1. GENERAL

1.1 General And Related Work

1.1.1 All sections of the specifications form a part of the Contract Documents and shall be read to determine their effect upon the work of this section.

1.1.2 This specification fulfils the requirements of the report required by R.R.O. 2005, Reg. 278 as amended by O. Reg. 510/92, Section 10.

1.1.3 Related work specified elsewhere:

Division 2, General Conditions:
Section 028212- Type 3 Asbestos Removal

1.1.4 It is the intent that work performed as per this section will result in the removal and disposal of all ACM specified for removal and the decontamination of all materials that have been contaminated by ACM during work of this section.

1.1.5 This specification document should be read in conjunction with the "Limited Designated Substance Survey Report Rv.1" prepared by Maple Environmental (dated January 29, 2024).

1.2 Project Summary

In general terms, the scope of the project involves a flooring, window, and interior door replacement project based on architectural drawings prepared by Synder Architects on behalf of the Halton Catholic District School Board.

1.3 Site Conditions

1.3.1 12"x12" vinyl floor tiles contain Chrysotile asbestos.

1.3.2 Ceramic floor tile mortar base contains Chrysotile asbestos.

1.3.3 Interior and exterior window putty associated with internal components of window frames contain Chrysotile asbestos.

1.3.4 Mastic associated with asbestos-containing vinyl floor tiles does not contain asbestos.

1.3.5 Ceramic floor tile grout does not contain asbestos.

1.3.6 Interior door frame caulking does not contain asbestos.

1.3.7 Asbestos-containing vinyl floor tiles scheduled to be removed as part of this project are present in the majority of Classrooms, storage Rooms, Stage, and the Boy's and Girl's Change Rooms as indicated on Drawing AR-01.

1.3.8 Asbestos-containing ceramic floor tile mortar base scheduled to be removed as part of this project are present in the Main Corridors and select Washrooms as indicated on Drawing AR-01.

1.3.9 Vinyl floor tiles and ceramic floor tiles are applied to a concrete substrate.

1.3.10 Asbestos-containing vinyl floor tiles are present below fixed millwork where present in the Work Area. Vinyl floor tiles are not scheduled to be removed below fixed items.

1.3.11 Ceramic floor tiles are applied to an asbestos-containing mortar base over a concrete substrate. Wire lath is not known to be present.

1.3.12 Acoustic ceiling tiles are present throughout the building. All acoustic ceiling tiles in the building do not contain asbestos.

1.3.13 The majority of walls in Work Area consist of a masonry block.

1.3.14 Vinyl base boards are present throughout the Work Area.

1.3.15 Ceramic tile grout and mortar base do not contain lead.

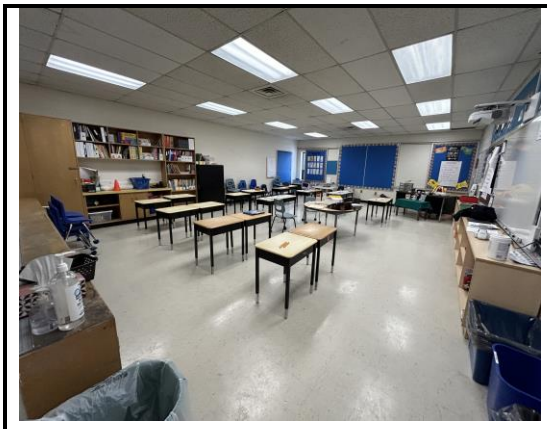
1.4 Outline of Work

1.4.1 Using Type 1 asbestos procedures remove and dispose of as asbestos waste, asbestos-containing vinyl floor tiles in the Work Areas depicted on Drawing AR-01.

1.4.2 There is approximately 11,500 square feet of asbestos-containing vinyl floor tiles to be removed using Type 1 Asbestos Abatement Procedures.

