 **Chrysotile** **ND** **ND**	 **1**		 99 100 100
29B	A113351-78	Underlying beige vinyl floor tiles/ 2-12	NA	**NA**			
29C	A113351-79	Underlying beige vinyl floor tiles/ 2-12	NA	**NA**			

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
30A	A113351-80	VFT5 - 12"x12" Purple with White and Dark Purple Smudges/ 2-12	Purple, vinyl floor tile	**ND**			100
31A	A113351-81	Mastic on Ceramic Wall Tiles/ 3-19	Off white, mastic	**ND**			100
31B	A113351-82	Mastic on Ceramic Wall Tiles/ 3-19	Off white, mastic	**ND**			100
31C	A113351-83	Mastic on Ceramic Wall Tiles/ 3-19	Off white, mastic	**ND**			100
32A	A113351-84	Grout ceramic wall tiles/ 3-19	Off white, cementitious material	**ND**			100
32B	A113351-85	Grout ceramic wall tiles/ 3-19	Off white, cementitious material	**ND**			100
32C	A113351-86	Grout ceramic wall tiles/ 3-19	Off white, cementitious material	**ND**			100
33A	A113351-87	Underlying white vinyl floor tiles (bottom layer)/ 3-01	White, vinyl floor tile	**ND**			100
33B	A113351-88	Underlying white vinyl floor tiles (bottom layer)/ 3-01	White, vinyl floor tile	**ND**			100
33C	A113351-89	Underlying white vinyl floor tiles (bottom layer)/ 3-01	White, vinyl floor tile	**ND**			100
34A	A113351-90	Yellow Mastic on Sample Set 33/ 3-01	2 Phases: a) Yellow, mastic b) Grey, cementitious material	 **ND** **ND**			 100 100
34B	A113351-91	Yellow Mastic on Sample Set 33/ 3-01	Yellow, mastic	**ND**			100
34C	A113351-92	Yellow Mastic on Sample Set 33/ 3-01	Yellow, mastic	**ND**			100
35A	A113351-93	FT9 - 12"x12" White with Blue Streaks/ B-27	White, vinyl floor tile	**ND**			100

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
36A	A113351-94	Black Mastic on Sample Set 35/ B-27	2 Phases: a) Black, mastic b) Grey and white, cementitious material	 **ND** **ND**			 100 100
36B	A113351-95	Black Mastic on Sample Set 35/ B-27	2 Phases: a) Black, mastic b) Grey and white, cementitious material	 **ND** **ND**			 100 100
36C	A113351-96	Black Mastic on Sample Set 35/ B-27	2 Phases: a) Black, mastic b) Grey and white, cementitious material	 **ND** **ND**			 100 100
37A	A113351-97	VFT4 - 12"x12" Beige with White and Brown Smudges/ 2-33	Beige, vinyl floor tile	**ND**			100
38A	A113351-98	Black Mastic on Sample Set 37/ 2-33	2 Phases: a) Black, mastic b) Yellow, mastic	 **Chrysotile** **ND**	 **1**		 99 100
38B	A113351-99	Black Mastic on Sample Set 37/ 2-33	NA	**NA**			
38C	A113351-100	Black Mastic on Sample Set 37/ 2-33	NA	**NA**			
39A	A113351-101	VFT1 - 12"x12" Brown with White and Black Smudges Under Wood Floor)/ 3-01	2 Phases: a) Grey, vinyl floor tile b) Colourless, mastic	 **ND** **ND**			 100 100
40A	A113351-102	Glass block mortar/ 3-18	Grey, cementitious material	**ND**			100

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Laboratory Analysis Report

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
40B	A113351-103	Glass block mortar/ 3-18	Grey, cementitious material	**ND**			100
40C	A113351-104	Glass block mortar/ 3-18	Grey, cementitious material	**ND**			100
41A	A113351-105	VFT11 - 12"x12" White and Brown Smudges/ B-24	Off white, vinyl floor tile	**ND**			100
42A	A113351-106	Yellow Mastic on Sample Set 41/ B-24	Yellow, mastic	**ND**			100
42B	A113351-107	Yellow Mastic on Sample Set 41/ B-24	Yellow, mastic	**ND**			100
42C	A113351-108	Yellow Mastic on Sample Set 41/ B-24	Yellow, mastic	**ND**			100
43A	A113351-109	VFT8 - 12"x12" Off-white with Blue Streaks/ B-25	3 Phases: a) Off white, vinyl floor tile b) Brown, mastic c) Grey, cementitious material	 **ND** **ND** **ND**			 100 100 100
44A	A113351-110	CT1 - 2'x4' Small Fissures and Pinholes/ 3-01	Grey, ceiling tile	**ND**		75	25

