## Renovations at Ecole Elementaire Felix-Leclerc

50 Celestine Drive Toronto, Ontario

## LIST OF DRAWINGS

OBC MATRIX, DRAWING LIST AND LOCATION PLAN OVERALL FLOOR PLANS A202 PART DEMOLITION FLOOR PLAN A203 PART FLOOR PLAN PART ROOF PLAN PART REFLECTED CEILING PLAN A206 PART FLOOR PLANS WALL SECTIONS PLAN DETAILS INTERIOR ELEVATIONS A702 INTERIOR ELEVATIONS MILLWORK PLANS, ELEVATIONS AND SECTIONS SCHEDULES STRUCTURAL GENERAL NOTES & PART ROOF FRAMING PLAN **MECHANICAL** TITLE SHEET MECHANICAL SPECIFICATIONS I MECHANICAL SPECIFICATIONS II M-1.3 MECHANICAL LEGEND MECHANICAL SCHEDULES I MECHANICAL SCHEDULES II AND DETAILS I MECHANICAL DETAILS II MECHANICAL DETAILS III PART GROUND FLOOR DEMOLITION PLAN - HVAC PART GROUND FLOOR DEMOLITION PLAN - HYDRONIC M-2.3 PART GROUND FLOOR NEW PLAN - HVAC M-2.4 PART ROOF NEW PLAN - HVAC M-2.5 PART GROUND FLOOR NEW PLAN - HYDRONIC M-2.6 BOILER ROOM NEW PLAN - HYDRONIC M-3.1 PART GROUND FLOOR DEMOLITION PLAN - PLUMBING & DRAINAGE M-3.2PART GROUND FLOOR NEW PLAN - PLUMBING & DRAINAGE ELECTRICAL ELECTRICAL LEGEND AND DETAILS E-1.2 ELECTRICAL DETAILS **ELECTRICAL DETAILS** E-1.3 E-1.4 **ELECTRICAL DETAILS** E-1.5 **ELECTRICAL DETAILS** E-2.0 ELECTRICAL FACILITY PLAN ELECTRICAL PLAN E-2.2 ELECTRICAL ROOF PLAN

E-3.1

E-5.1

E-6.1

C-2.1

COMMUNICATIONS

REFLECTED CEILING PLAN

COMMUNICATIONS PLAN

ELECTRICAL DEMOLITION PLAN

REFLECTED CEILING DEMOLITION PLAN

COMMUNICATIONS LEGEND AND DETAILS

ELECTRICAL SINGLE LINE DIAGRAM

COMMUNICATIONS FACULTY PLAN

COMMUNICATIONS DEMOLITION PLAN

## CONSULTANTS

ARCHITECTURAL / STRUCTURAL:



**ASSOCIATES** Architects Engineers **Project Managers** 250 Water St. Suite 201 Whitby, Ontario Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

#### MECHANICAL

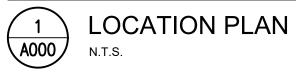


GIALLONARDO ENGINEERING INC. 220-4550 Highway 7 Woodbridge, Ontario info@giallonardoeng.com Web: http://www.giallonardoeng.com

#### ELECTRICAL:

HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423

# - ECOLÉ ELEMENTAIRE FELIX-LECLERC 50 CELESTINE DRIVE, ETOBICOKE Map data ©2025 Google 200 m **■**



NAME OF CONSULTANT: BARRY BRYAN ASSOCIATES CERTIFICATE OF PRACTICE NUMBER : 5192 250 WATER STREET, SUITE 201 WHITBY, ONTARIO, CANADA. LIN 0G5 TEL: (905) - 666 - 5252 (Toronto) (905) - 427 - 4495 FAX: (905) - 666 - 5256

NAME OF PROJECT : RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERO

LOCATION OF PROJECT 50 CELESTINE DRIVE, ON

DATE: FEBRUARY 2025

	Dullalia a C. J. M. C.	Part 11 - Renovation of Existing Building	<del>                                     </del>
	Building Code Version	<u> </u>	[A] 4 2 2 2D
11.01	Project Type:	☐ Addition ☐ Renovation ☐ Addition and Renovation ☐ Change of use  Description RENOVATIONS AT ECOLE ELEMENTAIR FELIX-LECLERC	[A] 1.3.3.3B
11.02	Major Occupancy Classification:	Occupancy Use GROUP A, DIV. 2 ELEMENTARY SCHOOL	3.1.2.1.(1), 2.1.4.1. 10.1.1.2, and 11.2.1.
11.03	Superimposed		11.2, 3.2.2.5 to
11 04	Major Occupancies:  Building Area (m²)	Description    Description	3.2.2.8 and 2.2.1 [A] 1.4.1.2., 11.2
11.04	Building Area (III-)	EXISTING FIRST FLOOR 3342 3342	and 11.3
		Total= 3342 3342	
	Building Height		[A] 1.4.1.2, 3.2.1.1, 2.2.2.2 and 11.3
11.06	Number of streets/ fire fighter access:	1 (one) street(s) Existing	3.2.2.10, 3.2.5, 2.2.4.1 and 11.3
11.07	Building Size:	☐ Small ☐ Medium ☑ Large ☐ > Large	11.2.1.1 and T.11.2.1.1.BN.
11.08	Existing Building Classification:	Change in Major Occupancy:  Yes  Not Applicable (no change of major occupancy)  Construction Index:  -	10.1.1.2, 11.2.1.1 T11.2.1.1A T11.2.1.1B to N, 4.1.2.1(3), 2.3.1 & 5.2.2.1.(2)
		☐ High ☐ Post-disaster	
	Renovation Type: Occupant Load:	☑ Basic Renovation ☐ Extensive Renovation  Floor Level/ Area Occupancy Based On Occup. Load	11.3.3.1 & 11.3.3.2 3.1.17, 2.1.2.2 and
	occupant Loud.	Ground Floor Assembly Use No change	11.4.2.2.
11.11a	Plumbing Fixture Requirements:	Ratio: Male/Female = 50:50 Except as noted otherwise  Floor level/ Area Occupant OBC WC's WC's  Load Reference Required Provided	3.7.4, 11.3.4, 11.3 11.4.2.4 & 11.4.2.5 *NO CHANGE
11.11b	9	Floor level/ Area B.F. WC's B.F. WC's Universal Universal	Tables 3.8.2.3.A
	Requirements: cont.	(Repeated) Required Provided Washrooms Washrooms Required Provided	and 3.8.2.3.B *NO CHANGE
11.12	Barrier-free Design: Barrier-free	✓ Yes □ No Explaination	11.3.1.2, 11.3.2, 11.3.3.2
11.13	Entrances: Reduction in Performance Level:	Structural  By Increase in occupant load:  By change of major occupancy:  Plumbing  Sewage - system:  Extension of buildings of  VÍ No Yes  Yes  Yes  Yes  Yes  Yes  Yes	11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6
		combustible construction:	1
11.14	Compensating Construction:	combustible construction:    Yes	11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6 11.4.2.7
	, ,	☐ Yes         ☑ No           Structural         ☑ No         ☐ Yes           By Increase in occupant load:         ☑ No         ☐ Yes           By change of major occupancy:         ☑ No         ☐ Yes           Plumbing         ☑ No         ☐ Yes           Sewage - system:         ☑ No         ☐ Yes           Extension of buildings of         ☑ No         ☐ Yes	11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6
	Construction:  Compliance Alternatives Proposed:	Structural         ☑ No         Yes           By Increase in occupant load:         ☑ No         Yes           By change of major occupancy:         ☑ No         Yes           Plumbing         ☑ No         Yes           Sewage - system:         ☑ No         Yes           Extension of buildings of Combustible Construction:         ☑ No         Yes	11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6 11.4.2.7
11.15	Construction:  Compliance Alternatives Proposed:  Alternative	Structural         ☑ No         Yes           By Increase in occupant load:         ☑ No         Yes           By change of major occupancy:         ☑ No         Yes           Plumbing         ☑ No         Yes           Sewage - system:         ☑ No         Yes           Extension of buildings of Combustible Construction:         ☑ No         Yes	11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6 11.4.2.7 11.5.1.

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NO.	ISSUES	DATE	В
1	ISSUED FOR PERMIT & TENDER	MARCH 10, 2025	BB/
		10, 2020	
NO.	REVISIONS	DATE	В

PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE** FELIX-LECLERC

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

OBC MATRIX, DRAWING LIST AND LOCATION PLAN



Architects

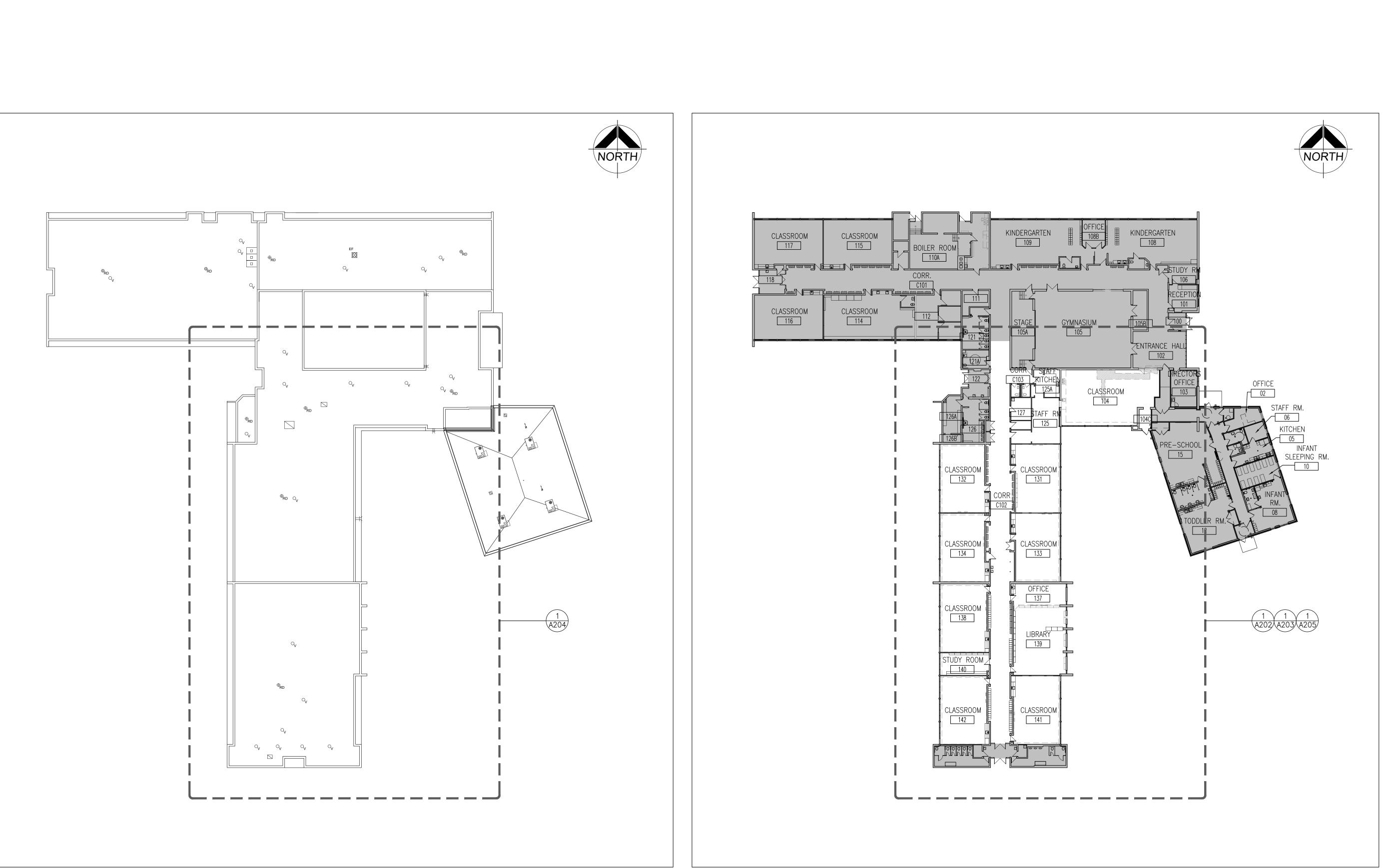
WILLIAM WEIMA" LICENCE DESIGN BY: ASSOCIATES DRAWN BY: CHECKED BY:

Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario L1N 0G5 Tel: (905) 666-5252 Fax: (905) 666-5256

FEB. 2025 AS NOTED e-mail: bba@bba-archeng.com FILE:

PROJECT NO: 24194

A000



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NO. ISSUES DATE BY 1 ISSUED FOR PERMIT & TENDER

NO. REVISIONS DATE BY

PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

OVERALL FLOOR PLANS



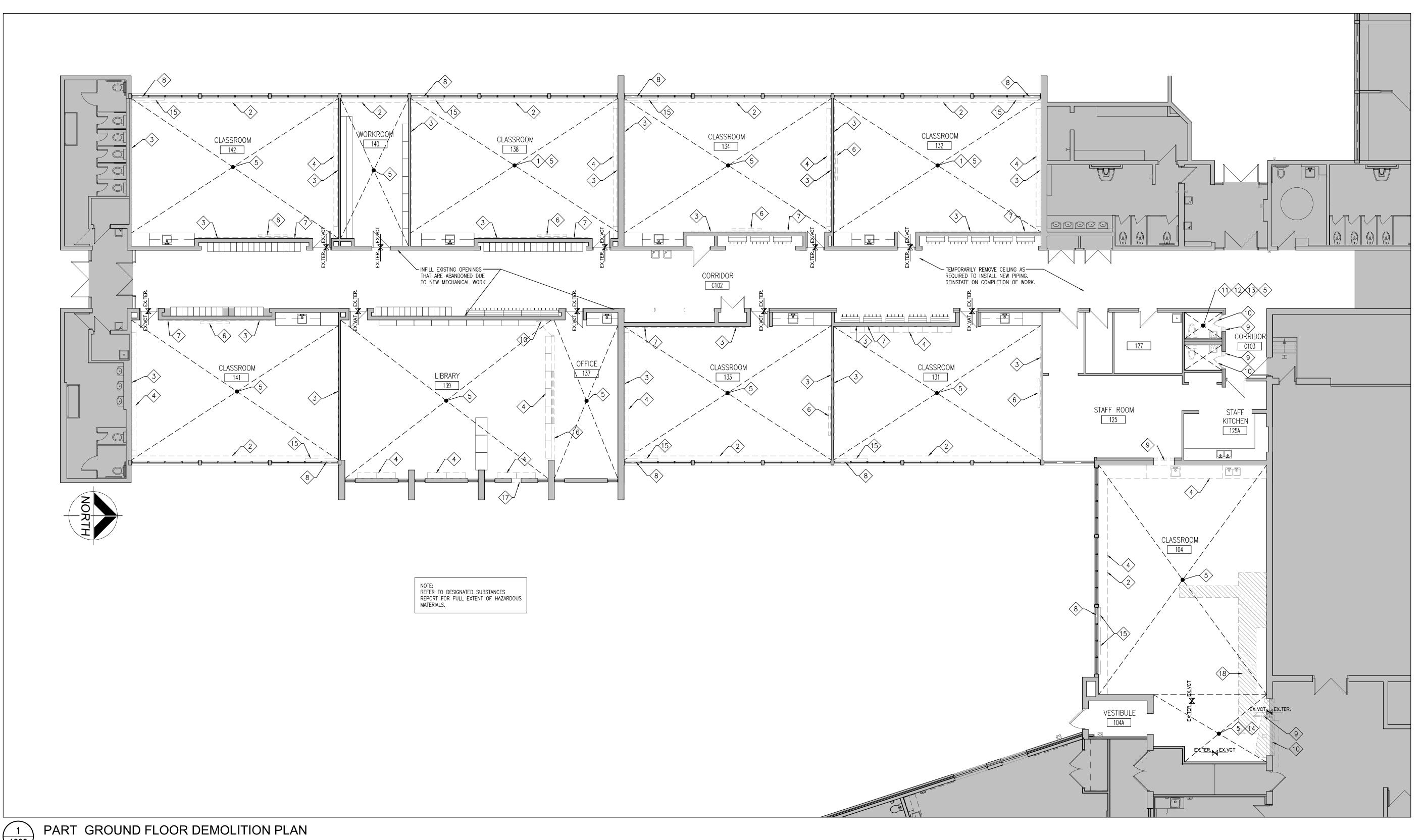
WILLIAM WEIMA

BARRY BRYAN ASSOCIATES Architects Engineers Project Managers CHECKED BY: 250 Water Street Suite 201 Whitby, Ontario L1N 0G5

DATE: FEB. 2025 Tel: (905) 666-5252

AS NOTED Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

PROJECT NO: **A201** 24194



A202 1:100

#### TYPICAL DEMOLITION NOTES

- SITE VERIFY ALL DIMENSIONS AND CONDITIONS. REPORT DISCREPANCIES TO THE CONSULTANTS.
- 2. ALL WORK TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
- COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS FOR CONSTRUCTION PROJECTS.
- PROVIDE PROTECTION IN LOCATIONS APPROVED BY THE OWNER AND CONSULTANT SO AS NOT TO DAMAGE EXISTING STRUCTURE, LANDSCAPE OR PART THEREOF.
- COMPLETE ALL DEMOLITION WORK NECESSARY TO COMPLETE THE RENOVATIONS AS SHOWN AND AS REQUIRED. DEMOLITION OF BUILDING ELEMENTS INCLUDES BUT NOT LIMITED TO COMPLETE REMOVAL OF ALL ASSOCIATED FIXTURES, FITTINGS, HARDWARE, FASTENERS, EQUIPMENT AND ACCESSORIES UNLESS NOTED
- ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DEMOLITION DRAWINGS ARE COMPLEMENTARY AND SHALL BE READ TOGETHER.
- PROVIDE ALL SHORING AS REQUIRED. SHORING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
- NOTIFY CONSULTANT OF LOAD BEARING MEMBERS OR ASSEMBLIES IDENTIFIED OR DISCOVERED DURING WORK AND NOT INDICATED ON DRAWINGS. DO NOT PROCEED

WITH REMOVALS WITHOUT PRIOR REVIEW BY THE CONSULTANT.

- 9. PROVIDE TEMPORARY SUPPORT OF PIPES, DUCTS AND ELECTRICAL CHASES AS REQUIRED FOR SAFE REMOVAL. EXISTING AND PROPOSED SUPPORTS ARE TO BE REVIEWED BY THE CONSULTANT PRIOR TO THE REMOVAL OF ANY COMPONENTS WHICH MAY FALL. OR CAUSE OTHERS TO FALL.
- MAINTAIN ALL WORK AREAS AND ALL STORAGE AREAS CLEAN AND ORDERLY AT ALL TIMES INCLUDING EXISTING AREAS THAT REMAIN IN OPERATION DURING CONSTRUCTION. DUST CONTROL MEASURES ARE TO BE IN PLACE AT ALL TIMES AND NOISY WORK SHALL BE COORDINATED AROUND PROGRAM EVENTS.
- 11. REMOVAL OF EXISTING FLOOR FINISHES IS TO INCLUDE COMPLETE REMOVAL OF BASE AND ALL MORTAR AND ADHESIVES AND PREPARATION OF EXISTING SUBSTRATES TO RECEIVE NEW FLOORING, SATISFACTORY TO THE MANUFACTURER OF NEW FLOOR FINISHES. ALLOW FOR EXCESSIVE LEVELING OF SLABS.
- 12. DEMOLITION INCLUDES ALL ASSOCIATED MECHANICAL AND ELECTRICAL SERVICES, EQUIPMENT, FITTINGS, FIXTURES, HANGERS, BRACKETS, TRIM AND ACCESSORIES AS REQUIRED TO COMPLETE THE WORK.
- 13. SAWCUT, BREAK OUT AND MAKE GOOD (MATCH EXISTING U.N.O.) ALL EXISTING FLOOR SLABS WHERE REQUIRED TO INSTALL NEW UNDERGROUND PLUMBING AND OTHER BURIED SERVICES AS INDICATED AND AS REQUIRED ON MECHANICAL AND
- 14. REMOVAL OF DOORS AND FRAMES IS TO INCLUDE REMOVAL OF ALL HARDWARE.

ELECTRICAL DRAWINGS.

15. REMOVE ALL PROTRUSIONS IN FLOOR SLAB AND GRIND DOWN TO FLOOR LEVEL.

- 16. CLEAN, PATCH / REPAIR ALL EXISTING SURFACES TO REMAIN TO RECEIVE NEW FINISHES. ALLOW FOR REMOVAL OR SCARIFICATION OF EXISTING PAINT FINISH ON WALLS THAT ARE TO RECEIVE NEW WALL TILE FINISH. REMOVE ALL MORTAR, ADHESIVES AND RUST AS REQUIRED TO PREPARE EXISTING SUBSTRATES TO
- 17. DISCONNECT AND CAP OFF ALL SERVICES PRIOR TO DEMOLITION.
- 18. DISPOSE OF MATERIALS OFF SITE.

RECEIVE NEW PAINT FINISHES.

- 19. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE OR FINISHES SHOWN TO REMAIN AND REPAIR / REPLACE SAME TO THE SATISFACTION OF THE OWNER AND CONSULTANT.
- 20 BUILDING TO BE SECURED BY THE G.C. AT ALL TIMES.
- 21. REFER TO HAZARDOUS BUILDING MATERIALS ASSESSMENT, FILE #200584.049, DATED NOVEMBER 13, 2019, PREPARED BY PINCHIN. HAZARDOUS REMOVALS SHALL COMPLY WITH CURRENT LEGISLATION.
- 22. PATCH, REPAIR AND MAKE GOOD ALL EXISTING SURFACES AFFECTED BY MECHANICAL AND ELECTRICAL WORK.
- 23. MAKE GOOD ALL SURFACES AFFECTED BY THE WORK, INCLUDING BUT NOT LIMITED TO WALL, PATCHING, PAINTING, MILLWORKS, FLOORING AND CEILING.

#### **DEMOLITION NOTES** DEMOLITION LEGEND

DENOTES DEMOLITION OF

EXISTING DOOR, FRAME AND

EXISTING DOOR, FRAME AND

REMOVED AND DISPOSED OF.

TRIM TO BE CAREFULLY

BUILDING ELEMENT

TRIM TO REMAIN

- REMOVE AND DISPOSED OF EXISTING VCT FLOORING.
  PATCH, REPAIR AND MAKE GOOD EXISTING SLAB FOR NEW EXISTING WALL, PARTITION OR COLUMN
  - 2 REMOVE AND DISPOSED OF EXISTING WALL FIN RADIATOR & SHELF IN IT'S ENTIRETY. REMOVE AND DISPOSED OF EXISTING BLACK BOARDS AND TACK BOARDS. PATCH, REPAIR AND MAKE GOOD EXISTING SURFACES FOR NEW FINISHES.
    - REMOVE AND DISPOSED OF EXISTING MILLWORK. PATCH, REPAIR & MAKE GOOD EXISTING SURFACES.
    - REMOVE EXISTING CEILING MOUNTED LIGHTS AND DEVICES.
      PATCH, REPAIR & MAKE GOOD EXISTING SURFACES.
    - 6 REMOVE EXISTING TELEVISION AND TURN OVER TO SCHOOL FOR STORAGE. TELEVISIONS TO BE REINSTALLED AT NEW
    - 7 TEMPORARILY REMOVE EXISTING SPEAKER AND CLOCK AS REQUIRED FOR TACK BOARD REMOVAL. REINSTALL AFTER TACK BOARDS ARE REMOVED.

- 8 REMOVE EXISTING GLAZED PANE AND PREPARE EXISTING FRAME FOR INSTALLATION OF ALL PROPERTY OF A FRAME FOR INSTALLATION OF ALUMINUM PANEL.
- 9 SAWCUT AND BREAKOUT MASONRY OPENING TO EXTENT SHOWN, PATCH REDAIL & MAKE COSE SHOWN. PATCH, REPAIR & MAKE GOOD ALL SURFACES.
- REMOVE AND DISPOSE OF EXISTING PLUMBING FIXTURES. CAP SERVICES AND PREPARE FOR INSTALLATION OF NEW

10 REMOVE EXISTING DOOR AND FRAME.

NEW FINISHES.

- FIXTURES. REMOVE & DISPOSE OF EXISTING CERAMIC TILE FLOORING. PATCH, REPAIR & MAKE GOOD ALL SURFACES AS
- REQUIRED FOR NEW FINISHES. REMOVE AND DISPOSE OF EXISTING GYPSUM BOARD CEILING. PATCH, REPAIR & MAKE GOOD ALL SURFACED FOR
- REMOVE AND DISPOSE OF EXISTING T-BAR CEILING AND ACOUSTIC PANELS.

- 15 REMOVE & DISPOSE OF EXISTING ROLLER SHADES AS REQUIRED TO COMPLETE NEW WORK.
- REMOVE EXISTING WALL IN IT'S ENTIRETY. PATCH, REPAIR AND MAKE GOOD EXISTING SURFACES.
- \$\langle 17 \rangle SAWCUT & BREAKOUT OPENING IN EXISTING BLOCK/ BRICK WALL AS REQUIRED FOR INSTALLATION OF NEW UNIT VENTILATOR AND LOUVRE. SHORE WALL AS REQUIRED AND
- SAWCUT & BREAKOUT EXISTING CONCRETE SLAB AS REQUIRED TO COMPLETE PLUMBING WORK. INFILL SLAB ON COMPLETION OF WORK. REFER TO TYPICAL SLAB INFILL

DATE BY

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## PROJECT:

### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

## DRAWING:

#### PART DEMOLITION FLOOR PLAN



BARRY BRYAN ASSOCIATES Architects Engineers

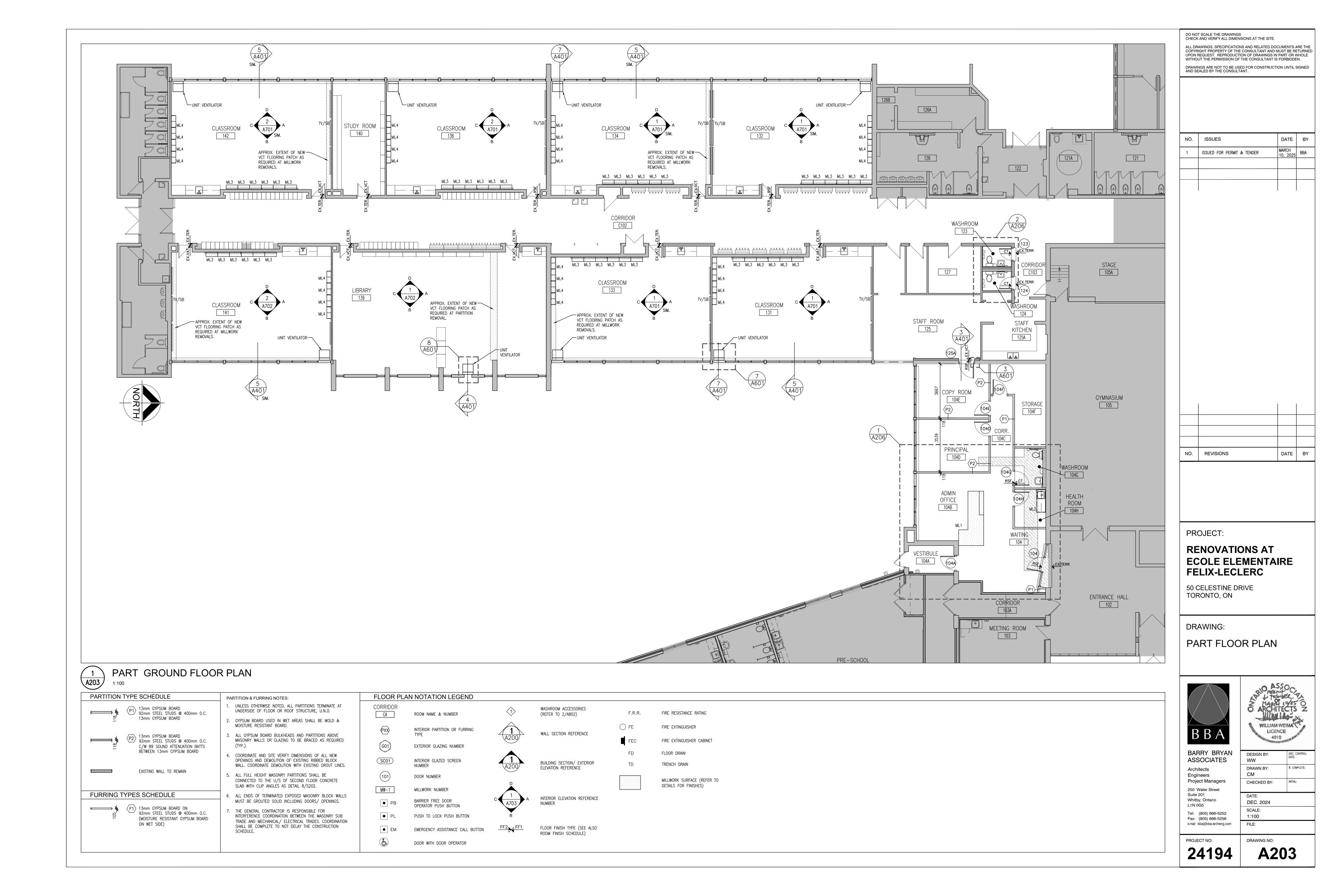
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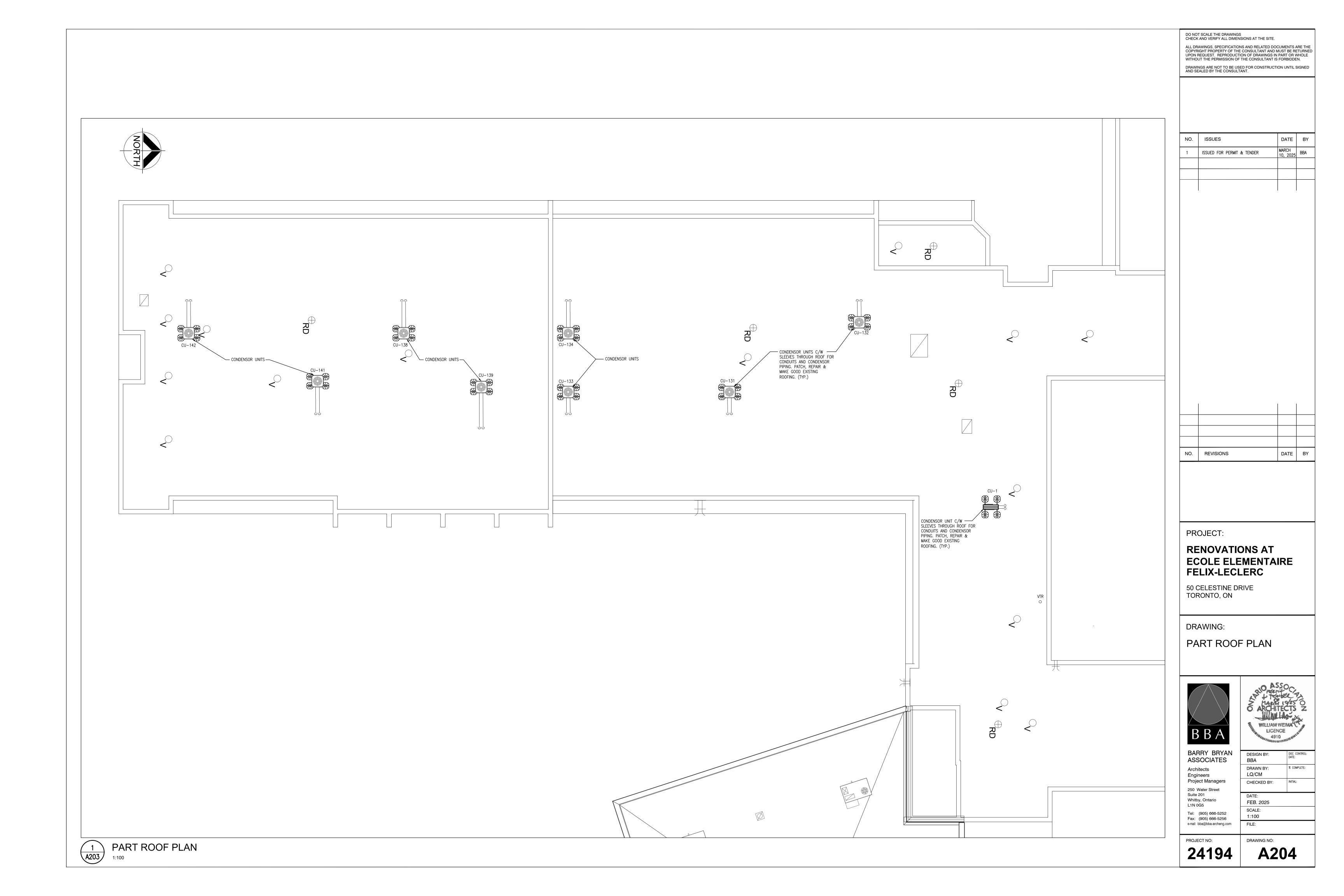
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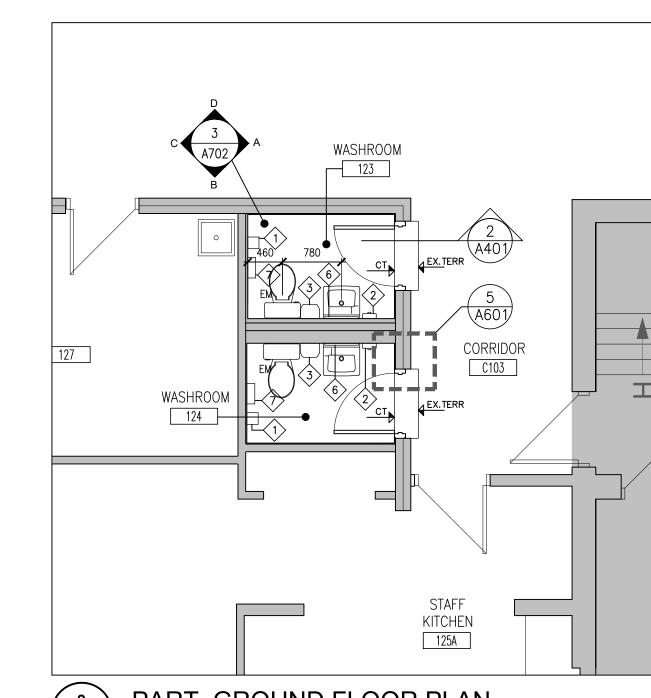
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PROJECT NO: 24194

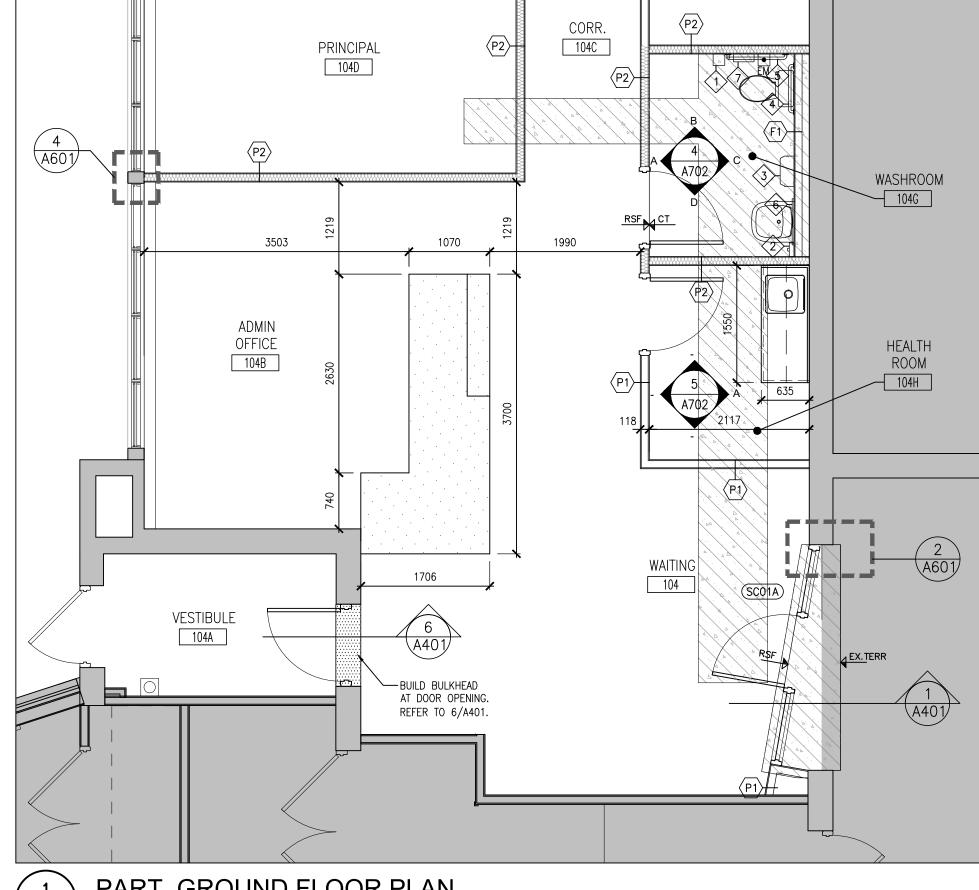




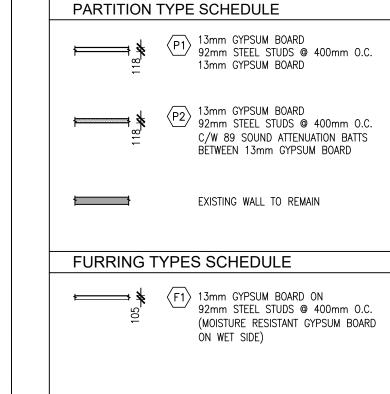




PART GROUND FLOOR PLAN (2) A206



PART GROUND FLOOR PLAN A206



PARTITION & FURRING NOTES: UNLESS OTHERWISE NOTED, ALL PARTITIONS TERMINATE AT UNDERSIDE OF FLOOR OR ROOF STRUCTURE, U.N.O. GYPSUM BOARD USED IN WET AREAS SHALL BE MOLD &

MOISTURE RESISTANT BOARD.

ALL GYPSUM BOARD BULKHEADS AND PARTITIONS ABOVE MASONRY WALLS OR GLAZING TO BE BRACED AS REQUIRED COORDINATE AND SITE VERIFY DIMENSIONS OF ALL NEW OPENINGS AND DEMOLITION OF EXISTING RIBBED BLOCK

WALL. COORDINATE DEMOLITION WITH EXISTING GROUT LINES. ALL FULL HEIGHT MASONRY PARTITIONS SHALL BE CONNECTED TO THE U/S OF SECOND FLOOR CONCRETE SLAB WITH CLIP ANGLES AS DETAIL 8/S202. 6. ALL ENDS OF TERMINATED EXPOSED MASONRY BLOCK WALLS

MUST BE GROUTED SOLID INCLUDING DOORS/ OPENINGS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR INTERFERENCE COORDINATION BETWEEN THE MASONRY SUB TRADE AND MECHANICAL/ ELECTRICAL TRADES. COORDINATION SHALL BE COMPLETE TO NOT DELAY THE CONSTRUCTION

FLOOR PLAN NOTATION LEGEND ROOM NAME & NUMBER

NUMBER

● PB

DOOR NUMBER

MILLWORK NUMBER

BARRIER FREE DOOR

OPERATOR PUSH BUTTON

PUSH TO LOCK PUSH BUTTON

DOOR WITH DOOR OPERATOR

EMERGENCY ASSISTANCE CALL BUTTON

INTERIOR PARTITION OR FURRING EXTERIOR GLAZING NUMBER INTERIOR GLAZED SCREEN

WALL SECTION REFERENCE BUILDING SECTION/ EXTERIOR ELEVATION REFERÊNCE

NUMBER

FLOOR FINISH TYPE (SEE ALSO

ROOM FINISH SCHEDULE)

WASHROOM ACCESSORIES (REFER TO 2/A802)

F.R.R. ○ FE

MILLWORK SURFACE (REFER TO DETAILS FOR FINISHES)

FLOOR DRAIN

TRENCH DRAIN

FIRE RESISTANCE RATING

FIRE EXTINGUISHER CABINET

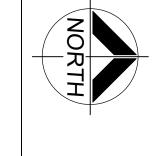
FIRE EXTINGUISHER

INTERIOR ELEVATION REFERENCE

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DATE BY



NO. REVISIONS DATE BY

PROJECT:

### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

PART FLOOR PLANS



WILLIAM WEIMA LICENCE 4910

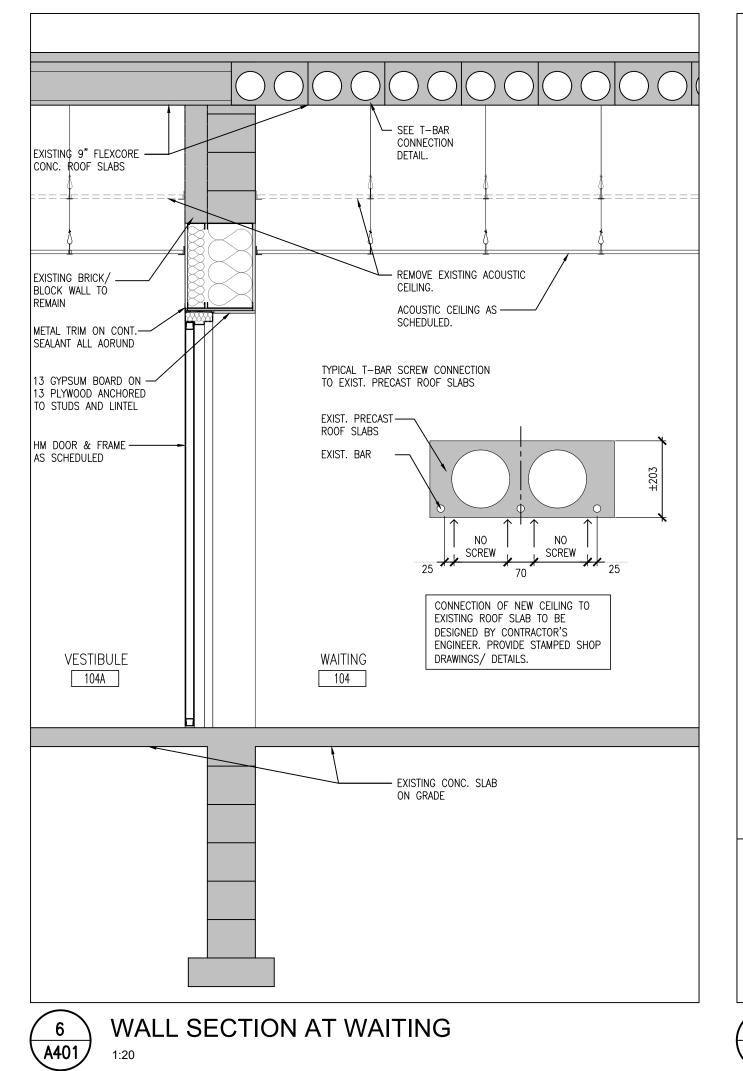
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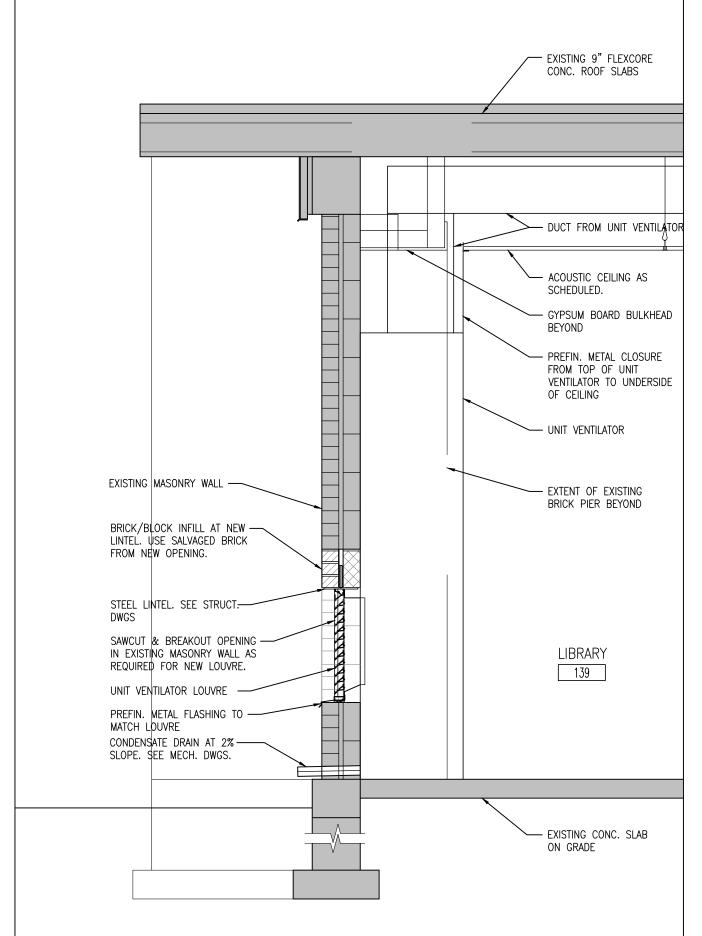
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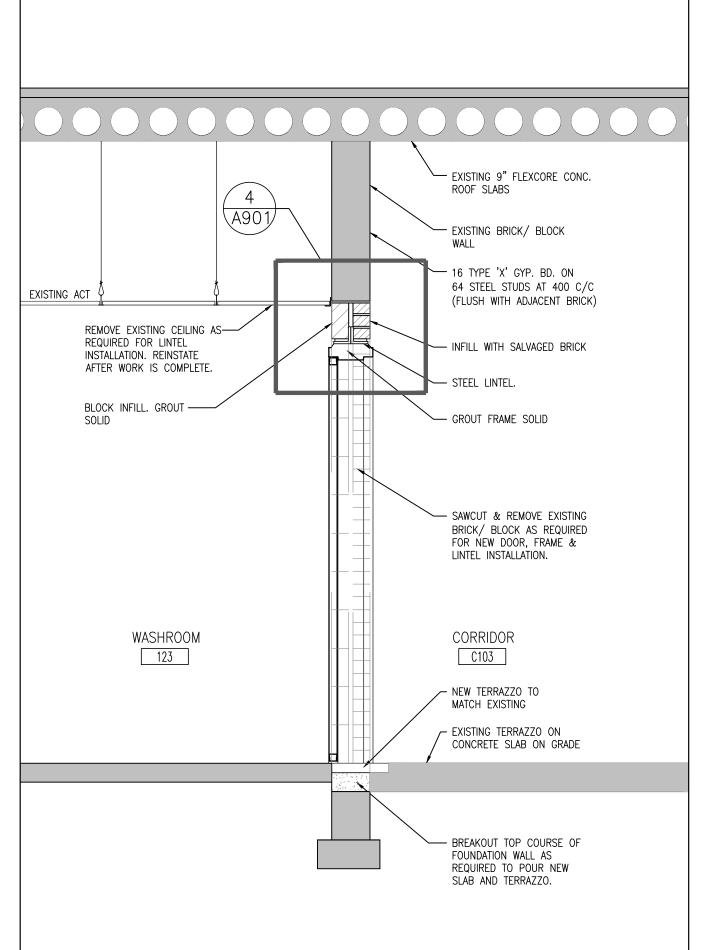
BARRY BRYAN DESIGN BY: ASSOCIATES DRAWN BY: Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario

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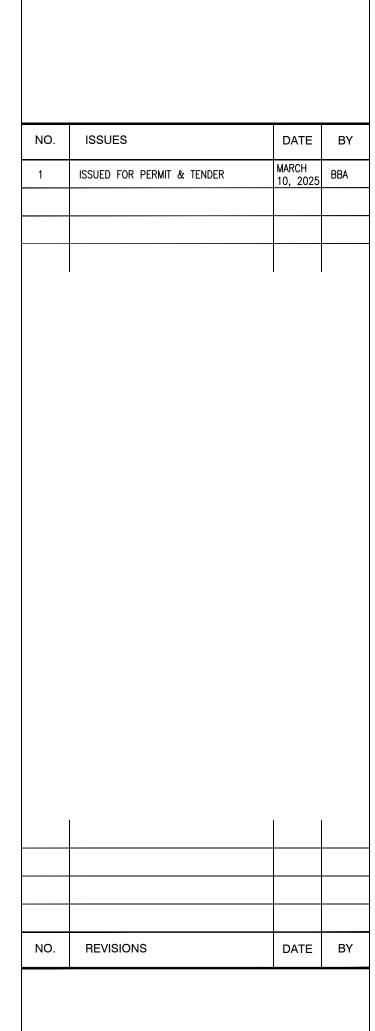
PROJECT NO: 24194







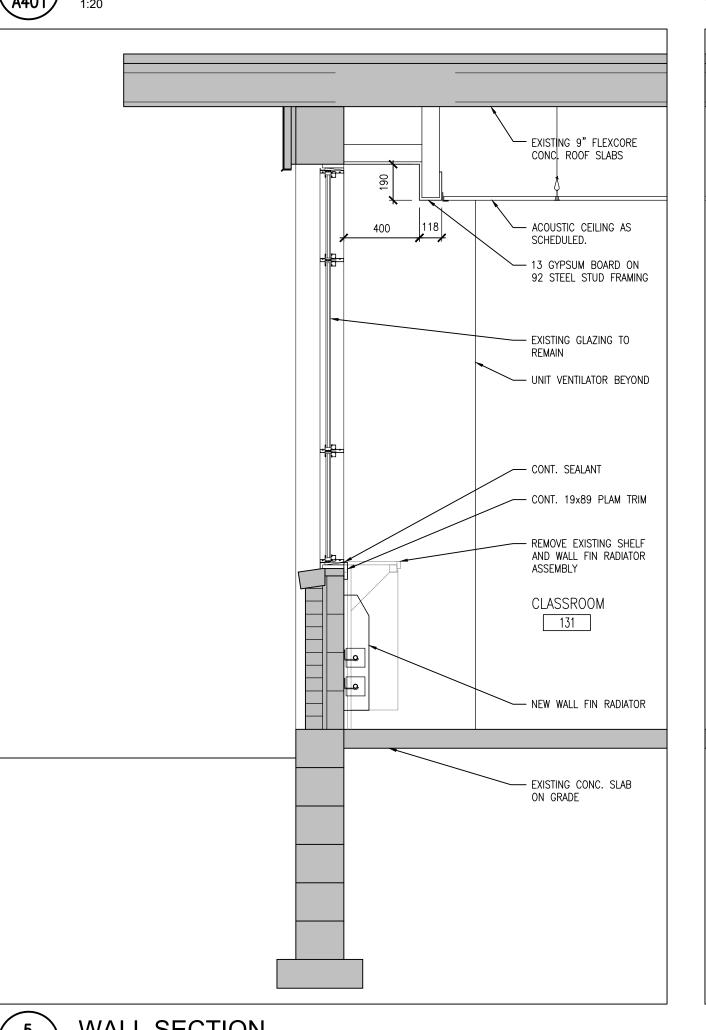
WALL SECTION AT WASHROOMS

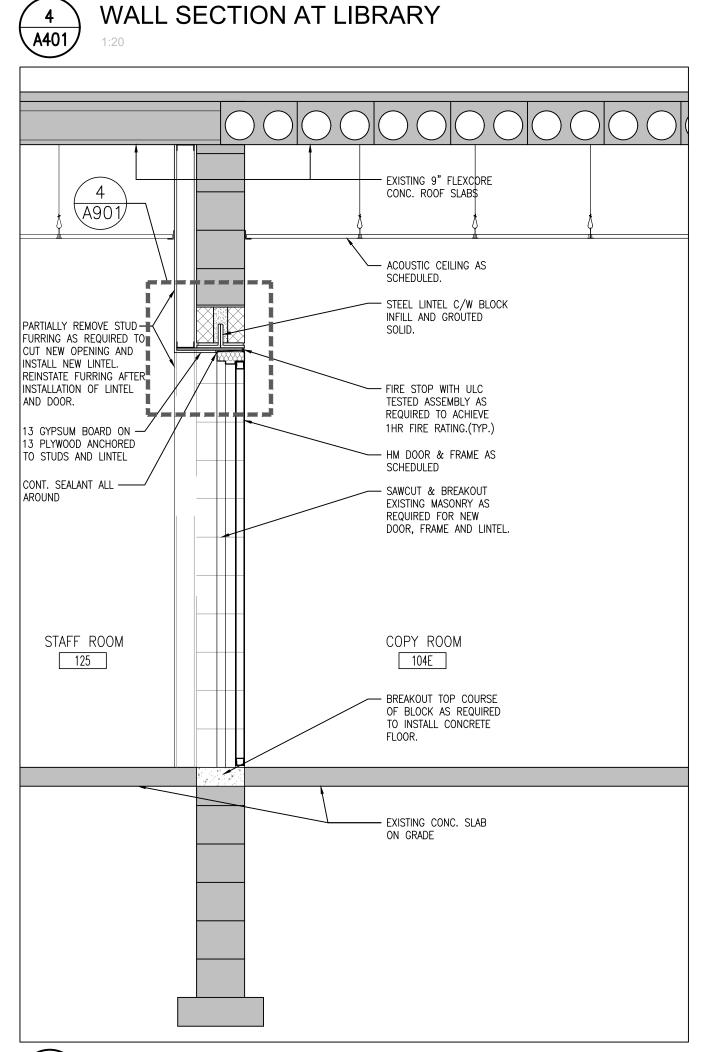


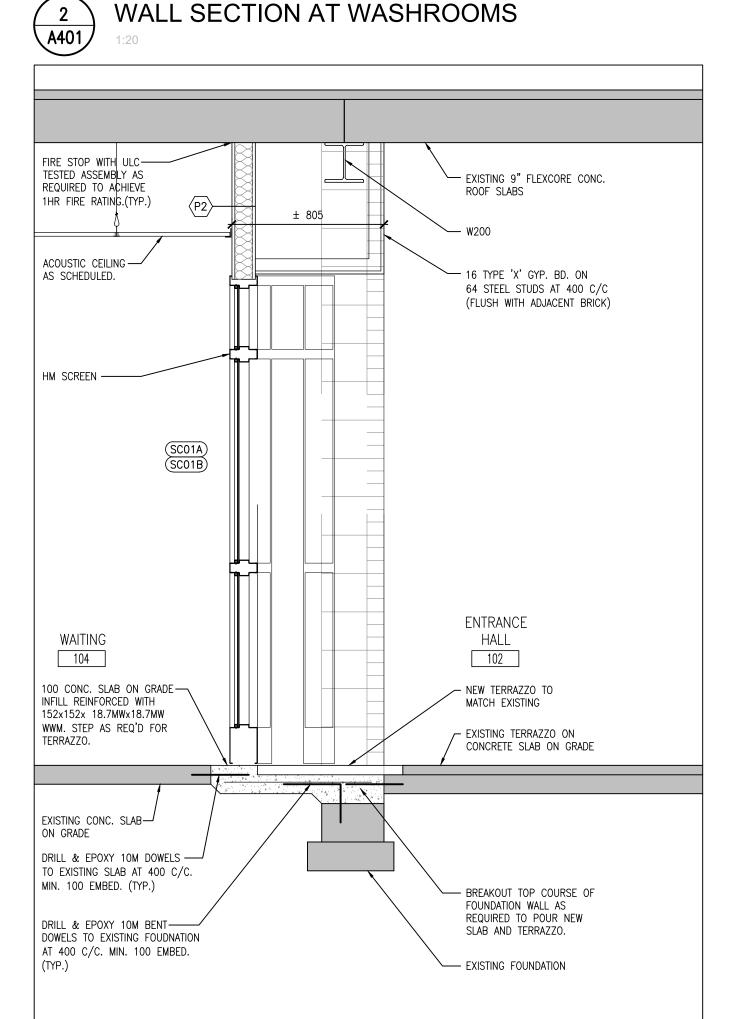
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WALL SECTION AT WAITING

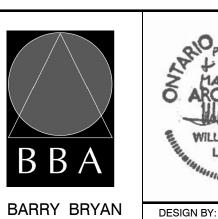
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PROJECT: **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC** 50 CELESTINE DRIVE

DRAWING:

TORONTO, ON

WALL SECTIONS



WILLIAM WEIMA LICENCE

**ASSOCIATES** WW Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario L1N 0G5

% COMPLETE: DRAWN BY: CHECKED BY: FEB. 2025 SCALE: 1:20

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Tel: (905) 666-5252

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> DRAWING NO: A401

FILE:

WALL SECTION A401

REMOVE DOUBLE GLAZED -

UNIT AND INSTALL 25mm

THICK INSULATED ALUMINUM

EXISTING ALUMINUM WINDOWS—

REMOVE OPERABLE WINDOW — UNIT, MODIFY WINDOW

FRAMING AND INSTALL 25mm

THICK INSULATED ALUMINUM

UNIT VENTILATOR LOUVRE -

EXISTING MASONRY CAVITY -

CONDENSATE DRAIN AT 2% -----

SLOPE. SEE MECH. DWGS.