1.4.3 Abatement Contractor is responsible for all take-offs.

1.4.4 Refer to Figure 1 below for examples of different ACM vinyl floor tile systems to be removed.



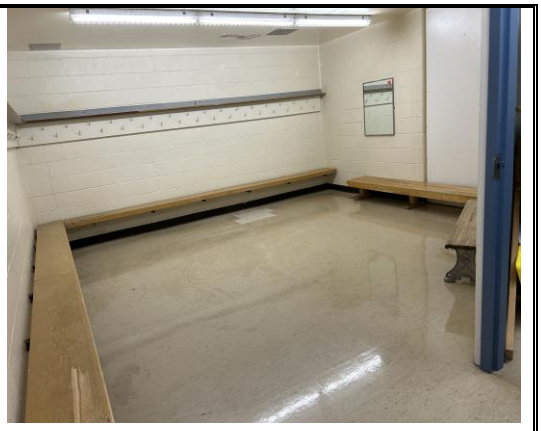


Figure 1: Examples of different ACM vinyl floor tile systems to be removed.

1.4.5 There are 32 windows with asbestos-containing putty (interior and exterior to be removed using Type 1 Asbestos Abatement Procedures.

1.4.6 Refer to Figure 2 below to view a typical window to be removed in the project area.

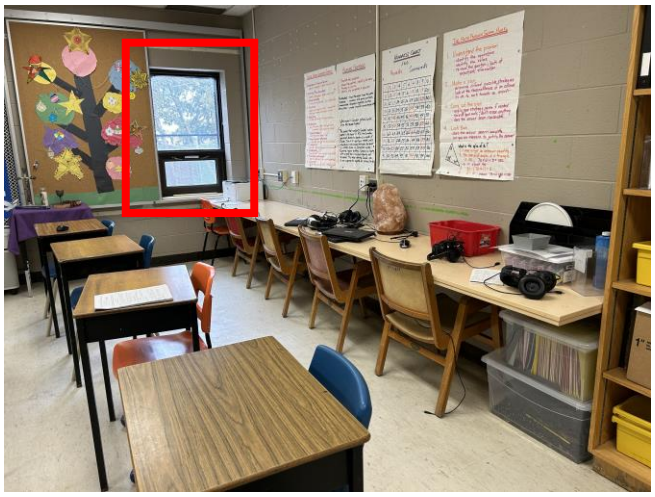


Figure 2: Example of typical window to be removed from project area.

1.4.7 Abatement contractor is responsible to remove the window in its entirety including sills, frame, glass, non-ACM frame caulking, etc.

1.4.8 Abatement contractor is responsible to provide labour for the installation of rigid hoarding to be installed over the window openings once the windows are removed.

1.4.9 Abatement contractor to demolish windows with caution and in a neat systematic manner to avoid damaging adjacent building materials present.

1.4.10 Abatement contractor to make every effort to minimize/avoid damages to surrounding wall/ceiling finishes during work.

1.4.11 Removal of vinyl floor tiles and windows is to be performed without the use of power tools. Should power tools be required, work must be completed using Type 3 Asbestos procedures. Obtain approval from Asbestos Abatement Consultant prior to proceeding with Type 3 procedures (not anticipated for this project).

1.4.12 Abatement contractor is NOT responsible for removing non-asbestos black mastic in the Type 1 Work Areas.

1.4.13 Millwork, shelving, cabinets, and other items fastened to the floor are to remain in Work Areas and are to be protected with a single layer of rip proof polyethylene and tape. Remove vinyl floor tiles neatly up to the face of fixed items to remain in the Work Areas.

1.4.13.1 Abatement Contractor is responsible to remove and dispose of vinyl baseboards. Vinyl baseboards may be disposed of as clean waste.

1.4.14 Install a single layer of rip-proof polyethylene drop sheet below window removal Work Areas.

1.4.15 Disable air handling system supplying or exhausting air into the Work Areas.

1.4.16 Seal wall vents, diffusers, etc. in Work Area with rip proof polyethylene and tape.

1.4.17 Smart screens and any other sensitive electronic equipment should be protected with rip proof polyethylene and tape as required to avoid physical damage.

1.4.18 Install rip proof polyethylene zipper flap and post asbestos warning signage at each entrance to Type 1 Work Areas.

1.4.19 Dispose of as asbestos waste, all materials removed by work of this project, unless specified otherwise.

1.4.20 Large sections of waste must be wrapped with polyethylene, sealed, and labelled as asbestos waste.

1.4.21 Make good, all damage to concrete floors created by work of this project that would affect the installation of new flooring materials. The abatement contractor is not responsible to prepare the concrete substrate to accept new flooring, rather they are only required to repair any damages (if any) caused during the abatement process.

1.4.22 The location of the waste disposal bin to be coordinated at a later date in coordination with the General Contractor and the Owner.

