



**Waterloo Catholic
District School Board**

ADDENDUM # 001

**St Peter CES Renovation
92 Avenue Rd, Cambridge, ON N1R 1C1
RFT No. 2026-13**

17/21 Project No 2528

Documents prepared by:

17|21 architects inc.
1065 Valetta Street, Suite A
London, Ontario
N6H 2Z9

Issue Date:

Thursday, 12 March 2026

This addendum forms part of the Contract Documents and amends the original drawings dated March 4th, 2026 marked as ISSUED FOR TENDER and specifications dated March 4th, 2026

TABLE OF CONTENTS

ADDENDUM # 1 (Including cover)	5 Page(s)
List of General Contractors – Non-mandatory Site Visit	1 Page(s)
Designated Substance Audit Report	45 Page(s)
Section 01021 – Allowance	1 Page(s)
Section 08810 – Glazing	5 Page(s)
Drawing A101	1Page(s)
Addendum #1 from Callidus Engineering	4 Page(s)

TOTAL PAGE COUNT FOR THIS ADDENDUM	62 Page(s)
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PART A- GENERAL

- 1- Attached is a list of the General Contractors and trades that went to the non-mandatory Site Visit.
- 2- Questions:

Question #1:

Can you clarify the unit rate requirements for Paving, item 1.4 indicates to provide where and if indicated, these items are not noted on the bid form, can you confirm these are not required?

Answer:

Unit rates are not necessary

Question #2:

- 1- Reference 5/A101-Notes call for insulated Aluminum Door + Frame. There is no Aluminum spec section. Please confirm if these entrances are to be Aluminum or Steel. If aluminum, is there a spec section to reference.
- 2- A101 Glass type notes contradict 2.1.e Glass Materials and 2.3 Glazing schedule in specs for Both GL-1 & GL-2. Please confirm glass types required.

Answer:

- 1- All exterior doors are Hollow Metal
- 2- Glass types as per Specs, See attached revised spec Section 08810 – Glazing, to change GL-2.

Question #3:

Can you clarify the unit rate requirements for excavation & backfill, item 1.6 indicates to provide where and if indicated, these items are not noted on the bid form, can you confirm these are not required?

Answer:

Unit rates are not necessary

Question #4:

Can you clarify the Kinetic Network Contractors item .2 references St. Aloysius Catholic Elementary School.

Answer:

Chage: "new addition at St Aloysius " **TO** "Renovation at St Peter"

Question #5:

To confirm washroom accessories are to be provided by owner by and installed by contractor. Are all washroom partitions to be priced for replacement?

Answer:

General Contractor to change ONLY fixtures , refer to Mechanical. Partitions and accessories to remain.

Question #6:

- 1- What refrigerant is required within the condensing unit?
- 2- Can we get Daikin added equal on the condensing unit?

Answer:

Refer to Addendum #1 from Callidus Engineering

Question #7:

Also, wanted to confirm the gauge of the HM Doors , interior and exterior. The specification only references WD Doors in the door section of the Metal Doors & Frames specification (2.2.3)

Answer:

Door core:

- Hollow steel (interior and exterior): 1.02mm (18ga/0.04") Z vertical stiffeners @ 300mm (12") o.c.; filled voids with semi-rigid fibrous insulation minimum density 24 kg/m³ (57#/yd³); a.k.a. "steel stiffened, fiberglass".

Question #8:

- 1- Do Exit 4, Exit 7, Exit 8, & Exit 9 on the door schedule A101 require new glass or are these existing
- 2- A101 Elevation E states contractors to replace glass panels. Can we please have dimensions for this glass?
- 3- A101 Glass type schedule states Energy Select Low-e, but spec section 08810 glazing states Solarban 60 as the low-e. Can you please confirm what low-e is required?

Answer:

- 1- Refer to drawing A101, detail 5: all doors are new.
- 2- Below **APPROXIMATE DIMENSIONS**
 - 6 panels: approx. dimension is 1000mm (w) X 1000mm (h)
 - 3 panels: 600mm (w) X 1000mm (h)
 - 2 panels above door: 1200mm (w) X 1000mm (h)
- 3- Refer to Specs, Section 08810, 2.3.5

Question #9:

As per Sections 1 and 2 on drawing A101, the top counter is noted to be melamine on the doors, bottom, and gables.

Could you please confirm whether the bottom is to be PLAM or melamine, consistent with the top units?

Answer:

Melamine

Question #10:

In regards of GL-1 glazing for this project. On drawing spec reads:

GLASS TYPE

GL1: 6mm CLEAR TEMPERED

- EXTERIOR LITE: 6mm ENERGY SELECT (SURFACE 2)
- AIR SPACE: 13mm AIR/ARGON
- INTERIOR LITE: 6mm CLEAR W/ 10MIL SECURITY FILM

Yet, on specs, there is this:

e. Insulated Glass: as per a./b. above, double sealed edge binding, 13mm (1/2") argon filled space, exterior lite colour LIGHT GREY, low-e coating on 2nd surface(SolarBan 60), warm edge spacer, provide sample for approval. Centre of glass winter u-factor to be .24. Maximum SHGC to be .31 min. VT/SHGC to be 1.10.

Please let us know confirm which one is correct, thanks,

Answer:

See answer in Question #2

Question #11:

In regards to glazing GL-1 on drawings notes 6mm clear tempered, yet, on specifications package insulated glass, 13mm argon filled light gray. please advise, which one is correct.

Answer:

As per specs.

Question #12:

- 1- Regarding the tender St Peter CES Renovation – RFT 2026-13, we would appreciate clarification on the millwork materials specified in the drawings.
Typically, WCDSB standard millwork is carried with interior and exterior Hardrock Maple melamine on particleboard. However, the tender millwork drawings indicate the following:
 - Lower cabinet doors and interior side gables: PLAM on plywood
 - Lower cabinet backs and shelves: melamine on plywood
 - Upper cabinets (interior and exterior): melamine on plywoodCould you please confirm whether interior and exterior Hardrock Maple melamine on particleboard would be considered acceptable?
- 2- Also, please confirm whether 3 mm PVC edge banding is acceptable, or if all exposed edges must be solid wood nosing as indicated in Section 1 (Drawing A101/7).
- 3- Additionally, please clarify the required core material for the post-formed laminate countertops.
- 4- Lastly, we kindly request consideration for an extension of the bid closing date to allow sufficient time to review the clarifications and coordinate pricing accordingly.

Answer:

- 1- Refer to answer in Question #9
- 2- 3mm PVC edging is acceptable
- 3- Plastic Laminate on 19mm Particles Board
- 4- No extension are allowed

PART B- SPECIFICATIONS

- Refer to attached updated DESIGNATED SUBSTANCE AUDIT REPORT, dated March 11, 2026.
- Refer to revised Section 01021 - Allowance
- Section 09300 – Ceramic Tile

Due that the PURESTONE series have been discontinue, ceramic tile to be replaced with **Glocal** Series:

- .2 Ceramic Floor Tile
 - .1 **Glocal** series –by Centura, or approved alternate
 - .2 Size: 300mm x 600mm
 - .3 Colour: to be selected by the Board
 - .4 Base: 100mm **Glocal** series

PART C – ARCHITECTURAL DRAWINGS

- Refer to Drawing A101 for review. Refer to red revision clouds

PART D – MECHANICAL / ELECTRICAL DRAWINGS

- 1- Refer to Addendum #1 from Callidus Engineering for Mechanical and Electrical changes and clarifications.

END OF ADDENDUM # 001



St. Peter Catholic School

Designated Substance Audit Report

Project Location:

92 Avenue Road, Cambridge, ON

Prepared for:

Waterloo Catholic District School Board
480 Dutton Drive
Waterloo, ON N2L 4C6

Prepared by:

MTE Consultants Inc.
1016 Sutton Drive, Unit A
Burlington, ON L7L 6B8

March 11, 2026

MTE File No.: 64457_007





Contents

1.0	Introduction	1
1.1	Authorization.....	1
2.0	Scope of Work.....	1
3.0	Methodology and Assessment Criteria	1
4.0	Assessment and Results	2
4.1	Findings and Analytical Results	3
4.1.1	Asbestos	3
4.1.2	Lead.....	4
4.1.3	Mercury	4
4.1.4	Silica	4
4.1.5	Mould.....	4
4.1.6	Polychlorinated Biphenyls (PCB).....	4
4.1.7	Ozone-Depleting Substances (ODS).....	5
4.2	Conclusions and Recommendations	5
4.2.1	Asbestos	5
4.2.2	Lead.....	6
4.2.3	Mercury	6
4.2.4	Silica	6
4.2.5	Mould.....	6
4.2.6	Polychlorinated Biphenyls (PCB).....	6
4.2.7	Ozone Depleting Substances (ODS).....	7
5.0	Limitations.....	8

Appendices

Appendix A	Tables
Appendix B	Laboratory Certificates of Analysis
Appendix C	Figures
Appendix D	Photographic Log

1.0 INTRODUCTION

1.1 Authorization

MTE Consultants Inc. (MTE) was retained by Waterloo Catholic District School Board (the Client) to conduct a Designated Substance Audit for the building located at 92 Avenue Road in Cambridge, Ontario.

The purpose of the audit was to identify the presence of Designated Substances within the building in accordance with Section 30 of the Occupational Health & Safety Act (OHSA), in advance of a building renovation project. This report meets the requirements of Section 30 of the OHSA and the requirements of Ontario Regulation (O. Reg.) 278/05.

2.0 SCOPE OF WORK

As requested by the Client, this assessment was limited to interior corridors, mechanical spaces, staff rooms, boys/girls washroom, and foyer window curtain. These areas are referred to in the following sections as the “Subject Areas”.

The Scope of Work for this assessment was completed by MTE and included the following activities:

- Review of existing or historical reports and documentation pertaining to Designated Substances within the building;
- Visual inspection of accessible locations within the Subject Area to identify the following suspect Designated Substances and Hazardous Building Materials:
 - Asbestos;
 - Lead;
 - Mercury;
 - Silica;
 - Mould growth;
 - Ozone Depleting Substances; and,
 - Polychlorinated Biphenyls limited to fluorescent light ballasts/sealants;
- The following Designated Substances are not expected to be present due to the building use or in a form that is hazardous: Acrylonitrile, Arsenic, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates, and Vinyl Chloride;
- Collection of bulk building material samples suspected to contain asbestos;
- Collection of paint scrape samples suspected to contain lead;
- Submission of samples to an accredited and/or qualified laboratory;
- Interpretation of laboratory results; and,
- Preparation of this report of findings and recommendations.

3.0 METHODOLOGY AND ASSESSMENT CRITERIA

This audit was conducted using visual and laboratory identification methods for the assessment of materials outlined in Section 2.0 and their corresponding location and use. Materials that are determined to be asbestos-containing materials (ACM) are further classified by their friability and condition. The areas outlined in Section 2.0 were inspected and limited to building

components, materials and service connections. Notwithstanding that reasonable attempts were made to identify all Designated Substances, the possibility of concealed substances and material exists and may not become visible until substantial demolition has occurred and therefore are currently undocumented. All work was conducted in accordance with industry accepted methods and MTE Standard Operating Procedures and did not include the following:

- Materials indicated in this report as “Potentially Concealed”;
- Locations that may be hazardous to the surveyor (located at heights, electrical equipment, confined spaces);
- Where invasive inspection could cause consequential damage to the property or impair the integrity of the equipment, such as roof system, sealants, exterior finishes, underground services or components of mechanical equipment;
- Locations concealed by building finishes that require substantial demolition or removal for access or determination of quantities (plumbing or electrical lines);
- Non-permanent items or personal contents, furnishings; and,
- Settled dust or airborne agents unless otherwise stated.

4.0 ASSESSMENT AND RESULTS

An inspection of the building was conducted by MTE on March 3, 2026.

A description of the building and assessed finishes is provided below. Refer to Section 4.1 for a summary of findings.

Building Element	Description
Construction Date	1963, 1969
Building Structure	Structural steel Concrete Concrete block
Mechanical Systems/Insulations	Boiler heating Roof mounted central air conditioning Parging on pipe fittings Fibreglass insulation on pipe straights Fibreglass duct insulation Fibreglass insulation covered with Polyvinyl Chloride (PVC)
Electrical/Plumbing Systems	Fluorescent Light tubes, bulbs T8/T4 light ballasts Copper piping with solder
Floor Finishes	Vinyl floor tiles Carpet Concrete Ceramic tile & grout Terrazzo
Wall Finishes	Concrete Ceramic tile & grout Drywall
Ceiling Finishes	Concrete Panels Asbestos cement exterior overhangs

Building Element	Description
	2' x 4' Small Fissure Random Pinhole ceiling tiles (2017 manufacturing date stamp)

As part of this assignment, MTE reviewed “2025 Asbestos Audit Update” which was prepared by MTE Consultants and dated May 14, 2025. Review of this report indicated the following asbestos-containing materials have been confirmed within the building:

Item	Material Description	Location
Confirmed ACM	Drywall Joint Compound	Throughout interior on walls
	Parging on Pipe Fittings	Throughout Interior in 1963 Construction Phase
	Asbestos Cement Transite Board	Exterior Overhangs at Perimeter Doors
	9"x9" Vinyl Floor Tile – Grey with White Streak	Storage Room 131
	9"x9" Vinyl Floor Tile – Tan with beige/brown	Boiler Room Stairs

4.1 Findings and Analytical Results

A summary of sampling locations and analytical results are included in **Appendix A**.

Laboratory certificates of analysis are included in **Appendix B**.

Figures of inspected areas are included in **Appendix C**.

A photographic log is included in **Appendix D**.

A detailed summary of findings and recommended actions is provided in **Table 4.3 of Appendix A**.

4.1.1 Asbestos

Asbestos was used in building materials throughout the years with peak usage in the 1950s and 1960s. While the manufacture of most ACM was banned in the 1970s, buildings constructed in the 1980s have the potential for ACM as well. In 1986, legislation limiting the use of asbestos in consumer products was introduced.

As part of this inspection, a total of 35 bulk samples of suspect ACM were submitted for asbestos analysis with a total of 27 analyses being performed. The difference between the number of samples submitted and the number of samples analysed can be a function of either the stop-positive method or the requirement of analyzing multiple layers, performed by the laboratory, from a single sample reported as additional samples or subsets of a sample.

Bulk samples were submitted for asbestos analysis to Paracel Laboratories Ltd. (Paracel), in Mississauga, Ontario. Paracel is certified under the Canadian Association of Laboratory Accreditation to perform asbestos analysis of bulk samples (accreditation number A3762). Laboratory analysis was conducted in accordance with the United States Environmental Protection Agency (USEPA), Test Method EPA/600-R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, June, 1993 by Polarized Light Microscopy (PLM) as prescribed by O. Reg. 278/05.

Based on the laboratory results and visual identification, ACM was confirmed present at the time of the inspection. In addition, suspect ACM was either observed or may potentially be concealed by building finishes.

4.1.2 Lead

Lead was historically used in mortar pigments, ceramic glazing; plumbing solder, electrical equipment and electronics solder, in pipe gaskets as packing in cast iron bell and spigot joints of sanitary drains, flexible plumbing connections, flashing panels, acoustical dampeners, phone cable casing and some architectural applications. In buildings constructed after 1990, these applications are no longer applicable outside of specialized uses (shielding for medical imaging etc.).

As part of this inspection, a total of 5 paint scrape samples were collected from surfaces and represent the paint colours which may be disturbed during the proposed project.

Samples were submitted for laboratory analysis by ASTM D3335-85A "Standard Method to Test for Low Concentrations of Lead in Paint by Atomic Absorption Spectrophotometry" following MOE Method E3470 Inductively Coupled Plasma Optical Emission Spectrometry to Paracel Laboratories Ltd., in Ottawa, Ontario. Paracel is accredited by the Canadian Association of Laboratory Accreditation to perform bulk lead analysis of paint.

Based on the laboratory results and visual identification, lead-containing materials were confirmed present at the time of the inspection. In addition, lead-containing solder on copper pipe connections or lead pipe gaskets may potentially be concealed in buried lines or wall cavities.

4.1.3 Mercury

Mercury is typically used in building service applications such as fluorescent light tubes, compact fluorescent bulbs, metal halide (sodium halide) lamp bulbs, and neon lights as a vapour. Mercury may exist in thermostats and pipe or mechanical equipment thermometers as a liquid. Mercury is presumed to be present in the above materials.

Mercury-containing materials were visually identified at the time of the inspection.

4.1.4 Silica

Silica is present in rock, stone, soil, and sand. Masonry products such as concrete block, brick, and mortar, as well as concrete and associated products contain silica. Due to its ubiquitous nature, silica was historically used in a wide variety of building materials and is still used today in new construction.

Building materials that are presumed to contain silica were visually identified at the time of the inspection.

4.1.5 Mould

No water damaged or mould growth impacted building materials were observed during the inspection.

4.1.6 Polychlorinated Biphenyls (PCB)

Suspect PCB-containing light ballasts were visually identified during the inspection. All live electrical equipment that could not be properly and safely de-energized was not assessed, therefore light ballasts were not inspected. Light ballasts which were not accessed, will require additional investigation to determine their PCB content when removed from service.

4.1.7 Ozone-Depleting Substances (ODS)

ODS are chemical compounds that include chlorofluorocarbons (cfcs), hydrochlorofluorocarbons (hcfcs), halons, methyl bromide, carbon tetrachloride, hydrobromofluorocarbons, chlorobromomethane, and methyl chloroform which are widely used in cooling and refrigeration. The use of ODS is regulated under Ontario Regulation 463/10 *Ozone Depleting Substances and Other Halocarbons Made under the Environmental Protection Act*.

Building components presumed to contain ODS were identified at the time of the inspection.

4.2 Conclusions and Recommendations

A detailed summary of recommended actions is provided in **Table 4.3 of Appendix A**.

In accordance with Section 30 of OHSAA and Section 8 of O. Reg. 278/05, the Owner must provide a copy of this report to all contractors doing work at the building. The Owner must also provide a copy of this report to all prospective contractors.

Should any additional suspect Designated Substances be discovered during building renovation demolition, work in the vicinity should cease and the materials should not be disturbed until proper notification, testing and abatement instructions are provided. All waste generated as a result of any and all work at the Site must be handled, transported and disposed of in accordance with Ontario Regulation 347 made under the Environmental Protection Act and local by-laws. Based on the assessment findings and analytical results, the following abatement measures are presented. It should be noted that the recommended actions are the minimum required actions, as prescribed by the appropriate Acts, regulations, guidelines, standards, codes and general best practice measures.

4.2.1 Asbestos

ACMs were identified during the assessment. If these materials, including those deemed or suspected, will be disturbed, or will likely be disturbed, during building maintenance, renovations, construction, or demolition activities, they must be handled and disposed of in accordance with the procedures prescribed by O. Reg. 278/05.

All asbestos work must be conducted by contractors who are trained in the type of asbestos operations required, and should be overseen by a qualified third-party Health, Safety and Environmental Professional. To conduct Type 3 asbestos operations, contractors must be certified as Asbestos Abatement Workers AAW (Trade code 253W) and Asbestos Abatement Supervisors AAS (Trade code 253S) by The Ministry of Training, Colleges and Universities (Ministry of Advanced Education and Skills Development) as prescribed by Section 20 of O. Reg. 278/05. Suspect or visually confirmed ACM must be deemed to be asbestos-containing and treated as if they contain a type of asbestos other than Chrysotile.

ACM may be present in concealed locations and if construction, renovation, alteration, or maintenance activities are planned, invasive inspections of concealed locations for potential ACM must be performed prior to such activities.

Should any suspect ACM be discovered during the course of construction, renovation, alteration, or maintenance activities, work which disturbs the material must cease immediately. Suspect ACM must be treated as asbestos-containing or sampled prior to disturbance to assess the presence of asbestos.

4.2.2 Lead

Lead-based paint was identified. As such special requirements for the management, handling and disposal of lead-containing materials by the owner, constructor, contractor, sub-contractors and workers apply. The abatement contractor should consult Environmental Abatement Council of Canada's (EACC) *Lead Guideline for Construction, Renovation, Maintenance or Repair (October 2014)* for the procedures and methods required to remove and dispose of lead-containing materials.

Low level lead-containing paint is also present, and the following general procedures are recommended as a precautionary measure as per Environmental Abatement Council of Canada's (EACC) *Lead Guideline for Construction, Renovation, Maintenance or Repair (October 2014)*:

- General dust control;
- The washing of hands and face at on-site facilities;
- No smoking, eating, chewing gum or drinking in the work area; and,
- No removal of painted surfaces by means of abrasive blasting.

4.2.3 Mercury

Mercury-containing materials were identified. All mercury containing materials or sources should be removed, intact, prior to any work which may disturb or damage them and cause worker exposure to mercury liquid and/or vapour.

On-site crushing of mercury-containing materials should not occur. Care should be taken to ensure safe storage of the above until recycling or disposal can be coordinated. Under current legislation, mercury waste requires handling and disposal in accordance with Ontario Regulation 490/09 of the OHSA and Ontario Regulation 347 of the Environmental Protection Act.