WALL SECTION A401

- EXISTING 9" FLEXCORE

CONC. ROOF SLABS

- ACOUSTIC CEILING AS

- 13 GYPSUM BOARD ON

- PREFIN. METAL CLOSURE

VENTILATOR TO UNDERSIDE

OF CEILING/BULKHEAD

- UNIT VENTILATOR. REFER

- REMOVE EXISTING SHELF AND WALL FIN RADIATOR

ASSEMBLY

CLASSROOM

131

METAL BASE

UNIT VENTILATOR UNIT

- EXISTING CONC. SLAB

ON GRADE

TO MECH. DWGS.

FROM TOP OF UNIT

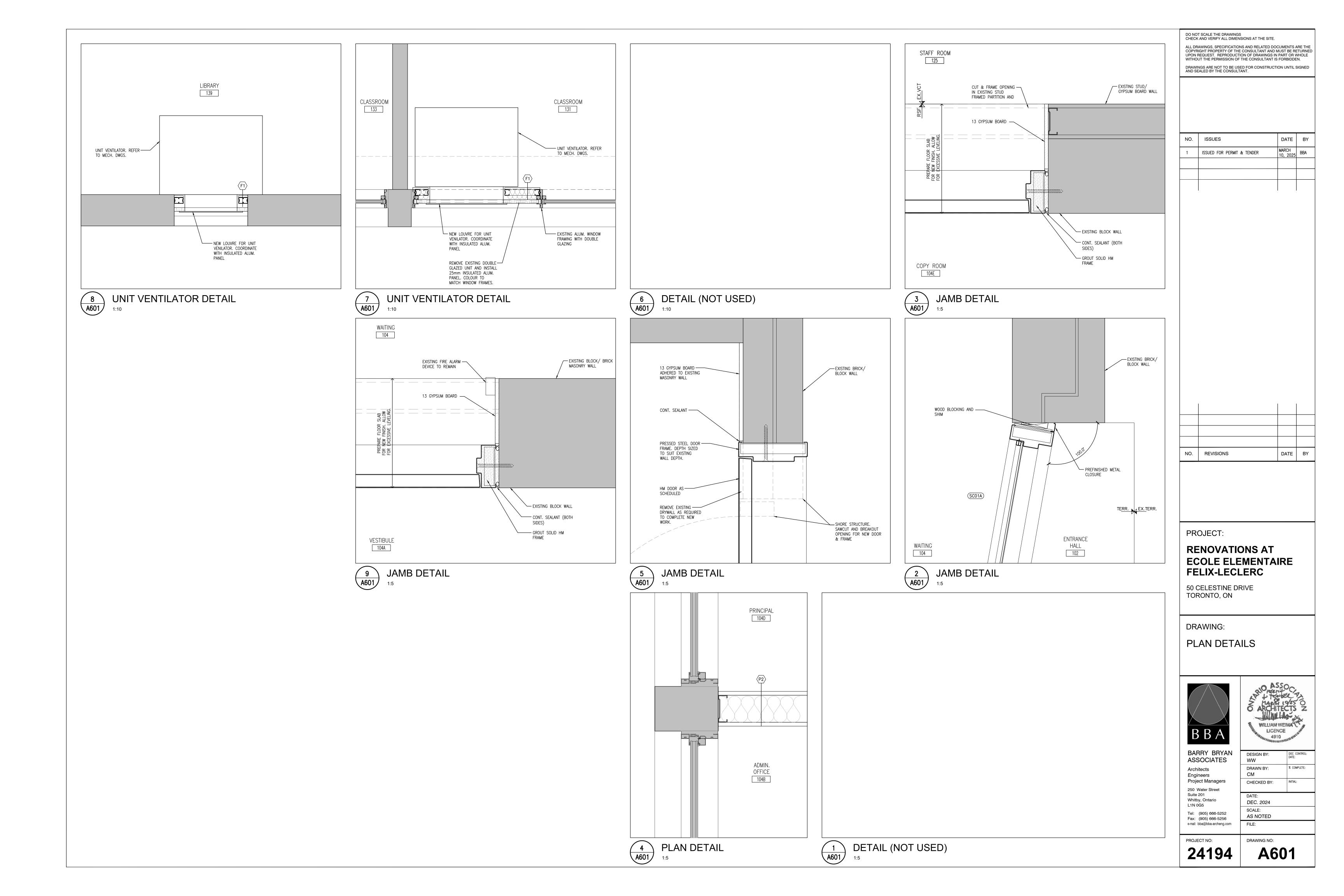
92 STEEL STUD FRAMING

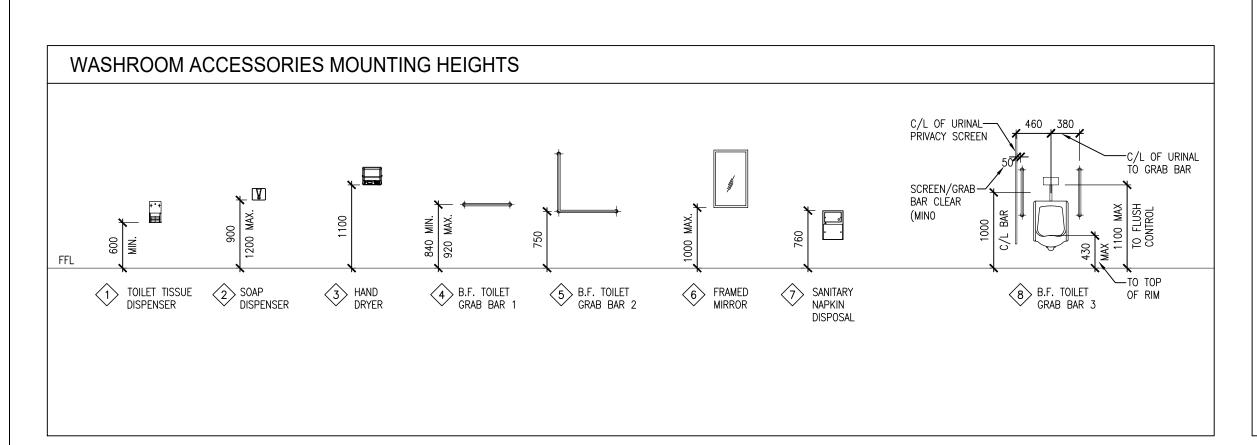
SCHEDULED.

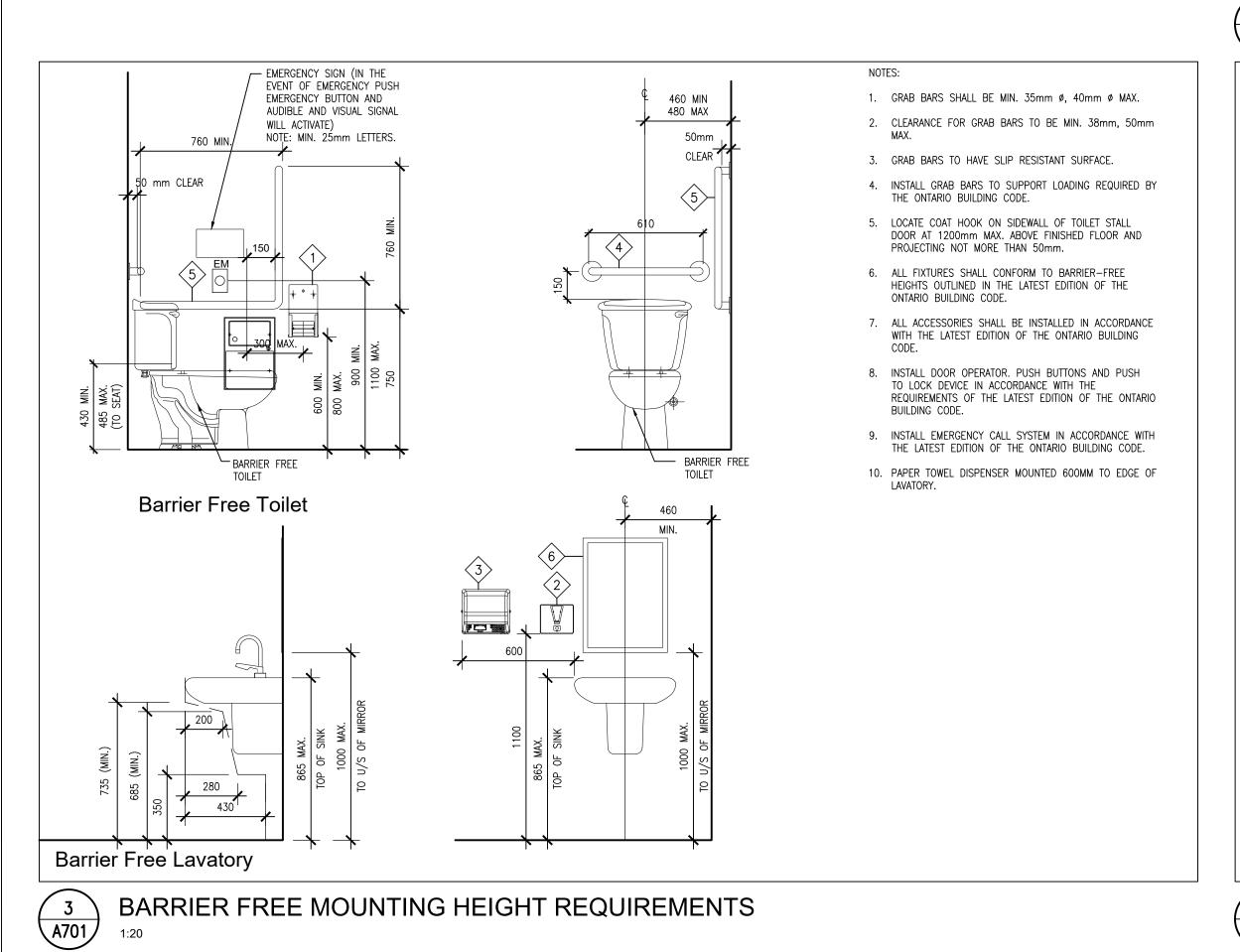
660

A401

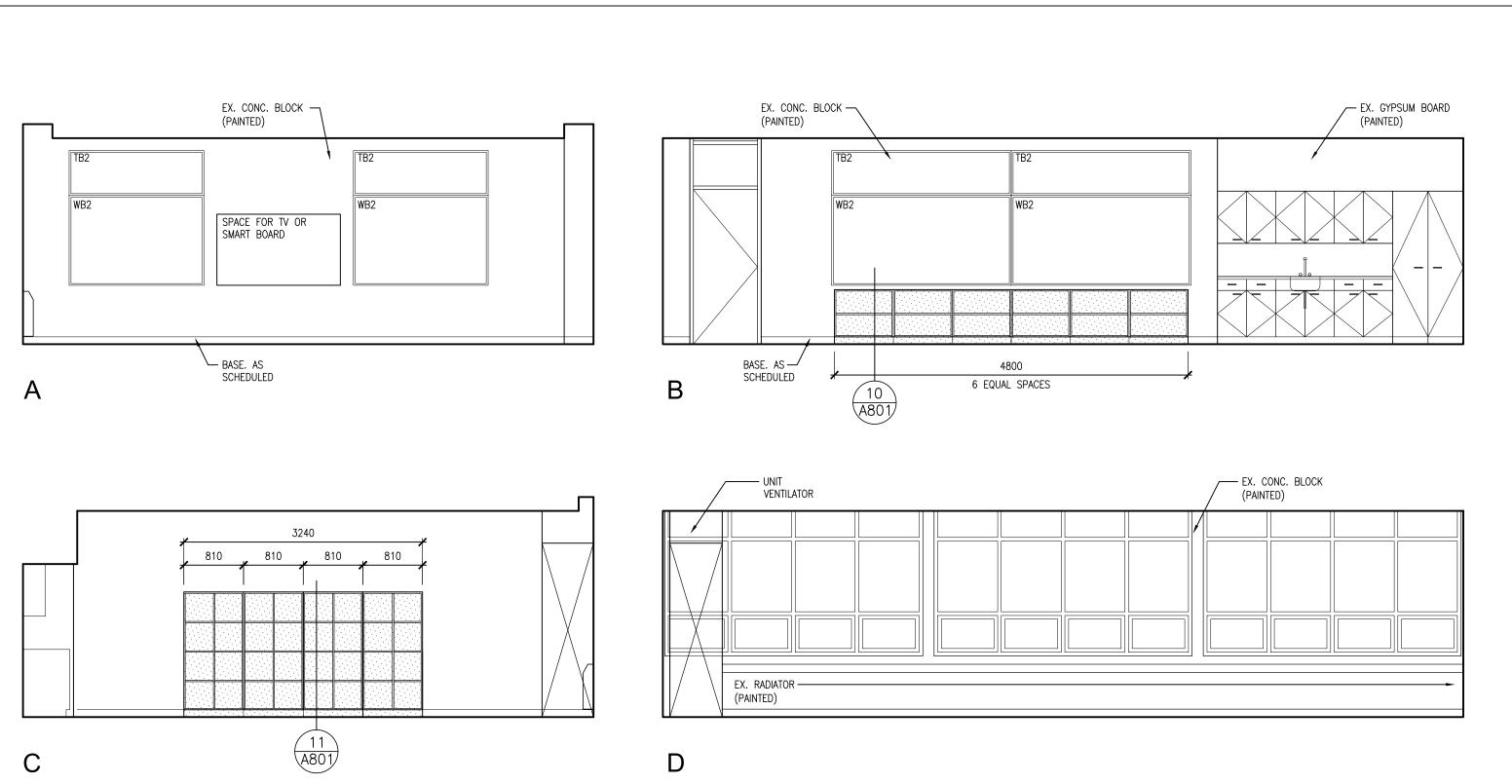
WALL SECTION AT COPY ROOM



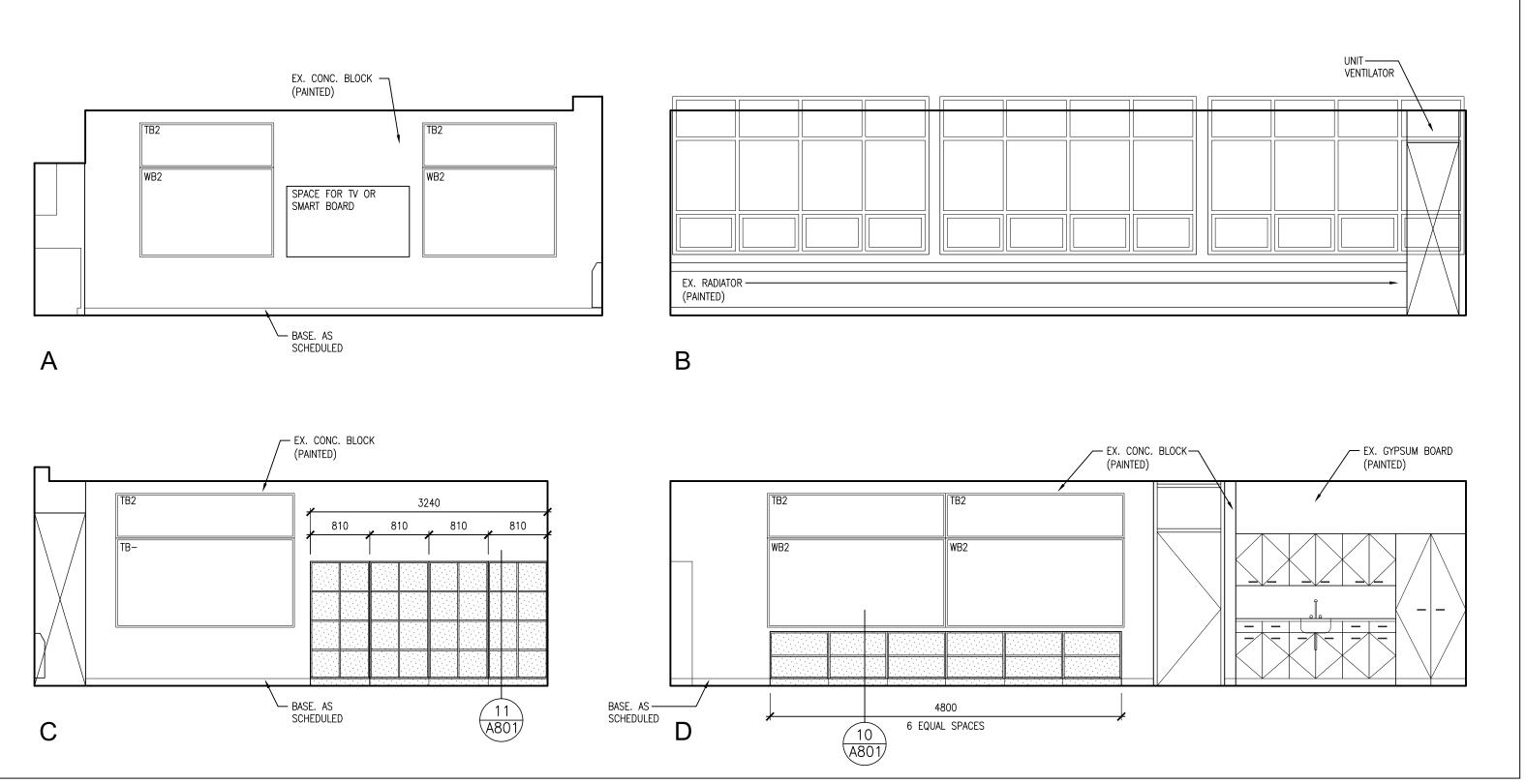




1:20



INT. ELEVATIONS - CLASSROOM 138/142 2 A701 1:50



INT. ELEVATIONS - CLASSROOM 131/ 132/ 133/ 134 A701

NO. ISSUES DATE BY MARCH 10, 2025 BBA ISSUED FOR PERMIT & TENDER

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PROJECT:

NO. REVISIONS

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

INTERIOR ELEVATIONS



WILLIAM WEIMA LICENCE 4910

% COMPLETE:

DATE BY

DESIGN BY: ASSOCIATES WW Architects Engineers Project Managers 250 Water Street

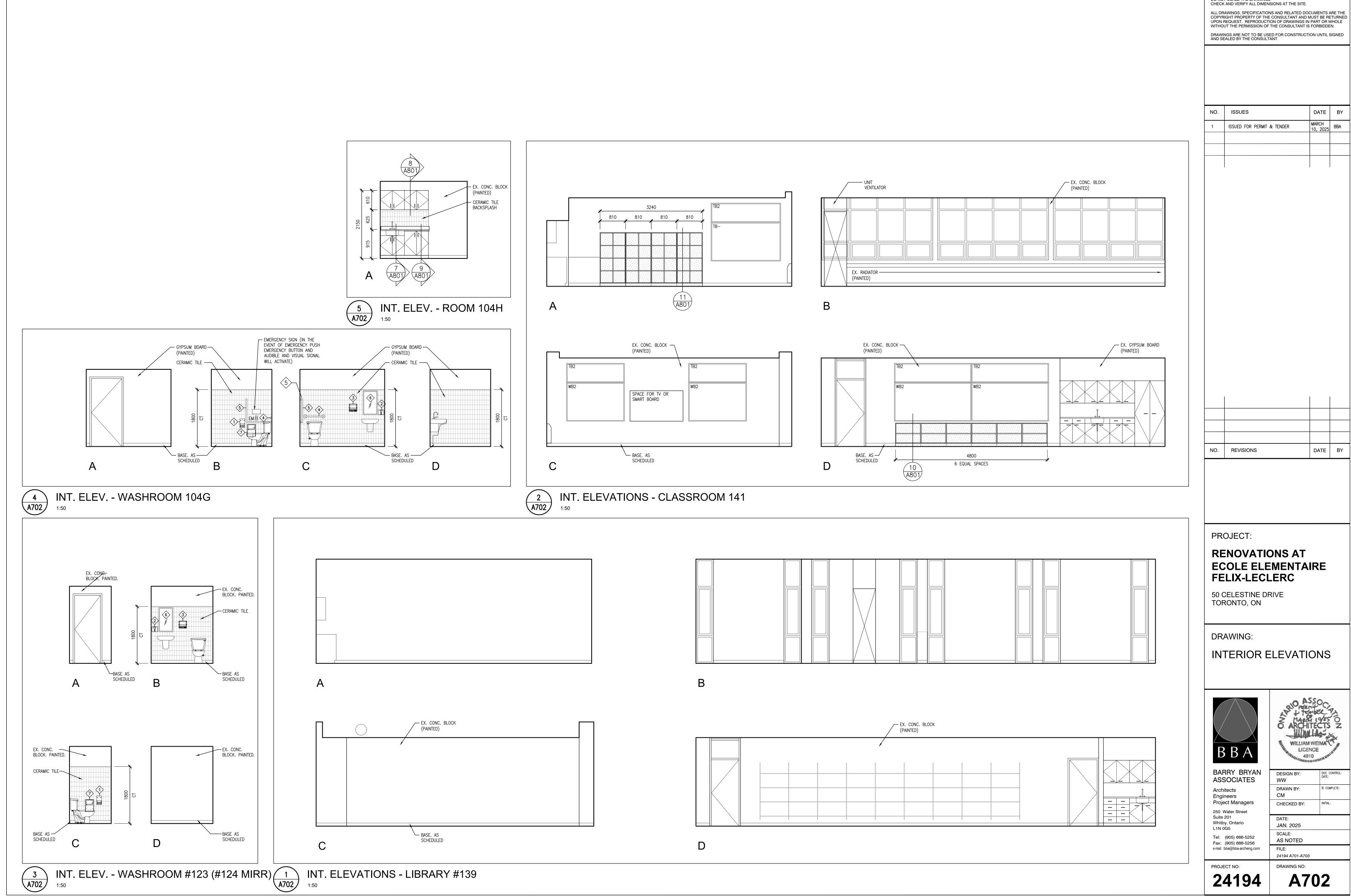
DRAWN BY: CHECKED BY: JAN. 2025

Suite 201 Whitby, Ontario L1N 0G5 Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

AS NOTED FILE: 24194 A701-A703

PROJECT NO:

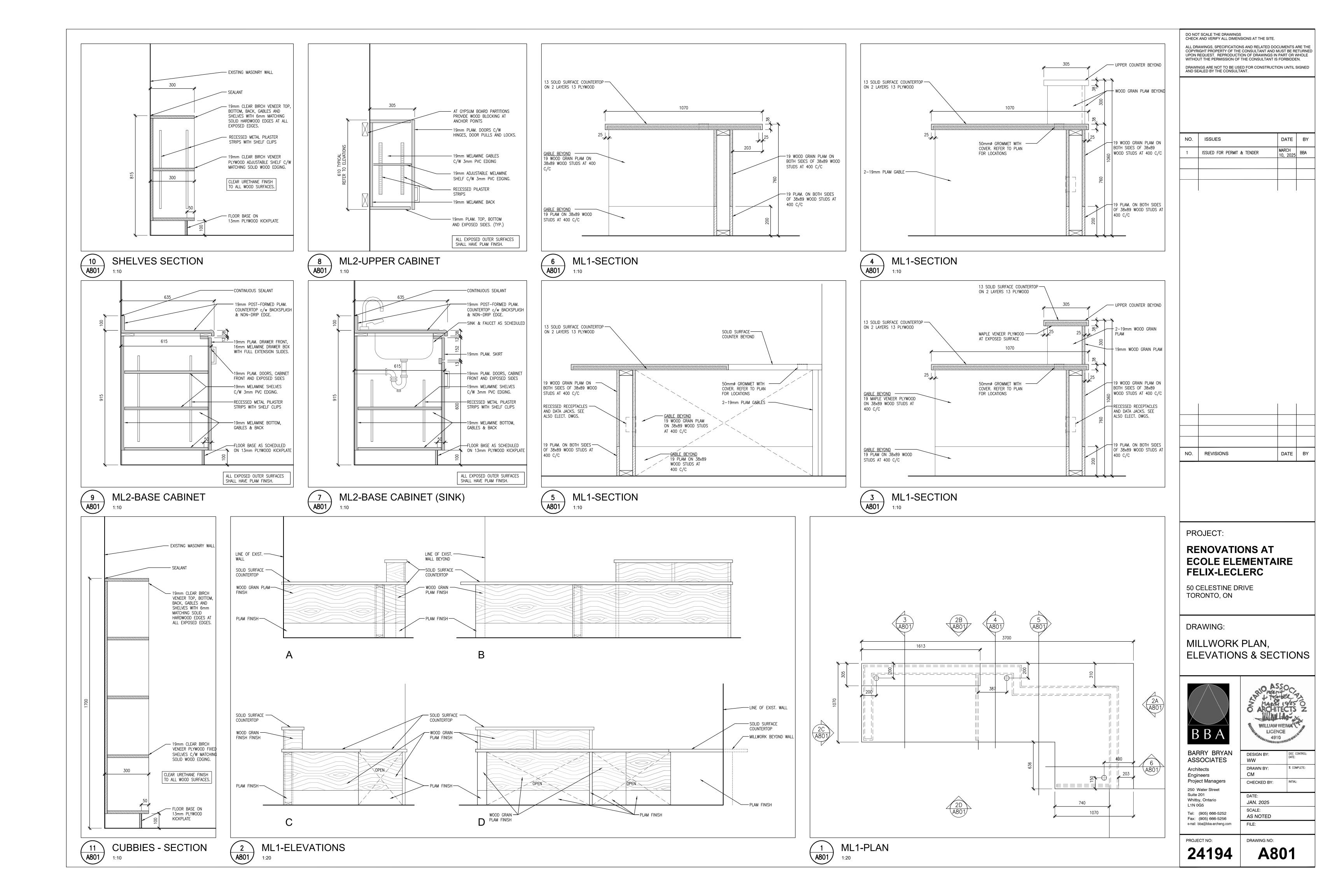
DRAWING NO: 24194 A701

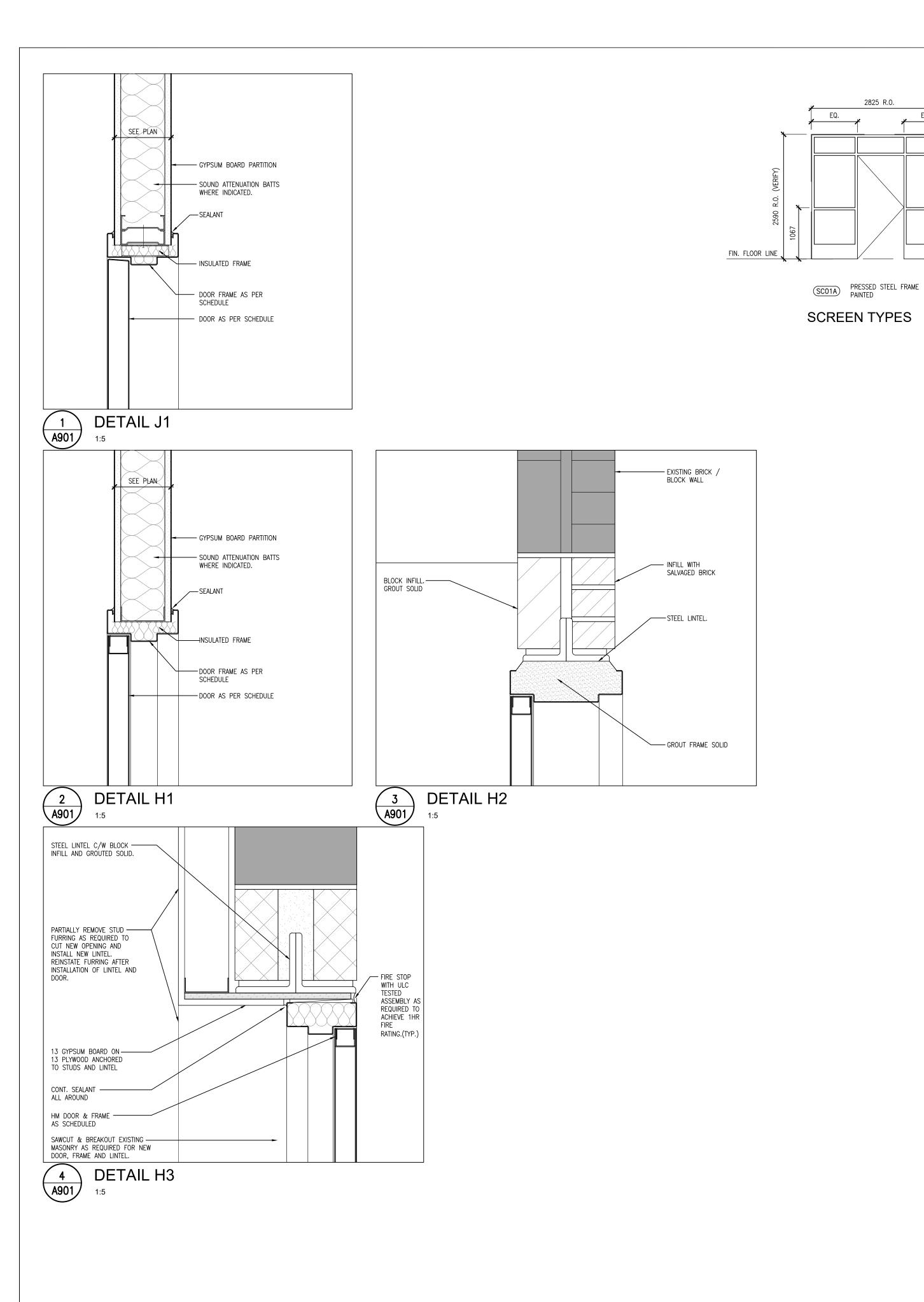


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DATE BY







#### GENERAL NOTES

- ALL EXPOSED METAL IN INTERIOR TO BE PAINT
- 2. UNLESS OTHERWISE INDICATED, ALL WALLS SHALL HAVE PAINT FINISH.
- 3. PAINT GYPSUM BOARD WALLS AND BULKHEADS. 4. ALL EXPOSED DUCTWORK AND PIPING SHALL
- RECEIVE PAINT FINISH. REFER TO INTERIOR ELEVATIONS AND FINISH

PLANS FOR DETAILS ON EXTENTS AND

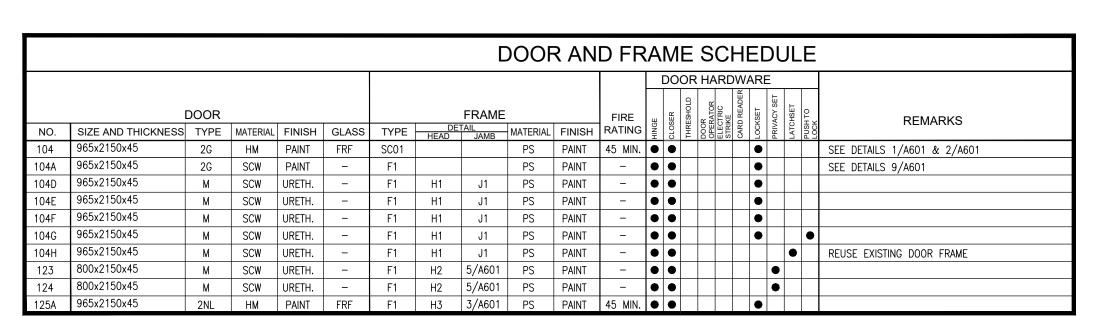
6. REFER TO SPECIFICATION FOR FINISH SCHEDULE.

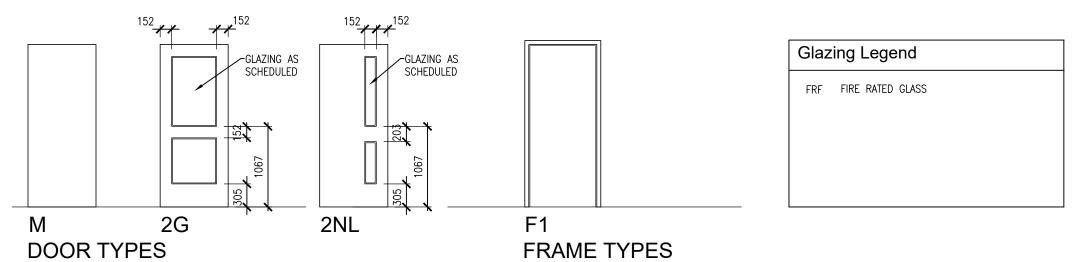
ADDITIONAL INFORMATION.

- . GLASS PANELS IN DOORS TO COMPLY WITH BARRIER FREE VISIBILITY REQUIREMENTS.
- 8. ALUMINUM EXTERIOR DOORS TO HAVE INSULATED FRAMES.
- 9. PREPARE DOORS AND FRAMES FOR ELECTRONIC HARDWARE WHERE INDICATED CONDUITS SHALL BE CONCEALED IN FRAMES.
- 10. ALL DOORS IN FIRE SEPARATION LOCATIONS SHALL HAVE LATCHING DEVICE.
- 11. REFER TO HARDWARE SCHEDULE FOR ADDITIONAL INFORMATION.
- 12. ALL NEW DOORS TO COMPLY TO O.B.C. 3.8.3.3.

FINISH	ABBREVIATION LEGEND
ACP	ACOUSTIC CEILING PANEL
	ALUMINUM
ANOD	ANODIZED
CB	CONCRETE BLOCK
	CONCRETE
	CERAMIC TILE
EXIST	EXISTING
EXP	
FRG	FIRE RATED GLASS
G	GLASS
	GYPSUM BOARD
	GYPSUM BOARD, MOISTURE RESISTANT
НМ	HOLLOW METAL
IAS	INDOOR ATHLETIC SURFACING
М	METAL
NTS	NOT TO SCALE
Р	PAINT
	PORCELAIN CERAMIC TILE
	PRESSED STEEL
PREFIN	PREFINISHED
	PORCELAIN TILE
	URETHANE
R	RUBBER
SC	SEALED CONCRETE
	SOLID CORE WOOD
	STATIC DISSIPATIVE RESILIENT FLOORING
SEAL	
STL	STEEL
STOR	
TERR	
TG	TEMPERED GLASS
	TACTILE WARNING SURFACE INDICATOR VINYL COMPOSITION TILE
VCT	VINTE COMPOSITION TILE

					F	ROOM	иsc	HED	ULE			
NO.	ROOM ROOM NAME		FLOOR	BASE	NORTH	EAST	LLS SOUTH	WEST	CEILING	CEILING HEIGHT	REV.	REMARKS
102	CORRIDOR	MAT. FIN. COL.	EX. EX.TERR	EX.	-	EX.	EX.G –	EX.	EX. –	EX.		
103	CORRIDOR	MAT. FIN.	EX. EX.TERR	– EX.	EX.	EX.	EX.	-	EX.	EX.		
104	WAITING	MAT.	EX. RSF	— R	EX./G	EX.	EX.	GB P	ACP/GB	2800		_
1044		COL. MAT. FIN.	EX. EX.TERR	– EX.	EX.	EX.	EX.	EX.	EX. ACP	2800		
104A	VESTIBULE	COL.	EX.	_	GB	EX.	EX./G	GB	ACP	2800		
104B	ADMIN OFFICE	FIN. COL. MAT.	RSF EX.	R -	P GB	P —	P GB	P GB	- ACP	2800		
104C	CORRIDOR	FIN. COL. MAT.	RSF EX.	R –	P GB	- GB	P EX.G/EX.	P GB	– ACP	2800		
104D	PRINCIPAL	FIN. COL.	RSF	R	Р	Р	Р	Р	_	2000		
104E	COPY ROOM	FIN.	EX. RSF	– R	GB P	GB P	EX.G/EX.	EX. P	ACP –	2800		
104F	STORAGE	MAT. FIN. COL.	EX. RSF	– R	EX.	GB P	GB P	EX. P	ACP -	2800		
104G	WASHROOM	MAT. FIN. COL.	EX.	– CT	GB CT	GB CT	GB CT	GB CT	GB -	2400		
104H	HEALTH ROOM	MAT. FIN.	EX. RSF	– R	EX.	GB P	GB P	GB P	GB -	2800		-
123	WASHROOM	MAT. FIN.	EX.	– CT	EX.	EX.	EX.	EX.	GB -	2400		
124	WASHROOM	MAT.	EX.	_ СТ	EX.	EX.	EX.	EX.	GB -	2400		
125	STAFF ROOM	MAT.	EX.	– R	EX.	EX./G P	EX.	EX.	EX.	-		
125A	STAFF KITCHEN	COL. MAT. FIN.	EX.	– R	EX.	EX.	EX.	EX.	EX.	-		
		COL. MAT.	EX.	_	EX.	EX.G/EX.	EX.	EX.	ACP	2800		
131	CLASSROOM	FIN. COL. MAT.	EX.VCT  EX.	R _	P EX.	P EX	P EX.	P EX.G/EX.	- ACP	2800		
132	CLASSROOM	FIN. COL. MAT.	RSF EX.	R -	P EX.	P EX.G/EX.	P EX.	P EX.	- ACP	2800		
133	CLASSROOM	FIN. COL.	EX.VCT	R	Р	Р	Р	Р	_			
134	CLASSROOM	MAT. FIN. COL.	EX.VCT	R	EX.	EX.	EX. P	EX.G/EX.	ACP –	2800		
137	OFFICE	MAT. FIN. COL.	EX. EX.VCT	– R	EX.	EX.G/EX.	EX. P	EX. P	ACP -	2800		
138	CLASSROOM	MAT. FIN. COL.	EX. RSF	– R	EX.	EX.	EX.	EX.G/EX.	ACP –	2800		
139	LIBRARY	MAT. FIN.	EX.	– R	EX.	EX.G/EX.	EX.	EX.	ACP -	2800		
140	STUDY ROOM	MAT.	EX.	– R	EX.	EX.	EX.	EX.G/EX.	ACP –	2800		
141	CLASSROOM	COL. MAT. FIN.	EX.	– R	EX.	EX.G/EX.	EX.	EX.	ACP -	2800		
		COL. MAT. FIN.	EX.	– R	EX.	EX.	EX.	EX.G/EX.	ACP	2800		
142	CLASSROOM	COL.	EX.VUI	К	P P	۲	Ρ	Υ	-			





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NO.	ISSUES	DATE	BY
1	ISSUED FOR PERMIT & TENDER	MARCH 10, 2025	BBA
			, and the second

PROJECT:

NO. REVISIONS

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

DATE BY

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

SCHEDULES



WILLIAM WEIMA LICENCE DESIGN BY:

DRAWN BY:

FILE:

BARRY BRYAN **ASSOCIATES** Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario L1N 0G5

LQ/JA/CM CHECKED BY: JAN. 2025 Tel: (905) 666-5252 N.T.S. Fax: (905) 666-5256

% COMPLETE:

PROJECT NO: 24194

e-mail: bba@bba-archeng.com

DRAWING NO: A901

#### **GENERAL**

- 1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS OF ALL RELEVANT CODES
- 2. CONFORM TO OWNER'S GENERAL SPECIFICATIONS INCLUDING ALL SAFETY REQUIREMENTS.
- 3. SITE VERIFY ALL DIMENSIONS AND LEVELS.
- 4. KEEP THE SITE THROUGHOUT THE WORK AREA IN A CLEAN AND ORDERLY CONDITION AT ALL TIMES TO THE SATISFACTION OF THE
- 5. ALL STRUCTURAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH OTHER CONSULTANTS DRAWINGS.

#### TEMPORARY WORKS

- 1. THE CONTRACTOR SHALL DESIGN, PROVIDE, ERECT, MAINTAIN REMOVE AND ASSUME FULL AND SOLE RESPONSIBILITY FOR ALL TEMPORARY WORKS REQUIRED FOR THE SAFE AND COMPLETE EXECUTION OF THE WORKS.
- 2. IN THE EXECUTION OF THE TEMPORARY WORKS AND FOR THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL MAKE ADEQUATE PROVISION FOR ALL LIKELY CONSTRUCTION LOADING AND PROVIDE SUFFICIENT BRACING AND PROPS TO KEEP THE WORKS IN PLUMB AND ALIGNMENT AND FREE FROM EXCESSIVE DEFLECTION.
- 3. ACCESS OF HEAVY CONSTRUCTION EQUIPMENT AND ACCUMULATION OF CONSTRUCTION MATERIALS ON THE FLOORS ARE NOT PERMITTED, UNLESS SUCH HAVE BEEN CATERED FOR IN THE CONTRACTOR'S TEMPORARY WORK DESIGN TO THE SATISFACTION OF THE
- 4. SUBMIT SHOP DRAWINGS FOR ALL TEMPORARY WORKS FOR REVIEW BEFORE FABRICATION COMMENCES. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO.

#### **SLAB ON GRADE**

- 1. CAST INFILL SLAB ON GRADE ON EXISTING GRANULAR SUBGRADE MATERIAL. PROJECT GEOTECHNICAL CONSULTANT TO REVIEW AND APPROVE EXISTING MATERIAL BASED ON LISTED ASSUMED SUBGRADE MODULUS, COMPACTION, ETC.
- 2. MAINTAIN MINIMUM SPECIFIED THICKNESS AT ALL DEPRESSIONS AND CHANGES IN ELEVATIONS.
- 3. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT AND LOCATION OF ALL FINISHES, DEPRESSIONS AND SLOPES.
- 4. COORDINATE OTHER AREAS REQUIRING SLAB REMOVAL / REPAIR WITH MECHANICAL AND ELECTRICAL DRAWINGS.

### STRUCTURAL STEEL

- 1. ALL STRUCTURAL STEEL HSS AND W SECTIONS TO BE G40.21M-350W CLASS C. ALL OTHERS TO BE G40.21M-300W.
- 2. ALL BEAM CONNECTIONS TO BE STANDARD SHEAR CONNECTIONS IN COMPLIANCE WITH CISC, UNLESS NOTED OTHERWISE.
- 3. SUBMIT SHOP DRAWINGS FOR STRUCTURAL STEEL COMPONENTS, CONNECTIONS AND DETAILS. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
- 4. ALL ERECTION BOLTS SHALL BE ASTM GRADE A325 MINIMUM, AND SHALL BE DESIGNED BY STEEL FABRICATOR'S ENGINEER FOR TRANSFER OF ALL LOADS.
- 5. BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS IN EACH CONNECTION PIECE AND DESIGNED AS BEARING CONNECTIONS U.N.O.
- 6. FABRICATOR'S ENGINEER SHALL DESIGN TOP PLATES AND THEIR CONNECTIONS TO FULLY TRANSFER VERTICAL AND HORIZONTAL LOADS AS WELL AS MOMENTS WHEN REQUIRED PER CISC STANDARDS.
- 7. FABRICATION, ERECTION AND WORKMANSHIP SHALL CONFORM TO CSA S16.1.
- 8. ALL WELDING SHALL CONFORM TO CSA W59 AND SHALL BE PERFORMED BY A WELDER QUALIFIED UNDER CSA W47.
- 9. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP APPLIED COAT OF PRIMER. SPOT PRIME ALL WELDED AREAS.
- 10. REMOVE PAINT FILM FROM ALL STEEL SURFACES TO BE WELDED. SPOT PRIME AS REQUIRED.
- 11. ALL WELDED CONNECTIONS SHALL BE WITH E49XX ELECTRODES.
- 12. DO NOT CUT OR CORE ANY OPENINGS IN ANY STRUCTURAL STEEL MEMBERS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
- 13. WHERE A STRUCTURAL STEEL SHAPE SHOWN ON THE DRAWINGS IS UNAVAILABLE, A SHAPE OF EQUAL OR GREATER SECTION PROPERTIES AND STRUCTURAL CAPACITY SHALL BE SUBSTITUTED, UPON APPROVAL BY OWNER AND CONSULTANT AT NO EXTRA COST.

#### **DEMOLITION NOTES**

- 1. PROVIDE PROTECTION AS REQUIRED TO PREVENT DAMAGE TO THE EXISTING STRUCTURE AND/OR ADJACENT EQUIPMENT. PROTECT ALL EXISTING FINISHES, FRAMES AND PROPERTY.
- 2. SAW CUT, REMOVE AND DISPOSE OF EXISTING DEMOLISHED MATERIALS OFF-SITE, AS REQUIRED TO COMPLETE THE WORK. ENSURE ALL EXISTING CONCRETE TO BE DEMOLISHED IS SCANNED TO IDENTIFY THE PRESENCE OF ANY EMBEDDED CONDUITS, SERVICES, ETC. NOTIFY BBA OF ANY FINDINGS. REMOVAL OF ALL ACM IS BY OTHERS.
- 3. KEEP THE WORK AND STAGING AREAS CLEAN AND ORDERLY AT ALL TIMES AND FREE FROM RUBBLE AND DEBRIS.
- 4. NOTIFY CONSULTANT OF ANY LOAD BEARING MEMBERS OR ASSEMBLIES DISCOVERED OR IDENTIFIED DURING WORK WITH EXCESSIVE DETERIORATION BEYOND WHAT IS NOT INDICATED ON THE DRAWINGS. DO NOT PROCEED WITH REMOVAL WITHOUT PRIOR REVIEW BY THE CONSULTING STRUCTURAL ENGINEER.
- 5. ALL BUILDING MATERIALS TO BE REMOVED FROM THE BUILDING SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED OTHERWISE AND SHALL BE REMOVED
- 6. COVER ALL LOADED TRUCKS LEAVING THE DEMOLITION SITE.
- 7. CONTRACTOR SHALL KEEP CLEAR AND NOT INHIBIT THE USE OF BUILDING FIRE ROUTE AND ALL HYDRANTS DURING THE ENTIRE DEMOLITION WORK.
- 8. REPORT ANY DOUBTFUL UNFORESEEN AND/OR UNEXPECTED SITE CONDITIONS TO THE ENGINEER PRIOR TO PROCEEDING.
- 9. ALL NEW SERVICES, PIPING, ETC. SHOULD UTILIZE EXISTING CHASES AND VERTICAL ACCESS. SHOULD NEW PENETRATIONS THROUGH EXISTING SUSPENDED SLAB ON GRADE BE REQUIRED, NOTIFY STRUCTURAL CONSULTANT FOR REVIEW PRIOR TO EXECUTING

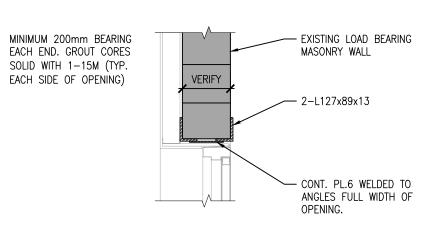
#### **DESIGN LOADS**

SNOW ACCUMULATION HAS BEEN ROOF LOADS: CONSIDERED IN THIS DESIGN FOR THE MODIFICATIONS BEING SNOW LOAD: Ss= 1.1 kPa, Sr= 0.4 kPa, S= 1.28kPa MADE TO THE STRUCTURE ONLY. DEAD LOAD:

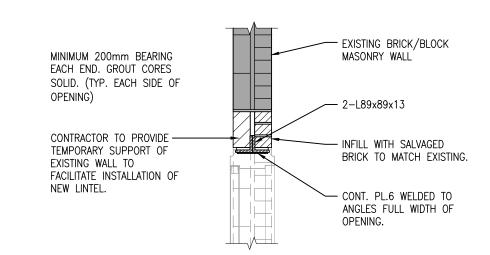
— SEE PLAN FOR ACCUMULATION.