1.4.23 General Contractor to complete the following in the Work Area to facilitate removal of asbestos-containing vinyl floor tiles:

1.4.23.1 Remove and dispose of partition stall walls in Washrooms.

1.4.23.2 Disconnect toilets and sinks as required.

1.4.23.3 Supply, cut, and measure material for rigid hoarding to be installed over window openings by the abatement contractor.

1.4.24 The Owner is responsible to complete the following items in order to facilitate the removal of asbestos-containing vinyl floor tiles:

1.4.24.1 Re-locate all contents, furniture, and miscellaneous items where present within the Work Areas.

1.5 Schedule

1.5.1 Ensure work proceeds to schedule, meeting all requirements of this specification.

1.5.2 Asbestos abatement is anticipated to occur over two phases of work as depicted on Drawing AR-01.

1.5.3 The first phase of abatement will encompass the Work Areas on the north portion of the building between July 8, 2024 to July 21, 2024.

1.5.4 The second phase of abatement will encompass the Work Areas on the south portion of the building between July 22, 2024 to August 4, 2024.

1.5.5 Hours of abatement work are not restricted. Abatement is permitted to occur during regular hours, after hours, and on weekends at the contractor's discretion.

1.5.6 Project schedule to be coordinated in conjunction with the Owner and the General Contractor.

1.6 Quality Assurance

1.6.1 Ensure the removal and handling of ACM or asbestos contaminated materials is performed by trained and competent personnel. The Asbestos Abatement Consultant reserves the right to remove any personnel that, in their opinion, does not meet these qualifications.

1.6.2 All related work of this section shall be performed by licensed persons, experienced and qualified for the work required.

1.6.3 The Asbestos Abatement Contractor is solely responsible for the control of the project, construction practices, his Subcontractors or their agents, employees or other persons performing any of the Work.

1.7 Definitions

1.7.1 Air Monitoring: The process of measuring the fibre content of a specific volume of air.

1.7.2 Amended water: water with a non-ionic surfactant wetting agent added to reduce water surface tension to 35 or less dynes, to allow thorough wetting of asbestos fibres.

1.7.3 Asbestos: The asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite. For purposes of determining respiratory and worker protection both the asbestiform and non-asbestiform varieties of the above minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos.

1.7.4 Asbestos Abatement Consultant: The Owner or person designated by the owner to provide inspection and air monitoring of the Contractor's work.

1.7.5 Asbestos-Containing Material (ACM): Any material containing asbestos of any type or mixture of types.

1.7.6 Asbestos-Containing Waste Material: Any material which is or is suspected of being or any material contaminated with an asbestos-containing material which is to be removed from a work area for disposal.

1.7.7 Asbestos debris: Pieces of ACM that can be identified by colour, texture, or composition, or means dust, if the dust is determined by an accredited Asbestos Abatement Consultant to be ACM.

1.7.8 Asbestos Work Area: where the actual removal, sealing and enclosure of asbestos-containing materials takes place.

1.7.9 Authorized visitor: the Owner or his approved representative and/or persons representing regulatory agencies.

1.7.10 Barrier: Any surface that seals off the work area to inhibit the movement of fibres.

1.7.11 Clean Area: Either an operating area or an area in which removal work has already been completed.

1.7.12 Demolition: The wrecking or taking out of any building component, system, finish or assembly of a facility together with any related handling operations.

1.7.13 Disposal Bag: A properly labelled 6 mil thick leak-tight plastic bag used for transporting asbestos waste from the work area to the disposal site.

1.7.14 D.O.P. Test: Dioctylphthalate aerosol challenge of a HEPA filter system and is used to establish the integrity and effectiveness of the system to filter out asbestos fibres.

1.7.15 Filter: A media component used in respirators, vacuum cleaners or negative pressure filter fan units to remove solid or liquid particles from the inspired air.

1.7.16 Friable Asbestos Material: Material that contains asbestos that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.

1.7.17 HEPA Filter: High Efficiency Particulate Aerosol filter that is at least 99.97 percent efficient in collecting a 0.3 micrometre aerosol.

1.7.18 Occupied Area: Any area of the building outside the Asbestos Work Area.

1.7.19 Polyethylene: sheeting of type and thickness specified sealed with tape along all edges, around penetrating objects, over cuts and tears, and elsewhere as required to provide a continuous polyethylene membrane to protect underlying surfaces from water damage or damage by sealant, and to prevent escape of asbestos fibres through the sheeting into a clean area.