4.2.4 Silica

Silica is presumed to be present; therefore, special requirements for management and handling are required. The contractor should also consult MOL Occupational Health and Safety Branch's Guideline: *Silica on Construction Projects* (April 2011) for the procedures and methods required to remove and dispose of silica-containing materials.

4.2.5 Mould

No water damage or suspect mould growth was observed during the assessment therefore no special management and handling requirements are warranted.

It should be noted that the passage of time can alter conditions as they existed at the time of assessment. Future water intrusions may occur which could result in significant structural damage.

4.2.6 Polychlorinated Biphenyls (PCB)

Suspect PCB-containing fluorescent light ballasts were identified but could not be conclusively classified as PCB-containing or non-PCB-containing.

It is the responsibility of the owner to inspect, or ensure the inspection of all light ballasts as they are removed from service to make certain they are properly classified as PCB-containing or non-PCB containing. Fixtures will require dismantling to access date stamps (located on the

back of the ballast) in order to be correctly classified in accordance with Environment Canada's document "*Identification of Lamp Ballasts Containing PCBs, Report EPS 2/CC/2 (revised), August 1991*".

Statutory Orders and Regulations (SOR)/2008-273, the *PCB Regulations*, made under the *Canadian Environmental Protection Act*, permits continued use of in-service PCB-containing light ballasts until the end of service life or until December 31, 2025.

4.2.7 Ozone Depleting Substances (ODS)

Building components presumed to contain ODS were identified and special requirements for management, handing and disposal by the owner, constructor, contractor, sub-contractors and workers apply.

Under current legislation, there are no requirements to remove ODSs from service simply because they are present. However, prior to commencing any work where this equipment will be dismantled, destroyed or disposed of, the refrigerant must be drained by a licensed technician and tagged with a notice indicating that the equipment no longer contains refrigerant. The appropriate notices or records shall be maintained in accordance with O. Reg. 463/10 for a minimum of two (2) years and shall include, but not be limited to, service records, transfers/releases of refrigerants, refrigerant types and refrigerant systems.

5.0 LIMITATIONS

Services performed by **MTE Consultants Inc.** (MTE) were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the Environmental Engineering & Consulting profession. No other representation expressed or implied as to the accuracy of the information, conclusions or recommendations is included or intended in this report.

This report was completed for the sole use of MTE and the Client. It was completed in accordance with the approved Scope of Work referred to in Section 2.0. As such, this report may not deal with all issues potentially applicable to the site and may omit issues that are or may be of interest to the reader. MTE makes no representation that the present report has dealt with all-important environmental features, except as provided in the Scope of Work. All findings and conclusions presented in this report are based on site conditions, as they existed during the time period of the investigation. This report is not intended to be exhaustive in scope or to imply a risk-free facility.

Any use which a third party makes of this report, or any reliance on, or decisions to be made based upon it, are the responsibility of such third parties. MTE accepts no responsibility for liabilities incurred by or damages, if any, suffered by any third party as a result of decisions made or actions taken, based upon this report. Others with interest in the site should undertake their own investigations and studies to determine how or if the condition affects them or their plans.

It should be recognized that the passage of time might affect the views, conclusions and recommendations (if any) provided in this report because environmental conditions of a property can change. Should additional or new information become available, MTE recommends that it be brought to our attention in order that we may re-assess the contents of this report.

All of which is respectfully submitted,

MTE Consultants Inc.



Aaron Rows, B.E.S.
Indoor Environments Technologist
905-639-2552
arows@mte85.com



Gavin Oakes, B.Sc., C.E.T., CIH, CRSP
Manager, Indoor Environments
905-639-2552
goakes@mte85.com

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https://mte85.sharepoint.com/sites/64457_007/Shared Documents/03- Reports/64457_007 - DSA Rpt - St Peter CES - AKR - Mar-11-26.docx

Appendix A

Tables

TABLE 4.1: BULK ASBESTOS SAMPLE SUMMARY TABLE

Sample #	Location	Material Description	Asbestos Results (% Type)	Is Material ACM
S01A	ROOM 103	DOOR SEALANT	1% CHRYSOTILE	YES
S01B	ROOM 103	DOOR SEALANT	NA	YES
S01C	ROOM 103	DOOR SEALANT	NA	YES
S02A	CORRIDOR (OBSERVED THROUGHOUT 1963 CONSTRUCTION PHASE)	CONCRETE BLOCK MORTAR	ND	NO
S02B	CORRIDOR (OBSERVED THROUGHOUT 1963 CONSTRUCTION PHASE)	CONCRETE BLOCK MORTAR	ND	NO
S02C	CORRIDOR (OBSERVED THROUGHOUT 1963 CONSTRUCTION PHASE)	CONCRETE BLOCK MORTAR	ND	NO
S02D	CORRIDOR (OBSERVED THROUGHOUT 1963 CONSTRUCTION PHASE)	CONCRETE BLOCK MORTAR	ND	NO
S02E	CORRIDOR (OBSERVED THROUGHOUT 1963 CONSTRUCTION PHASE)	CONCRETE BLOCK MORTAR	ND	NO
S03A	EXIT 8 (OBSERVED ON PERIMETER EXIT DOORS IN 1963 CONSTRUCTION PHASE)	INTERIOR DOOR SEALANT	ND	NO
S03B	EXIT 8 (OBSERVED ON PERIMETER EXIT DOORS IN 1963 CONSTRUCTION PHASE)	INTERIOR DOOR SEALANT	ND	NO
S03C	EXIT 8 (OBSERVED ON PERIMETER EXIT DOORS IN 1963 CONSTRUCTION PHASE)	INTERIOR DOOR SEALANT	ND	NO
S04A	EXIT 8 (OBSERVED ON PERIMETER EXIT DOORS IN 1963 CONSTRUCTION PHASE)	EXTERIOR DOOR SEALANT	ND	NO
S04B	EXIT 8 (OBSERVED ON PERIMETER EXIT DOORS IN 1963 CONSTRUCTION PHASE)	EXTERIOR DOOR SEALANT	ND	NO
S04C	EXIT 8 (OBSERVED ON PERIMETER EXIT DOORS IN 1963 CONSTRUCTION PHASE)	EXTERIOR DOOR SEALANT	ND	NO
S05A	SEMINAR ROOM 103	9"X9" VINYL FLOOR TILE - GREY WITH WHITE/BROWN STREAK	2% CHRYSOTILE	YES
		MASTIC	2% CHRYSOTILE	YES
S05B	SEMINAR ROOM 103	9"X9" VINYL FLOOR TILE - GREY WITH WHITE/BROWN STREAK	NA	YES
		MASTIC	NA	YES
S05C	SEMINAR ROOM 103	9"X9" VINYL FLOOR TILE - GREY WITH WHITE/BROWN STREAK	NA	YES
		MASTIC	NA	YES
S06A	BOYS WASHROOM 120	WALL TILE GROUT	ND	NO
S06B	BOYS WASHROOM 120	WALL TILE GROUT	ND	NO
S06C	BOYS WASHROOM 120	WALL TILE GROUT	ND	NO

TABLE 4.1: BULK ASBESTOS SAMPLE SUMMARY TABLE

Sample #	Location	Material Description	Asbestos Results (% Type)	Is Material ACM
S07A	BOYS WASHROOM 120 (ALSO OSBERVED IN GIRLS WASHROOM 122)	CONCRETE BLOCK PRIMER/SEALANT	ND	NO
S07B	BOYS WASHROOM 120 (ALSO OSBERVED IN GIRLS WASHROOM 122)	CONCRETE BLOCK PRIMER/SEALANT	ND	NO
S07C	BOYS WASHROOM 120 (ALSO OSBERVED IN GIRLS WASHROOM 122)	CONCRETE BLOCK PRIMER/SEALANT	ND	NO
S08A	CORRIDOR - 1969 ADDITION	12"X12" VINYL FLOOR TILE - GREY OAT PATTERN	ND	NO
		MASTIC	ND	NO
S08B	CORRIDOR - 1969 ADDITION	12"X12" VINYL FLOOR TILE - GREY OAT PATTERN	ND	NO
		MASTIC	ND	NO
S08C	CORRIDOR - 1969 ADDITION	12"X12" VINYL FLOOR TILE - GREY OAT PATTERN	ND	NO
		MASTIC	ND	NO
S09A	CORRIDOR - 1969 ADDITION	CONCRETE BLOCK PRIMER/SEALANT	ND	NO
S09B	CORRIDOR - 1969 ADDITION	CONCRETE BLOCK PRIMER/SEALANT	ND	NO
S09C	CORRIDOR - 1969 ADDITION	CONCRETE BLOCK PRIMER/SEALANT	ND	NO
S10A	CORRIDOR - 1969 ADDITION	CONCRETE BLOCK MORTAR	ND	NO
S10B	CORRIDOR - 1969 ADDITION	CONCRETE BLOCK MORTAR	ND	NO
S10C	CORRIDOR - 1969 ADDITION	CONCRETE BLOCK MORTAR	ND	NO
S11A	INTERIOR DOOR - 1963 CONSTRUCTION PHASE	BEIGE DOOR SEALANT	1% CHRYSOTILE	YES
S11B	INTERIOR DOOR - 1963 CONSTRUCTION PHASE	BEIGE DOOR SEALANT	NA	YES
S11C	INTERIOR DOOR - 1963 CONSTRUCTION PHASE	BEIGE DOOR SEALANT	NA	YES
<p>NA: Not Analyzed due to stop positive method ND: No asbestos fibres detected above the laboratory minimum detection limit</p> <p>A bulk material sample containing 0.5% or more asbestos therefore establishes that material as asbestos-containing. In accordance with Table 1 of O. Reg. 278/05, a minimum number of samples for the material to be classified as non asbestos. A homogeneous material is defined by O. Reg. 278/05 "as material that is uniform in colour and texture". Homogeneous samples are identified by an alphabetical suffix to sample names to represent multiple samples of a homogeneous material. When a homogeneous material is analysed it is determined to be asbestos-containing upon the first positive detection of asbestos equal to or greater than 0.5%. Subsequent samples of the same material are therefore not analysed. Some bulk samples are comprised of multiple layers and as such will require multiple analysis. In such cases each layer is isolated at the laboratory and analysed individually to determine asbestos content. As a result the laboratory may report additional samples beyond the submitted number of samples or include multiple analyses as subsets within a sample.</p>				

TABLE 4.2: LEAD IN PAINT SAMPLE SUMMARY TABLE

Sample #	Location	Colour	Material	Lead Content (ug/g)	Classification
LP1	EXIT DOOR 7 (ALSO OBSERVED ON PERIMETER DOORS THROUGHOUT)	RED	DOOR/FRAME	<5	LOW LEVEL LEAD-CONTAINING
LP2	CORRIDOR (1963 CONSTRUCTION PHASE)	BLACK	DOOR FRAME	6,690	LEAD-BASED
LP3	GIRLS WASHROOM 122 (ALSO OBSERVED IN BOYS WASHROOM 120 AND STAFFROOMS)	GREY	WALL	13	LOW LEVEL LEAD-CONTAINING
LP4	CORRIDOR (1969 ADDITION)	GREY	WALL	46	LOW LEVEL LEAD-CONTAINING
LP5	CORRIDOR (1969 ADDITION)	DARK GREY	DOOR/FRAME	26	LOW LEVEL LEAD-CONTAINING
<p>"<": The samples analysed reported concentrations of lead to be less than 1000 ug/g and are therefore classified as low level lead-containing. However, no lead concentrations were reported above the sample specific laboratory detection limit.</p> <p>As outlined in EACO's Lead Guideline for Construction, Renovation, Maintenance or Repair (October 2014), for the purpose of classifying surface coatings and mortars by laboratory analysis, any material containing lead at a concentration:</p> <ul style="list-style-type: none"> • Greater than 0.5% by weight (5,000 µg/g, mg/kg, ppm) is considered lead-based; • Between 0.1 % and 0.5% by weight (1,000 to 5,000 µg/g, mg/kg, ppm) is considered lead-containing; or • Less than 0.1% (1,000 µg/g, mg/kg, ppm) is considered low level lead-containing. 					

Table 4.3 - Summary of Designated Substances and Recommended Actions

92 Avenue Road, Cambridge, Ontario

Material	Location(s)	Material Description	Management Requirements If No Impacts to Material	Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities
Asbestos Friable	Throughout Interior of 1963 Construction Phase	Insulation on Pipe Fittings	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 < 1m ² as a Type 2 or Type 2 Glove Bag Operation and for > 1m ² as a Type 2 Glove Bag or Type 3 Operation
Asbestos Non-Friable	Room 103	9"x9" Grey with white/brown streak Floor Tile & Associated Mastic	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation
Asbestos Non-Friable	Boiler Room Stair	9"x9" Tan with brown/beige Floor Tile & Associated Mastic	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation

Table 4.3 - Summary of Designated Substances and Recommended Actions

92 Avenue Road, Cambridge, Ontario

Material	Location(s)	Material Description	Management Requirements If No Impacts to Material	Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities
Asbestos Non-Friable	Storage Room 131	9"x9" Gey with white streak Floor Tile & Associated Mastic	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation
Asbestos Non-Friable	Throughout Perimeter Entrance Overhangs	Asbestos Cement (Transite) Board	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation
Asbestos Non-Friable	Interior Double Door between construction phases	Interior Beige Sealant on double door frame	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation

Table 4.3 - Summary of Designated Substances and Recommended Actions

92 Avenue Road, Cambridge, Ontario

Material	Location(s)	Material Description	Management Requirements If No Impacts to Material	Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities
Asbestos Non-Friable	Room 103	Interior grey sealant on door frame	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 as a Type 1 Operation
Asbestos Non-Friable	Throughout Interior on Walls and Ceilings	Drywall	In place management in accordance with O. Reg. 278/05	Removal in accordance with O. Reg. 278/05 < 1m ² as a Type 1 Operation and for > 1m ² as a Type 2 Operation - Hand tools only in conjunction with dust suppression
Potentially Concealed	Throughout Interior	Duct Expansion Joints	In place management in accordance with O. Reg. 278/05	Sample prior to maintenance/renovations/ construction/demolition activities and if confirmed ACM, removal in accordance with O. Reg. 278/05
Potentially Concealed Asbestos	Electrical Wiring Throughout Interior of Building	Jacketing on Electrical Wiring	In place management in accordance with O. Reg. 278/05	Invasive inspection prior to maintenance/renovations/construction/demolition activities, if present and sampling confirms as ACM, removal in accordance with O. Reg. 278/05
Potentially Concealed Asbestos	Wall Cavities	Vermiculite Loose-Fill Insulation	In place management in accordance with O. Reg. 278/05	Invasive inspection prior to maintenance/renovations/construction/demolition activities, if present and sampling confirms as ACM, removal in accordance with O. Reg. 278/05
Potentially Concealed Asbestos	Toilet Fixtures	Pipe Gasket/Flange at Floor Connection	In place management in accordance with O. Reg. 278/05	Invasive inspection prior to maintenance/renovations/construction/demolition activities, if present and sampling confirms as ACM, removal in accordance with O. Reg. 278/05
Potentially Concealed Asbestos	Underground Piping Systems	Asbestos Cement (Transite) Pipe	In place management in accordance with O. Reg. 278/05	Invasive inspection prior to maintenance/renovations/construction/demolition activities, if present and sampling confirms as ACM, removal in accordance with O. Reg. 278/05

Table 4.3 - Summary of Designated Substances and Recommended Actions

92 Avenue Road, Cambridge, Ontario

Material	Location(s)	Material Description	Management Requirements If No Impacts to Material	Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities
Lead-Based Paint	Gymnasium/Corridor - 1963 Construction phase	Black Paint on Door Frames	In place management in accordance with EACC's Lead Guideline	<p>Removal as required prior to maintenance, renovations, construction or demolition activities in accordance with EACC's Lead Guideline as a: Class 1, Class 2A, Class 3A, or a Class 3B Operation</p> <p>If paint is not removed prior to disposal of any metal building finishes, these materials must be deemed hazardous waste, then manifested and disposed of off-site at a MOECP facility that is licensed to accept hazardous waste.</p> <p>If this paint is not removed prior to disposal of any other building finishes, these materials require analysis of Leachable Lead according to Ontario Regulation 558/00. If confirmed or deemed hazardous waste, materials must then be manifested and disposed of off-site at a MOECP facility that is licensed to accept hazardous waste.</p>
Low Level Lead Containing Paint	Throughout Interior	Red Paint on Perimeter Door	None	<p>General hygiene procedures during renovation activities:</p> <ul style="list-style-type: none"> • General dust control, • Washing of hands and face at on-site facilities, • No smoking, eating, chewing gum or drinking in the work area, • No abrasive blasting.
	Throughout interior of 1963 Construction Phase	Grey Paint on Walls		
	Throughout interior of 1969 Addition	Grey Paint on Walls		
	Throughout interior of 1969 Addition	Dark Grey Paint on Doors/Frames		
Suspect Lead	Throughout Interior of Building on Plumbing Connections	Lead Solder on Copper Pipe	In place management in accordance with EACC's Lead Guideline	Removal prior to renovation/demolition activities in accordance with EACC's Lead Guideline as a: Class 1 Operation
Potentially Concealed Lead	Concealed on Sanitary/Waste Lines	Lead Packed Pipe Gaskets	None	Invasive inspection prior to renovation or demolition activities. If confirmed present, removal in accordance with EACC's Lead Guideline as a: Class 1 Operation

Table 4.3 - Summary of Designated Substances and Recommended Actions

92 Avenue Road, Cambridge, Ontario

Material	Location(s)	Material Description	Management Requirements If No Impacts to Material	Recommended Actions If Material Will Be Or Likely Be Impacted By Maintenance, Renovation, Construction or Demolition Activities
Mercury	Throughout Interior of Building in Light Fixtures	Fluorescent Light Tubes in Light Fixtures	None	Intact removal and storage with no on-site crushing and disposal of materials to a licensed facility
Silica	Throughout Interior and Exterior of Building	Brick and Mortar, Terrazzo, Concrete, Ceramic Tile and Grout	None	Conduct any work during renovation, demolition activities in accordance with the Ministry of Labour Guideline Silica on Construction Projects
Potentially Concealed PCBs	Light Fixtures Throughout	Fluorescent Light Ballasts in Light Fixtures	SOR/2008-273, the PCB Regulations, permits continued use of in-service PCB-containing light ballasts until the end of service life or until December 31, 2025	Assess Each Ballast Upon Removal From Service Appropriate storage and disposal of any PCB-containing ballasts in accordance with SOR/2008-273
ODS	Roof	Rooftop Air Conditioning Unit	None	Prior to the removal and disposal of equipment suspected of containing ODS, a licensed technician should be retained to drain and tag the equipment in a manner authorized under O. Reg. 463/10

Notes:

- 1) A copy of this report should be provided to all prospective contractors prior to quotation, in accordance with Section 30 of the Occupational Health and Safety Act.
- 2) Recommended actions are the minimum required actions, as prescribed by the appropriate Acts, regulations, guidelines, standards, codes and general best practice measures. Prior to demolition, the Contractor may choose to alter the approach and combine or break out sections of work. This is acceptable provided that the appropriate Acts, regulations, guidelines, standards and codes are followed and afford protection for the health and safety of workers, occupants and the public that is at least equal to the protection that would be provided by complying with the minimum requirements.
- 3) All waste generated is subject to characterization and disposal in accordance with Ontario Regulation 347.