5.59 kPa (ROOF SLABS) 0.25 kPa (MECH. ALLOWANCE) 0.20 kPa (CEILING)  $\frac{0.20 \text{ kPa}}{=6.74 \text{ kPa}} \text{ (ROOFING)}$ 



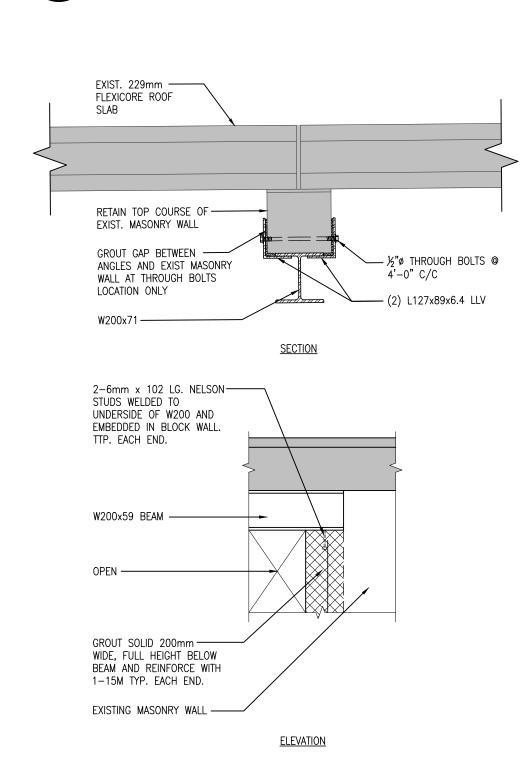






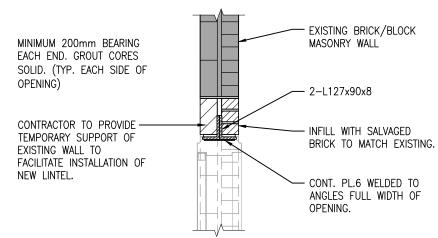
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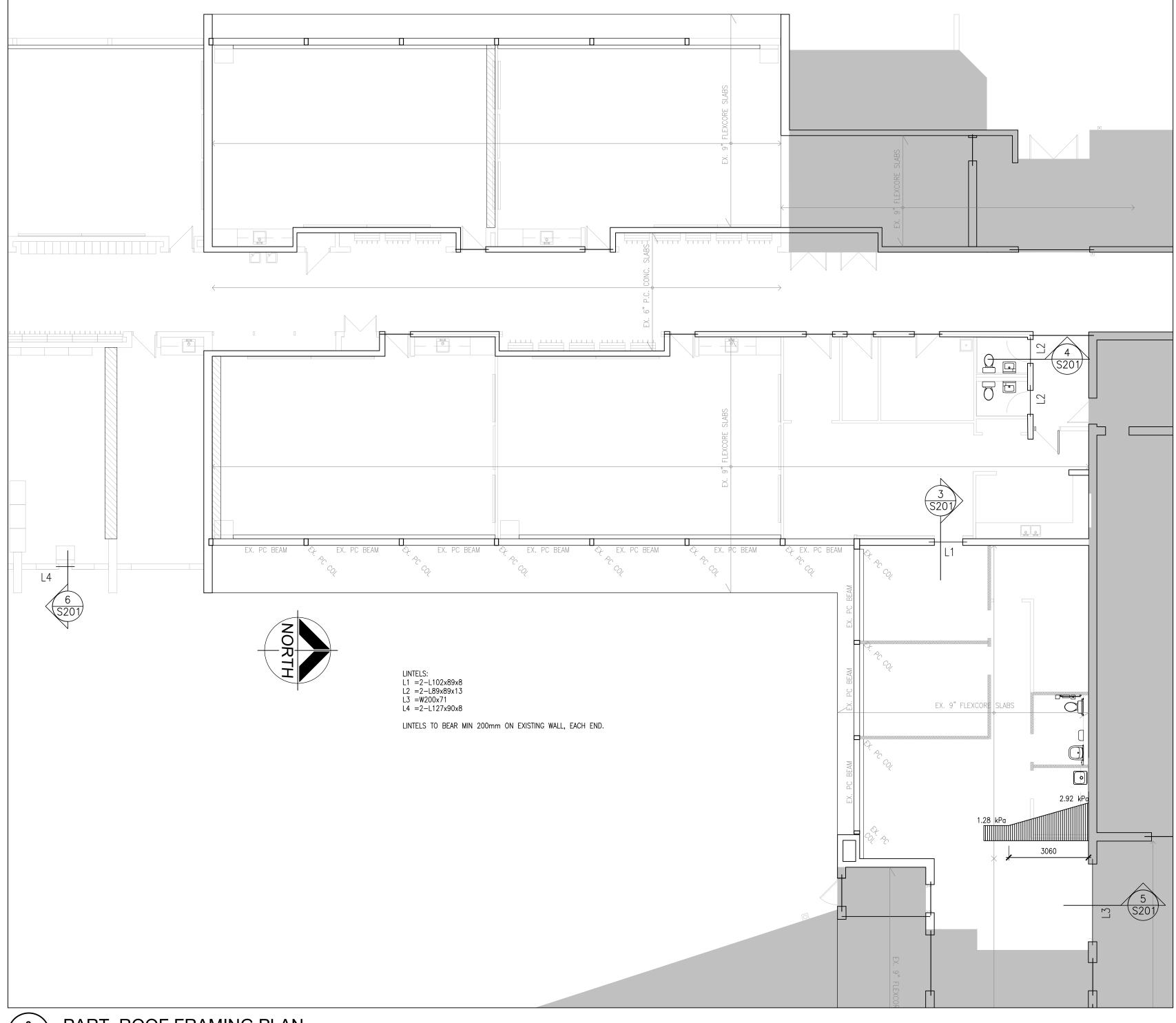




LINTEL SECTION & ELEVATION

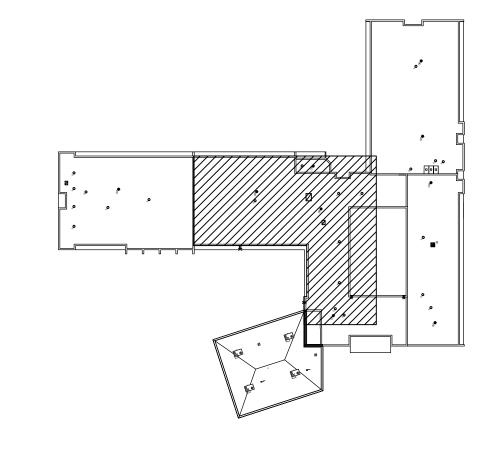








PART ROOF FRAMING PLAN





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NO.	ISSUES	DATE	BY
1	ISSUED FOR PERMIT & TENDER	MARCH 10, 2024	BBA
	1	1	

PROJECT:

NO. REVISIONS

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

**GENERAL NOTES & PART ROOF FRAMING PLAN** 





DRAWN BY:

% COMPLETE:

DATE BY

BARRY BRYAN **ASSOCIATES** Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario L1N 0G5

CHECKED BY: FEB. 2025 Tel: (905) 666-5252 1:100 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com FILE:

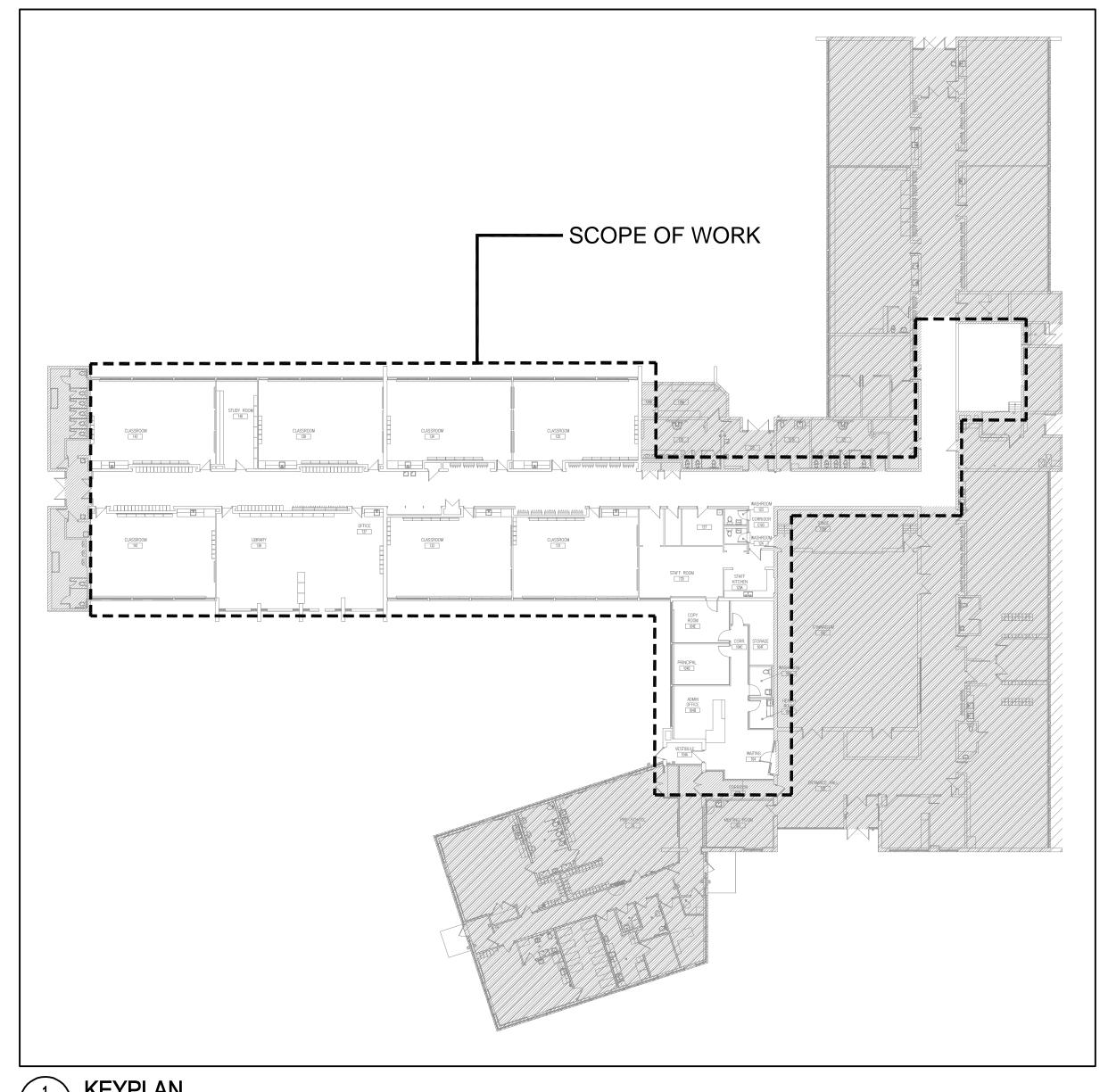
PROJECT NO: 24194

DRAWING NO: **S201** 

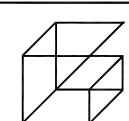
## RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC

## 50 CELESTINE DRIVE TORONTO, ON

# MECHANICAL DRAWINGS



DWG. NO.	DRAWING NAME
M-0	TITLE SHEET
M-1.1	MECHANICAL SPECIFICATIONS I
M-1.2	MECHANICAL SPECIFICATIONS II
M-1.3	MECHANICAL LEGEND
M-1.4	MECHANICAL SCHEDULES I
M-1.5	MECHANICAL SCHEDULES II AND DETAILS I
M-1.6	MECHANICAL DETAILS II
M-1.7	MECHANICAL DETAILS III
M-2.1	PART GROUND FLOOR DEMOLITION PLAN - HVAC
M-2.2	PART GROUND FLOOR DEMOLITION PLAN — HYDRONIC
M-2.3	PART GROUND FLOOR NEW PLAN - HVAC
M-2.4	PART ROOF NEW PLAN - HVAC
M-2.5	PART GROUND FLOOR NEW PLAN - HYDRONIC
M-2.6	BOILER ROOM NEW PLAN - HYDRONIC
M-3.1	PART GROUND FLOOR DEMOLITION PLAN — PLUMBING & DRAINAGE
M-3.2	PART GROUND FLOOR NEW PLAN - PLUMBING & DRAINAGE



Engineering Inc. (905)265-1052

info@giallonardoeng.com www.giallonardoeng.com

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The contractor is to verify and accept responsibility for all dimensions and conditions on site and must notify GIALLONARDO ENGINEERING INC. of any variations from the

NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	FEB. 21 2025	RC
2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025	SW
NO.	REVISIONS	DATE	BY

PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

TITLE SHEET





DESIGN BY: **JH** 

CHECKED BY:

BARRY BRYAN ASSOCIATES

250 Water Street Suite 201 Whitby, Ontario L1N 0G5

Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

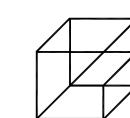
JAN 2025 AS SHOWN

24-182



#### GENERAL SPECIFICATIONS GENERAL SPECIFICATIONS **HVAC SPECIFICATIONS GENERAL SPECIFICATIONS** HVAC SPECIFICATIONS PROVIDE ALL LABOUR AND MATERIALS TO SUPPLY AND INSTALL THE DUCTWORK AND 13. HVAC BALANCING <u>GENERAL</u> 3.4. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING. PATCHING AND SHEET METAL SYSTEMS AS INDICATED ON MECHANICAL DRAWINGS. THIS INCLUDES RESTORATION. WHERE REQUESTED, THE CONTRACTOR SHALL CONTRACT THE 10. <u>STRUCTURAL AND SEISMIC</u> INSTALLING THE DUCTWORK, ACCESSORIES, ASSOCIATED ITEMS AND ALL NECESSARY 13.1. PROVIDE BALANCING OF ALL AIR AND WATER SYSTEMS AS INDICATED ON 1.1. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE SERVICES OF THE BASE BUILDING TRADES AT DIV.23 EXPENSE. CONNECTIONS TO OUTLETS, INLETS AND EQUIPMENT TO PROVIDE A COMPLETE MECHANICAL DRAWINGS. THE BALANCING CONTRACTOR SHALL HAVE A MINIMUM ONTARIO BUILDING CODE, CSA, ASHRAE, NFPA, ETC. WHERE CODES/STANDARD 10.1. WHERE THERE IS NO STRUCTURAL DIVISION AS PART OF THE PROJECT, IT SHALL OF FIVE (5) YEARS EXPERIENCE AND BE NEBB CERTIFIED. ALL BALANCING, 3.5. PROVISIONS SHALL BE MADE FOR THE PROTECTION OF DIV.23 WORK UNTIL THE BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO PROVIDE STRUCTURAL ARE PRESENT FORM MULTIPLE SOURCES, THE MOST STRINGENT SHALL BE TESTING ADJUSTING AND REPORTING SHALL BE CARRIED OUT IN ACCORDANCE COMPLETION OF THE PROJECT. THIS MAY INCLUDE, BUT NOT LIMITED TO, REINFORCING FOR ALL DIV.23 INSTALLATIONS. THE CONTRACTOR SHALL OBTAIN UNLESS OTHERWISE NOTED, FABRICATE ALL DUCTWORK SYSTEMS, INCLUDING WITH NEBB, PROCEDURAL STANDARDS FOR TESTING, ADJUSTING AND BALANCING COVERING OF EQUIPMENT OPENINGS AND DUCTWORK, PLUMBING FIXTURES, FLOOR THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER WHO IS TO PROVIDE A DUCTWORK, HOUSINGS, DAMPERS AND ACCESS DOORS, WITH GALVANIZED STEEL OF ENVIRONMENTAL SYSTEMS. WHERE APPLICABLE, THE MECHANICAL CONTRACTOR 1.2. THE FOLLOWING SPECIFICATIONS FORM AN ESSENTIAL PART OF THE CONTRACT DESIGN BEARING THEIR PROFESSIONAL SEAL. THE CONTRACTOR SHALL APPLY FOR SHEET METAL MEETING ASTM A653 AND A924. CONSTRUCTION OF THE DUCTWORK SHALL CONTRACT THE SERVICES OF THE BASE BUILDING APPROVED TAB DOCUMENTS. REFER AND COORDINATE WITH ALL OTHER DIVISIONS, SECTIONS AND BUILDING PERMIT AND ASSUME ALL RESPONSIBILITY AND COST FOR THE PERMIT SYSTEMS SHALL BE IN STRICT ACCORDANCE WITH SMACNA, SMACNA DUCT 3.6. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL MAKE ALL FINAL SPECIFICATIONS TO PROVIDE A COMPLETE AND OPERATIONAL INSTALLATION. PROCESS. UPON COMPLETION OF WORK, CONTRACTOR SHALL SUBMIT A LETTER CLEANLINESS AND ASHRAE. ALL DUCTWORK SHALL BE SMOOTH ON THE INSIDE AND ADJUSTMENTS TO EQUIPMENT AS WELL AS REMOVE ALL PROTECTION. ALL FROM THE STRUCTURAL ENGINEER COMPLETE WITH PROFESSIONAL SEAL TO SHALL BE FREE FROM RATTLING OR VIBRATION. DUCTWORK NOT MEETING THESE 13.2. PERFORM TESTING AND BALANCING PROCEDURES ON EACH SYSTEM ACCORDING INSTALLATIONS SHALL BE CLEANED THOROUGHLY AND TESTED FOR PROPER FOR THE PURPOSE OF THESE SPECIFICATIONS, DRAWINGS AND CONTRACT INDICATE THAT THE WORK HAS BEEN COMPLETED TO THE ONTARIO BUILDING STANDARDS WILL BE REPLACED AT NO EXTRA CHARGE TO THE OWNER. TO THE CURRENT EDITION OF THE NEBB STANDARDS. MARK EQUIPMENT AND OPERATION. CHANGE ALL AIR AND WATER FILTERS AS REQUIRED. CODE, ALL OTHER RELEVANT CODES AND STANDARDS AND TO THE AUTHORITIES DOCUMENTS, THE WORD 'PROVIDE' REFERS TO THE SUPPLY, INSTALLATION AND BALANCING DEVICE SETTING WITH PAINT OR OTHER SUITABLE PERMANENT TESTING OF THE RESPECTIVE EQUIPMENT/COMPONENTS. HAVING JURISDICTION. CONSTRUCT DUCTWORK AND SEAL ACCORDING TO THE APPROPRIATE SMACNA 3.7. IN REGARDS TO INTERRUPTION OF SERVICES, THE CONTRACTOR SHALL CARRY IDENTIFICATION MATERIAL TO SHOW FINAL SETTINGS. STANDARDS. LOW PRESSUE DUCTWORK SHALL BE CONSTRUCTED WITH THE ONE (1) OUT THEIR WORK IN A MANNER THAT CAUSES THE LEAST DISTURBANCE TO THE 10.2. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE THE 1.4. CONTRACTOR IS TO REPORT ALL APPARENT DISCREPANCIES BETWEEN DRAWINGS INCH PRESSURE CLASSIFICATION AND ALL OTHER DUCTWORK SHALL BE CONSTRUCTED 13.3. BALANCE AIRFLOW AND HYDRONIC FLOW QUANTITIES WITHIN $\pm 10\%$ OF THE OWNER. PROVIDE NOTIFICATION TO THE OWNER IN WRITING WITH AT LEAST 72 REQUIREMENTS FOR SEISMIC BRACING AND SUPPORTS WITH STRUCTURAL AND SPECIFICATIONS OF ALL DIVISIONS PRIOR TO TENDER SUBMISSION. NO IN ACCORDANCE WITH THE THREE (3) INCH CLASSIFICATION. DUCT PRESSURES SHALL DESIGN CRITERIA. IN THE EVENT THAT A CONDITION OR DEFICIENCY IS HOURS OF THE SCHEDULED INTERRUPTION. DRAWINGS. DIV.23 SHALL CONTRACT THE SERVICES OF A LICENSED PROFESSIONAL EXCEPTIONS WILL BE GIVEN TO CONTRACTORS WHO DO NOT COMPLETELY BE CLASSIFIED AS FOLLOWS: PREVENTING THE ACCEPTANCE RANGE FROM BEING ACHIEVED, IT SHALL BE ENGINEER TO DESIGN SUPPORTS AND BRACING IN ACCORDANCE WITH ALL UNDERSTAND THE SCOPE OF WORK. 3.8. ARRANGE AND PAY FOR THE SAFE DISPOSAL OF REMOVED ITEMS AS SPECIFIED. NOTED WITH DESCRIPTION ON THE TAB REPORT. UPON COMPLETION, SUBMIT A CURRENT CODES AND THAT MATCHES THE REQUIREMENT OF THE LOCATION IN LOW: DUCT PRESSURES (LOW) OF 1/2" TO 2" W.C. AND NOT EXCEEDING AN FINAL TAB REPORT TO THE CONSULTANT FOR REVIEW. PROVIDE PROOF OF SAFE DISPOSAL FOR ITEMS SUCH AS HVAC REFRIGERANT. WHICH THE SYSTEMS ARE BEING INSTALLED. UPON COMPLETION OF THE PROJECT, 1.5. ALL DIV.23 WORK SHALL BE COORDINATED AND SCHEDULED WITH ALL OTHER COORDINATE THE TIME AND METHOD OF DISPOSAL WITH THE OWNER. FOR AIR VELOCITY OF 2000 FPM. SEISMIC ENGINEER SHALL PROVIDE A LETTER BEARING THEIR PROFESSIONAL SEAL EXAMPLE, CLEARLY INDICATE THE ROUTE THAT WILL BE TAKEN FROM THE INSIDE INDICATING THAT THE INSTALLATION MEETS THE SEISMIC DESIGN DOCUMENT AND OF THE BUILDING TO THE OUTDOORS, AS WELL AS THE STORAGE LOCATION CONFORMS TO THE BUILDING CODE AND THE AUTHORITIES HAVING JURISDICTION. 3.2. MEDIUM: DUCT PRESSURES EXCEEDING 2" W.C. OR AND AIR VELOCITY OF 2000 1.6. THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND 14.1. PROVIDE ALL CONTROLS, WIRING, CONDUIT, ACCESSORIES, ETC. AND INTERLOCK OUTDOORS IF APPLICABLE UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN WITH EQUIPMENT/STARTERS AS INDICATED ON DRAWINGS. DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR 3.9. WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND 3.3. THREE INCH: ALL VARIABLE AIR VOLUME (VAV) SUPPLY AIR DUCT SYSTEMS AND FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL 11.1. ALL ELECTRICAL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND 14.2. WHEN INSTALLED IN CEILING PLENUMS, CABLE MAY BE FREE-AIR, UNLESS AIR DUCTWORK SYSTEMS EXPOSED TO THE OUTDOORS. WHICH EXISTED PRIOR TO TENDER SUBMISSION. AS SUCH AND WHERE REQUIRED. BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT. OTHERWISE NOTED, PROVIDING THE WIRING IS FT-6 PLENUM RATED. CONTROL DEVICES FOR DIV.23 WORK SHALL BE PROVIDED BY DIV.23. THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW. 14.3. WHEN INSTALLED IN OPEN AREAS, PROVIDE EMT CONDUIT, FITTINGS, MOUNTING 3.10. PERFORM WORK SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR 11.2. DIV.26 SHALL BE RESPONSIBLE FOR POWERING LOAD SIDE OF STARTERS AND CONTACTORS, POWER FOR ELECTRICAL HEAT TRACING AND CONTROLS, LINE SIDE ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR ACCESSORIES, ETC. TO DELIVER A NEAT AND CLEAN INSTALLATION. PROVIDE, WHERE INDICATED ON MECHANICAL DRAWINGS, FLEXIBLE DUCTWORK PROVIDE NEW MATERIALS AND EQUIPMENT OF ACCEPTABLE QUALITY THAT ARE FILTERS ON AIR HANDLING SYSTEMS AFFECT BY THE AREA OF WORK. ALL COSTS POWER TO LOOSE STARTERS AND DISCONNECTS. MANUFACTURED IN CANADA OR THE UNITED STATES AND BEAR THE APPROVAL OF EQUAL TO FLEXMASTER TRIPLE LOCK ALUMINUM DUCTWORK. THE PRESSURE ASSOCIATED WITH DAMAGES AS A RESULT OF THE MECHANICAL INSTALLATION RATING OF THE DUCTWORK SHALL MATCH THE DUCTWORK SYSTEM TO WHICH IT RECOGNIZED NORTH AMERICAN STANDARD ASSOCIATIONS SUCH AS CSA. ASME. SHALL BE COVERED BY DIV.23. MAINTAIN SAFETY STANDARDS AND PROVIDE 11.3. ALL LOW VOLTAGE WIRING AND CONNECTION IS TO BE PROVIDED BY THE IS ATTACHED. MATCH THE DUCTWORK SIZE TO THE CONNECTION OUTLET OF THE ETC. THE CONTRACTOR SHALL MAXIMIZE THE UTILIZATION OF CANADIAN 14.4.1. OCCUPANT ADJUSTABLE: MOUNT AT 3'-11" (1200 MM) A.F.F. ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS MECHANICAL CONTRACTOR. EQUIPMENT, MATERIALS, ETC. 14.4.2. NON-AJUSTABLE (SENSOR ONLY): MOUNT AT 5'-0" (1500 MM) A.F.F. 3.11. WHERE CUTTING OR CORE DRILLING OF THE EXISTING CONCRETE STRUCTURE IS 11.4. WHERE THERE IS NO DIV.26 (ELECTRICIAN) AS PART OF THE PROJECT. THE 4.2. SECURE FLEXIBLE DUCTWORK USING GEAR CLAMPS WITH AN ADJUSTING WORM 1.8. ALL EQUIPMENT, MATERIALS, ETC. SHALL BE INSTALLED IN STRICT ACCORDANCE REQUIRED, THE MECHANICAL CONTRACTOR SHALL CONTRACT THE SERVICES OF AN MECHANICAL CONTRACTOR SHALL CONTRACT THE SERVICES OF A LICENSED DRIVE TYPE SCREW. SEAL AROUND CONNECTION WITH DUCT TAPE TO OBTAIN THE \*\*CONFIRM MOUNTING HEIGHTS WITH CONSULTANT PRIOR TO INSTALLATION. WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. EXPERIENCED AND REPUTABLE COMPANY TO CARRY OUT X-RAYING. THE RESULTS ELECTRICAL CONTRACTOR AND OBTAIN THE APPROPRIATE INSPECTIONS AND APPROPRIATE SMACNA SEAL CLASS. SHALL BE SUBMITTED TO THE BASE BUILDING STRUCTURAL ENGINEER AND NOT APPROVALS FOR THE INSTALLATION OF ALL ELECTRICAL WORK REQUIRED FOR 14.5. COORDINATE INSTALLATION OF ALL CONTROL DEVICES/SENSORS WITH 1.9. THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. CUTTING OR CORING SHALL TAKE PLACE UNTIL WRITTEN APPROVAL IS RECEIVED. MAXIMUM LENGTH OF FLEXIBLE DUCTWORK PERMITTED IN LOW PRESSURE MECHANICAL SYSTEMS. THEREFORE THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE ARCHITECTURAL DRAWINGS. THE CONTRACTOR SHALL PROVIDE A WRITTEN REQUEST TO PERFORM X-RAYING SYSTEMS IS 10'-0" AND 4'-0" IN ALL OTHER HIGHER PRESSURE SYSTEMS. CONSULTANT PRIOR TO INSTALLATION. WITH AT LEAST 72 HOURS IN ADVANCE. 2. PROJECT CLOSEOUT 14.6. INSTALL CONTROL DEVICES/SENSORS CLEAR OF DIMMERS SO AS TO AVOID DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS. 1.10. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY IDENTIFICATION OF MECHANICAL SERVICES 12.1. PRIOR TO THE ISSUING OF A PROJECT COMPLETION NOTICE OR A SIGN-OFF CONTRACTOR TO TAKE INTO ACCOUNT DUCT LINERS, ETC. WHEN PERFORMING DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO LETTER, THE FOLLOWING DOCUMENTS, AT A MINIMUM, MUST BE PROVIDED TO THE TAKE-OFFS. 14.7. THE MECHANICAL CONTRACTOR SHALL TEST ALL CONTROLS/INTERLOCKS FOR OTHER DIVISION'S DRAWINGS FOR CLARIFICATION. 4.1. PROVIDE SMS WRAP-MARK ON ALL PIPE COVERINGS WITH FLOW ARROW AND ENGINEER FOR REVIEW: GOOD OPERATION PRIOR TO PROJECT CLOSE-OUT. PROVIDE A REPORT FOR ALTERNATING WORDING, COVERING COLOURS SHALL MATCH BASE BUILDING, IN MAKE ALL DUCT CONNECTIONS, CONCENTRIC AND ECCENTRIC TRANSITIONS, ETC., IN 1.11. IN NO CASE SHALL THESE DRAWINGS BE SCALED. ALL ROUGH-IN'S SHALL BE REVIEW TO THE ENGINEER INDICATING DEFICIENCIES. THE CASE WHERE THERE IS NO EXISTING STANDARD, INDUSTRY STANDARDS SHALL ACCORDANCE WITH SMACNA. COORDINATED WITH OTHER DIVISIONS. NFPA-13 LETTER 14.8. WIRE ALL DEVICES TO THEIR RESPECTIVE MAGNETIC STARTERS AND PROVIDE - APPLICABLE SYSTEM/EQUIPMENT TESTING REPORT PROVIDE <u>DUCT ACCESS DOORS</u> AT LOCATIONS AS SHOWN ON DRAWINGS, AS WELL AS POWER TO DIV.23 CONTROL PANELS FROM NEAREST AND MOST SUITABLE 1.12. DO NOT PROCEED WITH WORK OUTSIDE THE SCOPE OF THE DESIGN DRAWINGS 4.2. USE STENCILS AND STENCIL PAINT ON DUCTWORK AND DUCTWORK INSULATION AT THE LINKAGE SIDE OF AUTOMATIC DAMPERS, FIRE DAMPERS AND ANY OTHER AND SPECIFICATIONS WITHOUT WRITTEN CONSENT FROM THE OWNER. THIS APPLIES ELECTRICAL PANEL WITH BLACK CAPITALIZED LETTERS 2" (50 MM) HIGH AND SOLID BLACK FLOW SERVICE, BALANCE OR CONTROL DEVICE REQUIRING PERIODIC MAINTENANCE. THE TO ALL DIV.23 CHANGE NOTICES AS ISSUED BY THE CONSULTANT. DOORS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA AND SHALL MATCH 14.9. CONTRACT THE SERVICES OF THE BASE BUILDING APPROVED CONTROLS THE PRESSURE RATING OF THE DUCTWORK SYSTEM TO WHICH IT IS BEING CONTRACTOR AS FOLLOWS: 1.13. IN REGARDS TO DIV.23 CHANGE NOTICES, CONTRACTOR SHALL PROVIDE A 4.3. IDENTIFICATION OF PIPING AND DUCTWORK SHALL BE PROVIDED AT THE BREAKDOWN INCLUDING, BUT NOT LIMITED TO, MATERIALS, LABOUR, MARK-UP, FOLLOWING LOCATIONS: ETC. QUOTATIONS SHALL BE BASED ON ALLPRISER FOR EQUIPMENT AND THE VIRIDIAN AUTOMATION PROVIDE <u>FLEXIBLE CONNECTIONS</u> AT THE INLET AND OUTLET CONNECTION FOR EACH 455 NORTH SERVICE ROAD EAST MECHANICAL CONTRACTORS OF AMERICA, SMACNA, AND NATIONAL ELECTRICAL - AT LEAST ONCE IN EACH ROOM FAN BETWEEN DUCTWORK AND INLET AND OUTLET COLLARS. FLEXIBLE CONNECTIONS OAKVILLE, ON L6H 1A5 CONTRACTORS FOR LABOUR RATES. AT EACH PIECE OF EQUIPMENT SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE NEOPRENE COATED FIBERGLASS - AT EACH BRANCH CLOSE TO THE CONNECTION POINT AT MAIN FABRIC. FOR OUTDOOR CONNECTIONS, PROVIDE A CONNECTOR THAT IS SUITABLE FOR CONTACT: WINSTON TANG (905) 338-2201 1.14. WHERE EQUIPMENT HAS BEEN PRE-PURCHASED, DIV.23 SHALL ACCEPT ALL - AT NOT GREATER INTERVALS OF 50 FT. (15 M) ON STRAIGHT RUNS OF EXPOSURE TO SUNLIGHT AND THE ELEMENTS. RESPONSIBILITY FOR EQUIPMENT DELIVERY, INSTALLATION, TESTING AND WARRANTY, EXPOSED PIPING AND DUCTWORK. SIMILAR TO AS IF THE EQUIPMENT WAS PURCHASED BY DIV.23. PROVIDE <u>FIRE DAMPERS</u> WHERE INDICATED ON MECHANICAL DRAWINGS. ALL DAMPERS - AT ENTRY AND LEAVING POINT TO PIPE AND DUCT CHASES, OR OTHER CONCEALED SPACES SHALL BE SELECTED TO SUIT THE RATING OF THE FLOOR OR WALL ASSEMBLY IN 1.15. THE CONTRACTOR SHALL WARRANTY ALL MATERIALS, EQUIPMENT, INSTALLATION - BOTH SIDES WHERE PIPING AND DUCTWORK PASSES THROUGH WALL, WHICH IT WILL BE INSTALLED. FIRE DAMPERS SHALL BE ULC LISTED AND INSTALLED AND QUALITY OF WORKMANSHIP FOR A MINIMUM OF ONE (1) YEAR UNLESS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PARTITIONS AND FLOORS OTHERWISE NOTED. - ON VERTICAL PIPES AND DUCTS APPROXIMATELY 6 FT. (1800 MM) A.F.F. NFPA 90A AND THE AUTHORITIES HAVING JURISDICTION. TYPE A FIRE DAMPERS ARE PERMITTED FOR NON-DUCTED TRANSFER DUCTWORK. TYPE B FIRE DAMPERS SHALL - BEHIND EACH ACCESS DOOR AND PANEL 1.16. IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO PAY FOR ALL CHARGES BE USED IN ALL OTHER CASES UNLESS OTHERWISE NOTED. AND DAMAGES ASSOCIATED WITH EQUIPMENT THAT IS NOT PROVIDED AS SPECIFIED 4.4. PROVIDE IDENTIFICATION FOR PIPING CONTAINING ELECTRICAL HEAT TRACING. AND INCLUDES NOT MEETING THE MANUFACTURER'S RATINGS. PUBLISHED DATA REMOVABLE DUCT SECTIONS FOR FIRE AND SMOKE DAMPER ACCESS: WHERE A AND/OR THE APPLICABLE GOVERNING STANDARDS. 4.5. TAG ALL VALVES, EXCEPT SMALL VALVES ISOLATING EQUIPMENT, WITH BRASS TAGS MINIMUM 12"X12" ACCESS PANEL CAN NOT BE INSTALLED ON DUCTWORK, A AND HIGH DIE-STAMPED BLACK LETTERS ATTACHED TO VALVES WITH 4" BRASS REMOVABLE DUCTWORK SECTION FOR DAMPER INSPECTION AND MAINTENANCE 1.17. THE CONTRACTOR MAY SUBMIT FOR ALTERNATE MATERIALS AND EQUIPMENT ONLY SHALL BE PROVIDED. REMOVABLE DUCTWORK SECTION TO FUNCTION WITHOUT WHEN THE SPECIFIED ARE NOT AVAILABLE OR WILL ADVERSELY IMPACT THE THE USE OF TOOLS AND SHALL NOT BE MORE THAN 4" AWAY FROM THE FIRE COMPLETION SCHEDULE. THE CONTRACTOR SHALL COMPENSATE THE CONSULTANT 4.6. PROVIDE IDENTIFICATION FOR ALL NEW EQUIPMENT, STARTERS AND REMOTE DAMPER SLEEVE BREAK AWAY CONNECTION. FOR THEIR TIME REQUIRED TO REVIEW THE ALTERNATE SUBMITTALS. CONTROL DEVICES WITH LAMACOID LABELS ENGRAVED WITH WHITE LETTERING AND A BLACK BACKGROUND. THE MINIMUM LETTERING SIZE SHALL BE 3/8" (10 MM). . MANUAL BALANCING DAMPERS INSTALLED IN DUCTWORK NOT EXCEEDING 12" ON THE LONGEST SIDE SHALL BE CONSTRUCTED AS PER SMACNA. PROVIDE OPPOSED BLADE DAMPERS WHERE THE DIMENSION OF THE LONGEST SIDE OF THE DUCTWORK ACCESS DOORS AND PANELS 2.1. THE CONTRACTOR SHALL SUBMIT THREE (3) HARD COPIES OF MECHANICAL SHOP EXCEEDS 12", OPPOSED BLADE DAMPERS SHALL BE OF GALVANIZED STEEL DRAWINGS TO THE CONSULTANTS FOR REVIEW. ELECTRONIC SUBMISSION OF SHOP 5.1. PROVIDE ADEQUATE ACCESS TO CONCEALED EQUIPMENT AND COMPONENTS THAT CONSTRUCTION WITH LOCK SCREWS AT OPPOSITE ENDS. PROVIDE BALANCING DRAWINGS SHALL BE DEEMED ACCEPTABLE UPON APPROVAL FROM CONSULTANT. REQUIRE ACCESS FOR MAINTENANCE, ADJUSTMENT AND INSPECTION, PROVIDE DAMPERS WHERE SHOWN ON DRAWING AS WELL AS ON BRANCHES OFF OF MAIN THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH THE DOCUMENT MARKING TO THE OWNER'S SATISFACTION THE LOCATIONS WHERE CONCEALED DUCTWORK WITH ADEQUATE ACCESS. SUBMITTAL PROCESS. EQUIPMENT IS LOCATED. . PROVIDE ALL DIFFUSERS, REGISTERS, GRILLES, ETC. OF TYPE AND SIZE AS INDICATED 2.2. ALL SHOP DRAWINGS SUBMITTED FOR REVIEW MUST BEAR THE REVIEW STAMP OF 5.2. ENSURE THAT THE SIZE OF THE DOOR COMPLIES WITH THE MANUFACTURER'S ON MECHANICAL DRAWINGS. CONFIRM ALL AIR TERMINAL COLOURS WITH THE MECHANICAL CONTRACTOR. SHOP DRAWINGS THAT DO NOT BEAR THE SUGGESTED ACCESS REQUIREMENTS. ARCHITECT/INTERIOR DESIGNER, REGARDLESS OF SPECIFICATION ON MECHANICAL CONTRACTOR'S STAMP WILL, WITHOUT QUESTION, BE REJECTED BY THE DRAWINGS. MECHANICAL CONTRACTOR IS TO COORDINATE INSTALLATION OF DOOR 5.3. COORDINATE ALL ACCESS DOOR AND PANEL SIZES AND LOCATIONS WITH GRILLES WITH ARCHITECTURAL DRAWINGS AND GENERAL CONTRACTOR. ARCHITECT/INTERIOR DESIGNER. 2.3. SHOP DRAWINGS SHALL INCLUDE ALL INFORMATION REQUIRED FOR THE PROVIDE <u>DUCTWORK INSULATION AND LINERS</u> WHERE NOTED ON MECHANICAL CONSULTANT TO PERFORM A REASONABLE REVIEW OF THE SUBMITTALS AS THEY FLASHING, CURBS AND CONCRETE DRAWINGS, AS PER THE FOLLOWING PERTAIN TO THE MECHANICAL DESIGN DRAWINGS AND SPECIFICATIONS. 12.1. ACOUSTIC LINING: 6.1. FLASHING SHALL BE CARRIED OUT AS SHOWN ON ARCHITECTURAL AND/OR SHOP DRAWINGS SHALL HAVE THE SAME IDENTIFYING NUMBER AS NOTED IN THE STRUCTURAL DRAWINGS AT THE EXPENSE OF DIV.23. MECHANICAL DRAWINGS. 12.1.1. DUCT LINING SHALL COMPLY WITH NFPA 90A AND DUCT LINER MATERIALS 6.2. ALL CURBS REQUIRED FOR MECHANICAL EQUIPMENT SHALL BE CARRIED OUT AS STANDARD OF THE THERMAL INSULATION MANUFACTURER'S ASSOCIATION. 2.5. PROVIDE SHOP DRAWINGS WITH TECHNICAL SUBMITTALS ON ALL TYPES OF SHOWN ON ARCHITECTURAL AND/OR MECHANICAL DRAWINGS AT THE EXPENSE OF <u>INSULATION</u> TO BE INSTALLED. 12.1.2. RECTANGULAR DUCTWORK: PROVIDE ONE INCH (1") THICK ACOUSTIC LINING DIV.23. CURBS SHALL BE INSTALLED AT LEAST 14" ABOVE THE ROOF LEVEL. EQUAL TO JOHNS MANVILLE LINACOUSTIC RC COMPLETE WITH PERMACOTE 2.6. THE CONTRACTOR SHALL MAINTAIN ON SITE ONE (1) RECORD OF MECHANICAL ACRYLIC ANTI-MICROBIAL COATING. 6.3. PREMANUFACTURED EQUIPMENT CURBS SHALL BE SUPPLIED BY THE EQUIPMENT DRAWINGS THAT SHALL INDICATE WITH RED LINES ALL PROJECT CONDITIONS. MANUFACTURER. LOCATIONS, CONFIGURATIONS AND ANY OTHER CHANGES OR DEVIATIONS WHICH 12.1.3. SPIRAL DUCTWORK: PROVIDE ONE INCH (1") THICK ACOUSTIC LINING EQUAL MAY VARY FROM THE ORIGINAL CONTRACT DOCUMENTS AND DRAWINGS. IN TO JOHNS MANVILLE SPINACOUSTIC PLUS ROUND DUCT LINER SYSTEM 6.4. PROVIDE 4" (100 MM) THICK CONCRETE HOUSEKEEPING PADS WHERE INDICATED ADDITION, THIS SET SHALL INCLUDE REVISIONS AS A RESULT OF ALL ADDENDAS, COMPLETE WITH PERMACOTE ANTI-MICROBIAL COATING. CHANGE NOTICES, SITE INSTRUCTIONS, ETC. UPON COMPLETION OF THE PROJECT, ON ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND ENGINEER ONE (1) COPY 12.1.4. PROVIDE ACOUSTIC LINING AS SPECIFIED ON ALL SUPPLY, RETURN AND EACH OF A HARDCOPY AND ELECTRONIC COPY (PDF) FOR REVIEW. ONE (1) SET EXHAUST FAN EQUIPMENT FOR 10'-0" (3.0 M) FROM THE INLET/OUTLET. OF BOTH COPIES SHALL ALSO BE INCLUDED IN THE CLOSEOUT DOCUMENT 7.1. PROVIDE FIRE STOPPING SYSTEMS AND PRODUCTS FOR ALL DUCTS, PIPING, ETC. PENETRATING FIRE SEPARATIONS THAT ARE ULC LISTED AND COMPLY WITH 12.2. THERMAL INSULATION CAN4-S115S AND THE AUTHORITIES HAVING JURISDICTION. 2.7. TWO (2) COPIES OF OPERATION AND MAINTENANCE MANUALS SHALL BE 12.2.1. PROVIDE THERMAL INSULATION WHERE NOTED ON MECHANICAL DRAWINGS. SUBMITTED TO THE CONSULTANT FOR REVIEW UPON PROJECT COMPLETION. THE 7.2. MAINTAIN ALL FLOOR AND WALL FIRE RATINGS TO COMPLY WITH BASE BUILDING INSULATE ALL DUCTWORK LEAVING OR ENTERING THE BUILDING FOR THE MANUALS SHALL CONTAIN THE FOLLOWING WHERE APPLICABLE: FIRST 6 FT. FROM THE BUILDING PENETRATION WITH 2" OF THERMAL STANDARDS AND THE AUTHORITIES HAVING JURISDICTION. - DESCRIPTION OF EACH SYSTEM - DESCRIPTION OF EACH MAJOR COMPONENT OF SYSTEM PIPE, DUCT AND EQUIPMENT INSTALLATION - ALL SHOP DRAWINGS WITH APPROVAL STAMPS 12.2.2. RECTANGULAR DUCTWORK: PROVIDE ONE INCH (1") JOHNS MANVILLE SERIES - EQUIPMENT MANUFACTURER'S INSTALLATION AND OPERATION 8.1. INSTALL ALL PIPING, DUCTWORK AND EQUIPMENT TO PROVIDE ADEQUATE 814 SPIN-GLAS FIBER GLASS DUCT BOARD INSULATION WITH FSK FACING. MANUALS AND SPARE PARTS LIST CLEARANCES FOR SERVICING AS WELL AS MAXIMUM USABLE SPACE FOR ALL IMPALE ON MECHANICALLY FASTENED PINS LOCATED AT NOT MORE THAN 12" WIRING DIAGRAMS ON CENTRE, AND SECURE WITH SPEED WASHERS. LUBRICATION SCHEDULE - EQUIPMENT IDENTIFICATION LIST WITH SERIAL NUMBERS 8.2. INSTALL PIPING AND DUCTWORK STRAIGHT, IN A NEAT AND CLEAN FASHION AND 12.2.3. RIGID ROUND (SPIRAL) DUCTWORK: PROVIDE ONE INCH (1") JOHNS MANVILLE - VALVE TAG SCHEDULES AND FLOW DIAGRAMS TIGHT TO STRUCTURES ABOVE (UNLESS OTHERWISE NOTED). MICROLITE EQ FSK FIBER GLASS DUCT WRAP INSULATION WHERE INDICATED FINAL AND REVIEWED BALANCING REPORTS (AIR AND WATER) ON DRAWINGS. ADHERE INSULATION TO DUCT SURFACE AND LAP ALL EDGES - WATER TREATMENT PROCEDURE AND TESTS 8.3. TAKE MEASURES TO PROTECT COPPER PIPING CORROSION FROM CONTACT WITH AT LEAST 2". SEAL JOINTS WITH 4" WIDE ALUMINUM FOIL TAPE. - CONTROL DRAWINGS AND SEQUENCES OF OPERATION DISSIMILAR METALS. AS-BUILT DRAWINGS (HARDCOPY AND ELECTRONIC) 12.2.4. FLEXIBLE DUCTWORK: PROVIDE ONE INCH (1.25") JOHNS MANVILLE WARRANTY DOCUMENTATION HANGERS AND SUPPORTS FLEX-GLAS EQ FLEXIBLE DUCTWORK INSULATION WITH FSK FACING. LAP JOINTS AND SEAL WITH 4" WIDE ALUMINUM FOIL TAPE. 9.1. PROVIDE HANGER SYSTEMS FOR ALL DUCTWORK, PIPING AND EQUIPMENT TO RENDER A SAFE AND FUNCTIONAL INSTALLATION. HANGER RODS SHALL BE 3.1. PERIODIC INSPECTIONS OF THE WORK WILL BE CONDUCTED OVER THE COURSE 12.2.5. WHERE DUCTWORK IS INSTALLED OUTSIDE THE BUILDING OR EXPOSED TO ATTACHED DIRECTLY TO THE STRUCTURE AND IN NO WAY SHALL BE ATTACHED TO OF THE PROJECT. ALL REPORTED DEFICIENCIES SHALL BE RECTIFIED BY THE THE ELEMENTS, PROVIDE TWO INCHES (2") OF THERMAL INSULATION, BUTT OTHER MECHANICAL COMPONENTS OR CEILING SYSTEMS. WHERE COMPONENTS CONTRACTOR IN A TIMELY FASHION. FAILURE TO DO SO WILL RESULT IN THE JOINTS TIGHTLY TOGETHER AND SEAL WASHERS, BREAKS AND JOINTS WITH ARE TO BE SUSPENDED BETWEEN JOISTS OR BEAMS, PROVIDE AUXILIARY STEEL CONTRACTOR NOT MEETING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. SELF-ADHERING FOUR INCHES (4") WIDE PLAIN ALUMINUM TAPE, OR CHANNELS TO SUIT. ADHERE FOIL WITH CHILDERS CP82 OR BAKELITE 230-39 ADHESIVE. 3.2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL 9.2. FOR GENERAL CONDITIONS, PROVIDE ROUND STEEL THREADED RODS CONFORMING INSPECTIONS WITH CITY AND/OR MUNICIPAL OFFICIALS AND ALL OTHER 12.3. JACKETING TO ASTM A-36. WHERE SPECIAL CONDITIONS EXIST, SUCH AS HIGH HUMIDITY OR AUTHORITIES HAVING JURISDICTION. EXPOSURE TO ELEMENTS, PROVIDE HANGER COMPONENTS TO SUIT. RECOVER ALL DUCTWORK OUTSIDE THE BUILDING OR EXPOSED TO THE 3.3. IN REGARDS TO TEMPORARY SERVICES, PROVIDE. AS REQUIRED BY THE ELEMENTS WITH ALUMINUM JACKETING TO ASTM B209 WITH MOISTURE 9.3. IN REGARDS TO ALL PIPING, PROVIDE SUPPORTS AT CONNECTION (SUCH AS HUB) AUTHORITY HAVING JURISDICTION, TEMPORARY FIRE PROTECTION SYSTEMS. BARRIER, THICKNESS 0.50MM SHEET, STUCCO EMBOSSED FINISH, JACKET AND AT EVERY CHANGE IN DIRECTION. REFRAIN FROM USING INSTALLED SYSTEMS FROM THE CONTRACT DOCUMENTS AS BANDING AND MECHANICAL SEALS 12MM WIDE AND 0.5MM THICK STAINLESS A TEMPORARY SERVICES. THIS SHALL APPLY TO ALL MECHANICAL SYSTEMS

INCLUDING HVAC, PLUMBING AND DRAINAGE, ETC.