1.7.20 Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.

1.7.21 Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with amended water or diluted removal

encapsulant and afterwards thoroughly decontaminated or disposed of as asbestos-contaminated waste.

1.7.22 Work: Includes all services, labour and material required to complete the work as specified in the contract.

1.8 Regulations

1.8.1 Comply with Federal, Provincial, and local requirements pertaining to asbestos, provided that in any case of conflict among those requirements or with these specifications the more stringent requirement shall apply. The regulations shall include but not be limited to the following:

1.8.1.1 Ontario Ministry of Labour, Occupational Health and Safety Division, Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations, O.Reg. 278/05.

1.8.1.2 Ontario Ministry of the Environment Regulation 347, under the Environmental Protection Act.

1.8.1.3 Government of Canada Regulations respecting the Handling, Offering for Transport and Transporting of Dangerous Goods. (Extract from the Canada Gazette Part II, dated February 6, 1985).

1.8.1.4 Regulations for Construction Projects O.Reg. 213/91.

1.8.1.5 Office of the Fire Commissioner of Canada.

1.8.1.6 Ontario Hydro Electrical Safety Code.

1.8.1.7 Ontario Occupational Health and Safety Act RSO 1990 c0.1 as amended.

1.8.1.8 WHMIS Regulations RRO 1990 Reg. 860.

1.9 Notification

1.9.1 Notify Sanitary Landfill site as per Ontario Regulation 347.

1.9.2 Inform all sub trades of the presence of friable ACM identified in the site conditions.

1.9.3 Notify immediately Ontario Ministry of Labour, as required by Regulation 278 as amended by O. Reg. 510/92, Section 7, if friable materials not identified in the site conditions are discovered during the project.

1.10 Submittals

1.10.1 Submit prior to starting work:

1.10.1.1 Permits for transportation of asbestos waste and location of landfill.

1.10.1.2 Proof that workers have received WHMIS training.

1.10.1.3 Work Place Safety and insurance Clearance Certificates.

1.10.1.4 Pre-removal survey of damage in all areas where asbestos abatement will take place or waste will be transported.

1.11 Worker Protection

1.11.1 Prior to commencing work instruct workers in all aspects of work procedures and protective measures.

1.11.2 Provide workers who request a respirator with personally issued marked respiratory equipment acceptable to the Occupational Health and Safety Division of the Ontario Ministry of Labour, suitable for the Asbestos exposure.

1.11.3 Ensure that suitable respiratory protective equipment is worn by every worker who enters the Asbestos Work Area. A respirator provided by an employer and used by a worker shall be:

1.11.3.1 a non-powered reusable air purifying dust respirator or better, equipped with High Efficiency Particulate Aerosol (HEPA) Filters suitable for asbestos-containing dust.

1.11.3.2 fitted so that there is an effective seal between the respirator and the worker's face;

1.11.3.3 assigned to a worker for the worker's exclusive use;

1.11.3.4 used and maintained in accordance with the procedures specified by the equipment manufacturer;

1.11.3.5 cleaned, disinfected and inspected after use on each shift, or more often if necessary;

1.11.3.6 free of damaged or deteriorated parts replaced prior to being used by a worker;

1.11.3.7 be stored in a convenient, clean and sanitary location; when not in use;

1.11.3.8 certified by the US National Institute for Occupational Safety and Health (NIOSH) or the British Standards Institution for exposure to airborne asbestos fibre.

1.11.3.9 Do not eat, drink, smoke or chew except in established locations outside the Asbestos Work Area.

1.12 Visitor Protection

1.12.1 Provide clean protective clothing and equipment and approved respirators to Authorized Visitors where requested.

1.12.2 Ensure Authorized Visitors have received required training for entry into Asbestos Work Area.

1.13 Air Monitoring

1.13.1 Air monitoring will be performed following the National Institute for Occupational Safety and Health method 7400.

1.13.2 The contractor shall cooperate fully with the asbestos abatement consultant in the collection of air monitoring samples, including the collection of personal worker samples.

1.13.3 Results of PCM samples of 0.05 fibres per millilitre of air (fibre/mL) or greater, outside of Asbestos Work Area, will indicate asbestos contamination of these areas. The contaminated areas shall be isolated and cleaned in the same manner applicable to the Asbestos Work Area, at no cost to the Owner.

