

ÉCOLE ÉLÉMENTAIRE ANTONINE-MAILLET NEW ELEVATOR & OFFICE RENOVATION

**615 RIDGEWAY AVENUE,
OSHAWA, ONTARIO L1J 2W3**

Revisions				
Ref.	No.	Description	Date	Initial
△		CONSULTANTS COORDINATION	2026/02/09	
△		CONSULTANTS COORDINATION	2026/02/27	
△		ISSUED FOR TENDER	2026/03/02	
△		REVISED FOR TENDER	2026/03/03	

Project:
ÉCOLE ÉLÉMENTAIRE
ANTONINE-MAILLET NEW
ELEVATOR & OFFICE RENOVATION
615 RIDGEWAY AVE,
OSHAWA, ON L1J 2W3



82 Bellagio Crescent,
Vaughan, Ontario, Canada L4K 5K7
Tel:(905)303-6606 Fax:(905)303-6636

1. VERIFY ALL DIMENSIONS AND EXISTING SITE CONDITIONS. REPORT ANY DISCREPANCIES TO ARCHITECT BEFORE PROCEEDING WITH THE WORK
2. REPORT TO ARCHITECT AT LEAST THREE WORKING DAYS PRIOR TO CONSTRUCTION ALL DISCREPANCIES, OMISSIONS, ERRORS, DEPARTURES FROM BUILDING BY-LAWS, O.B.C., OR GOOD PRACTICE AND POINTS CONSIDERED TO BE OF AMBIGUOUS INTENT, SO THAT THE ARCHITECT MAY, IF NECESSARY, ISSUE INSTRUCTIONS BY ADDENDA. THE ARCHITECT WILL NOT BE RESPONSIBLE FOR ORAL INSTRUCTIONS.
3. DO NOT SCALE DRAWINGS.
4. EXTEND, MAKE GOOD, REPAIR AND CLEAN EXISTING SUBSTRATES, FINISHES, AND COMPONENTS AS REQUIRED TO MATCH EXISTING. PROVIDE ADDITIONAL MATERIALS AND COMPONENTS AS REQUIRED. MAINTAIN CONTINUITY TO EXISTING WORK. FLUSH, PLUMB AND IN ALIGNMENT, AND WITHOUT DETRIMENTS TO VISUAL APPEARANCE. MATCH EXISTING MATERIALS AND METHODS. VARIATIONS WILL BE ACCEPTED BY ARCHITECT'S WRITTEN AUTHORIZATION ONLY, AND WHERE AUTHORIZED MUST MEET OR EXCEED QUALITY AND PERFORMANCE OF EXISTING.
5. PROTECT EXISTING WORK TO REMAIN AS REQUIRED. BE RESPONSIBLE FOR REPAIRS, MAKING GOOD AND CLEANING IN EVENT PROTECTION IS NOT ADEQUATE.
6. PROTECT PUBLIC AND OTHER PRIVATE PROPERTY BEYOND IMMEDIATE WORK AREA. CONTRACTOR TO HOLD OWNER HARMLESS AGAINST ALL CLAIMS ASSOCIATED WITH THIS WORK.
7. MAINTAIN CONTINUITY OF ALL EXISTING FIRE SEPARATIONS, ASSEMBLIES, AND PROTECTIVE CLADDING.
8. ALL WORK IS TO BE PROVIDED AS COMPLETE, OPERATING SYSTEMS EXCEPT AS NOTED.
9. PREPARE ALL EXISTING SUBSTRATES TO RECEIVE NEW FINISHES AS REQUIRED ACCORDING TO RECOMMENDATIONS OF MANUFACTURER OF NEW FINISH MATERIALS.
10. PROVIDE PURPOSE-MADE ALUMINUM REDUCING STRIPS AT ALL DISSIMILAR FLOOR FINISH MATERIALS, INCLUDING JUNCTION OF EXISTING MATERIALS TO NEW MATERIALS. SUBMIT SAMPLES TO ARCHITECT FOR APPROVAL.
11. MOVE MATERIALS AND DEBRIS FROM IMMEDIATE WORK AREA TO EXTERIOR RUBBISH BINS IN CLOSED DUST-TIGHT CONTAINERS. LOCATE BINS TO APPROVAL OF OWNER AND LANDLORD.
12. CO-ORDINATE AND PAY FOR ALL CHARGES AND FEES ASSOCIATED WITH THE WORK TO BE PERFORMED AS LEVIED BY THE AUTHORITIES HAVING JURISDICTION. PROCURE ALL ENCROACHMENT AGREEMENTS AS REQUIRED TO PERMIT WORK TO BE PERFORMED.
13. PROVIDE DUSTTIGHT CONSTRUCTION HOARDING. SUBMIT SHOP DRAWINGS.
14. PERFORM ALL SITE PREPARATIONS AND DEMOLITIONS AS REQUIRED TO PERMIT NEW WORK TO COMMENCE AND BE ACCOMMODATED.
15. THE SCHEDULE AND SEQUENCE OF THE WORK WILL BE SUBJECT TO THE APPROVAL OF THE OWNER. THE OWNER INTENDS TO OCCUPY AND OPERATE IN THE PREMISES DURING CONSTRUCTION.
16. PROVIDE ACCESS TO ALL CONTROL DEVICES AND MAINTAIN ACCESS TO ALL EXISTING CONTROL DEVICES WHICH ARE COVERED BY FINISHES. PROVIDE PRE-MANUFACTURED ACCESS PANELS TO SUIT. SUBMIT SAMPLES TO ARCHITECT FOR APPROVAL.
17. REMOVE ALL EXISTING INACTIVE AND ABANDONED MECHANICAL AND ELECTRICAL SERVICE LINES. MAKE GOOD.
18. CONFORM TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
19. MAINTAIN ACCESS TO EXITS AT ALL TIMES. PROVIDE ALTERNATE EXITS IN CONSULTATION WITH AND AT APPROVAL OF BUILDING OFFICIAL. PROVIDE TEMPORARY EXIT SIGNS AND ADJUST EXISTING EXIT SIGNS AS REQUIRED. AT COMPLETION OF WORK, REMOVE TEMPORARY SIGNS AND RESTORE SIGNAGE. MAKE GOOD.

INFORMATION FOR THIS SITE PLAN TAKEN FROM DOCUMENTS PROVIDED BY CONSEIL SCOLAIRE VAMONDE

1 RENOVATION NOTES
- - N.T.S.

Consultant:

Title:
TITLE SHEET

Drawn by: C.C. Date: NOVEMBER 2025

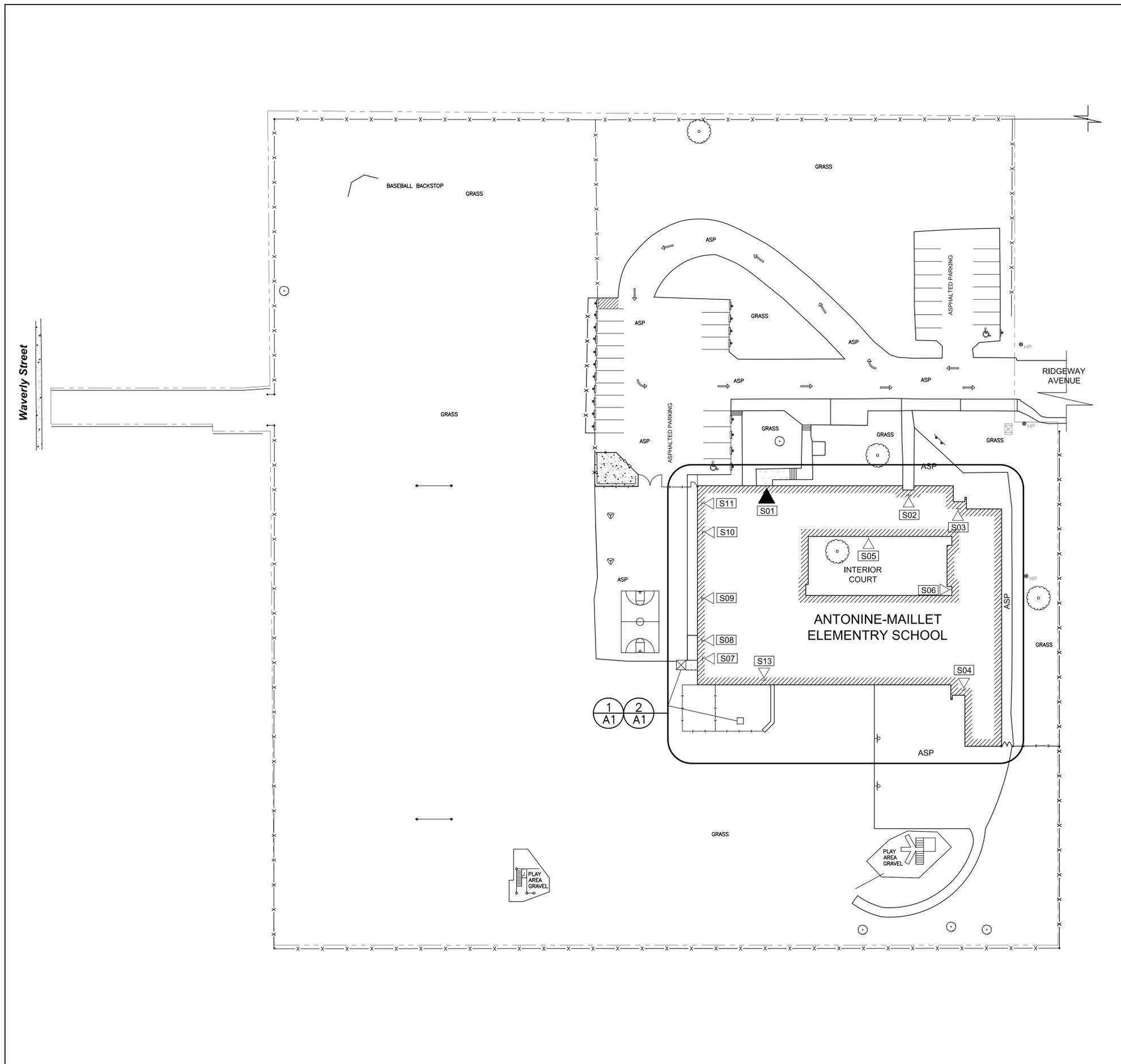
Checked by: P.L. Plotted:

Scale: AS SHOWN Issued:

Job No.: 25116 Drawing No.:

Set No.: A0

of:



1 SITE PLAN

1:400

WALL TYPES:

- EXISTING TO REMAIN
- - - REMOVE EXISTING WALL, PARTITIONS, PLUMBING FIXTURES AS SHOWN DOTTED. MAKE GOOD. RELOCATE EXISTING SERVICES AS REQUIRED. CAP AND MAKE SAFE ALL SERVICE LINES. SEE MECHANICAL AND ELECTRICAL.
- ▨ TYPICAL WALL TYPE W1
190 CONCRETE BLOCK WITH 2HR FIRE RESISTANCE RATING
- ▨ TYPICAL PARTITION WALL TYPE P1:
16 IMPACT RESISTANT GYPSUM BOARD ON BOTH SIDES ON 89 METAL STUDS @ 400 O.C. MAX.
- ▨ TYPICAL PARTITION WALL TYPE P2
MIN. 1HR FIRE RESISTANCE RATING ULC DESIGN NO. W453 2 LAYERS OF 12.7 IMPACT RESISTANT TYPE X GYPSUM BOARD BOTH SIDES ON 92 METAL STUDS @ 400 O.C. MAX.
- ▨ TYPICAL PARTITION WALL TYPE P3
MIN. 1HR FIRE RESISTANCE RATING ULC DESIGN NO. W453 16 IMPACT RESISTANT TYPE X GYPSUM BOARD BOTH SIDES ON 92 METAL STUDS @ 400 O.C. MAX.
- ▨ TYPICAL FLOORING WALL F1:
16 IMPACT RESISTANT GYPSUM BOARD ON 89 METAL STUDS @ 400 O.C. MAX. ON EXISTING MASONRY WALL PRIME AND PAINT

TEMPORARY CONSTRUCTION EXITS:
BARRICADE AND PROVIDE DUST TIGHT HOARDING TO EXISTING BUILDING. ESTABLISH ALTERNATE EXITS DURING CONSTRUCTION THROUGH EXISTING DOORS TO EXTERIOR. PROVIDE EXIT SIGNS AS REQUIRED AND REMOVE AND MAKE GOOD AT COMPLETION OF WORK. MASK EXISTING SIGNS AS REQUIRED FOR TEMPORARY EXITS. REVIEW EXITING DURING CONSTRUCTION WITH LOCAL BUILDING DEPARTMENT PRIOR TO COMMENCEMENT OF CONSTRUCTION.

AT EXISTING PARTITIONS TO BE DEMOLISHED:
SAWCUT AND MAKE GOOD AT TERMINATIONS WITH MIN. 200 CAP OF SIMILAR MATERIAL TO MATCH EXISTING MAKE GOOD EXISTING CEILING, FLOOR AND WALL BASE TO MATCH EXISTING
AT PERPENDICULAR WALL JUNCTIONS, GRIND SMOOTH AS REQUIRED REMOVE METAL TIES AS REQUIRED AND MAKE GOOD PAINT ENTIRE AFFECTED WALL PLANES
REMOVE EXISTING WALL MOUNTED EQUIPMENT RELOCATE AS DIRECTED ON SITE OR TURN OVER TO SCHOOL

LEGEND:

- ▨ MILLWORK TYPE XX
- xxx DOOR NO. XXX
- xxx ROOM NO. XXX
- ▨ PARTITION TYPE XXX
- ELEV. ELEVATION A
ELEVATION B
ELEVATION C
ELEVATION D
DETAIL NO. XX
DRAWING NO. YYY
- xxx/yyy DETAIL DETAIL NO. XXX/REFERENCE DRAWING YYY
- xx/yyy SECTION SECTION NO. XX/REFERENCE DRAWING YYY
- ★ LIMIT OF FLOOR FINISH PROVIDE PURPOSE MADE PRE-FINISHED METAL TRANSITION STRIP TO PROFILE AS SELECTED BY CONSULTANT SUBMIT SAMPLES
REMOVE EXISTING FLOORING AND WALL BASE CLEAN & STRIP SUBSTRATE OF RESIDUAL SEALANT

2 LEGEND
- DETAIL

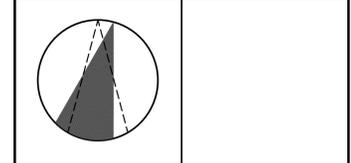
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Lim Architects inc.

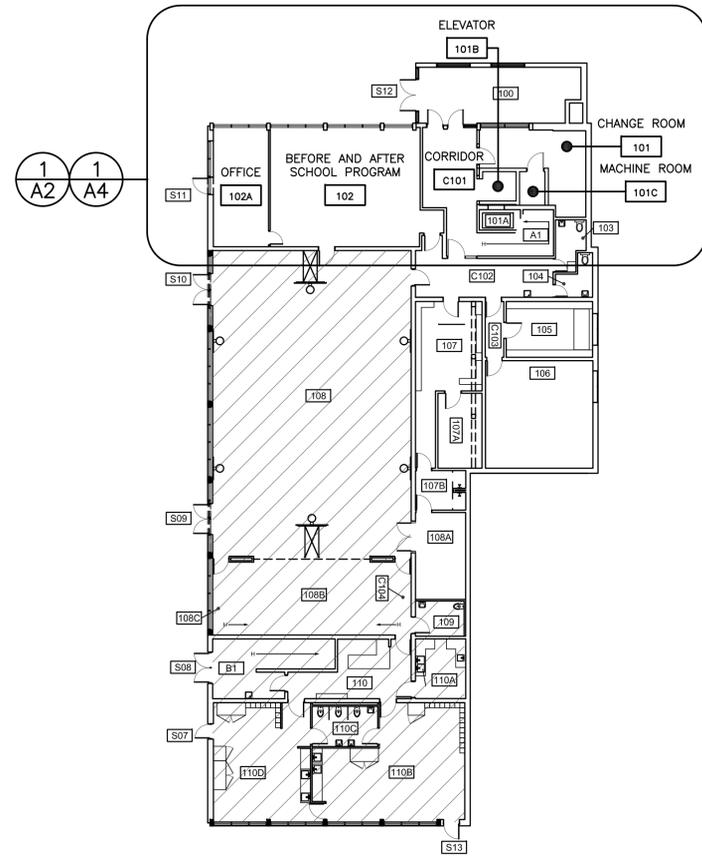
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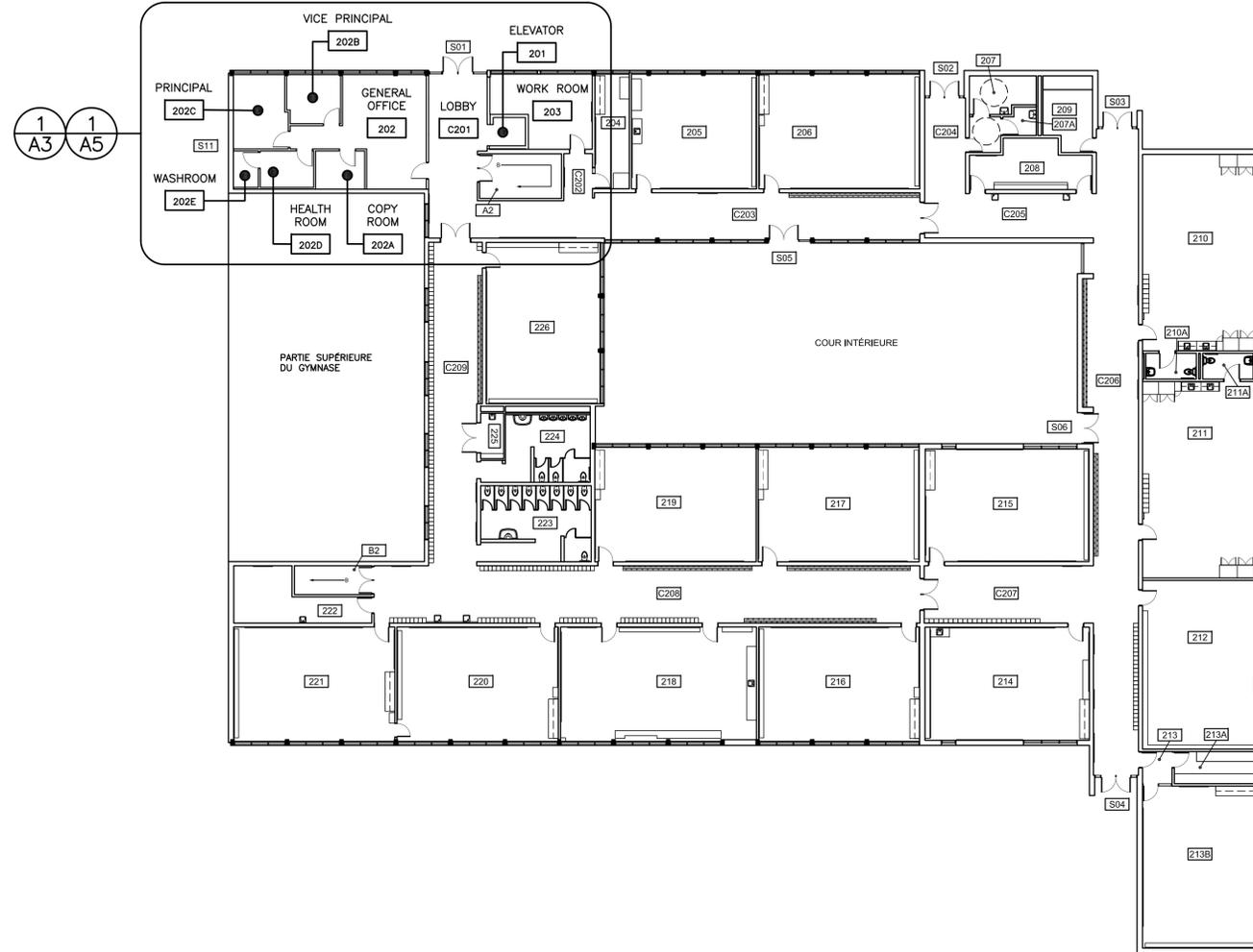
Title:
SITE PLAN, LEGEND

Drawn by: C.C.	Date: NOVEMBER 2025
Checked by: P.L.	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.:
Set No.:	SP1
	of:



1 GROUND FLOOR
 SP1 KEY PLAN

1:200



2 SECOND FLOOR
 SP1 KEY PLAN

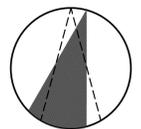
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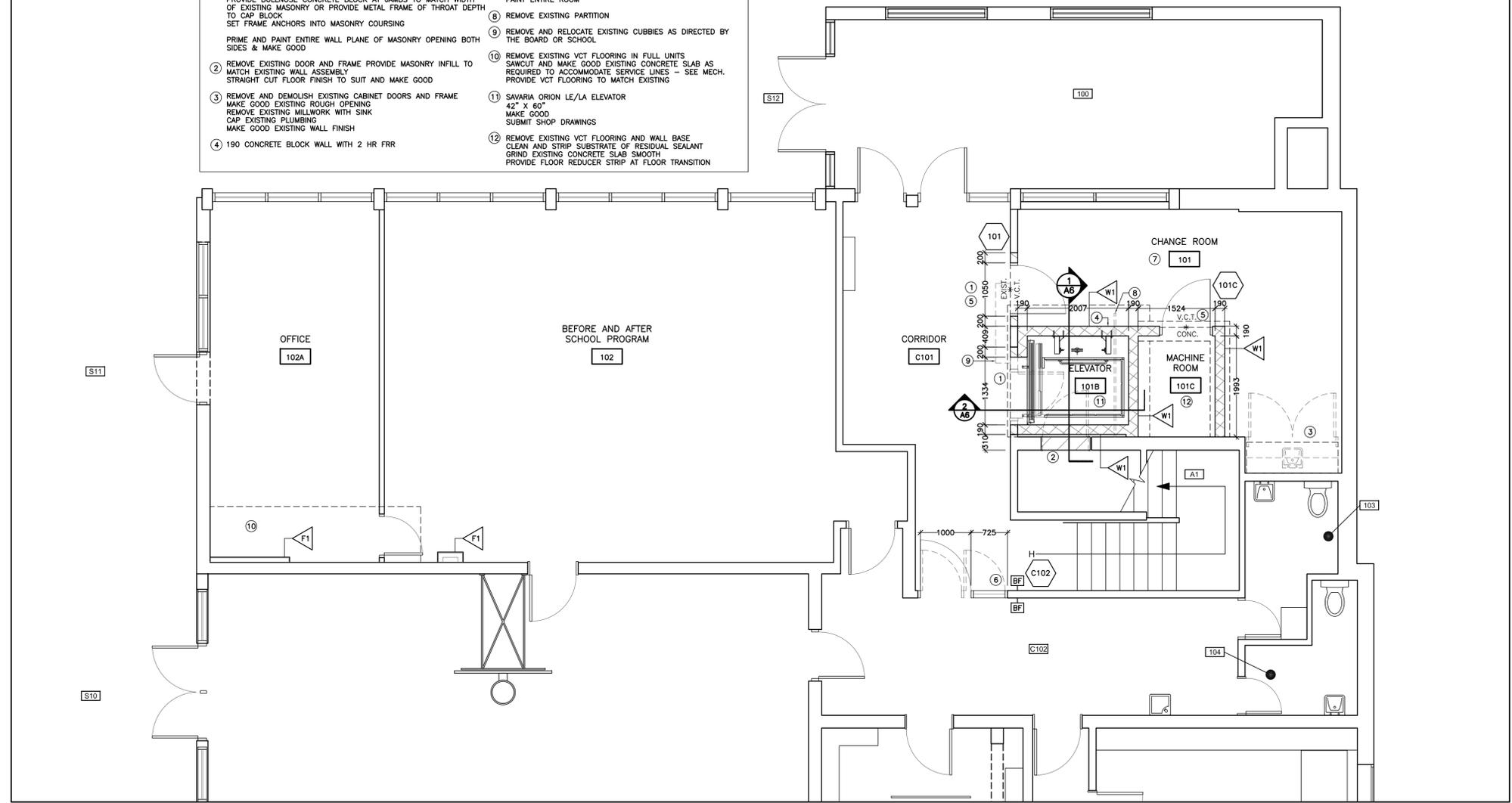
Consultant:

Title:
 GROUND FLOOR & SECOND
 FLOOR KEY PLANS

Drawn by: C.C.	Date: NOVEMBER 2025
Checked by: P.L.	Plotted:
Scale: 1:200	Issued:
Job No.: 25116	Drawing No.:
Set No.:	A1

of:

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| <p>① SHORE AND BRACE WALL AS REQUIRED
SAWCUT OPENING 200 WIDER AT EACH JAMB
AND ONE BLOCK COURSE ABOVE HEAD - PROVIDE LINTEL
GRIND SUBFLOOR SMOOTH AND FLUSH TO ADJACENT SUBFLOOR
CHIP FOUNDATION 50 BELOW SUBFLOOR
PROVIDE FLUSH CONCRETE TOPPING - FINISH TO MATCH EXISTING
SUBSTRATE
PROVIDE BULLNOSE CONCRETE BLOCK AT JAMBS TO MATCH WIDTH
OF EXISTING MASONRY OR PROVIDE METAL FRAME OF THROAT DEPTH
TO CAP BLOCK
SET FRAME ANCHORS INTO MASONRY COURSING
PRIME AND PAINT ENTIRE WALL PLANE OF MASONRY OPENING BOTH
SIDES & MAKE GOOD</p> <p>② REMOVE EXISTING DOOR AND FRAME PROVIDE MASONRY INFILL TO
MATCH EXISTING WALL ASSEMBLY
STRAIGHT CUT FLOOR FINISH TO SUIT AND MAKE GOOD</p> <p>③ REMOVE AND DEMOLISH EXISTING CABINET DOORS AND FRAME
MAKE GOOD EXISTING ROUGH OPENING
REMOVE EXISTING MILLWORK WITH SINK
CAP EXISTING PLUMBING
MAKE GOOD EXISTING WALL FINISH</p> <p>④ 190 CONCRETE BLOCK WALL WITH 2 HR FRR</p> | <p>⑤ PROVIDE DOOR AND FRAME AND HARDWARE</p> <p>⑥ REMOVE EXISTING DOORS AND FRAMES AND HARDWARE
PROVIDE HM DOOR AND FRAME WITH SIDELIGHT WITH 1HR FRR
PROVIDE HARDWARE, INCLUDING AUTOMATIC DOOR OPERATORS
AND ELECTRICAL STRIKE</p> <p>⑦ REMOVE AND REPLACE EXISTING FLOORING, CEILING AND LIGHT
FIXTURES
PAINT ENTIRE ROOM</p> <p>⑧ REMOVE EXISTING PARTITION</p> <p>⑨ REMOVE AND RELOCATE EXISTING CUBBIES AS DIRECTED BY
THE BOARD OR SCHOOL</p> <p>⑩ REMOVE EXISTING VCT FLOORING IN FULL UNITS
SAWCUT AND MAKE GOOD EXISTING CONCRETE SLAB AS
REQUIRED TO ACCOMMODATE SERVICE LINES - SEE MECH.
PROVIDE VCT FLOORING TO MATCH EXISTING</p> <p>⑪ SAVARIA ORION LE/LA ELEVATOR
42" X 60"
MAKE GOOD
SUBMIT SHOP DRAWINGS</p> <p>⑫ REMOVE EXISTING VCT FLOORING AND WALL BASE
CLEAN AND STRIP SUBSTRATE OF RESIDUAL SEALANT
GRIND EXISTING CONCRETE SLAB SMOOTH
PROVIDE FLOOR REDUCER STRIP AT FLOOR TRANSITION</p> |
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1 ENLARGED GROUND FLOOR
A1 PLAN

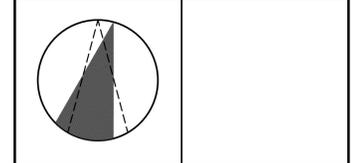
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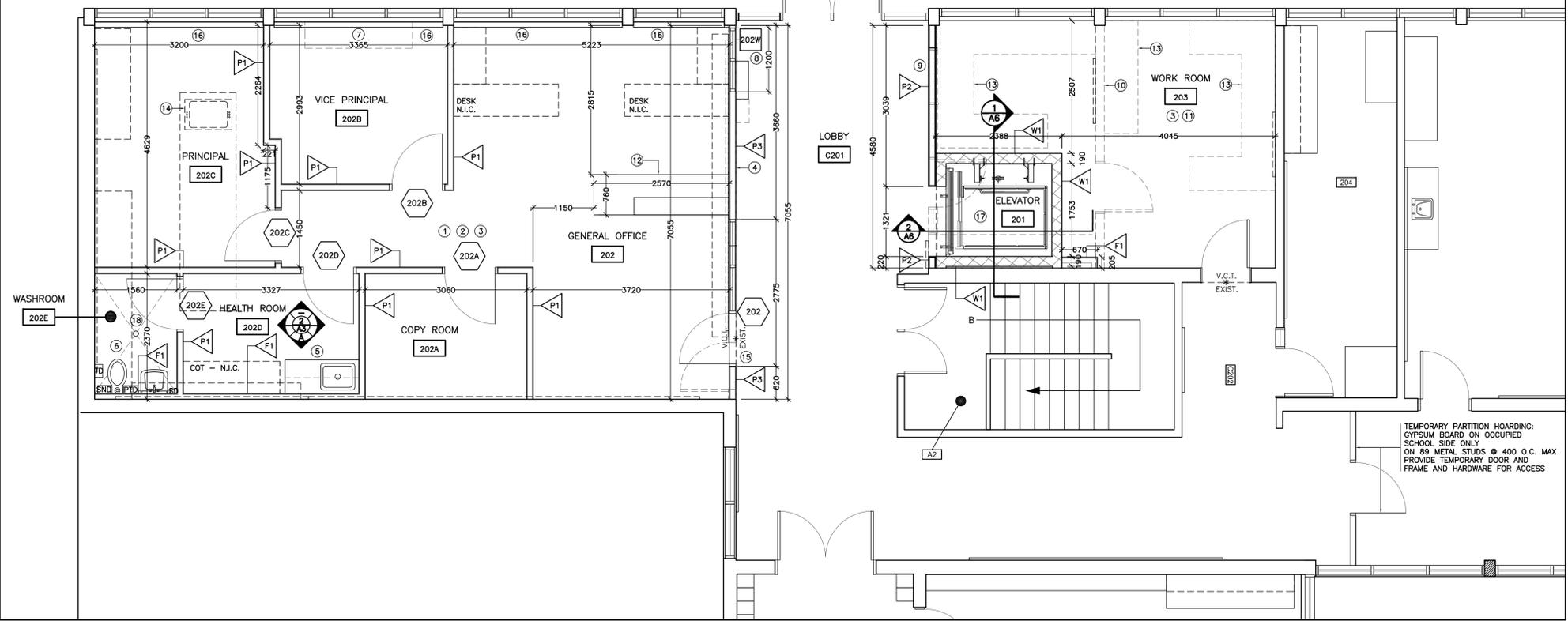
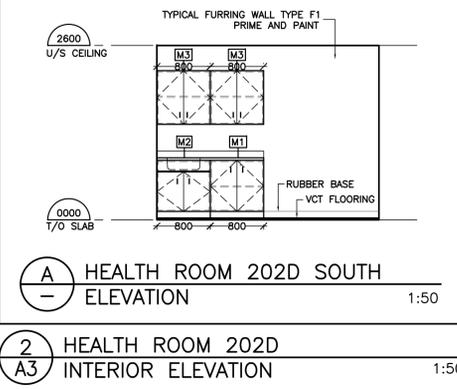


Consultant:

Title:
**ENLARGED GROUND FLOOR
 PLAN**

Drawn by: C.C.	Date: NOVEMBER 2025
Checked by: P.L.	Plotted:
Scale: 1:50	Issued:
Job No.: 25116	Drawing No.:
Set No.:	A2
	of:

- 1 REMOVE AND DEMOLISH EXISTING MILLWORK, TACKBOARDS AND CHALKBOARDS AS SHOWN DOTTED
REMOVE EXISTING GYPSUM BOARD AND FURRING ON EXISTING MASONRY WALL
MAKE GOOD EXISTING SUBSTRATE
- 2 RECONFIGURE EXISTING CLASSROOM AND CONVERT IT TO OFFICE AREA
PROVIDE GYPSUM BOARD PARTITIONS, SOLID WOOD DOORS AND FS FRAMES AND HARDWARE
PAINT ENTIRE AREA
- 3 REMOVE AND DISPOSE OF EXISTING FLOORING AND WALL BASE
STRIP AND CLEAN SUBSTRATE OF RESIDUAL SEALANT
PROVIDE VCT FLOORING AND RUBBER BASE
- 4 REMOVE AND DEMOLISH EXISTING DOOR AND FRAME
REMOVE EXISTING FACE BRICK, WOOD STUD WALL AND EXISTING TERRAZZO WALL BASE
PROVIDE PARTITION WALL TYPE P3 WITH TERRAZZO WALL BASE TO MATCH EXISTING AT LOBBY C201
- 5 PROVIDE MILLWORK WITH SINK - SEE MECHANICAL
- 6 PROVIDE PLUMBING FIXTURES, WASHROOM ACCESSORIES - SEE MECHANICAL
- 7 REMOVE EXISTING UNIT VENTILATOR ASSEMBLY - SEE MECHANICAL
STRIP WALL TO EXISTING SUBSTRATE
CLEAN, REPAIR AND PREPARE SUBSTRATE
REMOVE EXISTING LOUVRE
REMOVE AND CLEAN RESIDUAL SEALANT AT MASONRY OPENING
INFILL OPENING TO MATCH EXISTING WALL ASSEMBLY
- 8 PROVIDE HM WINDOW FRAME AND GLAZING WITH 1 HR FIRE RESISTANCE RATING
- 9 REMOVE AND DEMOLISH EXISTING DOOR AND FRAME AND WINDOW
REMOVE EXISTING FACE BRICK, WOOD STUD WALL AND EXISTING TERRAZZO WALL BASE
PROVIDE PARTITION WALL TYPE P2 WITH TERRAZZO WALL BASE TO MATCH EXISTING AT LOBBY C201
- 10 REMOVE AND DEMOLISH EXISTING MASONRY PARTITION WALL
REMOVE AND DEMOLISH EXISTING DOOR AND FRAME AND HARDWARE
- 11 PREPARE EXISTING SUBSTRATE
PRIME AND PAINT ENTIRE ROOM
- 12 COUNTER PROVIDED BY THE BOARD
- 13 REMOVE AND DEMOLISH EXISTING FURNITURE SHOWN DOTTED
MAKE GOOD EXISTING WALLS
- 14 SAWCUT AND MAKE GOOD EXISTING CONCRETE SLAB AS REQUIRED
TO ACCOMMODATE SERVICE LINES - SEE MECH.
- 15 PROVIDE HM DOOR, FRAME, HARDWARE AND SIDELIGHT WITH 1HR FIRE RESISTANCE RATING
- 16 REMOVE EXISTING RADIATOR ASSEMBLY - SEE MECHANICAL
STRIP WALL TO EXISTING SUBSTRATE
CLEAN, REPAIR AND PREPARE SUBSTRATE
PROVIDE RADIATOR WITH COVER - SEE MECHANICAL
MAKE GOOD
- 17 SAVARIA ORION LU/LA ELEVATOR
42" X 60"
MAKE GOOD
SUBMIT SHOP DRAWINGS
- 18 SAWCUT AND MAKE GOOD EXISTING SLAB FOR FD AND PIPES UNDER FLOOR SLAB



1 ENLARGED SECOND FLOOR PLAN 1:50

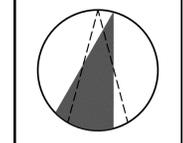
2 HEALTH ROOM 202D INTERIOR ELEVATION 1:50

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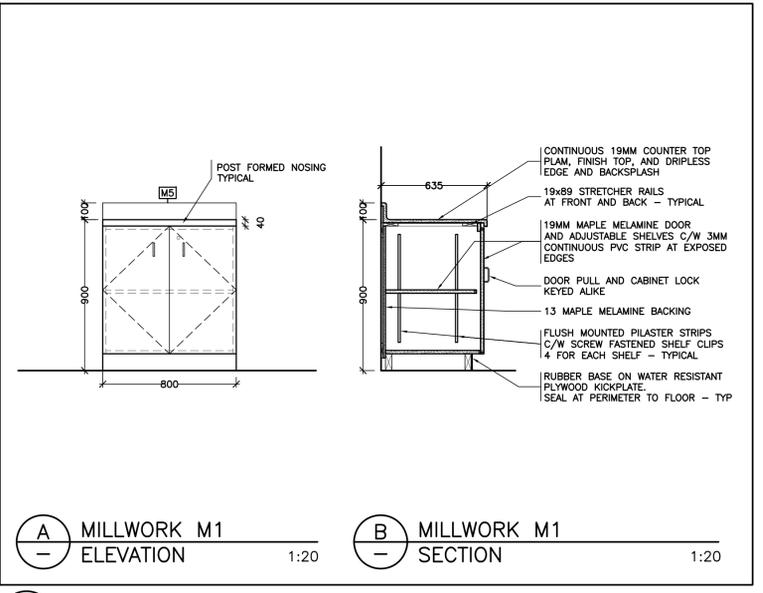
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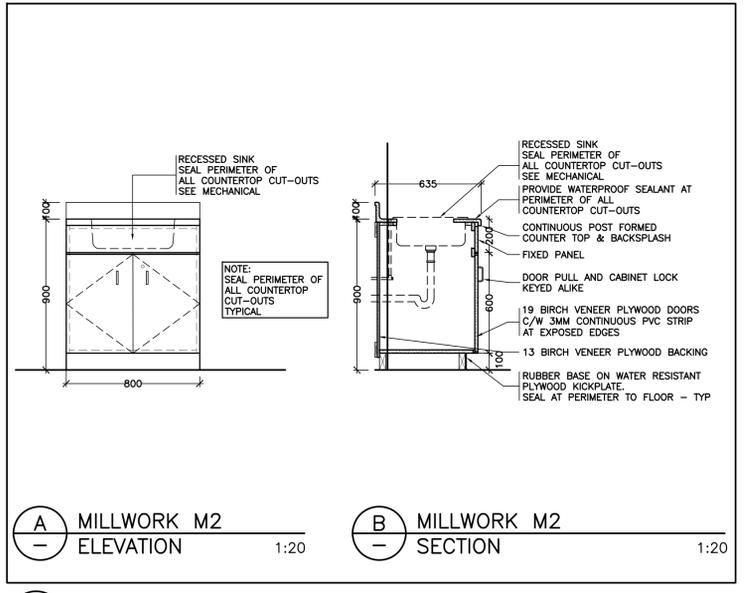
Consultant:

Title:
ENLARGED SECOND FLOOR PLAN INTERIOR ELEVATION & MILLWORK DETAILS

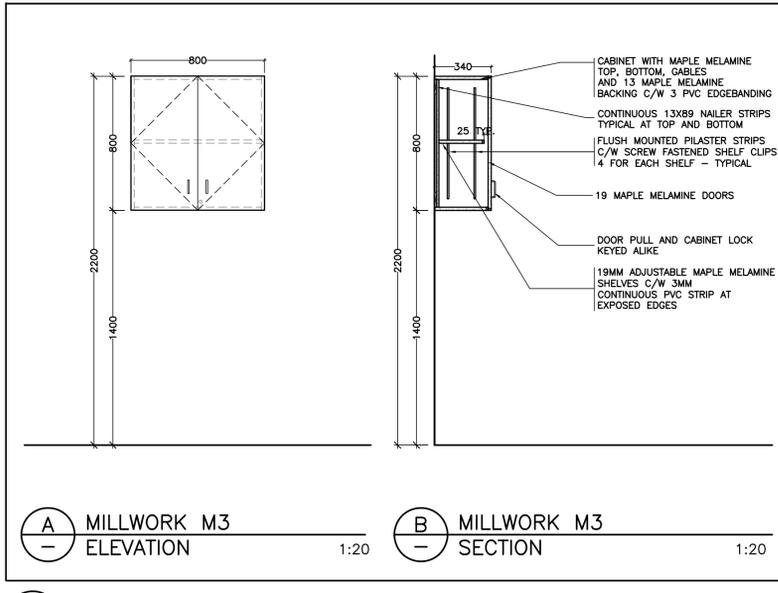
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3 MILLWORK M1 DETAILS 1:20



4 MILLWORK M2 DETAILS 1:20



5 MILLWORK M3 DETAILS 1:20

LEGEND

RECESSED 2' X 4' LIGHT FIXTURE - SEE ELECTRICAL
LAY IN SUSPENDED ACOUSTIC TILE CEILING
REMOVE AND DEMOLISH EXISTING SUSPENDED CEILING SYSTEM AND EXISTING LIGHT FIXTURES

FIRE SEPARATION:
SEE LEGEND 2/SP1 FOR FIRE RATED SEPARATIONS

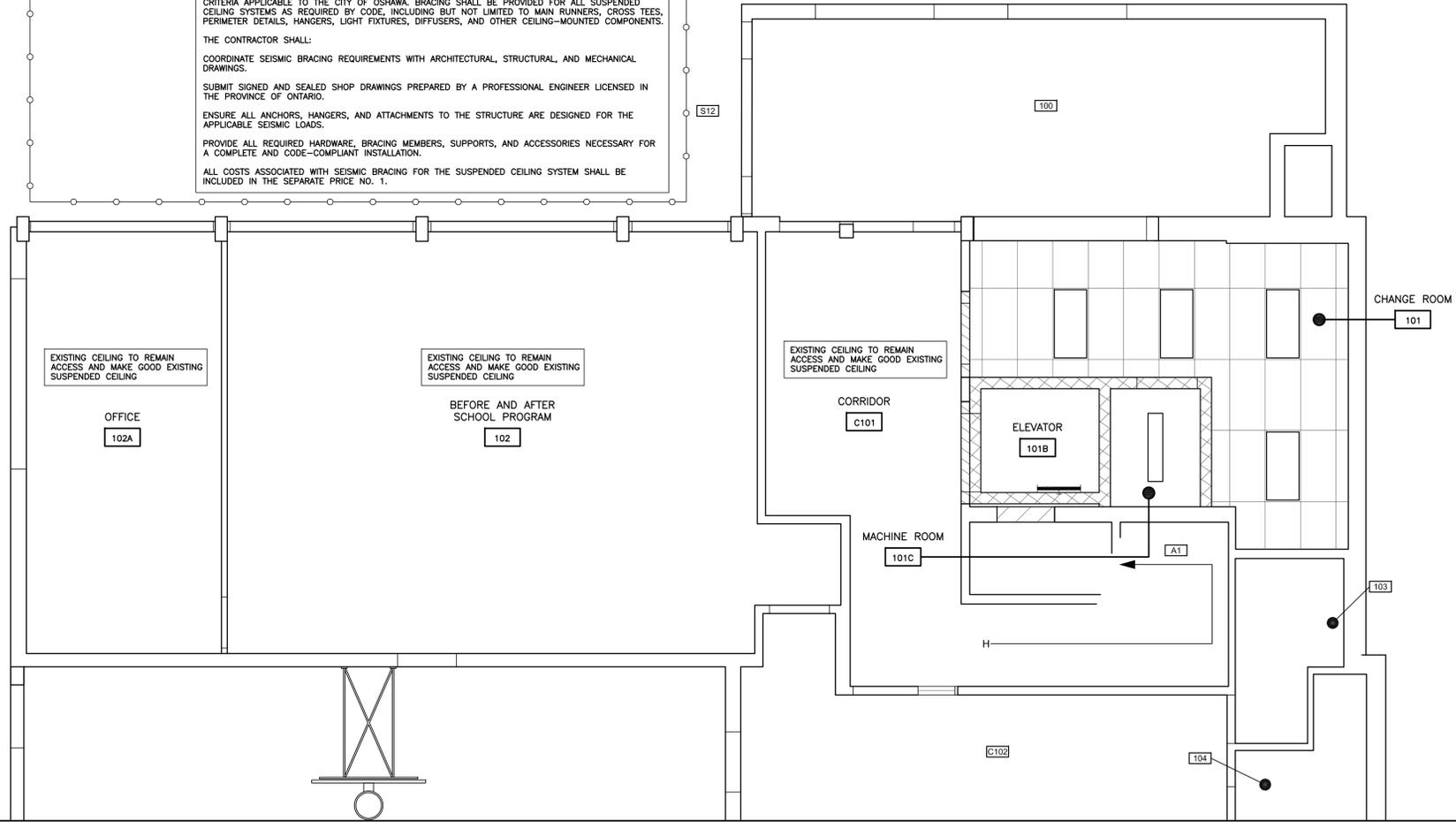
1' X 4' LIGHT FIXTURE SURFACE MOUNTED ON EXISTING PRECAST CONCRETE PLANK
-SEE ELECTRICAL

WALL MOUNTED ELEVATOR LED PIT LIGHT - SEE ELECTRICAL

SEPARATE PRICE NO. 1:
THE CONTRACTOR SHALL SUPPLY AND INSTALL SEISMIC RESTRAINT BRACING FOR THE SUSPENDED CEILING SYSTEM IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE ONTARIO BUILDING CODE AND ALL APPLICABLE STANDARDS REFERENCED THEREIN.