Note:
1. Bulk samples are analyzed using Polarized Light Microscopy (PLM) and dispersion staining techniques. The analytical procedures are in accordance with EPA 600/R-93/116 method.
2. The results are only related to the samples analyzed. **ND** = None Detected (no asbestos fibres were observed), **NA** = Not Analyzed (analysis stopped due to a previous positive result).
3. This report may not be reproduced, except in full without the written approval of EMC Scientific Inc. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.
4. The Ontario Regulatory Threshold for asbestos is 0.5%. The limit of quantification (LOQ) is 0.5%.
5. Vinyl floor tiles may contain very fine asbestos fibres which the PLM method cannot detect. TEM analysis may be necessary to confirm the absence of asbestos.

Appendix D: Laboratory Certificate of Analysis – Lead

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Laboratory Analysis Report

To:

Amit Kaul
Safetech Environmental Ltd.
3045 Southcreek Road, Unit 14
Mississauga, Ontario
L4X 2X7

EMC LAB REPORT NUMBER: A113351
Job/Project Name: 1615 Dufferin St
Analysis Method: Polarized Light Microscopy – EPA 600
Date Received: Dec 24/24 **Date Analyzed:** Jan 3/25
Analyst: Rahul Patel & Jayoda Perera
Reviewed By: Malgorzata Sybydlo

No. of Phases Analyzed: 134
Job No: 1-3240937
Number of Samples: 110
Date Reported: Jan 6/25

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
1A	A113351-1	1'x1' Ceiling tile – medium and large pinholes/ 3-01	Grey, ceiling tile	**ND**		75	25
1B	A113351-2	1'x1' Ceiling tile – medium and large pinholes/ 3-01	Grey, ceiling tile	**ND**		75	25
1C	A113351-3	1'x1' Ceiling tile – medium and large pinholes/ 3-09	Grey, ceiling tile	**ND**		75	25
2A	A113351-4	Mortarbed on Red Ceramic Floor Tiles/ B-42	3 Phases: a) Black, mastic b) Grey, cementitious material c) Red, cementitious material	**Chrysotile** **ND** **ND**	**1**		99 100 100
2B	A113351-5	Mortarbed on Red Ceramic Floor Tiles/ B-42	NA	**NA**			
2C	A113351-6	Mortarbed on Red Ceramic Floor Tiles/ B-42	NA	**NA**			
3A	A113351-7	Grout on Red Ceramic Floor Tiles/ B-42	Grey, cementitious material	**ND**			100
3B	A113351-8	Grout on Red Ceramic Floor Tiles/ B-42	Grey, cementitious material	**ND**			100
3C	A113351-9	Grout on Red Ceramic Floor Tiles/ B-42	Grey, cementitious material	**ND**			100
4A	A113351-10	Mortarbed on Ceramic Floor Tiles/ 2-01	White, cementitious material	**ND**			100
4B	A113351-11	Mortarbed on Ceramic Floor Tiles/ 2-01	White, cementitious material	**ND**			100

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
4C	A113351-12	Mortarbed on Ceramic Floor Tiles/ 2-01	White, cementitious material	**ND**			100
5A	A113351-13	Grout on Ceramic Floor Tiles/ 2-01	2 Phases: a) White, cementitious material b) Red, cementitious material	 **ND** **ND**			 100 100
5B	A113351-14	Grout on Ceramic Floor Tiles/ 2-01	2 Phases: a) White, cementitious material b) Red, cementitious material	 **ND** **ND**			 100 100
5C	A113351-15	Grout on Ceramic Floor Tiles/ 2-01	2 Phases: a) White, cementitious material b) Red, cementitious material	 **ND** **ND**			 100 100
6A	A113351-16	Brick mortar/ basement corridor b-42	Grey, cementitious material	**ND**			100
6B	A113351-17	Brick mortar/ roof chimney	Grey, cementitious material	**ND**			100
6C	A113351-18	Brick mortar/ exterior	Grey, cementitious material	**ND**			100
7A	A113351-19	Mortarbed on White Ceramic Floor Tiles/ 3-19	Grey, cementitious material	**ND**			100
7B	A113351-20	Mortarbed on White Ceramic Floor Tiles/ 3-19	Grey, cementitious material	**ND**			100
7C	A113351-21	Mortarbed on White Ceramic Floor Tiles/ Basement Janitor Closet	Grey, cementitious material	**ND**			100
8A	A113351-22	Grout on White Ceramic Floor Tiles/ 3-19	Off white, cementitious material	**ND**			100
8B	A113351-23	Grout on White Ceramic Floor Tiles/ 3-19	Grey, cementitious material	**ND**			100