2. PRODUCTS AND FACILITIES

2.1 Materials and Equipment

2.1.1 All materials and equipment brought to work site must be in good condition and free of asbestos, asbestos debris, and fibrous materials.

2.1.1.1 Disposable items must be of new materials only.

2.1.2 Asbestos Waste Container: An impermeable container acceptable to disposal site and Ministry of the Environment comprised of one of the following:

2.1.2.1 A 6 mil (0.15 mm) sealed polyethylene bag, inside a second 6 mil (0.15 mm) sealed polyethylene bag.

2.1.2.2 A 6 mil (0.15 mm) sealed polyethylene bag, positioned inside or outside a rigid sealed container of sufficient strength to prevent perforation of the container during filling, transportation and disposal.

2.1.2.3 Label containers as required by the Ministry of the Environment and Regulation 838.

2.1.2.4 Container must be new materials only.

2.1.3 HEPA Vacuum: Vacuum with all necessary fittings, tools and attachments. All air must be filtered by HEPA filter before discharge.

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

2.1.5 Rip-Proof Polyethylene Sheeting: 8 mil (0.20mm) fabric made up from 5 mil (0.13 mm) weave and 2 layers of 1.5 mil (0.05 mm) poly laminate or approved equal. In sheet size to minimize on-site seams and overlaps.

2.1.6 Sprayer: Garden-type portable manual sprayer or water hose with spray attachment if suitable.

3. EXECUTION

3.1 Site Preparation

3.1.1 Disable air handling system supplying or exhausting air into the Work Area.

3.1.2 Seal wall vents and ceiling diffusers in Work Area with polyethylene and tape.

3.1.3 Seal smart screens with polyethylene and tape.

3.1.4 HEPA vacuum or wet wipe dust from all surfaces within Asbestos Work Area.

3.1.5 Install polyethylene zipper flap and post asbestos warning signage at entrance to the Work Area.

3.2 Removal

3.2.1 Wet, where possible, all material to be disturbed.

3.2.2 Undo fasteners if necessary to remove material.

3.2.2.1 Break material only if unavoidable.

3.2.3 Wet freshly exposed edges of broken materials.

3.2.4 Wet material and use hand scraping to remove material adhered to substrate or supports. The use of power-tools is prohibited.

3.2.5 Place removed material into Asbestos Waste Containers.

3.2.6 Clean Asbestos Work Area frequently with HEPA vacuum or with wet cleaning methods.

3.3 Waste and Material Handling

3.3.1 Ensure asbestos-containing or asbestos-contaminated materials, removed during work are treated, packaged, transported and disposed of as asbestos waste.

3.3.2 Transport waste and materials through occupied areas of the building during quiet hours along predetermined routes.

3.3.3 Provide twenty-four (24) hour notice to the Owner's Representative prior to transportation through occupied areas.

3.3.4 Clean up waste routes and loading area after each load. Use asbestos abatement procedures if appropriate or requested by Owner's Representative.

3.3.5 Drop garbage bins at designated locations. Keep bins covered and enclosed while at the site. Bin loading area shall be kept clean at all times.