SEISMIC RESTRAINTS SHALL BE DESIGNED, SUPPLIED, AND INSTALLED TO MEET THE SEISMIC DESIGN CRITERIA APPLICABLE TO THE CITY OF OSHAWA. BRACING SHALL BE PROVIDED FOR ALL SUSPENDED CEILING SYSTEMS AS REQUIRED BY CODE, INCLUDING BUT NOT LIMITED TO MAIN RUNNERS, CROSS TEES, PERIMETER DETAILS, HANGERS, LIGHT FIXTURES, DIFFUSERS, AND OTHER CEILING-MOUNTED COMPONENTS.

THE CONTRACTOR SHALL:
COORDINATE SEISMIC BRACING REQUIREMENTS WITH ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS.
SUBMIT SIGNED AND SEALED SHOP DRAWINGS PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
ENSURE ALL ANCHORS, HANGERS, AND ATTACHMENTS TO THE STRUCTURE ARE DESIGNED FOR THE APPLICABLE SEISMIC LOADS.
PROVIDE ALL REQUIRED HARDWARE, BRACING MEMBERS, SUPPORTS, AND ACCESSORIES NECESSARY FOR A COMPLETE AND CODE-COMPLIANT INSTALLATION.
ALL COSTS ASSOCIATED WITH SEISMIC BRACING FOR THE SUSPENDED CEILING SYSTEM SHALL BE INCLUDED IN THE SEPARATE PRICE NO. 1.



1 ENLARGED GROUND FLOOR REFLECTED CEILING
A1 PLAN

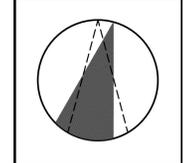
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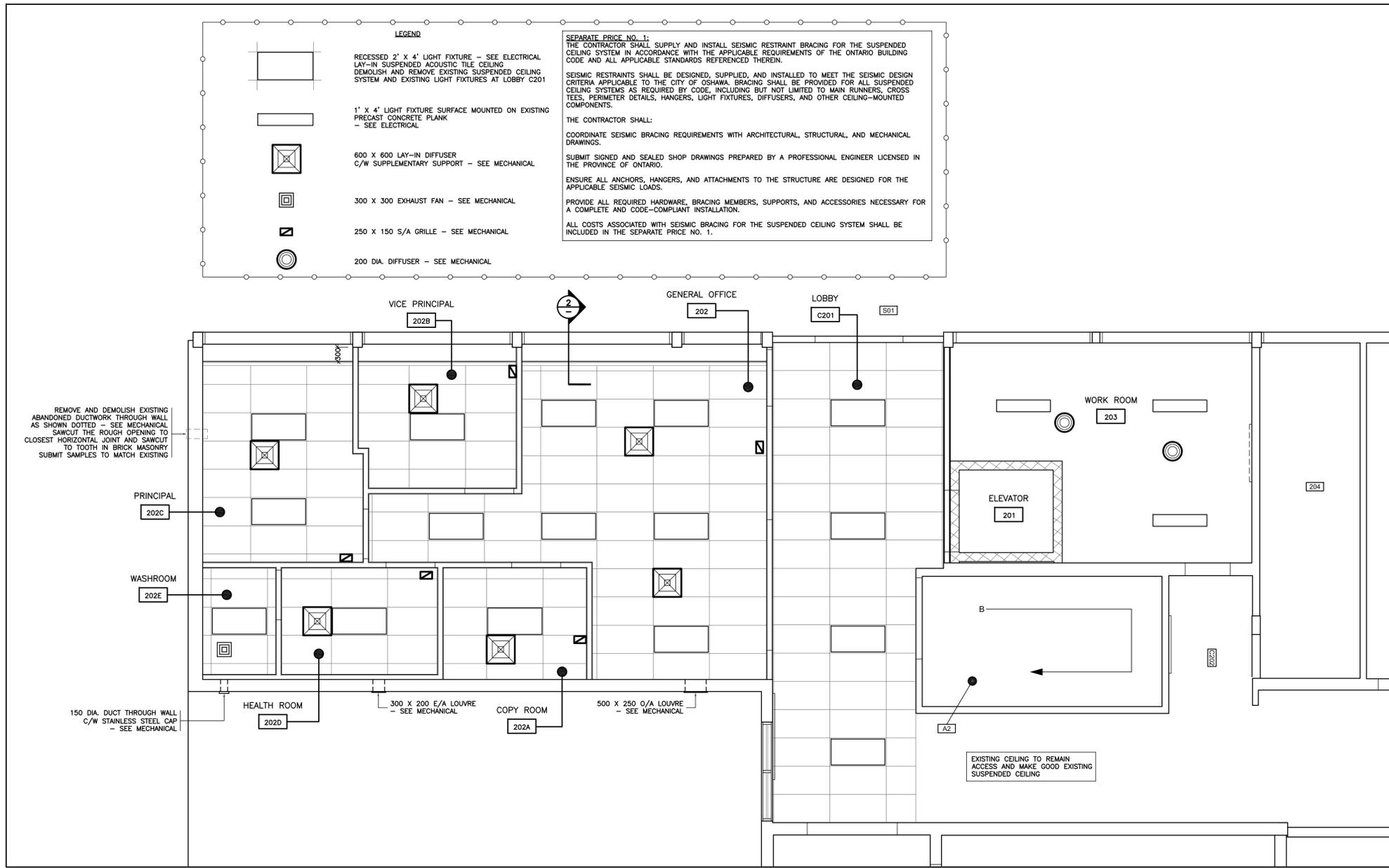
82 Bellagio Crescent,
Vaughan, Ontario, Canada L4K 5K7
Tel:(905)303-6606 Fax:(905)303-6636



Consultant:

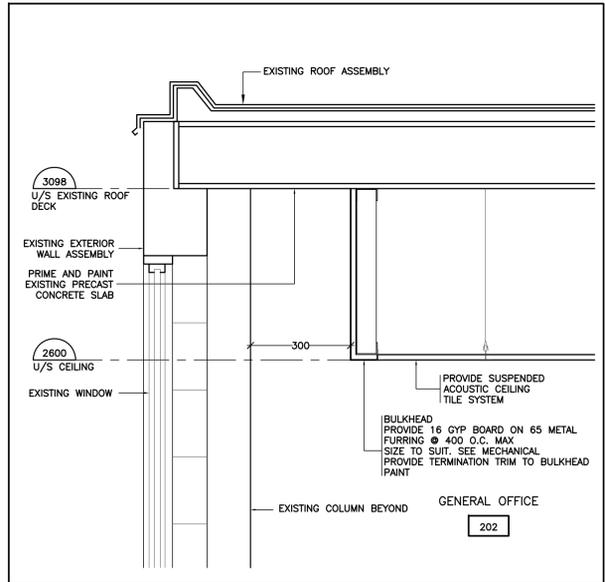
Title:
ENLARGED GROUND FLOOR
REFLECTED CEILING PLAN

Drawn by: C.C.	Date: NOVEMBER 2025
Checked by: P.L.	Plotted:
Scale: 1:50	Issued:
Job No.: 25116	Drawing No.:
Set No.:	A4 of:



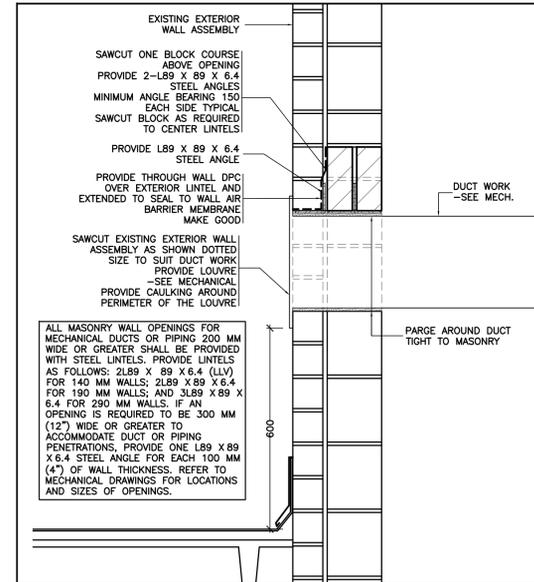
1 SECOND FLOOR REFLECTED CEILING PLAN
A1

1:50



2 TYPICAL BULKHEAD AT OFFICE AREA SECTION
A5

1:10



3 WALL BOX AT EXISTING EXTERIOR WALL DETAIL

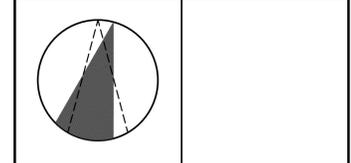
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Revisions				
Ref.	No.	Description	Date	Initial
△		CONSULTANTS COORDINATION	2025/12/16	
△		50% SUBMISSION	2025/12/23	
△		CONSULTANTS COORDINATION	2026/01/19	
△		CONSULTANTS COORDINATION	2026/02/03	
△		CONSULTANTS COORDINATION	2026/02/09	
△		CONSULTANTS COORDINATION	2026/02/13	
△		CONSULTANTS COORDINATION	2026/02/27	
△		ISSUED FOR TENDER	2026/03/02	
△		REVISED FOR TENDER	2026/03/03	

Project:
ECOLE ELEMENTAIRE ANTONINE-MAILLET NEW ELEVATOR & OFFICE RENOVATION
 615 RIDGEWAY AVE,
 OSHAWA, ON L1J 2W3



82 Bellagio Crescent,
 Vaughan, Ontario, Canada L4K 5K7
 Tel:(905)303-6606 Fax:(905)303-6636

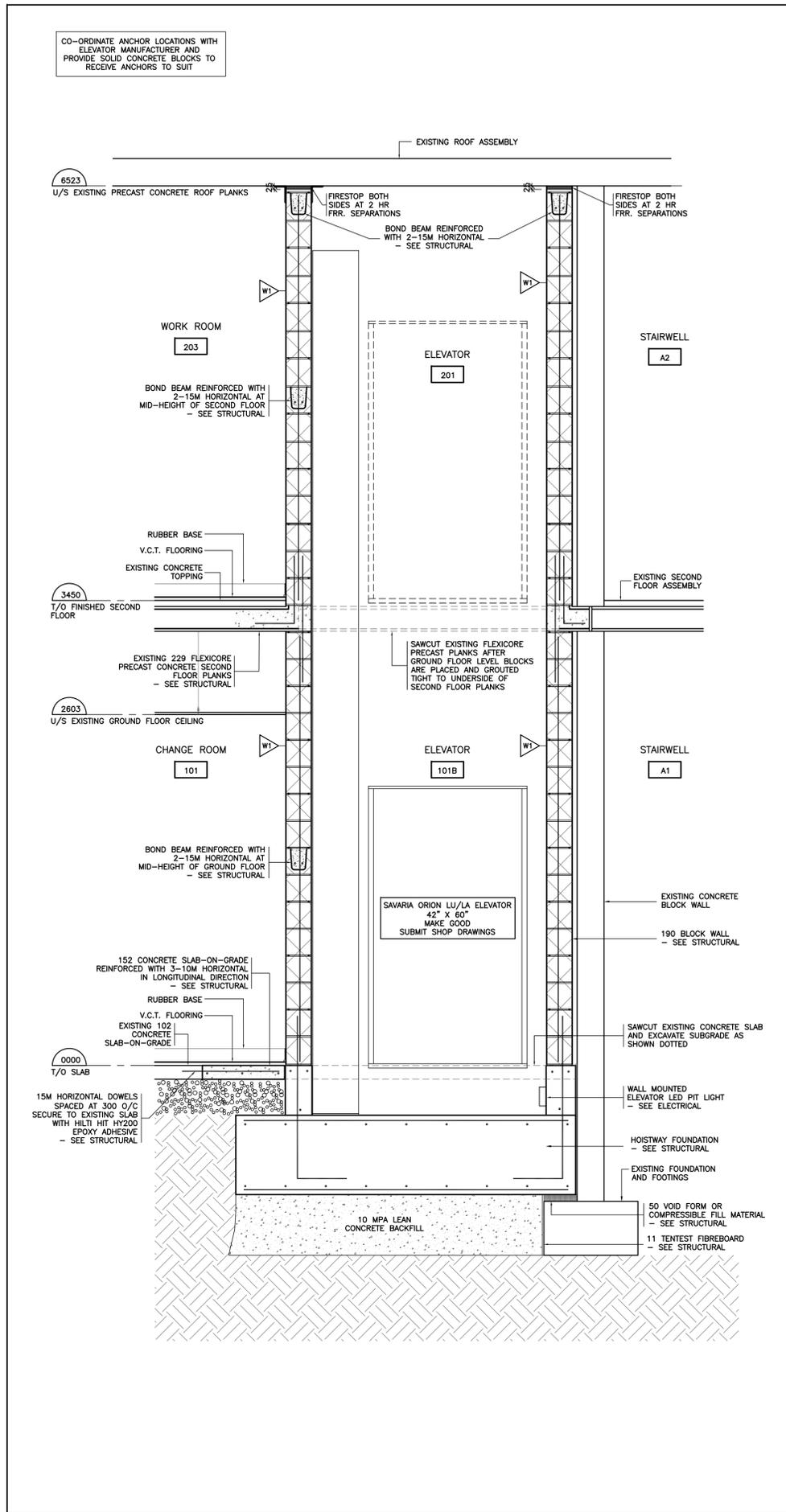


Consultant:

Title:
ENLARGED SECOND FLOOR REFLECTED CEILING PLAN AND SECTION

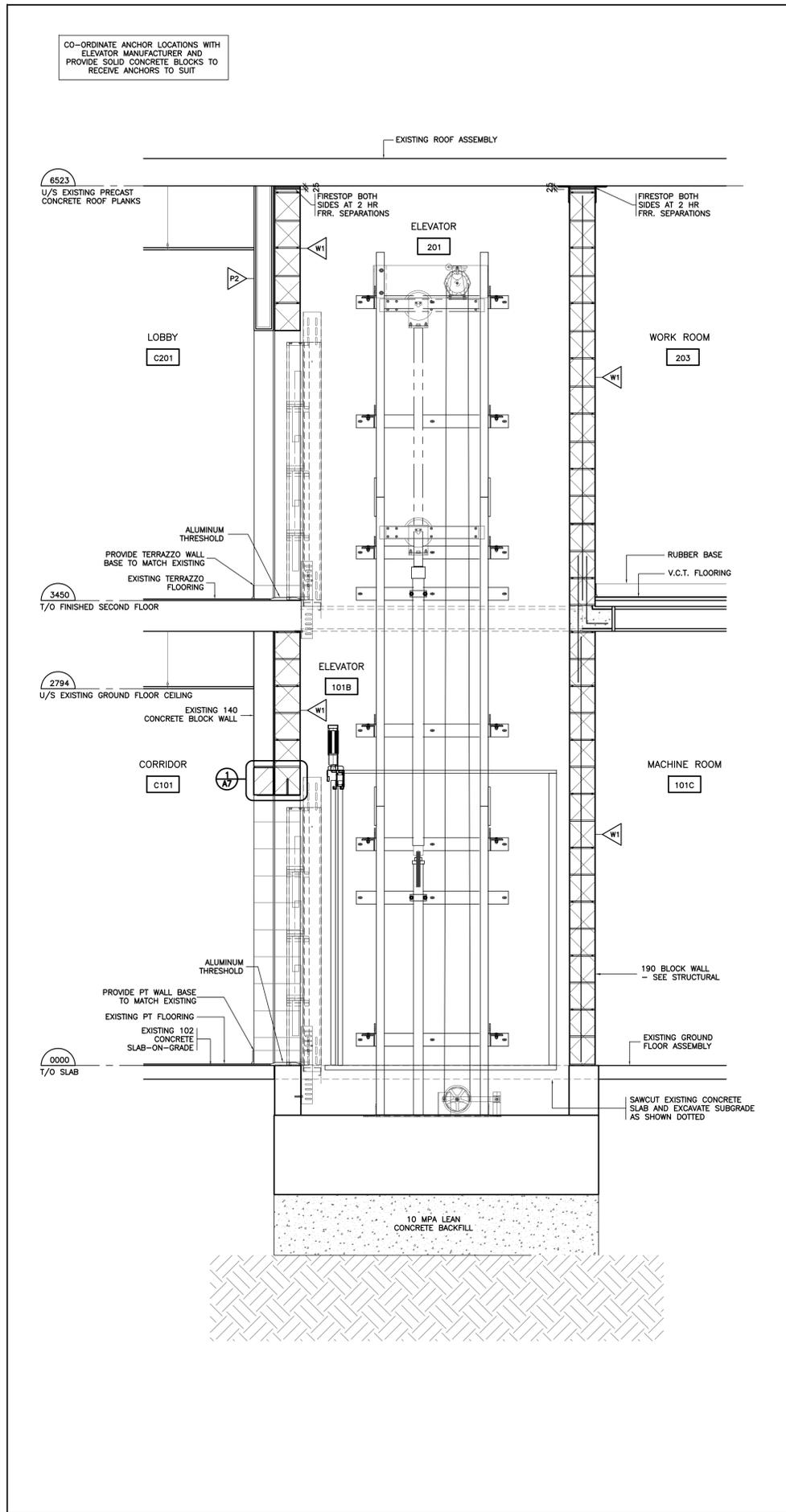
Drawn by: C.C.	Date: NOVEMBER 2025
Checked by: P.L.	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.:
Set No.:	A5

of:



1 ELEVATOR HOISTWAY SECTION

1:20



2 ELEVATOR HOISTWAY SECTION

1:20

Ref.	No.	Description	Date	Initial
△		CONSULTANTS COORDINATION	2025/12/16	
△		50% SUBMISSION	2025/12/23	
△		CONSULTANTS COORDINATION	2026/01/19	
△		CONSULTANTS COORDINATION	2026/02/09	
△		CONSULTANTS COORDINATION	2026/02/27	
△		ISSUED FOR TENDER	2026/03/02	
△		REVISED FOR TENDER	2026/03/03	

Project:
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Consultant:

Title:
SECTIONS AND DETAILS

Drawn by:
 C.C. Date:
 NOVEMBER 2025

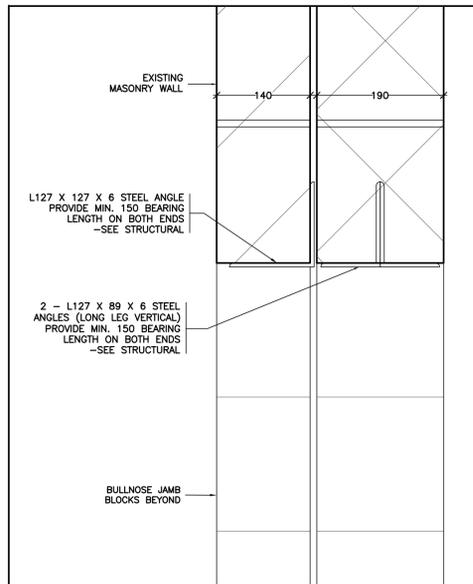
Checked by:
 P.L. Plotted:

Scale:
 1:20 Issued:

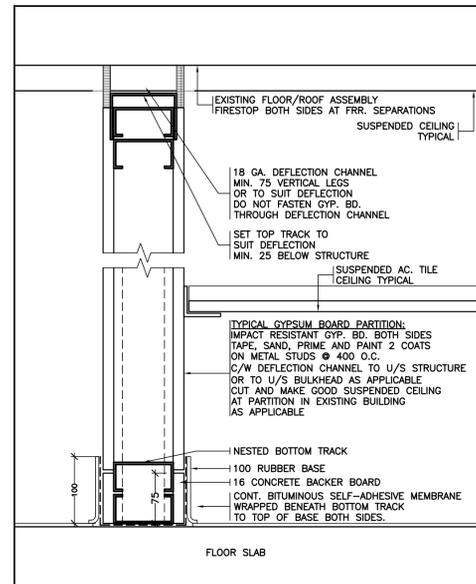
Job No.:
 25116 Drawing No.:

Set No.:
A6

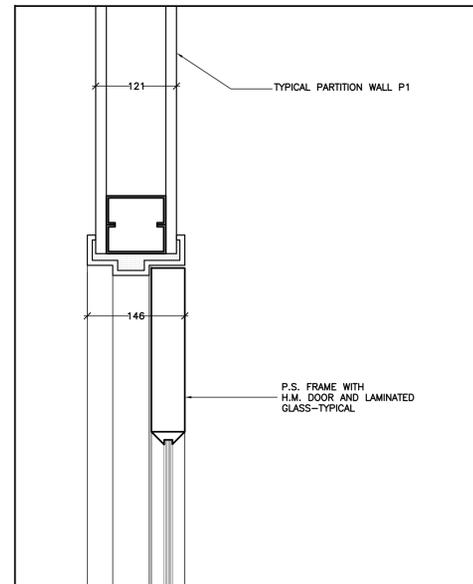
of:



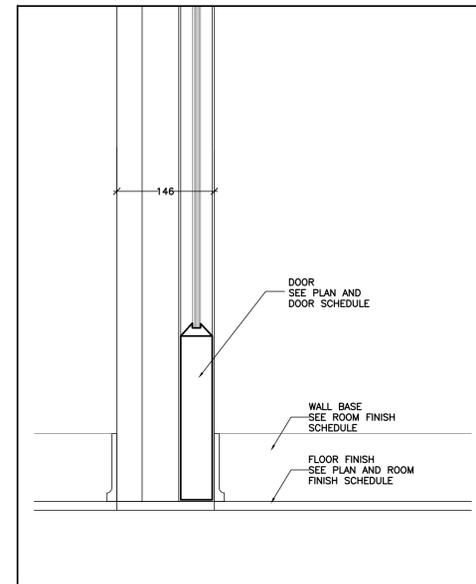
1
A6
SECTION 1:5



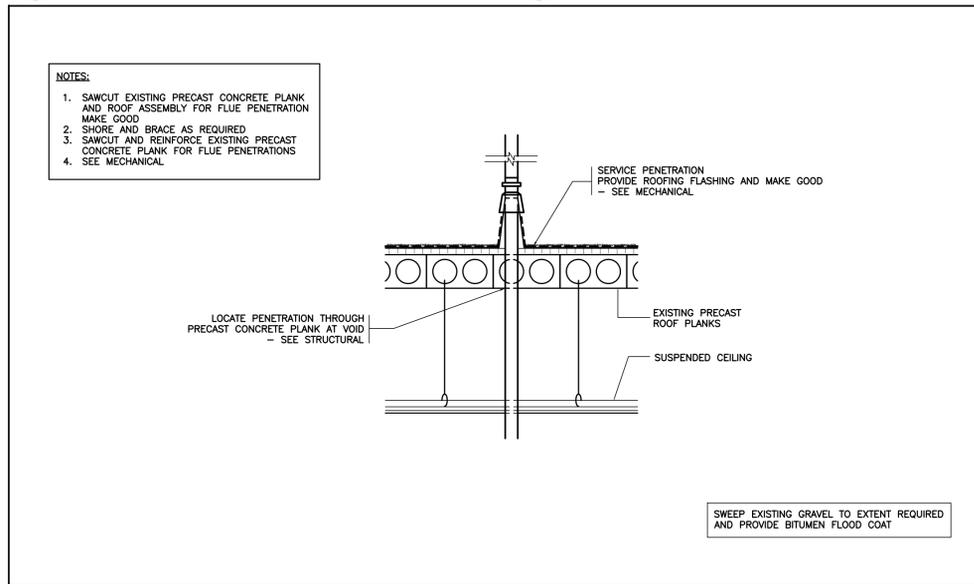
2
SECTION 1:5



3
SECTION 1:5



4
SECTION 1:5



5
DETAIL 1:20

- NOTES:
1. SAWCUT EXISTING PRECAST CONCRETE PLANK AND ROOF ASSEMBLY FOR FLUE PENETRATION MAKE GOOD
 2. SHORE AND BRACE AS REQUIRED
 3. SAWCUT AND REINFORCE EXISTING PRECAST CONCRETE PLANK FOR FLUE PENETRATIONS
 4. SEE MECHANICAL

Revisions				
Ref.	No.	Description	Date	Initial
△		CONSULTANTS COORDINATION	2026/02/27	
△		ISSUED FOR TENDER	2026/03/02	
△		REVISED FOR TENDER	2026/03/03	

Project:
 ECOLE ELEMENTAIRE
 ANTONINE-MAILLET NEW
 ELEVATOR & OFFICE RENOVATION
 615 RIDGEWAY AVE,
 OSHAWA, ON L1J 2W3



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 Vaughan, Ontario, Canada L4K 5K7
 Tel:(905)303-6606 Fax:(905)303-6636

Consultant:

Title:
 SECTIONS AND DETAILS

Drawn by:
 C.C. Date:
 NOVEMBER 2025

Checked by:
 P.L. Plotted:

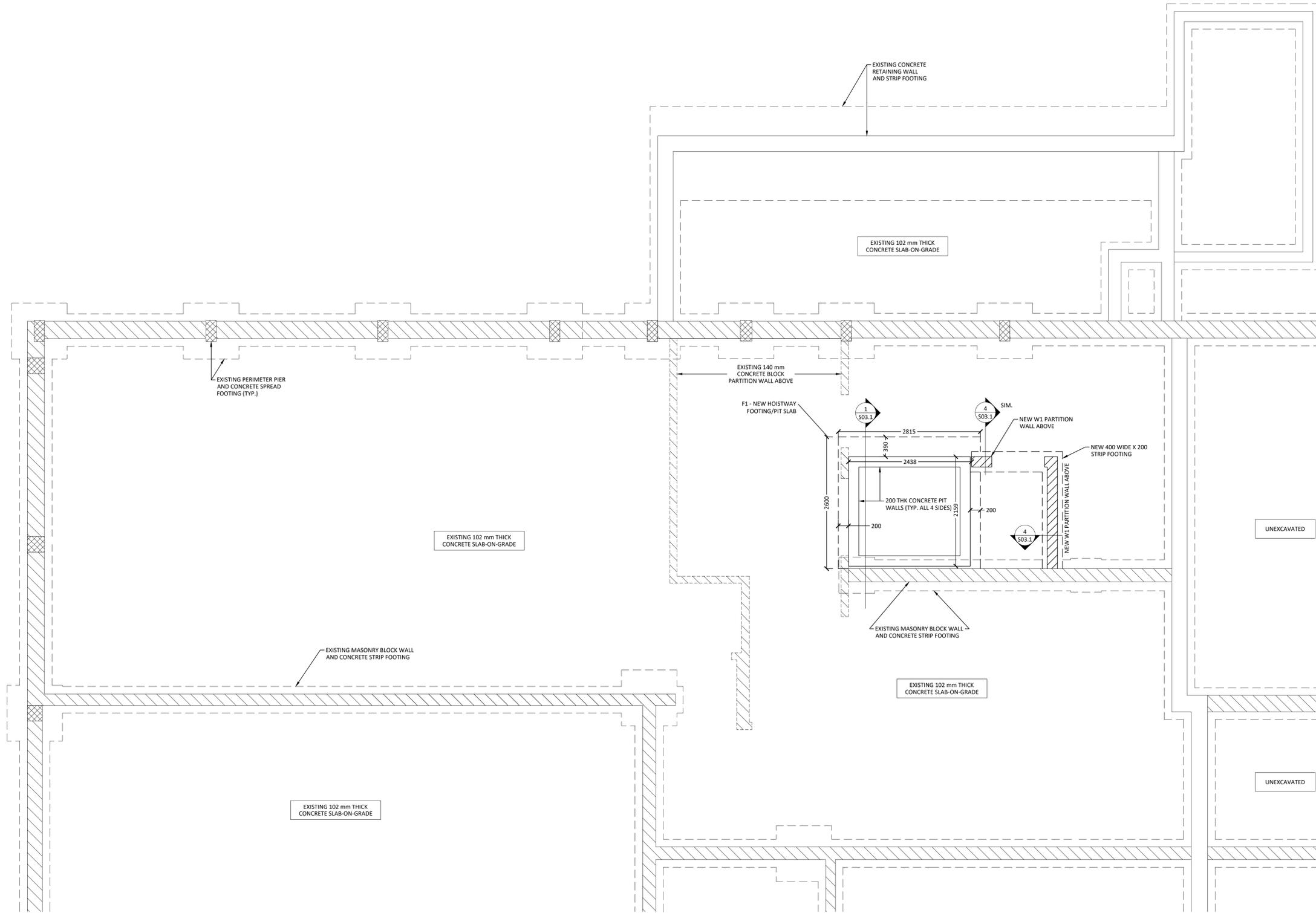
Scale:
 AS SHOWN Issued:

Job No.:
 25116 Drawing No.:

Set No.:

A7

of:



NO.	REVISED FOR:	DATE:



Gracarr Engineering
 Oakville, Ontario
 graham@gracarr.com
 (647) 869-7556

SEAL:

NO.	ISSUED FOR:	DATE:
1	COORDINATION	12-15-2025
2	50% COMPLETION	12-23-2025
3	TENDER	03-02-2026

PROJECT:
 ÉCOLE ÉLÉMENTAIRE
 ANTONINE-MAILLET RENOVATIONS
 615 RIDGEWAY AVENUE
 OSHAWA, ONTARIO

CLIENT:
 W.K. LIM & M.P. LIU
 ARCHITECTS INC.

SHEET TITLE:
 PARTIAL FOUNDATION PLAN

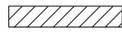
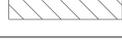
PROJECT NO: 25WLP001

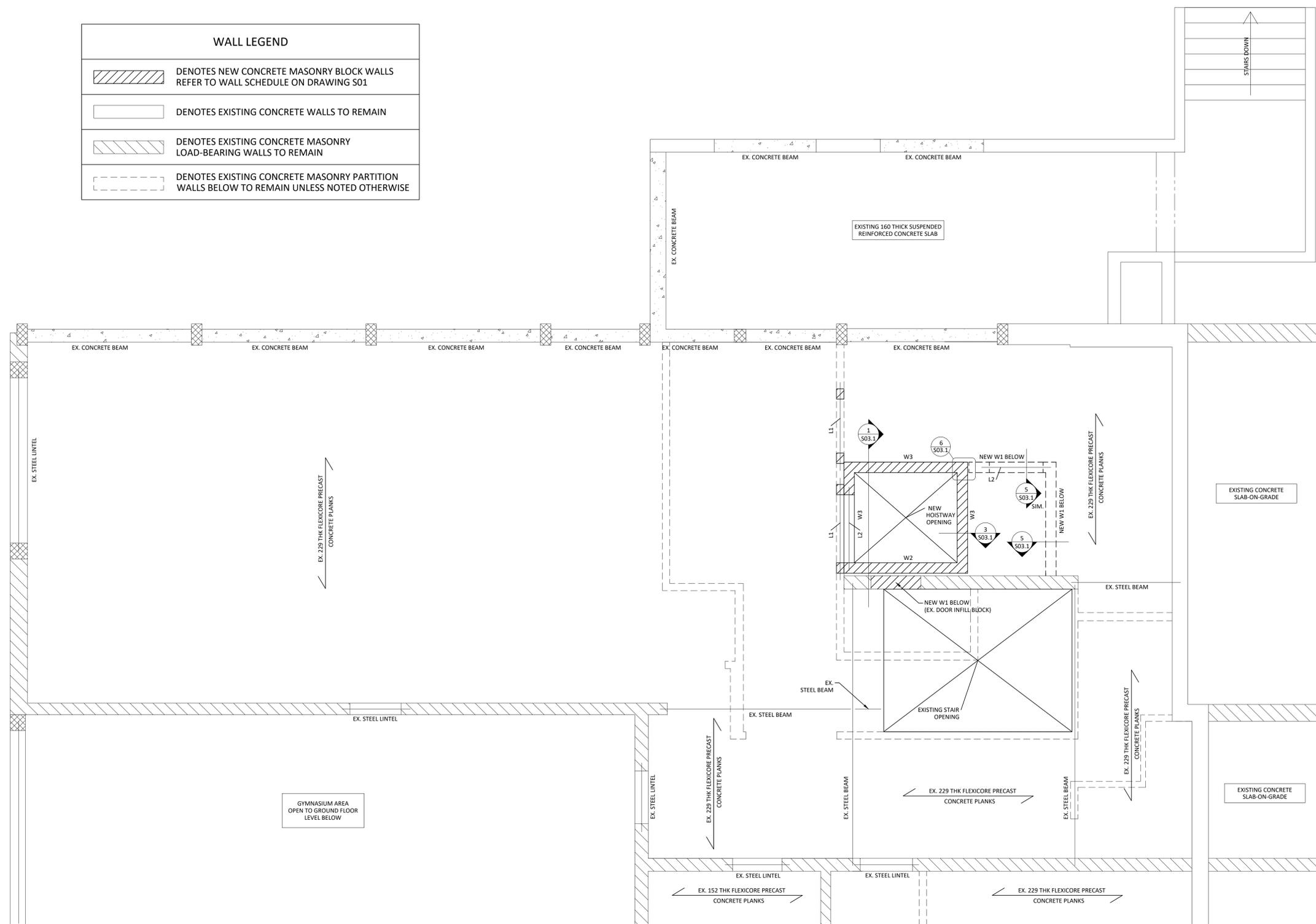
DATE: 12-15-2025

DESIGNED BY: GT

DRAWN BY: GT

SHEET NO: S02.1

WALL LEGEND	
	DENOTES NEW CONCRETE MASONRY BLOCK WALLS REFER TO WALL SCHEDULE ON DRAWING S01
	DENOTES EXISTING CONCRETE WALLS TO REMAIN
	DENOTES EXISTING CONCRETE MASONRY LOAD-BEARING WALLS TO REMAIN
	DENOTES EXISTING CONCRETE MASONRY PARTITION WALLS BELOW TO REMAIN UNLESS NOTED OTHERWISE



NO.	REVISED FOR:	DATE:



Gracarr Engineering
 Oakville, Ontario
 graham@gracarr.com
 (647) 869-7556

SEAL:

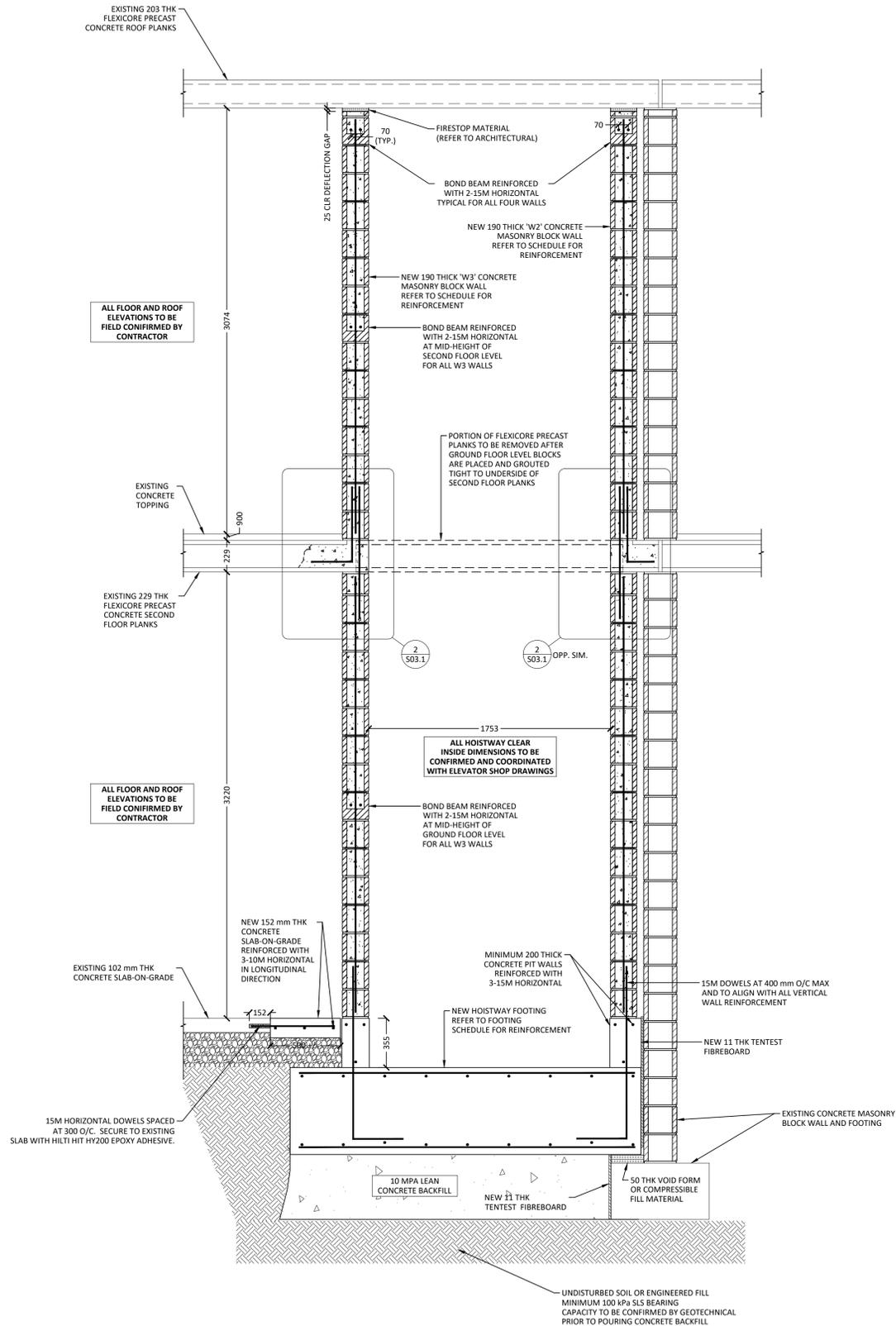
NO.	ISSUED FOR:	DATE:
1	COORDINATION	12-15-2025
2	50% COMPLETION	12-23-2025
3	TENDER	03-02-2026