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
8C	A113351-24	Grout on White Ceramic Floor Tiles/ Basement Janitor Closet	Grey, cementitious material	**ND**			100
9A	A113351-25	Roof membrane (capsheet)/ above back stairwell 3-30	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
9B	A113351-26	Roof membrane (capsheet)/ above back stairwell 3-30	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
9C	A113351-27	Roof membrane (capsheet)/ above back stairwell 3-30	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
10A	A113351-28	Roof membrane (capsheet)/ pitched roof	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
10B	A113351-29	Roof membrane (capsheet)/ pitched roof	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
10C	A113351-30	Roof membrane (capsheet)/ pitched roof	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	 100 80
11A	A113351-31	Vapour barrier/craft paper/ pitched roof	2 Phases: a) Brown, paper b) Black, tar (between paper)	 **ND** **ND**		 90 	 10 100
11B	A113351-32	Vapour barrier/craft paper/ pitched roof	2 Phases: a) Brown, paper b) Black, tar (between paper)	 **ND** **ND**		 90 	 10 100

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
11C	A113351-33	Vapour barrier/craft paper/ pitched roof	2 Phases: a) Brown, paper b) Black, tar (between paper)	 **ND** **ND**		90	10 100
12A	A113351-34	Roof membrane (capsheet) – new/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
12B	A113351-35	Roof membrane (capsheet) – new/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
12C	A113351-36	Roof membrane (capsheet) – new/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
13A	A113351-37	Roof felt – old /underlying/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
13B	A113351-38	Roof felt – old /underlying/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
13C	A113351-39	Roof felt – old /underlying/ southeast roof (lower)	2 Phases: a) Black, tar b) Black, tar with fibres	 **ND** **ND**		 20	100 80
14A	A113351-40	Black Mastic/ On Pitch pocket - Southeast Roof (Lower)	Black, tar with fibres	**ND**		20	80
14B	A113351-41	Black mastic/ on ahu support - southeast roof (lower)	Black, tar with fibres	**ND**		20	80
14C	A113351-42	Black mastic/ on ahu support -	Black, tar with fibres	**ND**		20	80

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
		southeast roof (lower)					
15A	A113351-43	Concrete block mortar/ 2-21	Grey, cementitious material	**ND**			100
15B	A113351-44	Concrete block mortar/ 2-21	Grey, cementitious material	**ND**			100
15C	A113351-45	Concrete block mortar/ b-37	Grey, cementitious material	**ND**			100
16A	A113351-46	Black Caulking/ on Flashing - Southeast Roof (Lower)	Black, tar with fibres	**ND**			100
16B	A113351-47	Black Caulking/ on Flashing - Southeast Roof (Lower)	Black, tar with fibres	**ND**			100
16C	A113351-48	Black caulking/ roof vent – pitched roof	Black, tar with fibres	**ND**			100
17A	A113351-49	Grey/black caulking window glass/ exterior	Black and grey, caulking	**Chrysotile**	**3**		97
17B	A113351-50	Grey/black caulking window glass/ exterior	NA	**NA**			
17C	A113351-51	Grey/black caulking window glass/ 2-01	NA	**NA**			
18A	A113351-52	White window caulking/ exterior	White, caulking	**ND**			100
18B	A113351-53	White window caulking/ exterior	White, caulking	**ND**			100
18C	A113351-54	White window caulking/ exterior	White, caulking	**ND**			100
19A	A113351-55	Beige caulking/ expansion joint – 3-06	Beige, caulking	**ND**			100
19B	A113351-56	Beige caulking/ on windows – 3-18	Off white, caulking	**Chrysotile**	**0.5**		99.5