Appendix B

Laboratory Certificates of Analysis

Certificate of Analysis

MTE Consultants Inc. (Burlington)

1016 Sutton Drive, Unit A
Burlington, ON L7L 6B8
Attn: Gavin Oakes

Client PO: 64457_001
Project: 64457_001 - St. Peter DSA
Custody:

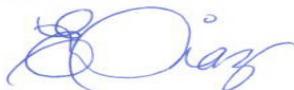
Report Date: 6-Mar-2026
Order Date: 5-Mar-2026

Order #: 2610340

This Certificate of Analysis contains analytical data applicable to the following samples as submitted :

Parcel ID	Client ID
2610340-01	S01A - Sealant - Rm 102
2610340-02	S01B - Sealant - Rm 102
2610340-03	S01C - Sealant - Rm 102
2610340-04	S02A - CBM
2610340-05	S02B - CBM
2610340-06	S02C - CBM
2610340-07	S02D - CBM
2610340-08	S02E - CBM
2610340-09	S03A - Int. Door Sealant
2610340-10	S03B - Int. Door Sealant
2610340-11	S03C - Int. Door Sealant
2610340-12	S04A - Ext. Door Seal
2610340-13	S04B - Ext. Door Seal
2610340-14	S04C - Ext. Door Seal
2610340-15.1	S05A - 9x9 VFT
2610340-15.2	S05A - 9x9 VFT
2610340-16.1	S05B - 9x9 VFT
2610340-16.2	S05B - 9x9 VFT
2610340-17.1	S05C - 9x9 VFT
2610340-17.2	S05C - 9x9 VFT
2610340-18	S06A - Tile Grout
2610340-19	S06B - Tile Grout
2610340-20	S06C - Tile Grout
2610340-21	S07A - CB Primer/Seal
2610340-22	S07B - CB Primer/Seal
2610340-23	S07C - CB Primer/Seal

Approved By:



Emma Diaz
Lab Manager

Certificate of Analysis

Report Date: 06-Mar-2026

Client: MTE Consultants Inc. (Burlington)

Order Date: 5-Mar-2026

Client PO: 64457_001

Project Description: 64457_001 - St. Peter DSA

2610340-24.1	S08A - 12x12 VFT
2610340-24.2	S08A - 12x12 VFT
2610340-25.1	S08B - 12x12 VFT
2610340-25.2	S08B - 12x12 VFT
2610340-26.1	S08C - 12x12 VFT
2610340-26.2	S08C - 12x12 VFT
2610340-27	S09A - CB Primer/Seal
2610340-28	S09B - CB Primer/Seal
2610340-29	S09C - CB Primer/Seal
2610340-30	S10A - CBM
2610340-31	S10B - CBM
2610340-32	S10C - CBM
2610340-33	S11A - Sealant - Int Corr Door Seal
2610340-34	S11B - Sealant - Int Corr Door Seal
2610340-35	S11C - Sealant - Int Corr Door Seal

Certificate of Analysis
 Client: MTE Consultants Inc. (Burlington)
 Client PO: 64457_001

Report Date: 06-Mar-2026
 Order Date: 5-Mar-2026
 Project Description: 64457_001 - St. Peter DSA

Asbestos, PLM Visual Estimation MDL - 0.5%

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2610340-01	03-Mar-26	Grey	Sealant	Yes	Client ID: S01A - Sealant - Rm 102 Material: Chrysotile Non-Fibers	1 99
2610340-02	03-Mar-26	Grey	Sealant		Client ID: S01B - Sealant - Rm 102 Material: not analyzed, positive stop	
2610340-03	03-Mar-26	Grey	Sealant		Client ID: S01C - Sealant - Rm 102 Material: not analyzed, positive stop	
2610340-04	03-Mar-26	Grey	Mortar	No	Client ID: S02A - CBM Material: Non-Fibers	100
2610340-05	03-Mar-26	Grey	Mortar	No	Client ID: S02B - CBM Material: Non-Fibers	100
2610340-06	03-Mar-26	Grey/Red	Mortar/Brick	No	Client ID: S02C - CBM Material: Non-Fibers	[AS-LR-NA] 100
2610340-07	03-Mar-26	Grey	Mortar	No	Client ID: S02D - CBM Material: Non-Fibers	100
2610340-08	03-Mar-26	Grey/Red	Mortar/Brick	No	Client ID: S02E - CBM Material: Non-Fibers	[AS-LR-NA] 100
2610340-09	03-Mar-26	Grey	Sealant	No	Client ID: S03A - Int. Door Sealant Material: Non-Fibers	100
2610340-10	03-Mar-26	Grey	Sealant	No	Client ID: S03B - Int. Door Sealant Material: Non-Fibers	100
2610340-11	03-Mar-26	Grey	Sealant	No	Client ID: S03C - Int. Door Sealant Material: Non-Fibers	100
2610340-12	03-Mar-26	Grey	Sealant	No	Client ID: S04A - Ext. Door Seal Material: Non-Fibers	100

Certificate of Analysis
 Client: MTE Consultants Inc. (Burlington)
 Client PO: 64457_001

Report Date: 06-Mar-2026
 Order Date: 5-Mar-2026
 Project Description: 64457_001 - St. Peter DSA

Asbestos, PLM Visual Estimation MDL - 0.5%

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2610340-13	03-Mar-26	Grey	Sealant	No	Client ID: S04B - Ext. Door Seal Material: Non-Fibers	100
2610340-14	03-Mar-26	Grey	Sealant	No	Client ID: S04C - Ext. Door Seal Material: Non-Fibers	100
2610340-15.1	03-Mar-26	Grey	Vinyl Floor Tile	Yes	Client ID: S05A - 9x9 VFT Material: Chrysotile Non-Fibers	2 98
2610340-15.2	03-Mar-26	Black	Mastic	Yes	Client ID: S05A - 9x9 VFT Material: Chrysotile Non-Fibers	2 98
2610340-16.1	03-Mar-26	Grey	Vinyl Floor Tile		Client ID: S05B - 9x9 VFT Material: not analyzed, positive stop	
2610340-16.2	03-Mar-26	Black	Mastic		Client ID: S05B - 9x9 VFT Material: not analyzed, positive stop	
2610340-17.1	03-Mar-26	Grey	Vinyl Floor Tile		Client ID: S05C - 9x9 VFT Material: not analyzed, positive stop	
2610340-17.2	03-Mar-26	Black	Mastic		Client ID: S05C - 9x9 VFT Material: not analyzed, positive stop	
2610340-18	03-Mar-26	White	Grout	No	Client ID: S06A - Tile Grout Material: Non-Fibers	100
2610340-19	03-Mar-26	White	Grout	No	Client ID: S06B - Tile Grout Material: Non-Fibers	100
2610340-20	03-Mar-26	White	Grout	No	Client ID: S06C - Tile Grout Material: Non-Fibers	100
2610340-21	03-Mar-26	Green/Grey	CB Primer/Sealant	No	Client ID: S07A - CB Primer/Seal Material: Non-Fibers	100

Certificate of Analysis
 Client: MTE Consultants Inc. (Burlington)
 Client PO: 64457_001

Report Date: 06-Mar-2026
 Order Date: 5-Mar-2026
 Project Description: 64457_001 - St. Peter DSA

Asbestos, PLM Visual Estimation MDL - 0.5%

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2610340-22	03-Mar-26	Green/Grey	CB Primer/Sealant	No	Client ID: S07B - CB Primer/Seal Material: Non-Fibers	100
2610340-23	03-Mar-26	Green/Grey	CB Primer/Sealant	No	Client ID: S07C - CB Primer/Seal Material: Non-Fibers	100
2610340-24.1	03-Mar-26	Grey	Vinyl Floor Tile	No	Client ID: S08A - 12x12 VFT Material: Non-Fibers	100
2610340-24.2	03-Mar-26	Black	Mastic	No	Client ID: S08A - 12x12 VFT Material: Non-Fibers	100
2610340-25.1	03-Mar-26	Grey	Vinyl Floor Tile	No	Client ID: S08B - 12x12 VFT Material: Non-Fibers	100
2610340-25.2	03-Mar-26	Black/Grey	Mastic/Leveling Compound	No	Client ID: S08B - 12x12 VFT Material: Cellulose Non-Fibers	[AS-LR-NA] 3 97
2610340-26.1	03-Mar-26	Grey	Vinyl Floor Tile	No	Client ID: S08C - 12x12 VFT Material: Non-Fibers	100
2610340-26.2	03-Mar-26	Black	Mastic	No	Client ID: S08C - 12x12 VFT Material: Non-Fibers	100
2610340-27	03-Mar-26	Yellow/Grey	CB Primer/Sealant	No	Client ID: S09A - CB Primer/Seal Material: Non-Fibers	100
2610340-28	03-Mar-26	Yellow/Grey	CB Primer/Sealant	No	Client ID: S09B - CB Primer/Seal Material: Non-Fibers	100
2610340-29	03-Mar-26	Yellow/Grey	CB Primer/Sealant	No	Client ID: S09C - CB Primer/Seal Material: Non-Fibers	100
2610340-30	03-Mar-26	Grey	Mortar	No	Client ID: S10A - CBM Material: Non-Fibers	100

Certificate of Analysis
 Client: MTE Consultants Inc. (Burlington)
 Client PO: 64457_001

Report Date: 06-Mar-2026
 Order Date: 5-Mar-2026
 Project Description: 64457_001 - St. Peter DSA

Asbestos, PLM Visual Estimation MDL - 0.5%

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2610340-31	03-Mar-26	Grey	Mortar	No	Client ID: S10B - CBM Material: Non-Fibers	100
2610340-32	03-Mar-26	Grey	Mortar	No	Client ID: S10C - CBM Material: Non-Fibers	100
2610340-33	03-Mar-26	Beige	Sealant	Yes	Client ID: S11A - Sealant - Int Corr Door Seal Material: Chrysotile Non-Fibers	1 99
2610340-34	03-Mar-26	Beige	Sealant		Client ID: S11B - Sealant - Int Corr Door Seal Material: not analyzed, positive stop	
2610340-35	03-Mar-26	Beige	Sealant		Client ID: S11C - Sealant - Int Corr Door Seal Material: not analyzed, positive stop	

Total Analyses = 33

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Lab Accreditation	Analysis Date
Asbestos, PLM Visual Estimation	EPA 600/R-93/116	1 - Mississauga	CALA 3762	6-Mar-26

Mississauga Lab: 15 - 6800 Kitimat Rd Mississauga, Ontario, L5N 5M1

Qualifier Notes

Sample Qualifiers :
 AS-LR-NA: Layers/materials inseparable, combined and not analysed separately

Work Order Revisions | Comments

None

Certificate of Analysis

Report Date: 06-Mar-2026

Client: MTE Consultants Inc. (Burlington)

Order Date: 5-Mar-2026

Client PO: 64457_001

Project Description: 64457_001 - St. Peter DSA

Other Report Notes

Samples were analysed as received. Paracel is not responsible for inherent analytical limitations. Analytes in bold indicate asbestos mineral content. All samples where asbestos is detected below 1% include quantity verification with additional analysis steps including gravimetric reduction and/or point counting. Problem matrices, such as those high in cellulose and/or non-friable organically bound materials, routinely include additional gravimetric reduction to remove interfering fibers/binders. Content denoted as '<MDL' indicates trace asbestos was observed below the noted detection limit, but could not be accurately quantified. Content denoted as 'Present' indicates that only a qualitative analysis was possible as a consequence of the sample matrix. Sample collection according to the regulation/method recommendations is the responsibility of the client.

MMVF: Man Made Vitreous Fibers: Fiberglass, Mineral Wool, Rockwool, Glasswool



Office
319 St. Laurent Blvd.
Ottawa, Ontario K1G 4J8
300-749-1947
paracel@paracellabs.com

Chain of Custody
(Lab Use Only)

Client Name: MTE Consultants	Project Reference: 64457_001 - St. Peter DSA
Contact Name: Aaron Rows; Gavin Oakes	Quote #: MTE Standing Offer
Address: 1016 Sutton Drive, Unit A Burlington, Ontario L7L 6B8	PO #:
Telephone: 905-639-2552	Email Address: arows@mte85.com goakes@mte85.com

Turnaround Time:

Immediate 1 Day -EOD

4 Hour 2 Day -EOD

24 Hour 3 Day -EOD

Regular

Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: Air Bulk Tape Lift Swab Other Regulatory Guideline: ON QC AB SK Other:

Analyses: Microscopic Mold Culturable Mold Bacteria GRAM PCM Asbestos PLM Asbestos Chatfield Asbestos TEM Asbestos

Sample ID	Asbestos - Bulk Materials to Be Analyzed * If Positive Stop requested, indicate if by Sample (SMP) or Material (MAT)	POS STOP		Sampling Date	Air Volume (L)	Analysis Required
		SMP	MAT			
1	S01A-C - Sealant - Rm 102	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 March 26	-	PLM
2	S02A-E - CBM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 March 26	-	PLM
3	S03A-C - Int. Door Sealant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 March 26	-	PLM
4	S04A-C - Ext. Door Seal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 March 26	-	PLM
5	S05A-C - 9"x9" VFT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3 March 26	-	PLM
6	S06A-C - Tile Grout	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 March 26	-	PLM
7	S07A-C - CB Primer/Seal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 March 26	-	PLM
8	S08A-C - 12"x12" VFT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3 March 26	-	PLM
9	S09A-C - CB Primer/Seal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 March 26	-	PLM
10	S10A-C - CBM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 March 26	-	PLM

* If left blank, all lab identified distinct materials in each sample will be analyzed and reported separately, as per EPA 600/R-93/116. Additional charges will apply.
Manufactured multi-layered building materials will be analyzed as one sample, unless requested by client.

Comments: _____ Method of Delivery: *Paracel*

Submitting adequate sample volume is the responsibility of the client. Refer to the reverse of this CoC for recommended sample volumes. Signing this CoC authorizes Paracel to complete the analysis on the sample as submitted.

Relinquished By (Sign): <i>[Signature]</i>	Received at Depot:	Received at Lab: <i>[Signature]</i>	Verified By: <i>[Signature]</i>
Relinquished By (Print): <i>Aaron Rows</i>		Date/Time: <i>Mar 26 8:30</i>	Date/Time: <i>Mar 26 16:25</i>



Client Name: MTE Consultants	Project Reference: 64457_001 - St. Peter DSA	Turnaround Time: <input type="checkbox"/> Immediate <input checked="" type="checkbox"/> 1 Day -EOD <input checked="" type="checkbox"/> 4 Hour <input type="checkbox"/> 2 Day -EOD <input type="checkbox"/> 24 Hour <input type="checkbox"/> 3 Day -EOD <input type="checkbox"/> Regular Date Required:
Contact Name: Aaron Rows; Gavin Oakes	Quote #: MTE Standing Offer	
Address: 1016 Sutton Drive, Unit A Burlington, Ontario L7L 6B8	PO #:	
Telephone: 905-639-2552	Email Address: arows@mte85.com goakes@mte85.com	

ASBESTOS & MOLD ANALYSIS

Matrix: Air Bulk Tape Lift Swab Other Regulatory Guideline: ON QC AB SK Other:
 Analyses: Microscopic Mold Culturable Mold Bacteria GRAM PCM Asbestos PLM Asbestos Chatfield Asbestos TEM Asbestos

Paracel Order Number: 2610340		Asbestos - Bulk		Sampling Date	Air Volume (L)	Analysis Required
Sample ID	Materials to Be Analyzed *	POS STOP SMP	MAT			
1	S11A-C - Sealant - Int Corr Door Seal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 March 26	-	PLM
2		<input type="checkbox"/>	<input type="checkbox"/>			
3		<input type="checkbox"/>	<input type="checkbox"/>			
4		<input type="checkbox"/>	<input type="checkbox"/>			
5		<input type="checkbox"/>	<input type="checkbox"/>			
6		<input type="checkbox"/>	<input type="checkbox"/>			
7		<input type="checkbox"/>	<input type="checkbox"/>			
8		<input type="checkbox"/>	<input type="checkbox"/>			
9		<input type="checkbox"/>	<input type="checkbox"/>			
10		<input type="checkbox"/>	<input type="checkbox"/>			

* If left blank, all lab identified distinct materials in each sample will be analyzed and reported separately, as per EPA 600/R-93/116. Additional charges will apply.
 Manufactured multi-layered building materials will be analyzed as one sample, unless requested by client.

Comments: _____ Method of Delivery: *Paracel*

Submitting adequate sample volume is the responsibility of the client. Refer to the reverse of this COC for recommended sample volumes. Signing this CoC authorizes Paracel to complete the analysis on the sample as submitted.

Relinquished By (Sign):	Received at Depot:	Received at Lab: <i>JR</i>	Verified By: <i>JR</i>
Relinquished By (Print):	Date/Time:	Date/Time: <i>Mar 5/26</i>	Date/Time: <i>Mar 5/26</i>

8:30

11:28

Certificate of Analysis

MTE Consultants Inc. (Burlington)

1016 Sutton Drive, Unit A
Burlington, ON L7L 6B8
Attn: Gavin Oakes

Client PO: 64457_001
Project: 64457_001 - St. Peter DSA
Custody:

Report Date: 6-Mar-2026
Order Date: 5-Mar-2026

Order #: 2610310

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Parcel ID	Client ID
2610310-01	LP01 - Red
2610310-02	LP02 - Black
2610310-03	LP03 - Grey
2610310-04	LP04 - Grey
2610310-05	LP05 - Dark Grey

Approved By:



Alex Enfield, MSc
Lab Manager

Any use of these results implies your agreement that our total liability in connection with this work, however arising shall be limited to the amount paid by you for this work, and that our employees or agents shall not under circumstances be liable to you in connection with this work

Certificate of Analysis

Report Date: 06-Mar-2026

Client: MTE Consultants Inc. (Burlington)

Order Date: 5-Mar-2026

Client PO: 64457_001

Project Description: 64457_001 - St. Peter DSA

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Extraction Date	Analysis Date
Metals, ICP-MS	EPA 6020 - Digestion - ICP-MS	Hamilton	5-Mar-26	5-Mar-26

Qualifier Notes:

Sample Data Revisions

None

Work Order Revisions/Comments:

Other Report Notes:

- n/a: not applicable
- ND: Not Detected
- MDL: Method Detection Limit
- Source Result: Data used as source for matrix and duplicate samples
- %REC: Percent recovery.
- RPD: Relative percent difference.

Certificate of Analysis

Report Date: 06-Mar-2026

Client: MTE Consultants Inc. (Burlington)

Order Date: 5-Mar-2026

Client PO: 64457_001

Project Description: 64457_001 - St. Peter DSA

Sample Results

Lead					Matrix: Paint	
Parcel ID	Client ID	Sample Date	Units	MDL	Result	
2610310-01	LP01 - Red	3-Mar-26	ug/g	5	<5	
2610310-02	LP02 - Black	3-Mar-26	ug/g	5	6690	
2610310-03	LP03 - Grey	3-Mar-26	ug/g	5	13	
2610310-04	LP04 - Grey	3-Mar-26	ug/g	5	46	
2610310-05	LP05 - Dark Grey	3-Mar-26	ug/g	5	26	

Laboratory Internal QA/QC

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Matrix Blank									
Lead	ND	5	ug/g						
Matrix Duplicate									
Lead	ND	5	ug/g	ND			NC	50	
Matrix Spike									
Lead	47.1	5.00	ug/g	ND	93.8	70-130			



2610310



Parcel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
---------------------------------------	------------------------------------

Client Name: MTE Consultants	Project Ref: 64457_001 - St. Peter DSA	Page <u>1</u> of <u>1</u>
Contact Name: Gavin Oakes; Aaron Rows	Quote #: MTE Standing Offer	Turnaround Time <input checked="" type="checkbox"/> 1 day <input type="checkbox"/> 3 day <input type="checkbox"/> 2 day <input type="checkbox"/> Regular Date Required: _____
Address: 1016 Sutton Drive, Unit A Burlington, ON L7L 6B8	PO #:	
Telephone: 905-639-2552	E-mail: goakes@mte85.com arows@mte85.com	

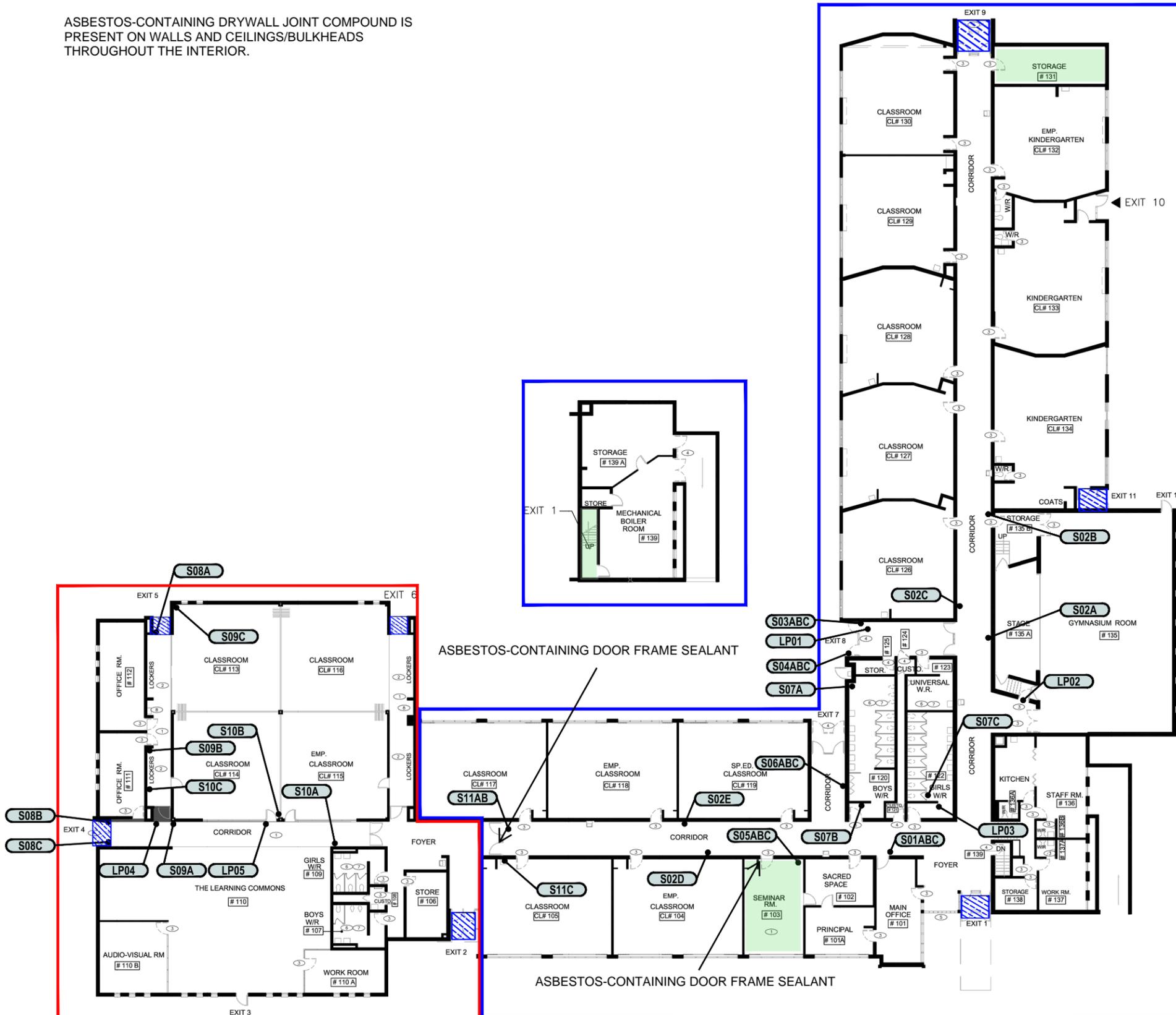
<input type="checkbox"/> REG 153/04 <input type="checkbox"/> REG 406/19 Other Regulation <input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Med/Fine <input type="checkbox"/> REG 558 <input type="checkbox"/> PWQO <input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> CCME <input type="checkbox"/> MISA <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> SU - Sani <input type="checkbox"/> SU - Storm <input type="checkbox"/> Table _____ For RSC: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Other: _____		Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)		Required Analysis											
Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		Lead									
				Date	Time										
1 LPO1 - Red	P	-	1	3 Mar 26	3:00 pm	X									
2 LPO2 - Black	P	-	1	↓	↓	X									
3 LPO3 - Grey	P	-	1	↓	↓	X									
4 LPO4 - Grey	P	-	1	↓	↓	X									
5 LPO5 - Dark Grey	P	-	1	↓	↓	X									
6															
7															
8															
9															
10															

Comments:		Method of Delivery: <u>Purokator</u>	
Relinquished By (Sign): <u>Aaron Rows</u>	Received By Driver/Depot:	Received at Lab: <u>km</u>	Verified By: <u>km</u>
Relinquished By (Print): <u>Aaron Rows</u>	Date/Time:	Date/Time: <u>3/5/26 8:06</u>	Date/Time: <u>3/5/26 9:04</u>
Date/Time: <u>3 March 26 9:30 am</u>	Temperature: _____ °C	Temperature: _____ °C	pH Verified: <input type="checkbox"/> By: <u>NA</u>

Appendix C

Figures

ASBESTOS-CONTAINING DRYWALL JOINT COMPOUND IS PRESENT ON WALLS AND CEILINGS/BULKHEADS THROUGHOUT THE INTERIOR.