PROJECT: **ÉCOLE ÉLÉMENTAIRE ANTONINE-MAILLET RENOVATIONS**
 615 RIDGEWAY AVENUE
 OSHAWA, ONTARIO

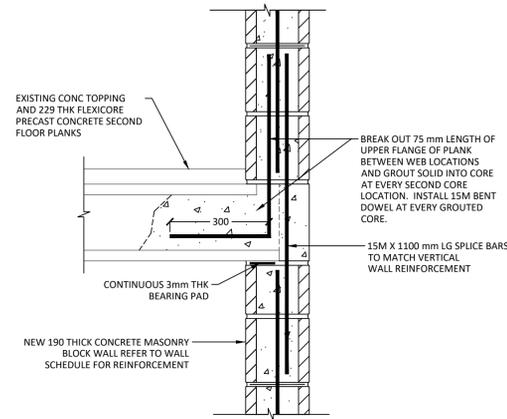
CLIENT: **W.K. LIM & M.P. LIU ARCHITECTS INC.**

SHEET TITLE: **PARTIAL SECOND FLOOR FRAMING PLAN**

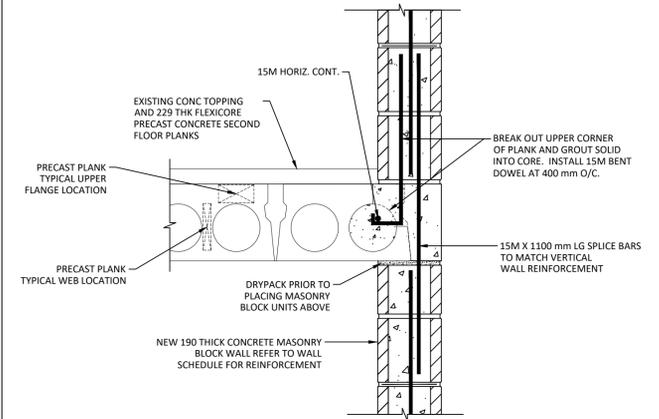
PROJECT NO:	25WLP001
DATE:	12-15-2025
DESIGNED BY:	GT
DRAWN BY:	GT
SHEET NO:	S02.2



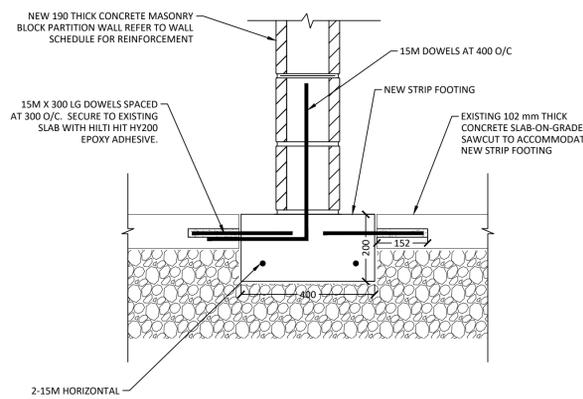
1 ELEVATOR HOISTWAY SECTION



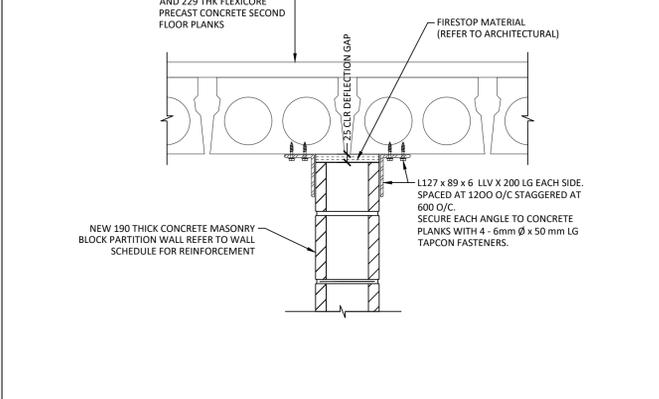
2 SECOND FLOOR LEVEL SECTION PERPENDICULAR TO FLEXICORE PLANKS



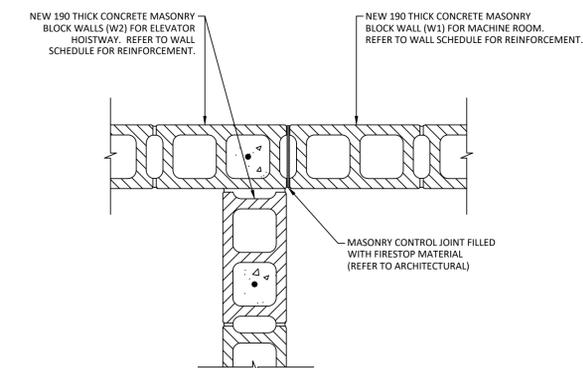
3 SECOND FLOOR LEVEL SECTION PARALLEL TO FLEXICORE PLANKS



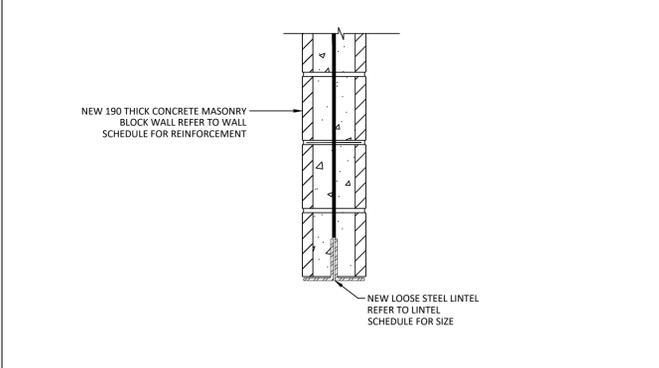
4 MACHINE ROOM PARTITION WALL FOOTING DETAIL



5 MACHINE ROOM PARTITION WALL TOP SUPPORT DETAIL



6 MACHINE ROOM TO HOISTWAY WALLS CONTROL JOINT PLAN DETAIL



7 MASONRY BLOCK WALL STEEL LINTEL SECTION

NO.	REVISED FOR:	DATE:



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Oakville, Ontario
graham@gracarr.com
(647) 869-7556

SEAL:

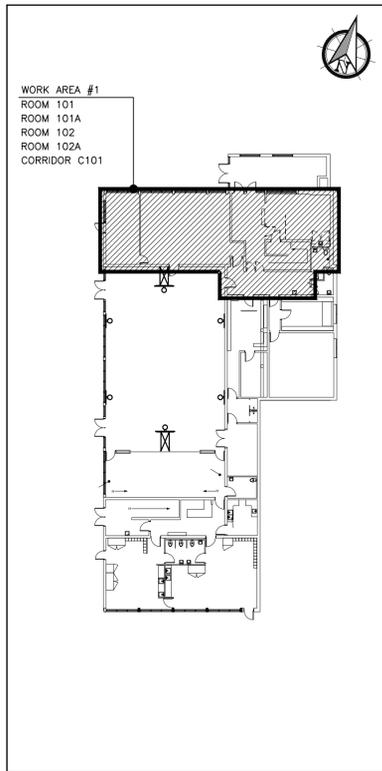
NO.	ISSUED FOR:	DATE:
1	COORDINATION	12-15-2025
2	50% COMPLETION	12-23-2025
3	TENDER	03-02-2026

PROJECT:
ÉCOLE ÉLÉMENTAIRE ANTONINE-MAILLET RENOVATIONS
615 RIDGEWAY AVENUE
OSHAWA, ONTARIO

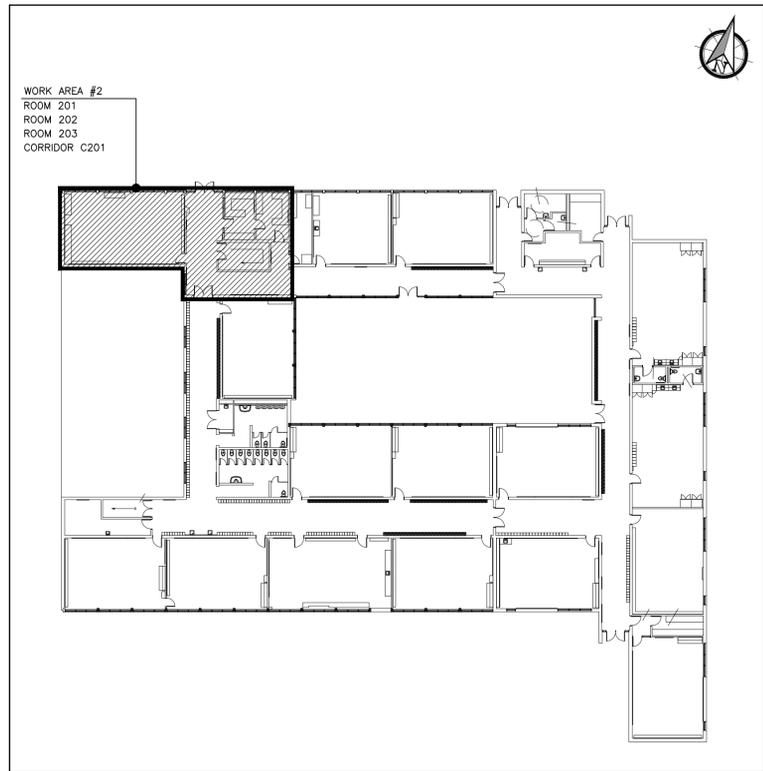
CLIENT:
W.K. LIM & M.P. LIU ARCHITECTS INC.

SHEET TITLE:
SECTIONS AND DETAILS

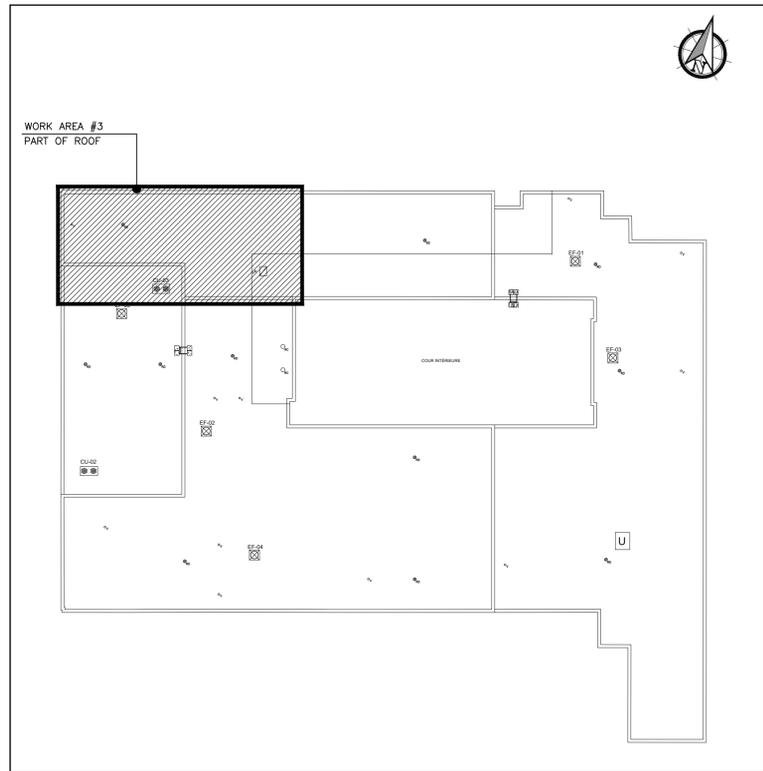
PROJECT NO:	25WLP001
DATE:	12-15-2025
DESIGNED BY:	GT
DRAWN BY:	GT
SHEET NO:	S03.1



KEY PLAN - GROUND FLOOR
N.T.S.



KEY PLAN - 2ND FLOOR
N.T.S.



KEY PLAN - ROOF
N.T.S.

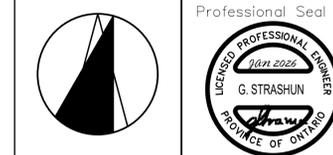
SYMBOLS	
	DOMESTIC COLD WATER SUPPLY
	DOMESTIC HOT WATER SUPPLY
	DOMESTIC HOT WATER RE-CIRCULATE
	GAS PIPE
	HEATING WATER SUPPLY
	HEATING WATER RETURN
	GLYCOL SUPPLY
	GLYCOL RETURN
	REFRIGERANT LIQUID LINE
	REFRIGERANT GAS LINE
	CONDENSATE DRAIN
	PIPE TURNING DOWN
	PIPE TURNING UP
	BACKFLOW PREVENTER ASSEMBLY
	FLOOR DRAIN
	FUNNEL FLOOR DRAIN
	DENOTES: CONNECT TO EXISTING
	DEMOLITION
	PUMP
	VALVE
	BALANCING VALVE
	CHECK VALVE
	STRAINER - OVER 50mm PROVIDE WITH VALVED FLUSHING DRAIN
	PRESSURE RELIEF VALVE
	PRESSURE REDUCING VALVE
	UNION
	TEMPERATURE SENSOR
	ROOM/SPACE TEMPERATURE SENSOR (THERMOSTAT) CONNECTED TO BAS
	TEMPERATURE GAUGE
	PRESSURE GAUGE
	SHEET METAL DUCT - FIRST FIGURE INDICATES DIMENSION SHOWN
	SHEET METAL RISER UP - SUPPLY
	SHEET METAL RISER UP - RETURN AND EXHAUST
	SHEET METAL RISER DOWN - SUPPLY
	SHEET METAL RISER DOWN - RETURN AND EXHAUST
	SQUARE ELBOW WITH AIR TURNING VANES
	FUSIBLE LINK FIRE DAMPER WITH ACCESS DOOR IN DUCT
	MOTORIZED DAMPER
	PERIMETER CONVECTECTOR TYPE K, FINNED ELEMENT LENGTH 6400 MM, HEATING OUTPUT 8792 W [30 MBH], WATER FLOW 3.0 GPM
	CONTROL VALVE #4
	CONNECT TO EXISTING
	S/A, R/A O/A, E/A
	UH-1 DENOTES: UNIT HEATER
	FFH-1 DENOTES: NEW FORCE FLOW HEATER
	N.O. NORMALLY OPEN
	N.C. NORMALLY CLOSED
	AI/AO ANALOG IN/ANALOG OUT
	DI/DO DIGITAL IN/DIGITAL OUT

Revisions				
Ref.	No.	Description	Date	Initial
△	1	ISSUED FOR COORDINATION	2026/02/04	
△	2	ISSUED FOR COORDINATION	2026/02/19	
△	3	ISSUED FOR COORDINATION	2026/02/27	
△	4	ISSUED FOR TENDER	2026/03/02	

Project:
ECOLE ELEMENTAIRE ANTONINE-MAILLET
 615 RIDGEWAY AVE
 OSHAWA, ON L1J 2W3



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 Vaughan, Ontario, Canada L4K 5K7
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Consultant:
SAB ENGINEERING Inc.
 988 EDWARD AVE., UNIT 25, RICHMOND HILL, ONT., L4C 9Y6
 TEL. (905) 787 8885 FAX (905) 787 8771

Title:
KEY PLAN, SYMBOLS LIST, EQUIPMENT SCHEDULES & DETAILS

Drawn by: [Blank] Date: **JANUARY 2026**

Checked by: [Blank] Plotted: [Blank]

Scale: **AS SHOWN** Issued: [Blank]

Job No.: **25116** Drawing No.: [Blank]

Set No.: [Blank] **M-1**

CONTROL VALVE SYSTEM: RAD IN NEW OFFICE AREA										
TAG#	FLOOR	LOCATION	CFG.	CAPACITY [MBH]	FLOW [GPM]	Cv	PIPE SIZE (MM)	FAIL POS	TYPE	CONTROL SIGNAL
CV-1	1	ROOM 102A	2-WAY	12.0	1.20	0.85	20	OPEN	MODULATING	0-10V
CV-2	1	ROOM 102	2-WAY	10.7	1.07	0.76	20	OPEN	MODULATING	0-10V
CV-3	1	ROOM 102	2-WAY	18.5	1.85	1.31	20	OPEN	MODULATING	0-10V

SCHEDULE OF WALL-FIN CONNECTORS											
TAG	HEATING OUTPUT		HEATING AGENT		TUBE DIAM (MM)	FIN SIZE (MMxMM)	FIN SPACING (FINS/M)	ROW	MOUNTING HEIGHT MM [IN]		REMARKS
	(kW/M)	[BTU/HR/FT]	SUPPLY °C [°F]	RETURN °C [°F]					AFF	ENCLOSURE	
WF-1	1.335	1390	82 [180]	71 [160]	20	102x102	164	1	102 [4]	610 [24]	SLOPED TOP OUTLET AND OPEN BOTTOM

DESIGN BASED ON ENGINEERED AIR WALL-FIN ENCLOSURE TYPE WF-1A

SCHEDULE OF INDOOR A/C UNITS													
TAG	TYPE	CLG. CAP. (TONS/KW)	HTG. CAP. (KW)	AIR FLOW (CFM)	POWER SUPPLY (V/PH/Hz)	MCA (A)	MOCP (A)	WEIGHT (KG/LBS)	EQUIPMENT SIZE (HxWxD, IN)	REFRIG. PIPE (MM)		DRAIN (MM)	REMARKS
										LIQUID	GAS		
AC-1	WALL MOUNTED	1.0/3.57	N/A	375	208/1ϕ/60	-	*	11.1[24.5]	12x36x10	6.35	12.7	16	C/W CONDENSATE PUMP.

* POWER FED FROM OUTDOOR CONDENSER CDU-5 FUSED AT 20A

SCHEDULE OF HORIZONTAL FAN COIL UNIT																	
TAG	AREA SERVED	MANUFACTURER	MODEL	AIRFLOW (CFM)	E.S.P. PA [FT]	ELECTRIC DUCT HEATER 'DH-2'			COOLING PERFORMANCE		VOLTAGE	WATTS	AMPS	MOCP (AMPS)	DIMENSIONS LxDxH MM [IN]	WEIGHT (KG [LBS])	REMARKS
						kW [MBH]	POWER SUPPLY (V/PH/Hz)	MOCP (A)	TOTAL CLG. kW [MBH]	SEN. CLG. kW [MBH]							
FCU-1	OFFICE AREA 202,A,B,C,D	MITSUBISHI ELECTRIC	PEAD-A30AA	880	149 [0.6]	4.0 [13.6]	208/3/60	15	8.79 [30]	6.68 [22.8]	208/1/60	-	-	*	1100x732x250 [43x29x10]	31 [69]	

* POWER FED FROM OUTDOOR CONDENSER CDU-4 FUSED AT 40A

SCHEDULE OF OUTDOOR CONDENSER												
TAG	LOCATION	SERVING	COOLING CAP. TONS [MBH]	REFRIGERANT	CONNECTION SIZES		EQUIPMENT SIZE WxHxD [IN]	POWER SUPPLY (V/PH/Hz)	MCA	MOCP	WEIGHT (KG [LB])	REMARKS
					RL (MM/IN)	RG (MM/IN)						
CDU-4	ROOF	FCU-1	2.5 [30.0]	R410A	9.5 [3/8]	15.9 [5/8]	42x64x64	208/1/60	24	40	118 [261]	C/W ECOFOOT SNOW STAND
CDU-5	ROOF	AC-1	1.0 [12.2]	R454B	6.35 [1/4]	12.7 [1/2]	35x12x25	208/1/60	16	20	99 [218]	C/W ECOFOOT SNOW STAND

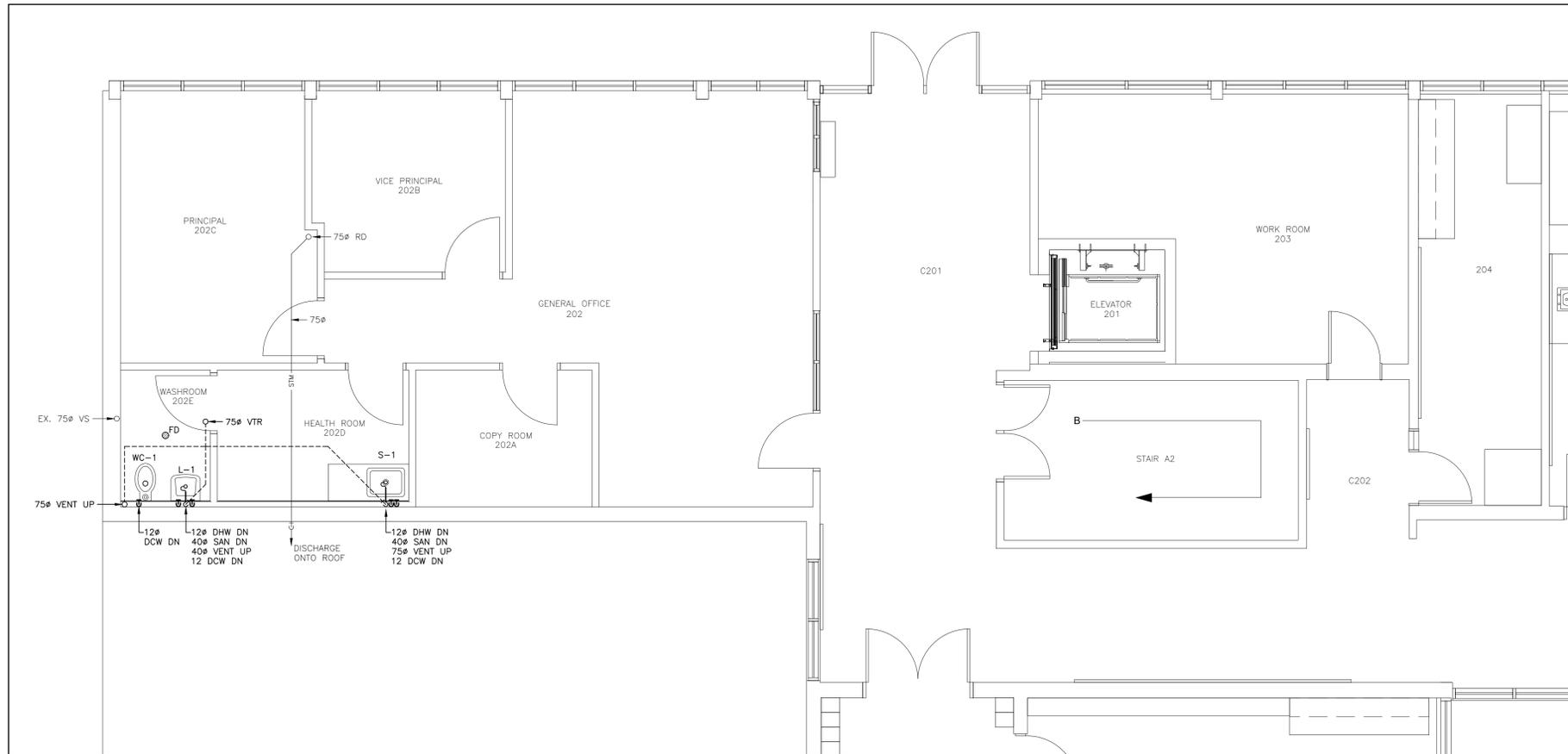
SCHEDULE OF EXHAUST FANS													
TAG	MANUFACTURER	MODEL	AREA SERVED	LOCATION	AIR FLOW CFM	E.S.P. PA [IN W.G.]	HP	RPM	POWER (V/PH/Hz)	FLA (AMPS)	MOCP (AMPS)	WEIGHT (KG [LBS])	REMARKS

- CDU-4 SUPPLY POWER TO INDOOR FCU-1
 - CDU-5 SUPPLY POWER TO INDOOR AC-1

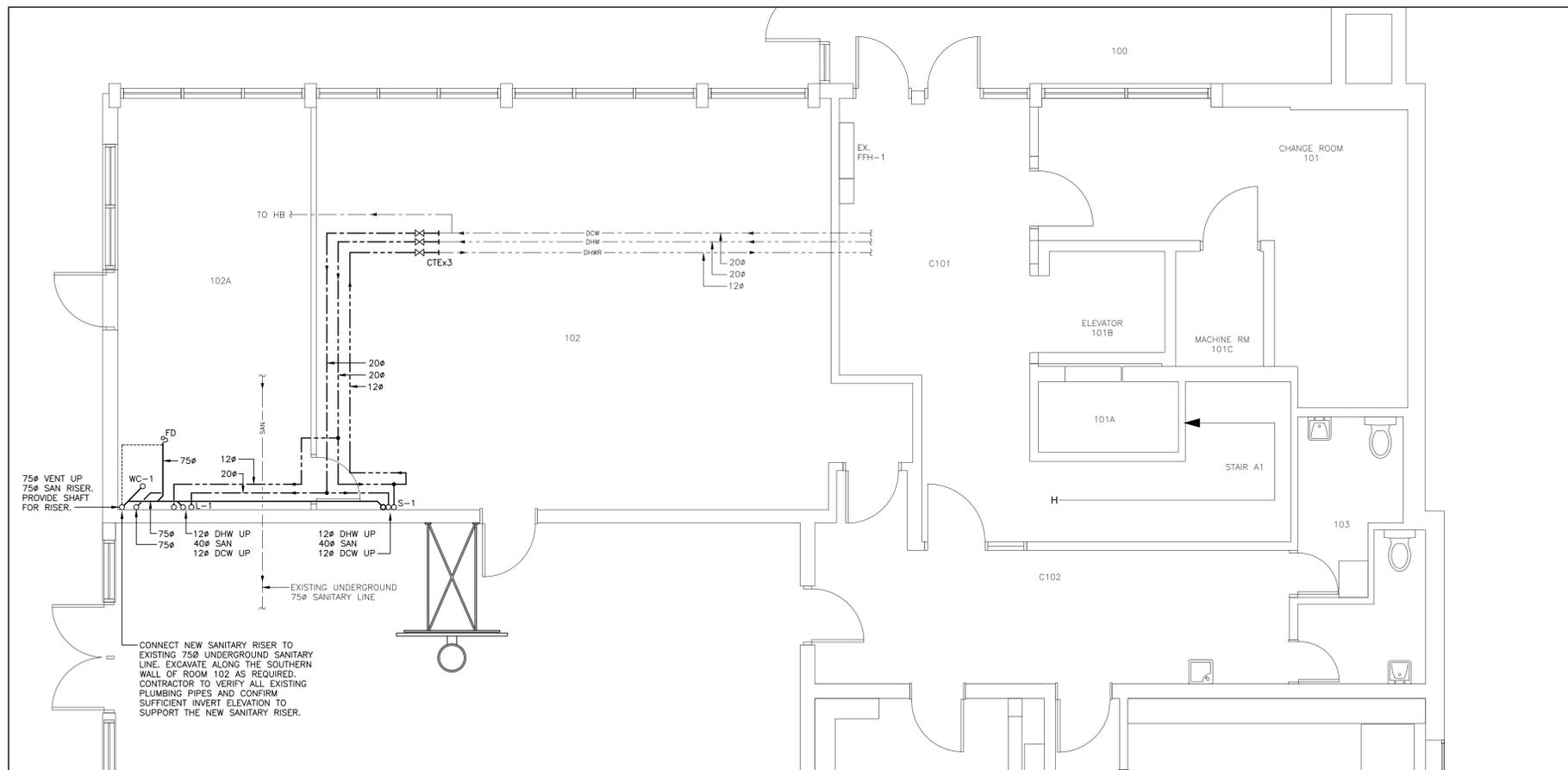
SCHEDULE OF ENERGY RECOVERY VENTILATORS																									
TAG	LOCATION	SERVING	SUPPLY FAN		EXHAUST FAN		ELECTRIC DUCT HEATERS						HEAT EXCHANGER/RECOVERY				UNIT POWER		WEIGHT UNIT KG [LBS]	EQUIPMENT SIZE (HxWxL) MM	REMARKS				
			AIR FLOW (CFM)	E.S.P. Pa [IN]	AIR FLOW (CFM)	E.S.P. Pa [IN]	TAG	kW [MBH]	POWER SUPPLY (V/PH/Hz)	MOCP (A)	TAG	kW [MBH]	POWER SUPPLY (V/PH/Hz)	MOCP (A)	SUMMER		WINTER					EFFECTIVENESS (%)	POWER SUPPLY (V/PH/MCA)	MOCP (A)	
			EDBT/EWBT °C [°F]	LDBT/LWBT °C [°F]	EDBT/EWBT °C [°F]	LDBT/LWBT °C [°F]									SUMMER	WINTER	SUMMER	WINTER							
ERV-1	COPY ROOM 202A	WORKROOM 203	380	214 [0.86]	380	214 [0.86]	DH-1	6.0 [20.5]	208/3/60	20	DH-2	4.0 [13.7]	208/3/60	20	32/32 [90/90]	25.3/20.6 [77.6/69.1]	-6.7/-6.7 [20/20]	13.3/8.8 [55.9/48.0]	69.0	69.0	208/1/3.88	15	41 [90]	40x908x954	

SCHEDULE OF GRILLES & DIFFUSERS						
TYPE	SERVICE	MANUFACTURER	MODEL	VOLUME CONTROL	FINISH	REMARKS
A	SUPPLY	E.H. PRICE	SCDA	YES	B12	SQUARE CONE DIFFUSER C/W VOLUME DAMPER
B	RETURN	E.H. PRICE	80ECRG	NO	B12	EGG CRATE RETURN GRILLE
C	SUPPLY	E.H. PRICE	RCDE	NO	B12	ROUND CONE DIFFUSER, 2 POSITION ADJUSTABLE
D	RETURN	E.H. PRICE	530	NO	B12	LOUVERED GRILLE

PLUMBING FIXTURE SCHEDULE					
REF.	FIXTURE DESCRIPTION	DHW	DCW	DRAIN	VENT
WC-1	FLOOR MOUNTED WATER CLOSET, FLUSH TANK	-	20	75	40
L-1	WALL-HUNG LAVATORY	12	12	40	40
S-1	COUNTERTOP DROP IN SINK	12	12	40	40
FD	FLOOR DRAIN	-	-	75	40



SECOND FLOOR – PLUMBING – NEW WORK
SCALE: 1:50



GROUND FLOOR – PLUMBING – NEW WORK
SCALE: 1:50

NEW WORK NOTES:

- COORDINATE THE LAYOUT OF NEW PIPING WITH EXISTING SERVICES AND EQUIPMENT. CONNECT TO EXISTING UNDERGROUND SANITARY DRAINS AS SHOWN ON THE PLANS.
- PRIOR TO STARTING ANY UNDERGROUND PIPING WORK, PERFORM A VIDEO INSPECTION OF ALL UNDERGROUND PIPING INTENDED FOR CONNECTION TO DETERMINE EXACT ROUTING, SIZE, AND INVERT ELEVATIONS. CONFIRM THAT EXISTING UNDERGROUND PIPING HAS SUFFICIENT INVERT ELEVATION TO ACCOMMODATE TIE-IN OF NEW SANITARY PIPING AND NEW DOMESTIC WATER CONNECTIONS AS REQUIRED.
- SUPPORT NEW PIPING FROM THE CEILING STRUCTURE WHERE POSSIBLE AND AS PERMITTED BY EXISTING CONDITIONS. PROVIDE AND INSTALL CUSTOM STEEL SUPPORTS AS REQUIRED TO SUPPORT ALL PIPING AND EQUIPMENT. ANCHOR SUPPORTS TO FLOOR, WALLS, OR STRUCTURAL CEILING SLAB AS APPROPRIATE.
- ENSURE ALL ISOLATION VALVES ARE ACCESSIBLE FOR OPERATION AND MAINTENANCE. PROVIDE ISOLATION VALVES FOR ALL PLUMBING FIXTURES.
- CONNECT NEW DOMESTIC COLD WATER (DCW) AND DOMESTIC HOT WATER (DHW) PIPING TO EXISTING LINES AS SHOWN. VERIFY EXACT LOCATIONS ON SITE PRIOR TO INSTALLATION. REFER TO THE PIPE SCHEDULE ON DRAWING M-1 FOR PIPE SIZES SERVING EACH INDIVIDUAL FIXTURE.
- INSTALL NEW FLOOR-MOUNTED WATER CLOSET APPROXIMATELY AS SHOWN AND CONNECT TO NEW DOMESTIC COLD WATER AND SANITARY LINES.
- INSTALL NEW WALL-MOUNTED LAVATORY APPROXIMATELY AS SHOWN AND CONNECT TO NEW DOMESTIC COLD WATER, DOMESTIC HOT WATER, AND SANITARY LINES.
- PROVIDE NEW P-TRAP, TRAP PRIMER CONNECTION, AND VENTING IN ACCORDANCE WITH ONTARIO BUILDING CODE (OBC) REQUIREMENTS.
- PROVIDE NEW TEMPERING VALVE SERVING THE LAVATORY AND MODIFY PIPING AS REQUIRED.
- PROVIDE NEW TRAP PRIMERS FOR ALL FLOOR DRAIN AND FIXTURE P-TRAPS WHERE REQUIRED BY CODE.
- PIPE SIZES INDICATED ON THE DRAWINGS WERE MEASURED ON SITE. MAKE ANY ADJUSTMENTS REQUIRED TO SUIT ACTUAL SITE CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.

Revisions

Ref.	No.	Description	Date	Initial
△	1	ISSUED FOR COORDINATION	2026/02/04	
△	2	ISSUED FOR COORDINATION	2026/02/19	
△	3	ISSUED FOR COORDINATION	2026/02/27	
△	4	ISSUED FOR TENDER	2026/03/02	

Project:
 ECOLE ELEMENTAIRE
 ANTONINE-MAILLET
 615 RIDGEWAY AVE
 OSHAWA, ON L1J 2W3



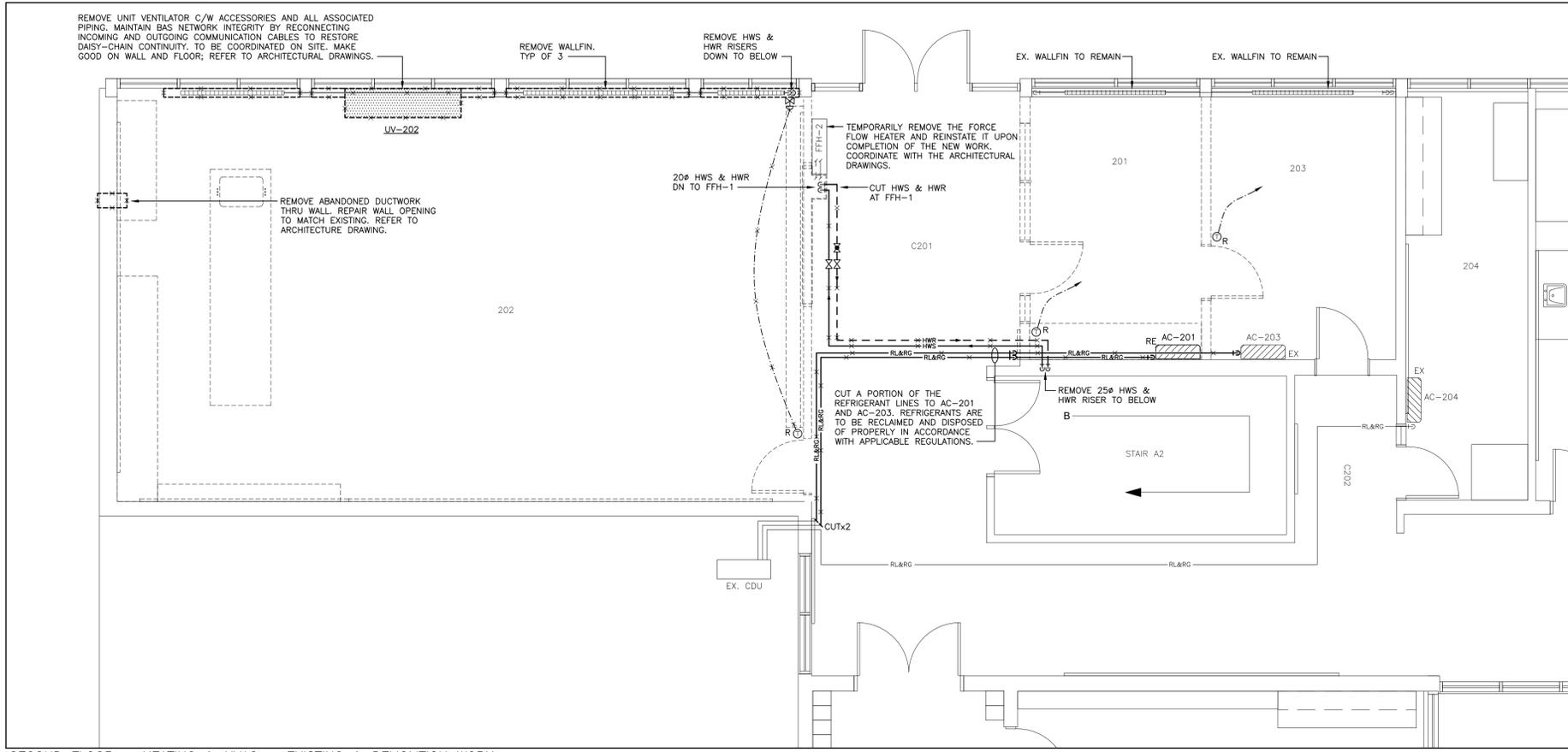
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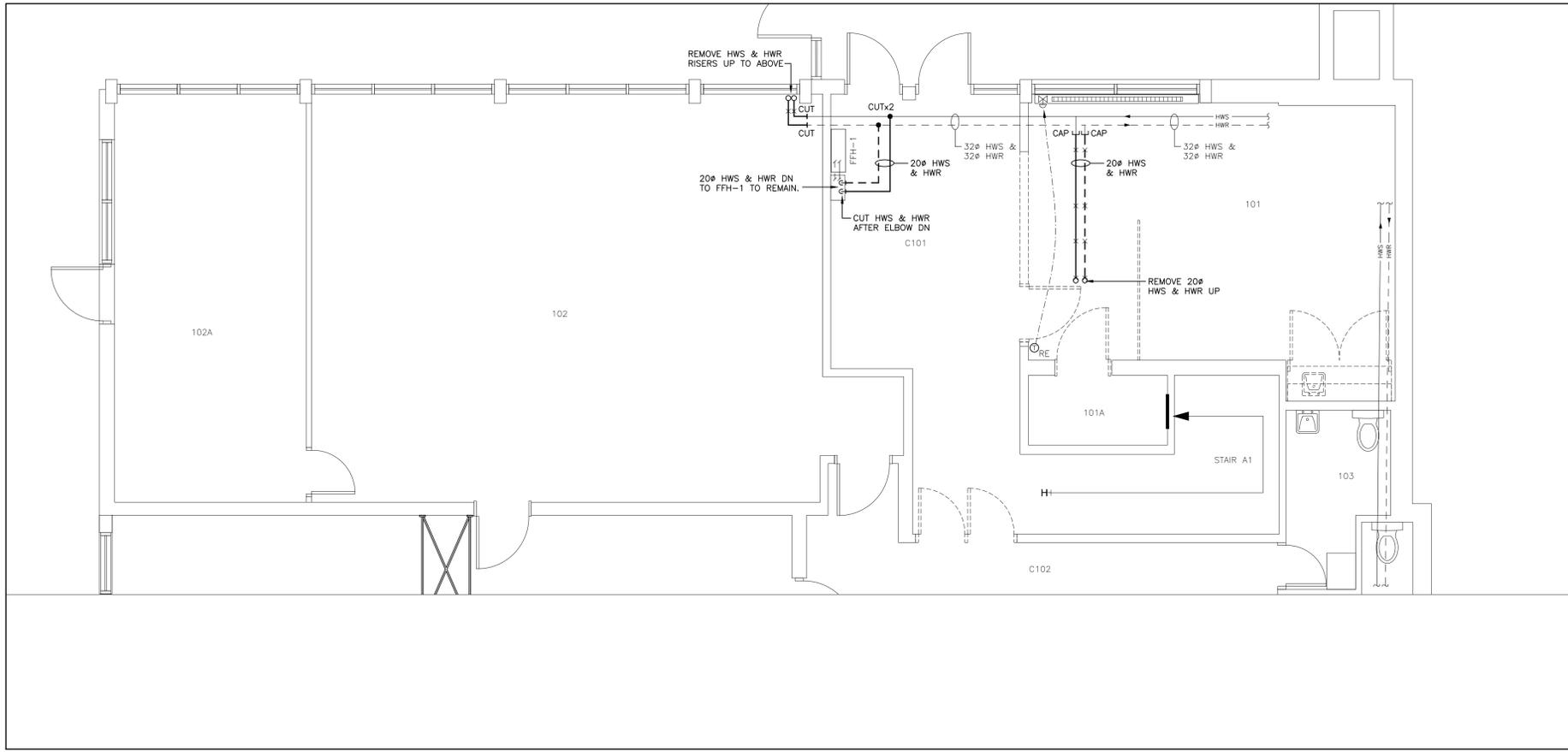
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Title:
 GROUND & SECOND
 FLOOR – PLUMBING –
 NEW WORK

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: M-3
Set No.:	of:



SECOND FLOOR – HEATING & HVAC – EXISTING & DEMOLITION WORK
SCALE: 1:50



GROUND FLOOR – HEATING & HVAC – EXISTING & DEMOLITION WORK
SCALE: 1:50

DEMOLITION NOTES:

THESE NOTES SHALL BE READ IN CONJUNCTION WITH AND SHALL FORM AN INTEGRAL PART OF THE SPECIFICATIONS AND CONTRACT DOCUMENTS. DRAWINGS INDICATE THE GENERAL INTENT AND AREAS OF DEMOLITION ONLY AND DO NOT REPRESENT THE FULL EXTENT OF WORK. REFER TO ALL CONTRACT DOCUMENTS FOR COMPLETE SCOPE.