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
19C	A113351-57	Beige caulking/ door - main vestibule	NA	**NA**			
20A	A113351-58	Grey Mastic on Duct/ Roof	Brown, caulking	**ND**			100
20B	A113351-59	Grey Mastic on Duct/ Roof	Brown, caulking	**ND**			100
20C	A113351-60	Grey Mastic on Duct/ Roof	Brown, caulking	**ND**			100
21A	A113351-61	Black Building Paper in Wall Cavity/ By Entrance – 2-01	3 Phases: a) Black, tar b) Brown, paper c) Pink, fibrous material	 **ND** **ND** **ND**		 80 90	 100 20 10
21B	A113351-62	Black Building Paper in Wall Cavity/ By Entrance – 2-01	3 Phases: a) Black, tar b) Brown, paper c) Pink, fibrous material	 **ND** **ND** **ND**		 80 90	 100 20 10
21C	A113351-63	Black Building Paper in Wall Cavity/ By Entrance – 2-01	3 Phases: a) Black, tar b) Brown, paper c) Pink, fibrous material	 **ND** **ND** **ND**		 80 90	 100 20 10
22A	A113351-64	Grey Plaster on Exterior Wall Backing/ By Entrance – 2-01	Grey, plaster	**ND**			100
22B	A113351-65	Grey Plaster on Exterior Wall Backing/ By Entrance – 2-01	Grey, plaster	**ND**			100
22C	A113351-66	Grey Plaster on Exterior Wall Backing/ By Entrance – 2-01	Grey, plaster	**ND**			100
23A	A113351-67	Drywall joint compound/ 2-01	Off white, joint compound	**ND**			100

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
24A	A113351-68	Sprayed fireproofing/ 2-01	White, fibrous material	**ND**		90	10
25A	A113351-69	Black Mastic on 9"x9" Vinyl Floor Tiles/ B-03	Black, mastic	**Chrysotile**	**2**		98
25B	A113351-70	Black Mastic on 9"x9" Vinyl Floor Tiles/ B-03	NA	**NA**			
25C	A113351-71	Black Mastic on 9"x9" Vinyl Floor Tiles/ B-03	NA	**NA**			
26A	A113351-72	VFT10 - 12"x12" White with Grey Smudges/ B-13 / Unit 102	White, vinyl floor tile	**ND**			100
27A	A113351-73	Black Mastic on Sample Set 26/ B-13 / Unit 102	Black, mastic	**Chrysotile**	**1**		99
27B	A113351-74	Black Mastic on Sample Set 26/ B-13 / Unit 102	NA	**NA**			
27C	A113351-75	Black Mastic on Sample Set 26/ B-13 / Unit 102	NA	**NA**			
28A	A113351-76	VFT3 - 12"x12" Pink with Light Pink and Dark Pink Smudges/ 3-21	2 Phases: a) Pink, vinyl floor tile b) Off white, mastic	 **ND** **ND**			 100 100
29A	A113351-77	Underlying beige vinyl floor tiles/ 3-16	3 Phases: a) Beige, vinyl floor tile b) Yellow, mastic c) Grey, cementitious material	 **Chrysotile** **ND** **ND**	 **1**		 99 100 100
29B	A113351-78	Underlying beige vinyl floor tiles/ 2-12	NA	**NA**			
29C	A113351-79	Underlying beige vinyl floor tiles/ 2-12	NA	**NA**			

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
30A	A113351-80	VFT5 - 12"x12" Purple with White and Dark Purple Smudges/ 2-12	Purple, vinyl floor tile	**ND**			100
31A	A113351-81	Mastic on Ceramic Wall Tiles/ 3-19	Off white, mastic	**ND**			100
31B	A113351-82	Mastic on Ceramic Wall Tiles/ 3-19	Off white, mastic	**ND**			100
31C	A113351-83	Mastic on Ceramic Wall Tiles/ 3-19	Off white, mastic	**ND**			100
32A	A113351-84	Grout ceramic wall tiles/ 3-19	Off white, cementitious material	**ND**			100
32B	A113351-85	Grout ceramic wall tiles/ 3-19	Off white, cementitious material	**ND**			100
32C	A113351-86	Grout ceramic wall tiles/ 3-19	Off white, cementitious material	**ND**			100
33A	A113351-87	Underlying white vinyl floor tiles (bottom layer)/ 3-01	White, vinyl floor tile	**ND**			100
33B	A113351-88	Underlying white vinyl floor tiles (bottom layer)/ 3-01	White, vinyl floor tile	**ND**			100
33C	A113351-89	Underlying white vinyl floor tiles (bottom layer)/ 3-01	White, vinyl floor tile	**ND**			100
34A	A113351-90	Yellow Mastic on Sample Set 33/ 3-01	2 Phases: a) Yellow, mastic b) Grey, cementitious material	 **ND** **ND**			 100 100
34B	A113351-91	Yellow Mastic on Sample Set 33/ 3-01	Yellow, mastic	**ND**			100
34C	A113351-92	Yellow Mastic on Sample Set 33/ 3-01	Yellow, mastic	**ND**			100
35A	A113351-93	FT9 - 12"x12" White with Blue Streaks/ B-27	White, vinyl floor tile	**ND**			100