Notes:
 ALL DRAWINGS TO BE REFERENCED WITH THE DSA REPORT. LOCATIONS AND QUANTITIES ARE APPROXIMATE.
 ALL KNOWN OR SUSPECT DESIGNATED SUBSTANCES ARE NOT DEPICTED ON THIS FIGURE. REFER TO THE DSA REPORT FOR A COMPLETE LIST OF IDENTIFIED KNOWN AND SUSPECT DESIGNATED SUBSTANCES.
 THIS FIGURE IS COLOUR DEPENDENT, PHOTOCOPIES MAY ALTER INTERPRETATION OF FIGURE. ALWAYS REFER TO ORIGINAL DRAWINGS AND DSA REPORT.

Designated Substances and Hazardous Materials Legend

- S02B Sample Identification
- 1969 Addition
- Original Building 1963
- Asbestos-containing Transite Cement Overhangs
- Asbestos-containing Vinyl Floor Tile and Mastic



Ph. (905) 639-2552 www.mte85.com

CLIENT
 Waterloo Catholic District School Board

PROJECT
 DESIGNATED SUBSTANCE ASSESSMENT

DRAWING
 SITE PLAN
 92 AVENUE ROAD
 CAMBRIDGE, ON

Project Manager	G. OAKES	Date	MARCH 2026
Baseplan By	MTE	Project No.	64457_007
Figure By	SXS	Drawing No.	1.0
Scale	N.T.S.		

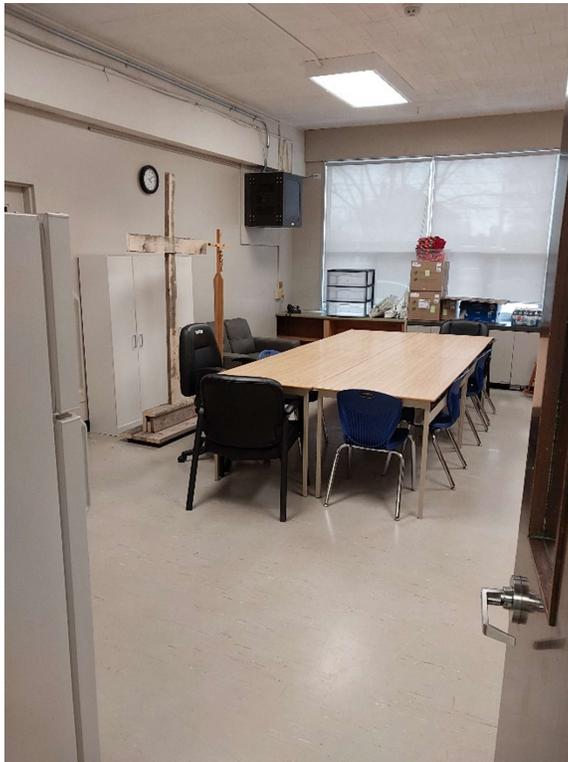
Project: 64457_007 CAD: P:\64457_007\64457_007-DSA1.1.DWG
 March 05, 2026 1:00 pm Plotted By: SXS

Appendix D

Photographic Log



Photograph No. 1 – Drywall joint compound was observed throughout the interior. The compound was sampled during a previous survey and is confirmed asbestos-containing.



Photograph No. 2 – 9"x9" Grey with white/brown streak was observed present in Room 103. The floor tile was sampled (S05A,B,C) and is confirmed asbestos-containing. The associated mastic was also sampled and is confirmed asbestos-containing.



Photograph No. 3 – Block wall primer/sealant was sampled in the 1963 construction phase (S03A,B,C) and does not contain asbestos. The grey paint was sampled (LP03) and is low level lead-containing.



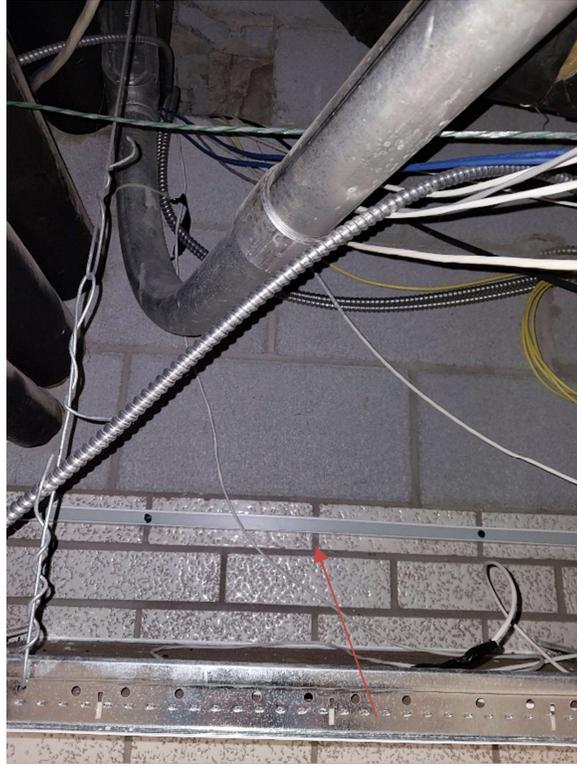
Photograph No. 4 – 12"x12" grey with oat pattern vinyl floor tile was observed within the 1969 addition. The floor tile was sampled (S08A,B,C) and does not contain asbestos. Associated mastic was also sampled and does not contain asbestos.



Photograph No. 5 – Black paint on door frames was observed in the 1963 construction phase in the gymnasium and adjacent rooms. The black paint was sampled (LP02) and is confirmed lead-based.



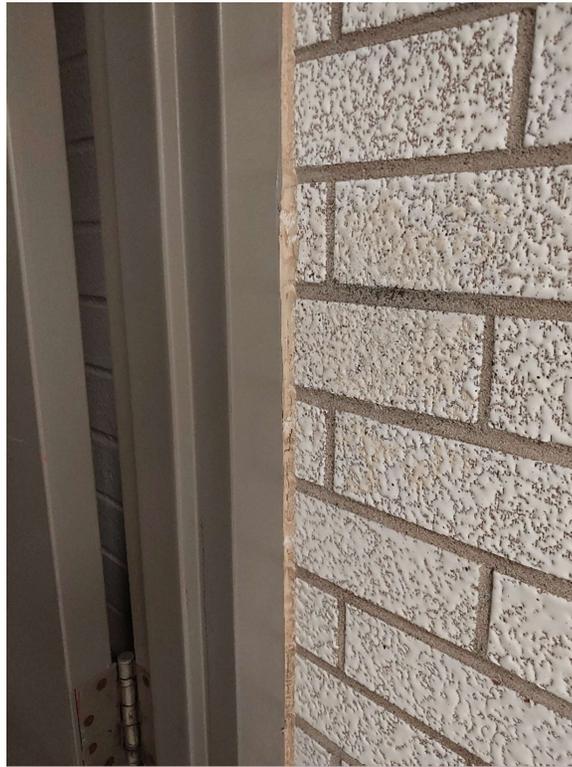
Photograph No. 6 – Asbestos-containing parging on pipe elbows was observed above the drop ceiling throughout the 1963 construction phase.



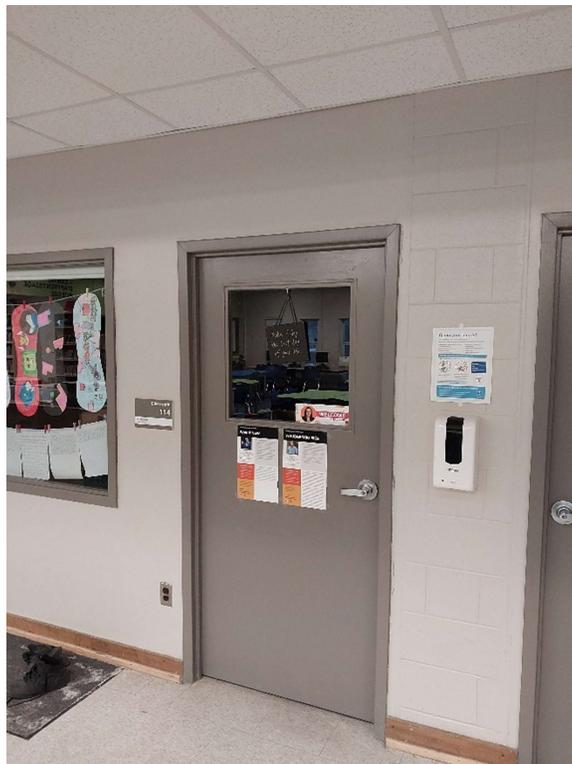
Photograph No. 7 – Interior block wall mortar was sampled in the 1963 construction phase (S02A,B,C,D,E) and does not contain asbestos.



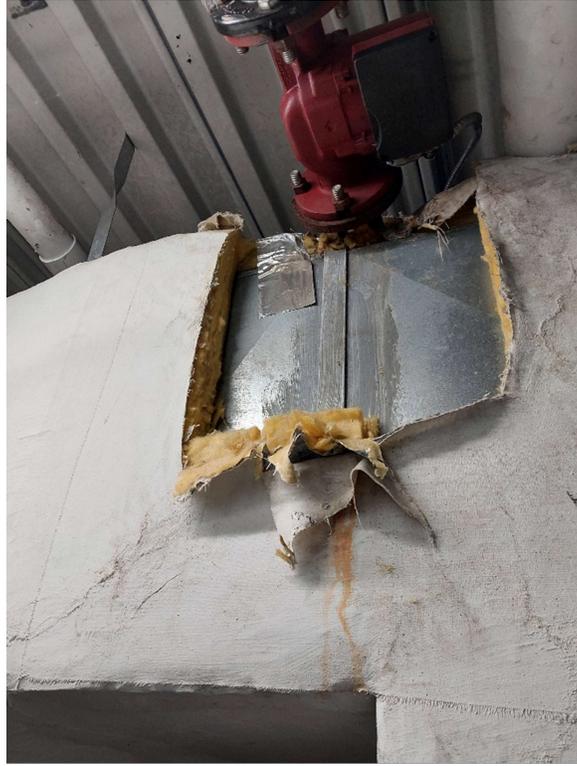
Photograph No. 8 – Grey Sealant was observed on the door frame of room 103. The sealant was sampled (S01A,B,C) and is confirmed asbestos-containing. The grey sealant was not observed on any other classroom frames within the 1963 construction phase.



Photograph No. 9 – Beige Sealant was observed on the frame of the double doors leading from the original 1963 construction phase into the 1969 addition. The sealant was sampled (S11A,B,C) and is confirmed asbestos-containing.



Photograph No. 10 – Grey paint on wall was sampled within the 1969 addition (LP03) and is low level lead-containing. The dark grey paint on frames was also sampled (LP05) and is low level lead-containing.



Photograph No. 11 – Fibreglass insulation on ventilation was observed within the 1969 addition fan room and is not asbestos-containing.



Photograph No. 12 – Exterior glass panels have a 2021 date stamp. Associated sealants are not considered asbestos-containing.



Photograph No. 13 – Suspect lead containing-solder on copper pipe connections was observed above the drop ceiling and may be present in concealed locations.



Photograph No. 14 – PVC over fiberglass insulation was observed in the 1963 construction phase boiler room and is not asbestos-containing.



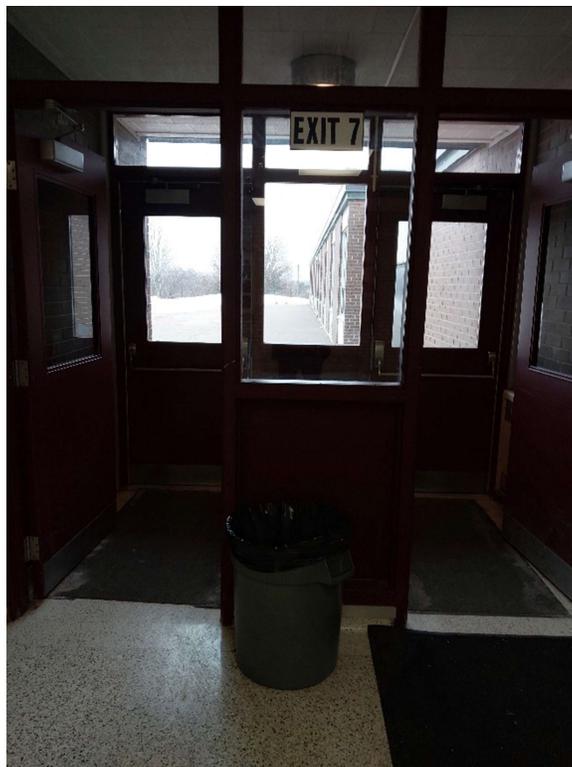
Photograph No. 15 – Wall tile grout within the boys washroom was sampled (S06A,B,C) and does not contain asbestos.



Photograph No. 16 – 2'x4' small fissure random pinhole ceiling tile was observed throughout the interior. The ceiling tile was observed to have a 2017 date stamp and is not considered asbestos-containing.



Photograph No. 17 – Interior and exterior sealant at perimeter double doors was sampled (S03 and S04) and does not contain asbestos.



Photograph No. 18 – Red paint on perimeter double doors was sampled (LP01) and is low level lead-containing.

PART ONE – GENERAL

1.1 Related Sections

- .1 Section 01001 General Conditions.
- .2 Details of work covered by cash allowance: in respective Section.

1.2 Cash Allowances

- .1 Refer to CCDC 2 - 2008, GC 4.1.
- .2 Include in the Contract Price the cash allowances stated herein.
- .3 Expenditures under cash allowances shall occur only with Consultant's prior consent.
- .4 Where costs under cash allowances exceed the total amount of the cash allowances indicated by less than 10% of the aggregated stated values, the Contractor will be compensated for any excess incurred and substantiated, without any allowance for overhead and profit.
- .5 Where costs under cash allowances exceed the total amount of the cash allowances indicated by more than 10% of the aggregate stated values, the Contractor will be compensated for any excess incurred and substantiated plus an allowance for overhead and profit as set out in the Contract Documents.
- .6 Progress payments on accounts of work authorized under cash allowances shall be included in the Consultant's monthly certificate for payment. Submit invoices in support of claims.
- .7 Where costs under a specific cash allowance exceed of the amount of the allowance, unexpended amounts from other specific cash allowances shall be reallocated at the Consultant's direction to cover the shortfall.
 - .8 The amount of allowance covers for the school, for Work specified in the respective specification Sections, shall be **One Hundred Eighty Seven Thousand Eight Hundred Eighty Five (\$187,885.00)** not including Harmonized Sales Tax (HST):
 - .1 Finish Hardware: supply only. Installation part of base bid, except for the ADO at Exit 8 which is supply and Install
 - .2 Exterior Signage – Pylon sign upgrade
 - .3 Pylon Signage data Network / Communications
 - .4 BAS
 - .5 Terrazzo
 - .6 Security
 - .7 Testing and Inspection
 - .8 Abatement
 - .9 Unforeseen soil condition

PART 2 - PRODUCTS Not Used.

PART 3 - EXECUTION Not Used.

End of Section

1. GENERAL

1.1. GENERAL REQUIREMENTS

- a. Division One, General Requirements, shall apply as if repeated here.

1.2. PROTECTION

- a. Mark the presence of each light with a large temporary cross.

1.3. SAMPLES AND SUBMITTALS

- a. Submit duplicate 300 x 300mm (12 x 12") size samples illustrating insulated glass and spandrel glass units, decorative glass, colouration and fabrication. Submit associated data sheets for glass units. (SB-10)
- b. Submit samples as specified in Section 01340.

1.4. RELATED WORK

- a. Door and Frame Schedule – General Notes
- b. Steel doors and frames

1.5. WARRANTY

- a. Provide a written warranty signed and issued in the name of the Client and Project stating that the Contractor warrants insulating glass units against failure of seal of enclosed air space and deposits on inner faces of glass detrimental to vision in accordance with GC 12.3 as amended by the Supplementary General Conditions, but for a period of five years.

2. PRODUCTS

2.1. GLASS MATERIALS

- a. Polished plate or float glass: to CAN/CGSB-12.3-M latest revised edition and amendments, glazing quality, 6mm (0.25") thick, unless specifically indicated otherwise.
- b. Heat Treated Tempered Safety Glass: to CAN/CGSB-12.1-M; clear float glass fully tempered horizontally to achieve net strength of not less than 4 to 5 times greater than regular annealed glass; Class C; 6mm (0.25") thick, unless indicated otherwise.
- c. Heat Strengthened Glass: to CAN/CGSB-12.1-M; clear float glass heat strengthened horizontally to achieve a net strength of not less than 2 times greater than regular annealed glass; 6mm (0.25") thick, unless indicated otherwise.
- d. Low Emissivity (E) Glass: 6mm (0.25") thick; tempered or heat-strengthened as indicated;
 - 1) insulated glass: vacuum-sputtered coating on second surface. Centre of glass winter u-factor to be .24. Maximum SHGC to be .31. (SolarBan 60)
 - 2) non-insulated glass: pyrolitic coating.

- e. Insulated Glass: as per a./b. above, double sealed edge binding, 13mm (1/2") argon filled space, exterior lite colour LIGHT GREY, low-e coating on 2nd surface (SolarBan 60), warm edge spacer, provide sample for approval. Centre of glass winter u-factor to be .24. Maximum SHGC to be .31 min. VT/SHGC to be 1.10.
- f. Sealed Opaque Glass units- to CAN/CGSB-12.9-M; 6mm (0.25") thick tempered tinted glass with opaque coating applied to #2 and #3 surface; eg. Opaci-Coat 300 by ICD High Performance Coatings; warm edge spacer, 13mm (1/2") argon filled space, 6mm thick tempered glass, colour as selected by Consultant.
- g. Sealed Obscure Glass units: as per a./b. above, double sealed edge binding, 13mm (1/2") argon filled space, exterior lite colour LIGHT GREY, warm edge spacer, low E coating (solar ban 60) on second surface, Acid Etch surface #3. Provide sample for approval. Centre of glass winter u-factor to be .24. Maximum SHGC to be .31.
- h. Laminated safety glass: to CAN2-12.1-M latest revised edition and amendments, glazing quality, 6mm (0.25") thick, two layers of 3mm glass on vinyl sheet.
- i. Mirror Glass: to CAN/CGSB-12-5-M latest revised edition and amendments, Type 18 float glass, 6mm (0.25") thick minimum; polished edges; sizes as scheduled or noted on Drawings.
- j. Spandrel Glass: to CAN/CGSB-12.9-M; 6mm (0.25") thick single pane of tinted glass as specified above, with opaque coating applied to #2 surface; eg. Opaci-Coat 300 by ICD High Performance Coatings; coating colour as selected by Consultant.
- m. Fire-Rated Laminated Safety Glass : to CAN4-S104-M80 and CAN4-S106-M80, premium polished glass-ceramic fire-rated glazing;
 - 1) FireLite Plus, manufactured by Nippon Electric Glass Company Ltd., 8mm (5/16") thick, single pane, installed in accordance with ULC R13377 or; Schott Pyran Platinum L 9mm (3/8"); or Karalite Select L 8mm (3/8").
- n. Decorative Window Film: LLumar Decorative Custom Imaging Film manufactured by an Eastman Chemical Company business: CPFilms Inc., 575 Maryville Centre Drive, St. Louis, Missouri 63141; Telephone: 800-255-8627; Email address: commercialalerts@eastman.com; Web Site: www.llumar.com.