PRIOR TO COMMENCING DEMOLITION, EXAMINE ALL EXISTING HVAC AND HEATING SYSTEMS AND COMPONENTS TO BE REMOVED, RELOCATED, OR MODIFIED. DRAWINGS DO NOT SHOW ALL BUILDING SERVICES OR STRUCTURAL ELEMENTS WITHIN THE WORK AREA. FIELD-VERIFY THE LOCATION, SIZE, ROUTING, AND INVERT ELEVATIONS OF EXISTING REFRIGERANT PIPING AND ASSOCIATED SYSTEMS PRIOR TO DEMOLITION. PIPING ROUTES, EQUIPMENT LOCATIONS, AND UTILITIES SHOWN ARE BASED ON AVAILABLE RECORDS. THE CONTRACTOR SHALL ADJUST THE WORK TO SUIT ACTUAL SITE CONDITIONS AT NO ADDITIONAL COST TO THE BOARD.

THE DEMOLITION WORK SHALL INCLUDE THE TEMPORARY OR PERMANENT RELOCATION OF ANY EXISTING BUILDING SERVICES OR ARCHITECTURAL ELEMENTS NOT SPECIFICALLY MENTIONED HEREIN, BUT OBVIOUSLY NECESSARY FOR THE INSTALLATION OF THE NEW EQUIPMENT (SUCH AS, DRAINS, SANITARY VENTS, CONDUITS, JUNCTION BOXES, AND SIMILAR). AT THE CONCLUSION OF THE WORK, ALL BUILDING SERVICES AND ARCHITECTURAL ELEMENTS TEMPORARILY REMOVED SHALL BE REINSTATED AND MADE GOOD TO THEIR ORIGINAL CONDITION.

MAINTAIN FULL OPERATION OF BUILDING SERVICES NOT IN SCOPE. ANY ACCIDENTAL DAMAGE OR SERVICE INTERRUPTION SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE BOARD. PROVIDE ALL NECESSARY SHORING AND TEMPORARY SUPPORTS TO MAINTAIN STRUCTURAL INTEGRITY AND CONTINUITY OF SERVICES DURING DEMOLITION. PROVIDE A MINIMUM OF SEVENTY-TWO (72) HOURS WRITTEN NOTICE FOR REQUIRED SERVICE SHUTDOWNS AND COORDINATE WITH THE BOARD.

REMOVE EXISTING T-BAR CEILING AS REQUIRED TO COMPLETE DEMOLITION WORK. REMOVE AND STORE CEILING TILES, LIGHTING FIXTURES, AND AFFECTED SERVICES, INCLUDING FIRE ALARM DEVICES, AS REQUIRED TO FACILITATE THE WORK. REINSTATE THE CEILING AND ALL REMOVED SERVICES UPON COMPLETION. ANY REMOVED AND REINSTALLED FIRE ALARM DEVICES SHALL BE RE-VERIFIED BY A CERTIFIED TECHNICIAN. REPLACE DAMAGED CEILING TILES AT NO ADDITIONAL COST TO THE BOARD.

REMOVE PORTIONS OF REFRIGERANT PIPING SERVING EVAPORATORS AC-201. RELOCATE WALL-MOUNTED AC EVAPORATOR UNIT AC-201 IN ROOM 201, INCLUDING ALL ACCESSORIES AND ASSOCIATED PIPING. RECLAIM AND DISPOSE OF REFRIGERANT IN ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION REQUIREMENTS. SECURE REMOVED EQUIPMENT BY CAPPING PORTS AND PROTECTING FROM DEBRIS FOR SAFE STORAGE AND TRANSPORT.

REMOVE PORTIONS OF REFRIGERANT PIPING SERVING EVAPORATORS AC-203. RECLAIM AND DISPOSE OF REFRIGERANT IN ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION REQUIREMENTS. SECURE REMOVED EQUIPMENT BY CAPPING PORTS AND PROTECTING FROM DEBRIS FOR SAFE STORAGE AND TRANSPORT.

REMOVE ALL WALL-FIN CONVECTORS AS INDICATED. REPAIR ALL UNUSED FLOOR OPENING TO MATCH EXISTING. REPAIR WALL IN ACCORDANCE TO ARCHITECTURE DRAWINGS.

REMOVE ALL DEMOLISHED MATERIALS FROM SITE AND LEAVE THE AREA CLEAN AND READY FOR SUBSEQUENT WORK.

Revisions				
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Project:
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 ANTONINE-MAILLET**
 615 RIDGEWAY AVE
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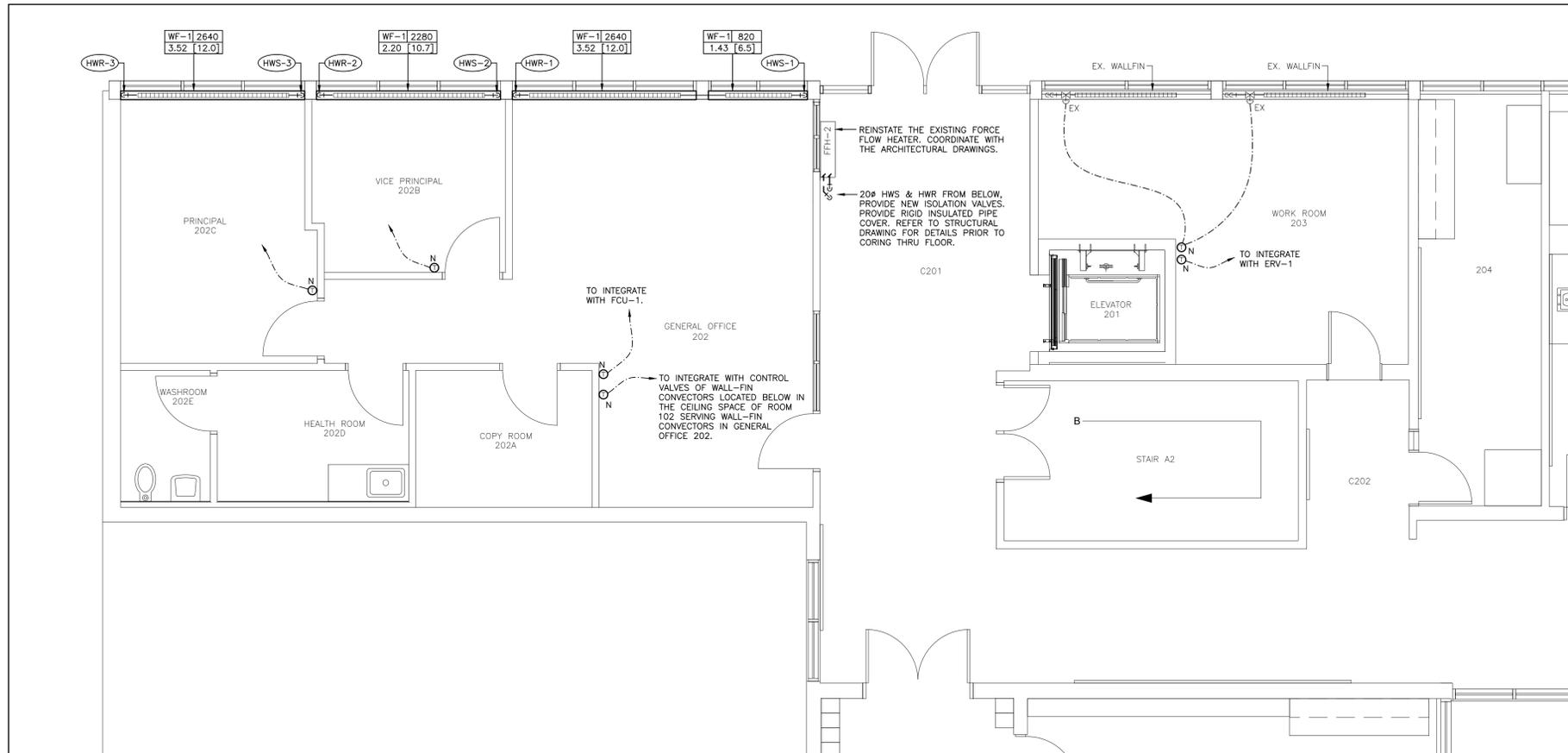
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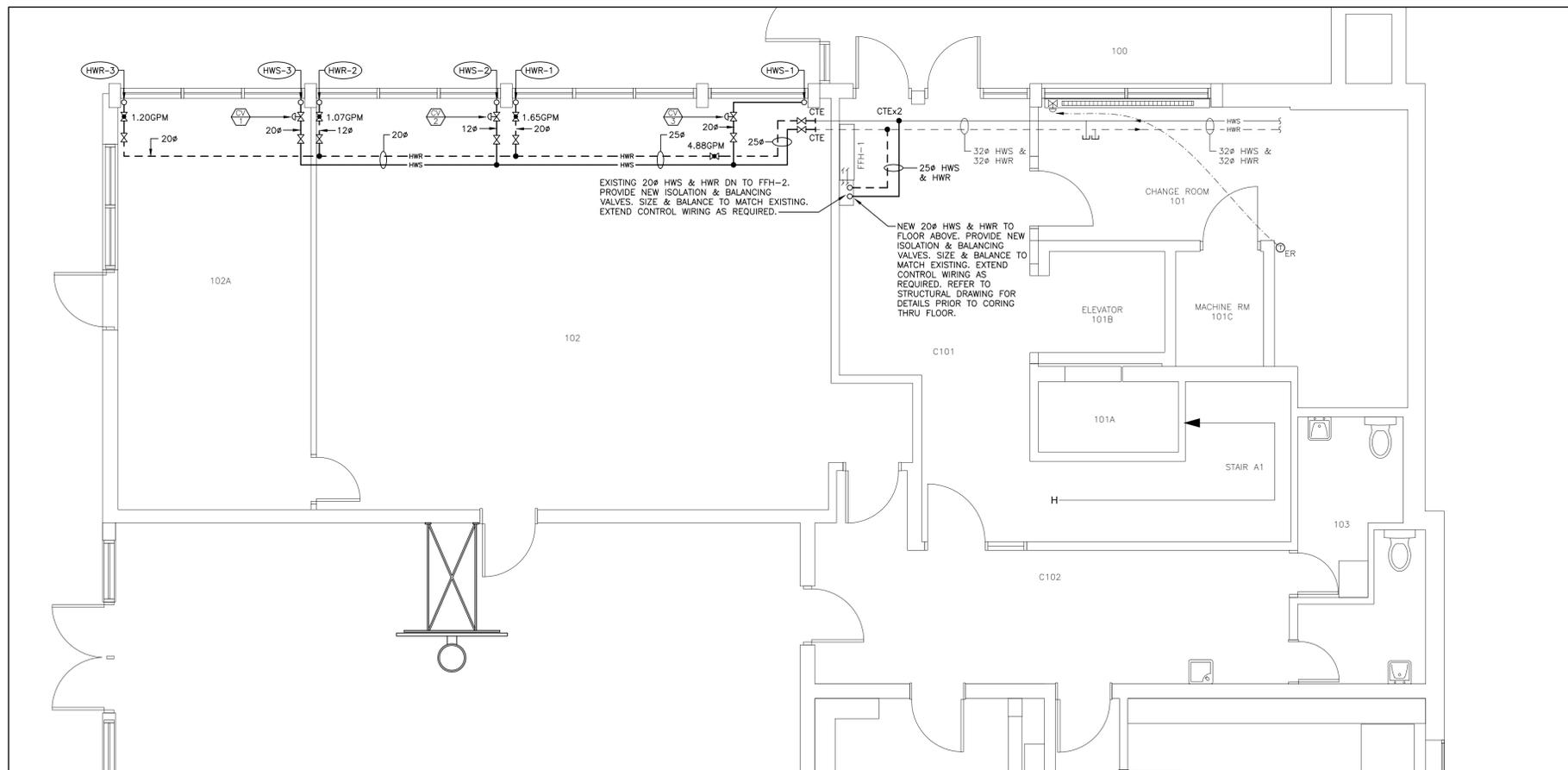
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Title:
**GROUND & SECOND
 FLOOR – HEATING &
 HVAC – EXISTING &
 DEMOLITION WORK**

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: M-4
Set No.:	of:



SECOND FLOOR - HEATING - NEW WORK
SCALE: 1:50



GROUND FLOOR - HEATING - NEW WORK
SCALE: 1:50

NEW WORK NOTES:

DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. COORDINATE NEW PIPING WITH EXISTING SERVICES, EQUIPMENT, AND SITE CONDITIONS. CONNECT TO EXISTING UNDERGROUND SANITARY DRAINS AND DOMESTIC WATER LINES AS SHOWN.

FIELD VERIFY THE EXACT LOCATION, SIZE, ROUTING, AND ELEVATION OF ALL EXISTING SERVICES PRIOR TO INSTALLATION. PIPE SIZES INDICATED WERE BASED ON AVAILABLE SITE INFORMATION; ADJUST AS REQUIRED TO SUIT ACTUAL CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.

SUPPORT ALL NEW PIPING FROM THE BUILDING STRUCTURE WHERE POSSIBLE. PROVIDE AND INSTALL CUSTOM STEEL SUPPORTS AS REQUIRED FOR ALL PIPING AND EQUIPMENT. ANCHOR SUPPORTS TO FLOOR, WALLS, OR STRUCTURAL SLAB. REFER TO STRUCTURAL DRAWINGS FOR DETAILS.

CONTRACTOR SHALL SCAN THE UNDERSIDE OF FLEXICORE PLANKS TO CONFIRM REBAR LOCATIONS PRIOR TO DRILLING FOR NEW FASTENER INSTALLATION TO SUPPORT NEW PIPING. REFER TO STRUCTURAL DRAWINGS FOR DETAILS.

ENSURE ALL ISOLATION VALVES ARE ACCESSIBLE FOR OPERATION AND MAINTENANCE. PROVIDE ISOLATION VALVES FOR ALL NEW WALL-FIN CONVECTOR PIPING AS REQUIRED.

CONTRACTOR SHALL MAINTAIN CONTINUOUS OPERATION OF ALL BUILDING SERVICES NOT AFFECTED BY THIS WORK. ANY DAMAGE OR SERVICE INTERRUPTION SHALL BE REPAIRED IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER.

AT THE CONCLUSION OF THE WORK AND INSTALLATION OF THE NEW WALL-FIN CONVECTORS, DRAIN AND RE-FILL THE HOT WATER LOOPS AND DEAERATE SYSTEM COMPLETELY. FLUSH ALL PIPING AS REQUIRED AND SPECIFIED AND PROVIDE CHEMICAL TREATMENT NECESSARY. PRESSURE TESTING OF THE NEW INSTALLATION IS REQUIRED.

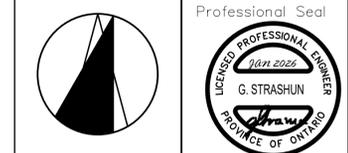
FILL WATER LOOPS AS REQUIRED, PROVIDE AND COMPLETE FLUSHING PRIOR TO FILLING SYSTEM.

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Project:
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 ANTONINE-MAILLET**
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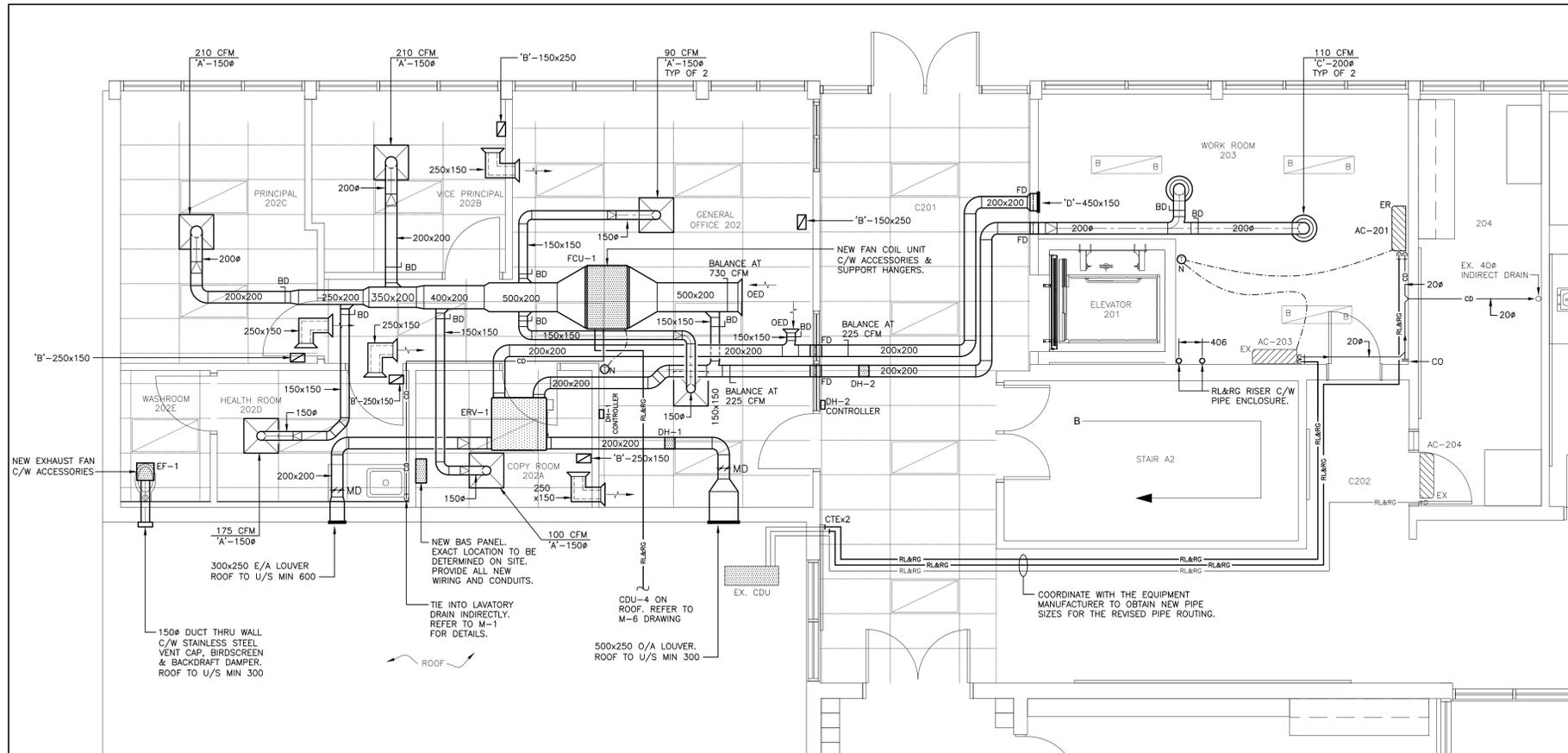
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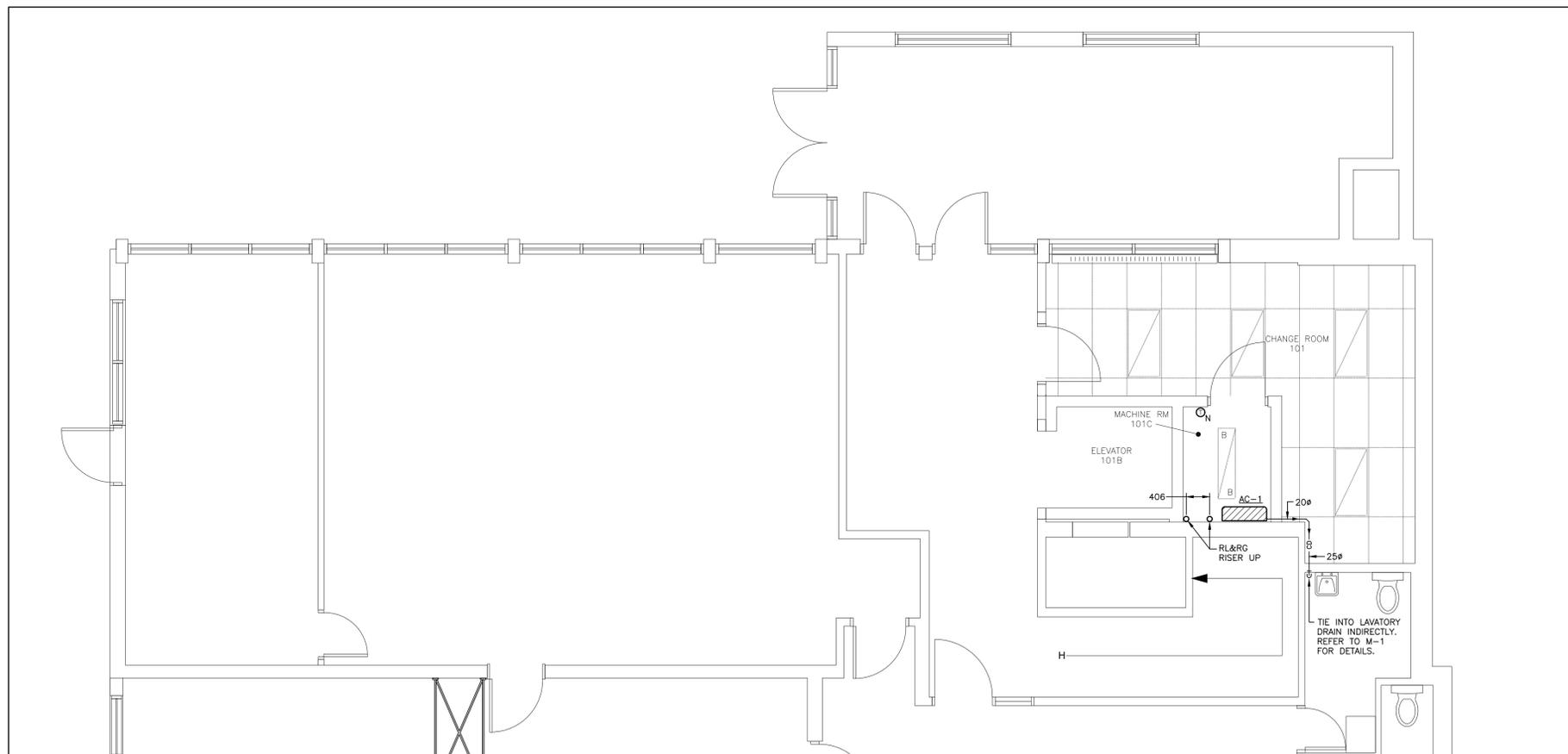
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Title:
**GROUND & SECOND FLOOR
 - HEATING - NEW WORK**

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: M-5
Set No.:	of:



SECOND FLOOR - HVAC - NEW WORK
SCALE: 1:50



GROUND FLOOR - HVAC - NEW WORK
SCALE: 1:50

NEW WORK NOTES:

- THESE NOTES SHALL BE READ IN CONJUNCTION WITH, AND SHALL FORM AN INTEGRAL PART OF THE SPECIFICATIONS.
- THE DRAWINGS DO NOT SHOW ALL STRUCTURAL ELEMENTS AND BUILDING SERVICES. INSTALL THE NEW DUCTWORK SUCH AS TO AVOID INTERFERENCE WITH THE EXISTING BUILDING SERVICES AND OTHER UTILITIES LOCATED IN THE CEILING SPACE. RELOCATE EXISTING SERVICES IF SO REQUIRED TO ACCOMMODATE THE NEW PIPING AND DUCTING EQUIPMENT, AT NO ADDITIONAL COST TO THE BOARD.
- PROVIDE NEW CEILING MOUNTED EXHAUST FAN AS PER THE EQUIPMENT SCHEDULE AND SPECIFICATIONS. CONNECT NEW FAN TO POWER AND INTERLOCK OPERATION WITH THE ROOM'S OCCUPANCY SENSOR AND LIGHTING. REFER TO ELECTRICAL DRAWINGS. PROVIDE NEW SUPPORTS FOR NEW CEILING EXHAUST FAN.
- PROVIDE NEW DUCTWORK FROM NEW FAN TO THE OUTDOORS APPROXIMATELY AS SHOWN. RE-USE EXISTING TRANSFER OPENING FOR NEW EXHAUST DUCT. SEAL EXISTING OPENING AROUND NEW DUCT. EXACT ROUTING OF DUCTWORK IS APPROXIMATE. CONTRACTOR TO MAKE ANY CHANGES AS REQUIRED TO SUIT SITE CONDITIONS. ALLOW FOR ADDITIONAL OFFSETS, TRANSITIONS, AND ELBOWS AS REQUIRED TO COMPLETE THE NEW DUCTWORK INSTALLATION.
- PROVIDE NEW FAN COIL UNIT 'FCU-1', COMPLETE WITH ALL REQUIRED ACCESSORIES AND SUPPORT HANGERS. THE UNIT SHALL BE CONNECTED TO THE NEW DUCTWORK.
- PROVIDE NEW ENERGY RECOVERY UNIT 'ERV-1', COMPLETE WITH ALL REQUIRED ACCESSORIES AND SUPPORT HANGERS. THE UNIT SHALL BE CONNECTED TO THE NEW DUCTWORK.
- PROVIDE NEW ELECTRIC DUCT HEATER UNITS (DH-1), COMPLETE WITH ALL REQUIRED ACCESSORIES. INSTALL THE REMOTE CONTROL PANEL ON AVAILABLE WALL SPACE.
- PROVIDE NEW EXHAUST LOUVER ON THE EXTERIOR WALL AND CONNECT TO NEW DUCTWORK. SEAL EXISTING WALL AROUND NEW LOUVER.
- PROVIDE NEW FRESH AIR (O/A) LOUVER AT THE EXTERIOR WALL AND CONNECT TO NEW DUCTWORK. SEAL EXISTING WALL AROUND NEW LOUVER.
- PROVIDE NEW EXHAUST AIR (E/A) LOUVER AT THE EXTERIOR WALL AND CONNECT TO NEW DUCTWORK. SEAL EXISTING WALL AROUND NEW LOUVER.
- SEAL ALL PIPE PENETRATION THROUGH WALL AND FLOOR. SEAL AND REPAIR ANY UNUSED WALL OR FLOOR OPENING TO MATCH EXISTING.
- SEAL ALL DUCT PENETRATION THROUGH WALL AND FLOOR. SEAL AND REPAIR ANY UNUSED WALL OR FLOOR OPENING TO MATCH EXISTING.
- REPAIR ALL WALLS & FLOOR AFTER WORK COMPLETION AND PAINT TO MATCH EXISTING. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR DETAILS.
- REINSTATE ANY SERVICES THAT HAVE BEEN TEMPORARY REMOVED TO ALLOW FOR THIS INSTALLATION. ALL FIRE ALARM DEVICES THAT HAVE BEEN RE-INSTALLED SHALL BE RE-VERIFIED.

SEPARATE PRICE NO.1:

- THE CONTRACTOR SHALL DESIGN, SUPPLY, AND INSTALL ALL SEISMIC RESTRAINTS AND BRACING FOR NON-STRUCTURAL COMPONENTS IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE ONTARIO BUILDING CODE (2024 EDITION), INCLUDING CLAUSE 4.1.8.18, AND ALL STANDARDS REFERENCED THEREIN.
- SEISMIC RESTRAINTS SHALL BE DESIGNED TO MEET THE SEISMIC DESIGN CRITERIA APPLICABLE TO THE CITY OF OSHAWA.
- SEISMIC BRACING AND LATERAL RESTRAINT DETAILS SHALL BE PROVIDED FOR ALL NEW SUSPENDED AND NON-STRUCTURAL ELEMENTS, INCLUDING BUT NOT LIMITED TO SUPPLY, RETURN, EXHAUST, AND OUTSIDE AIR DUCTWORK; HORIZONTAL AND VERTICAL DUCT RUNS; OFFSETS, RISERS, AND CHANGES IN DIRECTION; EQUIPMENT CONNECTIONS AND FLEXIBLE CONNECTIONS; DUCT-MOUNTED EQUIPMENT AND ACCESSORIES; MECHANICAL PIPING SYSTEMS; T-BAR CEILING SYSTEMS; AND SUSPENDED EQUIPMENT AND COMPONENTS.
- LATERAL SEISMIC RESTRAINT DETAILS FOR NON-STRUCTURAL COMPONENTS AND EQUIPMENT SHALL BE PROVIDED IN STRICT ACCORDANCE WITH CLAUSE 4.1.8.18 OF THE ONTARIO BUILDING CODE (2024).
- THE CONTRACTOR SHALL COORDINATE ALL SEISMIC RESTRAINT REQUIREMENTS WITH THE STRUCTURAL, ARCHITECTURAL, AND MECHANICAL DRAWINGS PRIOR TO FABRICATION AND INSTALLATION. SHOP DRAWINGS AND SEISMIC RESTRAINT DETAILS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL ANCHORS, INSERTS, AND ATTACHMENTS TO THE BUILDING STRUCTURE SHALL BE DESIGNED FOR THE APPLICABLE SEISMIC LOADS AND VERIFIED SUBSTRATE CONDITIONS. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED BRACING MEMBERS, ANCHORS, FASTENERS, SUPPORTS, HARDWARE, AND ACCESSORIES NECESSARY FOR A COMPLETE AND CODE-COMPLIANT INSTALLATION, AND SHALL VERIFY EXISTING CONDITIONS AND STRUCTURAL CAPACITY PRIOR TO INSTALLATION.
- ALL COSTS ASSOCIATED WITH SEISMIC RESTRAINT SYSTEMS, INCLUDING ENGINEERING, SEALED DRAWINGS, MATERIALS, LABOUR, COORDINATION, AND INSPECTION, SHALL BE INCLUDED IN SEPARATE PRICE NO. 1.

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Project:
**ECOLE ELEMENTAIRE
 ANTONINE-MAILLET**
 615 RIDGEWAY AVE
 OSHAWA, ON L1J 2W3



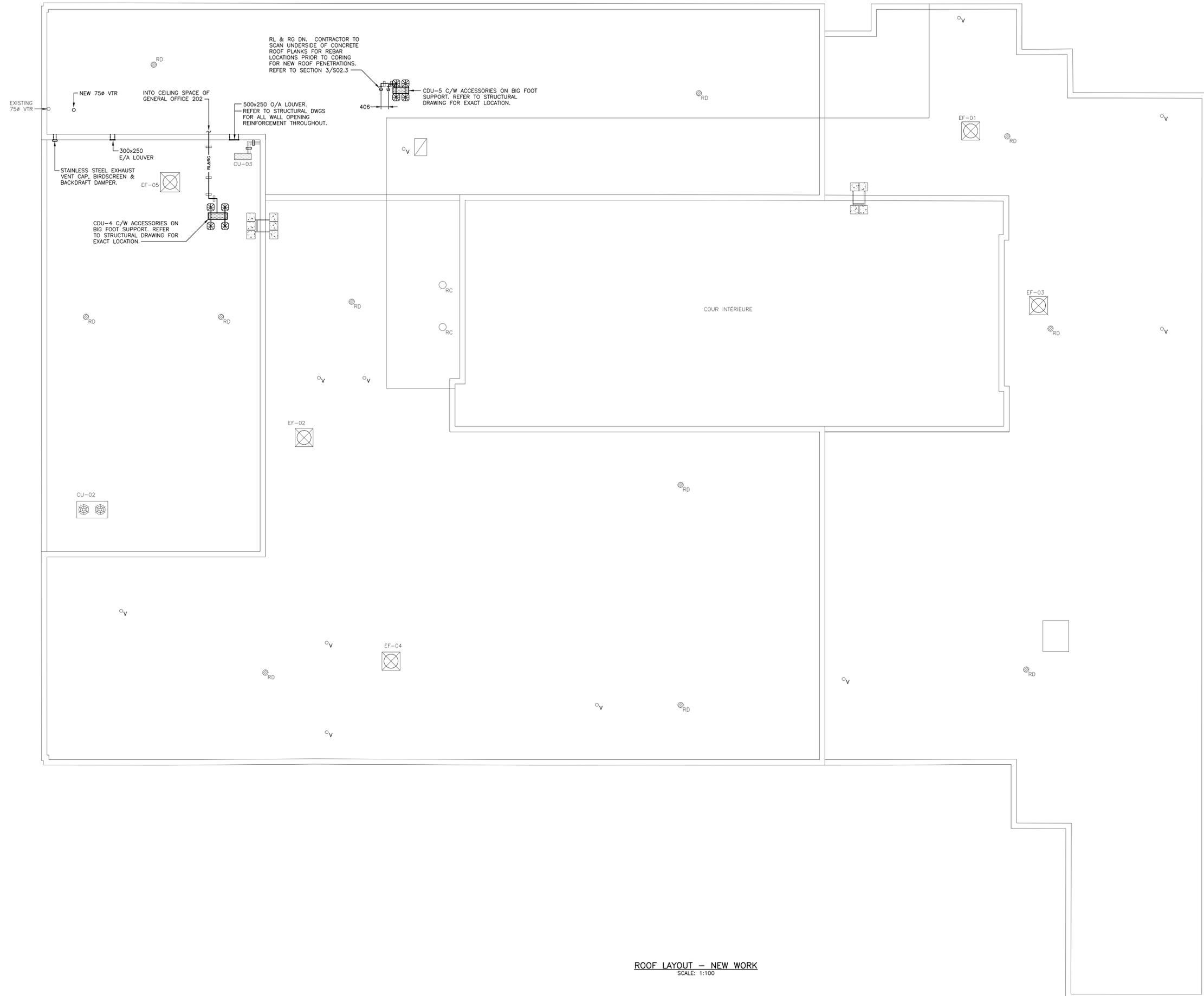
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Title:
**GROUND & SECOND
 FLOOR - HVAC - NEW
 WORK**

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: M-6
Set No.:	of:



ROOF LAYOUT - NEW WORK
SCALE: 1:100

Revisions				
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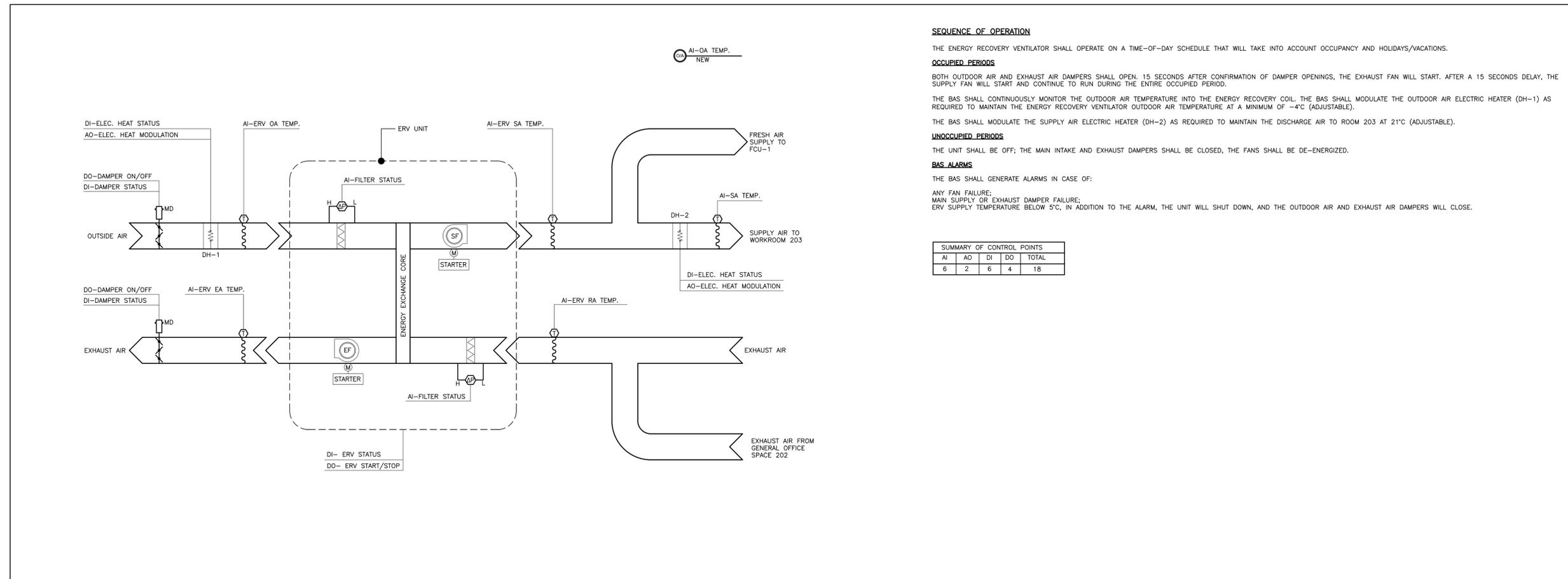
Professional Seal
 LICENSED PROFESSIONAL ENGINEER
 2026
 G. STRASHUN
 PROVINCE OF ONTARIO

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Title:
 ROOF LAYOUT - NEW WORK

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: M-7
Set No.:	of:



ERV-1 - CONTROL DIAGRAM
N.T.S.

SEQUENCE OF OPERATION

THE ENERGY RECOVERY VENTILATOR SHALL OPERATE ON A TIME-OF-DAY SCHEDULE THAT WILL TAKE INTO ACCOUNT OCCUPANCY AND HOLIDAYS/VACATIONS.

OCCUPIED PERIODS

BOTH OUTDOOR AIR AND EXHAUST AIR DAMPERS SHALL OPEN. 15 SECONDS AFTER CONFIRMATION OF DAMPER OPENINGS, THE EXHAUST FAN WILL START. AFTER A 15 SECONDS DELAY, THE SUPPLY FAN WILL START AND CONTINUE TO RUN DURING THE ENTIRE OCCUPIED PERIOD.

THE BAS SHALL CONTINUOUSLY MONITOR THE OUTDOOR AIR TEMPERATURE INTO THE ENERGY RECOVERY COIL. THE BAS SHALL MODULATE THE OUTDOOR AIR ELECTRIC HEATER (DH-1) AS REQUIRED TO MAINTAIN THE ENERGY RECOVERY VENTILATOR OUTDOOR AIR TEMPERATURE AT A MINIMUM OF -4°C (ADJUSTABLE).

THE BAS SHALL MODULATE THE SUPPLY AIR ELECTRIC HEATER (DH-2) AS REQUIRED TO MAINTAIN THE DISCHARGE AIR TO ROOM 203 AT 21°C (ADJUSTABLE).

UNOCCUPIED PERIODS

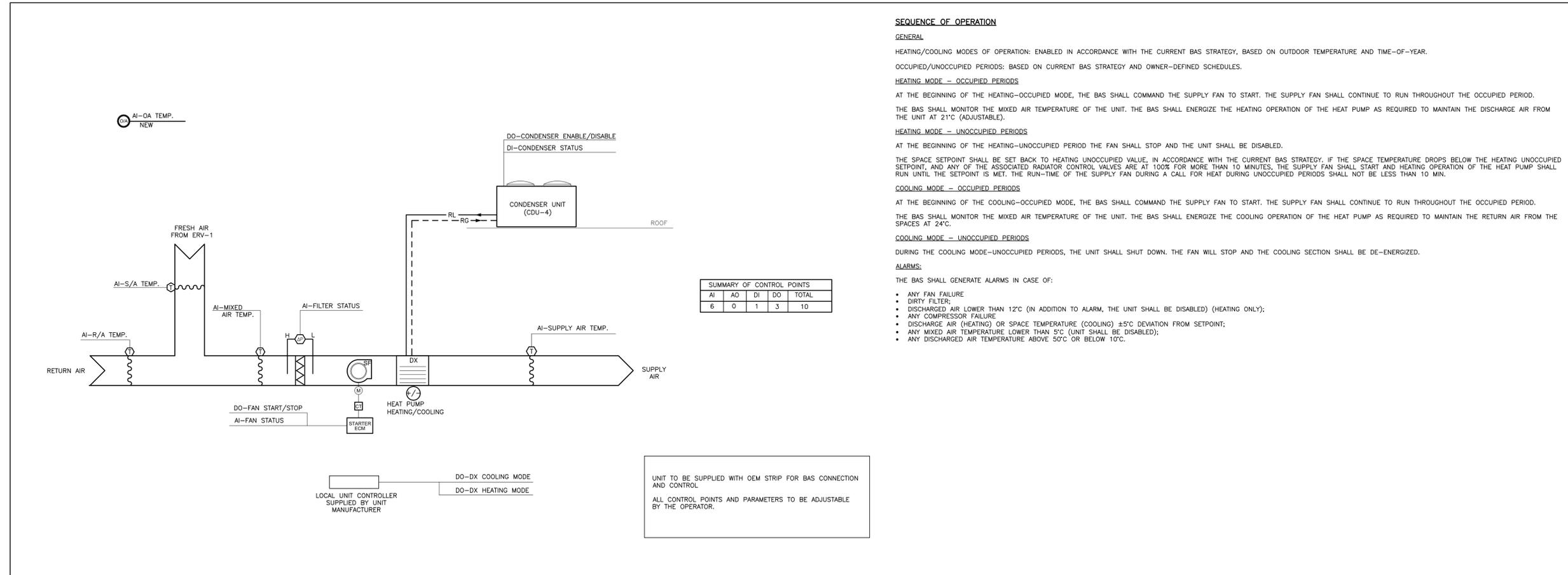
THE UNIT SHALL BE OFF; THE MAIN INTAKE AND EXHAUST DAMPERS SHALL BE CLOSED, THE FANS SHALL BE DE-ENERGIZED.