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#### **RENOVATIONS AT ECOLE ELEMENTAIRE** FELIX-LECLERC

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DRAWING:

**MECHANICAL** SPECIFICATIONS I



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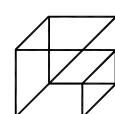
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HYDRONIC SYSTEMS SPECIFICATIONS	HYDRONIC SYSTEMS SPECIFICATIONS	REFRIGERANT PIPING SPECIFICATIONS	PLUMBING SPECIFICATIONS
1. PRODUCTS	OI LOII IOATIONO	1. GENERAL	PROVIDE PLUMBING SYSTEMS AS PER DRAWINGS, SPECIFICATIONS, THE LATEST EDITION
1.1. <u>PIPE</u>	2.4.5. <u>VALVES</u>	1.1. PROVIDE A COMPLETE AND OPERATING REFRIGERANT SYSTEM IN ACCORDANCE WITH CSA-B52, THE ONTARIO BUILDING CODE, ASME AND THE AUTHORITIES	OF THE ONTARIO BUILDING CODE, MUNICIPAL BY—LAWS AND THE AUTHORITY HAVING JURISDICTION. THE TERM "SYSTEMS" REFERS TO ALL PIPING, FITTINGS, SUPPORTS, CURBS, ACCESSORIES, ETC.
1.1.1. PROVIDE SCHDULE 40 (NPS) STEEL PIPE CONFORMING TO ASTM—A53/A53M, GRADE B	2.4.5.1. INSTALL ALL VALVES IN ACCESSIBLE LOCATIONS FOR MAINTENANCE WITHOUT REMOVING ADJACENT PIPING. 2.4.5.2. USE BALL OR BUTTERFLY VALVES AT BRANCH TAKE—OFFS FOR ISOLATING	HAVING JURISDICTION.  2. PRODUCTS	2. ALL ITEMS REQUIRED FOR PLUMBING SYSTEMS SHALL BE CSA APPROVED UNLESS
1.2. PIPE JOINTS	PURPOSES EXCEPT WHERE OTHERWISE SPECIFIED.  2.4.5.3. INSTALL BUTTERFLY VALVES ON CHILLED WATER AND RELATED	2.1. TUBING	OTHERWISE NOTED.  3. CLEANING, FLUSHING AND DISINFECTING OF DOMESTIC WATER PIPING
1.2.1. FOR NPS 2"Ø AND SMALLER, USE SCREWED FITTING WITH PTFE TAPE OR LEAD—FREE PIPE DOPE.	CONDENSER WATER SYSTEMS ONLY. 2.4.5.4. INSTALL BALL VALVES FOR GLYCOL SERVICE. 2.4.5.5. USE CHAIN OPERATORS ON VALVES NPS 2-1/2"Ø AND LARGER WHERE	2.1.1. TUBING SHALL BE SUITABLE FOR REFRIGERATION INSTALLATION AND AS SUCH, SHALL BE DEOXIDIZED, DEHYDRATED AND SEALED.	3.1. FOLLOW PROCEDURES AS OUTLINED IN THE LATEST EDITION OF STANDARD AWWA C651. ENSURE THAT THE METHODS COMPLY WITH LOCAL BY—LAWS.
1.2.2. FOR NPS 2-1/2"Ø AND OVER: WELDED FITTINGS AND FLANGES TO CAN/CSA-W48. 1.2.3. ROLL GROOVED: RIGID COUPLINGS TO CSA B242.	INSTALLED MORE THAN 2400 MM ABOVE FLOOR IN MECHANICAL ROOMS.	2.1.2. TUBING SHALL BE HARD COPPER TO ASTM-B280, NITROGENIZED, TYPE  ACR-B OR ANNEALED COPPER TO ASTM-B280 WITH MINIMUM WALL	3.2. PREVENT CONTAMINATING MATERIAL FROM ENTERING THE SYSTEM DURING
1.2.4. FLANGES: PLAIN ASME B16.1, RAISED FACE, SLIP—ON OR WELD NECK TO ASME B16.5. 1.2.5. ORIFICE FLANGES: SLIP—ON RAISED FACE, 2100 kPa.	2.4.6. CHECK VALVES	THICKNESS IN ACCORDANCE WITH CSA-B52 AND ASME-B31.5.	STORAGE, CONSTRUCTION AND REPAIR.  3.3. REMOVE AND FLUSH ALL FOREIGN MATTER THAT HAS ENTERED THE PIPING.
1.2.6. FLANGE GASKETS TO AWWA C111 1.2.7. PIPE THREAD SHALL BE TAPERED. 1.2.8. BOLTS AND NUTS TO ASME B18.2.1 AND ASME B18.2.2.	2.4.6.1. INSTALL SILENT CHECK VALVES ON DISCHARGE OF PUMPS AND IN VERTICAL PIPES WITH DOWNWARD FLOW AND ELSEWHERE INDICATED. 2.4.6.2. INSTALL SWING CHECK VALVES IN HORIZONTAL LINES ON DISCHARGE OF	2.2. FITTINGS  2.2.1. FITTINGS SHALL BE PROVIDED FOR SERVICE DESIGN PRESSURES AND	3.4. PROTECT THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW DUE TO HYDROSTATIC PRESSURE AND DISINFECTION PROCEDURES.
1.2.9. ROLL GROOVED COUPLING GASKETS: NPS 2"Ø TO 8"Ø, TYPE EHP, EPDM HIGH PERFORMANCE, -40°C TO 120°C FOR CONTINUOUS OPERATION.	PUMPS AND ELSEWHERE AS INDICATED.  2.4.7. WHERE PIPING PASSES THROUGH MASONRY, FIRE—RATED ASSEMBLIES,	TEMPERATURES IN ACCORDANCE WITH CSA-B52.  2.2.2. FITTINGS SHALL BE WROUGHT COPPER IN ACCORDANCE WITH ASME-B16.22.	3.5. CHLORINATE RESIDUAL CONTAMINATION THAT MAY REMAIN AND FLUSH THE CHLORINATED WATER WHEN COMPLETE. FOLLOWING THIS, DETERMINE THE
1.3. <u>FITTINGS</u>	FOUNDATION WALLS, POURED WALLS, ETC., PROVIDE PIPE SLEEVES CONSTRUCTED OF SCHEDULE 40 BLACK STEEL PIPE. ALLOW FOR 0.25" OF	JOINTS ARE TO BE BRAZED WITH SILVER SOLDER, 45% Ag-80% Cu-5% p AND NON-CORROSIVE FLUX FOR COPPER TO STEEL OR BRASS. UTILIZE SILFOSS-15 FOR COPPER TO COPPER BRAZING.	BACTERIOLOGICAL QUALITY OF THE WATER BY LABORATORY TESTING. CONNECT THE WATER SYSTEM ONLY WHEN TEST RESULTS INDICATE AN APPROVED AND DISINFECTED SYSTEM.
1.3.1. SCREWED FITTINGS SHALL BE MALLEABLE IRON CONFORMING TO ASME B16.3, CLASS 150.	CLEARANCE BETWEEN INSIDE OF SLEEVE AND OUTSIDE OF PIPE/INSULATION. SEAL WITH A FIRE RETARDANT AND WATERPROOF NON HARDENING MASTIC. WHERE SLEEVE IS INSTALLED IN A FIRE RATED ASSEMBLY, PROVIDE	2.3. PIPE SLEEVES	4. PIPING INSULATION
1.3.2. PIPE FLANGES AND FLANGED FITTINGS: 1.3.2.1. CAST IRON TO ASME B16.1, CLASS 125	FIRESTOPPING CONFORMING TO ULC.	2.3.1. PROVIDE HARD COPPER OR STEEL FOR A MINIMUM CLEARANCE OF 2" BETWEEN SLEEVE AND OUTSIDE OF INSULATION.	4.1. PROVIDE PIPING INSULATION FOR PLUMBING SYSTEMS AS FOLLOWS:
1.3.2.2. STEEL TO ASME B16.5  1.3.3. BUTT-WELDED FITTINGS, STEEL, TO ASME B16.9.	2.4.8. PROVIDE ESCUTCHEON PLATES ON PIPING PASSING THROUGH FINISHED WALLS, FLOOR AND CEILINGS.	2.4. VALVES	- DCW: TYPE 'A', FOR ALL PIPE SIZES 1" THICK - DHW(R): TYPE 'A', UP TO 2"Ø - 1" THICK, 2-1/2"Ø AND UP - 1-1/2"
1.3.4. UNIONS SHALL BE MALLEABLE IRON CONFORMING TO ASTM-A47/A47M AND	2.4.9. PROPERLY FLUSH AND CLEAN SYSTEM AND REMOVE ALL FOREIGN MATTER PRIOR TO SYSTEM STARTUP. PREPARATORY TO ACCEPTANCE, CLEAN AND REFLICION FOR THE PRIOR OF THE	2.4.1. PROVIDE ALL VALVES FOR THE SERVICE DESIGN PRESSURES AND TEMPERATURES IN ACCORDANCE WITH CSA-B52 AND ASME.	THICK  – CD (HORIZONTAL): TYPE 'A', 1/2"ø THROUGHOUT
ASME B16.3.	REFURBISH EQUIPMENT AND LEAVE IN OPERATING CONDITION, INCLUDING REPLACEMENT OF FILTERS IN PIPING SYSTEMS.	2.5. INSULATION	4.2. TYPE 'A': JOHNS MANVILLE MICRO-LOK FIBER GLASS PIPE INSULATION COMPLETE WITH JACKET AND VAPOUR RETARDER. CONNECT SECTIONS OF INSULATION WITH BUTT STRIPS SUPPLIED BY THE INSULATION MANUFACTURER.
1.3.5. FITTINGS FOR ROLL GROOVED PIPING, MALEABLE IRON TO ASTM-A47/A47M, DUCTILE IRON TO ASTM-A536.	2.4.10. PRESSURE TEST SYSTEM AND MONITOR FOR PRESSURE LOSS FOR A MINIMUM OF 4 HOURS, UNLESS OTHERWISE SPECIFIED.	2.5.1. TIAC CODE A-6: FLEXIBLE UNICELLULAR TUBULAR ELASTOMER.  2.5.1.1. INSULATION: WITH VAPOUR RETARDER JACKET.	4.3. FOR NEW EXPOSED PIPING INSTALLED INDOORS AND/OR IN MECHANICAL ROOMS,
1.4. <u>VALVES</u>	2.5. <u>HANGERS AND SUPPORTS</u>	2.5.1.2. CERTIFIED BY MANUFACTURER: FREE OF POTENTIAL STRESS CORROSION CRACKING CORRODANTS. 2.5.1.3. JACKETING AT EXTERIOR BUILDING SHALL BE ALUMINUM TO ASTM B209.	RECOVER INSULATION WITH HEAVY—GAUGE PVC FITTINGS, COVER AND JACKETING EQUAL TO JOHNS MANVILLE ZESTON 300 SERIES.
1.4.1. CONNECTIONS:  1.4.1.1. NPS 2"ø AND SMALLER: SCREWED ENDS.	2.5.1. UTILIZE PIPE HANGERS AND SUPPORTS CONSTRUCTED OF GALVANIZED STEEL.	3. EXECUTION	4.4. PROVIDE INSULATION ON PIPES GOING THROUGH <u>FIRE RATED FLOORS AND WALLS</u> , AND <u>FIT TIGHT TO THE FIRE STOP MATERIAL</u> .
1.4.1.2. NPS 2-1/2"ø AND LARGER: FLANGED OR GROOVED ENDS.	2.5.2. INSTALL HANGERS SO THAT RODS ARE VERTICAL. ENSURE LOAD EQUALIZATION WITH ROD ADJUSTMENT.	3.1. INSTALL ALL REFRIGERANT PIPING SYSTEMS IN ACCORDANCE WITH CSA-B52 AND ASME-B31.5.	4.5. <u>HEATING WATER PIPING</u> SHALL HAVE GLASS FIBRE PIPE INSULATION.  5. MAKE ALL PIPING AND ELECTRICAL CONNECTION TO PUMPS AND MOTOR ASSEMBLIES
1.4.2. <u>GATE VALVES</u> TO MSS-SP-70 AND MSS-SP-80 FOR ISOLATING EQUIPMENT, CONTROL VALVES, ETC.	2.5.3. FOR RISER CLAMPS, PROVIDE GALVANIZED BLACK CARBON STEEL, ULC LISTED OR FM APPROVED WHERE REQUIRED. BOLTS AND NUTS SHALL CONFORM TO ASTM-A307 AND ASTM-A563. RESPECTIVELY.	3.2. BRAZING	AS SPECIFIED. REFER TO PUMP SCHEDULE (WHERE APPLICABLE).
1.4.2.1. NPS 2"Ø AND SMALLER: BRONZE, CLASS 125 RISING STEM, SOLID WEDGE DISC.	2.5.4. FOR BASE-MOUNTED EQUIPMENT, PROVIDE CONCRETE HOUSE-KEEPING PADS	3.2.1. BLEED INERT GAS INTO PIPE DURING THE BRAZING PROCEDURE. ENSURE TO REMOVE ALL VALVE INTERNAL ASSEMBLIES, SOLENOID VALVE COILS AND SIGHT GLASS. REFRAIN FROM APPLYING HEAT NEAR BULBS AND EXPANSION VALVES.	PIPING MATERIALS (SEE BELOW FOR MATERIALS SPECIFICATIONS)  6.1. DCW AND DHW(R)
1.4.2.2. NPS 2-1/2"Ø AND OVER: CAST IRON, RISING STEM, SOLID WEDGE DISC, LEAD FREE BRONZE TRIM.	4" TALL AND 6" OF SPACE AROUND EQUIPMENT AND CHAMFERED EDGES.  2.5.5. <u>HANGER SPACING</u>	3.3. PIPING INSTALLATION	6.1.1. ABOVE GROUND: TYPE 1 6.1.2. UNDERGROUND: TYPE 2
1.4.3. <u>BUTTERFLY VALVES</u> TO MSS-SP-67 FOR ISOLATING CELLS OR SECTIONS OF MULTIPLE COMPONENT EQUIPMENT. FOR NPS 2-1/2"Ø AND OVER: LUG TYPE OR GROOVED ENDS.	2.5.5.1. PROVIDE HANGERS AT SPACING INDICATED BELOW AND AT EVERY JOINT AND CHANGE OF DIRECTION.	3.3.1. FOR ANNEALED COPPER, PIPING SHALL BE BENT WITHOUT CRIMPING OR CONSTRICTION TO REFRIGERANT FLOW. DO NOT BEND HARD DRAWN COPPER TUBING.	6.2. <u>SANITARY &amp; STORM DRAINAGE PIPING</u> 6.2.1. ABOVE GROUND: TYPE 3, TYPE 4, TYPE 6 (WHERE PERMITTED) 6.2.2. UNDERGROUND: TYPE 4 (2"ø MIN.), TYPE 5, TYPE 7
1.4.4. <u>GLOBE VALVES</u> TO MSS-SP-80 AND 85 FOR THROTTLING, FLOW CONTROL AND EMERGENCY BYPASS.	2.5.5.2. PROVIDE HANGERS FOR VARIOUS PIPE SIZES AT THE FOLLOWING SPACING: $1-1/4$ "ø $-1.8$ m, $1-1/2$ "ø $-2.4$ m AND 2"ø $-2.7$ m.	3.3.2. FOR HOT GAS LINES, PITCH PIPING AT LEAST 1:240 DOWN IN THE DIRECTION OF FLOW IN ORDER TO PREVENT OIL RETURN TO COMPRESSOR.	6.3. <u>VENT_PIPING</u> 6.3.1. ABOVE GROUND: TYPE 3, TYPE 4, TYPE 6 (WHERE PERMITTED) 6.3.2. UNDERGROUND: TYPE4, TYPE 5, TYPE 7
1.4.4.1. NPS 2"Ø AND SMALLER: BRONZE, WITH PLUG DISC. 1.4.4.2. NPS 2-1/2"Ø AND OVER: CAST IRON, COMPOSITION BRONZE DISC AND BRONZE TRIM.	2.6. <u>PIPING INSULATION</u> 2.6.1. PROVIDE PIPING INSULATION FOR THE HYDRONIC SYSTEMS AS FOLLOWS:	3.3.3. PROVIDE A TRAP AT THE BASE OF PIPING RISERS GREATER THAN 6 FT. HIGH. AND EVERY 20 FT. AFTER. PROVIDE AN INVERTED DEEP TRAP AT THE TOP OF RISERS.	TYPE 1: TYPE L HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS AND LEAD-FREE SOLDER, CONTAINING LESS THAN .02 PERCENT LEAD, CONFORMING TO ASTM B32.
1.4.5. <u>BALANCING FOR TAB</u>	2.6.1.1. HEATING WATER (HWS/HWR): TYPE 'A', UP TO 1"Ø – 1" THICK, 1–1/4"Ø	3.3.4. FOR COMPRESSORS WITH CAPACITY MODULATION AND SMALL RISERS, THE RISER SHALL BE SIZED FOR 16.7 FPS AT MINIMUM LOAD.	TYPE 2: TYPE K SOFT ANNEALED COPPER TUBING WITH NO JOINTS.
1.4.5.1. NPS 2"Ø AND SMALLER: COPPER ALLOY BODY THREADED, 2.1 MPa RATING, GLOBE STYLE, SELF SEALING MEASURING PORTS FOR	AND LARGER $-$ 1-1/2" THICK. 2.6.1.2. CHILLED WATER (CHWS/CHWR): TYPE 'A', UP TO 1" $\emptyset$ - 1" THICK, 1-1/4" $\emptyset$ AND LARGER $-$ 1-1/2" THICK. RECOVER WITH PVC JACKETING	3.4. PRESSURE AND LEAK TESTING  3.4.1. LEAK AND PRESSURE TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH	TYPE 3: TYPE DWV COPPER TUBE AND FITTINGS WITH 95:5 TIN:ANTIMONY SOLDER JOINTS.
TEMPERATURE AND PRESSURE PROBES, LOCKING TAMPER PROOF SETTING, WITH PLUG DISC. COMBINATION BALANCING VALVE, STRAINER AND DRAIN BALL VALVE MAY ALSO BE USED IN LIEU OF STANDARD VALVE.	AS SPECIFIED BELOW. 2.6.1.3. CONDENSER WATER (INDOOR CWS/CWR): NOT REQUIRED	CSA-B52.  3.4.2. PRIOR TO EVACUATION, TEST TO 2MPa ON HIGH SIDES AND 1MPa ON LOW	TYPE 4: CAST IRON PIPING AND FITTINGS COMPLYING WITH CAN/CSA-B70. FOR MECHANICAL JOINTS ABOVE GRADE, USE NEOPRENE OR BUTYL RUBBER COMPRESSION GASKETS TO CAN/CSA-B70 WITH STAINLESS STEEL CLAMPS. FOR
1.4.5.2. NPS 2-1/2ӯ AND OVER: DUCTILE IRON BODY, FLANGED OR GROOVED CONNECTIONS, 1700 kPa RATING MINIMUM, GLOBE STYLE, SELF—SEALING MEASUREMENT PARTS FOR TEMPERATURE OR PRESSURE PROBES,	2.6.1.3. CONDENSER WATER (OUTDOOR, CWS/CWR): TYPE 'A', ALL SIZES — 1" THICK. RECOVER WITH PVC JACKETING AS SPECIFIED BELOW.	SIDES.  3.4.3. FOR PRESSURE TESTING, PRESSURE IN PIPING AND SYSTEM SHALL SUSTAIN	MECHANICAL JOINTS BELOW GRADE, USE MISSION HEAVYWEIGHT COUPLINGS FOR HUB AND SPIGOT CONNECTIONS, PROVIDE NEOPRENE GASKET TO CAN/CSA-B70 AND
LOCKING TAMPER PROOF SETTING.	2.6.2. TYPE 'A': JOHNS MANVILLE MICRO—LOK FIBRE GLASS PIPE INSULATION COMPLETE WITH JACKET AND VAPOUR RETARDER. CONNECT SECTIONS OF INSULATION WITH SELF—ADHESIVE BUTT STRIPS SUPPLIED BY THE INSULATION	35 kPa WITH NITROGEN FOR A TIME PERIOD OF AT LEAST 8 HOURS.  4. FIELD QUALITY CONTROL	COLD CAULKING COMPOUNDS. DO NOT USE HUB AND SPIGOT FOR ABOVE GROUND APPLICATIONS.
1.4.6. <u>DRAIN VALVES</u> : BRONZE, GATE, CLASS 125 NON—RISING STEM, SOLID WEDGE DISC.	MANUFACTURER.	4.1. CLOSE ALL SERVICE VALVES WITH FACTORY CHARGED EQUIPMENT. USING A TWO-STAGE VACUUM PUMP WITH GAS BALLAST ON 2ND STAGE CAPABLE OF	TYPE 5: IPEX RING-TITE PVC SDR 35 SEWER PIPE IN COMPLIANCE WITH CSA B182.2 AND CSA B182.7. LATERALS WILL BE IPEX RING-TITE PVC SDR 28 IN COMPLIANCE WITH CSA B182.2.
1.4.7. <u>SWING CHECK</u> VALVES TO MSS-SP-71	2.6.3. WHERE NOTED, RECOVER INSULATION WITH HEAVY—GAUGE UV—RESISTANT PVC FITTINGS, COVER AND JACKETING EQUAL TO JOHNS MANVILLE ZESTON 300 SERIES.	PULLING 5Pa ABSOLUTE PRESSURE AND FILLED WITH DEHYDRATED OIL. TAKE MEASUREMENTS AND READINGS WITH VACUUM GAUGE AS REQUIRED.	TYPE 6: IPEX XFR PIPING AND FITTINGS COMPLYING WITH CSA B181.2, SCHEDULE 40 WITH A FLAME SPREAD RATING OF NOT GREATER THAN 25 AND A SMOKE
1.4.7.1. NPS 2"Ø AND SMALLER: BRONZE, CLASS 125 SWING WITH COMPOSITION DISC. 1.4.7.2. NPS 2-1/2"Ø AND OVER: CAST IRON, FLANGED OR GROOVED ENDS.	2.6.4. PROVIDE PRE-FORMED INSULATION FOR FITTINGS AND VALVES.	4.2. TRIPLE EVACUATE SYSTEM COMPONENTS NOT CAPABLE OF HOLDING CHARGE.	DEVELOPED CLASSIFICATION OF LESS THAN 50.  TYPE 7: ROYAL ABS-DWV PIPING AND FITTINGS CERTIFIED TO CSA B181.1.
1.4.7.2. INPS 2-1/2 # AND OVER: CAST IRON, FLANGED OR GROUVED ENDS.  1.4.8. <u>BALL VALVES</u> : FOR NPS 2"# AND SMALLER, USE SCREWED END BALL VALVES	3. SYSTEM CHEMICAL TREATMENT	4.3. CHARGING: THE SYSTEM SHALL BE CHARGED THROUGH THE FILTER DRYER AND CHARGING VALVE ONLY. TURN COMPRESSORS OFF AND CHARGE AMOUNT NECESSARY FOR PROPER OPERATION. IF REQUIRED, CLOSE CHARGE VALVE,	7. VALVES
CONSTRUCTED OF CAST HIGH TENSILE BRONZE CONFORMING TO ASTM—B16 OR ASTM—B62. SCREWED ENDS SHALL CONFORM TO ANSI—B1.20.1 WITH HEX SHOULDERS. BALL SHALL BE REPLACEABLE AND CONSTRUCTED OF EITHER	3.1. PROVIDE SYSTEM CHEMICAL TREATMENT AFTER THE SYSTEM HAS BEEN CLEANED AND STARTED UP IN ACCORDANCE WITH THE MECHANICAL SPECIFICATIONS. THIS	STARTUP SYSTEM AND ADD THE REMAINDER OF CHARGE.  4.4. CHECKS AND MEASUREMENT: PROVIDE IN ACCORDANCE WITH MANUFACTURER'S	7.1. PROVIDE ASTM DOMESTIC WATER VALVES TO THE FOLLOWING KITZ FIGURE NUMBERS:
STAINLESS STEEL OR HARD CHROME.	CONTRACTOR SHALL PAY FOR AND CONTRACT THE SERVICES OF THE BASE BUILDING CHEMICAL TREATMENT CONTRACTOR TO CARRY OUT THE CHEMICAL TREATMENT PROCESS.	INSTALLATION AND OPERATION MANUALS. PROVIDE A REPORT TO OWNER.  4.5. OBTAIN PRODUCTS AND EQUIPMENT MANUFACTURER'S APPROVAL OF THE	7.1.1. <u>GATE VALVES</u> 7.1.1.1. 2"ø AND SMALLER: SOLDERED, 1400 kPa [200psi] W.O.G. FIG. 44
2. <u>INSTALLATION OF PIPEWORK</u> 2.1. <u>EXECUTION</u>		INSTALLATION IN ACCORDANCE WITH INSTALLATION AND OPERATION MANUALS. THIS SHALL INCLUDE ALL ASPECTS SUCH AS HANDLING, INSTALLATION, CLEANING, ETC.	7.1.1.2. 2-1/2"ø AND LARGER: FLANGED, 1400 kPa [200psi] W.O.G. FIG. 44 7.1.2. <u>GLOBE VALVES</u>
2.1.1. MAKE ALL CONNECTIONS TO EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.		OBTAIN REPORTS AND PROVIDE TO THE OWNER IN A TIMELY MANNER. THIS SERVICE SHALL BE PROVIDED AT NO EXTRA CHARGE TO THE OWNER.	7.1.1.1. 2"Ø AND SMALLER: SOLDERED, 2070 kPa [300 psi], W.O.G. FIG. 10 WITH SUITABLE COMPOSITION DISC. 7.1.1.2. 2-1/2"Ø AND LARGER: FLANGED, 1400 kPa [200 psi], W.O.G. FIG. 76
2.1.2. PROVIDE VALVES AND UNIONS AT CONNECTION FOR MAINTENANCE/REPLACEMENT PURPOSES.			7.1.2. <u>STANDARD CHECK VALVES</u> 7.1.1.1. 2"Ø AND SMALLER: SOLDERED, 2070 kPa [300 psi], W.O.G. FIG. 23 7.1.1.2. 2-1/2"Ø AND LARGER: FLANGED, 1400 kPa [200 psi], W.O.G. FIG. 78
2.1.3. PROVIDE DRAINS AT SYSTEM LOW POINTS, EQUIPMENT AND ISOLATING SECTIONS. INSTALL NPS 3/4"Ø GATE OR GLOBE VALVE WITH HOSE END MALE THREAD, CAP AND CHAIN.			7.1.2. <u>BALL VALVES</u> 7.1.1.1. 2"Ø AND SMALLER: BALL VALVES MAY BE PROVIDED AS A SUBSTITUTE FOR GATE AND GLOBE VALVES. PROVIDE BALL VALVES WITH BRASS OR BRONZE BODY, CHROME PLATED SOLID BALL, PTFE SEATS AND SEALS
2.1.4. PROVIDE AUTOMATIC AIR VENTS AT SYSTEM HIGH POINTS COMPLETE WITH ISOLATING VALVE.			AND FULL PORT, KITZ FIG. 59  7.2. PROVIDE <u>ISOLATION VALVES</u> FOR DOMESTIC HOT AND COLD WATER SYSTEMS AT
2.2. <u>CLEARANCES</u> : PROVIDE THE REQUIRED CLEARANCES AROUND EQUIPMENT, PIPING, SYSTEMS, ETC. TO RENDER THE NECESSARY SPACE REQUIREMENTS FOR SERVICE, INSPECTION, OPERATION, REPLACEMENT AND MAINTENANCE. REFER TO ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR REQUIRED AND RECOMMENDED			MAIN PIPING, BRANCH PIPING AND AT FIXTURES AND EQUIPMENT.  8. <u>VERIFY ALL SITE CONDITIONS</u> AFTER CONTRACT AWARD TO ENSURE THAT PIPING INVERTS ARE SUFFICIENT FOR THE RUNS SHOWN ON MECHANICAL DRAWINGS. REPORT DISCREPANCIES TO ENGINEER IMMEDIATELY.
CLEARANCES.  2.3. <u>DIELECTRIC FITTINGS</u> : WHERE DISSIMILAR METALS ARE JOINED, PROVIDE DIELECTRIC ISOLATING FITTINGS (COMPLETE WITH THERMOPLASTIC LINER), UNIONS			9. CARRY OUT TESTING ON ALL SYSTEMS INCLUDING SANITARY DRAINAGE SYSTEMS, STORM DRAINAGE SYSTEMS AND DOMESTIC WATER SYSTEMS AS PER PART 7.3.6 OF THE ONTARIO BUILDING CODE AND THE AUTHORITIES HAVING JURISDICTION. TESTS MAY
OR BRONZE VALVES.  2.4. <u>PIPEWORK INSTALLATION</u>			INCLUDE, BUT ARE NOT LIMITED TO, A WATER TEST, BACKFLOW TEST, PRESSURE TEST, BALL TEST AND FINAL TEST.
2.4.1. SCREWED FITTING CONNECTIONS SHALL BE COMPLETE WITH PIPE DOPE OR TEFLON TAPE.			10. MAKE PROVISIONS FOR <u>MAINTAINING THE SEAL</u> OF ALL HUB DRAINS, FLOOR DRAINS, ETC, IN ACCORDANCE WITH THE ONTARIO BUILDING CODE. WHERE MECHANICAL OR ELECTRICAL DEVICES ARE USED, THE MINIMUM TUBING SIZE SHALL BE 3.8".
2.4.2. PROTECT ALL SYSTEM OPENINGS DURING CONSTRUCTION TO PREVENT THE ENTRY OF FOREIGN MATERIAL.			11. PROVIDE <u>FIRESTOPPING</u> AT ALL FIRE—RATED WALL AND FLOOR ASSEMBLIES AS PER THE 'GENERAL SPECIFICATIONS'.
2.4.3. INSTALL ALL PIPING, EQUIPMENT, ETC. TO BE PARALLEL OR PERPENDICULAR WITH BUILDING LINES.			12. <u>COORDINATE EXACT LOCATIONS</u> OF ALL PLUMBING FIXTURES WITH ALL TRADES AND ARCHITECTURAL/INTERIOR DESIGN DRAWINGS. DO NOT SCALE MECHANICAL DRAWINGS.
2.4.4. PROPERLY REAM AND REMOVE SCALE AND FOREIGN MATERIAL PRIOR TO ASSEMBLY.			13. WHERE PLUMBING FIXTURES ARE SPECIFIED, THE CONTRACTOR SHALL PROVIDE ALL ACCESSORIES AND APPURTENANCES TO PROVIDE A FULL AND COMPLETE INSTALLATION OF THE RESPECTIVE FIXTURE. THIS MAY INCLUDE, BUT IS NOT LIMITED TO, STOP VALVES, RISER PIPING, ESCUTCHEON PLATES, ETC.
			14. PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.
		1	1



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proceeding with the work. Do not scale the drawings.

The contractor is to verify and accept responsibility for all dimensions and conditions on site and must notify GIALLONARDO ENGINEERING INC. of any variations from the

drawings.

NO.	ISSUES	DATE	ŀ
1	ISSUED FOR REVIEW	FEB. 21 2025	R
2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025	SI
			1
NO.	REVISIONS	DATE	ı

PROJECT:

### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

MECHANICAL SPECIFICATIONS II



BARRY BRYAN ASSOCIATES DESIGN BY: **JH** 

Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario L1N 0G5

% COMPLETE: CHECKED BY: **JH** DATE: **JAN 2025** 

Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

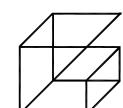
AS SHOWN

SYMBOL DESCRIPTION	
EXISTING DUCTWORK/EQUIPMENT	
EXISTING DUCTWORK/EQUIPMENT TO BE REMOVED	
NEW RIGID DUCTWORK	
EXISTING FLEXIBLE DUCTWORK	
NEW FLEXIBLE DUCTWORK	
SUPPLY AIR DUCTWORK UP	
SUPPLY AIR DUCTWORK DOWN	
RETURN AIR DUCTWORK UP	
RETURN AIR DUCTWORK DOWN	
S/A 'SUPPLY AIR'	
R/A 'RETURN AIR'	
E/A 'EXHAUST AIR'	
O/A 'OUTSIDE AIR'	
T/A 'TRANSFER AIR'	
F/D 'FIRE DAMPER'	
L BD 'BALANCING DAMPER'	
BDD 'BACKDRAFT DAMPER'	
T M/D 'MOTORIZED DAMPER'	
SQUARE SUPPLY AIR DIFFUSER	
SUPPLY AIR GRILLE	
RETURN AIR GRILLE	
SLOT DIFFUSER	
THERMOSTAT	
HUMIDISTAT	
© CARBON DIOXIDE SENSOR	
CO CARBON MONOXIDE DETECTOR	
ZONE SENSOR	
\$ WALL SWITCH	
A-6"ø DIFF TYPE/SIZE	
150CFM AIR CAPACITY  TYP. 'TYPICAL'	
X—XX EQUIPMENT TAG	
CTE 'CONNECT TO EXISTING'	
FAN-POWERED TERMINAL UNIT	
VAV TERMINAL UNIT	
CABINET EXHAUST FAN	
III INLINE EXHAUST FAN	
ELECTRIC DUCT HEATER	
BASEBOARD HEATER  ☐ FORCE FLOW HEATER	
UNIT HEATER	
<u> </u>	
DUCTWORK WITH ACQUISTIC OR THERMAL INSULATION (SEE SPECS.)	!
DUCTWORK WITH ACOUSTIC INSULATION	
DUCTWORK WITH THERMAL INSULATION  CONTINUATION OF DUCTWORK (PIDING	
CONTINUATION OF DUCTWORK/PIPING  EVISTING CONTROL WIRING	
EXISTING CONTROL WIRING	
NEW CONTROL WIRING	
SPIN-ON DUCT CONNECTION WITH BALANCING DAMPER	
DRAWING NOTE	
ROUND SUPPLY AIR DIFFUSER	
LOUVERED FACE SUPPLY/RETURN GRILLE	
CAP ON DUCTWORK	
▼ BRANCH ON DUCTWORK	

	PIPING LEGEND			
SYMBOL	DESCRIPTION			
— EX.HWS —	EXISTING HEATING WATER SUPPLY			
EX.HWR	EXISTING HEATING WATER RETURN			
—— HWS ——	HEATING WATER SUPPLY			
— — HWR — —	HEATING WATER RETURN			
— EX.CHWS —	EXISTING CHILLED WATER SUPPLY			
EX.CHWR	EXISTING CHILLED WATER RETURN			
—— CHWS ——	CHILLED WATER SUPPLY			
— — CHWR — —	CHILLED WATER RETURN			
— EX.CWS—	EXISTING CONDENSER WATER SUPPLY			
EX.CWR-	EXISTING CONDENSER WATER RETURN			
cws	CONDENSER WATER SUPPLY			
——CWR——	CONDENSER WATER RETURN			
— REFL —	REFRIGERANT LIQUID LINE			
– — REFS — —	REFRIGERANT SUCTION LINE			
<b>☆</b>	3-PORT CONTROL VALVE			
呂	2-WAY CONTROL VALVE			
×	GATE VALVE			
M	GLOBE VALVE			
Ñ	CHECK VALVE			
CBV <b>⋈</b>	CIRCUIT BALANCING VALVE			
<b> </b>	BALL VALVE			
这	SAFETY RELIEF VALVE			
$\forall$	STRAINER			
ıþı	UNION			
<b>-</b> D-	CONCENTRIC REDUCER			
	ECCENTRIC REDUCER			
N.O.	'NORMALLY OPEN'			
N.C.	'NORMALLY CLOSED'			
<u></u> Θ	PRESSURE GAUGE			
	THERMOMETER			
PŖV	AQUASTAT			
Ä .	PRESSURE REDUCING VALVE			
VB	VACUUM BREAKER			
	BACKFLOW PREVENTER			
FS 🗹	FLOW SWITCH			
AAV Ū	AUTOMATIC AIR VENT			
LWCO	LOW WATER CUT-OFF			
<b>▼</b>	PLUG/COCK VALVE			
	BUTTERFLY VALVE			
Ψ ••••••••••••••••••••••••••••••••••••	TEST PORT			
CAP II	PUMP  CAP ON PIPING			
(7)	DRAWING NOTE			
 ⋈	ISOLATION VALVE			
A LENGTH KW	A — HEATER REFERENCE TAG B — ACTIVE LENGTH (MM) C — HEAT OUTPUT (KW)			

SYMBOL	DESCRIPTION
– EX.SAN —	EXISTING ABOVE GROUND SANITARY DRAINAGE PIPING
- EX.SAN	EXISTING UNDERGROUND SANITARY DRAINAGE PIPING
— SAN ——	- ABOVE GROUND SANITARY DRAINAGE PIPING
— SAN — —	UNDERGROUND SANITARY DRAINAGE PIPING
- EX.STM	EXISTING ABOVE GROUND STORM DRAINAGE PIPING
- EX.STM	EXISTING UNDERGROUND STORM DRAINAGE PIPING
— STM ——	- ABOVE GROUND STORM DRAINAGE PIPING
— STM — —	- UNDERGROUND STORM DRAINAGE PIPING
— EX.V ——	EXISTING ABOVE GROUND VENT PIPING
EX.V	EXISTING UNDERGROUND VENT PIPING
v	- ABOVE GROUND VENT PIPING
V	UNDERGROUND VENT PIPING
— EX.CD ——	EXISTING CONDENSATE DRAINAGE PIPING
—	CONDENSATE DRAINAGE PIPING
	EXISTING DOMESTIC COLD WATER PIPING
	DOMESTIC COLD WATER PIPING
	EXISTING DOMESTIC HOT WATER PIPING
	DOMESTIC HOT WATER PIPING
	EXISTING DOMESTIC HOT WATER RETURN PIPING
	DOMESTIC HOT WATER RETURN PIPING
— EX.G ——	
G	LOW PRESSURE GAS PIPING
— HPG ——	HIGH PRESSURE GAS PIPING
	EXISTING PIPING/EQUIPMENT TO BE REMOVED
SSSS	HEAT TRACING ON PIPE
	CONTINUATION OF DUCTWORK/PIPING
▼	GAS COCK VALVE
FD <b>●</b> FFD	FLOOR DRAIN/FUNNEL FLOOR DRAIN
HD <b>0</b>	HUB DRAIN
AD <b>O</b>	AREA DRAIN
 RD <b>@</b>	ROOF DRAIN
СВ	CATCH BASIN
00 <b>a—</b>	BURIED CLEANOUT
	EXPOSED CLEANOUT
ુ જ	SANITARY 'P' TRAP
<u>∪</u>	PIPE UP
<u>.</u> ⇒	PIPE DOWN
VTR	VENT THROUGH ROOF
CAP <b>¬</b>	CAP ON PIPING
7	DRAWING NOTE
<u>∵</u> ⋈	ISOLATION VALVE
0	PIPING DROPDOWN
<u> </u>	WATER METER

SYMBOL	DESCRIPTION
O	UPRIGHT SPRINKLER HEAD
Θ	PENDENT SPRINKLER HEAD
	RECESSED PENDENT SPRINKLER HEAD
 ⊚	CONCEALED SPRINKLER HEAD
	SIDEWALL SPRINKLER HEAD
FE	FIRE EXTINGUISHER
	FIRE HOSE CABINET
FHC	
7>	DRAWING NOTE



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2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025	SW
NO.	REVISIONS	DATE	BY

PROJECT:

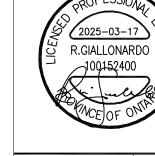
### **RENOVATIONS AT ECOLE ELEMENTAIRE** FELIX-LECLERC

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

MECHANICAL LEGEND





BARRY BRYAN
ASSOCIATES
JH
DESIGN BY:
JH 250 Water Stree Suite 201 Whitby, Ontario L1N 0G5

JH	
DRAWN BY:	% COM
no no	
CHECKED BY:	INITIAL:
JH	
DATE:	
JAN 2025	
SCALE:	
AS SHOWN	
	DRAWN BY: RC CHECKED BY: JH DATE: JAN 2025 SCALE:

Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

		UNIT VENTILATOR SCHEDULE																			
							COOLING				HEATING				F	FAN					
TAG	MANU.	MODEL	LOCATION	NOM. TONS	COND. UNIT	TOTAL COOLING CAPACITY (MBH [KW])	EDB/EWB (°F [°C])	LDB/LWB (°F [°C])	RATED HEATING CAPACITY (MBH [KW])	MAT/LAT (°F [°C])	WATER FLOW RATE (GPM [L/S])	EWT/LWT (°F [°C])	COIL WPD (FT.HD [KPA])	NOM. AIRFLOW (CFM [L/S])	OUTDOOR AIRFLOW (CFM [L/S])	E.S.P (IN.WC [PA])	MOTOR (HP [KW])	V/PH/HZ		WEIGHT (LBS [KG])	REMARKS
UV-142	TEMSPEC	VUD1200D	CLASSROOM 142	3.0	CU-1	33.6 [9.85]	80.0/67.0 [26.7/19.4]	60.0/58.0 [15.6/14.4]	47.6 [13.95]	45.0/82.0 [7.2/27.8]	4.0 [0.25]	180/155 [82.2/68.3]	1.4 [4.2]	1200 [566]	400 [189]	0.5 [124]	0.5 [0.37]	120/1/60	11	300 [136]	UPFLOW UNIT VENTILATOR C/W HYDRONIC HEATING, DX COOLING COIL, TOP AND BOTTOM EXTENSION, AND INDOOR AIR QUALITY SENSOR. INSTALL UNIT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. OUTDOOR AIR DAMPER POSITION SHALL BE SET TO A MAXIMUM SETTING FOR THE OUTDOOR AIR CFM LISTED IN THIS SCHEDULE.
UV-138	TEMSPEC	VUD1200D	CLASSROOM 138	3.0	CU-2	33.6 [9.85]	80.0/67.0 [26.7/19.4]	60.0/58.0 [15.6/14.4]	47.6 [13.95]	45.0/82.0 [7.2/27.8]	4.0 [0.25]	180/155 [82.2/68.3]	1.4 [4.2]	1200 [566]	400 [189]	0.5 [124]	0.5 [0.37]	120/1/60	11	300 [136]	UPFLOW UNIT VENTILATOR C/W HYDRONIC HEATING, DX COOLING COIL, TOP AND BOTTOM EXTENSION, AND INDOOR AIR QUALITY SENSOR. INSTALL UNIT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. OUTDOOR AIR DAMPER POSITION SHALL BE SET TO A MAXIMUM SETTING FOR THE OUTDOOR AIR CFM LISTED IN THIS SCHEDULE.
UV-134	TEMSPEC	VUD1200D	CLASSROOM 134	3.0	CU-3	33.6 [9.85]	80.0/67.0 [26.7/19.4]	60.0/58.0 [15.6/14.4]	47.6 [13.95]	45.0/82.0 [7.2/27.8]	4.0 [0.25]	180/155 [82.2/68.3]	1.4 [4.2]	1200 [566]	400 [189]	0.5 [124]	0.5 [0.37]	120/1/60	11	300 [136]	UPFLOW UNIT VENTILATOR C/W HYDRONIC HEATING, DX COOLING COIL, TOP AND BOTTOM EXTENSION, AND INDOOR AIR QUALITY SENSOR. INSTALL UNIT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. OUTDOOR AIR DAMPER POSITION SHALL BE SET TO A MAXIMUM SETTING FOR THE OUTDOOR AIR CFM LISTED IN THIS SCHEDULE.
UV-132	TEMSPEC	VUD1200D	CLASSROOM 132	3.0	CU-4	33.6 [9.85]	80.0/67.0 [26.7/19.4]	60.0/58.0 [15.6/14.4]	47.6 [13.95]	45.0/82.0 [7.2/27.8]	4.0 [0.25]	180/155 [82.2/68.3]	1.4 [4.2]	1200 [566]	400 [189]	0.5 [124]	0.5 [0.37]	120/1/60	11	300 [136]	UPFLOW UNIT VENTILATOR C/W HYDRONIC HEATING, DX COOLING COIL, TOP AND BOTTOM EXTENSION, AND INDOOR AIR QUALITY SENSOR. INSTALL UNIT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. OUTDOOR AIR DAMPER POSITION SHALL BE SET TO A MAXIMUM SETTING FOR THE OUTDOOR AIR CFM LISTED IN THIS SCHEDULE.
UV-141	TEMSPEC	VUD1200D	CLASSROOM 141	3.0	CU-5	33.6 [9.85]	80.0/67.0 [26.7/19.4]	60.0/58.0 [15.6/14.4]	47.6 [13.95]	45.0/82.0 [7.2/27.8]	4.0 [0.25]	180/155 [82.2/68.3]	1.4 [4.2]	1200 [566]	400 [189]	0.5 [124]	0.5 [0.37]	120/1/60	11	300 [136]	UPFLOW UNIT VENTILATOR C/W HYDRONIC HEATING, DX COOLING COIL, TOP AND BOTTOM EXTENSION, AND INDOOR AIR QUALITY SENSOR. INSTALL UNIT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. OUTDOOR AIR DAMPER POSITION SHALL BE SET TO A MAXIMUM SETTING FOR THE OUTDOOR AIR CFM LISTED IN THIS SCHEDULE.
UV-139	TEMSPEC	VUD1200D	LIBRARY 139	3.0	CU-6	33.6 [9.85]	80.0/67.0 [26.7/19.4]	60.0/58.0 [15.6/14.4]	47.6 [13.95]	45.0/82.0 [7.2/27.8]	4.0 [0.25]	180/155 [82.2/68.3]	1.4 [4.2]	1200 [566]	400 [189]	0.5 [124]	0.5 [0.37]	120/1/60	11		UPFLOW UNIT VENTILATOR C/W HYDRONIC HEATING, DX COOLING COIL, TOP AND BOTTOM EXTENSION, AND INDOOR AIR QUALITY SENSOR. INSTALL UNIT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. OUTDOOR AIR DAMPER POSITION SHALL BE SET TO A MAXIMUM SETTING FOR THE OUTDOOR AIR CFM LISTED IN THIS SCHEDULE.
UV-133	TEMSPEC	VUD1200D	CLASSROOM 133	3.0	CU-7	33.6 [9.85]	80.0/67.0 [26.7/19.4]	60.0/58.0 [15.6/14.4]	47.6 [13.95]	45.0/82.0 [7.2/27.8]	4.0 [0.25]	180/155 [82.2/68.3]	1.4 [4.2]	1200 [566]	400 [189]	0.5 [124]	0.5 [0.37]	120/1/60	11	300 [136]	UPFLOW UNIT VENTILATOR C/W HYDRONIC HEATING, DX COOLING COIL, TOP AND BOTTOM EXTENSION, AND INDOOR AIR QUALITY SENSOR. INSTALL UNIT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. OUTDOOR AIR DAMPER POSITION SHALL BE SET TO A MAXIMUM SETTING FOR THE OUTDOOR AIR CFM LISTED IN THIS SCHEDULE.
UV-131	TEMSPEC	VUD1200D	CLASSROOM 131	3.0	CU-8	33.6 [9.85]	80.0/67.0 [26.7/19.4]	60.0/58.0 [15.6/14.4]	47.6 [13.95]	45.0/82.0 [7.2/27.8]	4.0 [0.25]	180/155 [82.2/68.3]	1.4 [4.2]	1200 [566]	400 [189]	0.5 [124]	0.5 [0.37]	120/1/60	11	300 [136]	UPFLOW UNIT VENTILATOR C/W HYDRONIC HEATING, DX COOLING COIL, TOP AND BOTTOM EXTENSION, AND INDOOR AIR QUALITY SENSOR. INSTALL UNIT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. OUTDOOR AIR DAMPER POSITION SHALL BE SET TO A MAXIMUM SETTING FOR THE OUTDOOR AIR CFM LISTED IN THIS SCHEDULE.

- 1. ALL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES SHALL BE PROVIDED BY DIV.23 AND INSTALLED BY DIV.26. 2. ALL LOW VOLTAGE WIRING TO BE PROVIDED BY DIV.23.
- 3. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 4. SETUP, TESTING AND COMMISSIONING SHALL BE CARRIED OUT BY THE EQUIPMENT MANUFACTURER AT NO EXTRA COST TO THE CLIENT.
- 5. SUBMIT ALL REPORTS TO ENGINEER FOR REVIEW. 6. UNIT TO BE PROVIDED WITH MERV-13 FILTERS.
- 7. ALL UNITS SHALL BE INTEGRATED TO EXISTING BAS, REFER TO CONTROLS SCHEMATICS.

	CONDENSING UNIT SCHEDULE														
TAG	MANU.	MODEL	LOCATION	RATED COOLING	RATED HEATING CAPACITY	REFRIG.	PIPING CO	NNECTION	ELECTRICAL	CHARACTE	ERISTICS	WEIGHT	REMARKS		
IAG	WANO.	WODEL		CAPACITY (MBH [KW])	AT -20°C (MBH [KW])	TYPE	LIQUID (IN [MM])	SUCTION (IN [MM])	V/PH/HZ	MCA (A)	MOP (A)	(LBS [KG])	KLIVIAKKO		
CU-1	LG	LMU421HHV	ROOF	42.0 [12.3]	48.0 [14.1]	R410A	3/8 [10]	5/8 [16]	208/1/60	32.7	40	[00]	PROVIDE UNIT C/W MANUFACTURER SUPPLIED ECOFOOT STAND AND FOUR-PORT BRANCH DISTRIBUTION UNIT (PMBD3641). INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND CSA B52.		
CU-131 CU-132 CU-133 CU-134 CU-138 CU-139 CU-141 CU-142	KEEPRITE	N5A5S	ROOF	36.0 [10.6]	N/A	R-454B	3/8 [10]	7/8 [22]	208/1/60	17.6	30		PROVIDE UNIT C/W ECOFOOT STAND. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND CSA B52.		

- 1. ALL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES SHALL BE PROVIDED BY DIV.23 AND INSTALLED BY DIV.26. 2. ALL LOW VOLTAGE WIRING TO BE PROVIDED BY DIV.23.
- 3. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- CONFIRM EXACT ROUTING AND REFRIGERANT LENGTH ON SITE PRIOR TO CONSTRUCTION; ENSURE LENGTH IS WITHIN THE MANUFACTURER'S PUBLISHED LIMITS. 5. SETUP, TESTING AND COMMISSIONING SHALL BE CARRIED OUT BY THE EQUIPMENT MANUFACTURER AT NO EXTRA COST TO THE CLIENT.
- 6. SUBMIT ALL REPORTS TO ENGINEER FOR REVIEW.
  7. CONDENSING UNIT C/W BACNET CARD FOR CONNECTION TO BAS.

<b>EVAPORATOR SCHEDULE</b>
LV/II OIVIIOIVOOIILDOLL

TAG	MANU.	MODEL	LOCATION	COND.	RATED COOLING	RATED HEATING		OWER PRMANCE	PIPIN	IG CONNEC	CTION	ELECTRICA	L CHARAC	TERISTICS	WEIGHT	REMARKS
IAG	WANG.	MODEL	LOCATION	UNIT TAG	CAPACITY (MBH [KW])	(MBH [KW])	CFM [L/S]	ESP (IN.WC [PA])	LIQUID (IN [MM])	SUCTION (IN [MM])		V/PH/HZ	MCA (A)	MOP (A)	(LBS [KG])	KEWAKKS
AC-1	LG	LHN368HV	ADMIN OFFICE 104B	CU-9	36.0 [10.6]	40.0 [11.7]	1130 [533] HIGH	_	3/8 [10]	5/8 [16]	1-1/4 [32]	_	_	_	85.3 [38.7]	PROVIDE UNIT C/W MANUFACTURER SUPPLIED BACNET CONTROLLER. EVAPORATOR UNIT IS POWERED FROM ASSOCIATED CONDENSING UNIT.
AC-2	LG	LMN159HVT	STAFF ROOM 125	CU-9	14.3 [4.2]	15.6 [4.6]	314 [148] HIGH	_	1/4 [12]	3/8 [10]	27/32 [22]	_	_	_	18.3 [8.3]	PROVIDE UNIT C/W MANUFACTURER SUPPLIED CONDENSATE DRAINAGE PUMP, AND BACNET CONTROLLER. EVAPORATOR UNIT IS POWERED FROM ASSOCIATED CONDENSING UNIT.

- 1. ALL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES SHALL BE PROVIDED BY DIV.23 AND INSTALLED BY DIV.26.
  2. ALL LOW VOLTAGE WIRING TO BE PROVIDED BY DIV.23.
- 3. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 4. CONFIRM EXACT ROUTING AND REFRIGERANT LENGTH ON SITE PRIOR TO CONSTRUCTION; ENSURE LENGTH IS WITHIN THE MANUFACTURER'S PUBLISHED LIMITS.

  5. SETUP, TESTING AND COMMISSIONING SHALL BE CARRIED OUT BY THE EQUIPMENT MANUFACTURER AT NO EXTRA COST TO THE CLIENT.

  6. SUBMIT ALL REPORTS TO ENGINEER FOR REVIEW.

	ENERGY RECOVERY VENTILATOR SCHEDULE												
TAG	MANU.	MODEL	LOCATION	F/A CAP. (CFM [L/S])	E/A CAP. (CFM [L/S])	ESP (IN.WC [PA])	MOTOR (HP [W])	V/PH/HZ	MCA (A)	MOP (A)	STARTER	WEIGHT (LBS [KG])	REMARKS
ERV-1	RENEWAIRE	EV PREMIUM L	ADMIN OFFICE 104B	150 [71]	150 [71]	0.5 [124]	QTY 2 @ 0.11 [61]	120/1/60	15	15	BAS	52 [23.6]	ENERGY RECOVERY VENTILATOR C/W STATIC PLATE HEAT AND HUMIDITY TRANSFER, MERV-8 FILTER ON R/A AND MERV-13 FILTER ON O/A, AIR STREAMS WITH FILTER PRESSURE SENSORS, VARIABLE SPEED EC FANS, HANGER KIT AND ELECTRIC DUCT HEATER WITH INTEGRAL THERMOSTAT. UNIT TO BE C/W CONTROLS AND BACNET CARD FOR INTERLOCK WITH THE EXISTING BAS.

1. ALL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES SHALL BE PROVIDED BY DIV.23 AND INSTALLED BY DIV.26.
2. ALL LOW VOLTAGE WIRING TO BE PROVIDED BY DIV.23.

	ELECTRIC DUCT HEATER SCHEDULE												
TAG	SERVING	MANU.	MODEL	AIR CAP. (CFM [L/S])	DUCT DIM. (IN [MM])	EAT (°F [°C])	LAT (°F [°C])	STEPS	кw	V/PH/HZ	TYPE	REMARKS	
EDH-1	EDH-1 ERV-1 F/A HEATING RENEWAIRE EK SERIES 150 8/8 [200/200] 8/8 54.6 [24.2] SCR 1.0 120/1/60 OPEN COIL ELECTRIC DUCT HEATER INCLUDING CONTROL TERMINAL BOARD, GROUNDING OPEN COIL ELECTRIC DUCT HEATER INCLUDING CONTROL TERMINAL BOARD, GROUNDING LIMIT SWITCH FOR PRIMARY OVER—TEMPERATURE PROTECTION, MANUAL RESET LIMIT SWITCH FOR SECONDARY OVER—TEMPERATURE PROTECTION, DISCONNECT SWITCH AND CONTROL TYPE SCR WITH THERMOSTAT AND SENSOR.												
NOTES:			•	•		•	•	•	•	•			

1. PROVIDE ALL ELECTRIC DUCT HEATERS COMPLETE WITH DISCONNECT SWITCH.
2. COORDINATE FINAL SIZE WITH SHEETMETAL CONTRACTOR.