2.2. GLAZING AND SEALING COMPOUND MATERIALS

- a. Glazing compound: Oil type, to CGSB 19-GP-6M Type 1, colour of frames.
- b. Sealant compound: To Section 07910.
- c. Glazing tape: Preformed butyl tape, 10-15 durometer hardness, paper release, 3.2mm (0.125") thick x 40mm (1.6") wide, colour to match frames.
- d. Setting blocks: Neoprene, Shore "A" 100mm (4") long x 9mm (0.35") thick x 6mm (0.25") high.

- e. Spacer shims: Neoprene, Shore "A" 75mm (3") long x 2.4mm (0.09") thick x 6mm (0.35") high.
- f. Glazing splines: Neoprene manufacturer's standard dry glazing splines to relate to colour of aluminum.
- g. Glazing points and wire spring clips: Corrosion resistant, manufacturer's standard.
- h. Primer-sealers and cleaners: to glass manufacturer's standard.

2.3. GLAZING SCHEDULE

.1 **Insulating Glass Units (GL-1)**

.1 Insulating Glass to: CAN/CGSB – 12.8 Double unit. Glass to : CAN/CGSB -12.1 – Safety Glass.

.2 Warm edge, hermetically sealed, minimum 6mm each lite. Minimum 13 mm space – argon filled double sealed (primary to be polyisobutylene, secondary to be polysulphide or structural silicone glazed units), desiccant filled Bayform "Thermal Edge" spacer (black) with splice connectors at corner of each glass unit.

- .1 IGMAC Certified.
- .2 Low E coating on surface #3.
- .3 Acceptable Products
- .4 AGC/AFGD'Comfort Ti-AC 40'
- .5 PPG 'Solarban 60'
- .6 Cardinal 'LoE2 -172'
- .7 Versalux
- .8 Viracon 'Solarscreen 2000 VE 1-2M'

.3 Glass Thickness: 6mm minimum or as required to meet design requirements.

.4 Glass Type: Annealed, heat strengthened, or tempered as required to meet design requirements.

.5 Performance Requirements:

- .1 Visible light: 68 - 70%.
- .2 U-value: Fixed=0.38; Operable=0.45
- .3 Shading Coefficient: within 0.43 - 0.46.
- .4 Solar heat gain coefficient: within 0.37 - 0.40.
- .5 Glass Colour: Tinted, as selected by the architect unless otherwise noted.
- .6 Type 1 exterior lite: tinted, tempered, body colour by architect.
- .7 interior lite: clear, low emissivity coating on third surface
- .8 Type 2 exterior lite: tinted, tempered, body colour by architect
- .9 interior lite: clear, tempered, low emissivity coating on third surface of interior lite.
- .10 Type 3 Spandrel Glass to CAN/CGSB – 12.9, Opaque (opacicoart) Custom Colour, min. 6mm. Type 1 – Tempered, Class A float glass, silicone coated, form I –insulating Glass.

.3 **Tempered Glass (GL-2):**

- .1 Shall be 6 mm glass tempered to meet National Building Code Safety Glass requirements in Sub-Section 3.3.1.13 (1) (2) and to conform to current national standards of Canada CAN2-12.1-M79.

3. EXECUTION

3.1. WORKERSHIP

- a. Remove protective coatings and clean contact surfaces with solvent and wipe dry.
- b. Apply primer-sealer to contact surfaces.
- c. Place setting blocks as per manufacturer's instructions.
- d. Install glass, rest on setting blocks, ensure full contact and adhesion at perimeter.
- e. Install removable stops, without displacing tape or sealant.
- f. Provide edge clearance of 3mm (0.12") minimum.
- g. Inset spacer shims to centre glass in space. Place shims at 600mm (24") o.c. keep 6mm (0.25") below sight line.
- h. Apply cap bead of sealant at exterior void.
- i. Apply sealant to uniform and level line, flush with sight line and tooled or wiped with solvent to smooth appearance.
- j. Do not cut or abrade tempered, heat treated, or coated glass.
- k. Door and screen glazing to be tempered, unless noted otherwise on Drawings.
- l. Exterior glazing to be tinted, tempered glass including windows, doors and screens, unless noted otherwise on the Door Schedule.
- m. Fixed exterior glass to be insulated units.
- n. Sloped glazing to be insulated with tinted, tempered exterior light, laminated safety glass interior light.
- o. Refer to DOOR SCHEDULE for locations of wired glass and fire-rated laminated safety glass.

3.2. EXTERIOR GLAZING: Combination method - tape / sealant:

- a. Cut glazing tape to proper length and set against permanent stops, 5mm (0.2") below sight line. Install horizontal strips first, extend over entire width of opening before applying vertical strips. Weld corners together by butting tape and dabbing glass and applied stop with silicone sealant.
- b. Fill gap between glass and applied stop with sealant to depth equal to bite of frame on glass but not more than 10mm (0.4") below sight line.

3.3. INTERIOR GLAZING: Dry method - tape / tape:

- a. Cut glazing tape to length and install against permanent stop, project 1.5mm (0.06") above sight line.
- b. Place glazing tape on free perimeter of glass as described above.

3.4. FIRE-RATED LAMINATED SAFETY GLASS:

- a. Fire-rated laminated safety glass shall only be installed into fire-rated frame

assemblies of the same rating.

b. Install in vision panels in fire-rated doors to requirements of NFPA 80.

c. All glazing components, tapes, compounds, sealants and stop heights must be chosen and installed according manufacturer's recommendation and appropriate ULC classification.

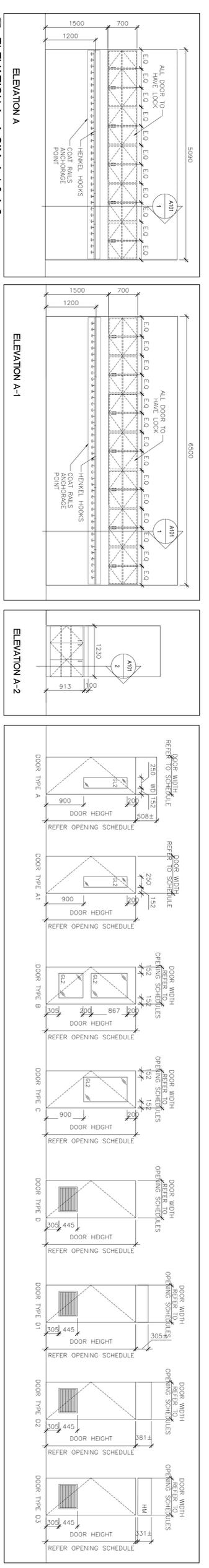
d. Install so that the ULC or manufacturer's rating label remain permanently visible for each pane.

3.5. FINISHING

a. Immediately remove sealant and compound droppings from finished surfaces. Remove labels after work is completed. Clean both sides of glass.

END OF SECTION

KEY PLAN



LEGEND

ABBREVIATIONS

HM	- HOLLOW METAL
WD	- WOOD
PT	- PAINT
ST	- STAIN

ISSUED

DATE	DESCRIPTION	NO.
2026-02-10	ISSUE FOR CLIENT REVIEW 90%	1
2026-02-10	ISSUE FOR CLIENT REVIEW	2
2026-03-03	ISSUE FOR TENDER	3
2026-03-12	ISSUE FOR ADDENDUM #1	4

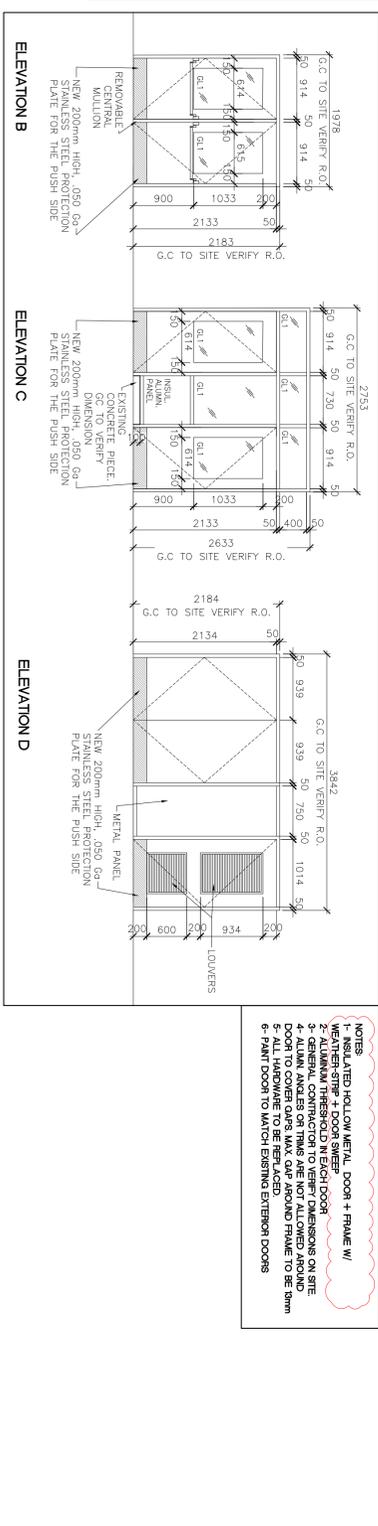
ST. PETER CES - RENOVATION

92 AVENUE ROAD CAMBRIDGE ON

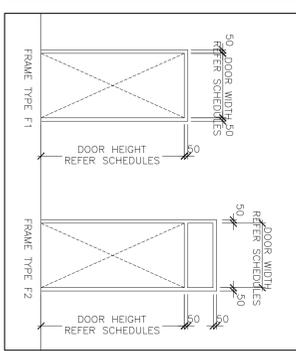
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DOOR SCHEDULE

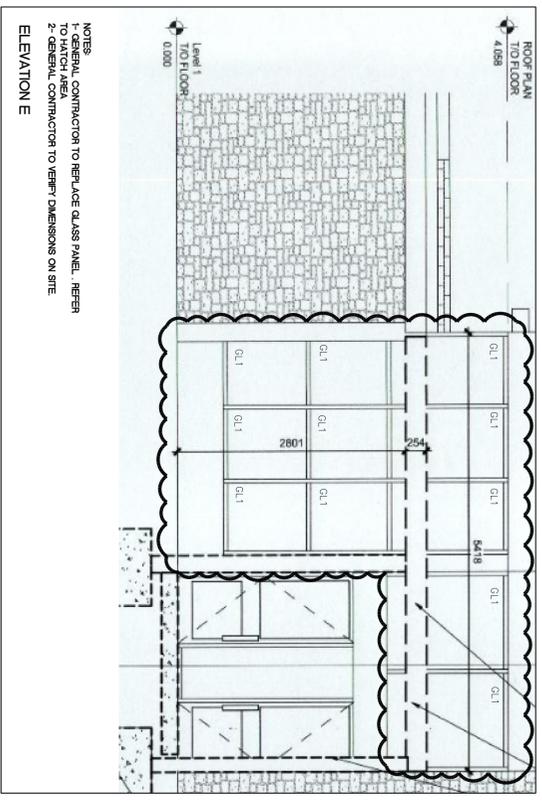
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DRAWN: SD
SCALE: AS NOTED



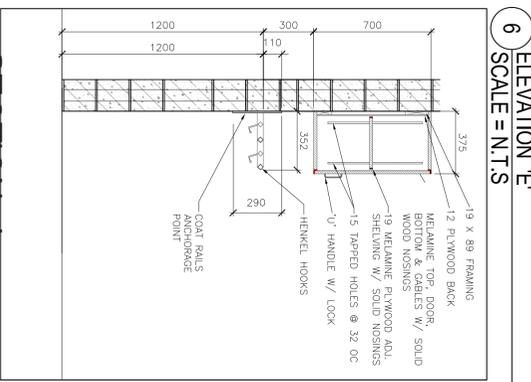
5 EXTERIOR DOOR ELEVATIONS
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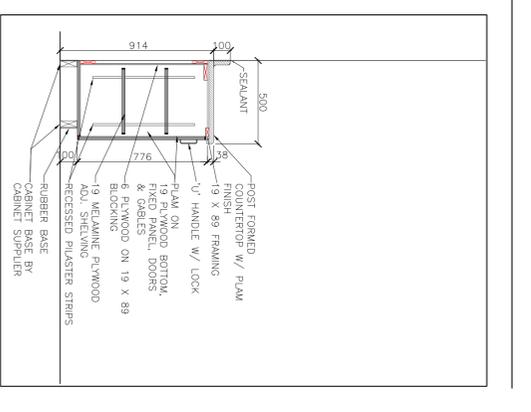
4 FRAME TYPES
SCALE = 1:50



3 INTERIOR DOORS ELEVATIONS
SCALE = 1:50



6 ELEVATION E1
SCALE = N.T.S



7 SECTION 1'
SCALE = 1:20

8 SECTION 2'
SCALE = 1:20

ROOM	NUMBER	DOOR #	WIDTH	HEIGHT	TYPE	MATERIAL	FINISH	GLASS	TYPE	MATERIAL	FINISH	GLASS	AUTO OPERATOR	HARDWARE	FIRE RATING	COMMENTS
EXIT 4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	REFER TO ELEVATION B
EXIT 7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	REFER TO ELEVATION C
EXIT 8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	REFER TO ELEVATION C
EXIT 9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	REFER TO ELEVATION D
MECHANICAL / STORAGE BASEMENT EXIT	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	REFER TO ELEVATION D
MAIN OFFICE	101	D-101	914	2032	C	WD	ST	GL2	EX	EX	EX	PT	-	-		
PRINCIPAL	102A	D-101A	914	2032	C	WD	ST	GL2	EX	EX	EX	PT	-	-		
SACRED SPACE	102	D-102	914	2032	A1	WD	ST	GL2	EX	EX	EX	PT	-	-		
SEMINAR RM	103	D-103	914	2032	C	WD	ST	GL2	EX	EX	EX	PT	-	-		
EMP CLASSROOM	104	D-104	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
CLASSROOM	105	D-105	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
STORAGE	106	D-106	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
BOYS WIR	107	D-107	914	2032	D	WD	ST	GL2	EX	EX	EX	PT	-	-		
CUSTODIAN	108	D-108	914	2032	E	HM	PT	-	-	-	-	-	-	-		
GIRLS WIR	109	D-109	914	2032	D	WD	ST	GL2	EX	EX	EX	PT	-	-		
WORK ROOM	110A	D-110A	914	2032	D	WD	ST	GL2	EX	EX	EX	PT	-	-		
ADDO - VISUAL ROOM	110B	D-110B	914	2032	C	WD	ST	GL2	EX	EX	EX	PT	-	-		
OFFICE ROOM	111	D-111	914	2032	C	WD	ST	GL2	EX	EX	EX	PT	-	-		
OFFICE ROOM	112	D-112	914	2032	C	WD	ST	GL2	EX	EX	EX	PT	-	-		
CLASSROOM	117	D-117	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
EMP CLASSROOM	118	D-118	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
SP ED CLASSROOM	119	D-119	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
BOYS WIR	120	D-120	914	2032	D1	WD	ST	GL2	EX	EX	EX	PT	-	-		
CUSTODIAN	121	D-121	914	2032	E3	HM	PT	-	-	-	-	-	-	-		
GIRLS WIR	122	D-122	914	2032	D2	WD	ST	GL2	EX	EX	EX	PT	-	-		
UNIVERSAL WIR	123	D-123	914	2032	D2	WD	ST	GL2	EX	EX	EX	PT	-	-		
CUSTODIAN	124	D-124	914	2032	E3	HM	PT	-	-	-	-	-	-	-	YES	
STORAGE	125	D-125	914	2032	D3	HM	PT	-	-	-	-	-	-	-		
CLASSROOM	126	D-126	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
CLASSROOM	127	D-127	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
CLASSROOM	128	D-128	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
CLASSROOM	129	D-129	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
CLASSROOM	130	D-130	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
CLASSROOM	130A	D-130A	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
STORAGE	131	D-131	914	2032	E2	WD	ST	GL2	EX	EX	EX	PT	-	-		
EMP KINDERGARTEN - WIR	132	D-132	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
EMP KINDERGARTEN - WIR	132A	D-132A	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
KINDERGARTEN - WIR	133	D-133	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
KINDERGARTEN - WIR	133A	D-133A	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
KINDERGARTEN - WIR	134	D-134	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
KINDERGARTEN - WIR	134A	D-134A	914	2032	A	WD	ST	GL2	EX	EX	EX	PT	-	-		
GYMNASIUM ROOM	135	D-135	1828	2032	B	HM	PT	GL2	EX	EX	EX	PT	-	-		
GYMNASIUM ROOM	135A	D-135A	1828	2032	B	HM	PT	GL2	EX	EX	EX	PT	-	-		
STAGE	135A	D-135A	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
STORAGE	135B	D-135B	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
STAFF RM - KITCHEN	136	D-136	914	2032	C	WD	ST	GL2	EX	EX	EX	PT	-	-		
STAFF RM - KITCHEN	136A	D-136A	914	2032	C	WD	ST	GL2	EX	EX	EX	PT	-	-		
STAFF RM - WIR	136B	D-136B	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
STAFF RM - WIR	136BA	D-136BA	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
STAFF RM - WIR	136B	D-136B	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
STAFF RM - WIR	136BA	D-136BA	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
STAFF CLOSET	137A	D-137A	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
STAFF CLOSET	137A	D-137A	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
STAFF CLOSET	138A	D-138A	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
STAFF CLOSET	138A	D-138A	914	2032	E	WD	ST	GL2	EX	EX	EX	PT	-	-		
MECHANICAL	139	D-139	914	2032	E	HM	PT	-	-	-	-	-	-	-	FRAME DETAIL - 03	

9 DOOR SCHEDULE
SCALE = N.T.S

ADDENDUM NO. 1

Attention: Sonia Diaz

Address: 1721 Architects
1065 VALETTA Street Suite A
London ON. N6H 2Z9

Date: March 12, 2026

Project #: CE-6381

Project: St. Peter CES Cambridge

Cc. ---

Please amend the drawings and specifications for the above noted project as described below. Identify this addendum on the tender form to insure a complete tender form.

1. MECHANICAL

1.1. Drawing M2 Condensing Unit Schedule

- 1.1.1. No alternates for the condensing unit permitted. The new condensing unit must be compatible with the existing cooling coil within the existing Engineered Air air handling unit. Refrigerant must match the existing R410A refrigerant.

2. ELECTRICAL

2.1. Reissued Drawing E1:

- 2.1.1. Delete 4, occupancy sensor dimming switches. Washrooms 136A 137A Staff room 136 and Work room 137, existing controls to remain.
- 2.1.2. Provide 2, on/off, dimming switches as indicated on the plan.
- 2.1.3. Revise lighting fixture schedule, type AA: Add passive infrared occupancy detection to fixture description to be built into the fixture and change lens type.

2.2. Reissued Drawing E3:

- 2.2.1. Revise note 4.

2.3. Reissued Drawing E4:

- 2.3.1. Revise electrical specifications as indicated on the plans.

3. ATTACHMENTS

- 3.1. Reissued drawings E1, E3 and E4. [3 pages].