BAS ALARMS

THE BAS SHALL GENERATE ALARMS IN CASE OF:

- ANY FAN FAILURE;
- MAIN SUPPLY OR EXHAUST DAMPER FAILURE;
- ERV SUPPLY TEMPERATURE BELOW 5°C, IN ADDITION TO THE ALARM, THE UNIT WILL SHUT DOWN, AND THE OUTDOOR AIR AND EXHAUST AIR DAMPERS WILL CLOSE.

SUMMARY OF CONTROL POINTS				
AI	AO	DI	DO	TOTAL
6	2	6	4	18



FCU-1 - CONTROL DIAGRAM
N.T.S.

SEQUENCE OF OPERATION

GENERAL

HEATING/COOLING MODES OF OPERATION: ENABLED IN ACCORDANCE WITH THE CURRENT BAS STRATEGY, BASED ON OUTDOOR TEMPERATURE AND TIME-OF-YEAR.

OCCUPIED/UNOCCUPIED PERIODS: BASED ON CURRENT BAS STRATEGY AND OWNER-DEFINED SCHEDULES.

HEATING MODE - OCCUPIED PERIODS

AT THE BEGINNING OF THE HEATING-OCCUPIED MODE, THE BAS SHALL COMMAND THE SUPPLY FAN TO START. THE SUPPLY FAN SHALL CONTINUE TO RUN THROUGHOUT THE OCCUPIED PERIOD.

THE BAS SHALL MONITOR THE MIXED AIR TEMPERATURE OF THE UNIT. THE BAS SHALL ENERGIZE THE HEATING OPERATION OF THE HEAT PUMP AS REQUIRED TO MAINTAIN THE DISCHARGE AIR FROM THE UNIT AT 21°C (ADJUSTABLE).

HEATING MODE - UNOCCUPIED PERIODS

AT THE BEGINNING OF THE HEATING-UNOCCUPIED PERIOD THE FAN SHALL STOP AND THE UNIT SHALL BE DISABLED.

THE SPACE SETPOINT SHALL BE SET BACK TO HEATING UNOCCUPIED VALUE, IN ACCORDANCE WITH THE CURRENT BAS STRATEGY. IF THE SPACE TEMPERATURE DROPS BELOW THE HEATING UNOCCUPIED SETPOINT, AND ANY OF THE ASSOCIATED RADIATOR CONTROL VALVES ARE AT 100% FOR MORE THAN 10 MINUTES, THE SUPPLY FAN SHALL START AND HEATING OPERATION OF THE HEAT PUMP SHALL RUN UNTIL THE SETPOINT IS MET. THE RUN-TIME OF THE SUPPLY FAN DURING A CALL FOR HEAT DURING UNOCCUPIED PERIODS SHALL NOT BE LESS THAN 10 MIN.

COOLING MODE - OCCUPIED PERIODS

AT THE BEGINNING OF THE COOLING-OCCUPIED MODE, THE BAS SHALL COMMAND THE SUPPLY FAN TO START. THE SUPPLY FAN SHALL CONTINUE TO RUN THROUGHOUT THE OCCUPIED PERIOD.

THE BAS SHALL MONITOR THE MIXED AIR TEMPERATURE OF THE UNIT. THE BAS SHALL ENERGIZE THE COOLING OPERATION OF THE HEAT PUMP AS REQUIRED TO MAINTAIN THE RETURN AIR FROM THE SPACES AT 24°C.

COOLING MODE - UNOCCUPIED PERIODS

DURING THE COOLING MODE-UNOCCUPIED PERIODS, THE UNIT SHALL SHUT DOWN, THE FAN WILL STOP AND THE COOLING SECTION SHALL BE DE-ENERGIZED.

ALARMS:

THE BAS SHALL GENERATE ALARMS IN CASE OF:

- ANY FAN FAILURE
- DIRTY FILTER;
- DISCHARGED AIR LOWER THAN 12°C (IN ADDITION TO ALARM, THE UNIT SHALL BE DISABLED) (HEATING ONLY);
- ANY COMPRESSOR FAILURE
- DISCHARGE AIR (HEATING) OR SPACE TEMPERATURE (COOLING) ±5°C DEVIATION FROM SETPOINT;
- ANY MIXED AIR TEMPERATURE LOWER THAN 5°C (UNIT SHALL BE DISABLED);
- ANY DISCHARGED AIR TEMPERATURE ABOVE 50°C OR BELOW 10°C.

SUMMARY OF CONTROL POINTS				
AI	AO	DI	DO	TOTAL
6	0	1	3	10

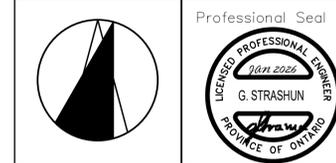
UNIT TO BE SUPPLIED WITH OEM STRIP FOR BAS CONNECTION AND CONTROL.
ALL CONTROL POINTS AND PARAMETERS TO BE ADJUSTABLE BY THE OPERATOR.

Revisions				
Ref.	No.	Description	Date	Initial
△	1	ISSUED FOR COORDINATION	2026/02/04	
△	2	ISSUED FOR COORDINATION	2026/02/19	
△	3	ISSUED FOR COORDINATION	2026/02/27	
△	4	ISSUED FOR TENDER	2026/03/02	

Project:
ECOLE ELEMENTAIRE
ANTONINE-MAILLET
615 RIDGEWAY AVE
OSHAWA, ON L1J 2W3



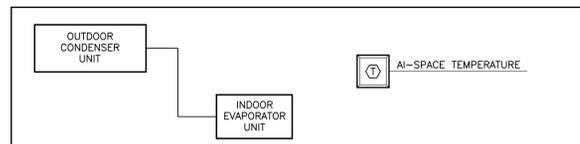
82 Bellagio Crescent
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Consultant:
SAB ENGINEERING Inc.
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Title:
CONTROLS 1 OF 2

Drawn by:	Date: JANUARY 2026
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Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: M-8
Set No.:	of:



SEQUENCE OF OPERATION

SPLIT AIR CONDITIONING SYSTEMS

WHEN THE SYSTEMS ARE ENERGIZED, THE INDOOR EVAPORATOR FANS SHALL RUN AS REQUIRED TO MAINTAIN THE COOLING/OCCUPIED SPACE SETPOINTS (DEFAULT: 25°C). THE OUTDOOR CONDENSING UNITS SHALL MODULATE AS REQUIRED TO REJECT THE HEAT FROM THE EVAPORATOR.

THE INDOOR AC UNITS WILL BE CONTROLLED BY THE THERMOSTAT SUPPLIED BY UNIT MANUFACTURER.

ALARMS

THE BAS SHALL GENERATE ALARMS IN ADDITION TO THOSE INCLUDED IN SECTION 23 09 23 AS FOLLOWS:

- SPACE TEMPERATURE IN ANY CONTROLLED AREA VARIES ±2°C FROM SETPOINT FOR MORE THAN 15 MINUTES.
- ANY SPLIT CONDENSING UNIT FAILURE

CONTROL CONTRACTOR TO CONNECT TO THE SYSTEM VIA BACNET MS/TP IN ORDER TO CONTROL EACH VRF SYSTEM AND PROVIDE MINIMUM REQUIRED POINTS. PROVIDE ALL REQUIRED WIRING AND CONDUITS BETWEEN INDOOR AND OUTDOOR UNITS AND CONTROLLERS. COORDINATE WITH THE VRF SYSTEM MANUFACTURER.

FOR THE INDOOR UNIT PROVIDE AT LEAST:

- ROOM TEMPERATURE SETTING
- ROOM TEMPERATURE RESETING
- ROOM TEMPERATURE
- INDOOR UNIT START/STOP
- OPERATING MODE
- INDOOR UNIT STATUS

FOR THE OUTDOOR UNIT:

- OUTDOOR UNIT START/STOP
- OUTDOOR UNIT STATUS

DIAGRAM SYMBOL LEGEND	DESCRIPTION
—#—#—	POWER WIRE
---#---	CONTROL WIRE
---#---	REF. PIPE / WATER PIPE
---#---	POWER SIGNAL WIRE

THE SYMBOL OF REPLACE JUDGMENT	
SYMBOL	DEFINITION
#1	STANDARD
#2	USABLE (UNIT PERFORMANCE WILL BE AFFECTED.)
#3	USABLE (REFRIGERANT CHARGE WILL BE LIMITED.)
#4	USABLE (PIPING LENGTH WILL BE LIMITED.)
#5	PIPING LENGTH AND VERTICAL SEPARATION WILL BE LIMITED.

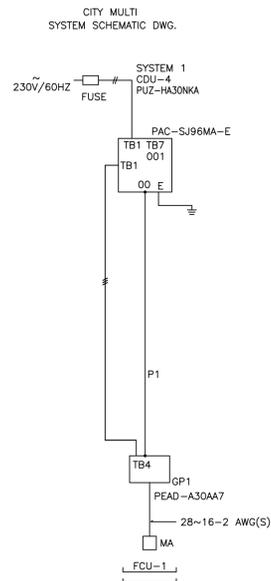
PIPING LIST	
SYMBOL	LIQUID PIPE/GAS PIPE SIZE
P1	3/8" / 5/8"
ADDRESS	ADDITIONAL REFRIGERANT
001	0.0 L.B.

Appropriate Circuit Protection Device in accordance with Local government regulations are mandatory required such as GFI(Inverter type) and WB etc. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.

1.25mm (16 AWG) : 1.25mm² (16 AWG) or more. 1.25mm² (16 AWG) : 1.25mm (16 AWG) or more.

Grounding required between Outdoor Unit and Indoor Unit(s).

Warning: HVRF pipe size is dependent on pipe length, please confirm before implementation.



REMARKS
MITS AIR CONDITIONING -BR
PREPARED ON 2026/02/20

REFRIGERANT PIPING AND CONTROL DIAGRAM FOR SYSTEM CDU-5
N.T.S.

SUMMARY OF CONTROL POINTS				
AI	AO	DI	DO	TOTAL
2	1	0	0	3



SEQUENCE OF OPERATION

THE DEFAULT POSITION OF THE 2-WAY CONTROL VALVE SHALL BE FULLY OPEN.

WHEN THE HEATING PLANT IS ACTIVATED, THE 2-WAY CONTROL VALVE SHALL MODULATE TO MAINTAIN THE INDOOR SETPOINT. OCCUPIED/UNOCCUPIED TEMPERATURE SET POINTS SHALL BE SET IN ACCORDANCE WITH THE BOARD'S ENERGY MANAGEMENT STRATEGY.

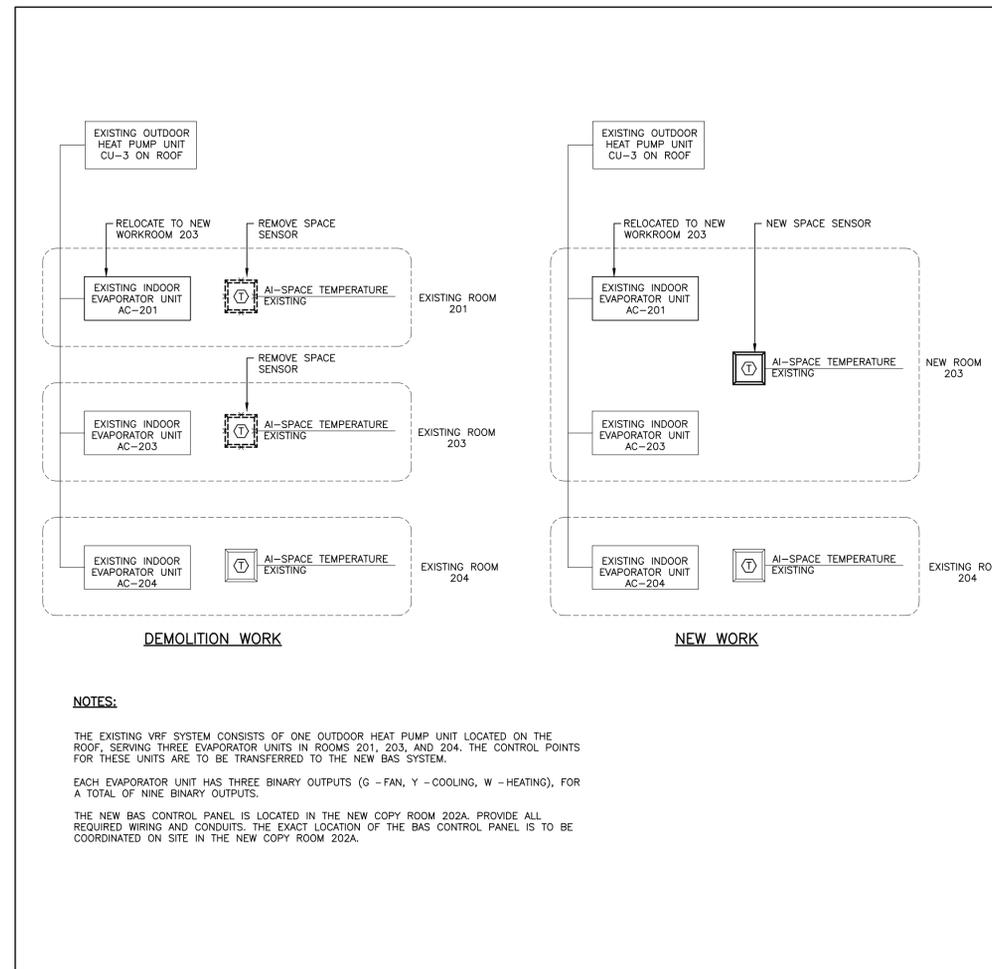
ALARMS:

THE BUILDING AUTOMATION SYSTEM (BAS) SHALL GENERATE AN ALARM IN CASE OF THE INDOOR TEMPERATURE DROPPING BELOW 15°C.

NOTE:

EXACT NUMBER OF CONVECTOR 2-WAY CONTROL VALVES TO BE DETERMINED BASED ON THE LAYOUT DRAWINGS.

TYPICAL PERIMETER CONVECTOR CONTROL DIAGRAM
N.T.S.



NOTES:

THE EXISTING VRF SYSTEM CONSISTS OF ONE OUTDOOR HEAT PUMP UNIT LOCATED ON THE ROOF, SERVING THREE EVAPORATOR UNITS IN ROOMS 201, 203, AND 204. THE CONTROL POINTS FOR THESE UNITS ARE TO BE TRANSFERRED TO THE NEW BAS SYSTEM.

EACH EVAPORATOR UNIT HAS THREE BINARY OUTPUTS (G - FAN, Y - COOLING, W - HEATING), FOR A TOTAL OF NINE BINARY OUTPUTS.

THE NEW BAS CONTROL PANEL IS LOCATED IN THE NEW COPY ROOM 202A. PROVIDE ALL REQUIRED WIRING AND CONDUITS. THE EXACT LOCATION OF THE BAS CONTROL PANEL IS TO BE COORDINATED ON SITE IN THE NEW COPY ROOM 202A.

EXISTING VRF SYSTEM - CU-3 MIGRATION
N.T.S.

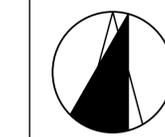
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Project:

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1989-2026
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Title:

CONTROLS 2 OF 2

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Job No.: 25116	Drawing No.: M-9
Set No.:	of:

Revisions				
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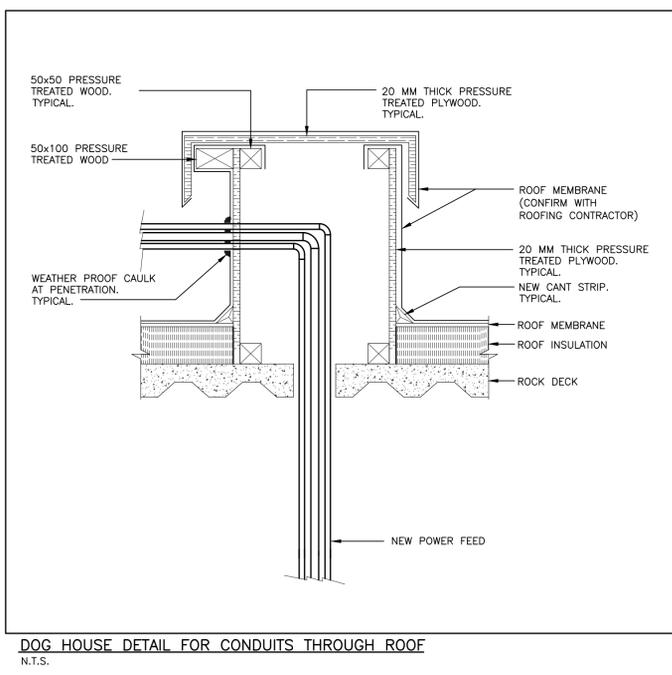
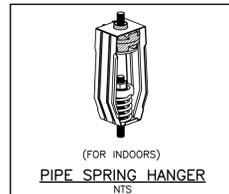
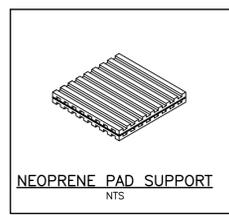
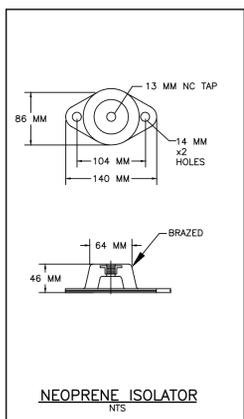
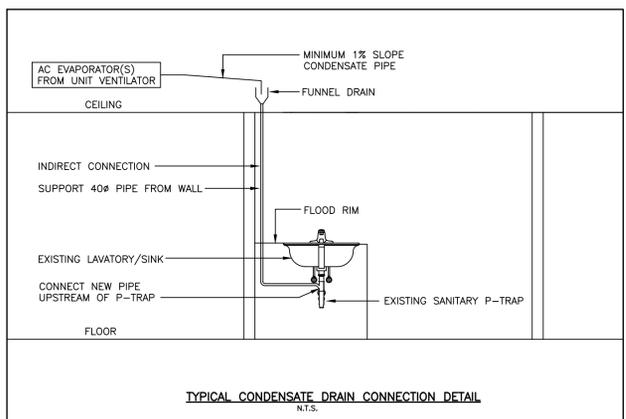
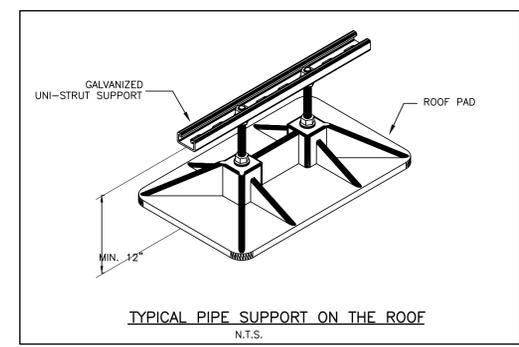
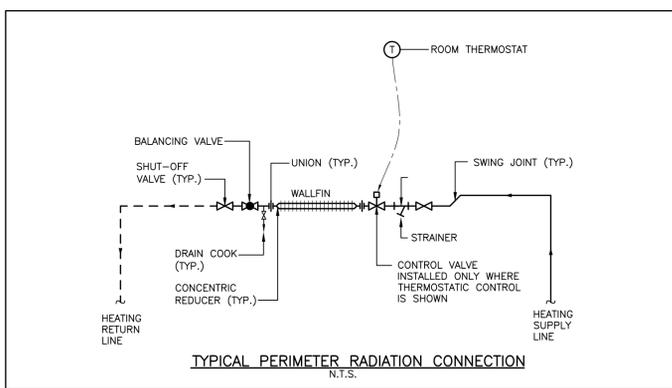
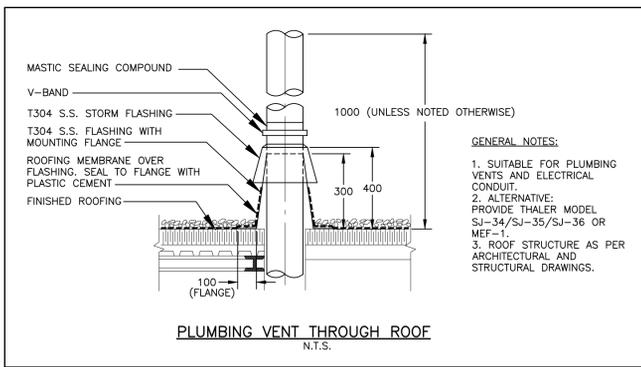
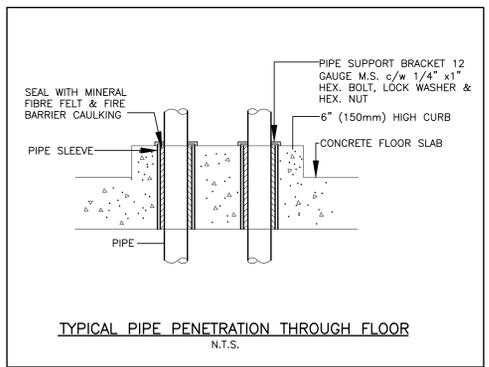
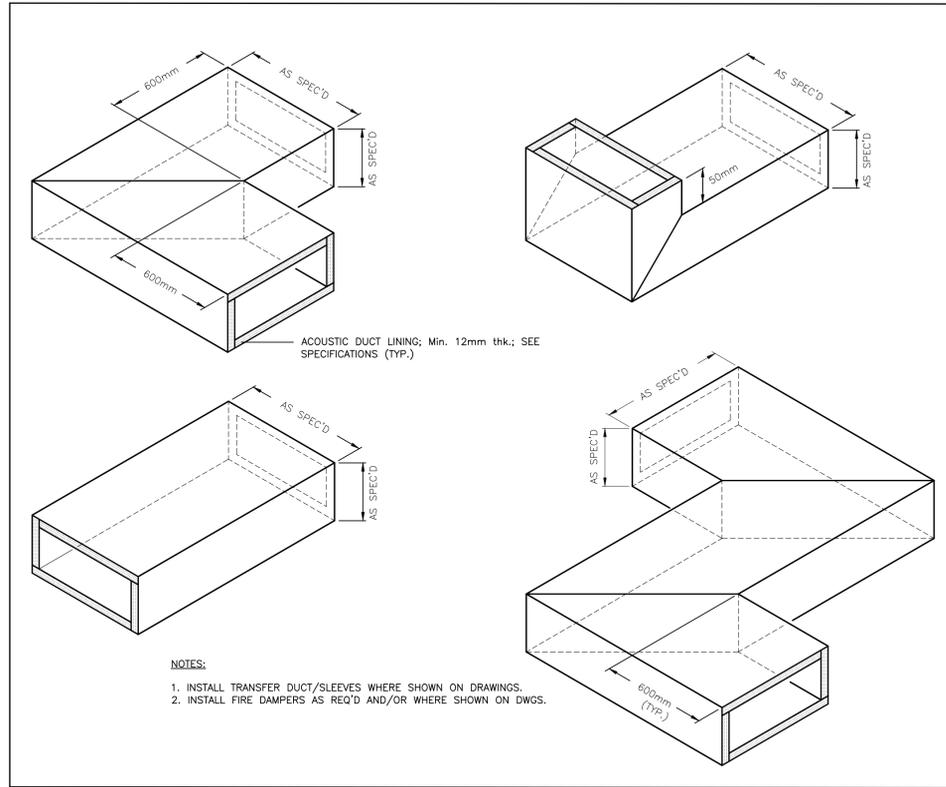
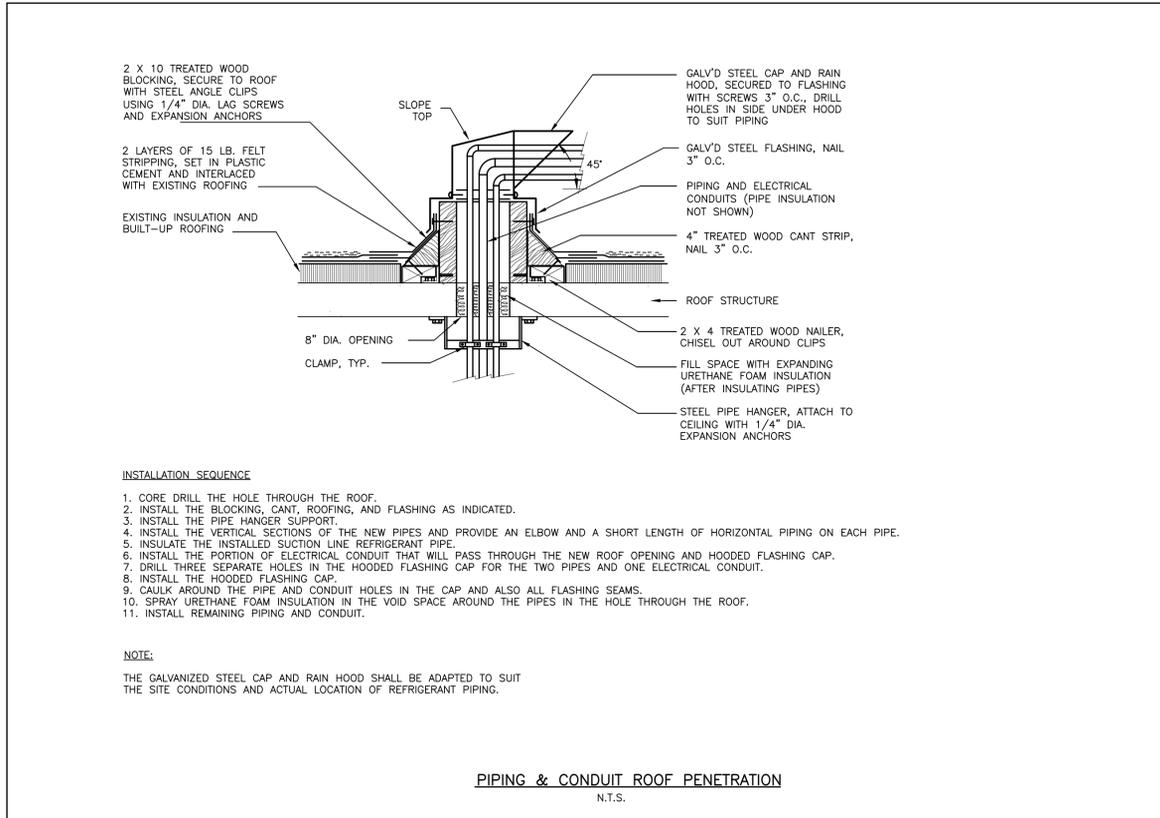
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Title:
DETAILS

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
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Job No.: 25116	Drawing No.: M-10
Set No.:	of:



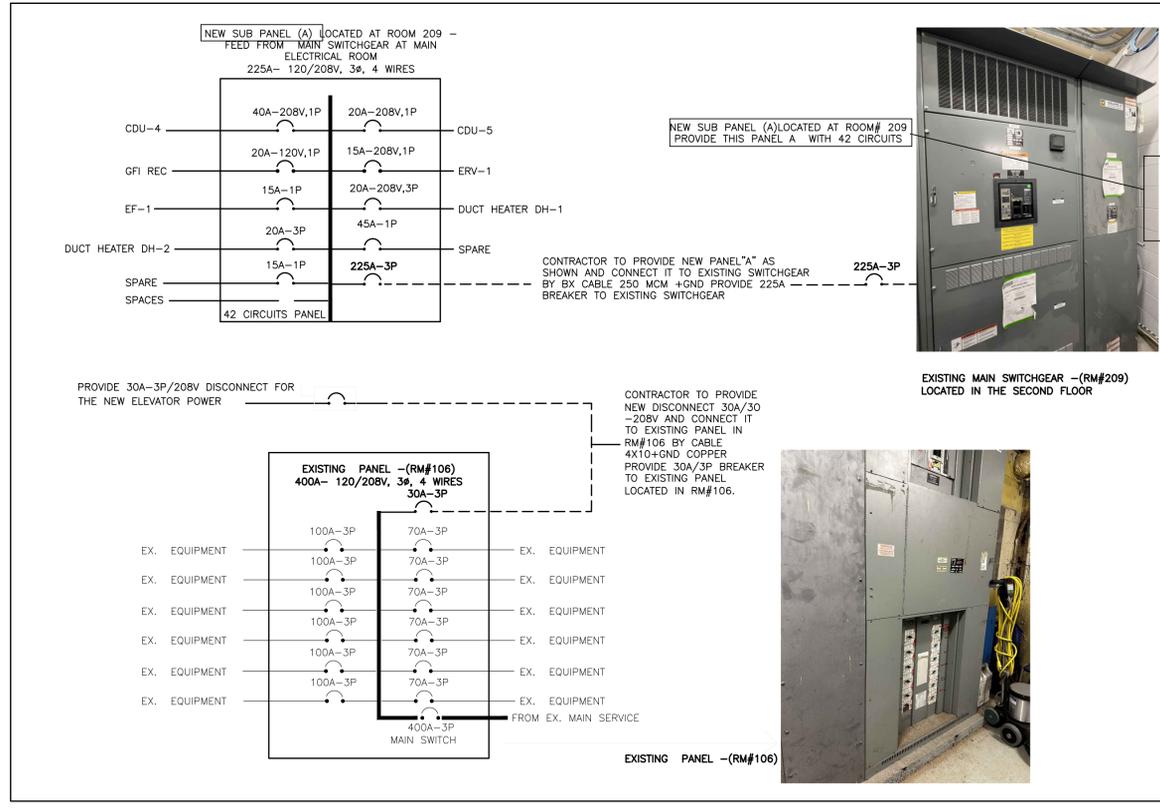
ELECTRICAL LEGEND		
	LED LIGHTING FIXTURE SUSPENDED OR SURFACE MOUNTED LED LIGHTING FIXTURE RECESSED MOUNTED LED LIGHT FIXTURE, CEILING OR WALL MOUNTED RESPECTIVELY. CEILING OR WALL MOUNTED EXIT LIGHTS RESPECTIVELY WITH ARROWS AS SHOWN. LUMACELL, STANPRO OR APPROVED EQUAL FROM EMERGI-LITE & BEGHELLI. CEILING OR WALL MOUNTED EXIT LIGHTS AS SHOWN. EMERGI-LITE, STANPRO OR APPROVED EQUAL. EMERGENCY BATTERY UNIT COMPLETE WITH REMOTE HEAD AS SHOWN. REFER TO SCHEDULE ON DRAWINGS AND SPECIFICATIONS FOR DETAILS. EMERGENCY LIGHTING REMOTE HEAD AS SHOWN. REFER TO SCHEDULE ON DRAWINGS AND SPECIFICATIONS FOR DETAILS. SINGLE POLE TOGGLE SWITCHES WITH ONE, TWO OR THREE GANG RESPECTIVELY. CEILING MOUNTED DUAL TECHNOLOGY (INFRARED AND ULTRASONIC) OCCUPANCY SENSOR C/W POWER PACKS. WATT-STOPPER #DT200 OR APPROVED EQUAL. CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR C/W POWER PACKS WATT-STOPPER #WT1105 OR APPROVED EQUAL. WALL MOUNTED INFRARED OCCUPANCY SENSOR WATT-STOPPER #WI-120 OR APPROVED EQUAL. DAYLIGHT SENSING AND LIGHT CONTROL SENSOR C/W POWER PACKS. WATT-STOPPER #LS102 OR APPROVED EQUAL. 15A, 120V U-GROUND DUPLEX RECEPTACLE. "T"-DENOTES 20A RATED RECEPTACLE WITH T-SLOT. 15A, 120V U-GROUND DUPLEX RECEPTACLE MOUNTED AT HIGH LEVEL OR ABOVE COUNTER. "T"-DENOTES 20A RATED RECEPTACLE WITH T-SLOT. 15A, 120V U-GROUND GROUND FAULT INTERRUPTER TYPE DUPLEX RECEPTACLE 15A, 120V U-GROUND GROUND FAULT INTERRUPTER TYPE DUPLEX RECEPTACLE MOUNTED AT HIGH LEVEL OR ABOVE GRADE. "T"-DENOTES 20A RATED RECEPTACLE WITH T-SLOT. 15A, 120V U-GROUND GROUND FAULT INTERRUPTER TYPE DUPLEX RECEPTACLE 15A, 120V U-GROUND GROUND FAULT INTERRUPTER TYPE DUPLEX RECEPTACLE MOUNTED AT HIGH LEVEL OR ABOVE GRADE. "T"-DENOTES 20A RATED RECEPTACLE WITH T-SLOT. 15A, 120V DUPLEX RECEPTACLE DEDICATED FOR ELECTRONIC EQUIPMENT SUCH AS COMPUTER, FAX MACHINE, COPIER PLUG-IN. PROVIDE DEDICATED NEUTRAL AND GROUND WIRE FOR EACH BRANCH CIRCUIT FEEDING SUCH RECEPTACLES. 20A, 120V, 1PH SINGLE RECEPTACLE (FOR DISHWASHER & COPY MACHINE) 30A, 250V, 3P DRYER RECEPTACLE SURFACE MOUNTED RACEWAY MOUNTED HORIZONTALLY WITH DEVICES AS SHOWN ON THE PLANS AND VERTICAL SECTION UP TO ACCESSIBLE CEILING. WIREMOLD #G4000 SERIES OR APPROVED EQUAL. 120V OUTLET FOR USE AS NOTED INCLUDING FINAL CONNECTION. SAME AS ABOVE, BUT 208V, 1Ø SAME AS ABOVE, BUT 208V, 3Ø ROOM CONTROL PANEL WITH DEVICES AS SHOWN. SUPPLIED & INSTALLED BY ELECTRICAL DIVISION. REFER TO SPECIFICATIONS FOR DETAILS. UNFUSED DISCONNECT SWITCH, SIZE AS NOTED. FUSED DISCONNECT SWITCH, SIZE AS NOTED. COMBINATOR MAGNETIC MOTOR STARTER WITH DISCONNECT SWITCH & OVERCURRENT PROTECTION MUSHROOM STYLE PUSH BUTTON DOOR OPERATOR PUSH BUTTON C/W CONDUIT, WIRING AND INSTALLATION. ELECTRICAL PANEL, SURFACE OR FLUSH RESPECTIVELY. VOICE (TELEPHONE) OUTLET C/W 3/4" WITH 90° BEND AT TOP AND PVC END BUSHING TO ACCESSIBLE CEILING SPACE. DATA OUTLET C/W 3/4" WITH 90° BEND AT TOP AND PVC END BUSHING TO ACCESSIBLE CEILING SPACE. WIRELESS ACCESS POINT WITH DATA OUTLET C/W 3/4" WITH 90° BEND AT TOP AND PVC END BUSHING TO CABLE TRAY IN CORRIDOR CEILING SPACE. PROVIDE CABLING AS PER SPECIFICATIONS. "XD" - WHERE "X" DENOTES NUMBER OF CABLES & JACKS. VOICE/DATA OUTLET C/W 3/4" WITH 90° BEND AT TOP AND PVC END BUSHING TO ACCESSIBLE CEILING SPACE. FIRE ALARM PULL STATION C/W TAMPERPROOF COVER AND LOCAL BATTERY POWERED BUZZER FIRE ALARM HORN COMBINATION FIRE ALARM HORN & STROBE FIRE ALARM STROBE LIGHT. "XCD" - WHERE X DENOTES CANDELA RATING OTHER THAN MINIMUM 15cd. PHOTOELECTRIC SMOKE DETECTOR	DUCT MOUNTED PHOTOELECTRIC SMOKE DETECTOR RATE OF RISE HEAT DETECTOR FIXED TEMPERATURE (135°F OR 190°F) HEAT DETECTOR SPRINKLERS FLOW SWITCH SPRINKLERS SYSTEM VALVE SUPERVISORY SWITCH SPRINKLERS SYSTEM LOW PRESSURE SWITCH SUPERVISORY MAGNETIC HOLD OPEN DEVICE BY DIVISION 16 TO SUIT DOOR. PROVIDE 120V POWER CONNECTION AND FIRE ALARM RELEASE SIGNAL UPON LOCAL SMOKE DETECTOR AND GENERAL FIRE ALARM SIGNAL. IN-HOUSE PHONE HANDSET TIED TO PA SYSTEM PUBLIC ADDRESS SYSTEM SPEAKER PUBLIC ADDRESS SYSTEM HORN TYPE SPEAKER PLUG-IN CLOCK PUBLIC ADDRESS SYSTEM PRIVACY/CALL SWITCH PROGRAM BELL TIED TO EXISTING SYSTEM SECURITY SYSTEM - DOOR CONTACT SECURITY SYSTEM - MOTION SENSOR SECURITY SYSTEM - GLASS BREAKER DETECTOR SECURITY SYSTEM - MOTION SENSOR (OLD STYLE) ELECTRIC STRIKE CARD READER PANIC BUTTON LOCKDOWN BUTTON AV OUTLET FOR PROJECTOR VGA MONITOR OUTLET C/W 41mm CONDUIT TO AV OUTLET FOR PROJECTOR CALL ASSISTIVE SYSTEM - DOME LIGHT. 1 LED LAMP CEILING RECESS MOUNTED FIXTURE, WHITE LENS., 4 WATT, 120V, EDWARDS: 9505-1011 CALL ASSISTIVE SYSTEM - PULL CORD STATION MOUNTED AT 900MMAFF. CALL ASSISTIVE SYSTEM - HORN/STROBE WHITE, MOUNTED HIGH IN GENERAL OFFICE, ACTIVATED BY EACH PULL CORD STATION. ONE FOR EACH WASHROOM. PROVIDE LAMACOID LABELS TO SUIT EXISTING ELECTRICAL EQUIPMENT/DEVICE TO REMAIN. EXISTING ELECTRICAL EQUIPMENT/DEVICE TO BE RELOCATED. EXISTING ELECTRICAL EQUIPMENT/DEVICE IN RELOCATED POSITION. EXISTING ELECTRICAL EQUIPMENT/DEVICE TO BE REMOVED. NEW ELECTRICAL EQUIPMENT/DEVICE DENOTES TAMPERPROOF HAND DRYER GROUND FAULT INTERRUPTER WEATHERPROOF DENOTES DIMMER DENOTES WIREGUARD DENOTES MOTORISED DAMPER POWER CONNECTION CIRCUIT NUMBER DENOTES LOAD FED DIRECTLY FROM BREAKER #1 IN PANEL '1A'. CIRCUIT NUMBER DENOTES LOAD FED FROM BREAKER #1 IN PANEL '1A' AND CONTROLLED BY SWITCH #1. DASHED LINE INDICATES EXISTING EQUIPMENT/DEVICE TO BE REMOVED UNLESS NOTED OTHERWISE.

ELECTRICAL LEGEND	
ABBREVIATION	
E	EXISTING TO REMAIN
R	EXISTING TO BE DEMOLISHED/REMOVED
N	NEW MATERIAL/EQUIPMENT/SERVICES
REL	MATERIAL/EQUIPMENT/SERVICES TO BE RELOCATED.
ER	EXISTING IN RELOCATED POSITION
WP	WEATHER PROOF
NIC	NOT IN CONTRACT

GENERAL NOTES

- IT IS MANDATORY FOR THE ELECTRICAL CONTRACTOR TO VISIT SITE AND REVIEW EXISTING CONDITIONS AND DEMOLITION SCOPE OF WORK TO SUIT EXISTING ARCHITECTURAL AND STRUCTURAL CONDITIONS AND MECHANICAL DRAWINGS.
- CAREFULLY EXAMINE OTHER EXISTING UTILITY LINES SUCH AS GAS, WATER ETC. PRIOR TO START THE ELECTRICAL CONSTRUCTION WORKS AND COORDINATE WITH OTHER TRADES AND REPORT OF ANY DISCREPANCY PRIOR TO PROCEEDING.
- REFER TO ALL DRAWINGS FOR EXISTING, DEMOLISH, AND NEW WORK, ALSO PROVIDE ALL LIGHT OR POWER CIRCUITS AS REQUIRED WIRING, CONDUITS AND ALL ACCESSORIES TO CONNECT NEW LIGHT AND EQUIPMENT.
- LOCATIONS OF ALL NEW ELECTRICAL EQUIPMENT SHALL BE CONFIRMED WITH ENGINEER AND CLIENT ON SITE PRIOR TO INSTALLATION.