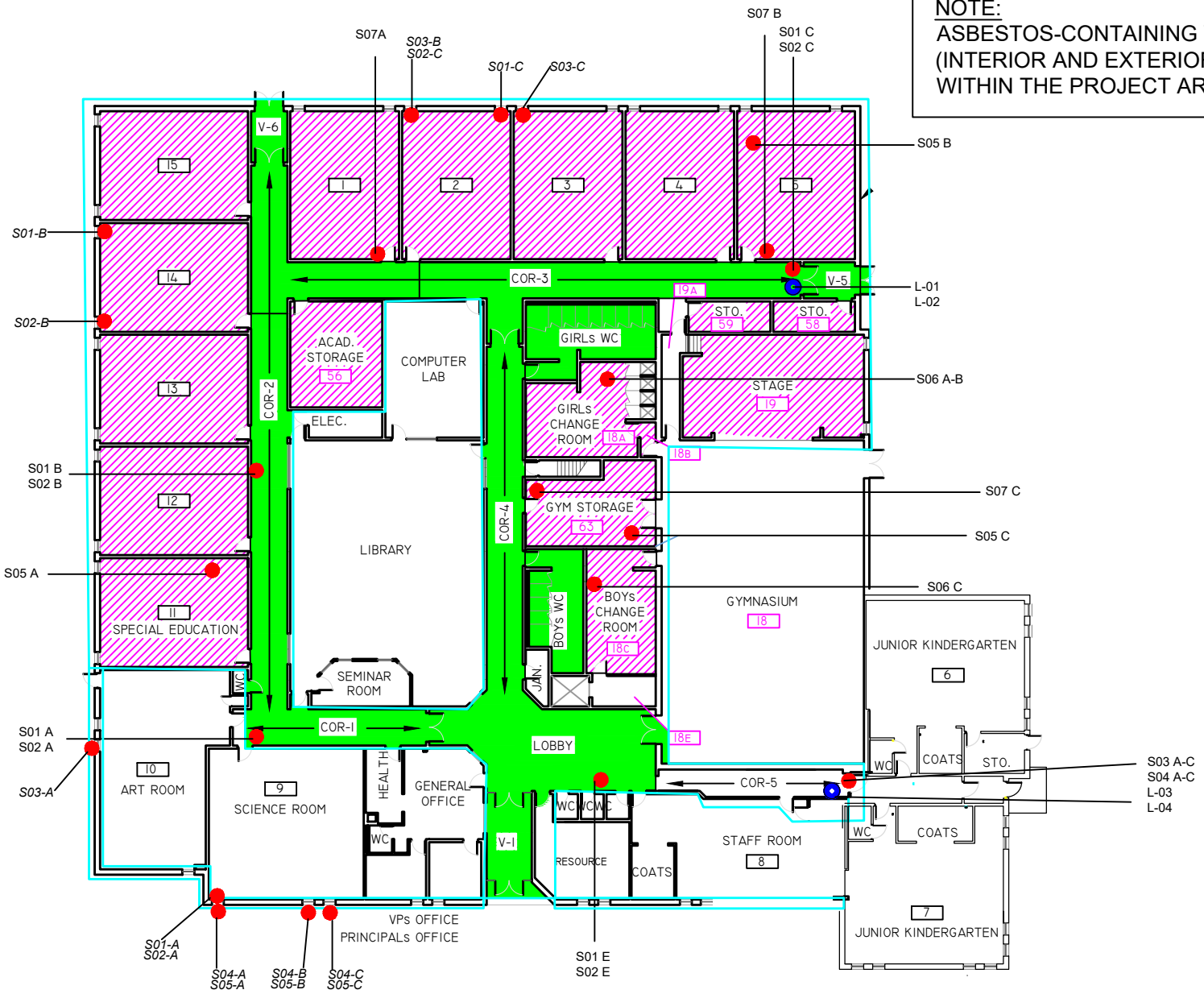
3.3.6 Pick-up and drop off of garbage bin shall be at pre-approved times, and must not interfere with the Owners operations.

3.3.7 Transport asbestos contaminated waste to landfill licensed by Ontario Ministry of Environment.

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

End of Section

NOTE:
ASBESTOS-CONTAINING WINDOW PUTTY (INTERIOR AND EXTERIOR) IS PRESENT WITHIN THE PROJECT AREA.



MAPLE ENVIRONMENTAL INC.
ENVIRONMENT, HEALTH & SAFETY CONSULTANTS
482 South Service Rd. E. - Suite 116
Oakville - Ontario - L6J-2X6
Tel: (905) 257 4408 - Fax: (905) 257 8865
www.MapleEnvironmental.com

PROJECT NO.: 21384

Drawn By: W.Davidson

Checked By: J. De Sousa

SAMPLE LOCATIONS	
SYMBOL	DESCRIPTION
●	ASBESTOS BULK SAMPLE: S##
●	LEAD BULK SAMPLE: L-##

CONFIRMED ACM	
SYMBOL	DESCRIPTION
■	ACM CERAMIC TILE MORTAR BASE
▨	ACM VINYL FLOOR TILE
□	OUTLINE OF SURVEYED AREA
NOTE	WINDOW PUTTY (INTERIOR AND EXTERIOR)

Designated Substance Survey

Halton Catholic District School Board

Holy Family Catholic School

1420 Grosvenor Street, Oakville

First Floor Plan

SCALE: NTS

SHEET: DS-01

DATE: January 2024