		HYDRONIC WALLFIN HEATER SCHEDULE														
ſ			ELEMENT			ENCLOSURE	HEATING OUTPUT	HEA	TING WATE	₽		TION SIZE   MM])	TOTAL			
	REF.	MANU.	MODEL	CONFIG.	ROWS	MODEL		FLOW RATE (GPM [L/S])		LWT (°F [°C])	SUPPLY	PPLY RETURN (KW		Y REMARKS		
	Α	SIGMA	44C100	SLOPE TOP ENCLOSURE	1	SWE-24S	1385 [1.332]	SEE FLOOR PLANS	180 [82.2]	160 [71.1]	1 [25ø]	1 [25ø]	SEE FLOOR PLANS	ENCLOSURE LENGTH SHALL BE FIELD CUT TO SPAN WALL TO WALL, ACTIVE ELEMENT LENGTH AS SPECIFIED ON DRAWINGS. STEEL CONSTRUCTION, OPEN INLET, STAMPED LOUVER OUTLET. PROVIDE INSULATION ON ALL INACTIVE SECTIONS.		

I. REFER TO MECHANICAL PLANS AND DETAILS FOR LOCATION AND PIPING CONNECTIONS.

2. CONFIRM ALL FINISHES WITH ARCHITECT/INTERIOR DESIGNER. 3. ACCESS DOORS AS REQUIRED FOR PIPING CONNECTIONS. REFER TO FLOOR PLANS FOR VALVE LOCATIONS.

-		RADIANT PANEL SCHEDULE														
					PANEL	ACTIVE		HEATING	HEAT	TING WATE		TOTAL	WPD			
	TAG	MANU.	MODEL	CONFIG.	(IN [MM])	LENGTH (IN [MM])	ROWS	OUTPUT DENSITY (BTUH/FT [W/M])	FLOW RATE (GPM [L/S])	EWT (°F [°C])	LWT (°F [°C])	(MBH [KW])	(FT [KPA])	REMARKS		
] 1	RH-1	ENGINEERED AIR	HEF-2	CEILING MOUNTED	36 [914]	120 [3048]	6	530 [509]	0.53 [0.033]	180 [82.2]	160 [71.1]	5.3 [1.55]	0.65 [1.94]	CEILING MOUNTED RADIANT PANEL HEATER, CONSTRUCTED FROM ALUMINUM EXTRUSIONS, EXACT PANEL LENGTH FIELD CUT ON SITE TO SUIT WALL TO WALL INSTALLATION.		
	RH-2	ENGINEERED AIR	HEF-2	CEILING MOUNTED	36 [914]	408 [10363]	6	530 [509]	1.80 [0.114]	180 [82.2]	160 [71.1]	18.0 [5.28]		CEILING MOUNTED RADIANT PANEL HEATER, CONSTRUCTED FROM ALUMINUM EXTRUSIONS C/W AIRTEX INTERCONNECTS AS REQUIRED.		

	DIFFUSER SCHEDULE							
TAG	MAKE/MODEL	FINISH	REMARKS					
	EH PRICE MODEL SCD 24/24 SQUARE S/A DIFFUSER	-	3-CONE SQUARE SUPPLY DIFFUSER, STEEL CONSTRUCTION FOR T-BAR LAY-IN. SIZE NECK AS INDICATED ON DRAWING.					
В	EH PRICE MODEL 80 EGG CRATE GRILLE	-	CORE ONLY, 1/2"x1/2"x1/2" ALUMINUM GRID CORE, FOR T-BAR LAY-IN. SIZE AS INDICATED ON DRAWINGS.					
	EH PRICE MODEL 80 EGG CRATE EXHAUST GRILLE	-	1/2"x1/2"x1/2" ALUMINUM GRID CORE FOR DUCT MOUNTING C/W OPPOSED BLADE DAMPER. SIZE AS INDICATED ON DRAWINGS.					
	EH PRICE MODEL 530 LOUVERED GRILLE	-	LOUVERED FACE RETURN GRILLE, STEEL CONSTRUCTION, 45° DEFLECTION, 3/4" BLADE SPACING, FOR T-BAR LAY-IN OR SURFACE MOUNTING AS REQUIRED C/W OPPOSED BLADE DAMPER, FRONT BLADES PARALLEL TO LONG DIMENSION. SIZE AS INDICATED ON DRAWING.					
	EH PRICE MODEL 80 EGG CRATE GRILLE	-	1/2"x1/2"x1/2" ALUMINUM GRID CORE WITH FRAME TYPE FOR DUCT MOUNTING. SIZE AS INDICATED ON DRAWINGS.					
NOTES:								

1. SIZE ALL GRILLES, DIFFUSERS, ETC. AS PER MECHANICAL DRAWINGS.

2. CONFIRM ALL FINISHES WITH ARCHITECT/INTERIOR DESIGNER.

Giallonardo — Engineering Inc. 220-4550 Highway 7 Woodbridge, ON L4L 4Y7 (905) 265 - 1052 i nfo@gi al l onardoeng. com www.giallonardoeng.com

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NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	FEB. 21 2025	RC
2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025	SW
NO.	REVISIONS	DATE	BY

PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

MECHANICAL SCHEDULES I





DOC CONTROL: DATE:

% COMPLETE:

BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario

CHECKED BY: JH JAN 2025 AS SHOWN

DESIGN BY:

DRAWN BY:

L1N 0G5 Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

	PLUMBING FIXTURE SCHEDULE					
	FIXTURES		PIPE	CONNECT (IN [MM])	TION	
TAG	SPECIFICATION THE AUTOFOLIO OUND TANK TYPE AND HAVE		COLD WATER	HOT WATER	DRAIN	VENT
WC1	FLOOR MOUNTED TOILET - VITREOUS CHINA - TANK TYPE - MANUAL  AMERICAN STANDARD 2462016.020 TOILET - CADET, TANK TYPE TOILET, FLOOR MOUNTED WITH FLOOR OUTLET, LOW CONSUMPTION 6.0 LPF (1.6 GPF), VITREOUS CHINA, WHITE FINISH, EVERCLEAN ANTIMICROBIAL SURFACE, ELONGATED BOWL, MANUAL, POLISHED CHROME LEFT-HAND TRIP LEVER (7381886-201.0020A), PRESSURE-ASSISTED FLUSH.	3"ø [75ø]	1/2"ø [12ø]	-	3"ø [75ø]	1-1/2" [38ø]
	CENTOCO 500STSCCFE - 001 SEAT - FAST-N-LOCK, FOR ELONGATED BOWL, OPEN FRONT, HEAVY-DUTY, POLYPROPYLENE, TOILET SEAT, LESS SEAT COVER, PLASTIC COMMERCIAL CHECK HINGES, WHITE FINISH, FAST-N-LOCK MOUNTING SYSTEM. THE BOLT AND NUT MATERIAL SHALL BE STAINLESS STEEL.					
	PROVIDE HEAVY DUTY LOOSE KEY ANGLE STOPS, FLEXIBLE RISERS, ESCUTCHEON PLATE, TOILET FLANGE AND ALL OTHER ACCESSORIES REQUIRED FOR A FULL AND COMPLETE INSTALLATION.					
L1	WALL MOUNT BASIN - LEVER HANDLE METERING FAUCET - MANUAL  AMERICAN STANDARD 002400450 002 PASIN - DECORUM WALL HUNG LAVATORY WITH FAUGET FOR CONCEAUS AND AND ACCUMAN OF ACCUMAN ANTIMORPHIA SUPERIOR WITH FAUGET FOR CONCEAUS AND ACCUMAN AND ACC	1-1/4 <b>"</b> ø [32ø]	1/2"ø [12ø]	1/2"ø [12ø]	1-1/4"ø [32ø]	1-1/4" [32ø]
	AMERICAN STANDARD 9024001EC.020 BASIN — DECORUM, WALL—HUNG LAVATORY, VITREOUS CHINA, EVERCLEAN ANTIMICROBIAL SURFACE, WHITE FINISH, SINGLE HOLE CENTERSET, REAR OVERFLOW, WITH FAUCET LEDGE, FOR CONCEALED ARM CARRIER, OVERALL DIMENSIONS: 508 MM (20") LONG, 464 MM (18-1/4") WIDE, 187 MM (7-3/8") HIGH, BOWL DIMENSIONS: 354 MM (13-15/16") LONG, 325 MM (12-13/16") WIDE, 127 MM (5") DEEP.					
	AMERICAN STANDARD 7075104.002 FAUCET — COLONY, COUNTER MOUNTED, MANUAL, SINGLE HANDLE, LAVATORY FAUCET, POLISHED CHROME FINISH, SINGLE HOLE CENTERSET, 610 MM (24") COLOUR—CODED BRAIDED FLEXIBLE SUPPLY HOSES WITH 10 MM (3/8") COMPRESSION CONNECTIONS, CERAMIC DISC CARTRIDGE, 4.5 LPM (1.2 GPM) MAXIMUM FLOWRATE, PRESSURE COMPENSATING AERATOR, FIXED MID—ARC SPOUT, 111 MM (4-3/8") SPOUT REACH, 157 MM (6-3/16") HIGH, LEVER HANDLE, LESS DRAIN, LESS POP—UP HOLE & ROD.					
	LAWLER TMM-1070-87500 MIXING VALVE - POINT OF USE MECHANICAL MIXING VALVE WITH THERMOSTATIC LIMIT STOP, MECHANICAL MIXING VALVE, 1.8 LPM (0.5 GPM) TEMPERED FLOWRATE © 5 PSI PRESSURE DROP, 8 LPM (2.1 GPM) FLOWRATE © 45 PSI.					
	PROVIDE FIXTURE DRAIN, P-TRAP, HEAVY DUTY LOOSE KEY ANGLE STOPS, FLEXIBLE RISERS AND ALL OTHER ACCESSORIES REQUIRED FOR A FULL AND COMPLETE INSTALLATION.					
S1	SINGLE BOWL SINK - DROP-IN - TWO HANDLE FAUCET - MANUAL	1-1/2"ø	1/2"ø	1/2"ø		1-1/4"
	FRANKE COMMERCIAL LBS6808P-1-3 SINK - COUNTER MOUNTED, SINGLE COMPARTMENT SINK, CONSTRUCTED FROM 18 GAUGE TYPE 304 STAINLESS STEEL, 203 MM (8") CENTERSET, WITH OVERALL DIMENSION 508 MM (20") LONG, 521 MM (20-1/2") WIDE, 203 MM (8") HIGH.	[38ø]	[12ø]	[12ø]	[38ø]	[32ø]
	AMERICAN STANDARD 6409170.002 FAUCET - MONTERREY, MANUAL, TWO HANDLES, SINK FAUCET.					
	LAWLER TMM-1070-87500 MIXING VALVE - POINT OF USE MECHANICAL MIXING VALVE WITH THERMOSTATIC LIMIT STOP, MECHANICAL MIXING VALVE, 1.8 LPM (0.5 GPM) TEMPERED FLOWRATE @ 5 PSI PRESSURE DROP, 8 LPM (2.1 GPM) FLOWRATE @ 45 PSI.					
	PROVIDE FIXTURE DRAIN, P-TRAP, HEAVY DUTY LOOSE KEY ANGLE STOPS, FLEXIBLE RISERS AND ALL OTHER ACCESSORIES REQUIRED FOR A FULL AND COMPLETE INSTALLATION.					
FD	FLOOR DRAIN	3"ø	_	-	3"ø	1-1/2"
	WATTS FD-100NH-C-A5-1 FLOOR DRAIN - EPOXY COATED CAST IRON, FLOOR DRAIN, ADJUSTABLE ROUND 6 MM (1/4") THICK TOP, NO-HUB OUTLET, 127 MM (5") DIAMETER NICKEL BRONZE STRAINER, ANCHOR FLANGE, TRAP PRIMER TAPPING, REVERSIBLE MEMBRANE CLAMP, COLLAR WITH PRIMARY AND SECONDARY WEEPHOLES, 52 CM <sup>2</sup> (8 SQ. IN) FREE AREA.	[75ø]			[75ø]	[38¢]
FFD	FUNNEL FLOOR DRAIN	3"ø	_	-	3"ø	1-1/2"
	WATTS FD-100NH-EG-1 FLOOR DRAIN - EPOXY COATED CAST IRON, FLOOR DRAIN, ADJUSTABLE HEEL PROOF NICKEL BRONZE TOP, NO-HUB OUTLET, ANCHOR FLANGE, 102 X 229 MM (4" X 9") OVAL NICKEL BRONZE FUNNEL, REVERSIBLE CLAMPING COLLAR WITH PRIMARY AND SECONDARY WEEPHOLES, 26 CM <sup>2</sup> (4 SQ. IN.) FREE AREA.	[75ø]			[75ø]	[38ø]
TSP	FLOW ACTIVATED TRAP SEAL PRIMER	-	12ø	-	=	-
	PPP PRO1-500 TRAP PRIMER - FLOW ACTIVATED TRAP PRIMER, LEAD FREE BRASS BODY, 0.01 LPM (0.25 GPM), 1/2" FNPT (12 MM) INLET, 1/2" FIP (12 MM) OUTLET, NEOPERL CHECK VALVE, GREY PVC CHECK VALVE ADAPTER, STAINLESS STEEL SCREEN, C69300 LEAD FREEECO BRASS, 138 - 552 KPA (20 - 80 PSI) OPERATING WATER PRESSURE, NITRILE O-RING.					

FAN SCHEDULE MODEL LOCATION V/PH/HZ STARTER REMARKS (CFM [L/S]) (IN.WC [PA]) (HP [W]) (LBS [KG])

208/3/60

VFD

2.0 [1491]

EF-4

NEW YORK BLOWER

GP 20-ACF

. ALL MOTORS, STARTERS, CONTACTORS, DISCONNECT SWITCHES AND CONTROL DEVICES SHALL BE PROVIDED BY DIV.23 AND INSTALLED BY DIV.26. 2. ALL LOW VOLTAGE WIRING TO BE PROVIDED BY DIV.23.

FAN ROOM CLASSROOM

EXHAUST

3160 [1491]

[323]

. REFER TO ARCHITECTURAL/INTERIOR DESIGNER'S DRAWINGS FOR SPECIFICATIONS OF PLUMBING FIXTURES NOT LISTED ON MECHANICAL DRAWINGS.

	VFD SCHEDULE								
TAG	EQUIPMENT SERVED	EQUIPMENT TYPE	ROOM NUMBER	MAKE	MODEL NUMBER	POWER (HP)	V/PH/HZ	REMARKS	
VFD-EX.P-1	EX.P-1	PUMP	BOILER ROOM 110A	ARMSTRONG	IVS-102	5.0	208/3/60	NEW VARIABLE FREQUENCY DRIVE AS SPECIFIED C/W INTEGRAL DISCONNECT SWITCH AND BYPASS. VFD SHALL BE EQUIPPED TO CONNECT TO EXISTING BAS.	
VFD-EX.P-2	EX.P-2	PUMP	BOILER ROOM 110A	ARMSTRONG	IVS-102	5.0	208/3/60	NEW VARIABLE FREQUENCY DRIVE AS SPECIFIED C/W INTEGRAL DISCONNECT SWITCH AND BYPASS. VFD SHALL BE EQUIPPED TO CONNECT TO EXISTING BAS.	

BACKWARD

INCLINED

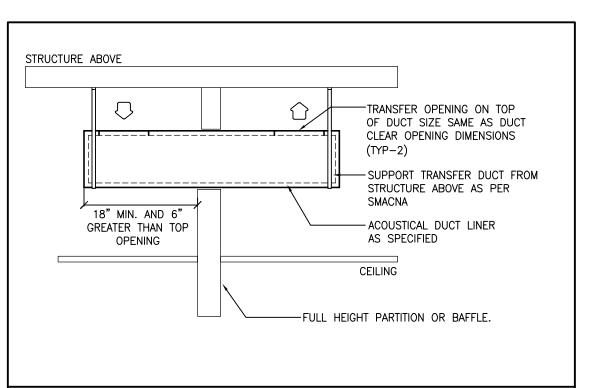
CENTRIFUGAL BLOWER

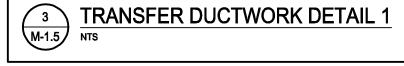
BELT DRIVE

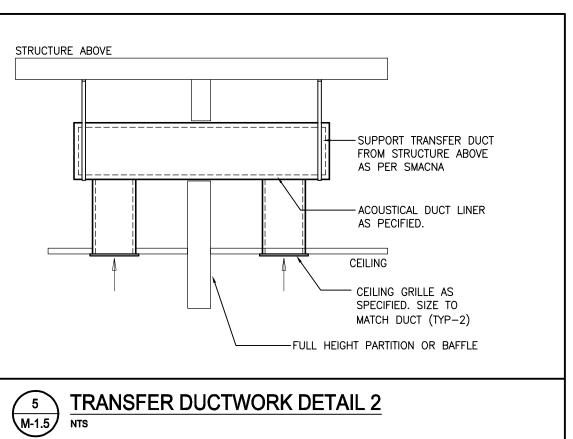
1378

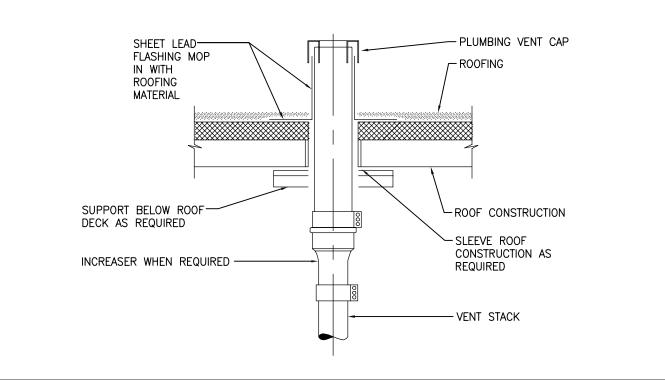
NOTES:

1. THE MANUFACTURER SHALL PROVIDE START-UP & COMMISIONING OF THE VFD BY A FACTORY-CERTIFIED SERVICE TECHNICIAN.
2. THE MANUFACTURER SHALL WARRANTY THE VFD FOR A PERIOD OF 18 MONTHS FROM DATE OF SHIPMENT. THIS SHALL INCLUDE FOR PARTS, LABOUR, TRAVEL COSTS, EXPENSES, ETC.

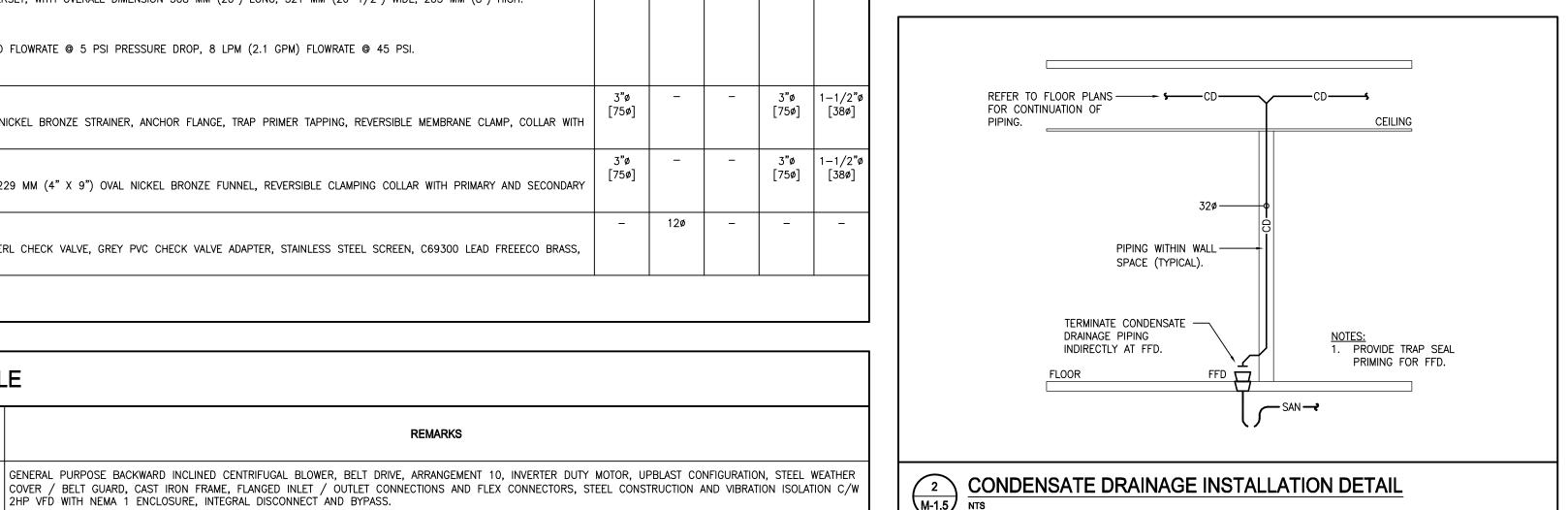


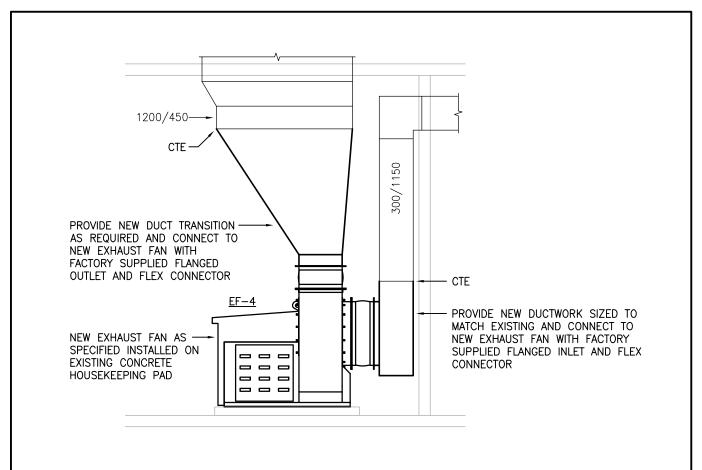


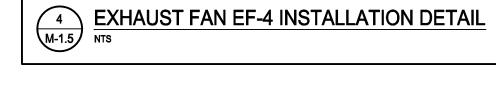


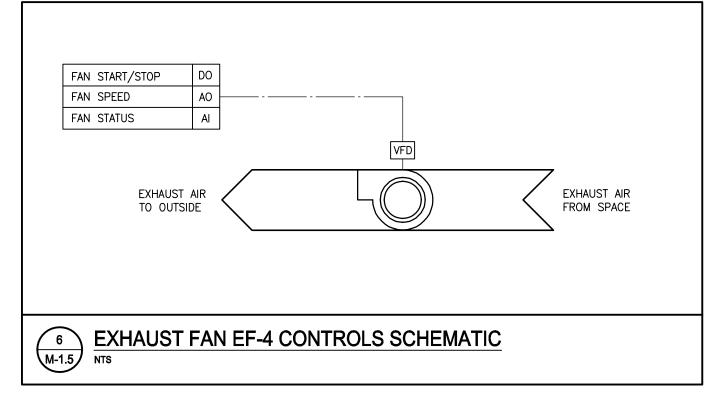


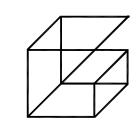
1 PLUMBING VENT THROUGH ROOF DETAIL M-1.5











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NO.	ISSUES	DATE	f
1	ISSUED FOR REVIEW	FEB. 21 2025	R
2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025	S

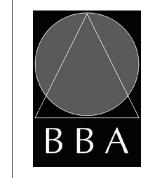
PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

**MECHANICAL** SCHEDULES II AND **DETAILS I** 





DOC CONTROL: DATE:

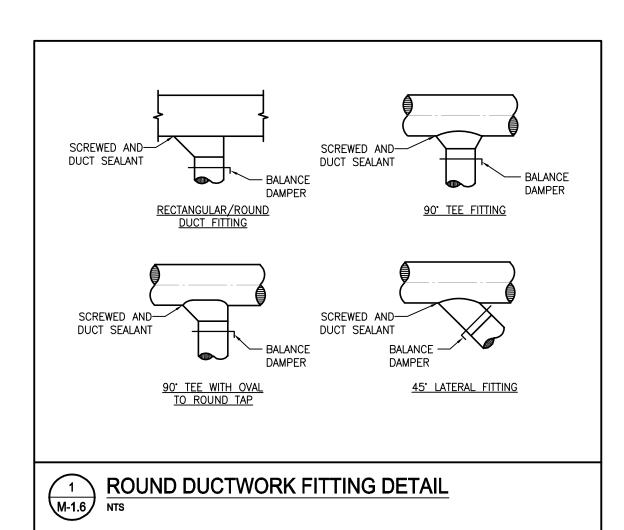
BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario L1N 0G5

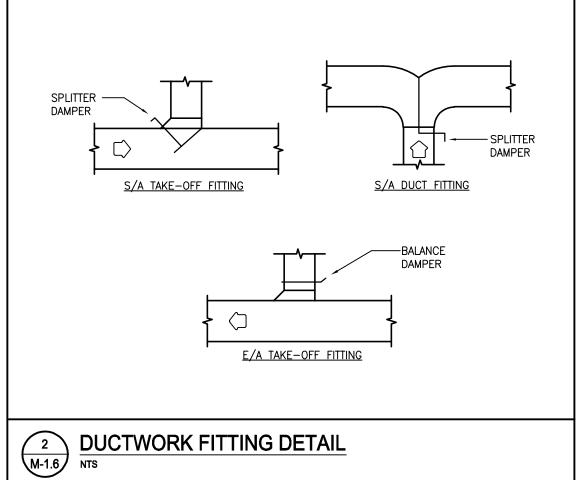
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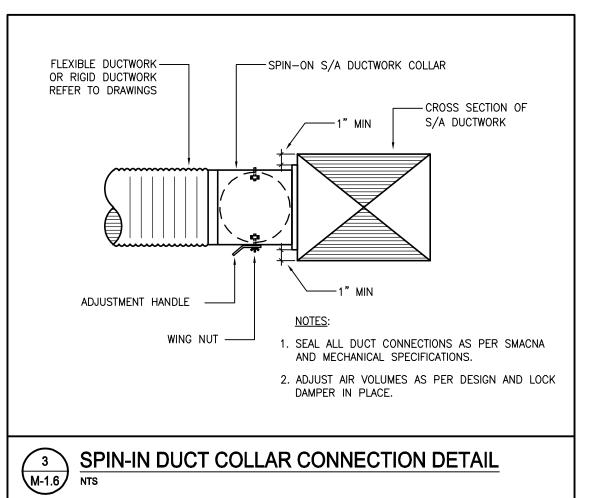
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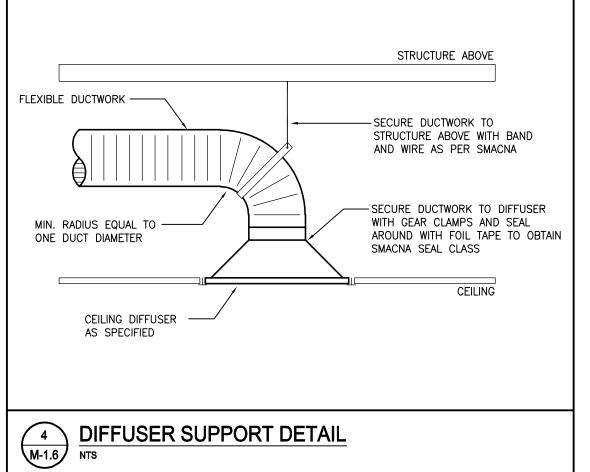
Tel: (905) 666-5252 AS SHOWN Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

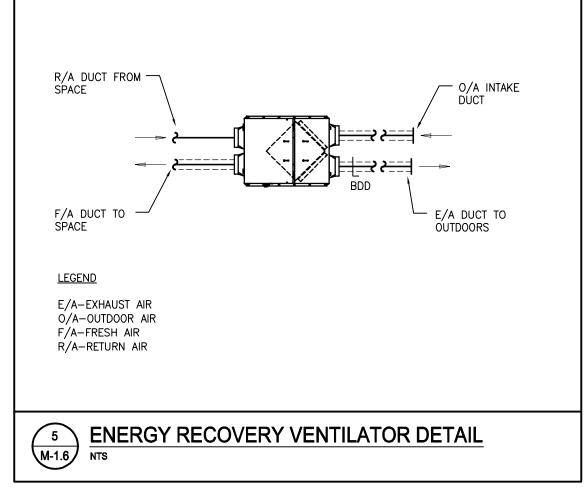
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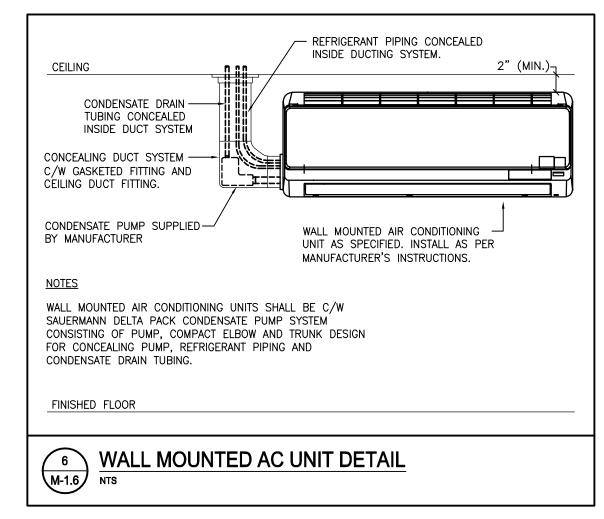


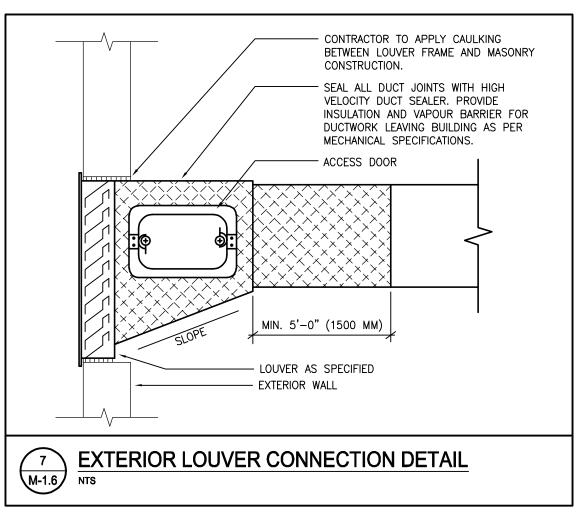


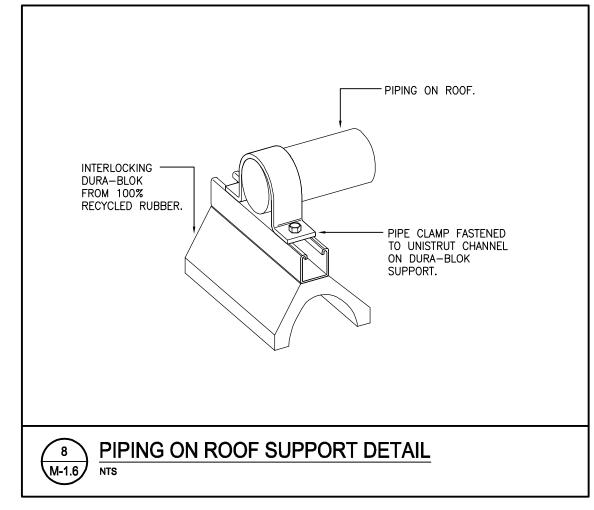


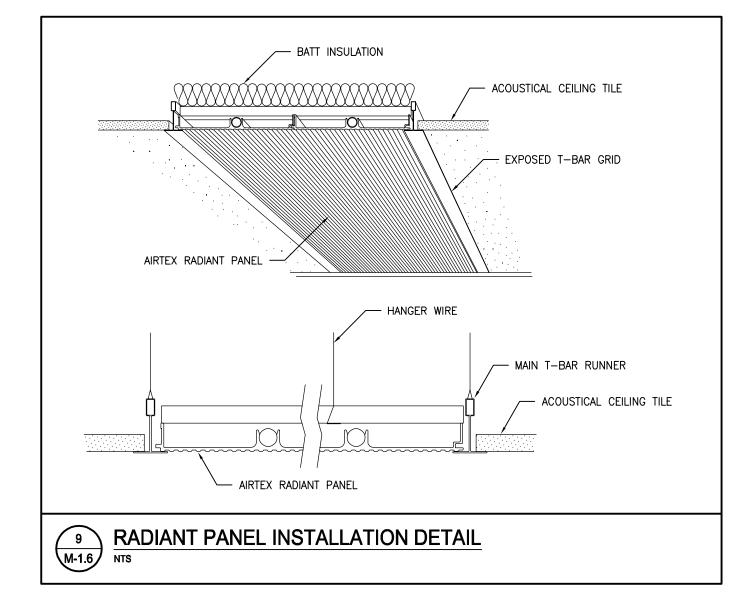


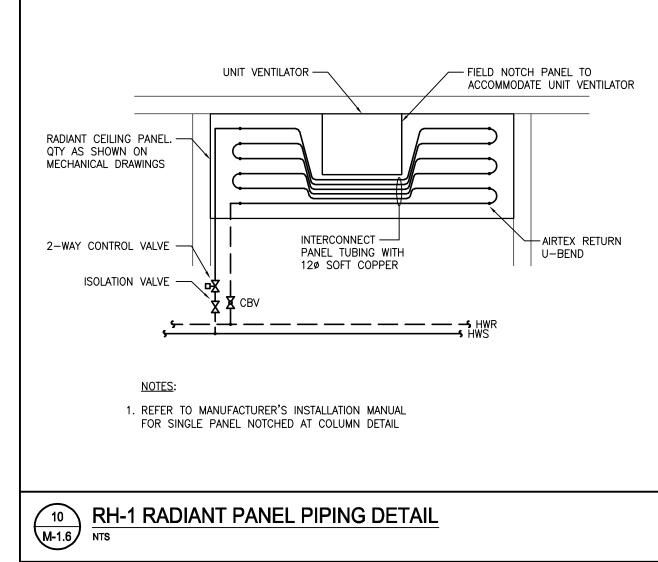


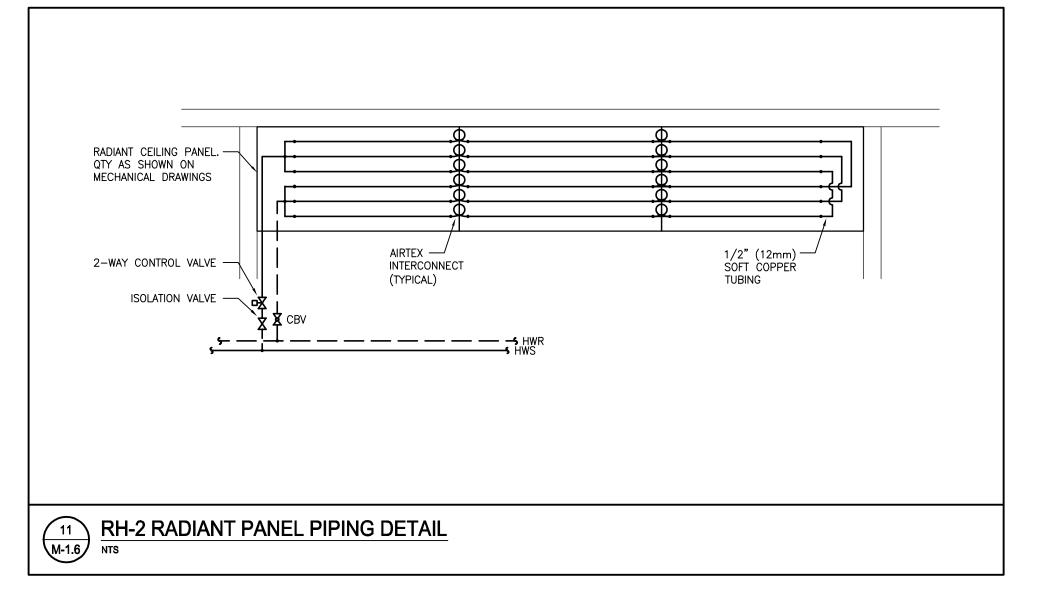














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2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025	SW
NO.	REVISIONS	DATE	BY

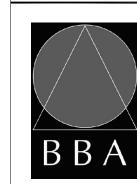
PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

MECHANICAL DETAILS II





BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201

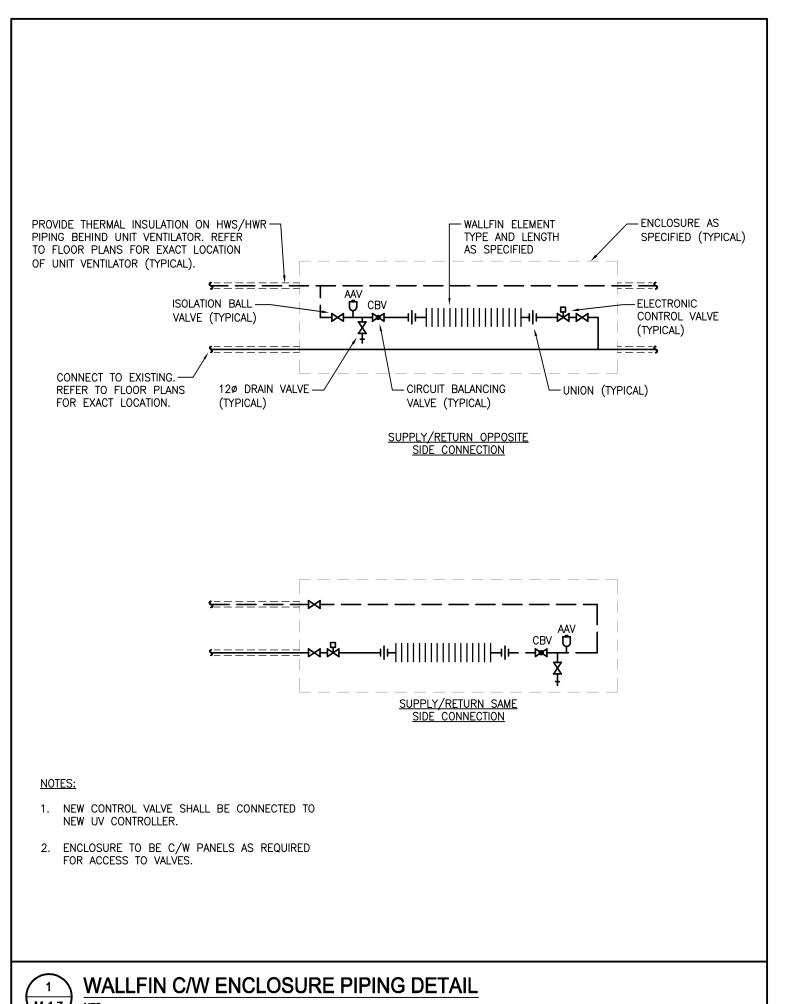
% COMPLETE: DRAWN BY: CHECKED BY: JH Whitby, Ontario L1N 0G5 JAN 2025 Tel: (905) 666-5252

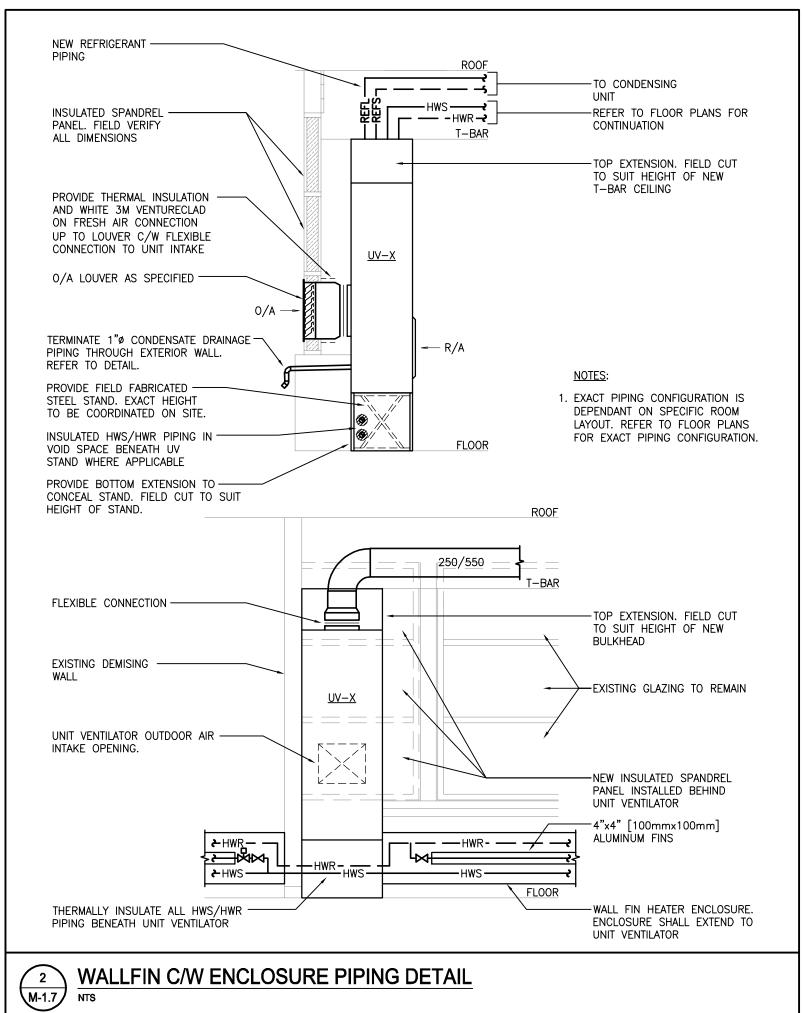
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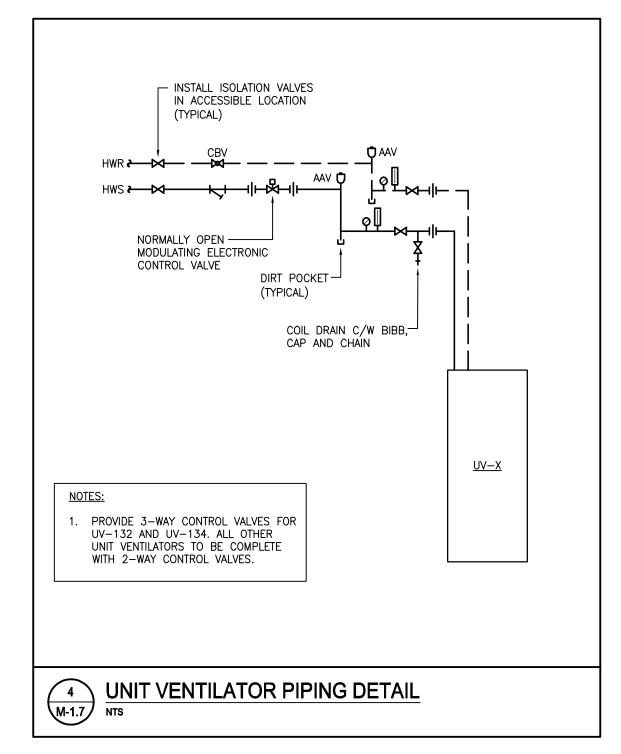
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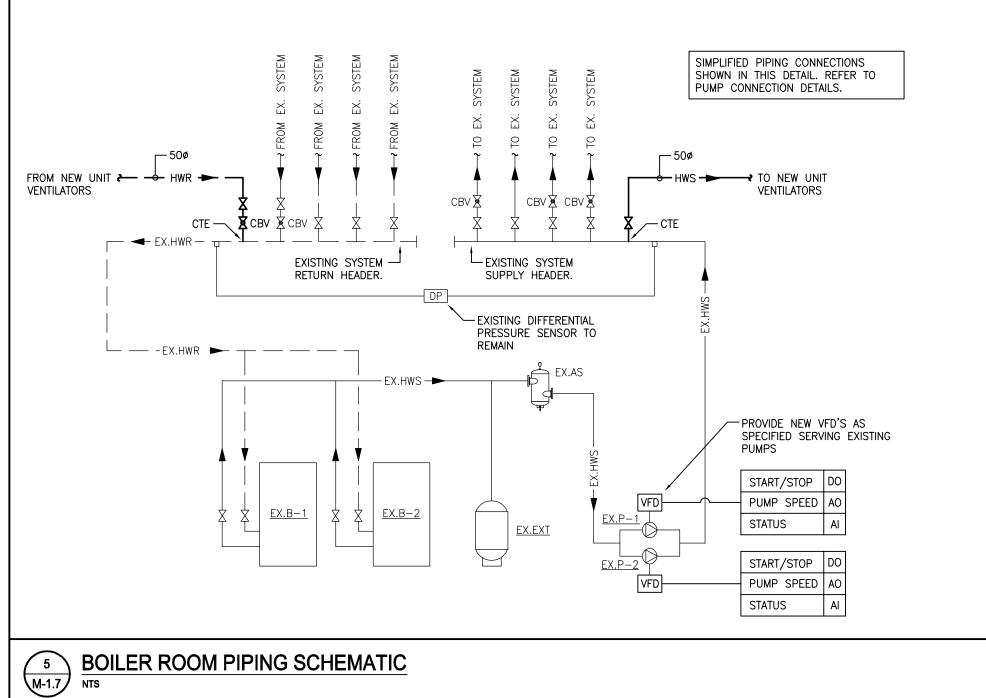
e-mail: bba@bba-archeng.com

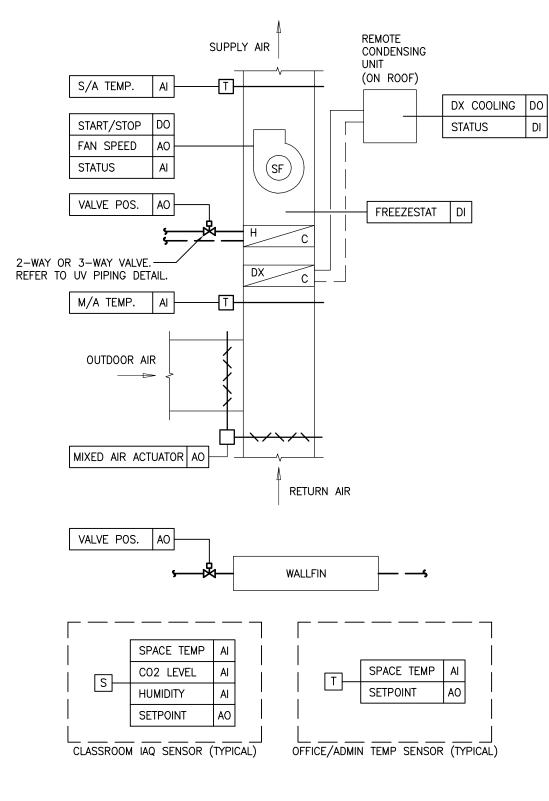
Fax: (905) 666-5256











1. UV CONTROLLERS AND ALL DEVICES/SENSORS TO

BE PROVIDED BY BASE BUILDING CONTROLS

MANUFACTURER.

CONTRACTOR FOR FACTORY INSTALLATION BY UV

#### SEQUENCE OF OPERATION:

UNIT VENTILATORS AND WALL FIN HEATERS SHALL MAINTAIN EXISTING SEQUENCE OF OPERATION AS PROGRAMMED IN EXISTING BAS. THE FOLLOWING SEQUENCE OF OPERATIONS ARE A GENERAL GUIDELINE. EXISTING SEQUENCE OF OPERATIONS SHALL TAKE PRECEDENCE.

#### UNOCCUPIED MODE

- 1.1. UNIT VENTILATOR OUTDOOR AIR DAMPER SHALL CLOSE AND THE RETURN AIR DAMPER SHALL OPEN.
- 1.2. UNIT VENTILATOR HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN MINIMUM FLOW RATE (15%).
- 1.3. UNIT VENTILATOR SUPPLY FAN SHALL BE DISABLED. 1.4. BELOW 18°C, PERIMETER WALLFIN HEATER CONTROL VALVE SHALL
- MODULATE TO MAINTAIN UNOCCUPIED SPACE TEMPERATURE SETPOINT

#### 2. OCCUPIED MODE

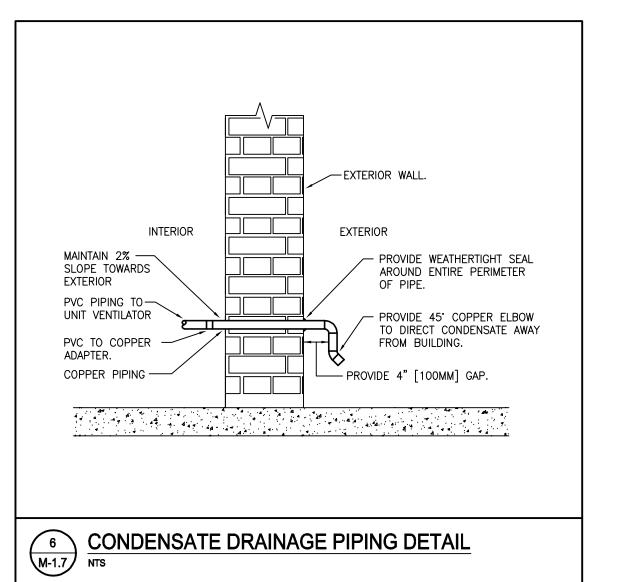
- 2.1. UNIT VENTILATOR OUTDOOR AIR DAMPER SHALL MODULATE TO MINIMUM POSITION (15%) AND THE RETURN AIR DAMPER SHALL MODULATE TO 85%
- 2.2. UNIT VENTILATOR SUPPLY FAN SHALL BE ENABLED. 2.3. WHEN O/A TEMPERATURE IS BELOW 18°C, UNIT VENTILATOR HEATING
- CONTROL VALVE SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT OF 22°C (ADJ.). 2.4. IF SPACE TEMPERATURE RISES ABOVE THE COOLING SETPOINT, DX
- COOLING SHALL BE ENABLED TO MAINTAIN COOLING SPACE TEMPERATURE SETPOINT OF 24°C (ADJ.). 2.5. WHEN CARBON DIOXIDE (CO2) LEVELS EXCEED 400PPM, THE BAS SHALL
- MODULATE THE OUTDOOR AIR DAMPER AND RETURN AIR DAMPER INVERSELY. WHEN THE CO2 LEVEL IS BELOW 300PPM THE DAMPERS SHALL RETURN TO NORMAL OCCUPIED MODE POSITION.
- 2.6. WHEN O/A TEMPERATURE IS BELOW 18°C, PERIMETER WALLFIN HEATER CONTROL VALVE SHALL MODULATE TO MAINTAIN OCCUPIED SPACE TEMPERATURE SETPOINT (22°C).
- 2.7. WHEN M/A TEMPERATURE IS BELOW 3°C, O/A DAMPER SHALL CLOSE, R/A DAMPER SHALL OPEN TO MAXIMUM POSITION, AND FAN SHALL CONTINUE TO RUN. IF AFTER 30 SECONDS, M/A TEMPERATURE IS STILL BELOW 3°C, FAN SHALL SHUT DOWN AND HEATING WATER CONTROL VALVE SHALL OPEN TO 15%.
- 2.8. IF SPACE TEMPERATURE FALLS BELOW 3°C (ADJ.) FROM TEMPERATURE SETPOINT, O/A DAMPER SHALL CLOSE AND R/A SHALL OPEN TO MAXIMUM POSITION. UV HEATING CONTROL VALVE SHALL MODULATE TO MEET SPACE TEMPERATURE SETPOINT. ONCE SPACE TEMPERATURE SETPOINT HAS BEEN ACHIEVED, UV SHALL RESUME NORMAL OPERATION.