NEW LIGHTING SCHEDULE		LAMP				MOUNTING				ACCEPTABLE MANUFACTURER
SYMBOL	PRODUCT DESCRIPTION	VOLTAGE	QUANTITY	WATTAGE	TYPE	RECESSED	SURFACE	SUSPENDED	WALL	
	2'x4' LED RECESSED PANEL LIGHT FIXTURE LED MODEL#COLUMBIA- CBT24 -LSCS 4000K, 6000LM	120V		40	LED	X	-	-	-	COLOMBIA LIGHTING.
	1'x4' LED RLB LIGHT FIXTURE LED MODEL#COLUMBIA- RLB4-40LV-FAM-EDU, 4000K, 6000LM	120V		30	LED	-	X	-	-	COLOMBIA LIGHTING.
	LED WALL MOUNTED PANEL LIGHT FIXTURE LED FOR ELEVATOR PIT MODEL# LXM-42-LW-RFA-EDU	120V		30	LED	-	-	-	X	COLOMBIA LIGHTING.

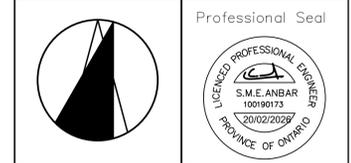


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Project:
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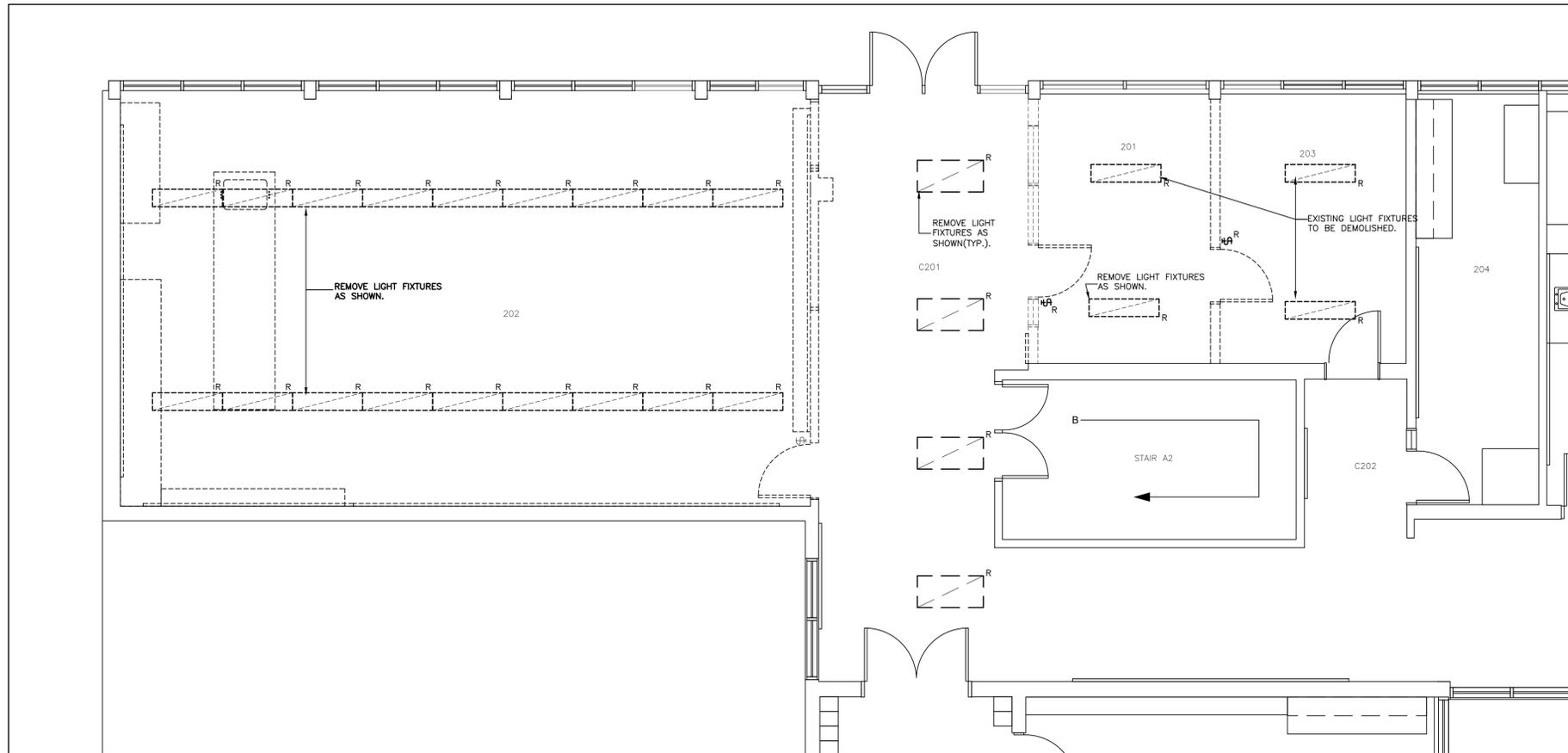
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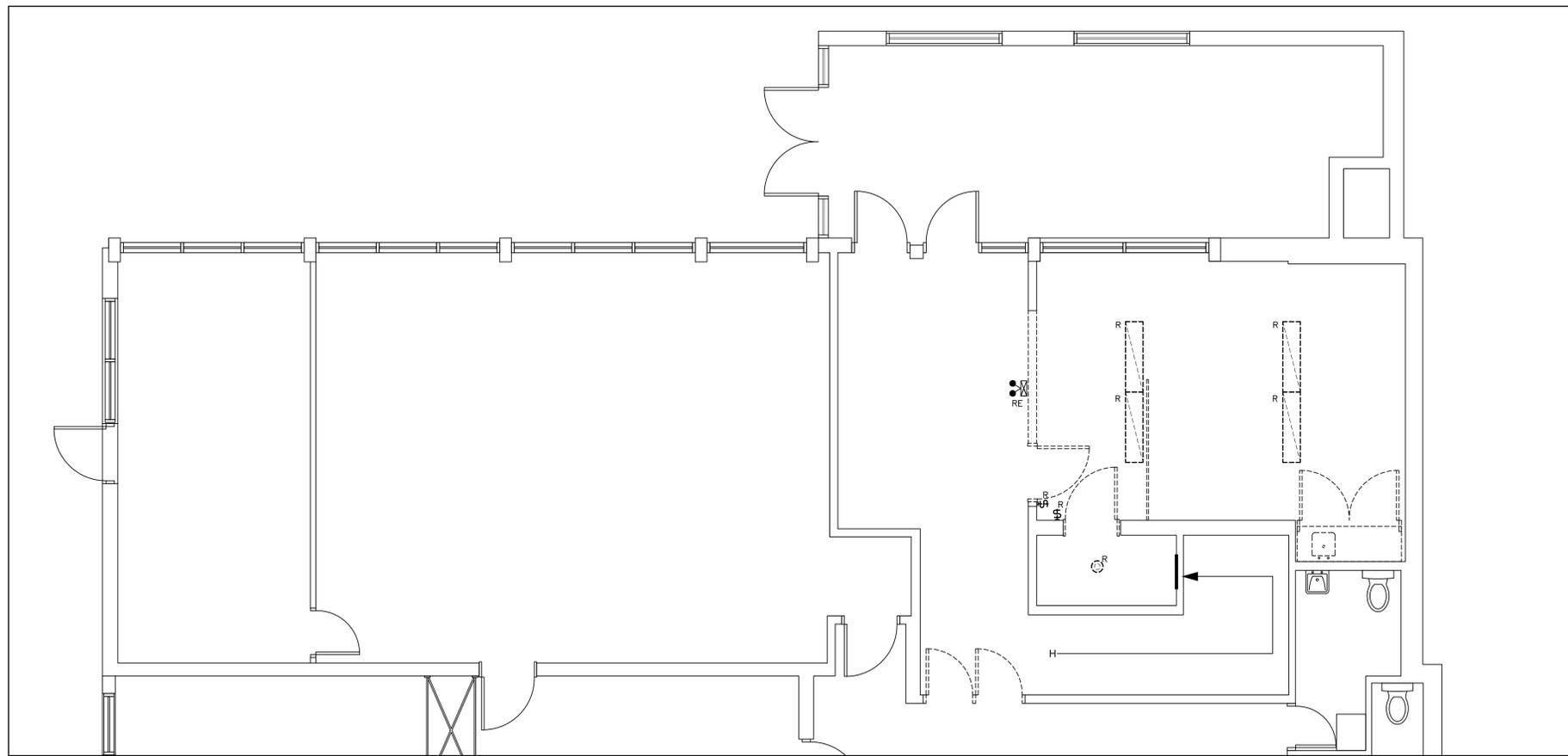
Title:
 KEY PLAN, ELECTRICAL LEGEND AND LIGHT SCHEDULE.

Drawn by:	Date: JANUARY 2026
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Set No.:	of:



SECOND FLOOR - LIGHTING - EXISTING & DEMOLITION WORK
SCALE: 1:50

NOTES:
CONTRACTOR TO ALLOW FOR REMOVING THE CEILING AND ASSOCIATED DEVICES AS REQUIRED TO INSTALL THE NEW CONDUITS AND WIRING FOR THE NEW EQUIPMENT. REINSTATE THE CEILING AND ALL ASSOCIATED DEVICES AT THE COMPLETION OF THE WORK.



GROUND FLOOR - LIGHTING - EXISTING & DEMOLITION WORK
SCALE: 1:50

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Title:
GROUND AND SECOND FLOORS
LIGHTING EXISTING AND
DEMOLITION PLAN

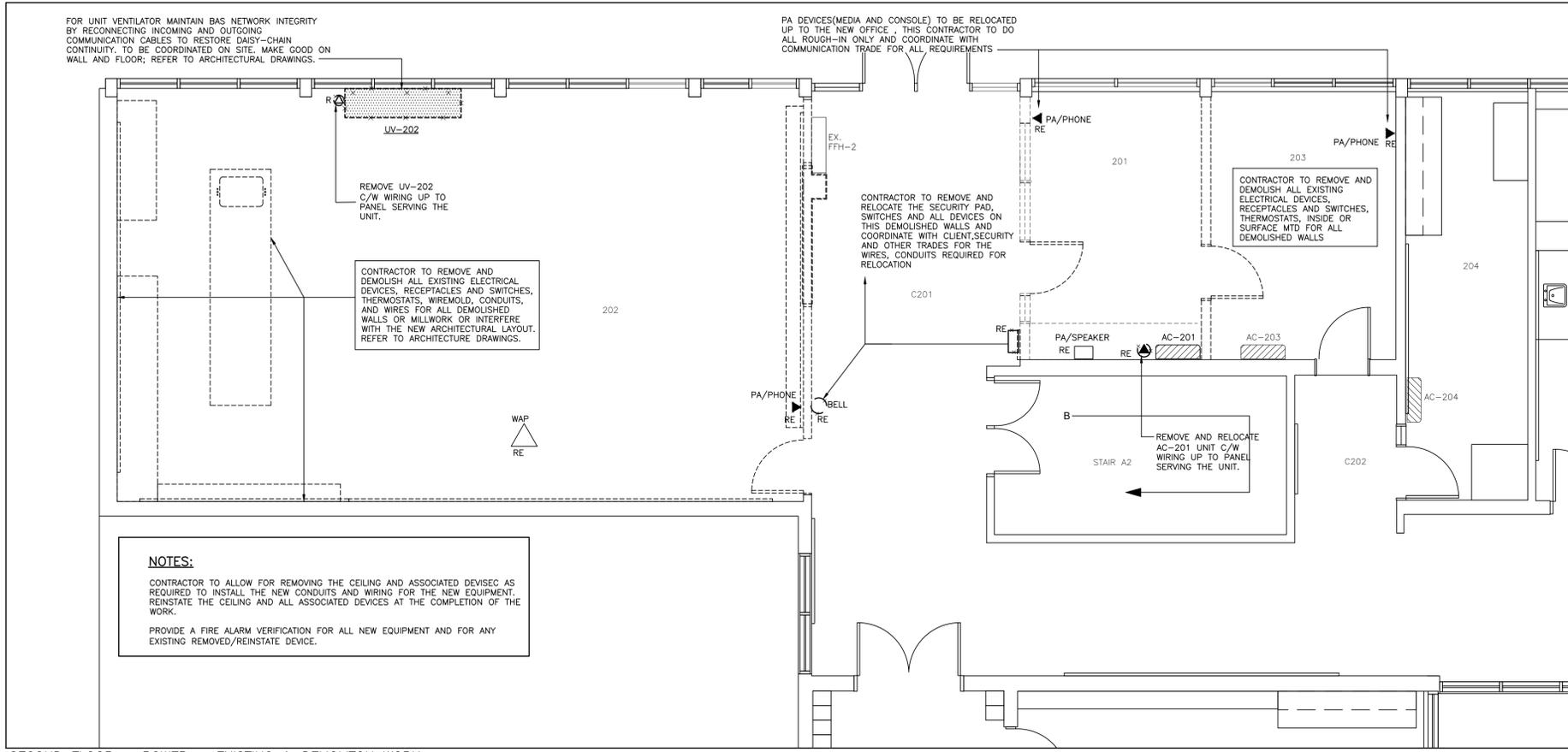
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JANUARY 2026

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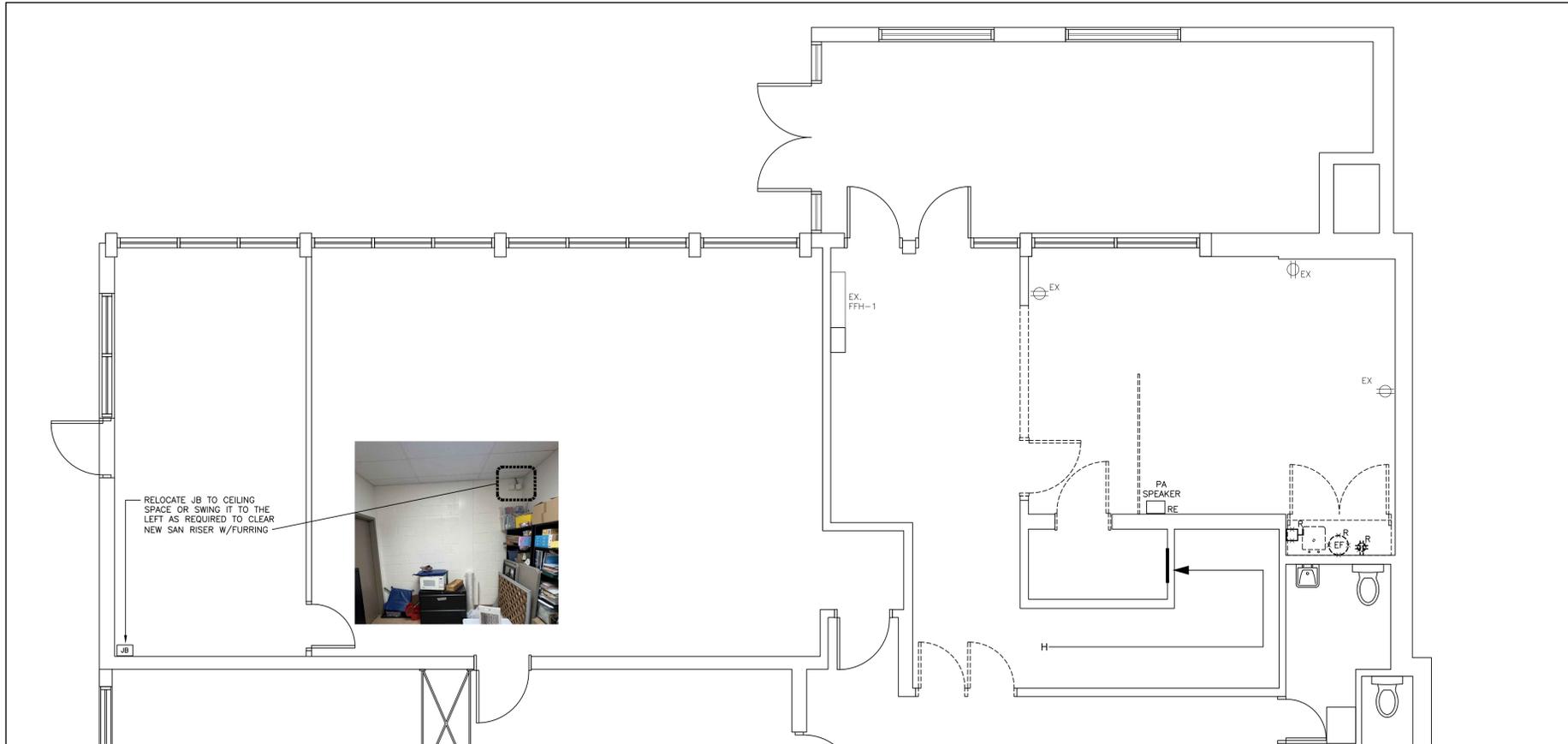
Scale:
AS SHOWN **Issued:**

Job No.: 25116 **Drawing No.:**

Set No.: _____ **E-1**



SECOND FLOOR - POWER - EXISTING & DEMOLITION WORK
SCALE: 1:50



GROUND FLOOR - POWER - EXISTING & DEMOLITION WORK
SCALE: 1:50

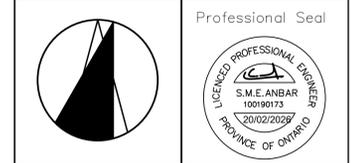
- EXISTING AND DEMOLITION GENERAL NOTES**
- IT IS MANDATORY FOR THE ELECTRICAL CONTRACTOR (AND ALL SUB-CONTRACTORS) TO VISIT THE SITE PRIOR TO BIDDING AND REVIEW EXISTING CONDITIONS AND DEMOLITION SCOPE OF WORK TO SUIT EXISTING ARCHITECTURAL, STRUCTURAL AND MECHANICAL SITE CONDITIONS, DRAWINGS, SPECIFICATIONS AND ALL CONTRACT DOCUMENTS. NO EXTRA WILL SUBSEQUENTLY BE ALLOWED TO COVER ANY SUCH ERROR, OMISSION AND/OR OVERSIGHT FOR NOT HAVING MADE A THOROUGH INSPECTION OF THE GROUNDS, EXISTING CONDITIONS, DRAWINGS, SPECIFICATION AND DESIGN INTENT. THE ELECTRICAL CONTRACTOR SHALL NOTE THAT THE EXISTING BUILDING WILL REMAIN IN OPERATION THROUGHOUT DEMOLITION/CONSTRUCTION. ALLOW FOR ANY WORK REQUIRED TO BE DONE WHICH MAY AFFECT POWER SUPPLY AND OPERATION OF THE BUILDING TO BE CARRIED OUT AFTER HOURS OR AT A TIME CONVENIENT TO THE BUILDING MANAGEMENT. PROVIDE TEMPORARY SERVICES AS REQUIRED TO ENSURE CONTINUED OPERATION AT ALL TIMES.
 - CAREFULLY EXAMINE OTHER EXISTING UTILITY LINES SUCH AS GAS, WATER ETC. PRIOR TO START THE ELECTRICAL CONSTRUCTION WORKS AND COORDINATE WITH OTHER TRADES AND REPORT OF ANY DISCREPANCY PRIOR TO PROCEEDING.
 - THESE DRAWINGS SHALL BE READ AND PRICED IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DRAWINGS AND SPECIFICATIONS AS WELL AS ALL OTHER DOCUMENTS FORMING THIS BID. INCLUDE FOR THE SUPPLY AND INSTALLATION OF POWER, SYSTEMS, AND LIGHTING AS PER THE COMPLETE CONSTRUCTION DOCUMENTS. NO EXTRA COST WILL BE ACCEPTED IN FAILURE TO OBTAINING AND/OR REVIEW OF SUCH DOCUMENTS. REFER TO ARCHITECTURAL, ELECTRICAL, STRUCTURAL AND MECHANICAL LAYOUTS IN CONJUNCTION FOR EXACT LOCATION OF ALL EQUIPMENT. REPORT ANY DISCREPANCIES TO THE ELECTRICAL ENGINEER PRIOR TO COMMENCING WORK. NO EXTRA WILL BE PROVIDED AS A RESULT OF A FAILURE TO DO SO.
 - IT IS MANDATORY THAT ELECTRICAL WORK CONFORM TO ALL APPLICABLE CODES (INCLUDING THE ONTARIO BUILDING, FIRE, AND ONTARIO ELECTRICAL SAFETY CODE), BASE BUILDING (BOARD) STANDARDS, AND THE STANDARDS SET BY ANY AND ALL LOCAL AUTHORITIES HAVING JURISDICTION.
 - LOCATIONS OF ALL NEW DISCONNECT SWITCHES AND STARTERS SHALL BE CONFIRMED WITH DIVISION 23 PRIOR TO INSTALLATION. STARTERS FOR EXHAUST FANS SHALL BE SUPPLIED AND INSTALLED BY DIV. 26.
 - ALL ELECTRICAL WORK SHALL BE INSPECTED BY THE ELECTRICAL SAFETY AUTHORITY (ESA). ARRANGE AND PAY FOR ALL INSPECTIONS REQUIRED FOR THE DURATION OF THE PROJECT.
 - THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR HIRING A FIRE WATCH AS REQUIRED BY CODE, LOCAL AUTHORITIES HAVING JURISDICTION, AND DURING ANY ALTERATION OR DOWNTIME OF THE FIRE ALARM SYSTEM. FIRE WATCH SHALL BE PRESENT THROUGHOUT THE DOWNTIME DURATION.
 - DURING CONSTRUCTION, IT IS CRITICAL THAT THE ELECTRICAL CONTRACTOR COORDINATES ITS WORK WITH ALL OTHER TRADES. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE SCOPE OF WORK OF OTHER TRADES (INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL, MECHANICAL, STRUCTURAL, MILLWORK, ETC.) IN CONJUNCTION WITH THE PROPOSED ELECTRICAL SCOPE OF WORK. THE ELECTRICAL CONTRACTOR SHALL ESPECIALLY REVIEW MECHANICAL CONVECTOR AND NEW MILLWORK LOCATIONS AND IDENTIFY ANY POSSIBLE INTERFERENCES WITH THE PROPOSED ELECTRICAL WORK PRIOR TO ROUGH-IN (I.E. RECEPTACLE LOCATIONS SHALL BE SHIFTED FROM THE PROPOSED LOCATION TO ANOTHER LOCATION SHOULD THE CONTRACTOR FIND OUT DURING COORDINATION THAT MECHANICAL CONVECTORS ARE BEING INSTALLED IN A CERTAIN LOCATION. SIMILARLY, RECEPTACLE HEIGHTS SHALL BE ADJUSTED IN THE EVENT THAT NEW, PROPOSED MILLWORK MIGHT BLOCK PROPOSED RECEPTACLES. NO EXTRA WILL BE PERMITTED OF AN ERROR RELATED TO A LACK OF COORDINATION ON SITE.
 - THE ELECTRICAL CONTRACTOR SHALL LABEL ALL NEW AND EXISTING LIGHT SWITCHES, RECEPTACLES AND JUNCTION BOXES COVERPLATES WITH THE PANEL NAME AND BREAKER IT IS FED FROM. ALL LABELING OF ELECTRICAL DEVICES SHALL BE DONE SO WITH A LABELMAKER ONLY. NO HAND WRITTEN LABELS WILL BE PERMITTED.
 - WHERE NEW PARTITIONS ARE BEING CONSTRUCTED, ALL WIRING AND RACEWAYS SHALL BE EMBEDDED IN THE CONSTRUCTION OF THE NEW WALLS AND ALL BACKBOXES SHALL BE RECESSED. WHERE NEW DEVICES/SYSTEMS ARE PROPOSED ON EXISTING BLOCK WALLS, UTILIZE WIREMOLD 500/700 SERIES AS RACEWAY FOR ALL NEW WIRING. PROVIDE WIREMOLD BACKBOXES FOR SURFACE MOUNTED, INTERIOR APPLICATIONS. THE USE OF SHEET METAL BOXES WILL NOT BE PERMITTED.
 - IN THE EVENT OF ANY DISCREPANCY BETWEEN THE ELECTRICAL DRAWINGS AND SPECIFICATIONS, ALLOW FOR THE HIGHEST-PRICED OPTION IN THE TENDER PRICE.
 - ALL WIRING USED ON THIS PROJECT SHALL BE RUN IN RACEWAYS. NO USE OF ARMoured (BX) CABLE WILL BE PERMITTED WITH THE EXCEPTION OF RUNS NOT TO EXCEED 5' BETWEEN A LIGHT FIXTURE AND THE RESPECTIVE JUNCTION BOX.
 - ALL WORK DONE BY DIVISION 26 OR BY A SUBCONTRACTOR OF DIVISION 26 SHALL BE FIRESTOPPED BY A SPECIALIST HIRED BY DIVISION 26, THE COSTS OF WHOM SHALL BE INCLUDED FOR IN THE TENDER PRICE. PROVIDE A LETTER, IF REQUESTED, CERTIFYING ACCEPTANCE OF ALL FIRESTOPPING BY A PROFESSIONAL AUTHORIZED TO REVIEW THE FIRESTOPPING WORK.
 - NEW WORK SHALL NOT COMMENCE PRIOR TO COMPLETION OF DEMOLITION BY ALL TRADES. THE INSTALLATION OF NEW SYSTEMS (INCLUDING CONDUIT) SHALL TAKE PLACE IN STRICT COORDINATION WITH OTHER DISCIPLINES TO AVOID CONFLICTS. ANY WORK REQUIRING REMOVAL AND REINSTATEMENT SHALL BE DONE AT NO COST TO THE OWNER WHEN SUCH CHANGES ARE REQUIRED AS A RESULT OF SITE COORDINATION ISSUES.

Ref.	No.	Description	Date	Initial
△	1	ISSUED FOR COORDINATION	2026/02/04	
△	2	ISSUED FOR COORDINATION	2026/02/19	
△	3	ISSUED FOR COORDINATION	2026/02/27	
△	4	ISSUED FOR TENDER	2026/03/02	

Project:
**ECOLE ELEMENTAIRE
 ANTONINE-MAILLET
 615 RIDGEWAY AVE
 OSHAWA, ON L1J 2W3**



82 Bellagio Crescent
 Vaughan, Ontario, Canada L4K 5K7
 Tel:(905)303-6606 Fax:(905)303-6636



Consultant:
SAB ENGINEERING Inc.
 988 EDWARD AVE., UNIT 25, RICHMOND HILL, ONT., L4C 9Y6
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Title:
**SECOND FLOOR EQUIPMENT
 POWER EXISTING AND DEMOLITION
 PLAN**

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: E-2
Set No.:	of:

NXRCFX SERIES
FX ROOM CONTROLLER

DATE: _____ LOCATION: _____
TYPE: _____ PROJECT: _____
CATALOG #: _____

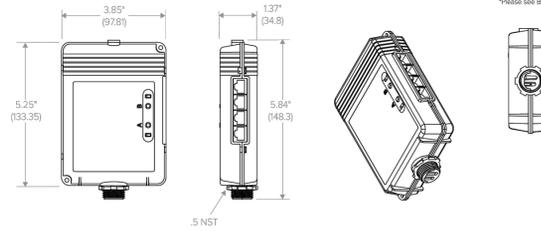
ORDERING GUIDE

CATALOG # _____ Example: NXRCFX2-1RD-UNV

NXRCFX2-2RD	UNV	BAA/TAA
Model	Voltage	Standard Product
NXRCFX2-1RD	UNV	120/277/347VAC
NXRCFX2-2RD	UNV	120/277/347VAC

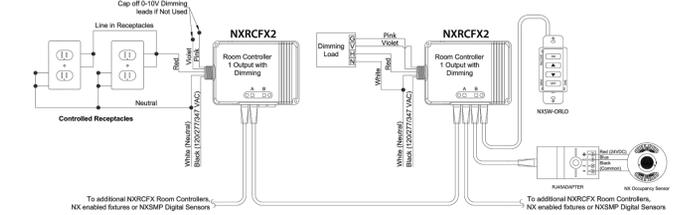
NXRCFX2-1RD NX Room Controller, FX Bus Compatible, 1 SPST Switched, One 0-10VDC Dimming Output
NXRCFX2-2RD NX Room Controller, FX Bus Compatible, 2 SPST Switched, Two 0-10VDC Dimming Output

DIMENSIONS



ADDITIONAL INFORMATION

Wiring Diagrams



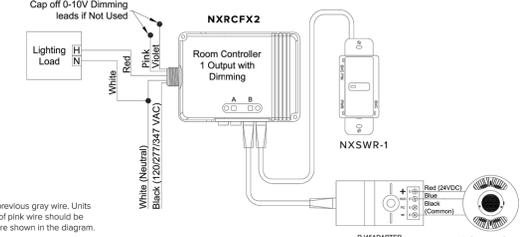
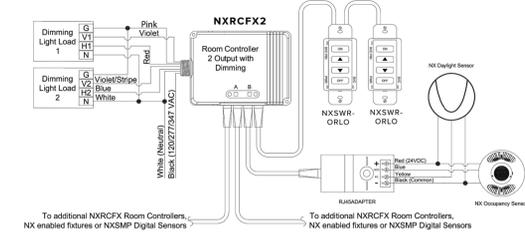
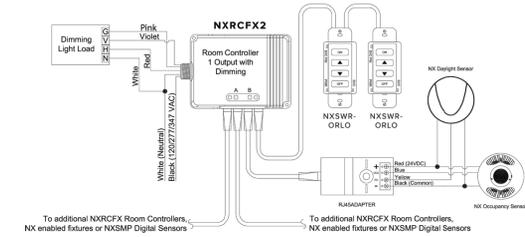
Pink wire replaces previous gray wire. Units with a gray instead of pink wire should be wired as the pink wire shown in the diagram.

NXRCFX SERIES
FX ROOM CONTROLLER

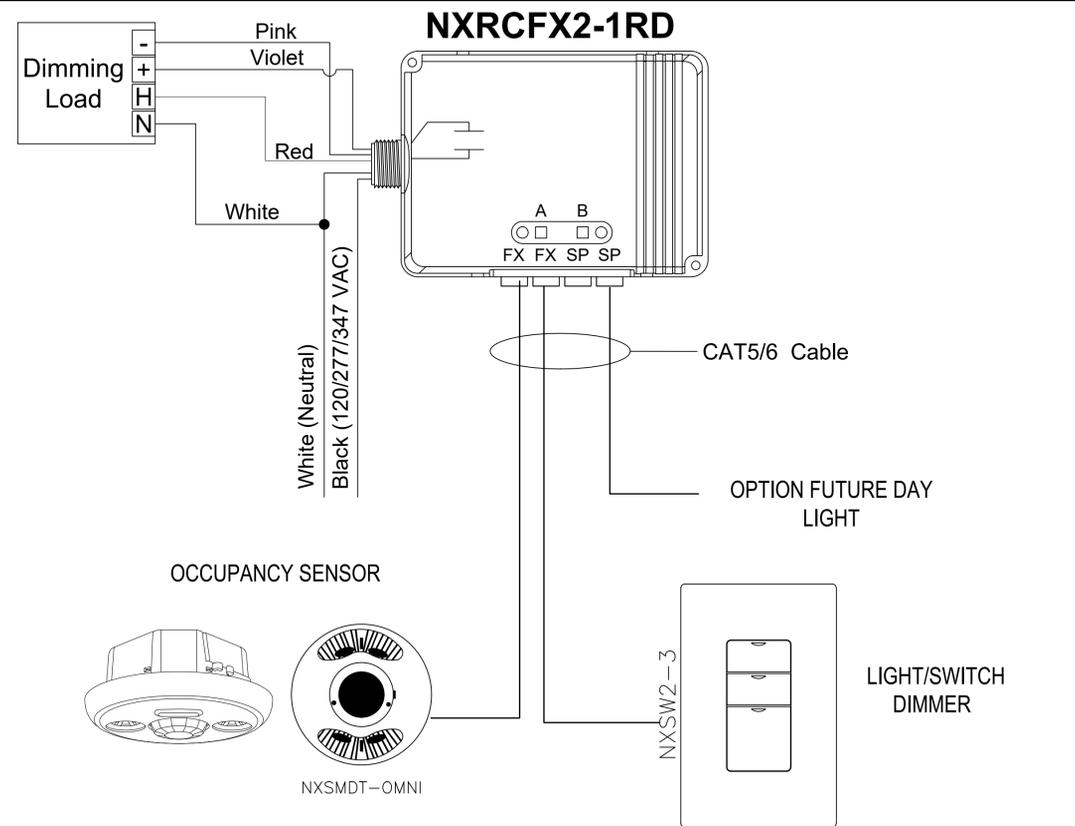
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TYPE: _____ PROJECT: _____
CATALOG #: _____

ADDITIONAL INFORMATION (CONTINUED)

Wiring Diagrams (Continued)



Pink wire replaces previous gray wire. Units with a gray instead of pink wire should be wired as the pink wire shown in the diagram.



Revisions

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Project:
ECOLE ELEMENTAIRE
ANTONINE-MAILLET
615 RIDGEWAY AVE
OSHAWA, ON L1J 2W3



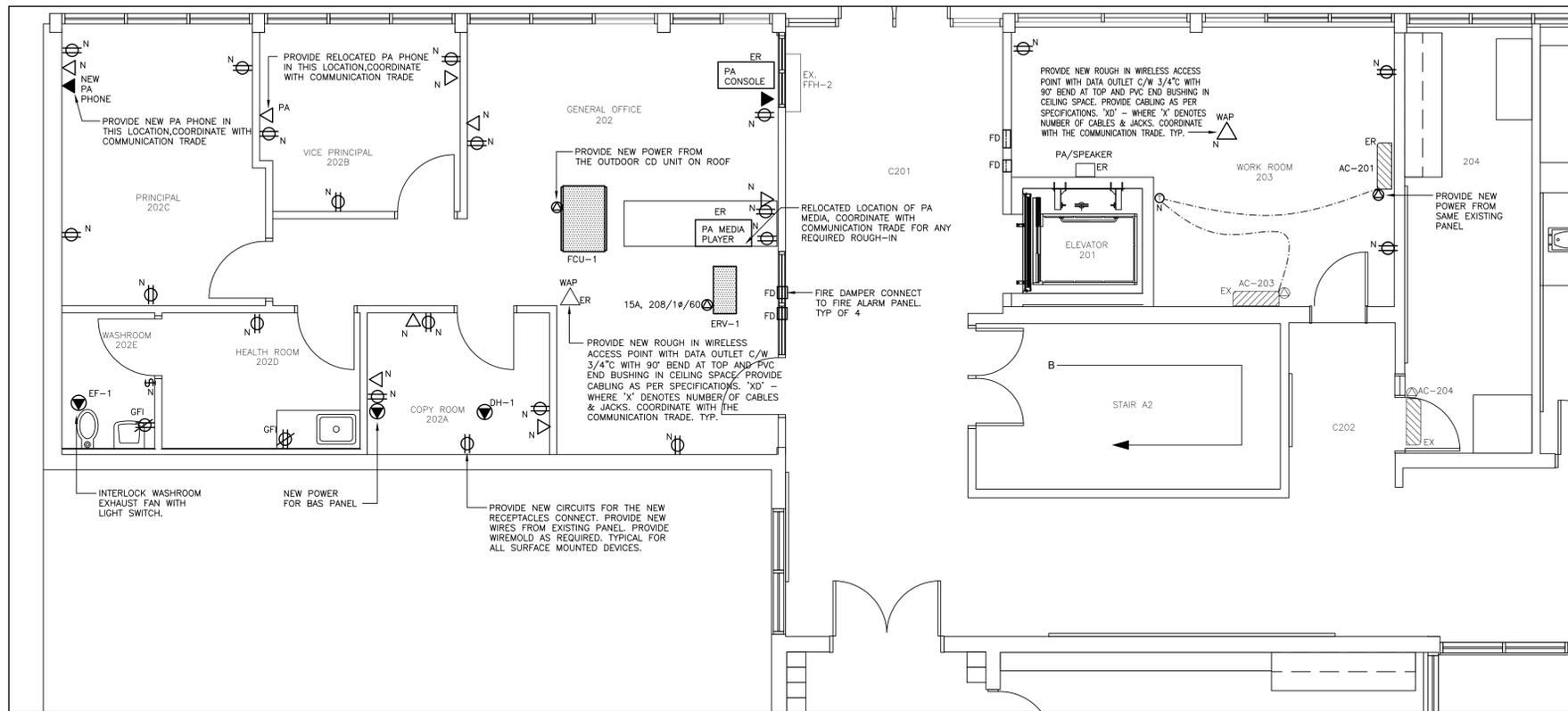
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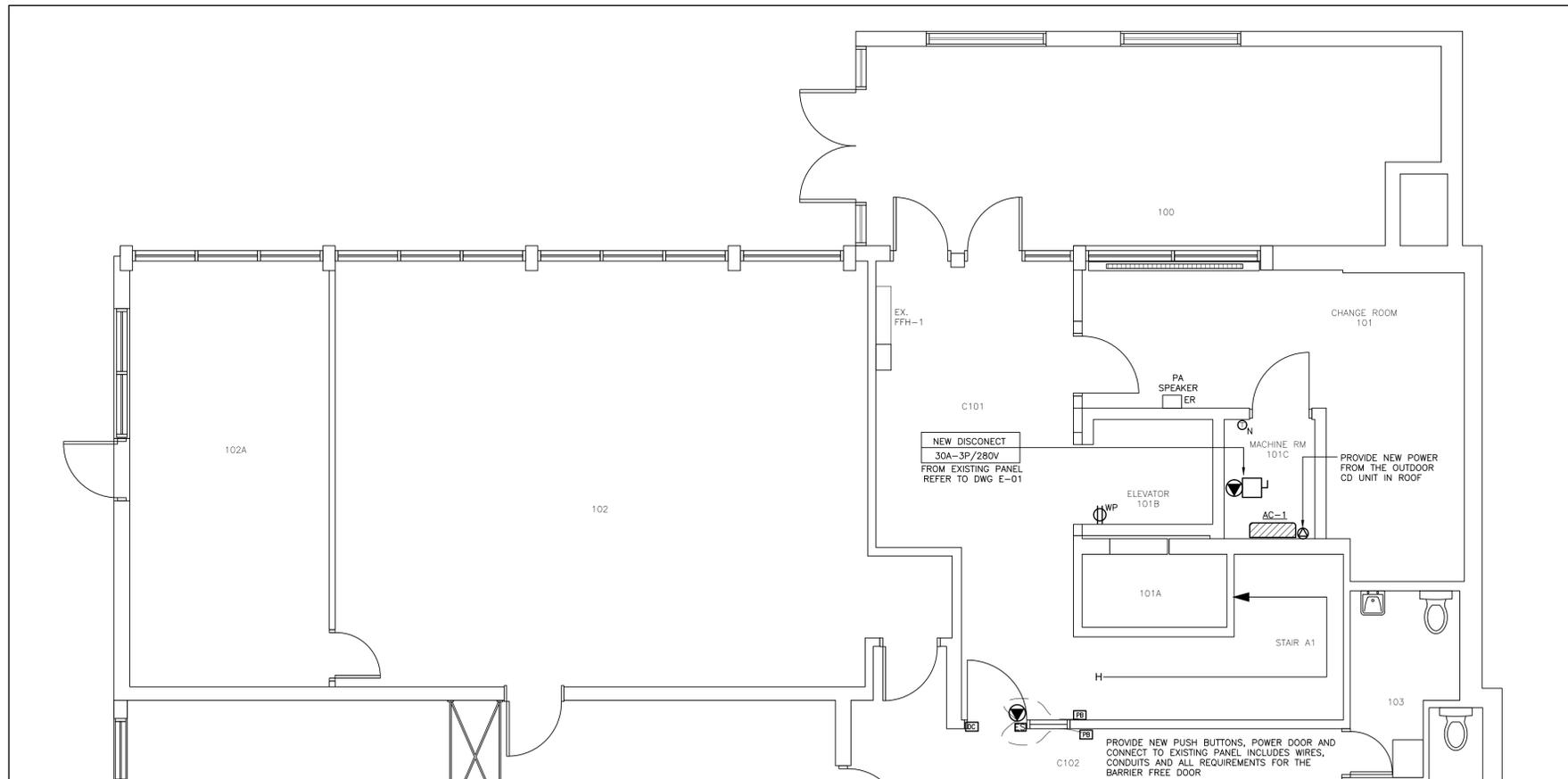
Consultant:
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Title:
LIGHTING CONTROL DETAILS

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: E-2-(1)
Set No.:	



SECOND FLOOR -- POWER -- NEW WORK
SCALE: 1:50



GROUND FLOOR -- POWER -- NEW WORK
SCALE: 1:50

GENERAL NOTES

- IT IS MANDATORY FOR THE ELECTRICAL CONTRACTOR TO VISIT SITE AND REVIEW EXISTING CONDITIONS AND DEMOLITION SCOPE OF WORK TO SUIT EXISTING ARCHITECTURAL AND STRUCTURAL CONDITIONS AND MECHANICAL DRAWINGS.
- CAREFULLY EXAMINE OTHER EXISTING UTILITY LINES SUCH AS GAS, WATER ETC. PRIOR TO START THE ELECTRICAL CONSTRUCTION WORKS AND COORDINATE WITH OTHER TRADES AND REPORT OF ANY DISCREPANCY PRIOR TO PROCEEDING.
- REFER TO ELECTRICAL AND MECHANICAL LAYOUTS FOR EXACT LOCATION OF ALL EQUIPMENT PROVIDE ALL REQUIRED DISCONNECTS, WIRES, STARTERS UP TO THE EXISTING PANEL BOARDS.
- LOCATIONS OF ALL NEW DISCONNECT SWITCHES, VFDS AND STARTERS SHALL BE CONFIRMED WITH DIVISION 15 PRIOR TO INSTALLATION.
- CONTRACTOR TO PROVIDE AND CONNECT ALL NEW RECEPTACLES, POWER, VOICE AND DATA UP TO EXISTING PANEL BOARDS AND EXISTING DATA AND VOICE TRAYS. COMPLETE WITH ALL REQUIRED WIRES, CONDUITS AND CIRCUIT BREAKERS IF REQUIRED.