END OF ADDENDUM No. 1

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KINGSTON, ON. K7K 1Z7
T 613 900 0845

W www.callidus.ca

KITCHENER
210-137 GLASGOW STREET
KITCHENER, ON. N2G 4X8
T 519 340-1885

RECEPTACLE LEGEND	
SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE
	GFI RECEPTACLE
O/C	OVER COUNTER
U/C	UNDER COUNTER
T	20 AMP T-SLOT RECEPTACLE

ELECTRICAL LINE TYPE LEGEND	
SYMBOL	DESCRIPTION
	DEMOLITION
	EXISTING
	NEW
	CIRCUIT WIRE

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE																		
LABEL	DESCRIPTION	LOCATION	VOLT	PH	HP	WATTS	MCA	ISO. SW.	P	POWER WIRING	CTRL. BY ELEC	SOURCE PNL	DISC AMP	FUSE	BRK	P	REMARKS	
AC-01	AIR CONDITIONER	-	120	1	-	-	-	20	1	2#12 CU + GND IN 3/4"	-	HP-01	-	-	-	15	1	-
B-03	BOILER	-	120	1	-	-	10.4	20	1	-	-	-	-	-	-	15	1	-
CU-101	CONDENSING UNIT	-	208	3	-	-	84.4	100	3	-	-	-	-	-	-	-	-	-
HP-01	HEAT PUMP	-	208	1	-	-	11	30	3	3#10CU + BND IN3/4"	-	LP-A	-	-	-	30	2	-
P-01/P-02	PUMP	-	208	3	1/2	-	12.8	30	1	-	-	-	-	-	-	-	-	-
P-03/P-04	PUMP	-	208	3	1/2	-	-	-	-	-	-	-	-	-	-	-	-	-

ABBREVIATIONS:

CONT	- CONTACTOR, SIZE AS INDICATED	OS	- OCCUPANCY SENSOR
COMB	- COMBINATION DISCONNECT & STARTER	RAT	- REVERSE ACTING THERMOSTAT
FVNR	- FULL VOLTAGE NON REVERSING STARTER	R	- RELAY
HOA	- HAND OFF AUTO SWITCH C/W ON PILOT LIGHT	RPB	- REMOTE PUSH BUTTON OFF
MAN	- MANUAL MOTOR SWITCH C/W PILOT LIGHT	SW	- LIGHT SWITCH
		TC	- 7 DAY PROGRAMMABLE TIMECLOCK
		TS	- TIMER SWITCH
		WP	- WEATHER PROOF

NOTES:

- INSTALL ALL WIRING IN CONDUIT WITH SHORT LENGTH LIQUID TIGHT FLEX TO MOTOR OR VIBRATING EQUIPMENT.
- WIRE THROUGH TC OR RAT SUPPLIED BY MECHANICAL TRADE.

GENERAL NOTES: (APPLICABLE TO ALL DRAWINGS)

- PROTECT ALL INTERIOR AND EXTERIOR FINISHES, CEILINGS, WALLS, FLOORS, ETC FROM DAMAGE DUE TO THE WORK OF THIS DIVISION.
 - INFORMATION RELATED TO EXISTING CONDITIONS IS TAKEN FROM ORIGINAL AS-BUILT DRAWINGS AND LIMITED VISUAL SITE REVIEW. CONFIRM ALL EXACT DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES WITH THE CONSULTANT.
 - REPAIR ANY DAMAGE CAUSED BY THE ELECTRICAL TRADE TO EXISTING BUILDINGS OR EQUIPMENT, ETC., TO THE CONSULTANT'S SATISFACTION UPON COMPLETION OF THE WORK. CLEAN ALL EQUIPMENT AND REMOVE FROM THE SITE ALL ELECTRICAL DEBRIS.
 - PROVIDE LEGIBLE SIGNS AND BARRIERS ON OR AROUND ALL LIVE PANELS AND EQUIPMENT DURING CONSTRUCTION TO PREVENT INJURY OR SHOCK. DISCONNECT AND/OR ISOLATE ALL ELECTRICAL EQUIPMENT EFFECTED BY WORK OF THIS DIVISION. PROVIDE AND COORDINATE DANGER TAGS WITH OWNER FOR ALL EQUIPMENT THAT WILL REMAIN ENERGIZED DURING CONSTRUCTION.
 - SCHEDULE AND PHASE DEMOLITION AND NEW WORK TO REDUCE INTERFERENCE AND DOWNTIME OF EXISTING SYSTEMS. NOTIFY OWNER'S REPRESENTATIVE OF ALL DOWNTIME PRIOR TO PROCEEDING WITH WORK. MAINTAIN SERVICES TO ALL AREAS NOT UNDER CONSTRUCTION. MODIFY OR EXTEND WIRING AND CONDUIT AS REQUIRED.
 - DO NOT SCALE DRAWINGS. OBTAIN ALL DIMENSIONS FROM EXISTING ARCHITECTURAL PLANS, SITE INSPECTIONS, AND MANUFACTURER'S SHOP DRAWINGS.
 - PRIOR TO INSTALLATION OF DEVICES WITHIN WALLS, VERIFY THAT NO INTERFERENCES EXIST. CONFIRM ON SITE WITH OWNER AND DESIGNER FOR EXACT DEVICE LOCATIONS AND ELEVATIONS.
 - CONTRACTORS SHALL VISIT THE SITE TO DETERMINE THE FULL EXTENT OF THE WORK BEFORE SUBMITTING PRICING. MAKE ALL ALLOWANCES FOR SITE CONDITIONS.
 - IN THE EVENT OF A DISCREPANCY BETWEEN THE SPECIFICATIONS AND A NOTE ON THE DRAWINGS, THE DRAWING NOTES SHALL SUPERSEDE THE SPECIFICATIONS.
 - EXISTING WIRING AND CONDUIT MAY BE REUSED WHERE IN VERY GOOD CONDITION - SUBJECT TO CODE COMPLIANCE AND MEGGER TEST.
- GENERAL DEMOLITION NOTES: (APPLICABLE TO ALL DRAWINGS)
- ALL FIXTURES AND DEVICES ARE EXISTING TO REMAIN UNLESS IDENTIFIED OTHERWISE ON THE DRAWINGS. GENERAL NOTES OR SPECIFICATIONS.
 - REMOVE ALL UNUSED, ABANDONED OR REDUNDANT WIRING AND CONDUIT BACK TO SOURCE.
 - RELOCATE EXISTING FIXTURE/DEVICE AS SHOWN ON DRAWINGS. EXTEND CONDUIT AND WIRING AS REQUIRED. TRACE EXISTING CIRCUITS PRIOR TO DEMOLITION. CONSULT WITH OWNER'S REPRESENTATIVE FOR ANY INTERRUPTIONS THIS MAY CAUSE DURING REMOVAL AND REINSTALLATION.
 - COORDINATE WITH FACILITY MAINTENANCE DEPARTMENT FOR DISPOSAL OF REMOVED DEVICES. DISPOSE OF ALL UNWANTED DEVICES AS REQUIRED AS PER FACILITY STANDARDS.
 - ELECTRICAL EQUIPMENT BEING REMOVED AND NOT BEING REUSED WILL REMAIN THE PROPERTY OF THE OWNER. EQUIPMENT THE OWNER DOES NOT WANT WILL BE DISPOSED OF BY THE CONTRACTOR. CONTRACTOR TO ENSURE ALL CONSTRUCTION WASTE, GARBAGE AND DEBRIS IS REMOVED FROM SITE AND PROPERLY DISPOSED.
 - TRACE OUT ALL EXISTING CIRCUITS WITHIN THE AREA OF WORK AND LABEL PRIOR TO ANY DEMOLITION. MAINTAIN SERVICES TO AREAS NOT UNDER CONSTRUCTION.
 - DEMOLITION DRAWINGS BASED ON LIMITED SITE INVESTIGATION AND EXISTING CONDITIONS. NOT ALL EXISTING DEVICES ARE SHOWN. LOCATIONS ARE APPROXIMATE. CONFIRM ON SITE WITH EXISTING CONDITIONS ALL DEVICE LOCATIONS AND TYPES. BRING ANY DISCREPANCIES BETWEEN THIS DRAWING AND ACTUAL SITE CONDITIONS TO THE ATTENTION OF THE CONSULTANT. INCLUDE REMOVAL AND REPLACEMENT IN PRICE SUBMITTED.
 - REMOVE ALL EXISTING DEVICES SHOWN ON THIS DRAWING UNLESS INDICATED OTHERWISE.
 - ALL EXISTING DEVICES AND EQUIPMENT IN HATCHED AREAS ARE TO REMAIN.
 - CONTRACTOR TO ENSURE CONTINUOUS POWER SUPPLY TO EXISTING PYLON SIGN DURING CONSTRUCTION.

ELECTRICAL TAG/NAME LEGEND	
SYMBOL	DESCRIPTION
WP	WEATHERPROOF
EX	EXISTING TO REMAIN
REM	REMOVE EXISTING
REL	RELOCATE EXISTING
ERL	EXISTING RELOCATED

EQUIPMENT AND CONNECTION LEGEND	
SYMBOL	DESCRIPTION
	ELECTRICAL PANEL
	DISCONNECT
	CONNECTION TO MOTOR OR MOTORIZED PIECE OF EQUIPMENT
PDO	POWER DOOR OPERATOR
	COMBINATION STARTER / CONTACTOR
	MANUAL MOTOR SWITCH
	DIRECT CONNECTION
	ELECTRICAL THERMOSTAT
	PDO PUSH PLATE

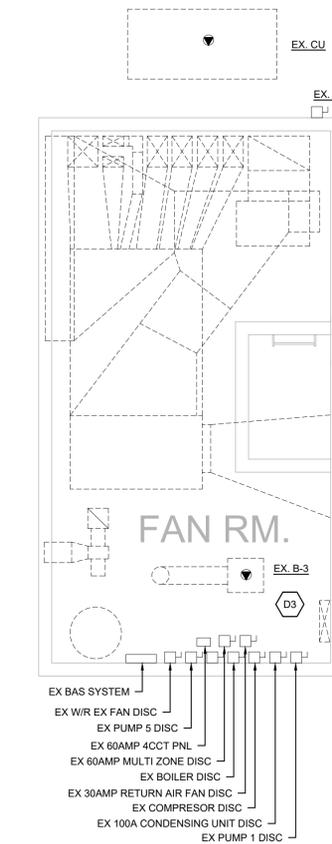
LIGHTING LEGEND	
SYMBOL	DESCRIPTION
	WALL MOUNT LINEAR LIGHT FIXTURE
	RECTANGULAR LIGHT FIXTURE
	CEILING OR PENDANT LIGHT FIXTURE
	DIMMER SWITCH NIGHTAID: IPDOLA DX WH G2

ACCESS CONTROL LEGEND	
SYMBOL	DESCRIPTION
CR	CARD READER
ES	ELECTRIC STRIKE
DC	DOOR CONTACT

LIGHTING FIXTURE SCHEDULE				
FIXTURE TAG	DESCRIPTION AND MODEL SERIES	INPUT	LIGHT SOURCE	MOUNTING
AA	2X4 BACK LIT LED FIXTURE C/W SMOOTH ACRYLIC LENS, SELECTABLE LUMEN OUTPUT 2500/3200/4000 80 CRI, SELECTABLE COLOUR TEMPERATURE, 0-10V DIMMING, 3-LEADER MOUNTING KIT, PIR OCCUPANCY SENSOR, LITHONIA: CPX 2X4 AL07 80CRI SWW7 SWL MVOLT NLTAIR2 PIR	120V 35W	LED 4000L 4000K 80CRI	SURFACE
BB	4" WALL MOUNTED LED DIRECT/INDIRECT FIXTURE C/W 3000 LUMEN OUTPUT 80CRI 4000K CURVED LINEAR FACETED REFRACTOR LENS, PIR OCCUPANCY SENSOR, WHITE FINISH, LITHONIA: WL4 30L MVOLT EZ1 LP840 NLTAIR2 NES7	120V 28W	LED 3000L 4000K 80CRI	WALL
CC	11" DIAMETER SURFACE MOUNTED LED FIXTURE C/W 1400 LUMEN OUTPUT, WHITE FINISH WHITE PAINTED FLANGE SMOOTH DIFFUSE LENS 80CRI 4000K, LITHONIA: FMLRDL 11 148 40	120V 20W	LED 1400L 4000K 80CRI	SURFACE

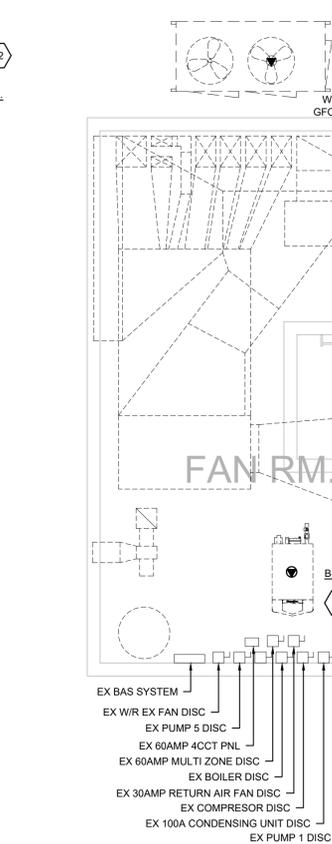
NOTES:

- PROVIDE ALL NECESSARY MOUNTING HARDWARE FOR A COMPLETE INSTALLATION.
- COORDINATE WITH ARCHITECTURAL CEILING PLAN TO CONFIRM CEILING MATERIAL AND MOUNTING TYPE.
- FIXTURES TO BE SET TO 4000K AND MEDIUM LUMEN OUTPUT SELECTION



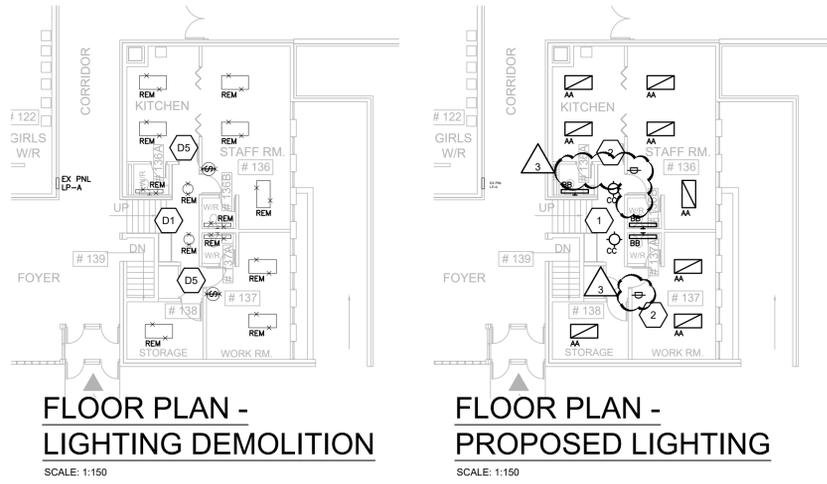
PENTHOUSE PLAN - POWER DEMOLITION

SCALE: 1:150



PENTHOUSE PLAN PROPOSED POWER LAYOUT

SCALE: 1:150



FLOOR PLAN - LIGHTING DEMOLITION

SCALE: 1:150

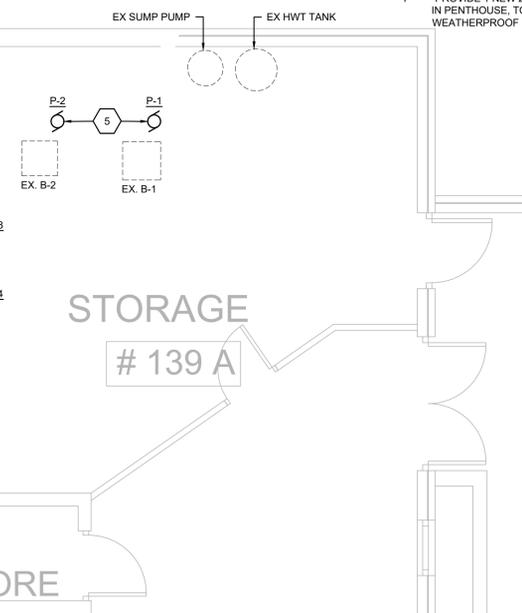
FLOOR PLAN - PROPOSED LIGHTING

SCALE: 1:150



PART FLOOR PLAN - BASEMENT POWER DEMOLITION

SCALE: 1:150



PART FLOOR PLAN - BASEMENT PROPOSED POWER LAYOUT

SCALE: 1:150

DRAWING NOTES: (INDICATED WITH HEXAGONS):

- DISCONNECT EXISTING LIGHTING FIXTURES AND CONTROLS. MAINTAIN EXISTING CIRCUITING FOR NEW FIXTURE CONNECTION.
- DISCONNECT EXISTING CONDENSING UNIT AND MAKE SAFE. MAINTAIN EXISTING CIRCUIT. WIRING AND DISCONNECT FOR NEW CONDENSING UNIT INSTALLATION.
- DISCONNECT EXISTING BOILER AND MAKE SAFE. MAINTAIN EXISTING CIRCUIT FOR NEW BOILER CONNECTION.
- DISCONNECT EXISTING PUMP AND MAKE SAFE. MAINTAIN EXISTING WIRING, CIRCUIT ETC FOR FUTURE RECONNECTION TO NEW PUMP.
- REMOVE EXISTING LIGHTING CONTROL DEVICE.

DRAWING NOTES: (INDICATED WITH HEXAGONS):

- INSTALL NEW LED FIXTURES. CONNECT TO EXISTING CIRCUIT AND CONTROLS.
- PROVIDE NEW OCCUPANCY DIMMER SWITCH AS INDICATED.
- RECONNECT NEW CONDENSING UNIT CU-01 USING EXISTING WIRING DISCONNECTS ETC. MODIFY OR EXTEND EXISTING WIRING TO SUIT NEW INSTALLATION. PROVIDE NEW 100AMP 3P 208V RATED WP DISCONNECT AT UNIT IF EXISTING IS NOT PRESENT.
- CONNECT NEW BOILER TO EXISTING BOILER CIRCUIT. MODIFY OR EXTEND EXISTING WIRING AS REQUIRED TO SUIT NEW INSTALLATION.
- RECONNECT NEW PUMP TO EXISTING WIRING. MODIFY OR EXTEND EXISTING WIRING TO SUIT NEW INSTALLATION.
- NEW VFD PROVIDED BY MECHANICAL INSTALLED BY ELECTRICAL. EXTEND EXISTING WIRING FROM NEW VFD TO RESPECTIVE PUMP P3/P4. CONFIRM EXISTING WIRING CAPACITY FOR NEW LOAD. REPORT DISCREPANCIES TO THE CONSULTANT PRIOR TO INSTALLATION.
- PROVIDE 1 NEW 20A 1P BREAKER IN EX 4CCT PANEL LOCATED IN PENTHOUSE, TO SERVE NEW GFCI RECEPTACLE IN WEATHERPROOF LOCKABLE WHILE-IN-USE ENCLOSURE.

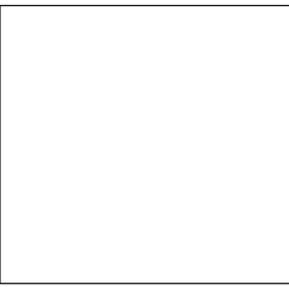
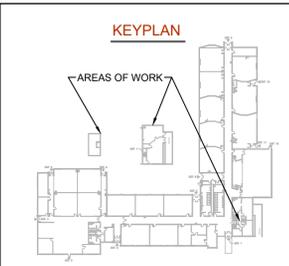
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KITCHENER: 210-137 Glasgow Street, Office #141
Kitchener, ON N2G 4X8 P 519.472.7640

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REVISIONS		
NO.	ISSUED FOR	DATE
00	50% CLIENT REVIEW	26.01.28
01	90% CLIENT REVIEW	26.02.11
02	TENDER	26.03.03
03	ADDENDUM 1	26.03.11

NORTH

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A. D. DIRKS
100502827
E.P.A. - 19
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CHECKED	AD	REVIEWED	AD

PROJECT
ST. PETER CES

ADDRESS
92 AVENUE ROAD,
CAMBRIDGE, ON

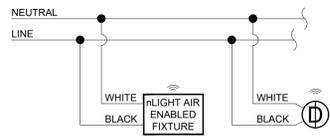
PROJECT NO.
CE-6381

DRAWING TITLE
LIGHTING DEMO, PROPOSED
NEW, POWER DEMO &
PROPOSED NEW LAYOUTS &
LEGENDS & SCHEDULES

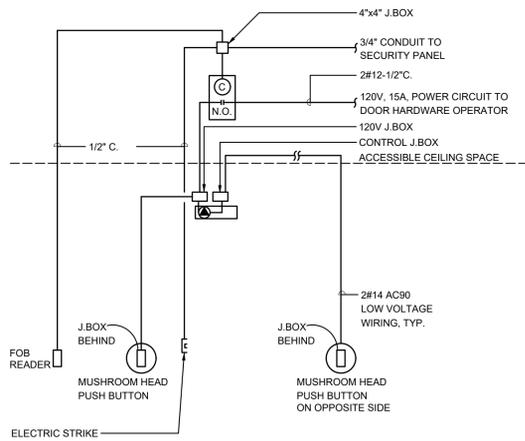
DRAWING NUMBER
E1 OF 4

DRAWING NOTES (INDICATED WITH HEXAGONS):