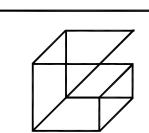
#### MORNING WARM-UP

- 3.1. MORNING WARM-UP SEQUENCE SHALL OCCUR 1 HOUR BEFORE SCHEDULED OCCUPANCY. IF SPACE TEMPERATURE IS WITHIN 1°C OF THE
- SPACE TEMPERATURE SETPOINT, MORNING WARM-UP SHALL BE SKIPPED. 3.2. UNIT VENTILATOR OUTDOOR AIR DAMPER SHALL REMAIN CLOSED AND THE
- RETURN AIR DAMPER SHALL REMAIN OPEN. 3.3. UNIT VENTILATOR SUPPLY FAN SHALL BE ENABLED.
- 3.4. UNIT VENTILATOR HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN
- SUPPLY AIR TEMPERATURE SETPOINT OF 22°C (ADJ.). 3.5. PERIMETER WALLFIN HEATER CONTROL VALVE SHALL MODULATE TO MAINTAIN OCCUPIED SPACE TEMPERATURE SETPOINT (22°C).
- 3.6. WHEN SPACE TEMPERATURE SETPOINT HAS BEEN SATISFIED FOR 10 MINUTES (ADJ.), THE SYSTEM SHALL SWITCH TO OCCUPIED MODE.

- 4.1. FAN OFF WHEN COMMANDED ON.
- 4.2. FAN ON WHEN COMMANDED OFF. 4.3. S/A TEMPERATURE OR SPACE TEMPERATURE MORE THAN 5°C DIFFERENTIAL
- 4.4. M/A TEMPERATURE BELOW 3°C.
- 4.5. CO2 LEVEL EXCEEDS 500PPM.

#### **3** UNIT VENTILATOR AND WALLFIN CONTROL SCHEMATIC M-1.7 NTS





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NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	FEB. 21 2025	RC
2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025	SW
NO.	REVISIONS	DATE	BY

PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

MECHANICAL DETAILS III





DOC CONTROL:

% COMPLETE:

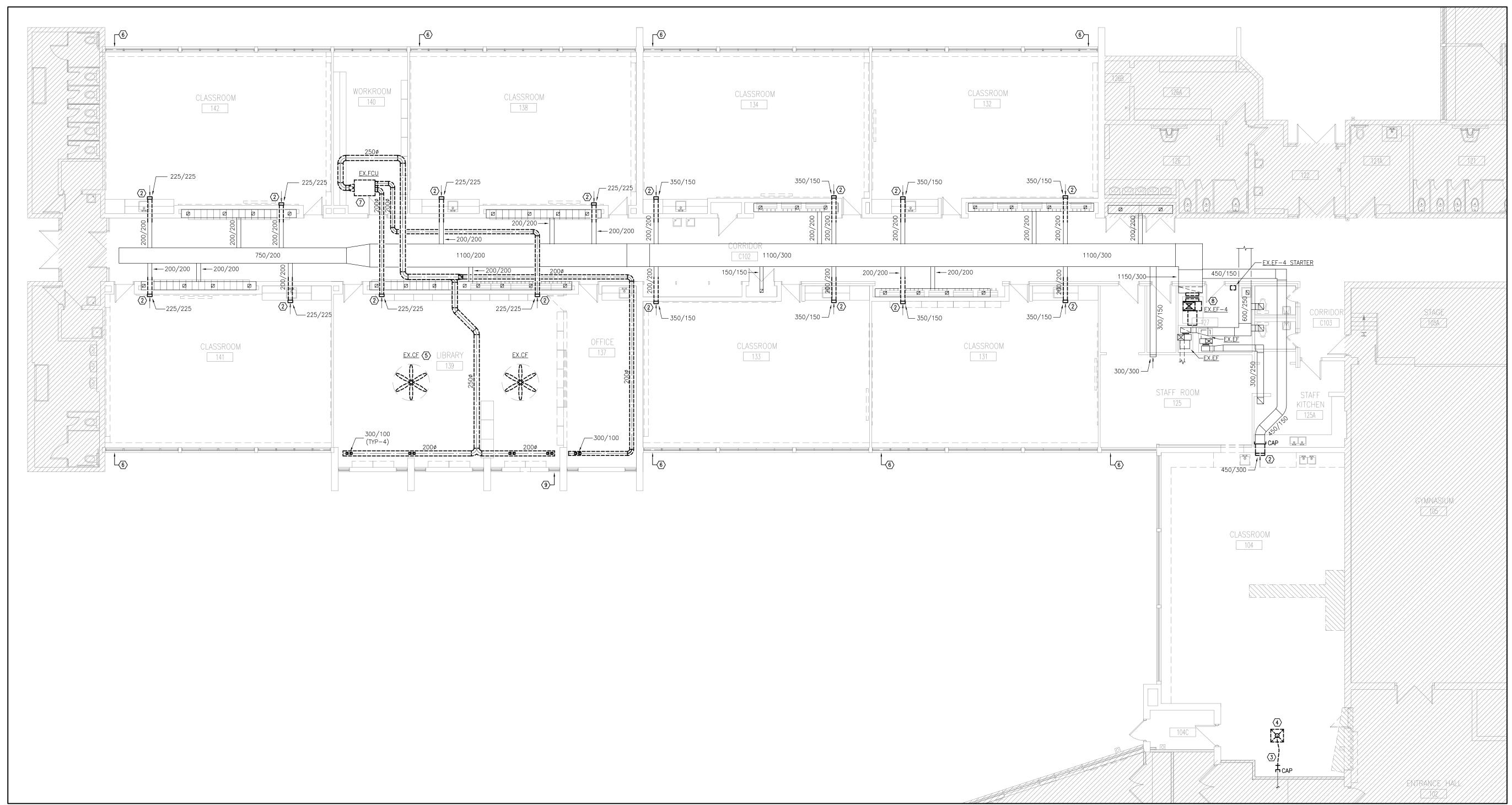
BARRY BRYAN DESIGN BY: ASSOCIATES DRAWN BY: Architects Engineers

**Project Managers** CHECKED BY: JH 250 Water Street Whitby, Ontario JAN 2025 Tel: (905) 666-5252 **AS SHOWN** Fax: (905) 666-5256

e-mail: bba@bba-archeng.com

Suite 201

L1N 0G5



1 M-2.1 PAF 1:100 PART FLOOR DEMOLITION PLAN - HVAC

DEMOLITION NOTES

(1) EXISTING MAIN E/A DUCTWORK TO REMAIN (TYPICAL).

(2) EXISTING WALL MOUNTED RETURN GRILLE TO BE REMOVED AND DISPOSED OF. REMOVE E/A DUCT BACK TO WHERE SHOWN AND PREPARE FOR CONNECTION OF NEW DUCTWORK. REFER TO NEW PLANS.

(3) EXISTING S/A DUCTWORK TO BE REMOVED AND DISPOSED OF BACK TO WHERE SHOWN. CAP DUCT WHERE INDICATED. 4 EXISTING S/A SQUARE CONE DIFFUSER TO BE REMOVED

AND DISPOSED OF. (5) EXISTING CEILING FAN, CONTROL WIRING, SWITCHES, MOUNTING HARDWARE, ETC. TO BE REMOVED AND DISPOSED

6 REMOVE EXISTING GLAZING PANELS (3 TOTAL) FOR INSTALLATION OF NEW UNIT VENTILATOR. TURN GLAZING PANELS OVER TO OWNER. REFER TO ARCHITECTURAL

(7) EXISTING FAN COIL UNIT, R/A AND S/A DUCTWORK, HANGERS, ETC. TO BE REMOVED AND DISPOSED OF.

DRAWINGS FOR SPECIFIC DETAILS.

(8) EXISTING EXHAUST FAN AND ASSOCIATED STARTER TO BE REMOVED AND DISPOSED OF. PREPARE DUCTWORK FOR NEW CONNECTION, REFER TO NEW PLANS AND DETAILS.

GENERAL HVAC NOTES

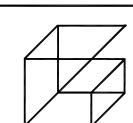
1. PERFORM DEMOLITION WORK SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR FILTERS ON AIR HANDLING SYSTEMS AFFECT BY THE AREA OF WORK. ALL COSTS ASSOCIATED WITH DAMAGES AS A RESULT OF THE MECHANICAL DEMOLITION SHALL BE COVERED BY DIV.23. MAINTAIN SAFETY STANDARDS AND PROVIDE ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS.

2. THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.

3. THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.

4. THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION. AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND

SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.



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2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025

PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

**DRAWING:** 

PART GROUND FLOOR **DEMOLITION PLAN -**HVAC



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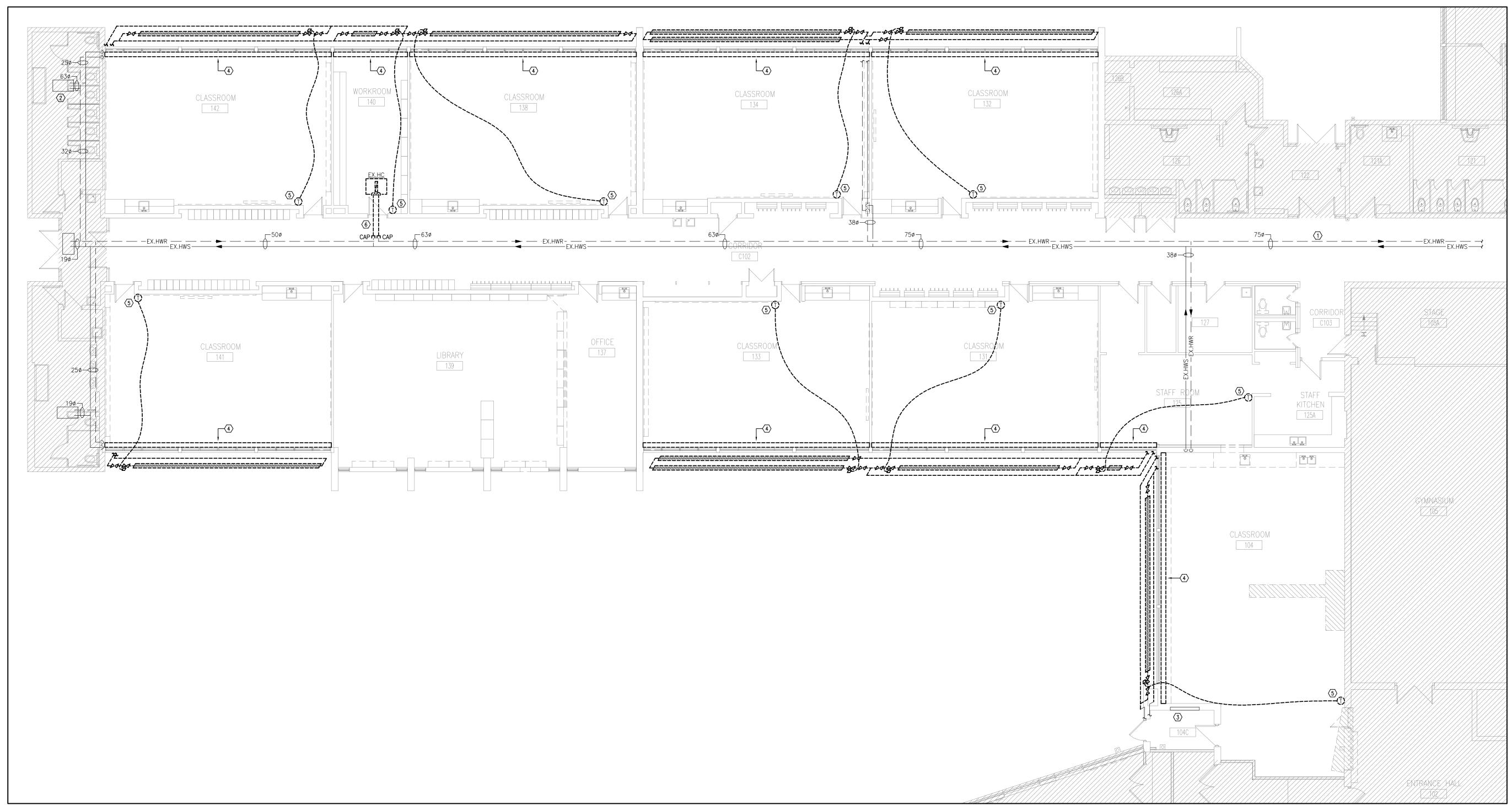
DRAWN BY:

CHECKED BY:

BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201

JH JAN 2025 AS SHOWN

Whitby, Ontario L1N 0G5 Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com



PART GROUND FLOOR DEMOLITION PLAN - HYDRONIC M-2.2 1:100

DRAWING NOTES

1 EXISTING HWS/HWR PIPING IN CEILING SPACE TO REMAIN

2 EXISTING FAN COIL UNIT TO REMAIN (TYPICAL). (3) EXISTING CABINET CONVECTOR AND ASSOCIATED CONTROLS

TO REMAIN. EXISTING HWS/HWR PIPING TO REMAIN.

(4) EXISTING WALL HEATER ENCLOSURE, HWS/HWR PIPING, ISOLATION/CONTROL VALVES, CONTROLS, ETC. TO BE REMOVED AND DISPOSED OF. REMOVE HWS/HWR PIPING BACK TO WALL AS INDICATED AND PREPARE FOR CONNECTION OF NEW PIPING.

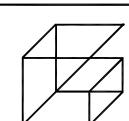
(5) EXISTING THERMOSTAT TO BE REMOVED AND DISPOSED OF. (6) EXISTING HWS/HWR PIPING SERVING FAN COIL HEATING COIL TO BE REMOVED AND DISPOSED OF. CAP PIPING AT

MAIN IN CORRIDOR CEILING SPACE.

GENERAL NOTES

1. PERFORM DEMOLITION WORK SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR FILTERS ON AIR HANDLING SYSTEMS AFFECT BY THE AREA OF WORK. ALL COSTS ASSOCIATED WITH DAMAGES AS A RESULT OF THE MECHANICAL DEMOLITION SHALL BE COVERED BY DIV.23. MAINTAIN SAFETY STANDARDS AND PROVIDE ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS.

- 2. THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
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- 4. THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION, AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.



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PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

**DRAWING:** 

PART GROUND FLOOR **DEMOLITION PLAN -HYDRONIC** 





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BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201

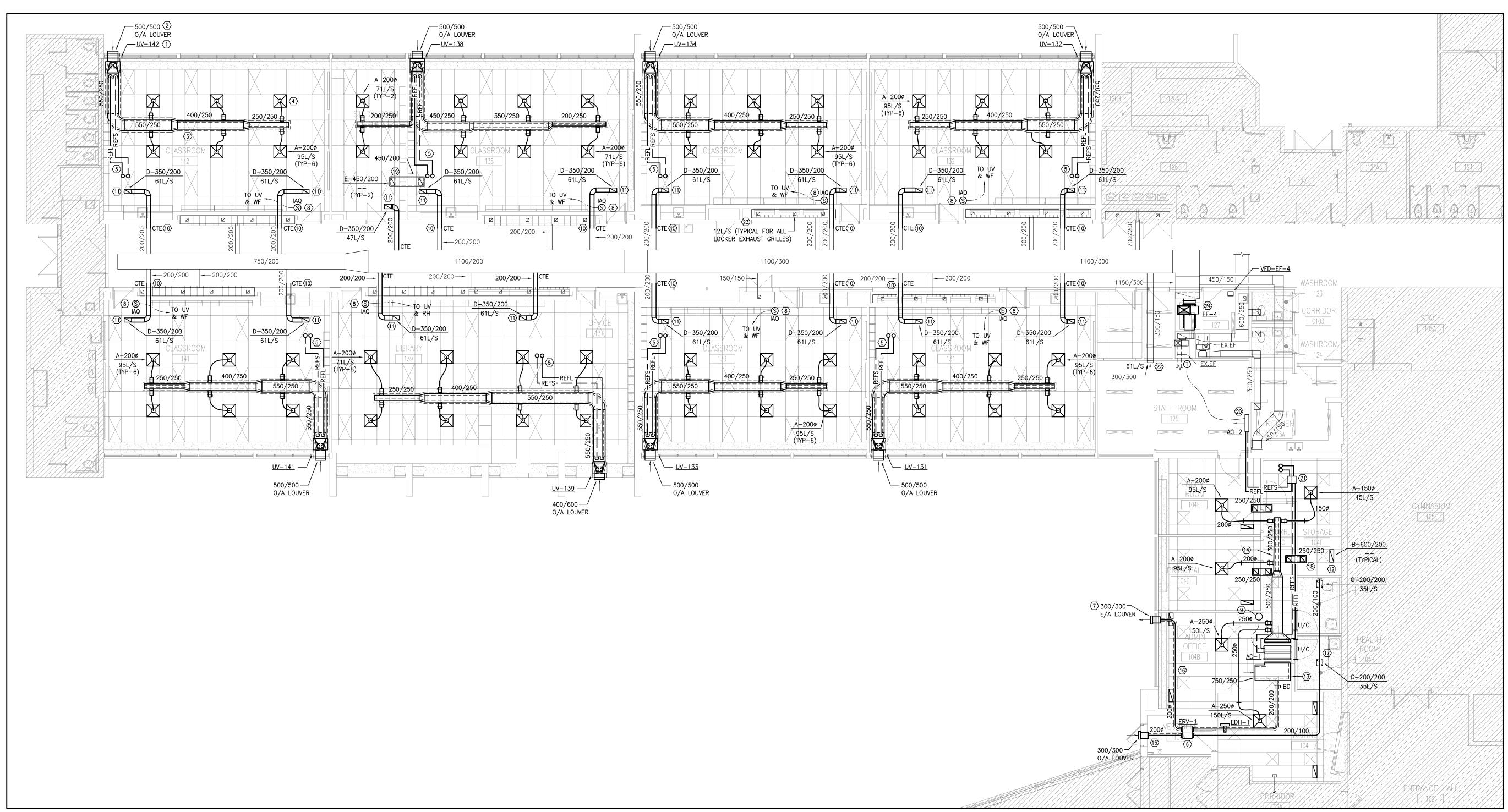
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JH JAN 2025 AS SHOWN

DESIGN BY:

DRAWN BY:

CHECKED BY:



1 PART GROUND FLOOR NEW PLAN - HVAC
1:100

HVAC NOTES

1 PROVIDE NEW UNIT VENTILATOR C/W HYDRONIC HEATING COIL AND DX COOLING COIL AS SPECIFIED INSTALLED ON FLOOR. PROVIDE CONDENSATE DRAINAGE PIPING AND TERMINATE THROUGH EXTERIOR WALL. REFER TO DETAILS FOR INSTALLATION SPECIFICS (TYPICAL).

- 2 PROVIDE VENTEX MODEL 2415A HIGH PERFORMANCE LOUVER C/W BIRDSCREEN AND BACKDRAFT DAMPER (TYPICAL).
- 3 PROVIDE NEW ACOUSTICALLY LINED AND THERMALLY INSULATED S/A DUCTWORK IN CEILING SPACE SERVING UNIT VENTILATOR (TYPICAL).
- 4 PROVIDE NEW SQUARE CONE S/A DIFFUSER AS SPECIFIED. BALANCE AS INDICATED (TYPICAL).
- (5) PROVIDE REFRIGERANT PIPING IN CEILING SPACE SERVING DX COIL. ROUTE REFRIGERANT PIPING TO CONDENSING UNIT ON ROOF. EXACT ROUTING TO BE COORDINATED ON SITE. PROVIDE NEW ROOF PENETRATION AND SEAL WEATHER TIGHT TO BASE BUILDING STANDARDS. REFER TO DRAWING M-2.4 FOR CONTINUATION OF ROOF MOUNTED PIPING.
- (6) PROVIDE NEW ERV UNIT AS SPECIFIED INSTALLED IN CEILING SPACE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ENSURE ALL RECOMMENDED CLEARANCES FOR ACCESS/MAINTENANCE ARE ACHIEVED.
- 7 PROVIDE 300/300 VENTEX MODEL 2415A HIGH PERFORMANCE LOUVER C/W BIRDSCREEN AND BACKDRAFT DAMPER (TYP-2).

HVAC NOTES

- (8) PROVIDE NEW IAQ TEMPERATURE SENSOR WITH DIGITAL DISPLAY TO MATCH BASE BUILDING AND CONNECTED TO EXISTING BAS. THIS SENSOR TO REPORT BACK TO BAS FOR CONTROL OF UNIT VENTILATOR UNIT AND WALLFIN HEATER. COORDINATE EXACT LOCATION OF SENSOR ON SITE.
- 9 NEW MANUFACTURER PROVIDED PROGRAMMABLE
  THERMOSTAT SERVING AC UNIT. CONNECT TO EXISTING BAS.
- (10) EXTEND EXHAUST DUCTWORK INTO CLASSROOM. REWORK DUCTWORK ON CORRIDOR SIDE TO PENETRATE CORRIDOR WALL AS HIGH AS POSSIBLE IN CEILING SPACE.
- PROVIDE NEW EXHAUST GRILLE IN NEW T-BAR CEILING.
  CONNECT TO EXISTING EXHAUST DUCT IN CEILING SPACE.
- PROVIDE NEW EGG CRATE RETURN GRILLE AS SPECIFIED. SIZE AS INDICATED (TYPICAL).
- TERMINATE ACOUSTICALLY LINED R/A DUCTWORK OPEN ENDED IN CEILING SPACE. R/A DUCT SIZE TO MATCH UNIT R/A OPENING (TYPICAL).
- PROVIDE NEW ACOUSTICALLY LINED S/A DUCTWORK IN CEILING SPACE (TYPICAL).

C/W THERMAL AND ACOUSTIC INSULATION.

(15) PROVIDE NEW O/A DUCTWORK FROM CEILING MOUNTED ERV

(16) PROVIDE NEW E/A DUCTWORK FROM CEILING MOUNTED ERV C/W THERMAL AND ACOUSTIC INSULATION. MAINTAIN 10FT. CLEARANCE FROM O/A INTAKE LOUVER.

HVAC NOTES

 $\ensuremath{\overline{17}}$  PROVIDE NEW EXHAUST GRILLE IN DRYWALL CEILING AS SPECIFIED. SIZE AND BALANCE AS INDICATED (TYP-2).

(18) PROVIDE NEW 250/250 ACOUSTICALLY LINED TRANSFER

- DUCT IN CEILING SPACE ABOVE. REFER TO DETAILS.

  (19) PROVIDE NEW ACOUSTICALLY LINED TRANSFER DUCT THROUGH BLOCK WALL IN CEILING SPACE C/W GRILLE IN NEW T-BAR CEILING AS SPECIFIED. REFER TO DETAILS.
- PROVIDE NEW WALL MOUNT AC UNIT AS SPECIFIED C/W ALL MOUNTING HARDWARE, BRACKETS, ETC. PROVIDE NEW REFRIGERANT PIPING TO DISTRIBUTION UNIT AS SHOWN. EXACT PIPE ROUTING TO BE CONFIRMED ON SITE.
- (21) PROVIDE NEW REFRIGERANT DISTRIBUTION UNIT EQUAL TO LG FOUR—PORT BRANCH DISTRIBUTION UNIT PMBD3641.
- REBALANCE AS INDICATEÓ.

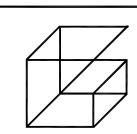
  ②3 EXISTING LOCKER EXHAUST GRILLE. REBALANCE AS INDICATED (TYPICAL).

22) EXISTING WALL MOUNT E/A LOUVER AT HIGH LEVEL.

PROVIDE NEW EXHAUST FAN AS SPECIFIED INSTALLED ON EXISTING CONCRETE HOUSEKEEPING PAD. PROVIDE NEW VFD C/W INTEGRAL DISCONNECT AND BYPASS SUPPLIED BY FAN MANUFACTURER. CONNECT TO EXISTING BAS. REFER TO DETAILS.

GENERAL HVAC NOTES

- . THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
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- 4. ALL MECHANICAL SERVICES, INCLUDING BUT NOT LIMITED TO, DUCTWORK, PIPING, EQUIPMENT, ETC. SHALL NOT BE SUSPENDED FROM ROOF DECK. ALL SERVICES TO BE SUSPENDED FROM ENGINEERED UNISTRUT SUPPORT SYSTEM SECURED TO SURROUNDING WALLS AND STRUCTURAL BEAMS. REFER TO ARCHITECTURAL/STRUCTURAL DRAWINGS.
- 5. PROVIDE ULC LISTED FIRESTOPPING AT ALL WALL/FLOOR PENETRATIONS REGARDLESS OF WALL RATING.



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1	ISSUED FOR REVIEW	FEB. 21 2025	RC
2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025	SW
NO.	REVISIONS	DATE	BY

PROJECT:

# RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

PART GROUND FLOOR NEW PLAN - HVAC



DESIGN BY:

DOC CONTROL:

DOC CONTROL:

DATE:

% COMPLETE:

BARRY BRYAN
ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street
Suite 201

Whitby, Ontario

Tel: (905) 666-5252

Fax: (905) 666-5256

L1N 0G5

JAN 2025

SCALE:
AS SHOWN

JH

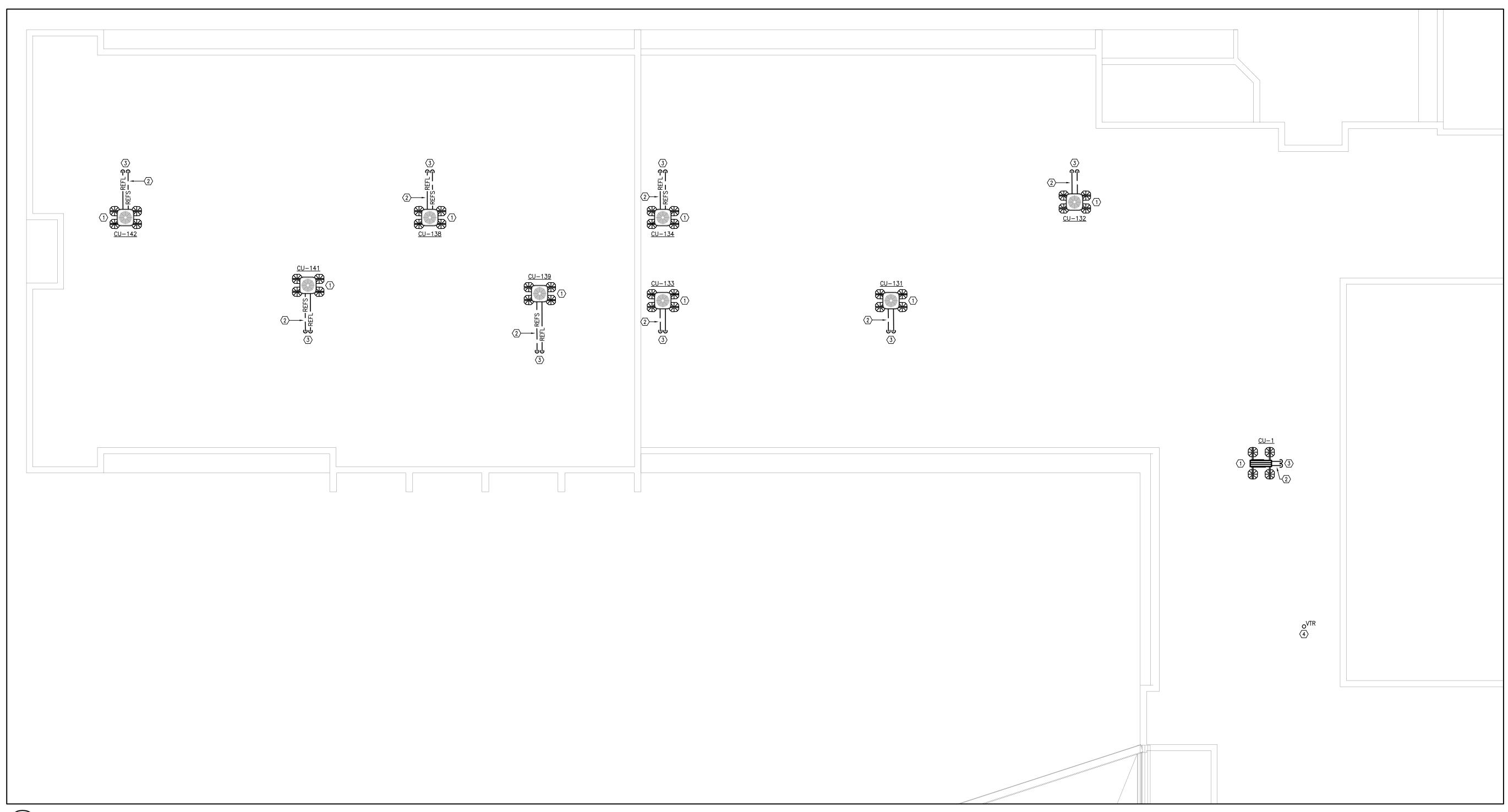
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PROJECT NO: DR

PROJECT NO: DRAWING NO: M-2.3



PART ROOF NEW PLAN - HVAC

1:100

HVAC NOTES

1) PROVIDE NEW CONDENSING UNIT AS SPECIFIED C/W ECOFOOT STAND. STAND FEET SHALL BE INSTALLED ON 25MM RIGID BOARD INSULATION TOPPED WITH A PATIO PAVER. ROUTE REFRIGERANT LINE SET TO INDOOR UNITS. EXACT ROUTING TO BE DETERMINED ON SITE. INSTALL IN ACCORDANCE WITH CSA B52 AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.

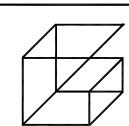
(2) NEW ROOF MOUNTED REFRIGERANT PIPING. PROVIDE PIPING SUPPORTS EQUAL TO EATON DURA—BLOK B—LINE SERIES ROOF SUPPORT SYSTEM. PROVIDE INSULATION AND JACKETING AS PER MECHANICAL SPECIFICATIONS.

(3) NEW REFRIGERANT PIPING DOWN THROUGH ROOF C/W PITCH POCKET AT ROOF PENETRATION. SEAL WEATHER TIGHT TO BASE BUILDING STANDARDS.

4 PROVIDE NEW VENT THRU ROOF. REFER TO DETAILS.

GENERAL HVAC NOTES

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- 4. ALL MECHANICAL SERVICES, INCLUDING BUT NOT LIMITED TO, DUCTWORK, PIPING, EQUIPMENT, ETC. SHALL NOT BE SUSPENDED FROM ROOF DECK. ALL SERVICES TO BE SUSPENDED FROM ENGINEERED UNISTRUT SUPPORT SYSTEM SECURED TO SURROUNDING WALLS AND STRUCTURAL BEAMS. REFER TO ARCHITECTURAL/STRUCTURAL DRAWINGS.
- 5. PROVIDE ULC LISTED FIRESTOPPING AT ALL WALL/FLOOR PENETRATIONS REGARDLESS OF WALL RATING.



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PROJECT:

# RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

PART ROOF NEW PLAN -HVAC



DOC CONTROL: DATE:

% COMPLETE:

BARRY BRYAN
ASSOCIATES
Architects
Engineers
Project Managers
250 Water Street

JH

DATE:
JAN 2025

SCALE:
AS SHOWN

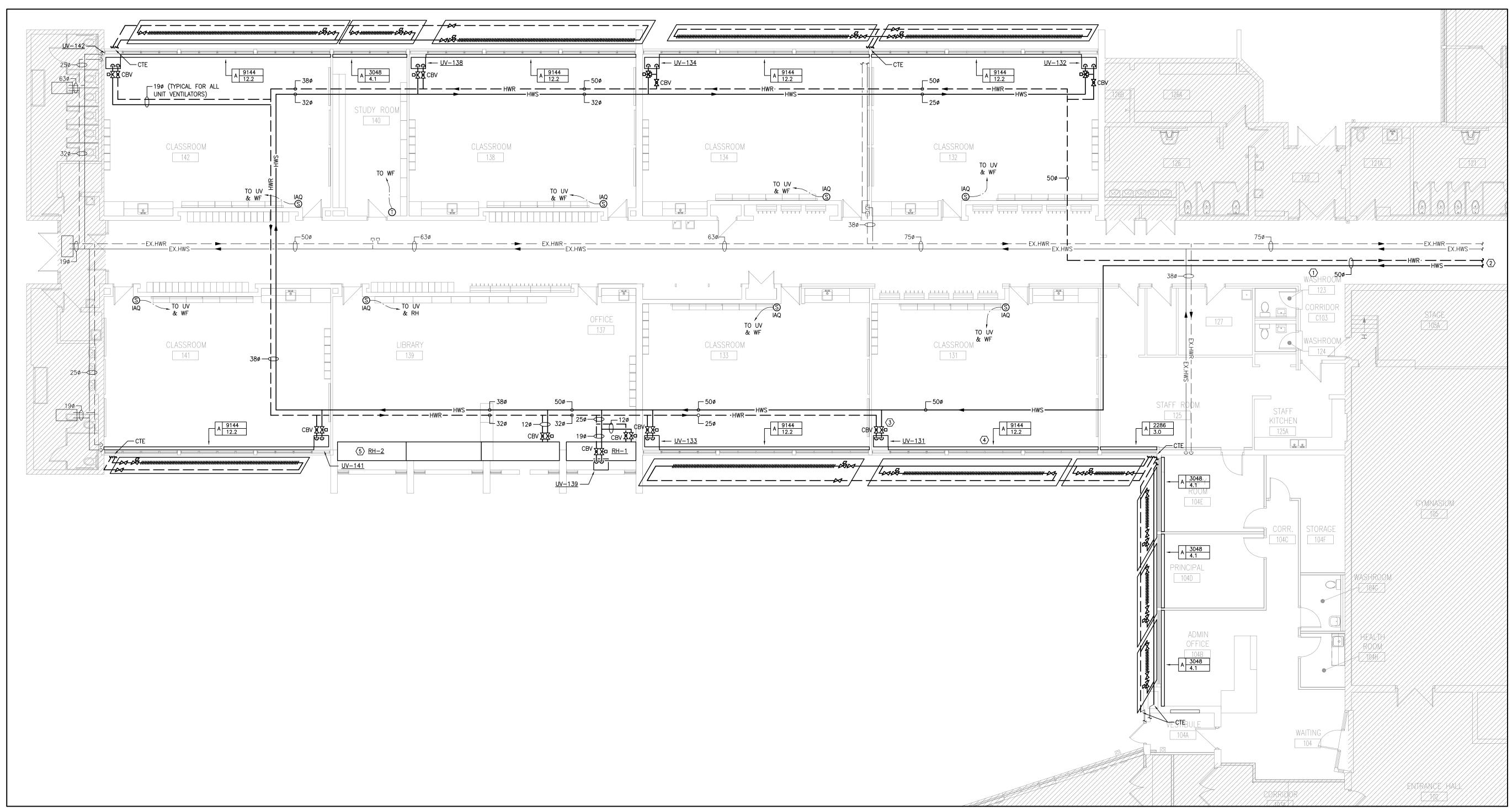
DESIGN BY:

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e-mail: bba@bba-archeng.com

FILE:
DRAWING NO:



PART GROUND FLOOR NEW PLAN - HYDRONIC M-2.5 1:100

DRAWING NOTES

(2) NEW 50¢ HWS/HWR PIPING TO BOILER ROOM. REFER TO DRAWING 1/M-2.6 FOR CONTINUATION OF PIPING.

1 PROVIDE NEW HWS/HWR PIPING IN CEILING SPACE

(3) NEW HWS/HWR PIPING TO UNIT VENTILATOR C/W ELECTRONIC CONTROL VALVE AND CIRCUIT BALANCING VALVE. INTERLOCK NEW CV WITH EXISTING BAS. REFER TO DETAILS (TYPICAL).

4 PROVIDE NEW HYDRONIC WALLFIN HEATER AS SPECIFIED. PROVIDE NEW HWS/HWR PIPING, VALVES, ETC. AS PER MECHANICAL DETAILS. CONNECT TO EXISTING HWS/HWR PIPING WHERE SHOWN. ENCLOSURE LENGTH SHALL SPAN WALL TO WALL UNLESS OTHERWISE NOTED. INTERLOCK NEW CV WITH EXISTING BAS. REFER TO DETAILS (TYPICAL).

(5) PROVIDE NEW CEILING MOUNTED RADIANT PANEL AS SPECIFIED C/W ALL HANGERS AND SUPPORTS AS REQUIRED. REFER TO DETAILS (TYP-2).

GENERAL NOTES

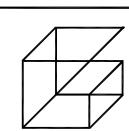
THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.

THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.

THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION. AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.

4. ALL MECHANICAL SERVICES, INCLUDING BUT NOT LIMITED TO, DUCTWORK, PIPING, EQUIPMENT, ETC. SHALL NOT BE SUSPENDED FROM ROOF DECK. ALL SERVICES TO BE SUSPENDED FROM ENGINEERED UNISTRUT SUPPORT SYSTEM SECURED TO SURROUNDING WALLS AND STRUCTURAL BEAMS. REFER TO ARCHITECTURAL/STRUCTURAL DRAWINGS.

PROVIDE ULC LISTED FIRESTOPPING AT ALL WALL/FLOOR PENETRATIONS REGARDLESS OF WALL RATING.



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NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	FEB. 21 2025	RC
2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025	SW
NO.	REVISIONS	DATE	BY

PROJECT:

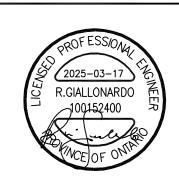
#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

**DRAWING:** 

PART GROUND FLOOR **NEW PLAN -HYDRONIC** 





DOC CONTROL:

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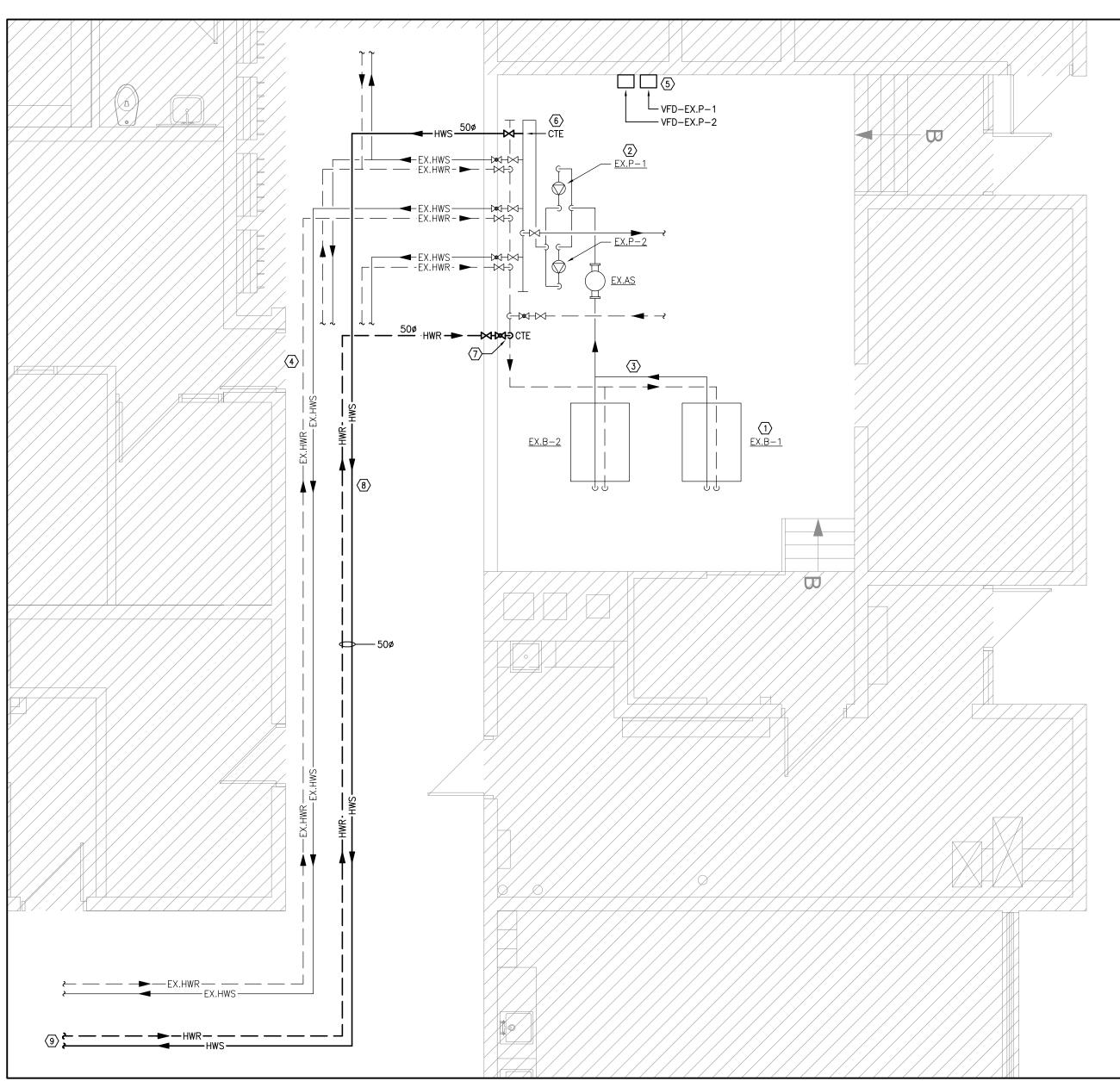
BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario

CHECKED BY: JH JAN 2025 AS SHOWN

DESIGN BY:

DRAWN BY:

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**BOILER ROOM NEW PLAN - HYDRONIC** M-2.6 1:50

#### DRAWING NOTES

- 1 EXISTING BOILER TO REMAIN (TYP-2).
- $\bigcirc$  EXISTING BUILDING SYSTEM PUMP TO REMAIN (TYP-2). 3 EXISTING HWS/HWR PIPING IN BOILER ROOM TO REMAIN
- (TYPICAL). (4) EXISTING HWS/HWR PIPING IN CEILING SPACE TO REMAIN
- (5) EXISTING H/O/A PANELS SERVING PUMPS P-1 AND P-2 TO BE REMOVED AND DISPOSED OF. PROVIDE TWO (2) NEW

5HP IVS-102 VFD'S C/W INTEGRAL DISCONNECT AND

BYPASS. CONNECT NEW VFD'S TO EXISTING POWER, PUMPS,

- BAS CONTACTS, ETC. REFER TO PIPING SCHEMATIC. (6) PROVIDE NEW HWS PIPING AT HIGH LEVEL. CONNECT TO EXISTING 1000 HWS HEADER WHERE SHOWN C/W ISOLATION
- (7) PROVIDE NEW HWR PIPING AT HIGH LEVEL. CONNECT TO EXISTING 1000 HWR HEADER WHERE SHOWN C/W ISOLATION
- 8 PROVIDE NEW HWS/HWR PIPING IN CEILING SPACE

VALVE AND CIRCUIT BALANCING VALVE.

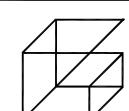
(9) NEW 500 HWS/HWR PIPING TO NEW UNIT VENTILATORS. REFER TO DRAWING 1/M-2.5 FOR CONTINUATION OF

#### GENERAL NOTES

- THE MECHANICAL DRAWINGS DISPLAY A GENERAL DESIGN AND INSTALLATION. THEREFORE, IF REQUIRED, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE CONSULTANT PRIOR TO INSTALLATION.
- THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.23 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISION'S DRAWINGS FOR CLARIFICATION.
- THIS CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY INVESTIGATE AND UNDERSTAND THE EXISTING CONDITIONS AND THEIR RELATION TO THE DESIGN DRAWINGS/DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO THE CONTRACTOR FOR ANY HINDRANCES TO THE MECHANICAL INSTALLATION FROM SITE CONDITIONS WHICH EXISTED PRIOR TO TENDER SUBMISSION. AS SUCH AND WHERE REQUIRED, THE CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS AND SHALL SUBMIT THEM TO THE CONSULTANT FOR REVIEW.
- 4. ALL MECHANICAL SERVICES, INCLUDING BUT NOT LIMITED TO, DUCTWORK, PIPING, EQUIPMENT, ETC. SHALL NOT BE SUSPENDED FROM ROOF DECK. ALL SERVICES TO BE SUSPENDED FROM ENGINEERED UNISTRUT SUPPORT SYSTEM SECURED TO SURROUNDING WALLS AND STRUCTURAL BEAMS. REFER TO ARCHITECTURAL/STRUCTURAL DRAWINGS.
- PROVIDE ULC LISTED FIRESTOPPING AT ALL WALL/FLOOR PENETRATIONS REGARDLESS OF WALL RATING.

#### SEQUENCE OF OPERATIONS

- PUMPS EX.P-1 AND EX.P-2 1.1. CIRCULATION PUMPS P-1 AND P-2 SHALL OPERATE IN LEAD-LAG CONFIGURATION. THEY WILL SWITCH THE LEAD PUMP WEEKLY. IN THE EVENT THE LEAD PUMP FAILS, THE LAG PUMP WILL START AND AN ALARM WILL BE SENT TO THE BAS. PUMP(S) WILL ONLY START WHEN THE BAS DETERMINES THERE IS A CALL FOR HEAT AND HEATING COIL VALVES IN THE SYSTEM
- 1.2. PUMP SPEED TO OPERATE BASED ON DIFFERENTIAL PRESSURE SETPOINT VIA FEEDBACK FROM EXISTING DIFFERENTIAL PRESSURE SENSOR. BALANCING CONTRACTOR TO DETERMINE SETPOINT DURING COMMISSIONING.



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	DATE	B'
ISSUED FOR REVIEW	FEB. 21 2025	RC
ISSUED FOR PERMIT & TENDER	MAR. 17 2025	SW
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	ISSUED FOR PERMIT & TENDER	

PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:

**BOILER ROOM NEW** PLAN - HYDRONIC





% COMPLETE:

BARRY BRYAN ASSOCIATES Architects Engineers Project Managers

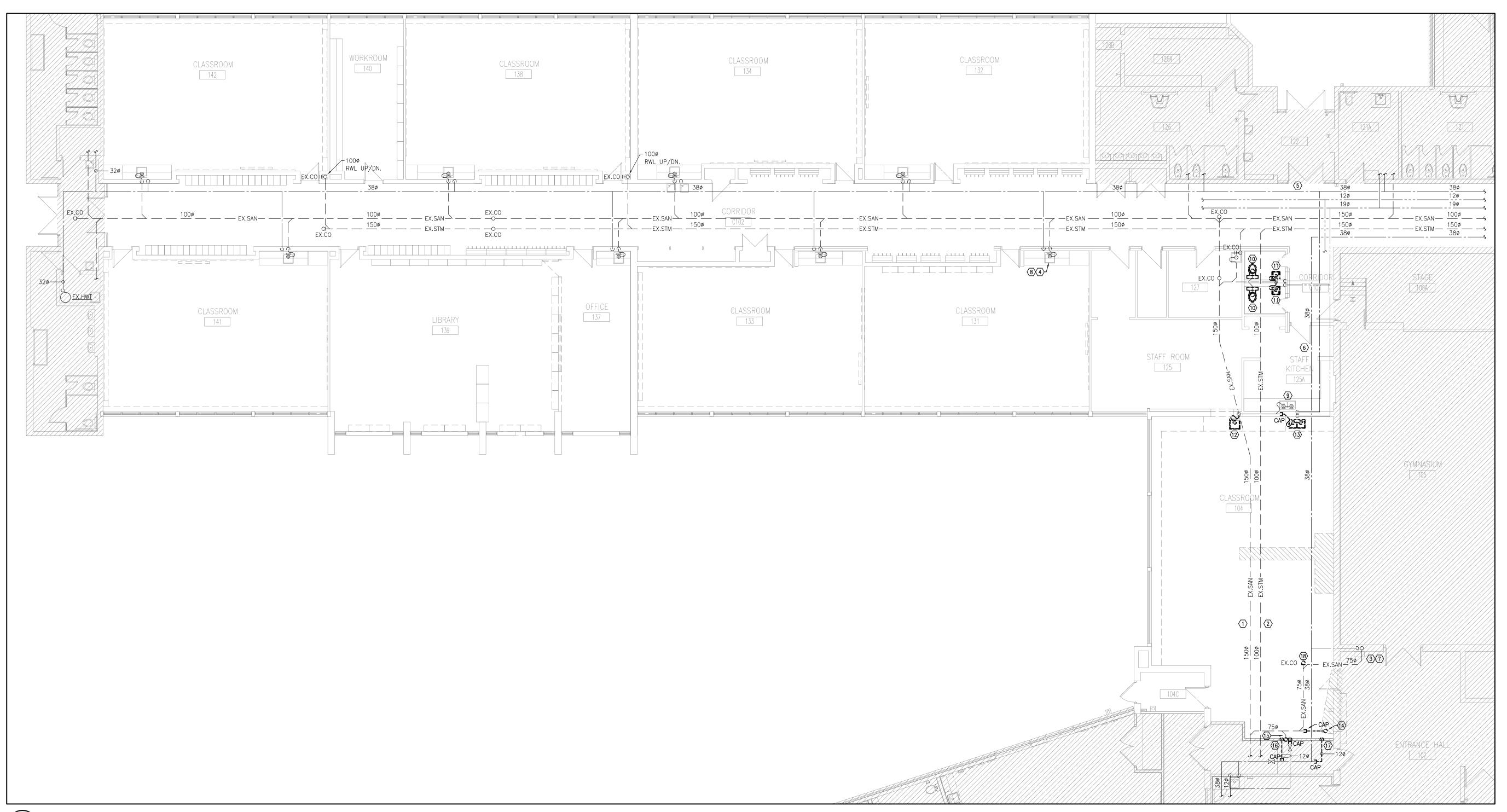
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JAN 2025 AS SHOWN

DESIGN BY:

CHECKED BY:



## PART GROUND FLOOR DEMOLITION PLAN - PLUMBING & DRAINAGE M-3.1 1:50

DEMOLITION NOTES

(1) APPROXIMATE LOCATION OF EXISTING UNDERGROUND SANITARY DRAINAGE PIPING. CONTRACTOR TO VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION. INCLUDE FOR SCOPING AND LOCATING SERVICES AS REQUIRED. PROVIDE A DRAWING INDICATING THE ROUTING, DIRECTIONS AND INVERTS OF EXISTING UNDERGROUND PIPING TO ENGINEER FOR REVIEW

- (2) EXISTING BURIED STORM DRAINAGE PIPING TO REMAIN (TYPICAL).
- (3) EXISTING SANITARY DRAINAGE PIPING SERVING DRINKING FOUNTAIN TO REMAIN (TYPICAL).
- (4) EXISTING SANITARY DRAINAGE PIPING SERVING SINK TO REMAIN (TYPICAL).
- (5) EXISTING DCW/DHW/DHWR PIPING IN CORRIDOR CEILING SPACE TO REMAIN (TYPICAL).
- 6 EXISTING DCW/DHW PIPING TO REMAIN (TYPICAL).
- (7) EXISTING DCW PIPING SERVING DRINKING FOUNTAIN TO REMAIN (TYPICAL).
- (8) EXISTING DCW PIPING SERVING SINK TO REMAIN (TYPICAL). (9) EXISTING DOUBLE-BOWL SINK IN STAFF ROOM 125 TO

CONSTRUCTION.

REMAIN. CONTRACTOR TO ENSURE SANITARY DRAINAGE AND DCW/DHW PIPING REMAINS IN GOOD CONDITION DURING

DEMOLITION NOTES

- (10) EXISTING TANK-TYPE WATER CLOSET TO BE REMOVED AND DISPOSED OF. PREPARE ROUGH-INS TO ACCEPT INSTALLATION OF NEW WATER CLOSET. (1) EXISTING WALL-MOUNT LAVATORY, ASSOCIATED P-TRAP,
- FLEXIBLE RISERS, MOUNTING HARDWARE, ETC. TO BE REMOVED AND DISPOSED OF. PREPARE ROUGH-INS TO ACCEPT INSTALLATION OF NEW LAVATORY. (12) EXISTING SINGLE BOWL SINK, ASSOCIATED P-TRAP, FLEXIBLE RISERS, ETC. TO BE REMOVED AND DISPOSED OF. CAP
- SANITARY DRAINAGE AND DCW/DHW PIPING WITHIN WALL SPACE. MAKE GOOD WALL PENETRATION TO BASE BUILDING STANDARDS. (13) EXISTING DOUBLE-BOWL SINK, ASSOCIATED P-TRAP, FLEXIBLE RISERS, ETC. TO BE REMOVED AND DISPOSED OF. CAP SANITARY DRAINAGE AND DCW/DHW PIPING WITHIN
- WALL SPACE. MAKE GOOD WALL OPENING TO BASE BUILDING STANDARDS. (14) EXISTING WATER CLOSET FLANGE TO BE REMOVED AND DISPOSED OF. EXISTING SANITARY DRAINAGE PIPING TO BE CAPPED BELOW SLAB. EXISTING VENT PIPING TO BE REMOVED AND DISPOSED OF. CAP VENT PIPING AT MAIN IN

CEILING SPACE. CONTRACTOR TO CONFIRM EXACT LOCATION

OF BURIED SANITARY DRAINAGE PIPING AND VENT PIPING

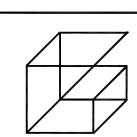
ON SITE PRIOR TO CONSTRUCTION.