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
36A	A113351-94	Black Mastic on Sample Set 35/ B-27	2 Phases: a) Black, mastic b) Grey and white, cementitious material	 **ND** **ND**			 100 100
36B	A113351-95	Black Mastic on Sample Set 35/ B-27	2 Phases: a) Black, mastic b) Grey and white, cementitious material	 **ND** **ND**			 100 100
36C	A113351-96	Black Mastic on Sample Set 35/ B-27	2 Phases: a) Black, mastic b) Grey and white, cementitious material	 **ND** **ND**			 100 100
37A	A113351-97	VFT4 - 12"x12" Beige with White and Brown Smudges/ 2-33	Beige, vinyl floor tile	**ND**			100
38A	A113351-98	Black Mastic on Sample Set 37/ 2-33	2 Phases: a) Black, mastic b) Yellow, mastic	 **Chrysotile** **ND**	 **1**		 99 100
38B	A113351-99	Black Mastic on Sample Set 37/ 2-33	NA	**NA**			
38C	A113351-100	Black Mastic on Sample Set 37/ 2-33	NA	**NA**			
39A	A113351-101	VFT1 - 12"x12" Brown with White and Black Smudges Under Wood Floor)/ 3-01	2 Phases: a) Grey, vinyl floor tile b) Colourless, mastic	 **ND** **ND**			 100 100
40A	A113351-102	Glass block mortar/ 3-18	Grey, cementitious material	**ND**			100

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Laboratory Analysis Report

EMC LAB REPORT NUMBER: A113351
Client's Job/Project Name/No.: 1-3240937
Analyst: Rahul Patel / Jayoda Perera

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
40B	A113351-103	Glass block mortar/ 3-18	Grey, cementitious material	**ND**			100
40C	A113351-104	Glass block mortar/ 3-18	Grey, cementitious material	**ND**			100
41A	A113351-105	VFT11 - 12"x12" White and Brown Smudges/ B-24	Off white, vinyl floor tile	**ND**			100
42A	A113351-106	Yellow Mastic on Sample Set 41/ B-24	Yellow, mastic	**ND**			100
42B	A113351-107	Yellow Mastic on Sample Set 41/ B-24	Yellow, mastic	**ND**			100
42C	A113351-108	Yellow Mastic on Sample Set 41/ B-24	Yellow, mastic	**ND**			100
43A	A113351-109	VFT8 - 12"x12" Off-white with Blue Streaks/ B-25	3 Phases: a) Off white, vinyl floor tile b) Brown, mastic c) Grey, cementitious material	 **ND** **ND** **ND**			 100 100 100
44A	A113351-110	CT1 - 2'x4' Small Fissures and Pinholes/ 3-01	Grey, ceiling tile	**ND**		75	25

Note:
1. Bulk samples are analyzed using Polarized Light Microscopy (PLM) and dispersion staining techniques. The analytical procedures are in accordance with EPA 600/R-93/116 method.
2. The results are only related to the samples analyzed. **ND** = None Detected (no asbestos fibres were observed), **NA** = Not Analyzed (analysis stopped due to a previous positive result).
3. This report may not be reproduced, except in full without the written approval of EMC Scientific Inc. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.
4. The Ontario Regulatory Threshold for asbestos is 0.5%. The limit of quantification (LOQ) is 0.5%.
5. Vinyl floor tiles may contain very fine asbestos fibres which the PLM method cannot detect. TEM analysis may be necessary to confirm the absence of asbestos.