- 1 PROVIDE POWER FOR AC-01 FROM HP-01. REFER TO WIRING FOR MECHANICAL EQUIPMENT SCHEDULE FOR MORE DETAILS.
- 2 PROVIDE A NEW 30A 208V 1PH WP DISCONNECT TO SERVE NEW ROOF TOP HEAT PUMP.
- 3 PROVIDE NEW DEDICATED 20A DUPLEX RECEPTACLE IN WEATHER PROOF LOCKABLE WHILE-IN-USE ENCLOSURE. PROVIDE NEW 20AMP 1P BREAKER IN EXISTING PANEL LP-A.
- 4 PROVIDE NEW POWER DOOR OPERATOR AND CONTROLS AT NEW LOCATION AS INDICATED. REINSTALL EXISTING FOB READER TAKEN FROM EXIT 7. CONFIRM EXACT LOCATION ON SITE. MODIFY EXISTING POWER DOOR OPERATOR CIRCUIT TO SUIT NEW LAYOUT.
- 5 PROVIDE NEW POWER DOOR OPERATOR AND CONTROLS. EXTEND EXISTING POWER DOOR OPERATOR CIRCUIT TO SUIT NEW LAYOUT.
- 6 PROVIDE 1 NEW 15AMP 1P BREAKER IN EXISTING PANEL LP-A TO SERVE NEW ELECTRONIC FAUCETS.
- 7 PROVIDE 1 NEW 15AMP 1P BREAKER IN EXISTING PANEL LP-A TO SERVE NEW ELECTRONIC FAUCETS.
- 8 PROVIDE TYPED AND UPDATED PANEL DIRECTORIES INSIDE PANEL COVER OF ALL EFFECTED PANELS.
- 9 PROVIDE 1 NEW POWER DOOR OPERATOR C/W PUSHBUTTON CONTROLS. PROVIDE 1 NEW 15AMP 1p BREAKER IN EXISTING PANEL LP-A TO SERVE NEW DOOR OPERATOR.



nLIGHT AIR WIRING SCHEMATIC
SCALE: NTS

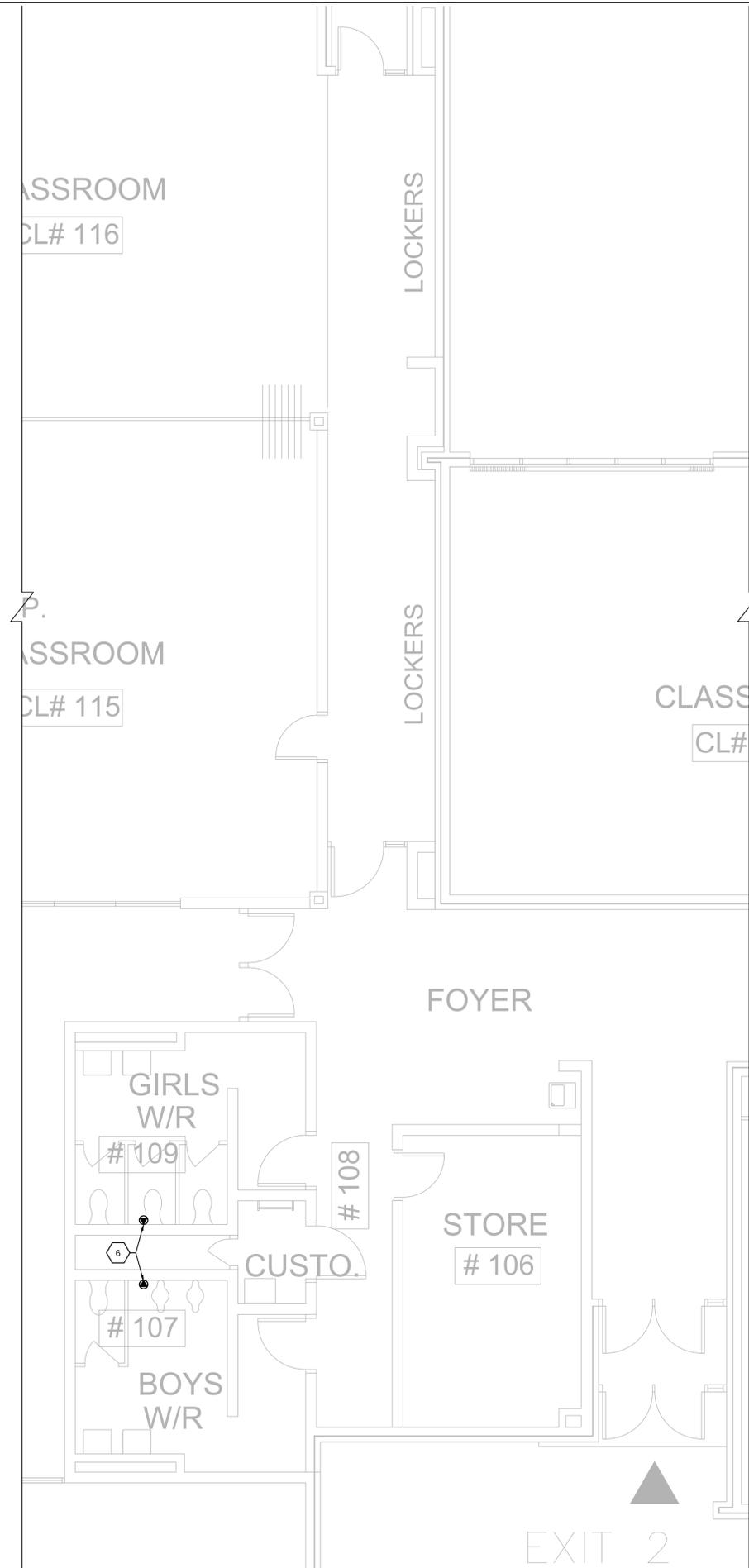


BARRIER FREE DOOR OPERATOR SECURITY DETAIL

1. PUSH BUTTON, MUSHROOM HEAD, AND OPERATOR BY HARDWARE INSTALLER. INSTALLATION BY HARDWARE INSTALLER.
2. CO-ORDINATE WITH HARDWARE SUPPLIER FOR TYPE OF JUNCTION BOX TO BE INSTALLED BEHIND MUSHROOM PUSH BUTTON.
3. POWER SUPPLY, CONTROL WIRING AND TERMINATIONS BY DIV.16.

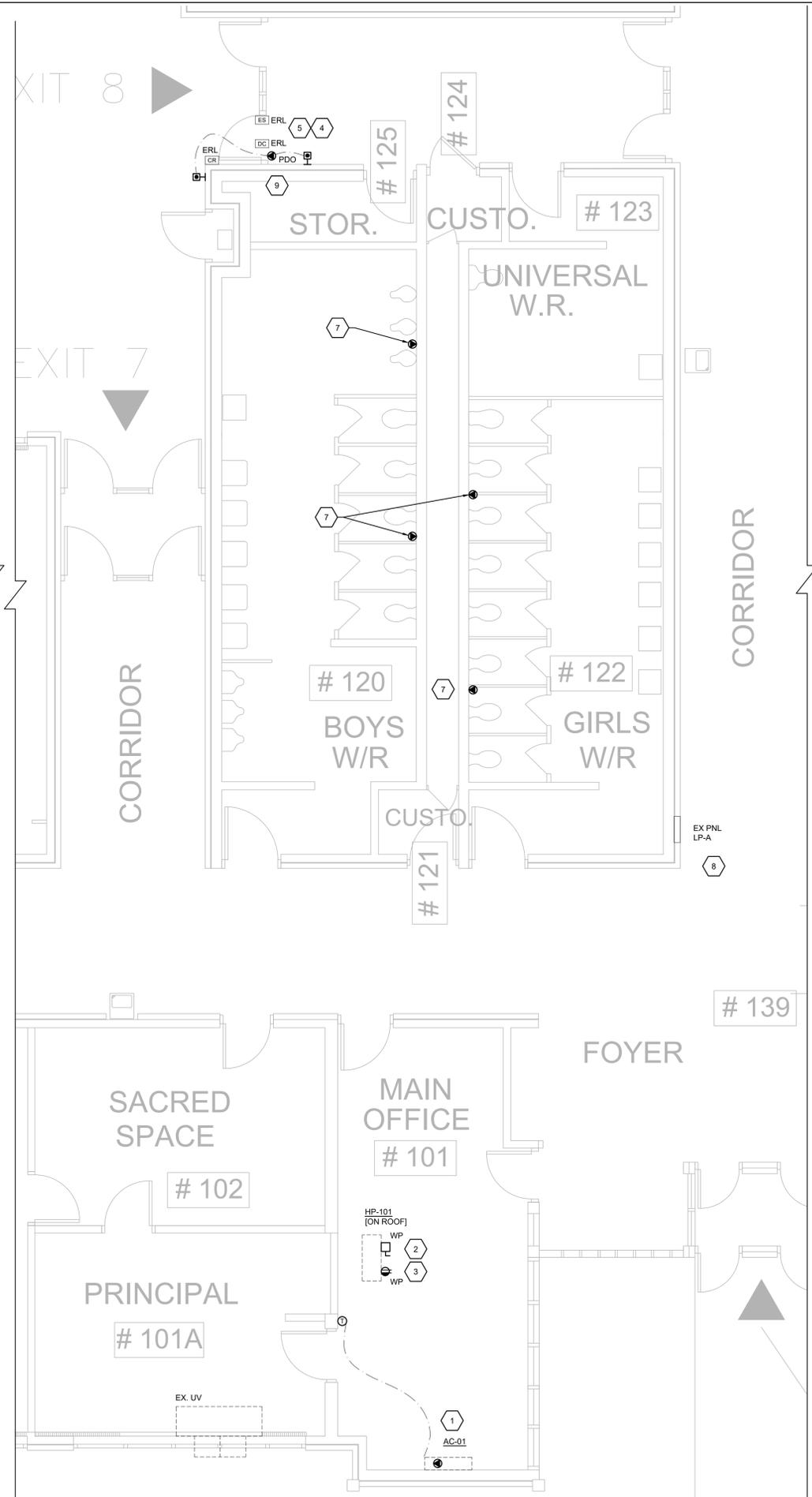
BARRIER FREE SECURITY DOOR SEQUENCE OF OPERATIONS:

1. UPON SUCCESSFUL FOB READ:
 - a) ELECTRIC STRIKE IS RELEASED
 - b) N.O. CONTACT IS CLOSED AND BARRIER FREE OPERATOR IS ACTIVATED.



PART FLOOR PLAN - OFFICE ELECTRICAL PROPOSED LAYOUT

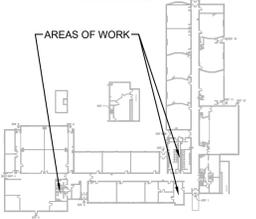
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PART FLOOR PLAN - OFFICE ELECTRICAL PROPOSED LAYOUT

SCALE: 1:150

KEYPLAN



REVISIONS

NO.	ISSUED FOR	DATE
00	50% CLIENT REVIEW	26.01.28
01	90% CLIENT REVIEW	26.02.11
02	TENDER	26.03.03
03	ADDENDUM 1	26.03.11

NORTH



DESIGN	ADM	DRAWN	ADM
CHECKED	AD	REVIEWED	AD

PROJECT

ST. PETER CES

ADDRESS

92 AVENUE ROAD,
CAMBRIDGE, ON

PROJECT NO.

CE-6381

DRAWING TITLE

PART GROUND FLOOR POWER
AND SECURITY LAYOUT, NOTES
AND DETAILS

DRAWING NUMBER

E3 OF 4

ELECTRICAL GENERAL REQUIREMENTS

GENERAL CONDITIONS:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO ELECTRICAL SAFETY CODE, THE LOCAL ELECTRICAL SAFETY AUTHORITY INSPECTION OFFICE, THE ONTARIO BUILDING CODE, THE ONTARIO FIRE CODE AND ANY OTHER LOCAL REGULATIONS HAVING JURISDICTION OVER THE WORK OF THIS TRADE.
2. BEFORE TENDERING, EXAMINE THE SITE AND ALL DRAWINGS AND SPECIFICATIONS OF ALL TRADES AND BE FAMILIAR WITH THE WORK OF THIS TRADE. NO EXTRAS WILL BE ALLOWED FOR THE FAILURE TO DO SO.
3. ALL ELECTRICAL WORK SHALL COMPLY WITH CSA ELECTRICAL BULLETINS APPLICABLE AT TENDER CLOSE. WHERE SPECIFIC BULLETINS ARE NOT NAMED THEY ARE STILL CONSIDERED AN INTEGRAL PART OF THIS SPECIFICATION.
4. PROVIDE ALL GROUNDING AND BONDING TO GROUND REQUIRED, REGARDLESS IF NOT SHOWN ON THE DRAWINGS. GROUNDING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY CODE.
5. PROVIDE ALL NEW MATERIALS HAVING CSA, CUL, WARNOCK HERSEY OR OTHER APPROVAL AGENCY LABEL AND LISTING. ALL WORKMANSHIP BY THIS TRADE SHALL BE FIRST CLASS, CONFORMING TO INDUSTRY STANDARD PRACTICES FOR SAFETY, ACCESSIBILITY, DURABILITY AND NEATNESS FOR ACCEPTANCE BY THE OWNERS REPRESENTATIVES.
6. ARRANGE AND PAY FOR ALL PERMITS AND INSPECTION FEES REQUIRED FOR THE WORK OF THIS TRADE. SUBMIT TO THE LOCAL ELECTRICAL INSPECTION DEPARTMENT AND/OR ELECTRICAL SUPPLY AUTHORITY ANY AND ALL DRAWINGS REQUIRED FOR PERMITS, FEES, APPROVALS, EXAMINATIONS AND SERVICES.
7. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR THE WORK OF THIS TRADE. ALL CUTTING AND PATCHING SHALL BE PERFORMED BY QUALIFIED TRADES PERSONS. INCLUDE ALL COSTS FOR CUTTING AND PATCHING RELATED TO THE WORK OF THIS TRADE IN THE TENDER PRICE.
8. PROVIDE ALL SLEEVES, INSERTS AND HANGERS REQUIRED FOR THE ELECTRICAL WORK. TREAT ALL SLEEVES OR HOLES PIERCING ACOUSTICAL SEPARATIONS FOR INSTALLATIONS OF THE DIVISION TO MAINTAIN ACOUSTICAL RATING. ALL GAPS SHALL BE PACKED WITH ACOUSTICAL INSULATION AND SEALED AT BOTH ENDS WITH ACOUSTICAL CAULKING. PATCH ALL OPENINGS AROUND INSTALLATIONS OF THIS DIVISION PIERCING FIRE OR SMOKE SEPARATIONS WITH AN APPROVED WATERTIGHT SMOKE AND FIRE STOP SEALANT.
9. PROVIDE ACCESS PANELS AS FOLLOWS: SHEET STEEL CONSTRUCTION WITH FACTORY APPLIED PRIME COAT OF PAINT, POSITIVE LATCHING SYSTEM, MINIMUM 18 GAUGE STEEL. PROVIDE HINGED DOORS FOR ALL ACCESS PANELS WITH A SIZE OF 450MM X 450MM (18" X 18") OR LARGER. WHERE THE ACCESS DOOR IS LOCATED IN A FIRE RATED ASSEMBLY OR A FIRE SEPARATION HAVING A FIRE RESISTANCE RATING, PROVIDE ACCESS DOORS WHICH ARE ULC LISTED FOR THE REQUIRED FIRE RESISTANCE RATING ALLOWED BY THE ONTARIO BUILDING CODE.
10. TOUCH-UP ALL SHOP PAINTED EQUIPMENT DAMAGED IN TRANSIT OR DURING INSTALLATION TO MATCH ORIGINAL SHOP FINISH.
11. AVOID ACCUMULATION OF DEBRIS AS THE WORK PROGRESSES. ON COMPLETION OF THE CONSTRUCTION AND PRIOR TO THE FINAL INSPECTION AND ACCEPTANCE BY THE OWNER, CLEAN UP AND REMOVE FROM THE SITE ALL SCRAP MATERIALS RESULTING FROM THE WORK OF THIS TRADE.
12. CO-ORDINATE THE WORK OF THIS TRADE WITH ALL OTHER TRADES ON THE JOB SO THAT THE WORK MAY PROGRESS WITHOUT ANY DELAY. SCHEDULE AND PHASE DEMOLITION AND NEW WORK TO REDUCE INTERFERENCE AND DOWNTIME OF EXISTING SYSTEMS. NOTIFY OWNERS REPRESENTATIVE OF ALL DOWNTIME PRIOR TO PROCEEDING WITH WORK.
13. IN AREAS WHERE SPACE IS LIMITED AND MULTIPLE TRADES ARE INSTALLING SERVICES, COORDINATE INSTALLATION OF SERVICES. PREPARE INTERFERENCE DRAWINGS PRIOR TO CONSTRUCTION TO ENSURE INSTALLATION OF ALL SERVICES IS COORDINATED.
14. PRIOR TO THE FINAL INSPECTION, CLEAN ALL ELECTRICAL EQUIPMENT. CLEAN ALL CONSTRUCTION DUST AND DIRT FROM INSTALLED EQUIPMENT AT THE END OF THE JOB. REPAIR ANY DAMAGE CAUSED BY THE ELECTRICAL TRADE TO EXISTING BUILDINGS OR EQUIPMENT, ETC TO THE CONSULTANTS SATISFACTION.
15. UPON COMPLETION OF THE WORK, PROVIDE THE FINAL UNCONDITIONAL CERTIFICATE OF ACCEPTANCE FROM THE LOCAL ELECTRICAL SAFETY AUTHORITY INSPECTION OFFICE.
16. PROVIDE A ONE YEAR GUARANTEE ON ALL MATERIALS, AND LABOUR FROM THE DATE OF ACCEPTANCE BY THE OWNER. COMPLETE ALL WARRANTY REGISTRATION DOCUMENTATION ON BEHALF OF THE BUILDING OWNER. SUBMIT COPIES OF COMPLETED DOCUMENTATION IN OPERATIONS AND MAINTENANCE MANUALS.
17. ON MULTI-PHASE FEEDERS AND PANELS, ADJUST THE PHASE LOADING SO AS NOT TO EXCEED A PHASE IMBALANCE OF 10% LINE TO LINE, UNDER NORMAL OPERATING CONDITIONS OF THE FEEDER OR PANEL.
18. SUBMIT SHOP DRAWINGS IN ELECTRONIC PDF FORMAT FOR THE FOLLOWING EQUIPMENT: BREAKERS, FIRE ALARM DEVICES, EXIT AND EMERGENCY LIGHTING UNITS, ETC. THE SHOP DRAWINGS SHALL BEAR THE NAME OF THE MANUFACTURER, THE MANUFACTURERS CATALOGUE NUMBER, AND THE CONSULTANT'S DESIGNATION, ALONG WITH ALL PERTINENT INFORMATION PERTAINING TO THAT SPECIFIC PIECE OF EQUIPMENT.
19. ALL ELECTRICAL EQUIPMENT SHALL BE MOUNTED PLUMBED TRUE.
20. DEVICE BOXES SHOWN BACK TO BACK SHALL BE OFFSET A MINIMUM OF 305MM (12") TO REDUCE SOUND TRANSMISSION BETWEEN ROOMS.
21. AS-BUILT DRAWINGS:
 - 21.1. MAINTAIN AN ACCURATE RECORD OF DEVIATIONS AND CHANGES FROM CONTRACT DRAWINGS WITH RED LINE MARKINGS. TRANSFER AS-BUILT MARK-UPS TO DIGITAL DRAWING FORMAT. THIS PROCESS SHOULD BE COMPLETED BEFORE THE FINAL INSPECTION BY THE CONSULTANT. SUBMIT TO THE CONSULTANT WITH THE O&M MANUALS AT COMPLETION OF THE PROJECT.
 - 21.2. FORMAT FILES TO MATCH EXACTLY THE LAYERING SYSTEM AND SYMBOLOLOGY OF THE CONSULTANT. BIND ALL EXTERNAL REFERENCES.
 - 21.3. THE AS-BUILT DRAWINGS SHALL HAVE A VALUE OF \$5,000 UNLESS THE ELECTRICAL CONTRACT VALUE IS LESS THAN \$100,000 WHICH SHALL HAVE A \$3,000 VALUE. ONCE AS-BUILT DRAWINGS HAVE BEEN COMPLETED, SUBMITTED AND REVIEWED, PAYMENT WILL BE RELEASED. THIS VALUE IS NOT INCLUDED IN THE AMOUNT REQUIRED BY THE CONSTRUCTION LIEN ACT.
 - 21.4. THIS PROJECT UTILIZED THE FOLLOWING DIGITAL FORMAT(S): AUTOCAD/PDF.
22. OPERATION AND MAINTENANCE INSTRUCTION MANUALS:
 - 22.1. PROVIDE PDF COPIES OF COMPLETE OPERATION AND MAINTENANCE INSTRUCTIONS FOR EQUIPMENT FURNISHED UNDER THIS CONTRACT. MANUAL TO BE ORGANIZED WITH BOOKMARKS IN A FORMAT TO MATCH THE SPECIFICATION SECTIONS. ONCE MANUAL IS REVIEWED AND ACCEPTED, PROVIDE PDF VERSION ON ELECTRONIC MEDIA (USB DEVICE OR AS REQUIRED BY OWNER), PROVIDE (THREE-ONE) HARD COPY VERSION(S) IN THREE RING BINDERS, COMPLETE WITH INDEX PAGES, INDEXING TABS AND COVER IDENTIFICATION AT FRONT AND SIDE.
 - 22.2. MANUALS SHALL INCLUDE THE FOLLOWING INFORMATION:
 - 22.2.1. CONTACT INFORMATION OF CONSULTANTS AND CONTRACTORS.
 - 22.2.2. COMPLETE SET OF FINAL PROJECT SHOP DRAWINGS.
 - 22.2.3. ESA LETTER OF COMPLIANCE.
 - 22.2.4. CERTIFICATE OF SUBSTANTIAL COMPLETION.
 - 22.2.5. FIRE ALARM VERIFICATION REPORT.
 - 22.2.6. MANUFACTURERS INSTALLATION INSTRUCTIONS.
 - 22.2.7. MANUFACTURERS MAINTENANCE INSTRUCTIONS.
 - 22.2.8. MANUFACTURERS WARRANTIES AND GUARANTEES, AND
 - 22.2.9. COPIES OF ALL TEST DATA AND VERIFICATION CERTIFICATES.