#### DEMOLITION NOTES

- (15) EXISTING SANITARY DRAINAGE PIPING SERVING SINK ROUGH-IN TO BE REMOVED AND DISPOSED OF. EXISTING SANITARY DRAINAGE PIPING TO BE CAPPED IN WALL SPACE. EXISTING VENT PIPING TO BE REMOVED AND DISPOSED OF. CAP VENT PIPING AT MAIN IN CEILING SPACE. CONTRACTOR TO CONFIRM EXACT LOCATIONS OF BURIED SANITARY DRAINAGE PIPING AND VENT PIPING ON SITE PRIOR TO CONSTRUCTION.
- (16) EXISTING DCW/DHW PIPING SERVING SINK ROUGH-IN TO BE REMOVED BACK TO MAIN IN CEILING SPACE AND DISPOSED OF. CAP WHERE INDICATED. MAKE GOOD WALL OPENING TO BASE BUILDING STANDARDS.
- (17) EXISTING DCW PIPING SERVING WATER CLOSET ROUGH-IN TO BE REMOVED BACK TO MAIN IN CEILING SPACE AND DISPOSED OF. CAP WHERE INDICATED. MAKE GOOD WALL OPENING TO BASE BUILDING STANDARDS.
- (18) EXISTING CLEANOUT TO BE REMOVED AND DISPOSED OF. PREPARE CONNECTION FOR NEW SANITARY DRAINAGE PIPING.

#### GENERAL DRAINAGE NOTES

- ALL EXISTING SERVICES SHOWN ARE A GENERAL REPRESENTATION ONLY OF ACTUAL ONSITE CONDITIONS. CONTRACTOR TO VERIFY EXACT LOCATION OF EXISTING SERVICES PRIOR TO CONSTRUCTION AND REPORT ALL DISCREPANCIES TO ENGINEER IN A TIMELY MANNER.
- WHERE COMPONENTS ARE TO BE REUSED, THE CONTRACTOR SHALL CLEAN AND TEST THE COMPONENT TO ENSURE PROPER OPERATION. THE CONSULTANT SHALL BE NOTIFIED IN THE EVENT THERE IS A DEFICIENCY WITH THE COMPONENT.
- PERFORM DEMOLITION SO AS TO CAUSE MINIMAL DISTURBANCE TO OWNER AND/OR ADJACENT AREAS. MINIMIZE DUST AND NOISE AND PROVIDE TEMPORARY AIR FILTERS ON AIR HANDLING SYSTEMS AFFECTED BY THE AREA OF WORK. MAINTAIN SAFETY STANDARDS AND PROVIDE ADEQUATE SIGNAGE FOR BOTH WORKERS AND OCCUPANTS.
- THESE DRAWINGS HAVE BEEN PREPARED FOR DIV.22 AND DO NOT ACCURATELY DISPLAY ALL ELECTRICAL, STRUCTURAL, AND ARCHITECTURAL ELEMENTS. REFER TO OTHER DIVISIONS' DRAWINGS FOR CLARIFICATION.
- UNLESS OTHERWISE NOTED, ALL VENT PIPING ASSOCIATED WITH REMOVED PLUMBING FIXTURES SHALL BE COMPLETELY REMOVED AND CAPPED AT MAIN.



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NO			
NO.	ISSUES	DATE	ВҮ
1	ISSUED FOR REVIEW	FEB. 21 2025	RC
2	ISSUED FOR PERMIT & TENDER	MAR. 17 2025	SW

PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

**DRAWING:** 

PART GROUND FLOOR **DEMOLITION PLAN -**PLUMBING & DRAINAGE



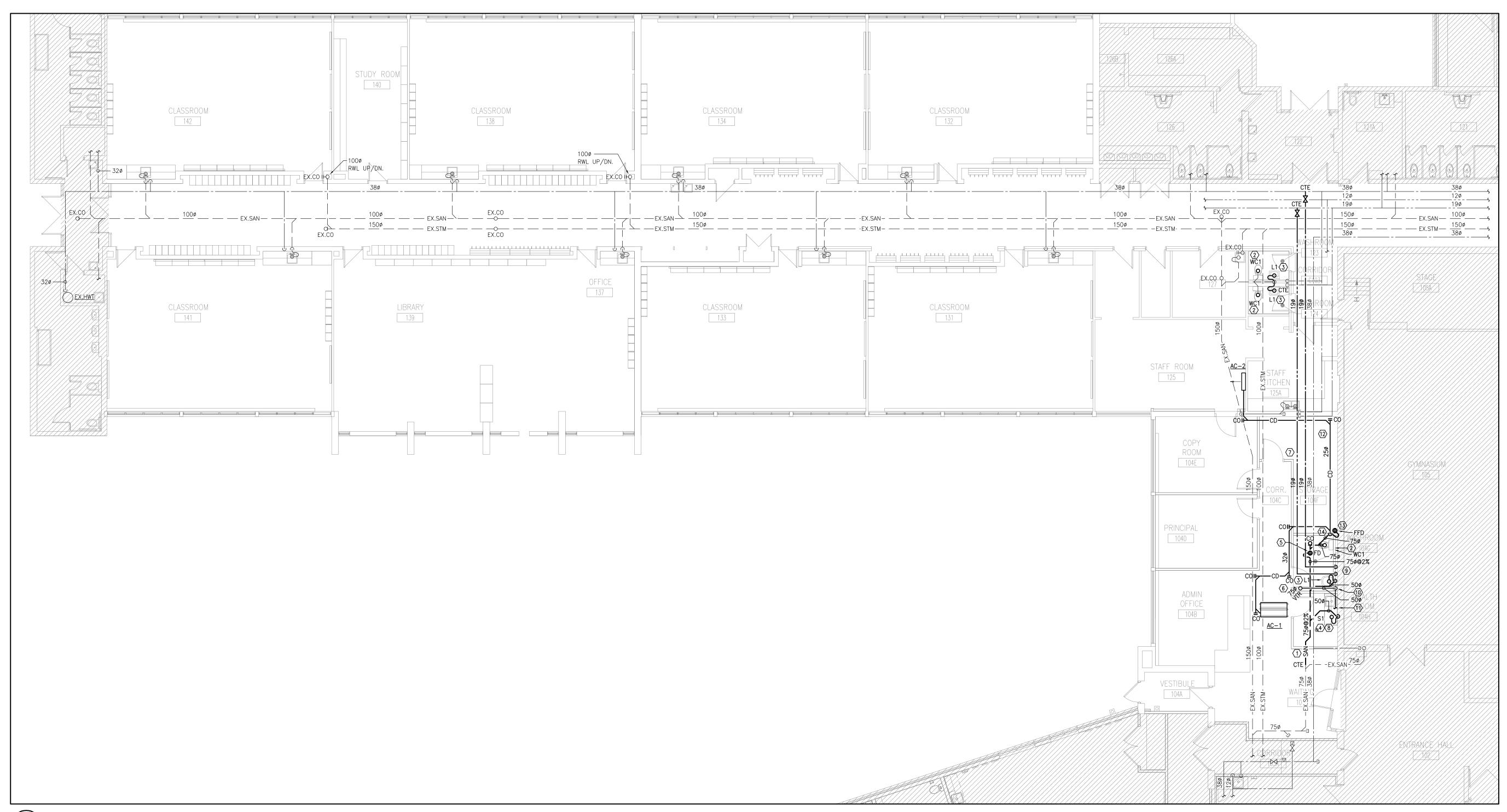
BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario

DESIGN BY: DOC CONTROL: % COMPLETE: DRAWN BY: CHECKED BY: JH JAN 2025

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24-182 M-3.1



PART GROUND FLOOR NEW PLAN - PLUMBING & DRAINAGE M-3.2 1:50

PLUMBING AND DRAINAGE NOTES

1 PROVIDE NEW UNDERGROUND SANITARY DRAINAGE PIPING AND CONNECT TO EXISTING WHERE SHOWN.

 $\langle \overline{2} \rangle$  PROVIDE NEW WATER CLOSET AS SPECIFIED.

(3) PROVIDE NEW WALL-MOUNTED LAVATORY AS SPECIFIED C/W P-TRAP, FLEXIBLE RISERS, ETC. MODIFY EXISTING/PROVIDE NEW SANITARY DRAINAGE PIPING AS REQUIRED TO SUIT NEW

4 PROVIDE NEW SINK AS SPECIFIED C/W P-TRAP, FLEXIBLE

5 PROVIDE NEW FLOOR DRAIN AS SPECIFIED C/W P-TRAP AND MECHANICAL TRAP SEAL PRIMING. EXACT LOCATION TO

BE COORDINATED ON SITE. (6) PROVIDE NEW VENT PIPING TO SERVE NEW PLUMBING FIXTURES IN WASHROOM 104G AND HEALTH ROOM 104H. DISTRIBUTE VENT PIPING IN ACCORDANCE WITH PART 7 OF

THE OBC. 7 PROVIDE NEW 190 DCW/DHW FROM MAIN CORRIDOR.

PLUMBING AND DRAINAGE NOTES

8 PROVIDE NEW 120 DCW/DHW FROM WALL CHASE IN WASHROOM 104G TO SINK AT LOW LEVEL IN MILLWORK OF HEALTH ROOM 104H.

9 PROVIDE NEW 120 DCW/DHW TO SERVE SINK, LAVATORY AND MECHANICAL TRAP SEAL PRIMER IN WALL CHASE OF WASHROOM 104G.

(10) 500 VENT PIPING DOWN SERVING S1, WC1, L1 AND FD. (11) RUN VENT PIPING SERVING S1 IN MILLWORK BELOW SINK. 12 PROVIDE NEW CONDENSATE DRAINAGE PIPING IN CEILING SPACE (TYPICAL).

(13) PROVIDE NEW FUNNEL FLOOR DRAIN AS SPECIFIED C/W MECHANICAL TRAP SEAL PRIMING. EXACT LOCATION TO BE COORDINATED ON SITE.

14 NEW CONDENSATE DRAINAGE PIPING DOWN IN WALL SPACE. STUB OUT OF WALL AT LOW LEVEL AND TERMINATE CONDENSATE DRAINAGE PIPING INDIRECTLY AT NEW FUNNEL FLOOR DRAIN. REFER TO DETAILS.

GENERAL DRAINAGE NOTES

PROVIDE VENTING SYSTEMS IN ACCORDANCE WITH PART 7 OF THE ONTARIO BUILDING CODE.

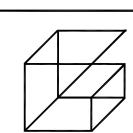
PROVIDE ADEQUATE ACCESS FOR ALL EQUIPMENT, VALVES, ETC. LOCATED BEHIND WALLS AND CEILINGS. REFER TO SPECIFICATIONS.

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DISCREPANCIES TO ENGINEER IN A TIMELY MANNER.

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PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

**DRAWING:** 

PART GROUND FLOOR NEW PLAN - PLUMBING & DRAINAGE



DOC CONTROL:

BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario

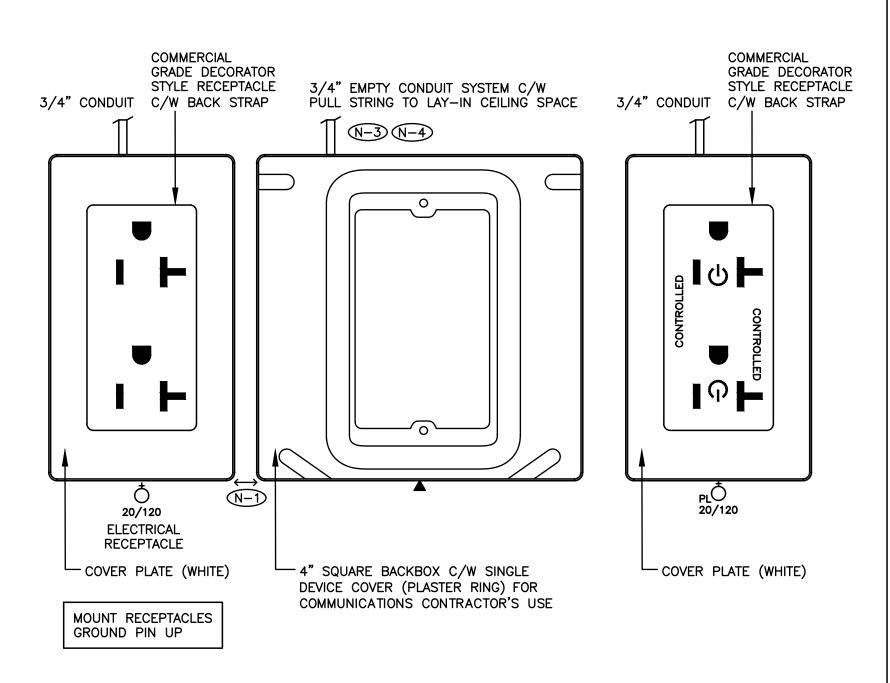
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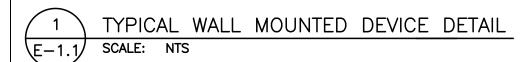
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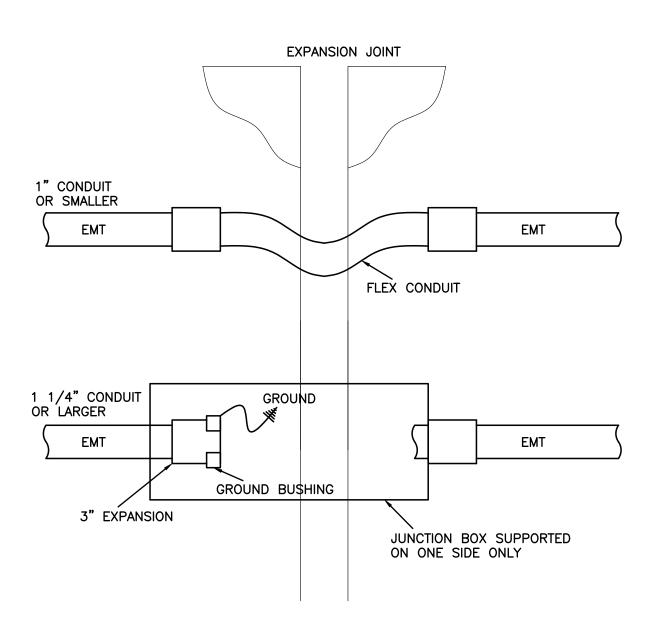
24-182 M-3.2



- N-1 MINIMUM CLEARANCE.
- N-2) NEATLY LABEL ALL FLOOR MOUNTED AND WALL DEVICE BOX COVERS WITH CORRESPONDING PANEL NAMES AND CIRCUIT NUMBERS, UTILIZE SELF ADHESIVE MECHANICALLY PRINTED LABELS.
- N-3 PROVIDE PUNCH OUTS IN BACKBOX TO ACCOMMODATE CONDUITS INDICATED.
- (N-4) TERMINATE CONDUIT WITH A 90 DEGREE BEND AND PLASTIC BUSHING IN THE ACCESSIBLE
- N-5) ALL RECEPTACLES PROVIDED AS PART OF THIS SCOPE OF WORK TO BE TAMPER RESISTANT TYPE UNLESS INDICATED OTHERWISE.

UTILITY CCT - WHITE RECEPTACLE





EXPANSION JOINT CROSSING DETAIL E-1.1 SCALE: NTS

## LEGEND

EXISTING CEILING MOUNTED/SUSPENDED FIXTURE CONNECTED TO BASE BUILDING UTILITY LIGHTING CIRCUIT. EXISTING CEILING MOUNTED/SUSPENDED FIXTURE

CONNECTED TO NON SWITCHED 24-HOUR NIGHT LIGHTING

CEILING MOUNTED/SUSPENDED FIXTURE. CONNECT TO BASE BUILDING UTILITY LIGHTING CIRCUIT.

CEILING MOUNTED/SUSPENDED FIXTURE. CONNECT TO NON SWITCHED 24-HOUR NIGHT LIGHTING CIRCUIT. RECESSED DOWNLIGHT/PENDANT FIXTURE. CONNECT TO

SWITCHED BASE BUILDING UTILITY LIGHTING CIRCUIT. RECESSED DOWNLIGHT/PENDANT FIXTURE. CONNECT TO NON SWITCHED 24-HOUR NIGHT LIGHTING CIRCUIT.

CEILING OR WALL MOUNTED "EXIT" LIGHT.

EMERGENCY BATTERY UNIT, TYPE 'D1', SOURCE 'M1'. BATTERY SHALL BE MOUNTED AT HIGH LEVEL. REMOTE EMERGENCY LIGHTING FIXTURE, TYPE 'D2' FED

FROM SOURCE 'M1'. WHITE DECORA STYLE LIGHT SWITCH, VOLTAGE AND CURRENT

RATINGS AS REQUIRED. WHITE DECORA STYLE LIGHT SWITCH C/W OCCUPANCY

SENSOR, VOLTAGE AND CURRENT RATINGS AS REQUIRED. WALL MOUNTED ROOM LIGHT SWITCH WATT STOPPER LMSW-2XX.

'OV1' DENOTES ONE (1) DIGITAL PUSH BUTTON. 'OV2' DENOTES TWO (2) DIGITAL PUSH BUTTONS. 'OV3' DENOTES THREE (3) DIGITAL PUSH BUTTONS. 'OV4' DENOTES FOUR (4) DIGITAL PUSH BUTTONS.

WALL MOUNTED AREA LIGHT SWITCH WATT STOPPER LMSW-2XX. 'OW1' DENOTES ONE (1) DIGITAL PUSH BUTTON. 'OW2' DENOTES TWO (2) DIGITAL PUSH BUTTONS. 'OW3' DENOTES THREE (3) DIGITAL PUSH BUTTONS. 'OW4' DENOTES FOUR (4) DIGITAL PUSH BUTTONS.

'TS' DENOTES WALL MOUNTED TIME SWITCH WATT STOPPER TS-400-24 C/W POWER PACK (VOLTAGE RATINGS TO SUIT LIGHTING LOADS) AND BOTH VISUAL AND AUDIBLE WARNING (TIMER PRESET AT 20 MINUTE TIME OUT SETTING).

15AMP/120VOLT, U-GROUND DUPLEX RECEPTACLE. GFI DENOTES OUTLET C/W GROUND FAULT INTERRUPT

RECEPTACLE, REQUIREMENT AS NOTED

20A/120V DUPLEX RECEPTACLE, TAMPER RESISTANT, CSA 5-20R (T-SLOT).

20A/120V PLUG LOAD CONTROLLED DUPLEX RECEPTACLE, +20/120 TAMPER RESISTANT, CSA 5-20R (T-SLOT). HUBBELL DR20C2WHITR SERIES.

DIRECT CONNECTION

/0/

NON-FUSED HORSEPOWER RATED VISIBLE BLADE HEAVY DUTY DISCONNECT SWITCH C/W PADLOCK PROVISION IN OFF

VISIBLE BLADE HEAVY DUTY DISCONNECT SWITCH C/W PADLOCK PROVISION IN OFF POSITION FUSED AT '15A'

COMBINATION STARTER C/W PADLOCK PROVISION IN OFF POSITION FUSED AT '15A', FUSES, OVERLOAD PROTECTION, 30A/15A/3P CONTROL TRANSFORMER, 2 NO AND 2 NC CONTACTS, PILOT LIGHT AND HOA. FUSED AT '15A'.

RP-A-X(D) CIRCUIT 'X' FED FROM RECEPTACLE PANEL 'A'. '(D)' DENOTES DESIGNATED CIRCUIT FOR ISOLATED GROUND DUPLEX RECEPTACLE.

RP-A-X(D) EXISTING CIRCUIT 'X' FED FROM RECEPTACLE PANEL 'A'. '(D)' DENOTES DESIGNATED CIRCUIT FOR ISOLATED GROUND DUPLEX RECEPTACLE.

4" SQUARE BACKBOX C/W SINGLE DEVICE COVER (PLASTER RING) AND 3/4" EMPTY ZONE CONDUIT ASSEMBLY FOR COMMUNICATIONS CONTRACTOR'S USE. PROVIDE A PULL STRING IN CONDUIT.

3 GANG BACKBOX C/W 3/4" EMPTY ZONE CONDUIT ASSEMBLY FOR A/V CONTRACTOR'S USE. PROVIDE A PULL STRING IN CONDUIT.

DENOTES EXISTING DEVICE TO REMAIN.

DENOTES EXISTING DEVICE TO BE REMOVED. REMOVE CONDUIT AND WIRE BACK TO SOURCE.

DENOTES EXISTING DEVICE IN RELOCATED POSITION.

PROVIDE CONDUIT AND WIRE BACK TO SOURCE. DENOTES EXISTING DEVICE TO REMAIN. RECIRCUIT AS SHOWN. REMOVE EXISTING CONDUIT AND WIRE BACK TO EXISTING SOURCE. PROVIDE CONDUIT AND WIRE BACK TO

DENOTES DEVICE COMPLETE WITH PROTECTIVE WIRE GUARD

DENOTES CEILING MOUNTED.

DENOTES SURFACE MOUNTED.

DENOTES DEVICE MOUNTED IN CLOCK PANEL.

DENOTES NEMA TYPE 4X ENCLOSURE SUITABLE FOR HOSE DIRECTED WATER.

DENOTES ROOF MOUNTED.

FIRE ALARM SYSTEM HORN. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM. RED IN COLOUR.

FIRE ALARM SYSTEM COMBINATION STROBE LIGHT/HORN. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM. RED IN

FIRE ALARM SYSTEM STROBE LIGHT. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM. RED IN COLOUR.

MANUAL PULL STATION. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.

SMOKE DETECTOR. CONNECT TO BASE BUILDING FIRE ALARM

HEAT DETECTOR. CONNECT TO BASE BUILDING FIRE ALARM

CONTROL ZONE MODULE. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.

ISOLATION MODULE. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.

INITIATING DEVICE INTERFACE ZONE MODULE. CONNECT TO BASE BUILDING FIRE ALARM SYSTEM.

END OF LINE RESISTOR. CONNECT TO BASE BUILDING FIRE

WALL/CEILING MOUNTED PUBLIC ADDRESS SYSTEM PAGING SPEAKER. CONNECT TO PUBLIC ADDRESS SYSTEM. "CS"

DENOTES DEVICE C/W CALL SWITCH. HANDSET. CONNECT TO PUBLIC ADDRESS SYSTEM.

LOCKDOWN BUTTON. CONNECT TO PUBLIC ADDRESS SYSTEM.

MICROPHONE. CONNECT TO PUBLIC ADDRESS SYSTEM. ADMINISTRATIVE CONTROL CONSOLE. CONNECT TO PUBLIC

ADDRESS SYSTEM. ROOM CEILING MOUNTED OCCUPANCY SENSOR WATT STOPPER LMDC-100. SENSOR PRESET AT 20 MINUTE TIME OUT SETTING C/W MANUAL ON AND AUTO OFF AND

DEFAULT DETECTION TECHNOLOGY SETTING. OPEN AREA CEILING MOUNTED OCCUPANCY SENSOR WATT STOPPER LMDC-100. SENSOR PRESET AT 20 MINUTE TIME OUT SETTING C/W MANUAL ON AND AUTO OFF AND

NON-SWITCHED CORRIDOR CEILING MOUNTED OCCUPANCY SENSOR WATT STOPPER LMDC-100. SENSOR PRESET AT 20 MINUTE TIME OUT SETTING C/W AUTO ON AND AUTO OFF WALK THROUGH MODE ON AND DEFAULT SETTING.

DEFAULT DETECTION TECHNOLOGY SETTING.

DIGITAL ON/OFF/DIMMING ROOM CONTROLLER WATT STOPPER LMRC-212/LMRC-212-347 (VOLTAGE RATING AS REQUIRED TO SUIT LIGHTING LOAD).

DIGITAL DIMMING ROOM CONTROLLER WATT STOPPER 120V LINE VOLTAGE LMRC-222.

DIGITAL PLUG LOAD CONTROLLER WATT STOPPER LMPL-101

THERMOSTAT SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE CONDUIT AND WIRE.

WIRED INTRUSION SYSTEM MOTION SENSOR. CONNECT TO INTRUSION SYSTEM.

EXISTING INTERCOM DOOR STATION, AIPHONE C-123 SERIES

EXISTING INTERCOM MASTER STATION AIPHONE C-123 SERIES C-ML/D C/W MULTIPLE DOOR RELEASE ADAPTER

EXISTING ELECTRIC LOCK C/W REMOTE DOOR RELEASE.

WIRELESS ACCESS POINT C/W CONDUIT SYSTEM CCTV CAMERA C/W CONDUIT SYSTEM

DIGITAL PHOTOS

AS PART OF THIS SCOPE OF WORK ELECTRICAL CONTRACTOR MUST PROVIDE DIGITAL PHOTOS OF WORK IN PROGRESS ON A WEEKLY BASIS. SUBSTITUTES ARE NOT PERMITTED FOR ALL SPECIFIED PRODUCTS.

SHOP DRAWINGS ARE REQUIRED FOR ALL PRODUCTS SPECIFIED FOR THIS PROJECT INCLUDING BUT NOT LIMITED TO LIGHTING CONTROL SYSTEM, ELECTRICAL DISTRIBUTION, RECEPTACLE PANELS, LIGHTING FIXTURES, EXIT SIGNS, EMERGENCY LIGHTING SYSTEMS, FIRE ALARM SYSTEMS, PUBLIC ADDRESS SYSTEM, ACCESS CONTROL SYSTEM, INTRUSION SYSTEM, VIDEO INTERCOM SYSTEM, RECEPTACLES AND COVER PLATES.

ELECTRICAL CONTRACTOR AND ALL SUBCONTRACTORS MUST READ AND COMPLY WITH ELECTRICAL SPECIFICATIONS (ISSUED AS A SEPARATE DOCUMENT).

CIRCUITING MUST BE COMPLETED AS SHOWN ON DRAWINGS. DO NOT CHANGE CIRCUIT NUMBERS.

INSTALLATION OF ALL DEVICES AND SERVICES INCLUDING DISTRIBUTION, LIGHT FIXTURES, FEEDERS, BRANCH CIRCUITS, VARIOUS SYSTEMS, ETC. MUST COMPLY WITH ALL LOCAL SEISMIC RESTRAINT REQUIREMENTS.

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, MOUNTING HEIGHTS, CONSTRUCTION DETAILS, LOCATION OF LIGHT FIXTURES, FINISHES AND COLOURS.

AS PART OF THIS SCOPE OF WORK AND PRIOR TO CONSTRUCTION, ELECTRICAL CONTRACTOR SHALL COORDINATE AND PAY FOR THE SERVICES OF THE FIRE ALARM MANUFACTURER, FIRE INSPECTOR AND BUILDING INSPECTOR TO THOROUGHLY REVIEW THE PROPOSED INSTALLATION LOCATIONS FOR EACH AND EVERY CONTROL PANEL. REMOTE ANNUNCIATOR PANEL, ANCILLARY DEVICE, FIELD DEVICE, ETC TO ENSURE THAT THE PROPOSED INSTALLATION IS FULLY COMPLIANT WITH CAN/ULC S524:2019 AND ONTARIO BUILDING CODE. COMPLIANCE SHALL INCLUDE INTERFERENCE AND PROXIMITY TO EXISTING DEVICES AND OBSTRUCTIONS (INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, SUPPLY AIR DUCTS, EXPOSED DUCT WORK, BEAMS, RACEWAYS, ETC.), SPACING BETWEEN FIELD DEVICES PROVIDED AS PART OF THIS SCOPE OF WORK IN PROPOSED INSTALLATION LOCATIONS, ETC..

AS PART OF THIS SCOPE OF WORK AND PRIOR TO CONSTRUCTION, ELECTRICAL CONTRACTOR SHALL COORDINATE AND PAY FOR THE SERVICES OF THE BUILDING INSPECTOR TO REVIEW THE PROPOSED

ALL DEMOLITION SCOPES OF WORK ARE TO BE ERASED FROM

EXIT SIGN ORIENTATION, LOCATIONS, FACES AND CHEVRONS. AS BUILT DRAWING REQUIREMENTS: AS BUILT DRAWINGS TO BE PREPARED AND SUBMITTED IN AUTOCAD

FORMAT BY THE ELECTRICAL CONTRACTOR.

AS BUILT DRAWINGS. ROUTING OF ALL FEEDERS, BRANCH WIRING (LIGHTING, EMERGENCY LIGHTING, POWER, ETC.), LOW VOLTAGE WIRING, MISCELLANEOUS SYSTEMS WIRING, MISCELLANEOUS CONDUIT SYSTEMS, ETC, TO BE SHOWN ON AS BUILT DRAWINGS. REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL

AS PART OF THE BASE BID PRICE ELECTRICAL CONTRACTOR SHALL PROVIDE A FIRE WATCH AS REQUIRED THROUGHOUT THE DURATION OF THE PROJECT.

REQUIREMENTS AND FOR COSTS TO OBTAIN CAD FILES.

. DUST CONTROL IS REQUIRED ON ALL FLOORS IN THE FACILITY. 2. THE FOLLOWING REQUIREMENTS MUST BE STRICTLY ADHERED TO: 1. LIMIT THE NUMBER OF CEILING TILES REMOVED ON A FLOOR AT ANY GIVEN TIME.

VACUUM PERIMETER OF T-BAR PRIOR TO REMOVAL OF A CEILING TILE.

3. ATTACH VACUUMS TO ALL DRILLS.

ALL SCOPES OF WORK REQUIRED TO BE COMPLETED IN OCCUPIED AREAS OF THE FACILITY INCLUDING WORK RELATED TO DEFICIENCIES MUST BE COMPLETED BETWEEN 4PM AND 11PM DURING THE WEEK. REMOVAL AND REINSTALLATION OF CEILING TILES TO ACCOMMODATE ALL SCOPES OF WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

ALL PANEL SCHEDULE DIRECTORIES MUST BE UPDATED AND TYPEWRITTEN PANEL SCHEDULE DIRECTORIES MUST BE PROVIDED. SELF-ADHESIVE LABELING TAPE MUST BE USED FOR ALL LABELING AT ALL OUTLETS. LAMACOIDS MUST BE USED FOR LABELING OF ALL ELECTRICAL ENCLOSURES.

14. THE CONTRACTOR MUST ENSURE THAT FIRESTOPPING AND SEALANTS ARE INSTALLED AT NEW FLOOR OPENINGS IN ACCORDANCE WITH THE CURRENT FIRE CODE REQUIREMENTS AND TO PREVENT WATER LEAKAGE TO THE FLOORS BELOW. AREAS PRONE TO WATER LEAKAGE ARE TO BE WATERPROOFED PRIOR TO INSTALLATION OF THE TENANT FLOOR COVERINGS. THE LANDLORD WILL APPROVE THE PROPOSED WATERPROOFING METHOD PRIOR TO THE TENANT PROCEEDING WITH CONSTRUCTION. REFER TO SPECIFICATIONS FOR ADDITIONAL FIRESTOPPING REQUIREMENTS.

PROVIDE A REPORT FROM THE MANUFACTURER FOR ALL FIRESTOP ASSEMBLIES PROVIDED AS PART OF THIS SCOPE OF WORK. REPORT MUST DETAIL COMPLIANCE WITH ONTARIO BUILDING BY-LAW AND ONTARIO BUILDING CODE.

DRAWING LIST

E-1.1 - ELECTRICAL LEGEND AND DETAILS

E-1.2 - ELECTRICAL DETAILS

E-1.3 - ELECTRICAL DETAILS

E-1.4 - ELECTRICAL DETAILS

E-1.5 - ELECTRICAL DETAILS

E-2.1 - ELECTRICAL PLAN

E-2.0 - ELECTRICAL FACILITY PLAN

E-2.2 - ELECTRICAL ROOF PLAN

E-3.1 - REFLECTED CEILING PLAN

E-5.1 - ELECTRICAL DEMOLITION PLAN

E-6.1 - REFLECTED CEILING DEMOLITION PLAN

E-7.1 - ELECTRICAL SINGLE LINE DIAGRAM

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> HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600

TORONTO, ONTARIO, M4P 3A2

Tel: (416) 932-2423

ISSUED FOR PERMIT AND TENDER MAR12/25 KZ

DATE BY NO. REVISIONS H.D. COHEN

PROJECT:

#### RENOVATIONS AT **ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

HCC Project Number# 24273

DRAWING:

**ELECTRICAL LEGEND** AND DETAILS



BARRY BRYAN **ASSOCIATES** Architects Engineers Project Managers

250 Water Street Suite 201 Whitby, Ontario

L1N 0G5 Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

> DRAWING NO: E-1.1

FILE:

DESIGN BY:

DRAWN BY:

CHECKED BY:

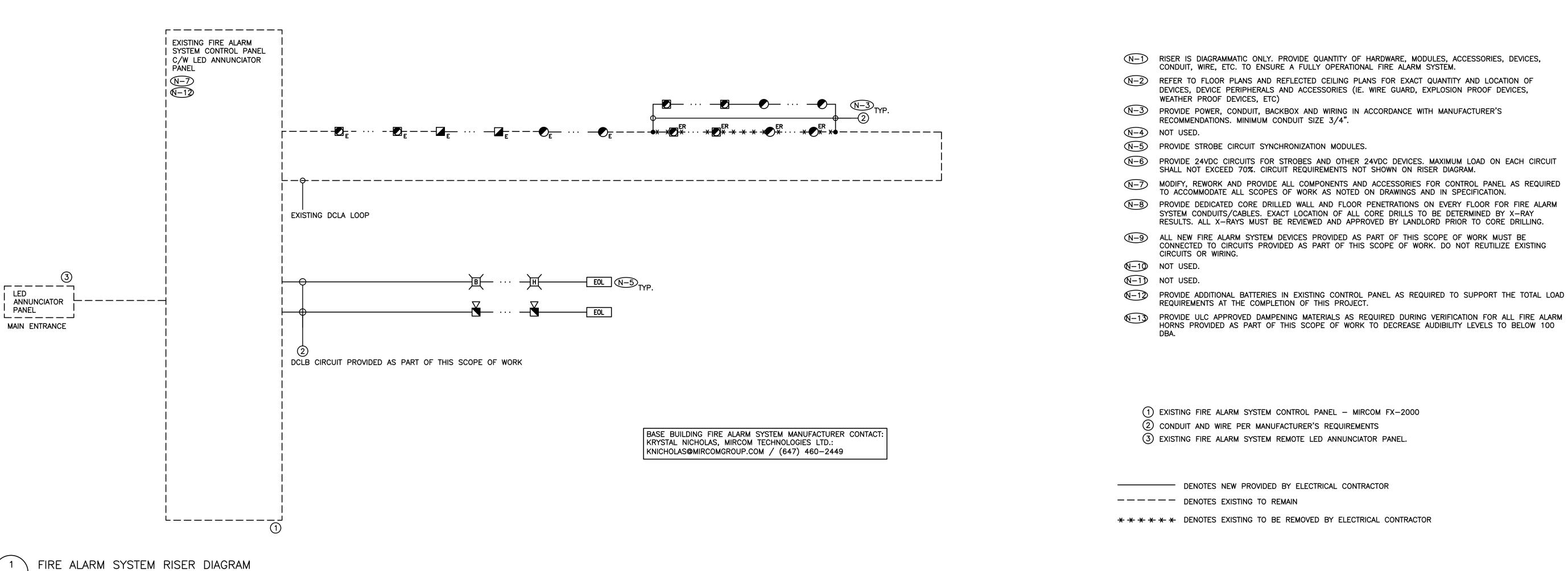
JANUARY, 2025

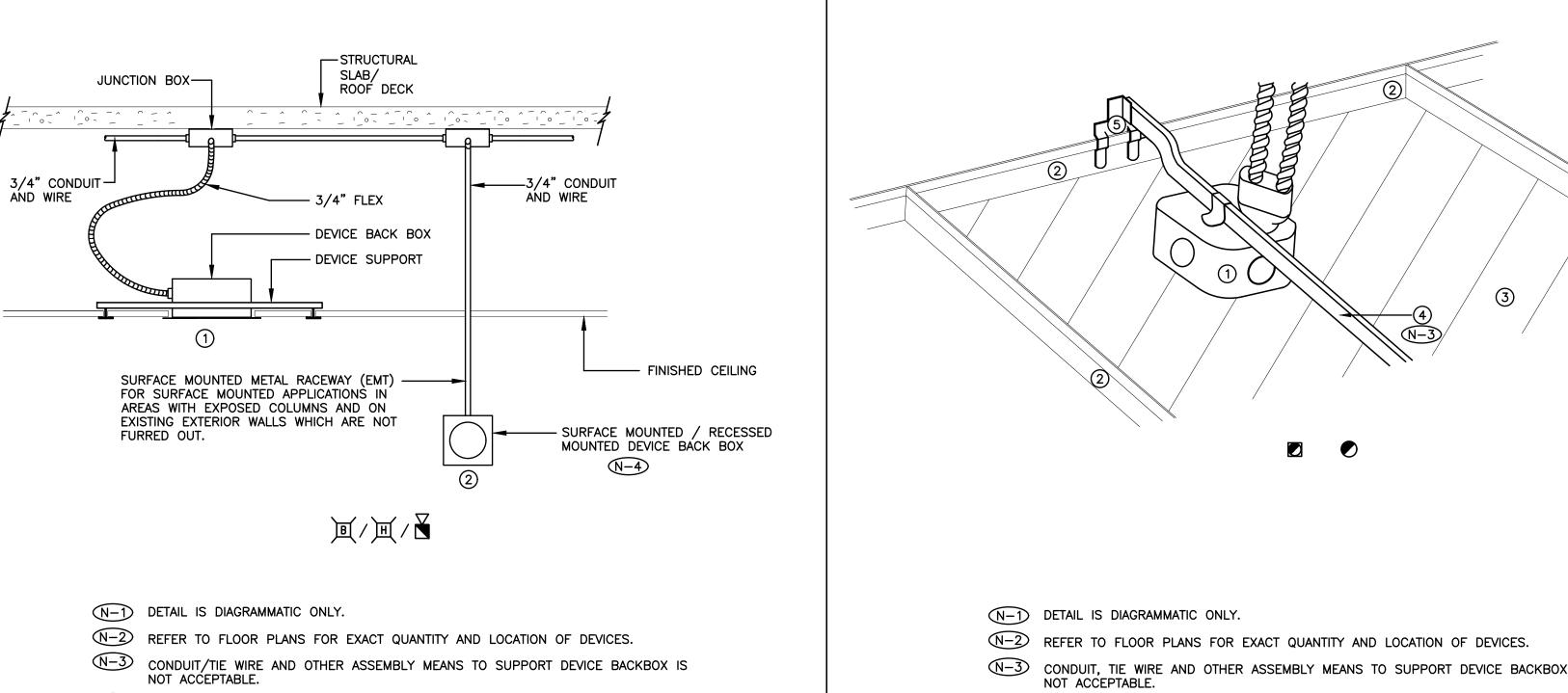
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PROJECT NO: 24194





E-1.2 SCALE: NTS

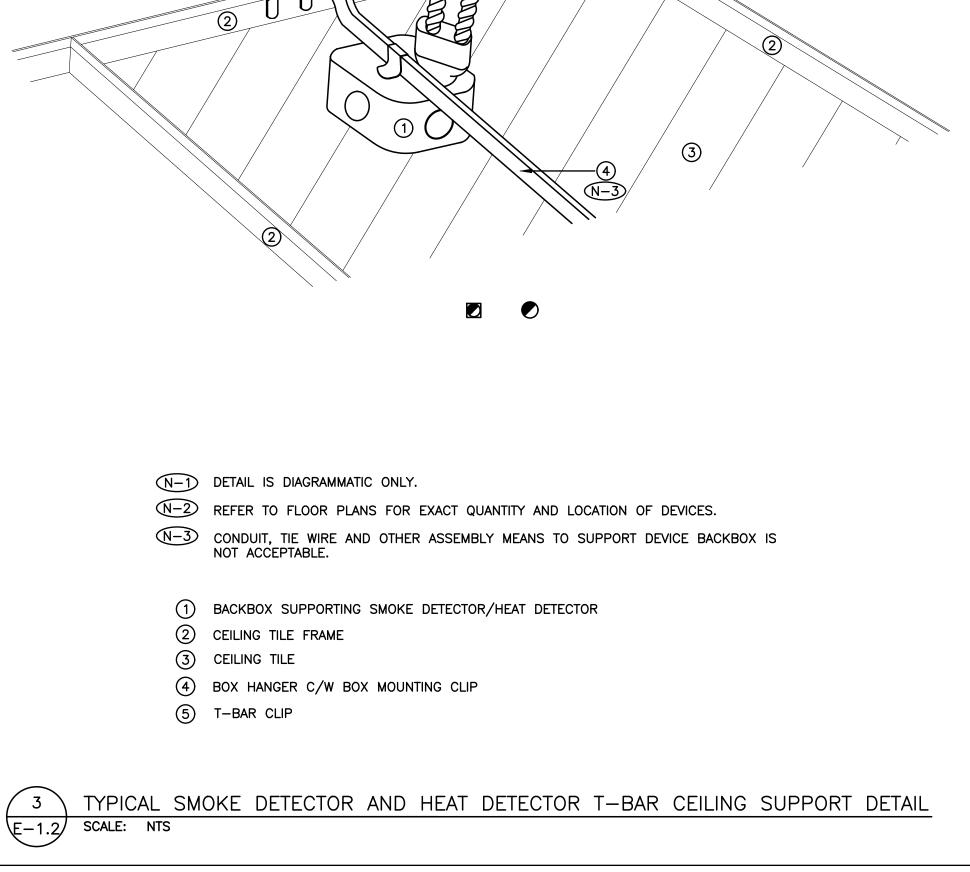
E-1.2 SCALE: NTS

N-4 ALL SURFACE / RECESSED MOUNTED DEVICES TO BE RECESSED MOUNTED FOR ALL INTERIOR PARTITIONS.

WALL/CEILING MOUNTED FIRE ALARM SYSTEM SIGNALLING DEVICE DETAIL

2 SURFACE / RECESSED MOUNTED FIRE ALARM SYSTEM SIGNALLING DEVICE.

(1) CEILING MOUNTED FIRE ALARM SYSTEM SIGNALLING DEVICE.



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NO.	ISSUES	DATE	BY
1.	ISSUED FOR COORDINATION	FEB21/25	KZ
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DATE BY NO. REVISIONS



PROJECT:

### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

HCC Project Number# 24273

DRAWING:

**ELECTRICAL DETAILS** 



**ASSOCIATES** Architects Engineers Project Managers 250 Water Street Suite 201

% COMPLETE: DRAWN BY: CHECKED BY: Whitby, Ontario JANUARY, 2025

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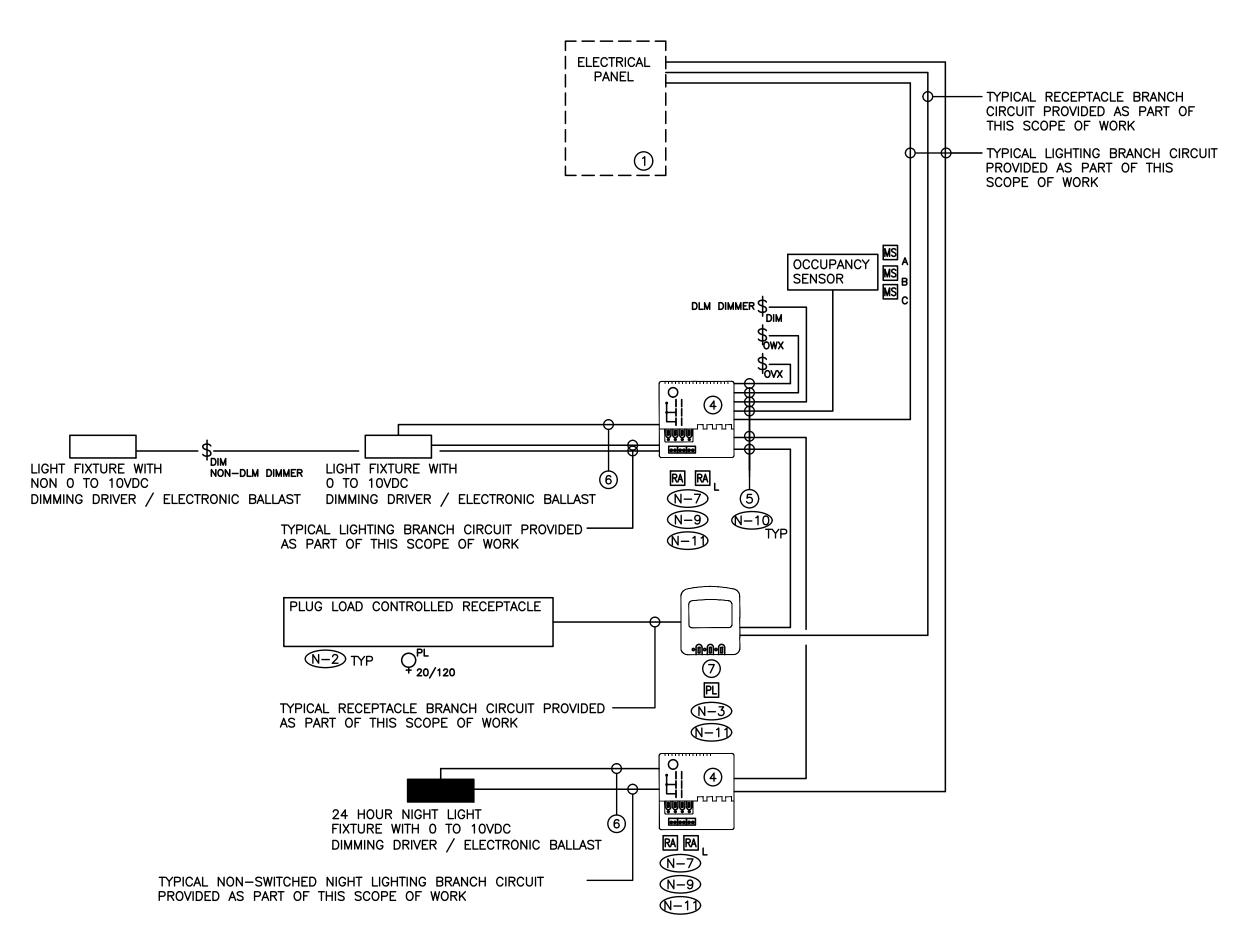
PROJECT NO:

FILE: DRAWING NO:

AS SHOWN

24194

E-1.2



SCHEMATIC IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS AND REFLECTED CEILING PLANS FOR DEVICE QUANTITY AND LOCATIONS. PROVIDE QUANTITY OF HARDWARE, ROOM CONTROLLERS, PLUG LOAD CONTROLLERS, SENSORS, DEVICES, CONDUIT, WIRE, CONFIGURATION TOOLS, ETC. TO ENSURE A FULLY OPERATIONAL LOW VOLTAGE LIGHTING CONTROL SYSTEM.

N-2 ALL CONTROLLED RECEPTACLES SHALL BE PERMANENTLY MARKED TO VISUALLY DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLES.

N-3 PLUG LOAD CONTROLLERS TO BE INSTALLED IN CEILING MOUNTED JUNCTION BOXES.

ALL LOW VOLTAGE WIRING TO BE INSTALLED IN AN ENCLOSED CONDUIT SYSTEM.

PROVIDE POWER, CONDUIT, BACKBOX AND WIRING IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. MINIMUM CONDUIT SIZE

PROVIDE DEDICATED CORE DRILLED WALL AND FLOOR PENETRATIONS ON EVERY FLOOR. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAY RESULTS. ALL X-RAYS MUST BE REVIEWED AND APPROVED BY LANDLORD PRIOR TO CORE DRILLING.

N-7) PROVIDE ROOM CONTROLLERS TO ACCOMMODATE ALL LIGHTING ZONES IN CLOSED ROOMS (IE. OFFICES, MEETING ROOMS, ETC.) PROVIDED AS PART OF THIS SCOPE OF WORK. MAXIMUM OF TWO (2) SWITCH LEGS PER ROOM CONTROLLER.

N-8 NOT USED.

JUNCTION BOXES.

N-9 ROOM CONTROLLERS TO BE INSTALLED IN CEILING MOUNTED

TERMINATE AND TEST ALL LOW VOLTAGE CONTROL CABLES PROVIDED AS PART OF THIS SCOPE OF WORK. PROVIDE TEST RESULTS FOR ALL LOW VOLTAGE CONTROL CABLES PROVIDED AS PART OF THIS SCOPE OF WORK AT THE END OF CONSTRUCTION. TEST RESULTS SHALL BE INCLUDED AS PART OF THE CLOSE OUT DOCUMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

ADDITIONAL INSTALLATION REQUIREMENTS OVER AND ABOVE THOSE DETAILS ON THIS SCHEMATIC.

 $\sqrt{-12}$  NOT USED.

 $(\sqrt{-13})$  NOT USED.

PROVIDE POWER PACKS, AS REQUIRED FOR A FULLY OPERATIONAL SYSTEM. POWER PACKS NOT SHOWN ON REFLECTED CEILING PLANS.

ELECTRICAL CONTRACTOR'S BASE BID PRICE SHALL INCLUDE FOUR (4) HOURS OF ON SITE COORDINATION TIME WITH LIGHTING CONTROL SYSTEM MANUFACTURER PRIOR TO ORDERING LIGHTING SYSTEM COMPONENTS TO CONFIRM DEVICES AND WIRING REQUIREMENTS. ALL CHANGES TO BE REVIEWED AND APPROVED BY CONSULTANT ON SITE PRIOR TO EXECUTION.

N-16 LIGHT LEVEL OUTPUT (IE, DIMMING LEVEL) FOR EACH AND EVERY FIXTURE PROVIDED AS PART OF THIS SCOPE OF WORK IN ROOMS/AREAS/CORRIDORS/ETC., WITH DLM CONTROL TO BE FIELD ADJUSTED ON SITE WITH CLIENT POST OCCUPANCY. TARGET LIGHT LEVELS FOR EACH LOW VOLTAGE LIGHTING ZONE TO BE PROVIDED BY THE CLIENT POST OCCUPANCY. PROCURE (COORDINATE AND PAY FOR) THE SERVICES OF WATTSTOPPER TO ADJUST, PROGRAM AND COMMISSION THE LIGHTING CONTROL SYSTEM.

> AS PART OF THIS SCOPE OF WORK PROCURE THE SERVICES OF A THIRD PARTY PROFESSIONAL ENGINEER TO MEASURE AND RECORD LIGHTING LEVELS IN FOOT CANDLES THROUGHOUT THE ENTIRE SCOPES OF WORK AREAS WITH A CALIBRATED LIGHT METER, AFTER ALL FIELD ADJUSTMENTS HAVE BEEN COMPLETED. READINGS SHALL BE TAKEN BASED ON A MINIMUM OF ONE READING FOR EVERY 20' CENTER IN OPEN OFFICE AREAS AND CORRIDORS / HALLWAYS AND ONE READING IN EACH CLOSED OFFICE, MEETING ROOM, BOARDROOM, ETC. ALL LIGHT LEVEL READINGS ARE TO BE TAKEN DURING NON-DAYLIGHT HOURS. PROVIDE A SEALED REPORT IDENTIFYING LIGHT LEVEL READINGS.

INSTALL LOW VOLTAGE CONTROL SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, ASHRAE 90.1 2016, ONTARIO BUILDING CODE, ELECTRICAL SAFETY CODE AND THESE DOCUMENTS.