Appendix E: Methodology

A. METHODOLOGY

The presence of hazardous materials was assessed by visual inspection. For the purpose of this assessment and this document, hazardous materials include designated substances as well as other chemical, biological and environmental hazards as defined below:

- Designated Substances (as prescribed by Ontario Regulation 490/09):
    - Acrylonitrile, Arsenic, Asbestos, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates, Lead, Mercury, Silica and Vinyl Chloride.
- Other Hazardous Materials:
    - **Chemical Hazards** – Urea Formaldehyde Foam Insulation (UFFI)
    - **Biological Hazards** – Mould Contamination and Pest Infestation
    - **Environmental Hazards** – Polychlorinated Biphenyls (PCBs) and Ozone Depleting & Global Warming Substances

Concealed locations such as above solid plaster or drywall ceilings, within plaster or drywall wall cavities, enclosed mechanical/pipe shafts and bulkheads, etc. were not investigated, unless otherwise stated in Section 1.3. Similarly, motors, blowers, electrical panels, etc., were not de-energized or disassembled to examine concealed conditions. Building materials that are not detailed within this assessment due to inaccessibility at the time of our site visit and/or uncovered during renovation/demolition activities should be assessed by a qualified person prior to their disturbance.

Bulk sampling followed by laboratory analysis was also conducted to confirm the presence/absence of select hazardous materials. Bulk sampling was limited to asbestos in building materials and lead in paint on building finishes (if flaking paint was present). All other hazardous materials were identified by visual inspection only. Where possible, observations regarding the location, quantity and condition of the hazardous materials identified were made in order to determine the potential for exposure and provide appropriate recommendations for remedial action, if necessary. Specific methodology for each individual hazardous material assessed is further detailed below.

A.1 Designated Substances

A.1.1 Asbestos

A visual inspection for the presence of both friable and non-friable asbestos-containing material (ACM) was performed in the subject area.

If an existing asbestos survey was available for review, Safetech relied on the information present. Building materials that were visually similar to materials previously tested and that were confirmed to be either ACM or non-ACM were considered to have consistent content and were not re-sampled. Additional sampling was only conducted where the investigator believed a need existed.
Bulk samples of building materials suspected to contain asbestos were retrieved by Safetech only for materials that were deemed to have a potential to be disturbed as part

of the construction project. Some suspect materials may not have been sampled during our investigation. Bulk samples were retrieved in accordance with Section 3 and Table 1 of Ontario Regulation 278/05, "Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations". The number of samples collected for each material was based on the type and quantity of the material present in the subject area. Each individual sample was placed in a labeled zip-lock bag for transportation to an independent laboratory (EMSL). EMSL is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos fiber analysis.

Analysis for asbestos content was performed by the independent laboratory in accordance with the U.S. Environmental Protection Agency (EPA) Test Method *EPA/600/R-93-116: Method for the Determination of Asbestos in Bulk Building Materials (June 1993)*. This method identifies the asbestos fibre content of building materials using polarized light microscopy (PLM) analytical techniques, with confirmation of presence and type of asbestos made by dispersion staining optical microscopy. This analytical method meets the requirements set forth in Section 3 of O. Reg. 278/05.

In accordance with O. Reg. 278/05, an asbestos-containing material is defined as material that contains 0.5 per cent or more asbestos by dry weight. The laboratory was instructed to conduct "stop-positive" analysis for all materials. If a sample was found to be asbestos-containing no further analysis was conducted for samples taken from the same homogeneous material.

Locations where ACM have been identified are detailed in this report. Recommendations pertaining to ACM were made based on the friability, accessibility and condition of the material in conjunction with the potential for the planned renovation work to disturb the ACM.

A.1.2 Assessment of Asbestos-Containing Building Materials

Accessibility, Condition and Action (Priority) ratings for individual items, or defined areas were developed by Safetech to determine remedial action plans specific to the facility's needs.

A.1.2.1 Accessibility

Accessibility has been assessed as: (A) Accessible to all non-maintenance occupants of the building; (B) Accessible to maintenance staff without a ladder; (C) Accessible to maintenance staff with a ladder and exposed to view without moving a building component; (D) Accessible to maintenance staff with a ladder and concealed from view due to a building component; (E) Not accessible without demolition or removal of fixed building components or building systems

A.1.2.2 Condition

The condition of asbestos-containing materials identified in the subject area was assessed as Good (G), Fair (F) or Poor (P). The assessment criteria used to determine condition is dependent on material characteristics, such as friability. The following table summarizes the criteria used by Safetech to evaluate the condition of ACM.