IMPORTANT NOTES:

- CONTRACTOR TO REMOVE AND RELOCATE THE POWER REQUIRED FOR AC-201 AS SHOWN PROVIDE AND CONNECT ALL NEW POWER, WIRES, CONDUITS AND CONTROL UP TO EXISTING PANEL BOARDS.
- CONTRACTOR TO REMOVE AND RELOCATE THE POWER REQUIRED FOR AC-201 AS SHOWN PROVIDE AND CONNECT ALL NEW POWER, WIRES, CONDUITS AND CONTROL UP TO EXISTING PANEL BOARDS.

Revisions				
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△	4	ISSUED FOR TENDER	2026/03/02	

Project:
**ECOLE ELEMENTAIRE
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 S.M.E. ANBAR
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 PROVINCE OF ONTARIO

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Title:
**GROUND & SECOND FLOORS
 POWER & SYSTEMS
 NEW WORK**

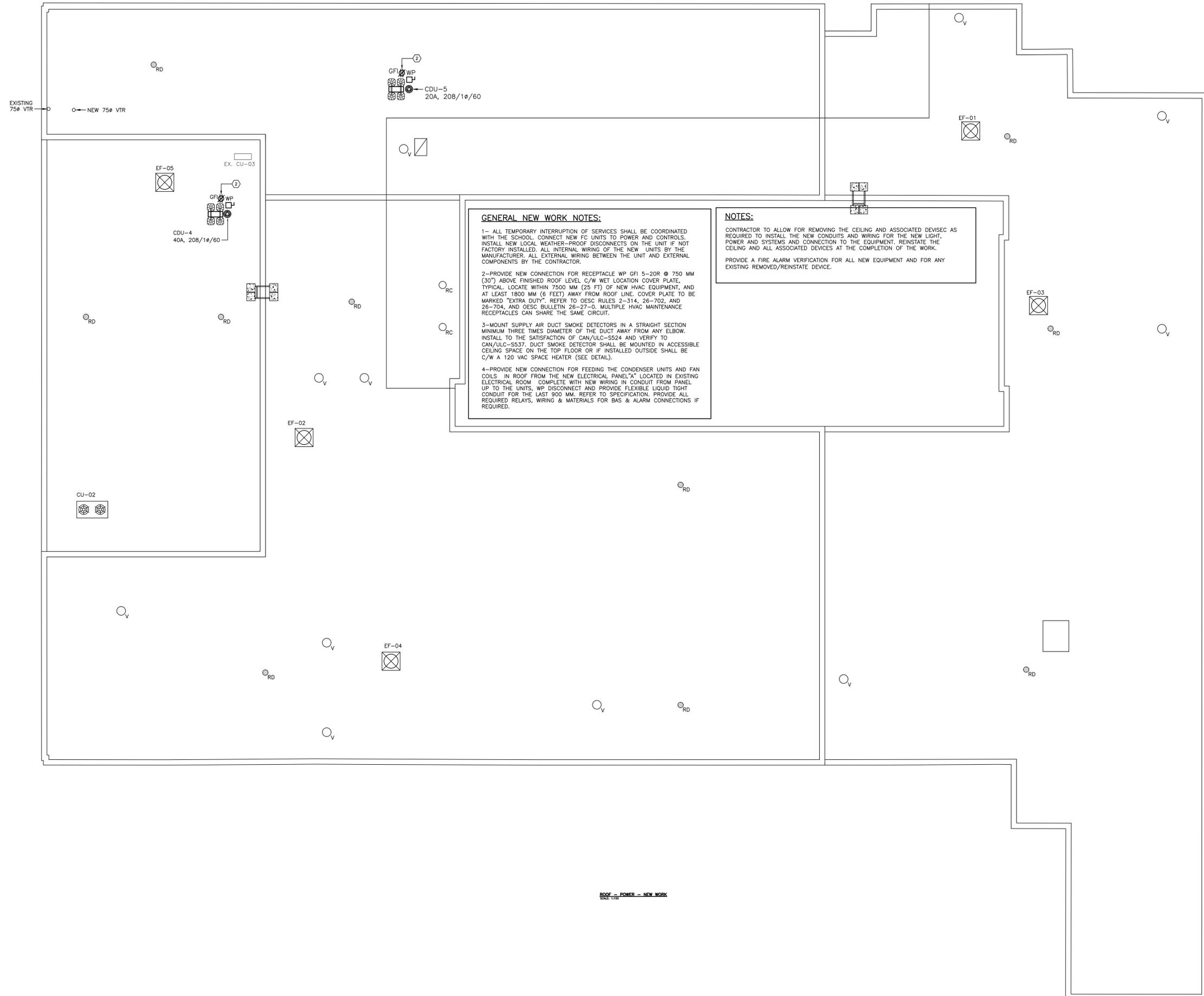
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Scale: **AS SHOWN** Issued: _____

Job No.: **25116** Drawing No.: _____

Set No.: _____ **E-4**



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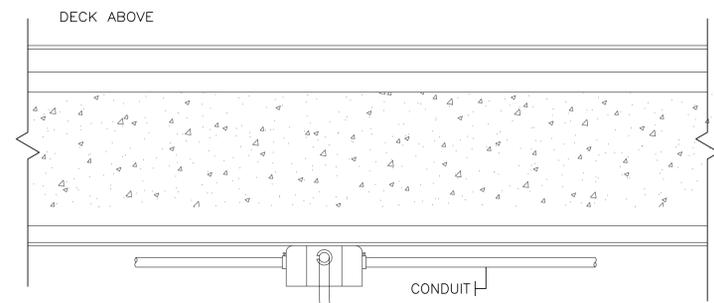
Professional Seal

Consultant:

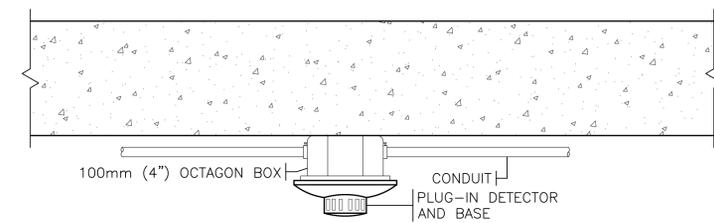
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Title:
ROOF FLOOR -
POWER PLAN

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: E-5
Set No.:	of:



SUSPENDED CEILING MOUNTED

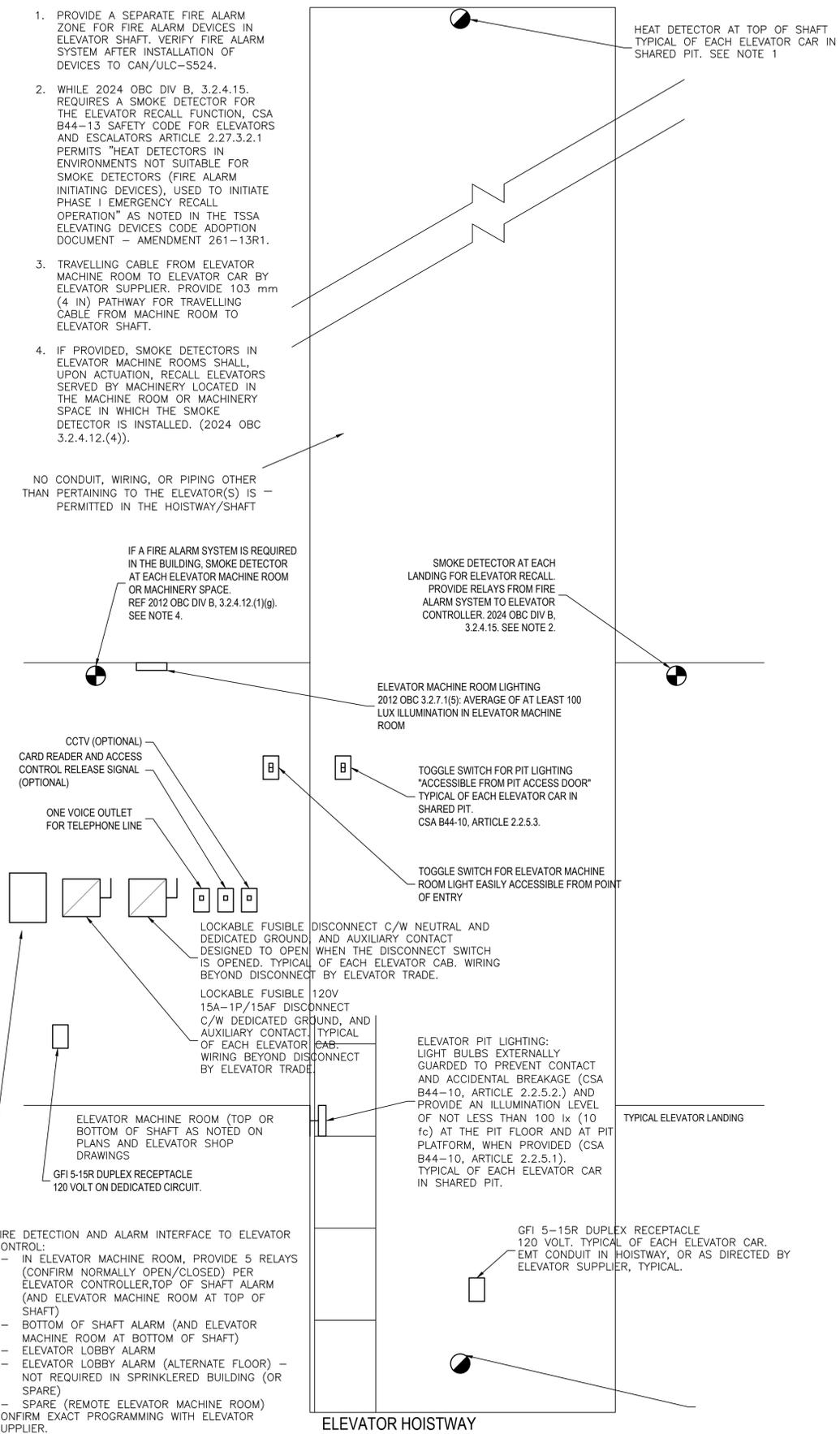


CEILING MOUNTED (SURFACE SLAB)

NOTES:

1. PROVIDE A SEPARATE FIRE ALARM ZONE FOR FIRE ALARM DEVICES IN ELEVATOR SHAFT. VERIFY FIRE ALARM SYSTEM AFTER INSTALLATION OF DEVICES TO CAN/ULC-S524.
2. WHILE 2024 OBC DIV B, 3.2.4.15. REQUIRES A SMOKE DETECTOR FOR THE ELEVATOR RECALL FUNCTION, CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS ARTICLE 2.27.3.2.1 PERMITS "HEAT DETECTORS IN ENVIRONMENTS NOT SUITABLE FOR SMOKE DETECTORS (FIRE ALARM INITIATING DEVICES), USED TO INITIATE PHASE I EMERGENCY RECALL OPERATION" AS NOTED IN THE TSSA ELEVATING DEVICES CODE ADOPTION DOCUMENT - AMENDMENT 261-13R1.
3. TRAVELLING CABLE FROM ELEVATOR MACHINE ROOM TO ELEVATOR CAR BY ELEVATOR SUPPLIER. PROVIDE 103 mm (4 IN) PATHWAY FOR TRAVELLING CABLE FROM MACHINE ROOM TO ELEVATOR SHAFT.
4. IF PROVIDED, SMOKE DETECTORS IN ELEVATOR MACHINE ROOMS SHALL, UPON ACTUATION, RECALL ELEVATORS SERVED BY MACHINERY LOCATED IN THE MACHINE ROOM OR MACHINERY SPACE IN WHICH THE SMOKE DETECTOR IS INSTALLED. (2024 OBC 3.2.4.12.(4)).

NO CONDUIT, WIRING, OR PIPING OTHER THAN PERTAINING TO THE ELEVATOR(S) IS PERMITTED IN THE HOISTWAY/SHAFT



FIRE DETECTION AND ALARM INTERFACE TO ELEVATOR CONTROL:

- IN ELEVATOR MACHINE ROOM, PROVIDE 5 RELAYS (CONFIRM NORMALLY OPEN/CLOSED) PER ELEVATOR CONTROLLER, TOP OF SHAFT ALARM (AND ELEVATOR MACHINE ROOM AT TOP OF SHAFT)
- BOTTOM OF SHAFT ALARM (AND ELEVATOR MACHINE ROOM AT BOTTOM OF SHAFT)
- ELEVATOR LOBBY ALARM
- ELEVATOR LOBBY ALARM (ALTERNATE FLOOR) - NOT REQUIRED IN SPRINKLERED BUILDING (OR SPARE)
- SPARE (REMOTE ELEVATOR MACHINE ROOM)

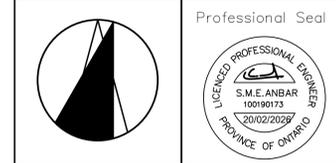
CONFIRM EXACT PROGRAMMING WITH ELEVATOR SUPPLIER.

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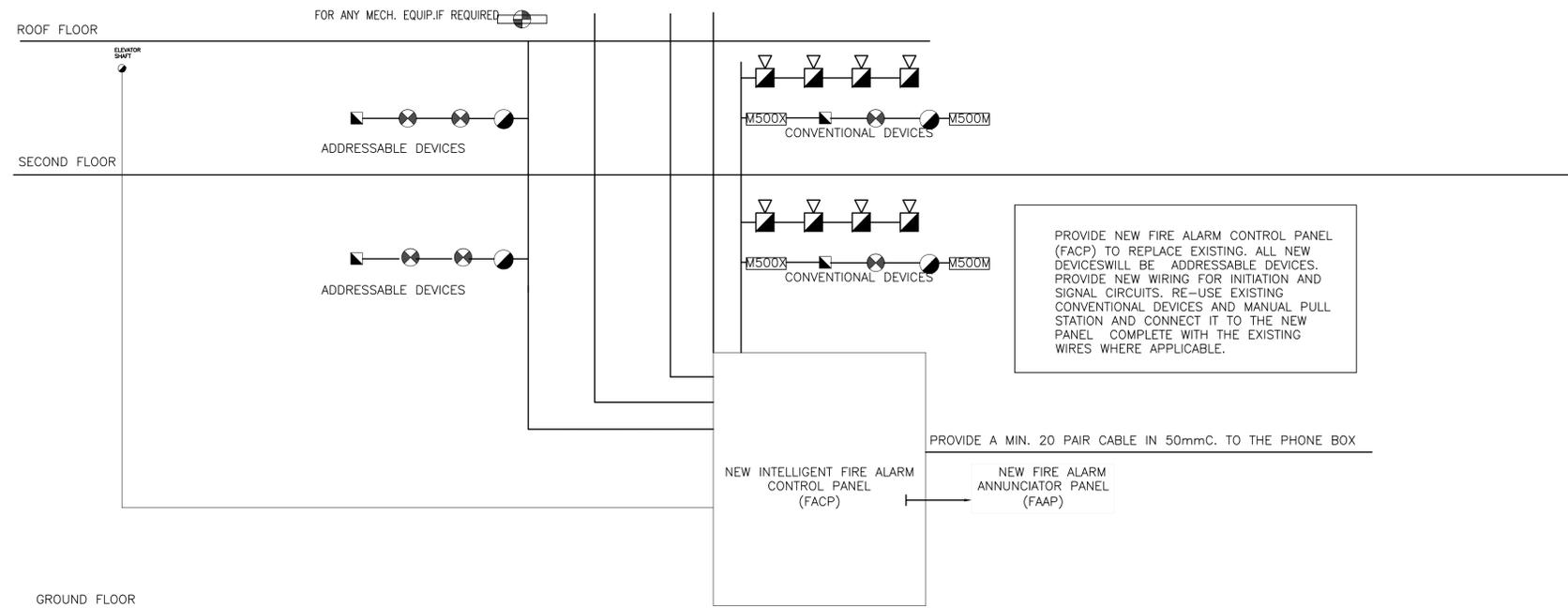
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Title:
FIRE ALARM DETAILS AND ELEVATOR SHAFT DETAILS

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: E-6
Set No.:	of:



FIRE ALARM ZONE SCHEDULE													
ZONE	SD DSD HD	SMOKE DETECTOR DUCT SMOKE DETECTOR HEAT DETECTOR	MPS FS SV	MANUAL PULL STATION FLOW SWITCH SUPERVISED VALVE	PS PRESSURE SWITCH	FA DEVICES						REMARKS	
						ANNUNCIATOR A-ALARM T-TROUBLE	SD	DSD	HD	MPS	FS		SV
FAZ-1		BLDG MECH ROOM		SMOKE DETECTOR/MANUAL PULL STATION		X		X	X				EXISTING CONVENTIONAL ZONES TO BE CONNECTED TO NEW FACP
FAZ-2		BLDG MAIN ELEC ROOM				X		X	X				SAME EXISTING CONVENTIONAL ZONE
FAZ-3		GROUND FLOOR				X		X	X				SAME EXISTING CONVENTIONAL ZONE
FAZ-4		SECOND FLOOR		SMOKE DETECTOR/MANUAL PULL STATION		X		X	X				SAME EXISTING CONVENTIONAL ZONE
FAZ-5		HALL WAYS GROUND FLOOR		SMOKE DETECTOR/MANUAL PULL STATION		X		X	X				SAME EXISTING CONVENTIONAL ZONE
FAZ-6		HALL WAYS SECOND FLOOR		SMOKE DETECTOR/MANUAL PULL STATION		X		X	X				SAME EXISTING CONVENTIONAL ZONE
FAZ-7		SECOND FLOOR NEW OFFICES		HEAT AND SMOKE DETECTOR		X		X					NEW ADDRESSABLE LOOP
FAZ-8		GYM		SMOKE DETECTOR/MANUAL PULL STATION		X		X	X				EXISTING CONVENTIONAL ZONES TO BE CONNECTED TO NEW FACP
FAZ-9		ELEVATOR AND MACHINE ROOM		SMOKE DETECTOR/HEAT DETECTOR		X		X					NEW ADDRESSABLE LOOP
FAZ-10		IT ROOM 204		SMOKE DETECTOR/MANUAL PULL STATION		X		X					EXISTING CONVENTIONAL ZONES TO BE CONNECTED TO NEW FACP
FAZ-11		SECOND FLOOR NEW OFFICES		DUCT SMOKE DETECTOR			X						NEW ADDRESSABLE LOOP
FAZ-11-20		SPARE											

- NOTES:
- REFER TO FLOOR PLANS FOR EXACT LOCATIONS QUANTITY OF DEVICES.
 - CONTRACTOR IS TO CONFIRM WIRE SIZE (BASED UPON LENGTH OF CIRCUIT RUN AND QUANTITY OF SIGNALS) FOR SIGNAL CIRCUIT WITH MANUFACTURER.
 - PROVIDE THE REQUIRED NUMBER OF SIGNAL CIRCUITS TO SUIT THE QUANTITY OF STROBES. SIGNAL CIRCUITS ARE TO BE ALTERNATED.
 - LOCATE END OF LINE RESISTORS AND ISOLATOR MODULES IN SERVICE ROOMS AT ±1.8M AFF. PROVIDE LAMICOID LABEL INDICATING ZONE LABEL AND NUMBER.

NOTES:

MAIN FIRE ALARM SINGLE STAGE INTELLIGENT CONTROL PANEL. SEE CUT SHEET WITH NEW ANNUNCIATOR AND C/W GRAPHIC MAP. LOCATED IN GROUND FLOOR MAIN ELECTRICAL ROOM.

IN ADDITION TO THE HEAT DETECTOR IN THE ELEVATOR SHAFT, ALSO INSTALL A HEAT DETECTOR IN THE ELEVATOR PIT. REFER TO FLOOR PLANS.

PROVIDE 120VAC POWER SUPPLY TO MAIN FACP. REFER TO EXISTING CIRCUIT AND USE IT FOR THE NEW PANEL.

THIS RISER IS DIAGRAMMATIC ONLY AND DOES NOT SHOW ALL DEVICES, COMPONENTS AND/OR CONNECTIONS. REFER TO FLOOR PLANS FOR LOCATION AND QUANTITY OF FIRE ALARM DEVICES.

ALL EXISTING CONVENTIONAL DEVICES AND ZONES COMPONENTS REFER TO EXISTING FLOOR PLANS FOR LOCATION AND QUANTITY OF FIRE ALARM DEVICES WHICH WILL BE CONNECTED TO THE NEW PANEL.

DENOTES ISOLATION MODULES. PROVIDE LINE ISOLATOR WHEN PASSING BETWEEN FIRE RATED WALLS / FLOORS AND AS PER THE NATIONAL BUILDING CODE

PROVIDE CLASS 'A' WIRING FOR BOTH ALARM AND SIGNAL CIRCUITS. THE RETURN LOOP IS NOT SHOWN ON THE RISER FOR SIMPLICITY. USE TWO SEPARATE CONDUITS FOR CLASS 'A' WIRING.

PROVIDE NEW FIRE ALARM REMOTE ANNUNCIATOR AT MAIN ENTRANCE.

DUCT TYPE SMOKE DETECTORS TO BE INSTALLED IF REQUIRED ON THE SUPPLY SIDE. PROVIDE FAN SHUT DOWN RELAYS TO DE-ENERGIZE SUPPLY AIR FANS ON FIRE ALARM.

PROVIDE ON/OFF/AUTO SELECTOR SWITCHES IN THE ANNUNCIATOR PANEL FOR REMOTE CONTROL OF AHU 'S, HRV AND SUPPLY AIR UNITS, ELEVATOR.

THE SYSTEM SHALL BE COMPLETE WITH MEANS TO TRANSMIT ALERT AND ALARM SIGNALS TO THE FIRE DEPARTMENT. THE SYSTEM SHALL BE COMPLETE WITH MEANS TO MANUALLY ACTUATE ALARM SIGNALS IN THE BUILDING SELECTIVELY TO ANY INDIVIDUAL ZONE OR GROUP.

SYSTEM SHALL BE COMPLETE WITH MEANS TO ACTUATE AUXILIARY EQUIPMENT AND TO COMMUNICATE WITH TELEPHONES IN THE ELEVATOR CARS.

SYSTEM SHALL BE COMPLETE WITH ALL REQUIREMENTS FOR ELEVATOR RECALL, AUXILIARY EQUIPMENT AND TO COMMUNICATE WITH TELEPHONES IN THE ELEVATOR CARS.

MAXIMUM 75% FILL FOR ALL FIELD CIRCUITS.

PROVIDE SEPARATE SIGNAL/ALARM CIRCUIT PER STAIR/ELEVATOR AND SHAFT.

MIN. SIZE OF CONDUIT MUST BE 20mm UNLESS OTHERWISE NOTED. 2 #14 FOR SIGNAL & 2 #18 STP WIRING FOR ALARM

PROVIDE ISOLATION MODULES AT ZONE BOUNDARIES, FIRE RATED SEPARATIONS, AND AS REQUIRED BY CODE. DO NOT BE LIMITED ON THE QUANTITY SHOWN. INSTALL ONE ON EACH SIDE OF THE SEPARATION, TYPICAL.

REFER TO FLOOR PLANS FOR EXACT LOCATION, QUANTITIES, AND TYPES OF DEVICES.

CONTRACTOR IS TO CONFIRM WIRE SIZE (BASED UPON LENGTH OF CIRCUIT RUN AND QUANTITY OF SIGNALS) FOR SIGNAL CIRCUIT WITH MANUFACTURER.

PROVIDE THE REQUIRED NUMBER OF SIGNAL CIRCUITS TO SUIT THE QUANTITY OF STROBES. IN EACH ZONE, PROVIDE A MINIMUM OF TWO SIGNAL CIRCUITS FOR HORNS AND TWO SIGNAL CIRCUITS FOR STROBES. CIRCUITING OF DEVICES IS TO BE ALTERNATED.

LOCATE END OF LINE RESISTORS AND ISOLATOR MODULES IN MAIN ELECTRICAL ROOM AT ±1.8M AFF. PROVIDE LAMICOID LABEL INDICATING ZONE LABEL AND NUMBER.

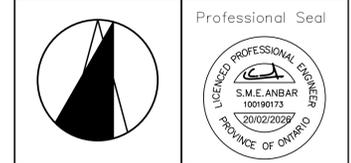
THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR HIRING A FIRE WATCH AS REQUIRED BY CODE, LOCAL AUTHORITIES HAVING JURISDICTION, AND DURING ANY ALTERATION OR DOWNTIME OF THE FIRE ALARM SYSTEM. FIRE WATCH SHALL BE PRESENT THROUGHOUT THE DOWNTIME DURATION.

Revisions				
Ref.	No.	Description	Date	Initial
△	1	ISSUED FOR COORDINATION	2026/02/04	
△	2	ISSUED FOR COORDINATION	2026/02/19	
△	3	ISSUED FOR COORDINATION	2026/02/27	
△	4	ISSUED FOR TENDER	2026/03/02	

Project:
ECOLE ELEMENTAIRE ANTONINE-MAILLET
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Consultant:
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 588 EDWARD AVE., UNIT 25, RICHMOND HILL, ONT., L4C 9Y6
 TEL. (905)-787 8885 FAX (905)-787 8771

Title:
FIRE ALARM RISER AND ZONE SCHEDULE

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: E-6-1
Set No.:	of:

Mircom™
INTELLIGENT FIRE ALARM CONTROL PANEL FX-2000 SERIES

Features

- Listed to UL 864, 9th edition
- Large system capacity
- Modular design
- Each Analog Loop is capable of supporting 99 Analog Sensors and 99 Addressable Modules which can be wired in Class A (Style 6 or 7) or Class B (Style 4)
- Base system supports 16 conventional hardwired modules with the provision to add more using the ALC-H16 Hardware Loop Controller Module
- 6 or 12 Amp power supply
- Four Class A/B (Style ZY) Indicating Circuits rated at 1.7 Amps each
- Configurable for Two Stage operation
- Three level password protection with field programmable definition which enables the installer to determine what functions are accessible for each password level
- Panel Security to protect site configurations
- Manual Control Enable which allows password protection for all front panel function switches
- Correlatable Switch Inputs which allows for multi-functional outputs
- Four Alarm Queues with selector switches and LEDs for Alarm, Supervisory, Monitor and Trouble
- Auxiliary relay contacts for Common Alarm, Common Supervisory and Common Trouble
- RS-232 output for remote system printer or CRT
- Two Event History Logs comprised of a 1000 Alarm History Log for alarm related events and a 2000 Event Log for all events
- Front Panel Auto-Configure and/or Computer Laptop Programmable
- Large 4 by 20 character Back-lit LCD Display with user friendly menu
- Common Control switches and/or indicating LEDs for System Reset, Signal Silence, Fire Drill, Acknowledge, General Alarm, Lamp Test, A.C. On, Pre-Alarm and Ground Fault
- Built-in One Man Walk Test operation
- Configurable for Coded Operation
- Supports an RS-485 interface to the QX-5000 Voice Evacuation System
- Panel selection for Canadian (ULC) or U.S.A. (UL) requirements for smoke sensors (sensitivity) via computer laptop
- Capability to adjust Intelligent Smoke Detector sensitivity level

Description

Mircom's FX-2000 Series Microprocessor Based Intelligent Fire Alarm Control Panel is designed to provide maximum flexibility of analog system requirements while also providing easy installation and operation at a cost-effective price.

The FX-2000 base panel consists of one intelligent analog loop controller capable of supporting 99 Analog Sensors and 99 Addressable Modules which can be wired in Class A (Style 6 or 7) or Class B (Style 4). The system can be expanded by adding additional Analog Loop Controller Modules. In addition the base panel supports 16 conventional hardwire adder modules such as the DM-1008A Initiating Circuit Module, SGM-1004A Initiating Circuit Module and the RM-1008A Relay Circuit Module. Additional conventional hardwire adder modules can be added with the ALC-H16 Adder Hardware Loop Controller Module, which allows the system to support an additional 16 conventional adder modules. The base panel also consists of 4 Class A/B (Style ZY) Indicating Circuits rated at 1.7 Amps each and either a 6 or 12 Amp Power Supply.

Equipped with a large 4 x 20 Back-lit Alphanumeric LCD display, the FX-2000 utilizes a simple Menu system complete with a directional keypad, common control switches and LEDs, Alarm Queue switches and LEDs and two configurable input switches.

UL **ULC** **FM** **City of Chicago** **MEIA**

37010 37010 7190-1477-111 3013980 3013980
 7190-1477-111 313-87-E 7190-1477-119 313-87-E

CATALOG NUMBER 5910

NOT TO BE USED FOR INSTALLATION PURPOSES. CAT. 5910 page 2 of 10

Operation

The FX-2000 is field programmable via the front panel auto configuration or a laptop computer. In addition, it allows for a three level password protection that can be field defined via a laptop computer. This unique feature allows the installer to determine what functions are accessible for each password level.

The system is also equipped with two Event History Logs; one for Alarm and the other for full panel sequence events. The Alarm History Log (1000 events) contains all alarm related functions while the Event Log (2000 events) provides a full sequence log of all operations, as well as alarms and troubles. Both Event History Logs can be used during the One Man Walk Test operation. This allows the event logs to be downloaded to a laptop or printer for a permanent record.

The FX-2000 is a very flexible system which supports both internal and external annunciation modules. The internal annunciation modules consist of the RAX-1048TZDS Programmable Zone LED Annunciator, the IPS-2424DS Programmable Input Switches Module, the FDH-008 Fan Damper Module and the AGD-048 Adder Graphic Driver Module.

Input Correlations

All input circuits (addressable or hardwired) can be configured for non-verified alarm, verified alarm, waterflow, latching/non-latching supervisory, monitor, trouble only or remote switch inputs. All of the input configuration types listed above, with the exception of remote switch can be programmed to operate relays, signal and strobe circuits for hardwired or addressable devices. Please refer to the chart below for correlations. The input circuits configured as non-latching will cause the output circuits configured to them to follow the state of the input device. This feature allows for the connection of multiple panels together for signal operation.

The Remote Switch input, which must be momentary, allows any input type device (addressable or hardwired) to be configured as a common control functions such as fire drill, system reset, signal silence etc. The remote switches operate in a momentary mode like the control switches on the FX-2000 main panel. For functions such as fire drill, the remote switch functions in a toggle mode, with one press for "on" and one press for "off". The remote switch will cause the output circuits configured to the switch input is activated (stuck) for more than 30 seconds. If this occurs, a trouble is generated and clears when the input goes away.

Intelligent or Conventional Input Types	Output			Control Switches
	Relay	Signal	Strobe	
Non-Verified Alarm	Yes	Yes	Yes	No
Verified	Yes	Yes	Yes	No
Waterflow	Yes	Yes	Yes	No
Non-Latching Supervisory	Yes	Yes	Yes	No
Latching Supervisory	Yes	Yes	Yes	No
Monitor	Yes	Yes	Yes	No
Trouble Only	Yes	Yes	Yes	No
Remote Switch Input	No	No	No	Yes

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FX-2000 Standard Series

FX-2003-6DS/FX-2003-12DS Compact Main Control Units

The FX-2003-6DS and FX-2003-12DS Compact Main Control Units come complete with one Intelligent Signaling Line Circuit, Four Style ZY (Class A/B) Notification Appliance Circuits rated at 1.7 Amps each and a 4 line by 20 character back-lit LCD display. The FX-2003-6DS is equipped with a 6 Amp Power Supply which charges 10-24 AH batteries while the FX-2003-12DS includes a 12 Amp Power Supply which charges 17-55 AH batteries. The FX-2003-6DS/FX-2003-12DS provides space for 3 adder modules and 2 internal annunciation adder modules. The FX-2003-6DS/FX-2003-12DS is mounted in a UB-1024DS backbox.

FX-2003-6DS-16LED Compact Main Control Unit

The FX-2003-6DS-16LED Compact Main Control Unit come complete with one Intelligent Signaling Line Circuit, Four Style ZY (Class A/B) Notification Appliance Circuits rated at 1.7 Amps each and a 4 line by 20 character back-lit LCD display with 16 LEDs for annunciation (DSPL-420-16TZDS). This display is functionally equivalent to the classic FX-2000 main display, but more compact adding in the 16 LEDs for annunciation in addition to all the standard functions. The FX-2003-6DS-16LED is equipped with a 6 Amp Power Supply which charges 10-24 AH batteries. The FX-2003-6DS-16LED provides space for 3 adder modules and 2 internal annunciation adder modules. The FX-2003-6DS-16LED is mounted in a separate ordered UB-1024DS Backbox.

FX-2017-12ADS Mid-Size Main Control Unit

The FX-2017-12ADS Mid-Size Main Control Unit comes complete with one intelligent Signaling Line Circuit (SLC) Four Style ZY (Class A/B) NAC Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display and a 12 Amp Power Supply which charges 17-55 AH batteries. The FX-2017-12ADS has space for up to 17 adder modules and 3 internal annunciation adder modules. The FX-2017-12ADS mounts in the BBX-1072ADS enclosure.

FX-2009-12DS Large Size Main Control Unit

The FX-2009-12DS Large Size Main Control Unit comes complete with one Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 Class A/B (Style ZY) Indicating Circuits (1.7 Amps each), a 4 line by 20 character back-lit LCD display and a 12 Amp Power Supply which charges 17-55 AH batteries. The FX-2009-12DS supports 16 conventional adder modules and provides space for up to 8 adder modules and 3 internal annunciation adder modules. The FX-2009-12DS mounts in the BB-5000 Series enclosures.

ECX-0012 Expander Chassis

The ECX-0012 Expander Chassis for the FX-2009-12DS/FX-2009S-12 supports up to 12 adder modules and has space for 2 internal annunciation modules. The ECX-0012 mounts in the BB-5000 series enclosure.

FX-2000 Standard Series System Maximums

- 495 Input Circuits
- 150 Output Circuits
- 5 Intelligent Addressable Loops
- 4 Remote LCD Annunciators
- 4 Main LED Annunciators
- 100 Manual Control Switches

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Revisions

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Project:
ECOLE ELEMENTAIRE ANTONINE-MAILLET
615 RIDGEWAY AVE.
OSHAWA, ON L1J 2W3

iuim
Architects inc.

Enclosures

UB-1024DS Universal Backbox

The UB-1024DS Universal Backbox houses the FX-2003-6DS or FX-2003-12DS main control unit and provides space to mount up to 17 AH batteries. A DOX-1024DS(R) door is ordered separately.

Dimensions (minus built-in trim ring): 26"H x 14.5"W x 4.2"D

DOX-1024DS(R) Door

The DOX-1024DS mounts on the UB-1024DS backbox. The door features the universal CAT-30 lock and is available in a white (DOX-1024DS) or red exterior (DOX-1024DSR).

BB-5008

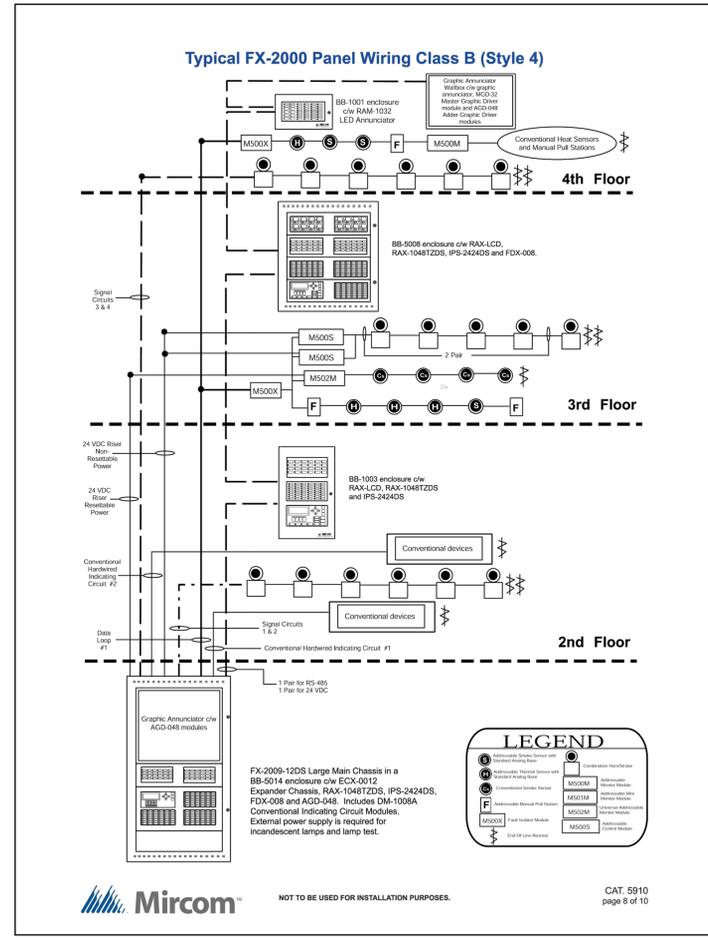
The BB-5008 is a lobby control centre enclosure which is capable of handling one FX-2009-12DS Large Main Control Unit which supports 2 internal annunciation modules such as the IPS-2424DS, FDH-008, RAX-1048TZDS, etc. In addition the BB-5008 allows for 4 footprints for mounting Audio Lobby Control modules, Fire Fighter's Lobby Control modules and FX-2000 Internal Annunciation modules. The cabinet hold up to 24 AH batteries. Door and Chassis hardware are ordered separately.

Dimensions: 36"H x 30"W x 7"D

Other Enclosures

- BB-1001: 9"H x 12.75"W x 1.2"D
- BB-1002: 18"H x 12.75"W x 1.2"D
- BB-1003: 26.4"H x 12.75"W x 1.2"D
- BB-1008: 33"H x 22.5"W x 1.25"D
- BB-1012: 45"H x 22.5"W x 1.25"D

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Ordering Information

Model	Description
FX-2000 Standard Series	
FX-2003-6DS-16LED	Compact Main Control Unit c/w one Intelligent Signaling Line Circuit, Four Style ZY (Class A/B) Notification Appliance Circuits rated at 1.7 Amps each and a 4 line by 20 character back-lit LCD display with 16 LEDs for annunciation (DSPL-420-16TZDS). This display is functionally equivalent to the classic FX-2000 main display, but more compact adding in the 16 LEDs for annunciation in addition to all the standard functions. The FX-2003-6DS-16LED is equipped with a 6 Amp Power Supply which charges 10-24 AH batteries. The FX-2003-6DS-16LED provides space for 3 adder modules and 2 internal annunciation adder modules. Order UB-1024DS and DOX-1024DS(R) separately.
FX-2003-6DS	Compact Main Control Unit c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lit LCD display, 4 Class A/B (Style ZY) Indicating Circuits (1.7 Amps each), a 6 Amp power supply and a backbox. Supports up to 16 Conventional Adder Modules. Provides space for 3 Adder Modules and 2 internal annunciation modules. Order UB-1024DS and DOX-1024DS(R) separately.
FX-2003-12DS	Compact Main Control Unit c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lit LCD display, 4 Class A/B (Style ZY) Indicating Circuits (1.7 Amps each), a 12 Amp power supply and a backbox. Supports up to 16 Conventional Adder Modules. Provides space for 3 Adder Modules and 2 internal annunciation modules. Order UB-1024DS and DOX-1024DS(R) separately.
FX-2017-12ADS	Mid-Size Main Control Unit c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lit LCD display, 4 Class A/B (Style ZY) Indicating Circuits (1.7 Amps each) and a 12 Amp power supply. Supports up to 16 Conventional Adder Modules. Provides space for 17 Adder Modules and 3 Internal Annunciation modules. Mounts in the BBX-1072ADS enclosure.
FX-2009-12DS	Large Main Control Unit c/w one Intelligent Analog Loop Controller (99 Analog Sensors and 99 Addressable Modules), 4 x 20 Back-lit LCD display, 4 Class A/B (Style ZY) Indicating Circuits (1.7 Amps each) and a 12 Amp power supply. Supports up to 16 Conventional Adder Modules. Provides space for 9 Adder Modules and 3 Internal Annunciation modules. Mounts in the BB-5000 series enclosures.
ECX-0012	Expander Chassis for the FX-2009-12DS c/w space to add up to 12 adder modules and 2 Internal Annunciation modules. Mounts in the BB-5000 series enclosures
Adder Loop Controller Modules	
ALC-198S	Single Loop Intelligent Analog Loop Controller Module (99 Analog Sensors and 99 Addressable Modules)
ALC-398S	Dual Loop Intelligent Analog Loop Controller Module (198 Analog Sensors and 198 Addressable Modules)
ALC-H16	Hardware Loop Controller Module. Supports 16 Conventional Hardwired Modules
Adder Hardware Modules	
DM-1008A	Eight Class B (Style B) or 4 Class A (Style D) Initiating Circuit Module
SGM-1004A	Four Class A/B (Style ZY) Indicating Circuit Module (Rated at 1.7 Amps per circuit)
RAX-1008A	Eight Relay Circuit Module c/w eight Form C relays (Rated for 28 VDC @ 1 Amp max. per relay)
Adder Auxiliary Modules	
UDACT-300A	Digital Alarm Communicator Transmitter/Dialer Module
PR-300	Polarity Reversal and City Tie Module
Programmable Modules	
RAM-1048TZDS	Programmable Zone LED Annunciator Module c/w 48 bi-coloured LEDs.
IPS-2424DS	Programmable Input Switches Module c/w 24 selector switches and 24 bi-coloured LEDs
FDH-008	Fan Damper Control Module c/w 8 programmable switches
Remote Annunciators	
RAX-1048TZDS	Main Annunciation Chassis c/w Common Control Features, Indicators and 32 Bi-Coloured LEDs
RAX-1048TZDS	Adder Annunciation Chassis c/w 48 Bi-Coloured LEDs
RTI-1	Remote Trouble Indicator
Remote Shared Display Annunciators	
RAX-LCD	Remote Shared Display LCD Annunciator c/w Display Queues and Common Controls
Graphic Annunciator Driver Modules	
MCD-32	Master Graphic Driver Module c/w Fire Alarm Common Control Switch Inputs and 32 Supervised Outputs
AGD-048	Adder Graphic Driver Module c/w 48 Supervised Outputs

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Professional Seal

SAB ENGINEERING Inc.