23. WHERE THE WORD PROVIDE IS USED IN THESE SPECIFICATIONS OR ON THE DRAWINGS, IT HAS THE MEANING "PROVIDE AND INSTALL COMPLETE WITH ALL ASSOCIATED MOUNTING HARDWARE AND CONNECTIONS".
24. CHANGES IN THE WORK
 - 24.1. CHANGES TO THE CONTRACT REQUIRING ADDITIONS TO OR DELETIONS FROM THE WORK OF THIS DIVISION SHALL BE CARRIED OUT UPON WRITTEN REQUEST OF THE CONSULTANT. EXTRAS TO THE CONTRACT OR CREDITS SHALL BE SUBMITTED WITH A COMPLETE COST BREAKDOWN AS FOLLOWS:
 - ITEMIZED MATERIAL LIST WITH QUANTITIES AND UNIT COSTS
 - ITEMIZED LABOUR COST BREAKDOWN
 - COPY OF QUOTATIONS FROM ALL SUPPLIERS FOR ALL EQUIPMENT
 - COPY OF QUOTATIONS FROM ALL SUBCONTRACTORS INCLUDING ALL OF THE REQUIREMENTS OF THIS SECTION
 - TOTAL MATERIAL COST
 - TOTAL HOURS
 - HOURLY RATE (REFER TO SUPPLEMENTARY CONDITIONS AND GENERAL CONTRACT)
 - TOTAL OVERHEAD AND PROFIT (REFER TO SUPPLEMENTARY CONDITIONS AND GENERAL CONTRACT)

26. ELECTRICAL PROJECT COMPLIANCE
 - 26.1. PROVIDE THE FOLLOWING DOCUMENTS TO THE CONSULTANT TO ISSUE THE LETTER OF GENERAL REVIEW:
 - 26.1.1. ESA INSPECTION REPORT
 - 26.1.2. FIRE ALARM SYSTEM VERIFICATION REPORT
 - 26.1.3. A SIGNED VERIFICATION LETTER FROM THE ELECTRICAL CONTRACTOR CONFIRMING THE FOLLOWING:
 - LIGHTING AND LIGHTING CONTROLS OPERATIONAL
 - SMOKE ALARM AND CO DETECTORS HAVE BEEN VERIFIED OPERATIONAL

- CONDUCTORS & RACEWAYS:**
- USE RW90 COPPER CONDUCTORS CSA APPROVED FOR THE APPLICATION. CONDUCTORS IN UNDERGROUND RACEWAYS TO BE RWU90. SIZE THE CONDUCTORS SO THAT THE MAXIMUM BRANCH CIRCUIT VOLTAGE DROP DOES NOT EXCEED 3%. MINIMUM CONDUCTOR SIZE IS #12 AWG UNLESS OTHERWISE INDICATED.
1. DESIGN IS BASED ON COPPER CONDUCTORS. ALUMINUM CONDUCTORS ARE NOT PERMITTED ON THIS PROJECT.
 2. ALL CONDUCTORS ARE TO BE INSTALLED IN RACEWAYS AS DESCRIBED BELOW:
 - 2.1. PVC CONDUIT: IN CONCRETE SLAB, UNDERGROUND BURIED, BELOW SLAB ON GRADE OR EXTERIOR EXPOSED SURFACE RACEWAYS.
 - 2.2. EMT RACEWAYS: INTERIOR SURFACE RACEWAYS, BRANCH CIRCUIT WIRING FROM PANELS, CONCEALED IN ACCESSIBLE CEILINGS AND INTERIOR WALLS OR IN INTERIOR CONCRETE BLOCK CONSTRUCTION.
 - 2.3. ARMoured CABLE (BX): FOR FINAL DROPS TO FIXTURES IN CEILING SPACES. (LENGTH NOT TO EXCEED 3M IN THIS APPLICATION) AND FOR EXISTING BLOCK WALLS.
 - 2.4. SURFACE METAL RACEWAYS (SMR): FOR EXISTING CONSTRUCTION WHERE EXISTING WALLS AND FINISHES ARE TO REMAIN OR NEW SERVICES CANNOT BE FISHED IN EXISTING WALL.
 - 2.5. OBTAIN PERMISSION FROM THE CONSULTANT PRIOR TO INSTALLATION. COLOUR AND SIZE OF RACEWAYS TO BE CONFIRMED WITH CONSULTANT FOR THE SPECIFIC APPLICATION.

3. MINIMUM RACEWAY SIZE FOR EXTERIOR UG BURIED APPLICATION IS 3/4" (19MM), MINIMUM BURIED DEPTH IS 36" (900MM) BELOW FINISHED GRADE.
4. ALL CONDUIT AND WIRING IS TO BE CONCEALED IN ALL FINISHED AREAS.

- DEVICES:**
- SWITCHES:**
- 4.1. SPEC GRADE, RATED 20 AMP, 125 VAC, SINGLE POLE, SINGLE THROW. (3-WAY OR 4-WAY AS NOTED ON DRAWINGS.)
 - 4.2. SPEC GRADE, RATED 15 AMP, 347 VAC, SINGLE POLE, SINGLE THROW. (3-WAY OR 4-WAY AS NOTED ON DRAWINGS.)
 - 4.3. SPEC GRADE, RATED 20 AMP, 347 VAC, SINGLE POLE, SINGLE THROW. (3-WAY OR 4-WAY AS NOTED ON DRAWINGS.)
 - 4.4. MANUFACTURERS: HARVEY HUBBEL, LEVITON, LEGRAND, LUTRON.

5. RECEPTACLES:
 - 5.1. SPEC GRADE, DUPLEX, RATED 20 AMP, 125 VAC, T-SLOT EEMAC 5-20R CONFIGURATION, U-GROUND.
 - 5.2. GROUND FAULT INTERRUPTING, CLASS A DUPLEX, RATED 20 AMP, 125 VAC, T-SLOT EEMAC 5-20R FIG. TRIP RATED FOR 4-6 MA LEAKAGE CURRENT. C/W PUSH TO TEST AND RESET BUTTONS.
 - 5.3. EXTERIOR GROUND FAULT INTERRUPTING, CLASS A DUPLEX, RATED 15 AMP, 125 VAC, EEMAC 5-15R FIG. TRIP RATED FOR 4-6 MA LEAKAGE CURRENT. C/W PUSH TO TEST AND RESET BUTTONS, NEMA 3R WEATHERPROOF C/W WHILE IN USE COVER PLATE. HUBBELL RW57300 OR APPROVED EQUAL.

6. COVER PLATES:
 - 6.1. BRUSHED STAINLESS STEEL IN ALL FINISHED AREAS.
 - 6.2. GALVANIZED STEEL COVERPLATES, FOR SURFACE MOUNTED DEVICES IN UNFINISHED AREAS.
 - 6.3. COVERPLATES TO BE OF THE SAME MANUFACTURER AS THE DEVICES. PROVIDE A TYPED LABEL ON EACH DEVICE PLATE INDICATING THE PANEL BOARD NAME AND CIRCUIT NUMBER THE DEVICE IS FED FROM.
 - 6.4. FOR OUTDOOR APPLICATIONS, PROVIDE WEATHER PROOF WHILE IN USE COVERPLATES. COVERPLATE TO BE CLEAR LEXAN WITH SEALED-IN-PLACE GASKET.

- COLOUR OF DEVICES: WHITE
7. STARTERS: FULL VOLTAGE, MAGNETIC STARTERS WITH COIL VOLTAGE AS REQUIRED BY THE PIECE OF EQUIPMENT BEING CONTROLLED. STARTERS TO BE COMPLETE WITH OVERLOAD RELAYS PROPERLY SIZED FOR THE MOTOR FULL LOAD AMPERES. PROVIDE CONTROL TRANSFORMERS WHERE REQUIRED FOR PROPER SEQUENCE OF OPERATION. ON PIECES OF EQUIPMENT WITH AUTOMATIC CONTROLS PROVIDE A HAND-OFF-AUTO SWITCH, PILOT LIGHT AND LOCAL DISCONNECT SWITCH. PROVIDE ALL NO AND N/C CONTACTS FOR CONTROL AS INDICATED.

- 7.1. MANUFACTURERS: ALLEN BRADLEY, SQUARE D, FURNAS, KLOCKNER-MOELLER

- HEAVY DUTY EQUIPMENT ISOLATING DISCONNECTS: SIZE DISCONNECTING DEVICES FOR THE CURRENT CARRYING CAPACITIES OF THE EQUIPMENT TO BE ISOLATED. PROVIDE NUMBER OF ISOLATING POLES AS REQUIRED BY EQUIPMENT TO BE ISOLATED. TYPE OF ENCLOSURE AS INDICATED BELOW:
- 7.1. DUST FREE OR STANDARD - EEMAC TYPE 1.
 - 7.2. OUTDOOR OR DAMP LOCATION - EEMAC TYPE 3R.
 - 7.3. FOR DIRECT EXPOSURE TO WATER UNDER PRESSURE: EEMAC TYPE 4.
 - 7.4. FOR HIGH DUST CONCENTRATION OF NON-IGNITABLE DUST: EEMAC TYPE 12.

- 7.5. MANUFACTURERS: CUTLER HAMMER - EATON, SCHNEIDER CANADA, SIEMENS
8. ALL DEVICES OF THE SAME TYPE, SIZE AND RATING ARE TO BE OF THE SAME MANUFACTURER THROUGHOUT THE PROJECT.

- LIGHTING CONTROL:**
- 8.1. REFER TO FLOOR PLANS AND LIGHTING CONTROL LEGEND.
 - 8.2. PROVIDE NEW LIGHTING CONTROL EQUIPMENT AND DEVICES INDICATED FROM MANUFACTURER INDICATED C/W MINIMUM 5 YEAR MANUFACTURERS GUARANTEE TO REPAIR OR REPLACE DEFECTIVE EQUIPMENT OR DEVICES WITHIN 5 YEARS OF SUBSTANTIAL PERFORMANCE OF THE CONTRACT.
 - 8.3. ALTERNATE MANUFACTURERS OF EQUIVALENT LIGHTING CONTROL SYSTEMS WILL BE CONSIDERED FOR ACCEPTANCE PRIOR TO BID CLOSE ONLY WHEN LITERATURE DESCRIBING PROPOSED MANUFACTURERS EQUIPMENT AND OPERATION IS SUBMITTED FOR REVIEW MINIMUM SEVEN (7) WORK DAYS PRIOR TO BID CLOSE.
 - 8.4. SUBMIT SHOP DRAWINGS FOR LIGHTING CONTROL EQUIPMENT TO CONSULTANT FOR REVIEW PRIOR TO ORDERING OF EQUIPMENT.
 - 8.5. SUPPLY AND INSTALL LIGHTING CONTROL EQUIPMENT AND WIRING AS RECOMMENDED BY MANUFACTURER TO COMPLY WITH LIGHTING CONTROL REQUIREMENTS INDICATED. LOW VOLTAGE CONTROL WIRING NOT INSTALLED IN CONDUIT OR INCORPORATED INTO ARMoured CABLE MUST BE FT4 RATED IN NON-COMBUSTIBLE BUILDINGS AND FT6 RATED WHEN RUN THROUGH AIR HANDLING PLENUMS.
 - 8.6. PROVIDE PROGRAMMING, SET-UP, DEMONSTRATION, AND TRAINING BY MANUFACTURER TRAINED TECHNICIAN.

- FUNCTIONAL TESTING:**
- 8.8. SET UP AND TEST LIGHTING CONTROL DEVICES AND CONTROL SYSTEMS TO CONFIRM HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.

- LIGHTING:**
- 8.1. PROVIDE FIXTURES COMPLETE WITH ALL ACCESSORIES MOUNTING HARDWARE, AND LAMPS AS SPECIFIED IN THE FIXTURE SCHEDULE OR AS APPROVED BY OWNERS AS AN EQUAL FIXTURE COMPLETE WITH MIN. 5 YEAR WARRANTY.
 - 8.2. PRODUCTS OF EQUAL QUALITY BY ALTERNATE MANUFACTURERS SUCH AS SIGNIFY, COOPER, HUBBELL, AND CREE ARE ALSO ACCEPTABLE. PROVIDE PHOTOMETRIC CALCULATIONS ALONG WITH ALTERNATE FIXTURE SELECTIONS TO THE ENGINEER FOR REVIEW AT LEAST TWO FULL BUSINESS DAYS PRIOR TO TENDER CLOSING.
 - 8.3. LUMINAIRES TO BE SUPPORTED FROM THE STRUCTURE THROUGH THE USE OF APPROVED CHAINS TO MEET THE REQUIREMENTS OF THE OBC. SUPPORT FROM MECHANICAL OR ELECTRICAL SERVICES IS NOT PERMITTED.

- WIRING FOR OTHER TRADES:**
1. PROVIDE POWER WIRING FOR ELECTRICALLY OPERATED EQUIPMENT OF OTHER TRADES AS NOTED ON THE DRAWINGS OR DEFINED IN THIS SPECIFICATION. PROVIDE ALL STARTERS AND DISCONNECT SWITCHES FOR A COMPLETE AND OPERATING SYSTEM.
 2. PROVIDE POWER AND WIRING TO THE ELECTRICALLY OPERATED EQUIPMENT AS DETAILED IN WIRING FOR MECHANICAL EQUIPMENT SCHEDULE. THIS LIST DOES NOT DETAIL THE SCOPE OF WORK FOR EACH PIECE OF EQUIPMENT. CO-ORDINATE WITH MECHANICAL CONTRACTOR FOR THE EXACT POWER REQUIREMENTS OF THE EQUIPMENT TO BE SUPPLIED TO THE PROJECT. DO NOT PROCEED WITH THE INSTALLATION OF ANY OF THE ELECTRICAL EQUIPMENT UNTIL THE POWER SUPPLY REQUIREMENTS AND THE POINTS OF CONNECTION HAVE BEEN ESTABLISHED FROM THE SHOP DRAWINGS FOR THE EQUIPMENT OF MECHANICAL CONTRACTOR.
 3. PROVIDE POWER WIRING TO ALL CONTROL DEVICES SUPPLIED BY MECHANICAL CONTRACTOR AND OPERATING AT 100 VAC OR GREATER.
 4. PROVIDE CONTROL WIRING FOR ALL CONTROL DEVICES WITH OPERATING VOLTAGES OF THE CONTROLS GREATER THAN 100VAC.
 5. PROVIDE RACEWAYS/CONDUITS FOR ALL CONTROL WIRING AS IDENTIFIED ON THE DRAWINGS FOR USE BY MECHANICAL CONTRACTOR. PROVIDE OUTLET BOXES AS DIRECTED BY MECHANICAL CONTRACTOR FOR ALL TERMINAL POINTS IN THE CONTROL SYSTEM. CO-ORDINATE WITH MECHANICAL CONTRACTOR.

- RENOVATIONS ON EXISTING BUILDING:**
1. RENOVATIONS SHALL BE MADE ON THE EXISTING BUILDING AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. REMOVE ALL EXISTING LUMINAIRES, OUTLET BOXES, SWITCHES, RECEPTACLES, ETC. AS INDICATED ON DRAWINGS. ALL EQUIPMENT REMOVED AND NOT REUSED SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS SPECIFICALLY NOTED OTHERWISE. ALL EQUIPMENT INSTALLED IN RENOVATED AREAS SHALL BE NEW. ELECTRICAL TRADE WILL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR ELECTRICAL INSTALLATION. ALL CONDUIT SHALL BE INSTALLED CONCEALED IN FINISHED AREAS UNLESS SPECIFICALLY NOTED OTHERWISE.
 2. NEW CONDUCTORS SHALL BE INSTALLED TO THE NEAREST OUTLET AS REQUIRED FOR EQUIPMENT THAT IS RELOCATED. INSTALLATION OF JUNCTION BOXES FOR SPLICING PURPOSES SHALL NOT BE PERMITTED UNLESS SPECIFICALLY CALLED FOR.
 3. PROVIDE ALL CONDUCTORS REQUIRED TO RECONNECT EXISTING CIRCUITS WHERE REQUIRED THAT MAY BE DISRUPTED DUE TO RENOVATIONS ON THE EXISTING FLOOR/ROOF.
 4. PROVIDE NEW BREAKERS WHERE REQUIRED IN EXISTING PANELS TO PICK-UP ADDITIONAL CIRCUITS INDICATED ON THE DRAWINGS.
 5. ALL EXISTING LUMINAIRES THAT ARE RELOCATED SHALL BE REMOVED, CHECKED, SERVICED, CLEANED, AND RE-LAMPED PRIOR TO RE-INSTALLATION. ALL UNITS NOT REUSED SHALL BE TURNED OVER TO THE OWNER, COMPLETE WITH LAMPS.
 6. COORDINATE WITH MECHANICAL DRAWINGS AND SAFELY DISCONNECT AND REMOVE ALL MOTOR/MECHANICAL EQUIPMENT BEING DEMOLISHED. REMOVE UNUSED WIRING/CONNECTION BACK TO SOURCE PANEL. EXTEND WIRING/CONNECTION OF ALL MOTOR/MECHANICAL EQUIPMENT BEING RELOCATED. PROVIDE PROPER JUNCTION BOX AT EACH POINT OF EXTENSION.

- FIRESTOPPING AND SMOKE SEAL:**
1. PROVIDE A ULC LISTED FIRESTOP SYSTEM TO SEAL AROUND ALL PIPING, TUBING, DUCTS, CONDUITS, ELECTRICAL WIRES AND CABLES, AND OTHER SIMILAR ELECTRICAL SERVICES WHICH PENETRATE PART OF A BUILDING ASSEMBLY REQUIRED TO HAVE A FIRE RESISTANCE RATING OR A FIRE SEPARATION. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING ASSEMBLY AND FIRE SEPARATION TYPES AND LOCATIONS.
 2. FOR ALL PENETRATIONS THROUGH HORIZONTAL FIRE SEPARATIONS, REQUIRED TO HAVE A FIRE RESISTANCE RATING. USE FIRESTOP SYSTEMS WITH A FT RATING NOT LESS THAN THE FIRE RESISTANCE RATING FOR THE FIRE SEPARATION. THIS INCLUDES THE SEALING OF ANY SLEEVES PROVIDED FOR FUTURE USES. IN ALL OTHER LOCATIONS, USE FIRESTOP SYSTEMS WITH A F RATING NOT LESS THAN THE FIRE PROTECTION RATING REQUIRED FOR CLOSURES IN THE BUILDING ASSEMBLY. REQUIRED TO HAVE A FIRE RESISTANCE RATING, OR IN THE FIRE SEPARATION.

3. BEFORE STARTING ANY WORK ON SITE, SUBMIT DETAILED SHOP DRAWINGS TO BOTH THE CONSULTANT AND THE LOCAL BUILDING INSPECTION AUTHORITY FOR THEIR REVIEW AND COMMENTS. INCLUDE:
 - 3.1. MANUFACTURER'S TECHNICAL PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH SPECIFIC TYPE AND LOCATION OF

- 3.2. CERTIFICATION THAT PROPOSED FIRESTOPPING MATERIALS AND ASSEMBLIES COMPLY WITH CAN4-115-M.
- 3.3. ULC LISTINGS WITH COPIES OF ULC DATA SHEETS FOR EACH SPECIFIC TYPE AND LOCATION OF PENETRATION.
- 3.4. MAKE PENETRATION TYPES AND LOCATIONS ON SET OF WHITE PRINTS. AT COMPLETION OF PROJECT, TRANSFER THIS INFORMATION TO "AS-BUILT" DRAWINGS.

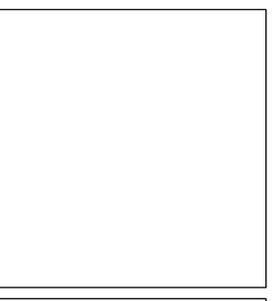
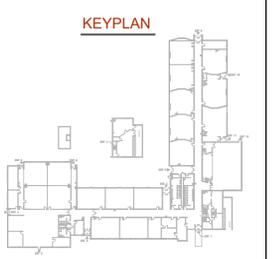
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LONDON: 1385 North Routledge Park, Unit 9
London, ON N6H 5N5 P 519.472.7640

KINGSTON: 4 Cataragui Street, Suite 100
Kingston, ON K7K 1Z7 P 613.900.0845

KITCHENER: 210-137 Glasgow Street, Office #141
Kitchener, ON N2G 4X8 P 519.472.7640

W www.callidus.ca E info@callidus.ca



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ELECTRICAL SPECIFICATIONS

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E4 OF 4