Sprayed Fireproofing, Sprayed Insulation and Sprayed Texture Finishes	
Good	• Surface shows no significant signs of damage, deterioration, or delamination (i.e. <1%). • Unencapsulated or unpainted fireproofing or texture finishes, where no delamination or damage is observed. • Encapsulated fireproofing or texture finishes where encapsulation applied after damage or fallout.
Fair	• Not utilized as part of condition assessment for these materials.
Poor	• Greater than 1% damage, delamination, or deterioration to surface.
In areas where damage exists in isolated locations, both Good and Poor may be applicable.	
Mechanical Insulation (boilers, breeching, ductwork, piping, tanks, equipment, etc.)	
Good	• Insulation completely covered in jacketing and exhibits no evidence of damage or deterioration. • Jacketing may have minor damage (i.e. scuffs or stains), but is not penetrated.
Fair	• Minor penetrating damage to jacketed insulation (cuts, tears, nicks, deterioration or delamination). • Undamaged insulation that had never been jacketed. • Insulation is exposed but not showing surface disintegration. • Extent of missing insulation ranges from minor to none. • Damage that can be repaired.
Poor	• Original insulation jacket is missing, damaged, deteriorated, or delaminated. • Insulation is exposed and significant areas have been dislodged. • Damage that cannot be easily repaired.
Non-Friable and Potentially Friable Materials (includes materials such as plaster finishes, drywall compound, ceiling tiles, asbestos cement products, vinyl asbestos tile and asbestos paper backed vinyl sheet flooring, etc., which have the potential to become friable when handled)	
Good	• No significant damage. • Material may be cracked or broken but is stable and not likely to become friable upon casual contact. • No friable debris present
Fair	• Not utilized as part of condition assessment for these materials.
Poor	• Material is severely damaged. • Debris is present or binder has disintegrated to the point where the material has become friable.
Asbestos-Containing Debris (noted separately from the presumed source material)	
Poor	• Debris is always considered to be in Poor condition.

A.1.2.3 Action

Recommended ACTION for compliance and for management of identified asbestos-containing materials has been provided for each condition and component outlined in the above table. Recommendations have been classified under the following 8 ACTIONS:

1. Action dealing with the immediate clean-up of fallen ACM likely to be disturbed.

2. Action dealing with the need to use Type 2 asbestos procedures to enter an area (other than a ceiling space).
3. Action dealing with performing asbestos removal for compliance with regulations.
4. Action dealing with Type 2 asbestos procedures for ceiling entry where friable ACM debris is present on the top side of a ceiling system.
5. Action dealing with the removal of asbestos that goes beyond compliance requirements but simplifies the asbestos management.
6. Action dealing with the repair of asbestos.
7. Action dealing with ACM surveillance requirements of the regulation.
8. Action for dealing with material that may contain asbestos but was not conclusively identified in the survey.

A.1.2.4 Quantity

The approximate quantity and the units of measure related to the quantity (i.e.: linear feet (LF), square feet (SF) or each (EACH) as appropriate to the item) have only been provided for materials requiring remedial or corrective action (i.e. materials in Fair or Poor condition). In such circumstances any quantities provided should be considered rough estimates only and should not be solely relied upon for bidding purposes. It is the responsibility of the selected Contractor to obtain actual quantities.

A.2 Lead

If paint samples were collected, they would be collected by scraping the paint down to the base material substrate to ensure collection of all layers of paint. Care would be taken to avoid collection of the underlying substrate to reduce analytical substrate matrix interference.

If collected, paint samples would be submitted to an independent laboratory for the determination of lead content. The laboratory would participate in and accredited by the EPA (U.S. Environmental Protection Agency) for analysis of lead in paint chips through the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP). Analysis would be conducted by the laboratory following the EPA “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (SW-846), Method 7000B “Flame Atomic Absorption Spectrophotometry”. Result of analysis would be reported by the laboratory as the percentage of lead by weight of the total sample (% by wt.).

The presence of lead in other materials, such as lead sheeting, pigmented mortar, lead piping, lead solder, etc. would be noted where observed but not sampled to verify lead content. Lead can be present in these materials to varying degrees, depending on their age of application and should be considered lead-containing until proven otherwise.

A.3 Mercury

The type, quantity and location of mercury-containing equipment and devices in the subject area were determined by visual inspection based on appearance, age and knowledge of historical uses. Sampling for mercury-containing building materials and dismantling of suspect mercury-containing equipment was not performed. Where possible, attempts were made to verify the presence/absence of mercury by gathering additional information such as equipment model number, serial number, etc.