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 TEL. (905) 787 8885 FAX (905) 787 8771

Title:
FIRE ALARM DETAILS AND ELEVATOR SHAFT DETAILS

Drawn by: **Date:**
JANUARY 2026

Checked by: **Plotted:**

Scale: **AS SHOWN** **Issued:**

Job No.: **Drawing No.:**
25116 **E-6-2**

Set No.:

of:

DEMOLITION NOTES (BY THIS CONTRACTOR):

THIS CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING ELECTRICAL EQUIPMENT AND DEVICE, INCLUDING (BUT NOT LIMITED) TO THE FOLLOWING UNDER THE SCOPE OF WORK:

REMOVE ALL TENANT CONDUITS, BRANCH WIRING, OUTLETS, LUMINAIRES, EMERGENCY LIGHTING, ETC. FROM CEILINGS AND WALLS BEING DEMOLISHED. REMOVE WIRING AND CUT BACK TO PANELBOARDS. SOURCE MAY ORIGINATE FROM ANOTHER FLOOR.

REMOVE ALL REDUNDANT POWER & TELECOMMUNICATION WIRING, BACK TO THE ENTRY POINTS.

ELECTRICAL EQUIPMENT TO BE REMOVED MUST BE ISOLATED & DISCONNECTED AT THE SOURCE PRIOR TO REMOVAL OPERATIONS. DURING ISOLATION & DISCONNECTION PROCEDURES DANGER TAGS MUST BE USED TO IDENTIFY ANY FEEDERS OR EQUIPMENT REMAINING ENERGIZED TO ACCOMMODATE NEW CONSTRUCTION.

ALL WIRING & CONDUIT FOR EXISTING ELECTRICAL EQUIPMENT BEING REMOVED OR RELOCATED MUST BE REMOVED BACK TO THE SOURCE OF POWER (DISTRIBUTION BOARD) UNLESS SPECIFICALLY DESIGNATED FOR RE-USE OR PRIOR WRITTEN APPROVAL HAS BEEN RECEIVED FROM ENGINEER ALLOWING RE-USE.

DISCONNECT & REMOVE THE EXISTING EQUIPMENT AS IDENTIFIED ON SITE. PORTIONS OF EXISTING CIRCUITS OR EQUIPMENT TO REMAIN EITHER TEMPORARILY FOR STAGING PURPOSES OR PERMANENTLY TO ACCOMMODATE EQUIPMENT & DEVICES BEYOND THE LIMITS OF RENOVATION WORK MUST BE MADE GOOD.

ALL EXISTING EQUIPMENT BEING REMOVED SHALL BE FIRST OFFERED TO THE OWNER. ANY EQUIPMENT NOT REQUIRED BY THE OWNER, SHALL BE DISPOSED OF OFF SITE BY THE ELECTRICAL CONTRACTOR AT NO ADDITIONAL COST.

ALL WORK TO BE DONE IN ACCORDANCE WITH ESA REGULATIONS. APPROVAL FROM BASE BUILDING AUTHORITY SHALL REQUIRE PRIOR TO COMMENCING ANY WORK OUTSIDE OCCUPIED PREMISES AND WHEN ALTERATION OF EXISTING BASE BUILDING SERVICES IS REQUIRED.

A SITE VISIT IS MANDATORY FOR CONTRACTORS BIDDING ON THIS PROJECT TO CONFIRM EXACT EXTENT OF DEMOLITION WORK REQUIRED. COORDINATE ALL WORK WITH GENERAL CONTRACTOR & OWNER AND FIELD VERIFY ALL EXISTING EQUIPMENT AND DEVICES WITHIN THE DEMOLITION AREAS REQUIRING REMOVAL.

ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

ELECTRICAL CONTRACTOR SHALL REMOVE ALL REDUNDANT AND ABANDONED CONDUITS. ANY WIRING AND CONDUITS FEEDING ELECTRICAL DEVICES BEING REMOVED SHALL BE DISPOSED OF NO WIRES OR CONDUIT SHALL BE ABANDONED.

EXISTING POWER OUTLETS FOR BASE BUILDING VAV BOXES SHALL REMAIN AS IS SHOWN AND NOT SHOWN.

ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE TENDER PACKAGE PRICING FOR SECURITY PERSONNEL SUPERVISION AND BUILDING ACCESS AS PER LANDLORD REQUIREMENTS.

ELECTRICAL CONTRACTOR SHALL INCLUDE IN TENDER PACKAGE LABOUR HOURS FOR AFTER HOURS WORK AND IS RESPONSIBLE FOR MAKING ALLOWANCES FOR THE ACCESSING OF FLOORS BELOW AND ABOVE SCOPE OF WORK AREA.

ELECTRICAL CONTRACTOR SHALL REVIEW LANDLORD'S TENANT & DESIGN CRITERIA FOR ALL WORK BEING COMPLETED.

DISCONNECT AND REMOVE POWER FOR ALL DISCONNECTED MECHANICAL UNITS BACK TO SOURCE COORDINATE WITH MECHANICAL DRAWINGS FOR ALL ITEMS BEING REMOVED SHOWN AND NOT SHOWN THIS SHALL ALSO BE VERIFIED DURING WALKTHROUGH.

ALL FLOOR PENETRATIONS BEING CAPPED SHALL BE FIRE STOPPED WITH HILTI MANUFACTURED PRODUCT.

ALL NON-BASEBUILDING ELECTRICAL PANELS SHOWN AND NOT SHOWN SHALL BE DISCONNECTED AND REMOVED BACK TO SOURCE. UPTO AND INCLUDING TRANSFORMER, CHECK METERS.

ALL TENANT AUDIO SYSTEMS CONTROLLERS SHALL BE DISCONNECTED AND REMOVED BACK TO SOURCE.

EXISTING BASE BUILDING JUNCTION BOX FEEDS SHALL BE MAINTAINED AS SHOWN ON PROPOSED POWER & SYSTEMS LAYOUT.

DISCONNECT AND REMOVE ALL EXISTING REDUNDANT & ABANDONED THAT MAY HAVE BEEN LEFT IN CEILING PLENUM SPACE FROM PREVIOUS TENANT.

ALL SECURITY DEVICES NOT PERTAINING TO BASE BUILDING SECURITY INCLUDING ALL MAGLOCKS, DOOR STRIKES, CARD READERS ETC. SHALL BE DISCONNECTED AND REMOVED BACK TO SOURCE.

IF RECEPTACLES, FLOOR MONUMENTS, BASE FEEDS AND WALL FEEDS BEING DISCONNECTED AND REMOVED ARE BEING FED FROM BASEBUILDING JUNCTION BOXES ELECTRICAL CONTRACTOR SHALL ENSURE THAT JUNCTION BOX CIRCUITING AT COMPLETION OF PROJECT IS MAINTAINED AS SHOWN ON PROPOSED POWER & SYSTEMS LAYOUT. ELSE IF FEEDS ARE BEING FED FROM TENANT PANELS THEY SHALL BE DISCONNECTED AND REMOVED COMPLETELY ALONG WITH PANEL, TRANSFORMER, CHECK METER AND DISCONNECT AT BASEBUILDING ELECTRICAL ROOM.

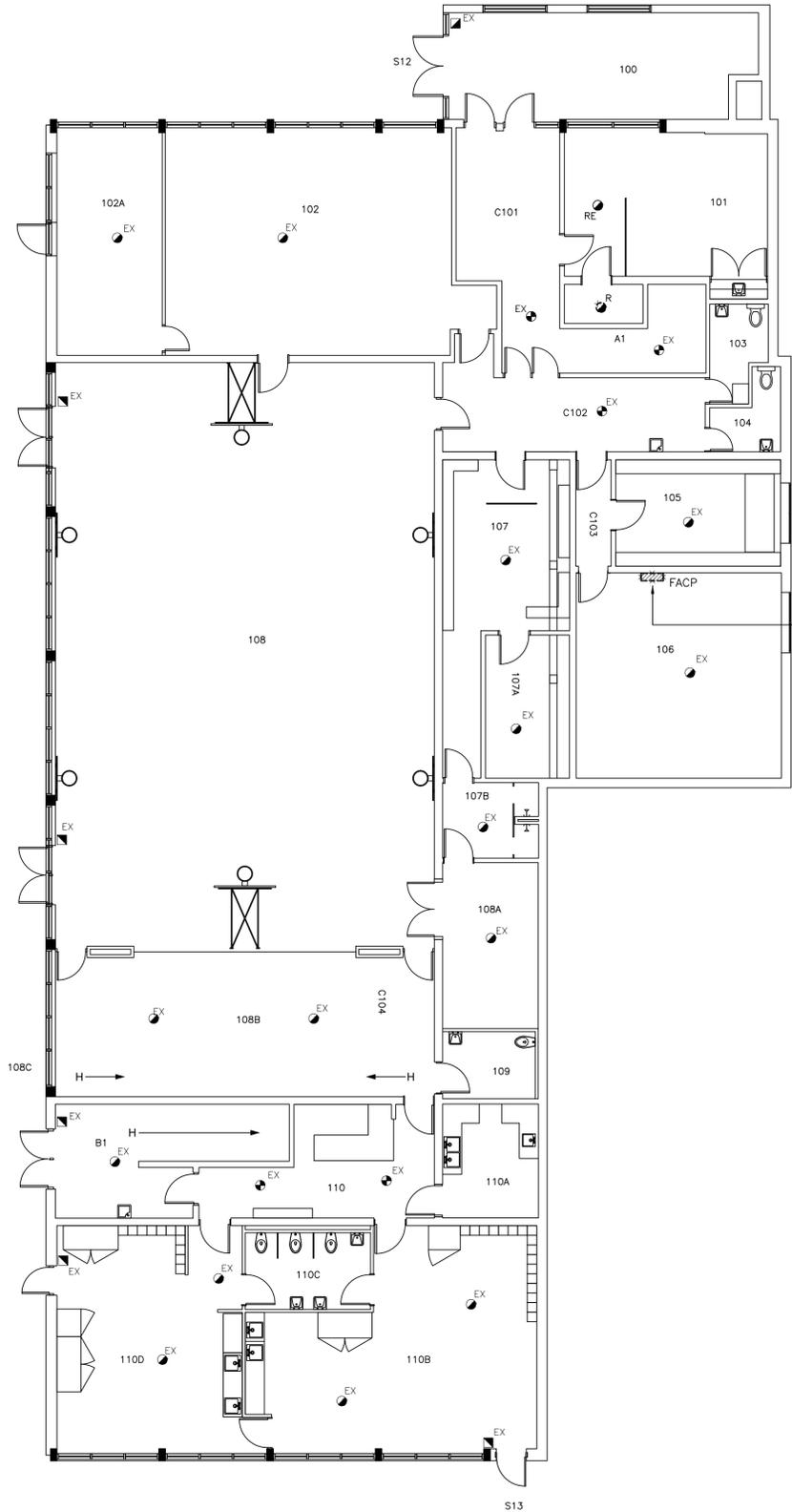
ALL RECEPTACLES, DATA AND VOICE OUTLETS ON PERIMETER WALLS SHALL BE DISCONNECTED AND REMOVED BACK TO SOURCE. JUNCTION BOXES AND CONDUIT ARE TO REMAIN AS IS. BLANK COVER PLATE SHALL BE INSTALLED AT ALL LOCATIONS. ELECTRICAL CONTRACTOR SHALL PRICE FOR THE REMOVAL OF APPROXIMATELY (40) POWER & DATA LOCATIONS.

ALL OTHER PANELS NOT SHOWN ON DRAWINGS AS DISCOVERED ON SITE SHALL BE DISCONNECTED BACK TO BUILDING RISER.

ALL AUDIO DEVICES AND CONTROL DEVICES SHOWN AND NOT SHOWN SHALL BE DISCONNECTED AND REMOVED BACK TO SOURCE.

SHEET KEYNOTES

1	COORDINATE ALL THE FIRE ALARM SYSTEM DEVICES LOCATIONS WITH THE OTHER TRADES AND PROVIDE ALL DEVICES, WIRING AND CONNECT TO EXISTING FIRE ALARM SYSTEM IN THE BUILDING, TYPICAL FOR ALL.
2	THE FIRE ALARM PULL STATION SHALL BE EQUIPPED WITH LEXAN FOR PUBLIC AREAS AND ALL PULL STATIONS COMPLETE WITH ENGLISH/FRENCH INSTRUCTIONS.



REMOVE THE FIRE ALARM CONTROL PANEL (FACP). REUSE THE EXISTING CONVENTIONAL DEVICES AND MANUAL PULL STATION, AND CONNECT THEM TO THE NEW PANEL USING THE EXISTING WIRING WHERE APPLICABLE.



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Project:
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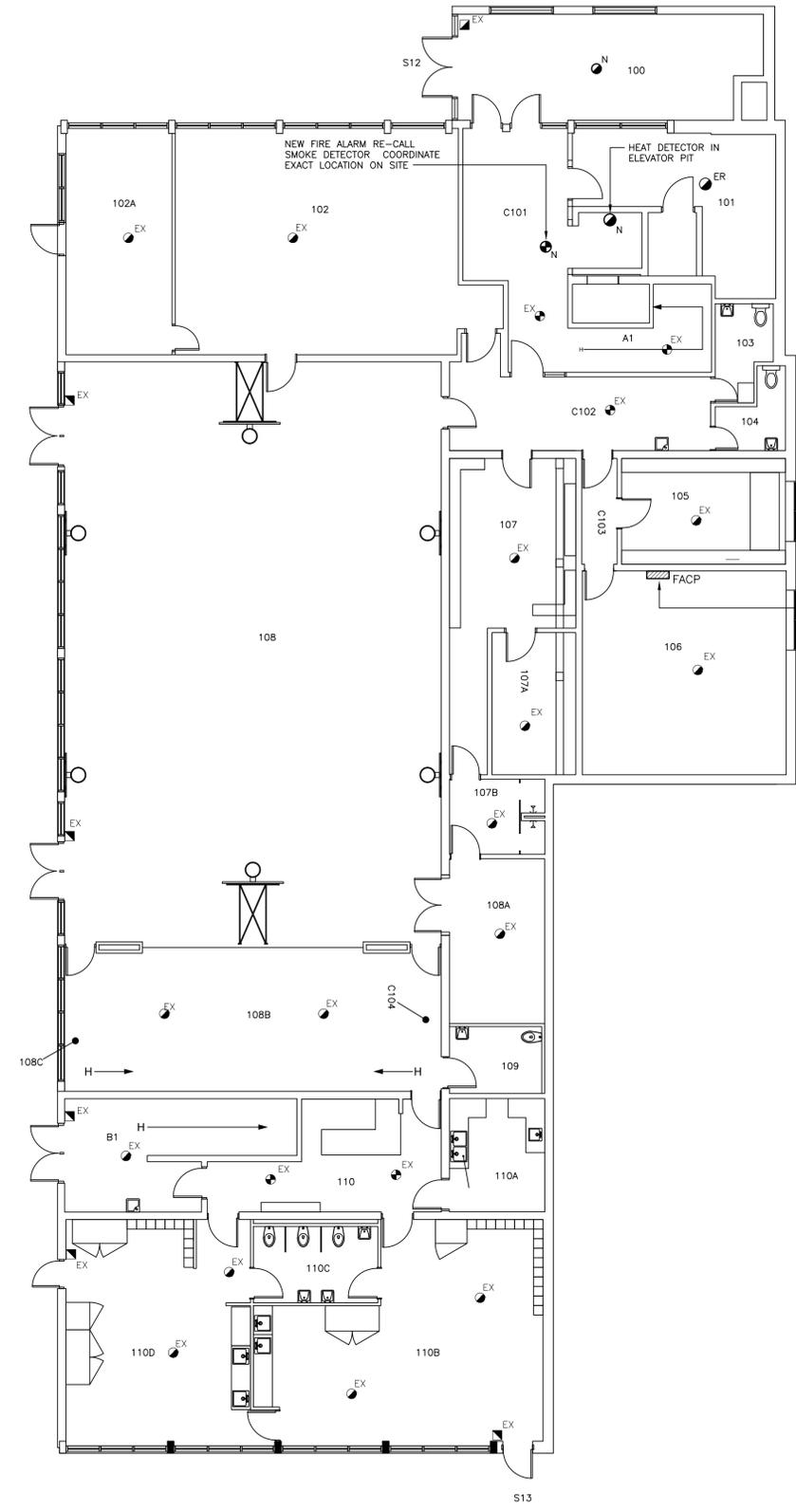


Consultant:

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Title:
 GROUND FLOOR – FIRE ALARM
 EXISTING/ DEMOLITION PLAN

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: E-7
Set No.:	of:



GENERAL NOTES:

- COORDINATE ALL DEVICES WITH ARCHITECTURAL DRAWINGS. AS PER CAN/ULC S524 AND VERIFY TO SUIT CAN/ULCS537.
- COORDINATE ALL NEW AND EX. FIRE ALARM DEVICES WITH OTHER TRADES DRAWINGS.
- COORDINATE WITH ARCHITECTURAL LAYOUT FOR EXACT LOCATION, MOUNTING HEIGHT AND QUANTITY.
- IF REQUIRED MOUNT SUPPLY AIR DUCT SMOKE DETECTOR IN A STRAIGHT SECTION MINIMUM 3 TIMES DIAMETER OF THE DUCT AWAY FROM ANY ELBOW. INSTALL TO THE SATISFACTION OF CAN/ULC S524 AND VERIFY TO SUIT CAN/ULCS537. DUCT SMOKE DETECTOR SHALL BE MOUNTED IN ACCESSIBLE CEILING SPACE.

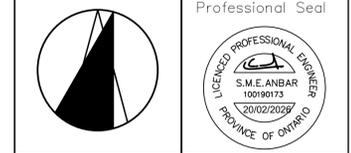
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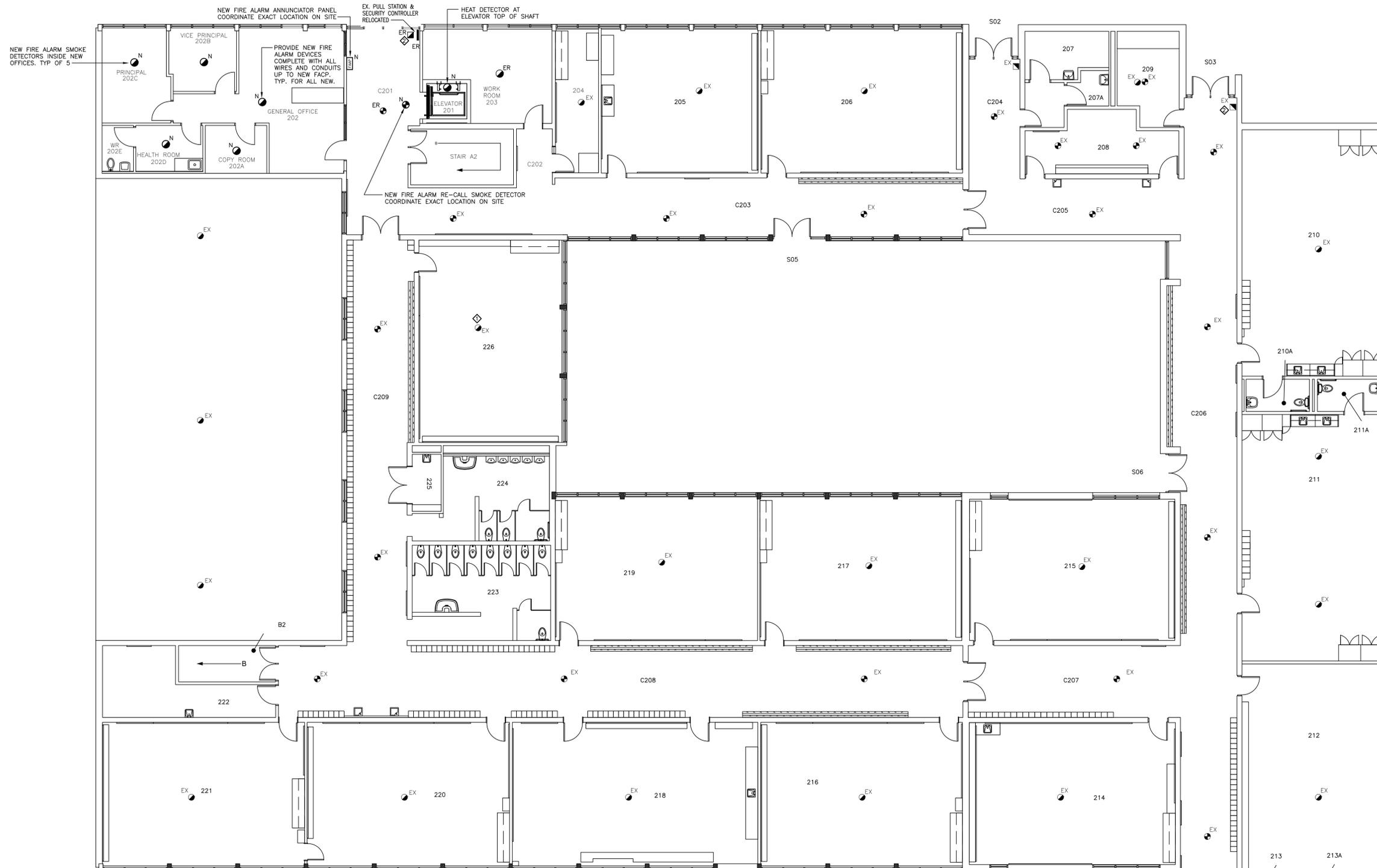


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Title:
 GROUND FLOOR-FIRE ALARM
 SYSTEM - NEW WORK

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: E-9
Set No.:	of:



- GENERAL NOTES:**
- COORDINATE ALL DEVICES WITH ARCHITECTURAL DRAWINGS. AS PER CAN/ULC S524 AND VERIFY TO SUIT CAN/ULCS537.
 - COORDINATE ALL NEW AND EX. FIRE ALARM DEVICES WITH OTHER TRADES DRAWINGS.
 - COORDINATE WITH ARCHITECTURAL LAYOUT FOR EXACT LOCATION, MOUNTING HEIGHT AND QUANTITY.
 - IF REQUIRED MOUNT SUPPLY AIR DUCT SMOKE DETECTOR IN A STRAIGHT SECTION MINIMUM 3 TIMES DIAMETER OF THE DUCT AWAY FROM ANY ELBOW. INSTALL TO THE SATISFACTION OF CAN/ULC S524 AND VERIFY TO SUIT CAN/ULCS537. DUCT SMOKE DETECTOR SHALL BE MOUNTED IN ACCESSIBLE CEILING SPACE.

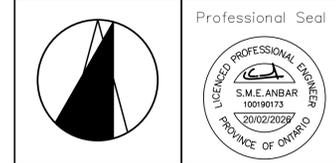
SHEET KEYNOTES	
1	COORDINATE ALL THE FIRE ALARM SYSTEM DEVICES LOCATIONS WITH THE OTHER TRADES AND PROVIDE ALL DEVICES, WIRING AND CONNECT TO EXISTING FIRE ALARM SYSTEM IN THE BUILDING, TYPICAL FOR ALL.
2	THE FIRE ALARM PULL STATION SHALL BE EQUIPPED WITH LEXAN FOR PUBLIC AREAS AND ALL PULL STATIONS COMPLETE WITH ENGLISH/FRENCH INSTRUCTIONS.

Revisions				
Ref.	No.	Description	Date	Initial
△	1	ISSUED FOR COORDINATION	2026/02/04	
△	2	ISSUED FOR COORDINATION	2026/02/19	
△	3	ISSUED FOR COORDINATION	2026/02/27	
△	4	ISSUED FOR TENDER	2026/03/02	

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Title:
 SECOND FLOOR – FIRE
 ALARM SYSTEM – NEW WORK

Drawn by:	Date: JANUARY 2026
Checked by:	Plotted:
Scale: AS SHOWN	Issued:
Job No.: 25116	Drawing No.: E-10
Set No.:	of:

FIRE ALARM / LIFE SAFETY SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

A. This specification provides the functional requirements for the installation, programming, configuration, warranty and maintenance of a complete conventional fire alarm / life safety system.

B. The contractor shall furnish all labour, services and materials necessary to provide and install a complete, functional life safety fire system. The system shall comply in respects with all pertinent codes, rules, regulations and laws of the local authority having jurisdiction. The system shall comply in all respects with the requirements of these specifications, manufacturer's recommendations and underwriters' laboratories of canada (ulc) listings.

C. This fire alarm / life safety system specification must be conformed to, in its entirety to ensure that the installed and programmed life safety system will function as designed, and will accommodate the future requirements and operations required by the building owner.

D. It is further intended that upon completion of this work, the owner be provided with complete information and drawings describing and depicting the entire system as installed, including all information necessary for maintaining, troubleshooting, and/or expanding the system at a future date.

E. The system shall include, but not be limited to:

1. Fire alarm control panel.
2. Automatic and manually activated alarm initiating and monitoring device
3. Audible notification appliances and peripherals
4. Standby power supplies
5. System programming and commissioning.
6. Conduit, wire, and accessories required to provide a complete and operational life safety system

F. Alternates:

1. Alternatives to any of the product or substitution of any work specified in this document with non-specified product or services will be allowed only if a written request, accompanied by supporting documentation and product demonstration establishing equivalent levels of performance, is submitted to the consulting engineer ten (10) working days prior to the date of bid opening. By submission of equipment by an alternate manufacturer for consideration, the submitting contractor accedes that the final decision of the owner and their consulting engineer as to whether the alternate equipment is of equivalent performance.

1.2 REFERENCES

A. The equipment and installation shall comply with the current provisions of the following standards and codes:

1. Underwriters laboratories inc. Standards
 - a. Ulc shall list the system and all components for use in fire protective signaling systems. The ulc label shall be considered as evidence of compliance with this requirement. The equipment shall be listed by ulc under the following standards as applicable:
 - b. Can/ulc-s527 control units for fire alarm systems.
 - c. Can/ulc-s529 smoke detectors for fire alarm systems.
 - d. Can/ulc-s530 heat detectors for fire alarm systems
 - e. Can/ulc-s528 audible signal appliances for fire alarm systems
 - f. Can/ulc-s528 manual pull stations for fire alarm systems
 - g. Can/ulc-s548 alarm initiating and supervisory devices for water type extinguishing systems
 - h. Can/ulc-s536 inspection and testing of fire alarm systems
 - i. Can/ulc-s524 installation of fire alarm systems
 - j. Can/ulc-s537 verification of fire alarm systems
 2. Any equipment not bearing a ulc label shall be removed and replaced with compatible ulc labeled equipment at the contractor's expense.
- B. Canadian electrical code (cec)
- C. National, provincial and local building codes
- D. The system and all components will be manufactured to iso 9001 international quality management and quality assurance standards
- E. In the case of any discrepancy between these specifications, the project drawings, and any applicable local codes, the installed fire alarm / life safety system shall comply with the most stringent requirement.

1.3 SYSTEM DESCRIPTION

A. Design requirements:

1. All control panel assemblies and the connected automatic and manual alarm and notification appliances shall be designed and manufactured by the same company; shall be tested and cross-listed as to ensure that a fully functioning life safety system is designed and provided.
2. The fire alarm / life safety system supplied under this specification shall be a microprocessor-based, conventional fire alarm / life safety system.

B. All fire alarm equipment shall be arranged and programmed to provide a system for the early detection of fire, the notification of building occupants, the automatic summoning of the local fire department, the activation of other auxiliary systems to inhibit the spread of smoke and fire, and to facilitate the safe evacuation of building occupants.

C. A standby power supply shall automatically provide electrical energy to the system upon primary power supply failure. Standby power supply shall be an electrical battery with capacity to operate the system under maximum supervisory load for 24 hours, and capable of operating the system for 30 minutes in the alarm mode at 100% load. Fire alarm system shall include a charging circuit to automatically maintain the electrical charge of the battery.

Part 1 - General

d. Performance requirements:

1. The alarm activation of any area smoke detector, heat detector, manual pull station, sprinkler waterflow, shall cause the following functions to automatically occur:
 - a. The internal audible device shall sound at the control panel.
 - b. Any annunciator led's associated with the alarm zone shall be illuminated.
 - c. Activate audible notification appliances throughout the building as programmed.
 - d. Transmit signal to the central station.
 - e. All automatic events programmed to the alarm point shall be executed and the associated outputs activated.
 - f. All stairwell/exit doors shall unlock throughout the building.
 - g. All self-closing fire/smoke doors held open shall be released.
2. The supervisory activation of any sprinkler valve supervisory switch, shall cause the following functions to automatically occur:
 - a. The internal audible device shall sound at the control panel.
 - b. Any annunciator led's associated with the supervisory zone shall be illuminated.
 - c. All automatic events programmed to the alarm point shall be executed and the associated outputs activated.
 - d. Transmit signal to the central station with point identification.
3. The trouble activation of any internal or field device or wiring fault shall cause the following functions to occur:
 - a. The internal audible device shall sound at the control panel.
 - b. Any annunciator led's associated with the trouble zone shall be illuminated.
 - c. Transmit trouble signal to the central station.

1.4 Submittals

A. The contractor shall purchase no equipment for the system specified herein until the engineer/owner has approved the project submittals in their entirety and has returned them to the contractor. It is the responsibility of the contractor to meet the entire intent and functional performance detailed in these specifications. Approved submittals shall only allow the contractor to proceed with the installation and shall not be construed to mean that the contractor has satisfied the requirements of these specifications.

B. Project submittal:

1. The contractor shall submit eight (8) complete sets of project submittal documentation in order to be considered for this project. This project submittal documentation shall include but not be limited to data sheets bearing the printed logo or trademark of the fire alarm / life safety system manufacturer for all equipment. Indicated in the documentation will be the type, size, rating, style, catalog number, and manufacturer's name for all items proposed to meet the system performance detailed in this specification.
2. The proposed equipment shall be subject to the approval of the architect/engineer and no equipment shall be ordered or installed on the premises without this approval.

C. Closeout submittals:

1. Final payment of the contractor will not be authorized until the complete documentation specified herein is delivered to the owner.
2. Two (2) copies of the following documents shall be delivered to the building owner's representative at the time of system acceptance. The close out submittals shall include:
 - a. Operating manuals covering the installed life safety system including a description of the system architecture, inputs, notification signaling, auxiliary functions, annunciation and limitations.
 - b. Include the name, address and telephone of the authorized factory representative with a 24-hour emergency service number that is monitored on a 24-hour basis.
 3. A copy of the manufacturer's warranty on the installed system.

1.5 QUALITY ASSURANCE

A. Fire alarm manufacturer qualifications

1. Equipment and materials shall be provided by an experienced reputable manufacturer to ensure proper specification adherence, final connection, test, turnover, warranty compliance, and service. The manufacturer is required to have been in the fire alarm industry (service and installation) for a minimum of ten (10) years.
2. The manufacturer shall have in-house engineering and project management capability consistent with the requirements of this project. Qualified and approved representatives of the system manufacturer shall perform the detailed engineering design of central and remote control equipment.

1.6 DELIVERY, STORAGE AND HANDLING

A. The contractor shall be responsible for all receiving, handling, and storage of his materials at the job site. Use of loading docks, and service driveways shall be coordinated with the owner.

1.7 WARRANTY AND MAINTENANCE

A. The fire alarm / life safety system manufacturer shall supply a one (1) year warranty from date of verification for all control system, field devices, and appliances.

B. Contractor shall warrant the installed system to be free from any defects of material and installation for a period of one (1) year from acceptance by the engineer. Any deficiencies shall be immediately corrected at no additional cost to the owner.

1.8 COMMISSIONING

A. THE SYSTEM SHALL BE COMMISSIONED IN ACCORDANCE WITH THE NEEDS OF THE OCCUPANTS OF THE PROTECTED BUILDING. BOTH "COMPLETE SYSTEM COMMISSIONING" AND "PHASED SYSTEM COMMISSIONING" SHALL BE POSSIBLE WITH THE SPECIFIED SYSTEM, AND THE EXECUTION OF EITHER METHOD OF COMMISSIONING SHALL BE TREATED AS STAND-ALONE PROJECTS, AND SHALL BE DOCUMENTED AS SUCH, INCLUDING THE NEED FOR A COMPLETE CONTRACT CLOSE OUT SUBMITTAL PACKAGE FOR EACH PROJECT PHASE.

B. THE FACTORY TRAINED AND AUTHORIZED FIRE ALARM MANUFACTURER'S SERVICE REPRESENTATIVE, IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE, AND A REPRESENTATIVE OF THE GENERAL CONTRACTOR SHALL PERFORM COMMISSIONING OF THE ENTIRE INSTALLED SYSTEM, IF DEEMED APPROPRIATE.

Part 2 - PRODUCTS

2.1 MANUFACTURER

A. The specified and approved equipment manufacturer shall be Mircom, addressable, microprocessor based fire alarm systems. Mircom systems constitute the minimum type and quality of equipment to be installed. Alternate manufacturer's equipment will be considered if written approval from owner has been obtained prior to alternate product submittal.

B. All equipment and components shall be the manufacturer's current models. The materials, appliances, equipment and devices shall be tested and listed to ULC standards for use as part of a protective signaling (fire alarm) system. The contractor shall provide, from the acceptable manufacturer's current product lines, equipment and components that comply with the requirements of these specifications. Equipment or components, which do not provide the performance and features, required by these specifications are not acceptable, regardless of manufacturer.

2.2 GENERAL

A. All equipment furnished for this project shall be new and unused. All equipment, materials, accessories, devices, and other facilities covered by this specification or noted on contract drawings and installation specifications shall be the best suited for the intended use and shall be the product of a single manufacturer.

2.3 SYSTEM OVERVIEW

A. The fire alarm / life safety system shall be a microprocessor based system designed specifically for smoke and fire detection applications. The fire alarm / life safety system shall be ulc listed to ULC-s527-99, standard for control units for fire alarm systems.

2.4 PANEL COMPONENTS AND FUNCTIONS

A. General

1. The control panel shall include all required hardware, software and system programming to provide complete and operational system. The control panel shall assure that life safety takes precedence among all panel activities.
2. The control panel shall include the following capacities:

A. Conventional device support for up to 40 class b input circuits and 8 class b output circuits.
 B. Waterflow and supervisory circuits shall be able to be combined on one circuit using one pair of wires.
 C. Include form "c" alarm, supervisory, monitor and trouble relays in the control panel rated at 1.0 amp each.
 D. Support remote programmable relays.

3. The control panel shall include the following features:

A. Be capable of full system programming through the front panel.
 B. Provide discreet system control switches for reset, alarm silence, panel silence, walk test, alarm relay disconnect, drill and individual input and output circuit disable switches.

B. Notification appliance circuits:

1. Provide as indicated on the plans, supervised hard-wired notification appliance (signal) circuits (nac) for the control of 24vdc notification appliances.
2. Each nac shall be capable of supporting 2.0 amps of load and may be programmed common to any input or specific to an input zone or group of zones.
3. NAC's shall be programmable for 2 different signal rates: steady 24 vdc or temporal (3-3-3).

C. Power supply

1. The system power supply shall provide a minimum of 4 amps @ 24 VDC.
2. All standby batteries shall be continuously monitored by the system. Low battery and disconnection of battery power supply conditions shall immediately annunciate as a trouble signal.

2.5 LIFE SAFETY SYSTEM PROGRAMMABLE OPERATIONS

a. The system shall be fully programmable through the front panel for the following features:

1. Auto signal silence timer
2. Resettable aux power
3. Signal silence/reset inhibit timer
4. NACs silenceable by alarm silence or reset only
5. IDC type as described above
6. NAC type as described above

2.6 REMOTE LED ANNUNCIATOR

A. The system shall support a remote annunciator with led and led display, common alarm, trouble, supervisory, ground fault and power "on" indicators and a local trouble buzzer and silence switch.
 B. The annunciator shall have an individual zone status led with area for descriptive location message.
 C. The annunciators shall connect to the system using one single pair of non-shielded, non-twisted serial communication wires and one pair for 24 VDC power.
 D. Annunciator shall be located as shown in the plans.

2.7 FIELD MOUNTED SYSTEM COMPONENTS

A. Manual fire alarm stations shall be edwards ltd., cat. #270-spow pull-lever, open circuit type, with clearly visible break glass and tool protected test feature. Unit shall be red enamel finish with aluminum markings.

B. Automatic thermal detectors shall be of low silhouette design, edwards cat. #281b-pl finished in white. Detector shall have twist lock mount for ease of maintenance, testing and replacement. Activation of the fixed temperature element in the detector shall cause the centre disc to drop a vertical position to provide means of determining which detector has initiated the alarm.

C. Photoelectric conventional smoke detectors

1. Photoelectric smoke detectors shall be edwards's c2m-pdc series or approved equal.
2. The detectors shall operate from 14-30 vdc.

Part 2 - PRODUCTS

2.8 FIRE ALARM NOTIFICATION APPLIANCES - GENERAL REQUIREMENTS

A. All appliances which are supplied for the requirements of this specification shall be ULC listed.

B. All appliances shall be of the same manufacturer as the fire alarm control panel specified to insure absolute compatibility between the appliances and the control panels, and to insure that the application of the appliances are done in accordance with the single manufacturer's instructions.

C. Electronic horns and horn/strobes

1. Provide electronic horns and horn/strobes as manufactured by Edwards, Genesis series g1-hd and G1-HDM, or approved equal. The strobe shall self-synchronize to within 10 milliseconds. No require additional wiring required.

Part 3 - EXECUTION

3.1 INSTALLATION

A. The entire system shall be installed in accordance with the latest edition of can/ulc-s524 and the approved manufacturer's manuals and wiring diagrams. The contractor shall furnish all labour, conduit, wiring, outlet boxes, junction boxes, cabinets and similar devices necessary for a complete, functional life safety fire alarm system. Provide all necessary power supply, interconnecting and remote signal wire in dedicated conduit throughout and installed in accordance with the manufacturer's wiring diagrams and the requirements of the Canadian electrical code and the inspection authority.

B. End-of-line resistors shall be furnished as required for mounting as directed by the manufacturer.

3.2 TESTING AND INSPECTION

A. The manufacturer's representative shall make an inspection of the fire alarm equipment, including those components necessary to the direct operation of the system such as manual stations, thermal and smoke actuated detectors and controls, whether or not manufactured by the manufacturer. The inspection shall comprise an examination and test of such equipment for the following:

1. That the type of equipment installed is that designated by the specifications.
2. That the wiring connections to all equipment components show that the installer undertook to have observed ULC requirements.
3. That all products of combustion (smoke) detectors have been properly calibrated and adjustments set correctly.
4. That the equipment has been installed in accordance with the manufacturer's recommendations.
5. That the supervisory wiring of all devices connected to a supervised circuit is operating and that the wiring, having been met to the satisfaction of the inspecting officials.
6. Testing to be done in the presence of the local building inspector and the local fire marshal.
7. Fire alarm system shall be verified as per the latest issue of can-ulcs537 verification of fire alarm systems standard.

END OF SECTION

Revisions				
Ref.	No.	Description	Date	Initial
△	1	ISSUED FOR COORDINATION	2026/02/04	
△	2	ISSUED FOR COORDINATION	2026/02/19	
△	3	ISSUED FOR COORDINATION	2026/02/27	
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