A.4 Silica

The presence of crystalline silica in building materials was determined through visual inspection of building materials only, based on knowledge of the historic use of silica-containing materials in certain building materials. Sampling to verify the presence/absence of silica in building materials was not performed.

A.5 Other Designated Substances

Other designated substances (i.e. acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, and vinyl chloride) are typically not expected to be encountered in building materials as significant constituents or in a form that would represent an exposure concern. These substances were not included in the assessment unless specific information regarding their use (e.g. in a manufacturing process) was provided to us. No sampling for these designated substances was performed.

A.6 Other Hazardous Materials

A.6.1 Chemical Hazards

A.6.1.1 Urea Formaldehyde Foam Insulation (UFFI)

A visual inspection to evaluate the possible presence of Urea Formaldehyde Foam Insulation (UFFI) was conducted in the subject area. Our visual inspection was limited to identifying evidence of possible UFFI installation (i.e. repaired nozzle holes in walls) and overspray at wall/ceiling joints, etc. No destructive testing or material sampling was conducted as part of the assessment.

A.7 Biological Hazards

A.7.1.1 Mould Contamination

A visual inspection to determine the possibility of mould growth was conducted in the subject area. The assessment was limited to identifying evidence of mould growth and water damage (staining, material deterioration, efflorescence, etc.) on the surface of building materials, which may be an indicator of hidden mould growth. No moisture content readings of building materials were taken to determine their current condition. Additionally, destructive testing to confirm the presence/absence of hidden mould growth and material sampling to verify the presence/absence of mould on suspect surfaces was beyond the scope of this assessment.

A.7.1.2 Pest Infestation

The presence and extent of pest infestation in the subject area was based on visually inspecting for evidence of significant pest activity, including signs of nesting, droppings/fecal accumulation, dead insects/carcass accumulation, etc. Evidence of minor pest presence was not considered to be indicative of pest infestation.

A.8 Environmental Hazards

A.8.1 Polychlorinated Biphenyls (PCBs)

The presence of PCB-containing electrical equipment in the subject area was identified through visual inspection and knowledge of the timeline of historical use.

For stand-alone transformers and capacitors, information from the manufacturer nameplate (such as the date of manufacture, dielectric fluid trade name or "Type Number", etc.) was gathered, where possible, to further evaluate if the equipment may contain PCBs. This information was then compared to the information provided in the Environment Canada document entitled "Handbook on PCB's in Electrical Equipment" (Third Edition, April 1988) to aid in identification. Transformers and capacitors confirmed to be manufactured after 1979 were assumed to not contain PCBs. If appropriate information could not be obtained it was assumed that the transformer or capacitor contained PCBs.

For fluorescent light ballasts, a representative number of fixtures were inspected, if possible, for assessment areas that were constructed prior to 1980 and where there was no history or evidence of a complete lighting retrofit. The light fixtures were examined by removing any lenses and ballast covers to expose the ballast and identify information such as ballast make, model number, serial number, and date code. This information was then compared to the information provided in the Environment Canada document entitled "Identification of Lamp Ballasts Containing PCBs" (Report EPS 2/CC/2 (revised) August 1991) to aid in identification. Ballasts that could not be confirmed Non-PCB-containing were assumed to contain PCBs. The light fixtures were not de-energized and ballasts were not removed to obtain manufacturer information that may be on the back of the ballast. If visual confirmation of ballast type could not be made it was assumed that light fixtures in areas constructed prior to 1980 that have not undergone a complete lighting retrofit have PCB-containing ballasts until proven otherwise.

No sampling of materials or fluids within equipment was conducted to verify the presence/absence of PCBs. Inspection and testing of other materials for PCB content, including (but not limited to) caulking, asphalt, oil-based paint, plastics, switches, electric cables and hydraulic fluids was beyond the scope of the assessment.

A.8.2 Ozone Depleting and Global Warming Substances

The presence of fixed equipment likely to contain ozone-depleting substances (ODS) and/or global-warming substances (GWS) was identified through visual inspection and

knowledge of the timeline of historical use. This included equipment such as chillers, air-conditioners, walk-in refrigeration and freezer units and fixed dry-chemical fire extinguishers, where chemicals such as hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs) or halons may be present. Where possible, information regarding the type and quantity of refrigerant present was obtained from the manufacturer nameplate. Our visual assessment was limited to fixed equipment in the subject area and did not include portable equipment such as stand-alone refrigerators, freezers, water coolers, air-conditioners and fire extinguishers, etc.