1 TYPICAL RECEPTACLE / LIGHTING PANEL. REFER TO DRAWING NO. E-7.1 FOR ADDITIONAL REQUIREMENTS

(2) NOT USED

(3) NOT USED

4 ON / OFF / DIMMING ROOM CONTROLLER

(5) PLENUM RATED 4 PAIR CAT6 UTP CABLE AS MANUFACTURED BY LIGHTING CONTROL SYSTEM MANUFACTURER

(6) O TO 10VDC CONTROL WIRING PER MANUFACTURER'S RECOMMENDATIONS

7) PLUG LOAD CONTROLLER

—— DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR

X-X-X-DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

(E-1.3) SCALE: NTS

FIXTURE SCHEDULE

TYPE A1 - 3000 LUMEN 2' X 4' RECESSED LED FIXTURE SUITABLE FOR LAY-IN CEILING C/W IN LINE POWER DISCONNECT, POWER SUPPLY, 120V 0 TO 10VDC DIMMING DRIVER AND LAMP (4000K/80% CRI). COOPER 24EN-LD2-30-UNV-L840-CD1-U

LOW VOLTAGE LIGHTING CONTROL SYSTEM WIRING SCHEMATIC

TYPE A2 - 3000 LUMEN 2' X 2' RECESSED LED FIXTURE SUITABLE FOR LAY-IN CEILING C/W IN LINE POWER DISCONNECT, POWER SUPPLY, 120V 0 TO 10VDC DIMMING DRIVER AND LAMP (4000K/80% CRI). COOPER 22EN-LD2-30-UNV-L840-CD1-U

TYPE B1 - 1500 LUMEN 4" LED RECESSED ROUND DOWNLIGHT SUITABLE FOR DRYWALL CEILING C/W IN LINE POWER DISCONNECT, 120V 0 TO 10VDC DIMMING ELECTRONIC DRIVER AND WIDE BEAM LAMP (4000K 90%CRI). COOPER LIGHTING PORTFOLIO LD4C15D010-EU4C10209040-

TYPE B2 - 2124 LUMEN 4" LED RECESSED ROUND DOWNLIGHT SUITABLE FOR DRYWALL CEILING C/W IN LINE POWER DISCONNECT, 120V 0 TO 10VDC DIMMING ELECTRONIC DRIVER AND WIDE BEAM LAMP.

TYPE C1 - 4500 LUMENS 4' SURFACE MOUNTED LINEAR LED FIXTURE C/W IN LINE POWER DISCONNECT, 120V 0 TO 10VDC DIMMING DRIVER, ACRYLIC FROSTED LENS AND LED LAMPS (4000K/80%CRI). COOPER LIGHTING WRAP SERIES 4AWWS-L3C3-NUV-4000K-LOW.

TYPE LE1 - 4000 LUMEN 2' X 4' RECESSED LED FIXTURE SUITABLE FOR LAY-IN CEILING C/W IN LINE POWER DISCONNECT. POWER SUPPLY, 120V 0 TO 10VDC DIMMING DRIVER AND LAMP.

TYPE LE3 - 1' X 4' SURFACE MOUNTED FLUORESCENT FIXTURE C/W IN LINE POWER DISCONNECT, 120V BALLAST, ACRYLIC LENS AND 2 X T8 LAMPS

TYPE LE3B - 18" X 4' SURFACE MOUNTED FLUORESCENT FIXTURE C/W IN LINE POWER DISCONNECT, 120V BALLAST, ACRYLIC LENS AND 2 X T8 LAMPS

TYPE LE3R - 1' X 4' RECESSED MOUNTED FLUORESCENT FIXTURE C/W IN LINE POWER DISCONNECT, 120V BALLAST, ACRYLIC LENS AND 2 X T8 LAMPS

TYPE LE6 - 4' SUSPENDED FLUORESCENT FIXTURE C/W IN LINE POWER DISCONNECT, 120V BALLAST, ACRYLIC LENS AND 1 X T8 LAMP

TYPE LE6B - 4' SUSPENDED FLUORESCENT FIXTURE C/W IN LINE POWER DISCONNECT, 120V BALLAST, ACRYLIC LENS AND 2 X T8 LAMP

TYPE LE7 - 4' SUSPENDED FLUORESCENT FIXTURE C/W IN LINE POWER DISCONNECT, 120V BALLAST, ANGLED ACRYLIC LENS AND 1 X T8 LAMP

TYPE LES - 2' X 4' SURFACE MOUNTED FLUORESCENT FIXTURE C/W IN LINE POWER DISCONNECT,

TYPE LE9 - 2' X 4' SURFACE MOUNTED FLUORESCENT FIXTURE C/W IN LINE POWER DISCONNECT, 120V BALLAST, ACRYLIC LENS AND 6 X T8 LAMP

120V BALLAST, ACRYLIC LENS AND 6 X T8 LAMP

TYPE D1 - EMERGENCY LIGHTING SYSTEM C/W 10 YEAR 24VOLT/720W/0.5 HOUR/BATTERY UNIT/

TYPE D2 - 2 X 4W MR16 LED 24V LUMACELL SIGNATURE COLLECTION OR STANPRO M SERIES

DAYLIGHT HARVESTING SENSORS ARE NOT SPECIFIED FOR CLASSROOMS TO ENSURE UNINTERRUPTED OPERATIONS.

TYPE D3 - 1 X 4W MR16 LED 24V LUMACELL SIGNATURE COLLECTION OR STANPRO M SERIES

TYPE D4 - 2 X 6W MR16 LED 24V LUMACELL SIGNATURE COLLECTION OR STANPRO M SERIES

REMOTE HEADS, WHITE IN COLOUR.

TYPE D10 - EMERGENCY LIGHTING SYSTEM BATTERY UNIT C/W 2 X REMOTE DC HEADS.

TYPE E1 - PICTOGRAM WHITE LED EXIT SIGN C/W LUMACELL EZ2 CANOPY. LUMACELL LA-3 SERIES OR STANPRO RMXL PICTOGRAM EXTRUDED ALUMINUM EXIT SIGN C/W 120/347VAC/24VDC

———— DENOTES EXISTING TO REMAIN

NO. | REVISIONS

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NO. ISSUES

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**PROJECT:** 

#### **RENOVATIONS AT ECOLE ELEMENTAIRE** FELIX-LECLERC

50 CELESTINE DRIVE TORONTO, ON

HCC Project Number# 24273

DRAWING:

**ELECTRICAL DETAILS** 



BARRY BRYAN **ASSOCIATES** Architects Engineers Project Managers

250 Water Street Suite 201 Whitby, Ontario L1N 0G5 Tel: (905) 666-5252

CHECKED BY: JANUARY, 2025 AS SHOWN FILE:

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% COMPLETE:

DESIGN BY:

DRAWN BY:

PROJECT NO: 24194

Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

> DRAWING NO: E-1.3

FIXTURE SCHEDULE \E-1.3/ SCALE: NTS

120/347 VOLT INPUT ONTO TERMINAL BLOCK/LUMACELL RGS24S720-TMBK OR STANPRO SLD SERIES SLD-24-720-00-X-WH-ACTB/WHITE IN COLOUR.

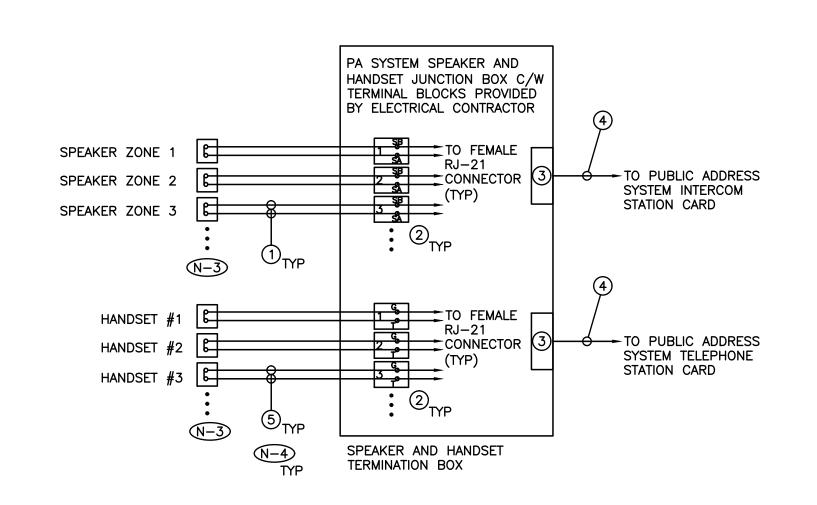
REMOTE HEADS, WHITE IN COLOUR.

REMOTE HEAD, WHITE IN COLOUR.

TYPE D7 - 1 X REMOTE DC HEAD

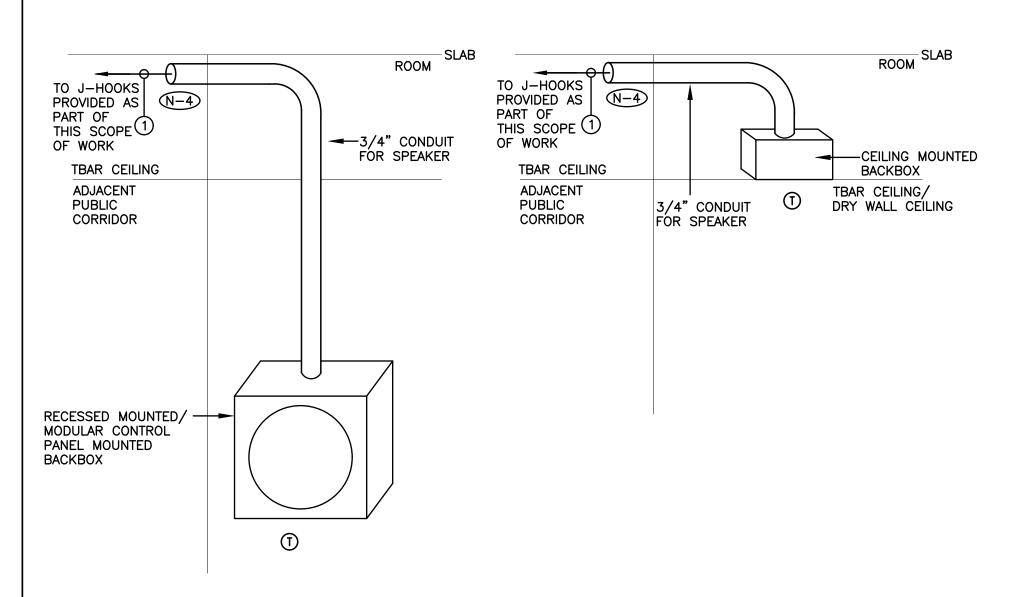
TYPE D8 - 2 X REMOTE DC HEADS

TYPE E2 - PICTOGRAM WHITE LED EXIT SIGN



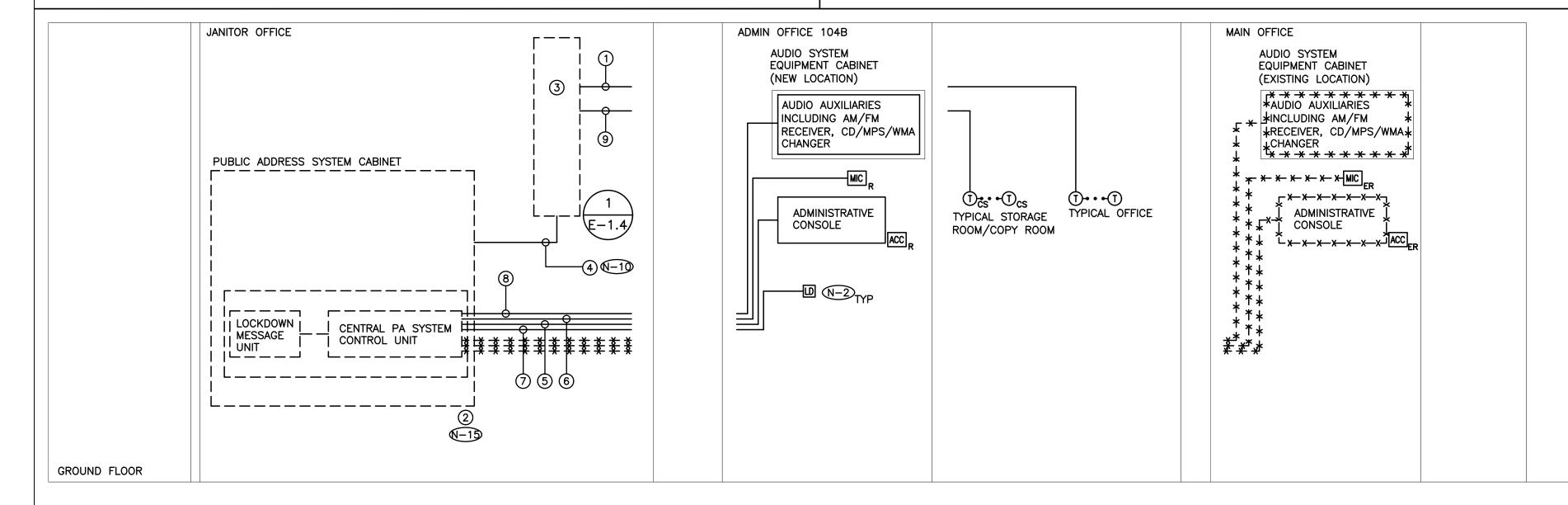
- N-1) DETAIL IS DIAGRAMMATIC ONLY.
- N-2) PROVIDE ENCLOSURE, WIRING, TERMINAL BLOCKS, ACCESSORY CABLES, RJ21 CABLES, ETC. REQUIRED TO INTERCONNECT ALL PAGING SPEAKER ZONES AND ALL HANDSETS TO THE PUBLIC ADDRESS SYSTEM PROVIDED AS PART OF THIS SCOPE OF WORK.
- N-3 REFER TO DETAIL NO. 3 ON DRAWING NO. E-1.3 AND TO SYSTEMS (FLOOR) PLANS FOR QUANTITY AND LOCATION OF PAGING SPEAKER ZONES AND ADDITIONAL REQUIREMENTS.
- N-4 CONNECT BL/BLWH CABLE PAIR TO THE TERMINAL BLOCK.
- N-5) REFER TO RISER DIAGRAM FOR WIRING SPECIFICATIONS AND REQUIREMENTS.
- (1) SPEAKER WIRE
- (2) TERMINAL BLOCK
- (3) CONNECTORS
- (4) MULTI PAIR CONDUCTORS
- (5) HANDSET WIRE





- (N-1) DETAIL IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR QUANTITY AND LOCATIONS OF DEVICES AND FOR ADDITIONAL ACCESSORIES AND REQUIREMENTS.
- N-2 PROVIDE DEDICATED FLOOR AND WALL PENETRATIONS. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAY RESULTS. X-RAYS MUST BE REVIEWED AND APPROVED BY LANDLORD AND STRUCTURAL ENGINEER PRIOR TO CORE DRILLING.
- N-3 CONDUITS ARE TO BE SUPPORTED BY THE CEILING STRUCTURE ABOVE.
- N-4 EXTEND ALL PUBLIC ADDRESS ZONE CONDUITS PROVIDED AS PART OF THIS SCOPE OF WORK TO ABOVE T-BAR CEILING OUTSIDE OF RESPECTIVE ROOMS.
- N-5 ALL CONDUITS PROVIDED BY ELECTRICAL CONTRACTOR SHALL BE C/W BUSHINGS AND RUBBERIZED GROMMETS. ALL CONDUITS TO BE EMT. EMT COUPLING AND CONNECTORS SHALL BE T&B STEEL, SET SCREW TYPE.
- (1) SPEAKER CABLE PROVIDED AS PART OF THIS SCOPE OF WORK

TYPICAL PAGING SPEAKER CONDUIT INSTALLATION DETAIL SCALE: NTS \E−1.4/



SPEAKER CABLE DISTANCES								
AWG Wire Size Resistance (Ω/feet) Maximum Distance for a 0.5 dB Cable Loss (feet)					)			
26	0.0408	1815	908	454	227		-	
24	0.0257	2882	1441	721	360	180		
22	0.0161	4600	2300	1150	575	287	115	
20	0.0102	7621	3630	1815	908	453	181	90
18	0.00639	11591	5796	2898	1449	724	289	144
16	0.00402	18425	9212	4606	2303	1151	460	230
14	0.00253	29276	14637	7318	3659	1829	732	366
12	0.00159	46583	23291	11645	5822	2911	1164	582
10	0.000999	74141	37070	18535	9267	4633	1853	926
8	0.000628	117941	58970	29485	14742	7371	2948	1474
6	0.000395	187512	93755	46877	23438	11719	4687	2343

1) SPEAKER WIRE

ONE PAIR PLENUM RATED - WIRE SIZE PER ATTACHED SCHEDULE (2) EXISTING PUBLIC ADDRESS SYSTEM HEAD END UNIT TO REMAIN - TELECOR XL

(3) EXISTING TERMINATION BOX FOR SPEAKER ZONES AND HANDSETS

(4) MULTI-CONDUCTOR CABLES - PLENUM RATED

FUNCTIONAL PUBLIC ADDRESS SYSTEM.

(5) ADMINISTRATRATIVE CONSOLE CABLE (PLENUM RATED WIRING PER MANUFACTURER'S RECOMMENDATIONS)

RISER IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF HARDWARE, DEVICES, ACCESSORIES, POWER CIRCUITS, CONDUITS, WIRES,

REFER TO SYSTEMS (FLOOR) PLANS FOR EXACT QUANTITY AND LOCATION OF DEVICES, DEVICE PERIPHERALS AND ACCESSORIES,

PROVIDE CONDUITS AND WIRES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM CONDUIT SIZE AND

PROVIDE DEDICATED FLOOR AND WALL PENETRATIONS. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAY

RESULTS. X-RAYS MUST BE REVIEWED AND APPROVED BY TCDSB AND STRUCTURAL ENGINEER PRIOR TO CORE DRILLING.

SUPPLY CADDY HANGERS, THREADED ROD EXTENSIONS, CABLE SUPPORTS, TIE-WRAPS AND ANY OTHER MISCELLANEOUS

CADDY FASTENERS AND OTHER ALTERNATES TO 'J-HOOKS' OR THEIR EQUIVALENT MAY NOT BE USED TO SUPPORT THE

HARDWARE REQUIRED TO SUPPORT LOW VOLTAGE CABLING IN LAY-IN CEILING AREAS WHERE CONDUIT HAS NOT BEEN PROVIDED.

ANCHORS FOR CADDY HANGERS MUST NOT BE DRILLED INTO POST TENSIONED BEAMS UNDER ANY CIRCUMSTANCES. BRIDAL RING

HORIZONTAL CABLING. DO NOT SUPPORT CABLES TO T-BAR CEILING HANGERS OR HAVE ANY CABLES LAYING ON CEILING TILES.

CABLING FOR SPEAKERS (PAGING ZONES) SHALL BE BUNDLED SEPARATELY FROM OTHER SYSTEMS TO AVOID ELECTRICAL NOISE.

PROVIDE QUANTITY OF MULTI-CONDUCTOR CABLES (PAIRS) AS REQUIRED FOR A FULLY FUNCTIONAL AND OPERATIONAL PUBLIC

ROUTE AND OFFSET SYSTEMS CABLING, ETC. PROVIDED AS PART OF THIS SCOPE OF WORK AROUND EXISTING DISTRIBUTION,

PROVIDE QUANTITY OF AMPLIFIERS, HARDWARE, SOFTWARE, POWER SUPPLIES, ETC. AS REQUIRED TO ENSURE A FULLY

N-4) A SINGLE SPEAKER CIRCUIT (IE. RUN OF WIRING) SHALL NOT EXCEED FIVE (5) SPEAKERS OR A TOTAL POWER/LOAD OF 30W.

DATA CIRCUITS, SPEAKER CIRCUITS, ETC, TO ENSURE A FULLY OPERATIONAL PUBLIC ADDRESS SYSTEM.

EACH AND EVERY CLASSROOM AND EACH AND EVERY OFFICE TO BE WIRED AS A DEDICATED PAGING ZONE.

CABLING FOR SPEAKERS MUST BE AT LEAST 1 FOOT FROM OTHER SYSTEMS' CABLING.

JUNCTION BOXES, PULL BOXES, ETC. IN RISER ROOMS TO ACCOMMODATE INSTALLATION.

(6) MICROPHONE CABLE

INCLUDING WIREGUARDS.

N-6 NOT USED.

NOT USED.

 $\sqrt{13}$  NOT USED.

 $\sqrt{-14}$  NOT USED.

WIRE REQUIREMENTS AS DETAILED ON RISER.

ADDRESS SYSTEM PLUS 30% SPARE CAPACITY.

- #22/2 AWG SHIELDED CABLE BELDEN #8451
- (7) LOCK DOWN BUTTON CABLE (PLENUM RATED WIRING PER MANUFACTURER'S RECOMMENDATIONS)
- (8) SHIELDED GAUGE PLENUM RATED WIRES FOR TAPE/CD PLAYER/RADIO TUNER/ETC
- (9) SPEAKER WIRE 4 PAIR PLENUM RATED CATSE UTP CABLE - BELDEN #1213 (COLOUR TO BE DETERMINED DURING SHOP DRAWING PROCESS)

CHECK AND VERIFY ALL DIMENSIONS AT THE SITE. ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF THE CONSULTANT AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS IN PART OR WHOLE WITHOUT THE PERMISSION OF THE CONSULTANT IS FORBIDDEN.

DO NOT SCALE THE DRAWINGS

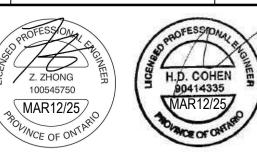
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HCC ENGINEERING DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2

Tel: (416) 932-2423

DATE BY NO. REVISIONS



PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

HCC Project Number# 24273

DRAWING:

**ELECTRICAL DETAILS** 



BARRY BRYAN **ASSOCIATES** Architects Engineers Project Managers 250 Water Street Suite 201

Whitby, Ontario

Tel: (905) 666-5252

Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

L1N 0G5

% COMPLETE: DRAWN BY: CHECKED BY: JANUARY, 2025 AS SHOWN

DOC\_CONTROL:

PROJECT NO: DRAWING NO:

24194 E-1.4

FILE:

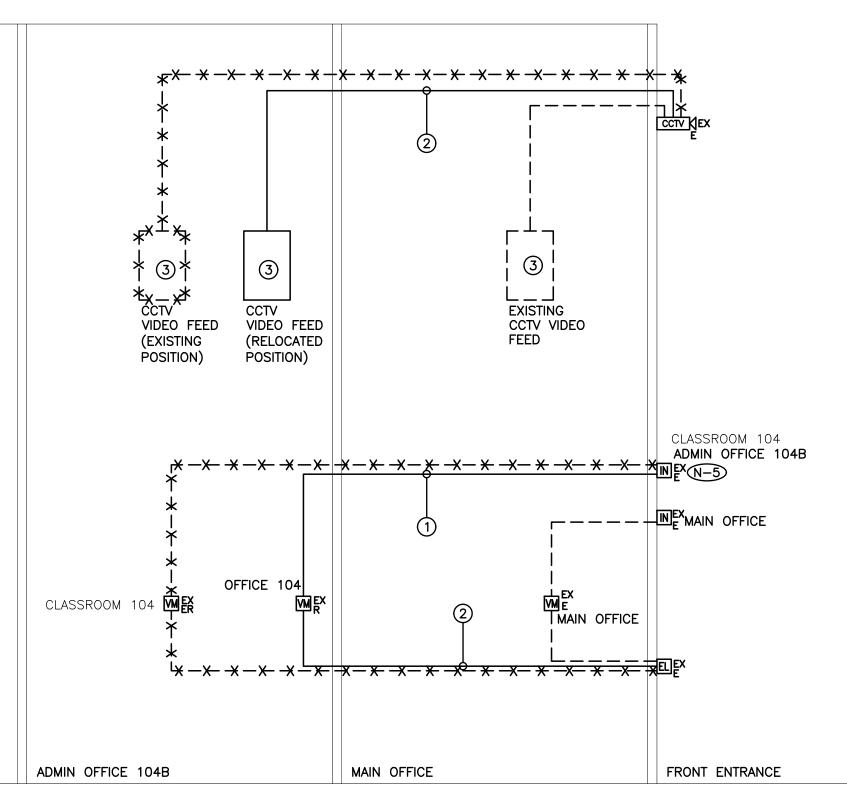
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DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR ---- DENOTES EXISTING TO REMAIN

\* \* \* \* \* DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

PUBLIC ADDRESS SYSTEM RISER DIAGRAM E-1.4 SCALE: NTS



N-1) DETAIL IS DIAGRAMMATIC ONLY. REFER TO DRAWING NO. E-2.1 FOR ADDITIONAL REQUIREMENTS, DEVICE QUANTITY AND LOCATION.

N-2 ALL LOW VOLTAGE WIRING TO BE INSTALLED IN AN ENCLOSED CONDUIT SYSTEM. N-3 MINIMUM WIRING REQUIREMENTS SHOWN. PROVIDE ADDITIONAL WIRING AS PER

MANUFACTURER'S RECOMMENDATIONS.

N-4 CONTACT MANUFACTURER FOR SPECIFIC REQUIREMENTS TO TIE IN ALL COMPONENTS. PROVIDE APPROPRIATE ACCESSORIES AS REQUIRED FOR FULLY FUNCTIONAL INTERCOM SYSTEM.

N-5 AS PART OF THIS SCOPE OF WORK, PROVIDE PROGRAMMING, OUTPUT, HARDWARE, SOFTWARE, ETC. AS REQUIRED TO ENSURE INTERCOM SYSTEM RELOCATED AS PART OF THIS SCOPE OF WORK COMPLY WITH THE FOLLOWING SEQUENCE OF OPERATION:

• PRESSING ON "ADMIN OFFICE 104B" DOOR STATION SHALL INITIATES COMMUNICATION REQUEST TO INTERCOM STATIONS IN ADMIN OFFICE 104B.

N-6 MOUNT VIDEO INTERCOM POWER SUPPLIES AND VIDEO INTERCOM DISTRIBUTION ADAPTOR TO THE WALL ABOVE T-BAR CEILING.

(1) #18/2 AWG - PLENUM RATED

(2) MULTI-CONDUCTOR CABLE PER MANUFACTURER'S RECOMMENDATIONS

3 EXISTING CCTV VIDEO FEED BALUN C/W ENCLOSURE - NEAT TEK NT-BL4101

———— DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR

————— DENOTES EXISTING TO REMAIN

(4) | EXPANDERS

X-X-X-X DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

ADMIN OFFICE 104B

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CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.

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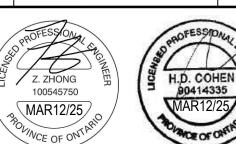


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Tel: (416) 932-2423

DATE BY





# **RENOVATIONS AT**

HCC Project Number# 24273

**ELECTRICAL DETAILS** 

———— DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR

———— DENOTES EXISTING TO REMAIN X-X-X-DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

1 EXISTING SECURITY SYSTEM INTRUSION CONTROL PANEL - ICT

② EXISTING 18"W X 18"H X 10"D SECURITY SYSTEM JUNCTION BOX

(4) EXISTING SECURITY SYSTEM COMMUNICATION BUS (WIRING PER

(5) EXISTING SECURITY SYSTEM INTRUSION CONTROL PANEL ZONE

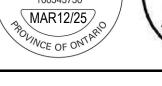
MANUFACTURER'S RECOMMENDATION) - 3/4"C

EXPANDER C/W ENCLOSURE

PROTEGE GX

NOT USED.

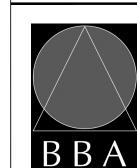
SECURITY CONTRACTOR MUST BE CERTIFIED TO WORK ON ICT PRODUCTS. NO. REVISIONS



## **ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

DRAWING:



BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street

Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

DESIGN BY: DRAWN BY: Suite 201 Whitby, Ontario L1N 0G5 Tel: (905) 666-5252

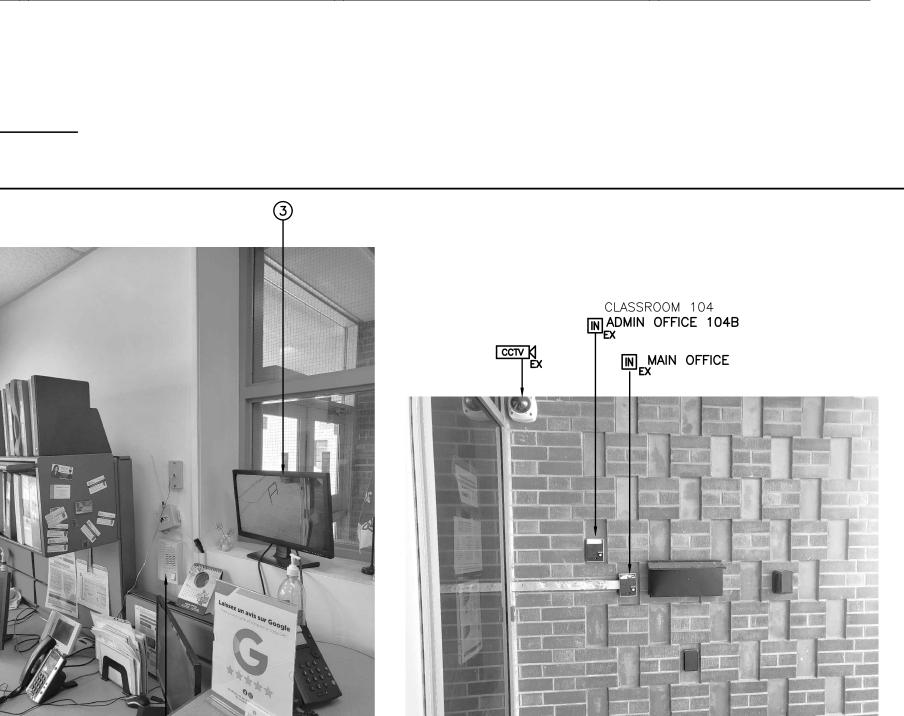
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DOC\_CONTROL:

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PROJECT NO: DRAWING NO:

24194 E-1.5



N-1) PHOTOS ILLUSTRATE EXISTING INTERCOM SYSTEM INSTALLATIONS AND ARE INCLUDED

MMEX
MAIN OFFICE

② EXISTING CCTV VIDEO FEED TO BE RELOCATED AS PART OF THIS

(3) EXISTING CCTV MONITOR SCREEN TO REMAIN.

(1) EXISTING CCTV MONITOR SCREEN TO BE RELOCATED AS PART OF THIS SCOPE OF WORK

SCOPE OF WORK

REQUIREMENTS.

SECURITY ROOM

L — — — — —

DETAILED ON DRAWING.

N-9 EACH FIELD DEVICE SHALL BE PROGRAMMED AS AN INDIVIDUAL HARDWIRED ZONE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

N-7 CONTACT SECURITY MANUFACTURER FOR ADDITIONAL WIRE, CONDUIT, PULLBOX AND POWER

N-1) RISER IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF CONTROL PANELS, ZONE EXPANDERS,

N-3 PROVIDE CONDUITS AND WIRES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

N-4) ALL SECURITY SYSTEM BUS DEVICES TO BE PULLED AS HOMERUNS TO SECURITY SYSTEM JUNCTION

N-5 ALL CONDUITS TO BE EMT. EMT COUPLING AND CONNECTORS SHALL BE T&B STEEL, SET SCREW TYPE. PROVIDE SPARE PULLSTRING IN ALL CONDUITS FOR FUTURE USE.

N-6 ELECTRICAL CONTRACTOR SHALL NOT USE PULLBOXES AS SUBSTITUTES FOR 90° BENDS. 12" X 12"

BOX. DO NOT DAISY CHAIN SECURITY SYSTEM INTRUSION BUS (COMBUS) BETWEEN DEVICES.

TERMINATE ALL WIRING ONTO TERMINAL STRIPS AND LOOP WIRING AS RÉQUIRED AT JUNCTION BOX.

X 6" PULLBOXES C/W TYPE SNAKE EYE SECURITY SCREWS SHALL BE PROVIDED ON THE BASIS OF NOT MORE THAN TWO (2) RIGHT ANGLE BENDS OR NOT MORE THAN 100' IN STRAIGHT RUNS

MINIMUM CONDUIT SIZE AND WIRING REQUIREMENTS AS DETAILED ON RISER DIAGRAM.

N-2 REFER TO FLOOR PLAN DRAWINGS FOR DEVICE QUANTITY AND LOCATIONS.

HARDWARE, DEVICES, POWER CIRCUITS, CONDUIT, WIRE, SECURITY CABLES, ETC, TO ENSURE A

FULLY OPERATIONAL SECURITY INTRUSION AND ACCESS CONTROL SYSTEM. MINIMUM REQUIREMENTS

·---i ② Ĺ\_.

TS#1

PROVIDE DEDICATED FLOOR AND WALL PENETRATIONS. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAY RESULTS. X-RAYS MUST BE REVIEWED AND APPROVED BY TCDSB AND STRUCTURAL ENGINEER PRIOR TO CORE DRILLING.

SECURITY INTRUSION AND ACCESS CONTROL SYSTEM RISER DIAGRAM SCALE: NTS

PHOTOS - INTERCOM AND CCTV SYSTEMS E-1.5 SCALE: NTS

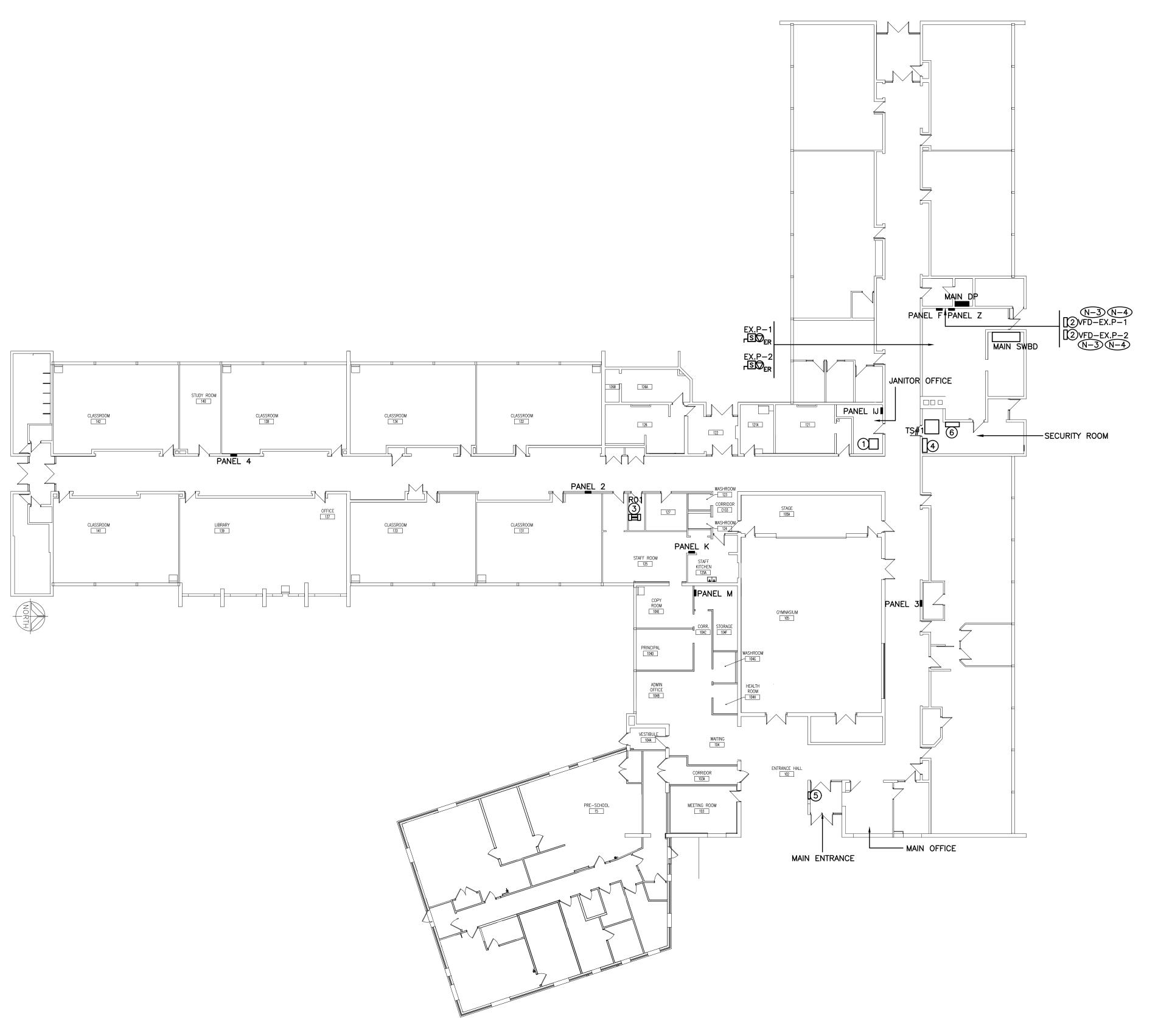
FOR REFERENCE PURPOSES ONLY.

VIDEO INTERCOM SYSTEM SCHEMATIC

CLASSROOM 104

E-1.5 SCALE: NTS

CLASSROOM 104



- N-1) ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION.
- N-2 EXISTING RECEPTACLE PANELS ARE SHOWN FOR REFERENCE PURPOSES ONLY.
- N-3 PROVIDE CONNECTIONS FROM COMBINATION STARTER TO VFD AND FROM VFD TO PUMP. JUMPER OUT STARTER AS DIRECTED ON SITE BY VFD MANUFACTURER.
- N-4) PROVIDE UNISTRUT FRAME (SLAB TO OWSJ) TO SUPPORT VFD'S PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED AS PART OF THIS SCOPE OF WORK. PROVIDE HORIZONTAL SUPPORTS / OFFSETS AS REQUIRED TO ALLOW FOR COORDINATION WITH DUCT WORK AND PIPING. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR PRIOR TO COMMENCING WORK.
- 1 EXISTING PUBLIC ADDRESS SYSTEM EQUIPMENT CABINET
- 2 APPROXIMATE LOCATION TO INSTALL VFD SUPPLIED BY MECHANICAL CONTRACTOR. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
- 3 EXISTING NETWORK EQUIPMENT RACK
- 4 EXISTING FIRE ALARM SYSTEM CONTROL PANEL
- (5) EXISTING FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL
- 6 EXISTING SECURITY SYSTEM INTRUSION CONTROL PANEL

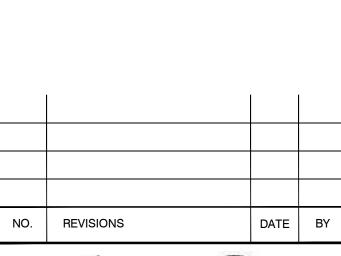
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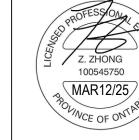
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50 CELESTINE DRIVE TORONTO, ON

**FELIX-LECLERC** 

HCC Project Number# 24273

DRAWING:

**ELECTRICAL FACILITY PLAN** 



BARRY BRYAN ASSOCIATES Architects Engineers Project Managers

250 Water Street Suite 201 Whitby, Ontario L1N 0G5

Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

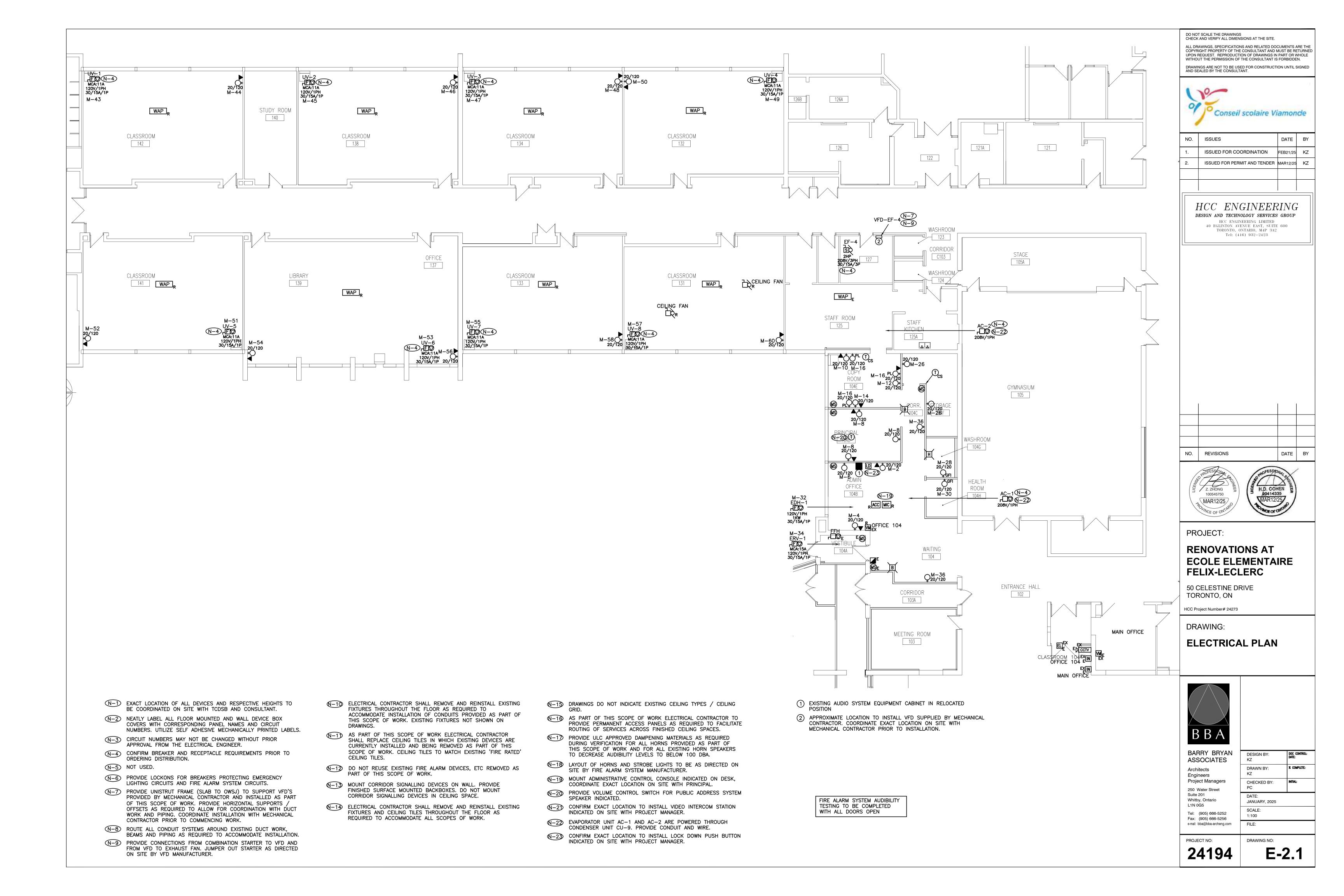
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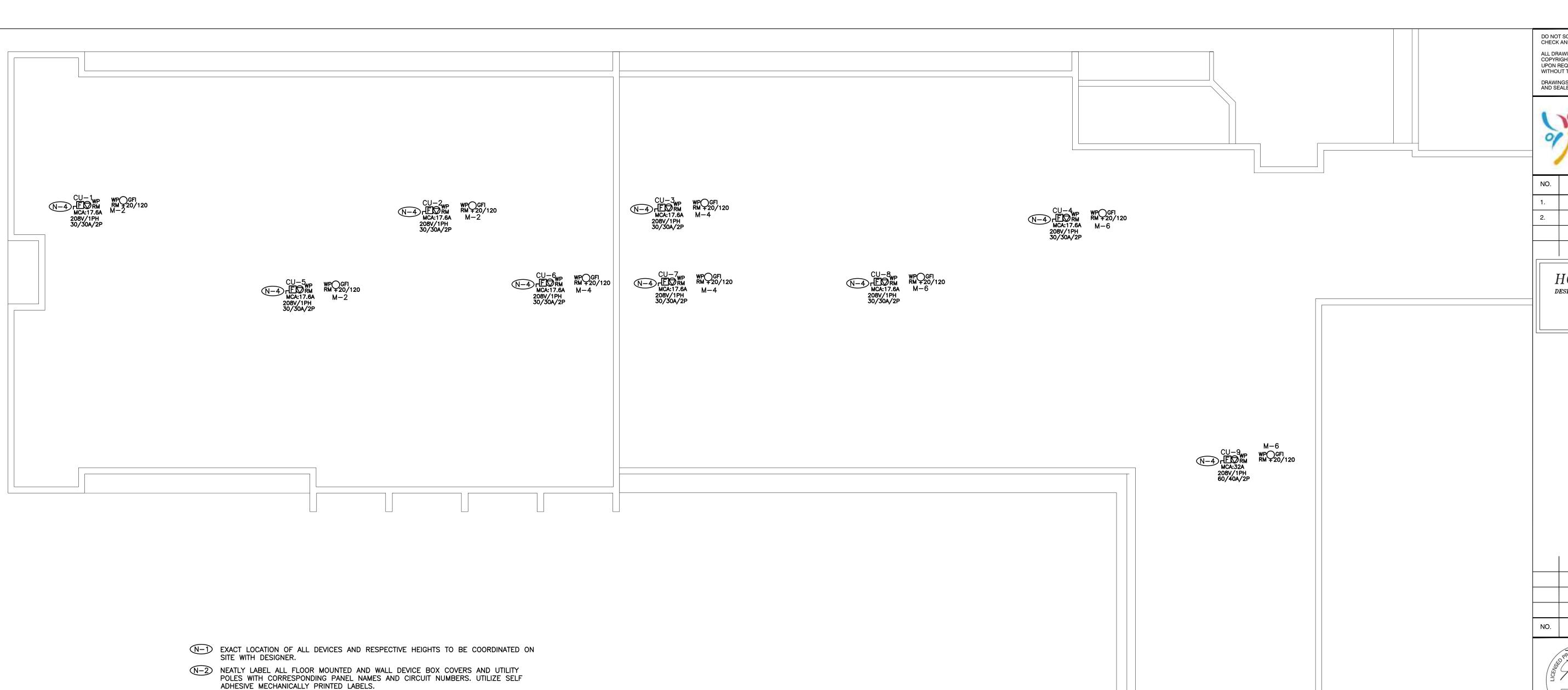
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DATE: JANUARY, 2025

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24194





- N-3 CIRCUIT NUMBERS MAY NOT BE CHANGED WITHOUT PRIOR APPROVAL FROM THE ELECTRICAL ENGINEER.
- N-4 CONFIRM BREAKER/FUSE AND RECEPTACLE/DISCONNECT REQUIREMENTS PRIOR TO INSTALLATION.
- N-5) COORDINATE WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT ON SITE WITH MECHANICAL CONTRACTOR.
- N-6 CONFIRM ELECTRICAL REQUIREMENTS AND EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION OF ELECTRICAL SERVICES.
- $\widetilde{N-7}$  ALL FINAL CONNECTIONS TO MECHANICAL EQUIPMENT ARE TO BE IN LIQUID TIGHT FLEXIBLE CONDUIT.
- N-8 ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE INSTALLATION. REFER TO MECHANICAL DRAWINGS AND DESIGNER DRAWINGS FOR ADDITIONAL DETAILS.
- N-9 USE PVC COATED GALVANIZED RIGID STEEL CONDUIT ROBROY PERMACOTE IN ALL OUTDOOR LOCATIONS AND IN AREAS THAT ARE NOT ENVIRONMENTALLY CONTROLLED.
- № PROVIDE REQUIRED PENETRATIONS THROUGH ROOF AND BUILDING ENVELOP.

  COORDINATE WORK AND WEATHERPROOF SEALING REQUIREMENTS WITH LANDLORD.
- MINIMUM WIRE SIZE #10AWG FOR ALL 120 VOLT CIRCUITS EXCEEDING 90 FEET IN

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HCC ENGINEERING

DESIGN AND TECHNOLOGY SERVICES GROUP

HCC ENGINEERING LIMITED

40 EGLINTON AVENUE EAST, SUITE 600

TORONTO, ONTARIO, M4P 3A2

Tel: (416) 932-2423

NO. REVISIONS DATE BY





# RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC

50 CELESTINE DRIVE TORONTO, ON

HCC Project Number# 24273

DRAWING:

**ELECTRICAL ROOF PLAN** 



BARRY BRYAN ASSOCIATES Architects Engineers Project Managers

Engineers
Project Managers
250 Water Street
Suite 201
Whitby, Ontario
L1N 0G5

Whitby, Ontario L1N 0G5 Tel: (905) 666-5252 Fax: (905) 666-5256 e-mail: bba@bba-archeng.com

PRAWING NO:

DRAWING NO:

E-2.2

DESIGN BY:

DRAWN BY:

CHECKED BY:

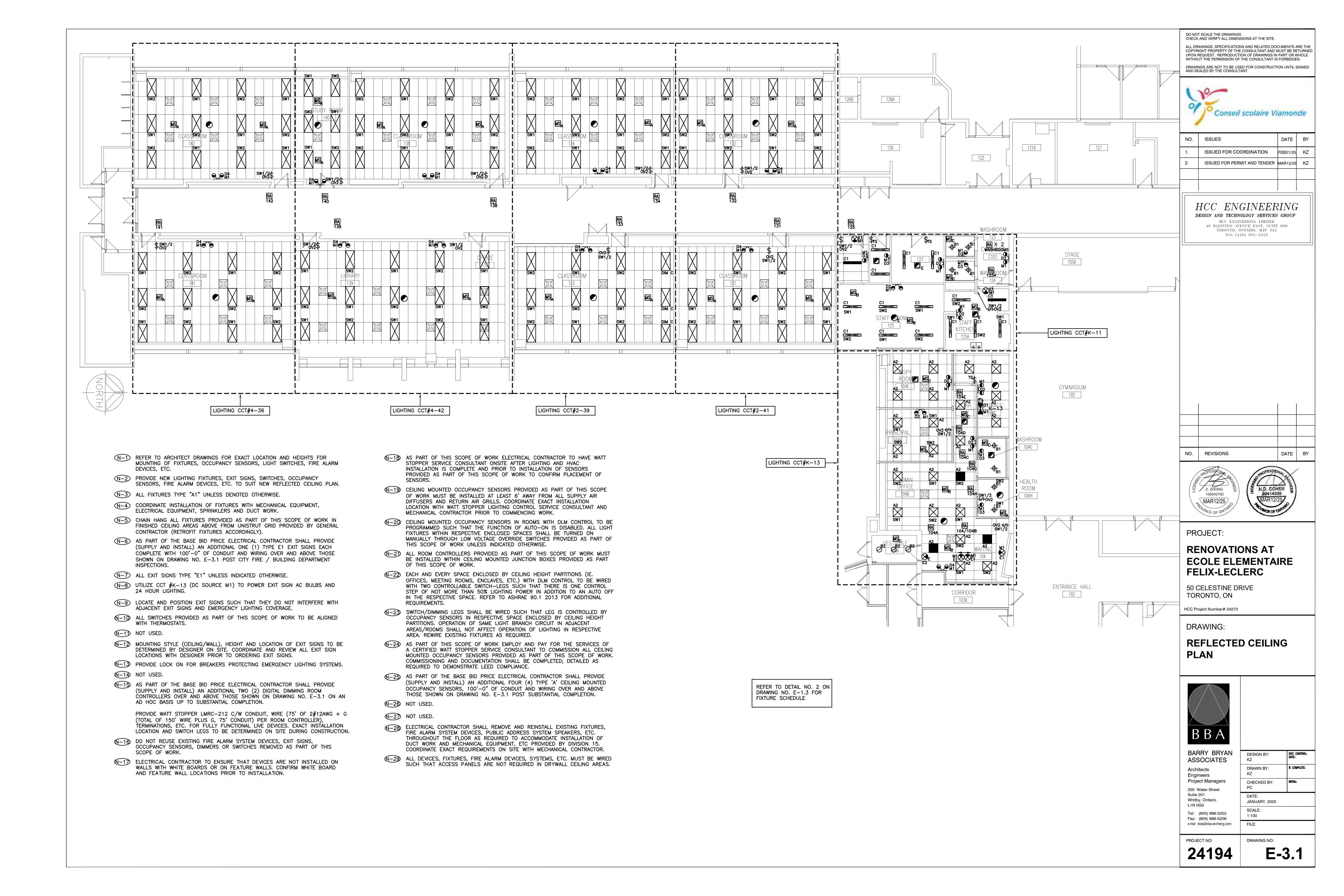
JANUARY, 2025

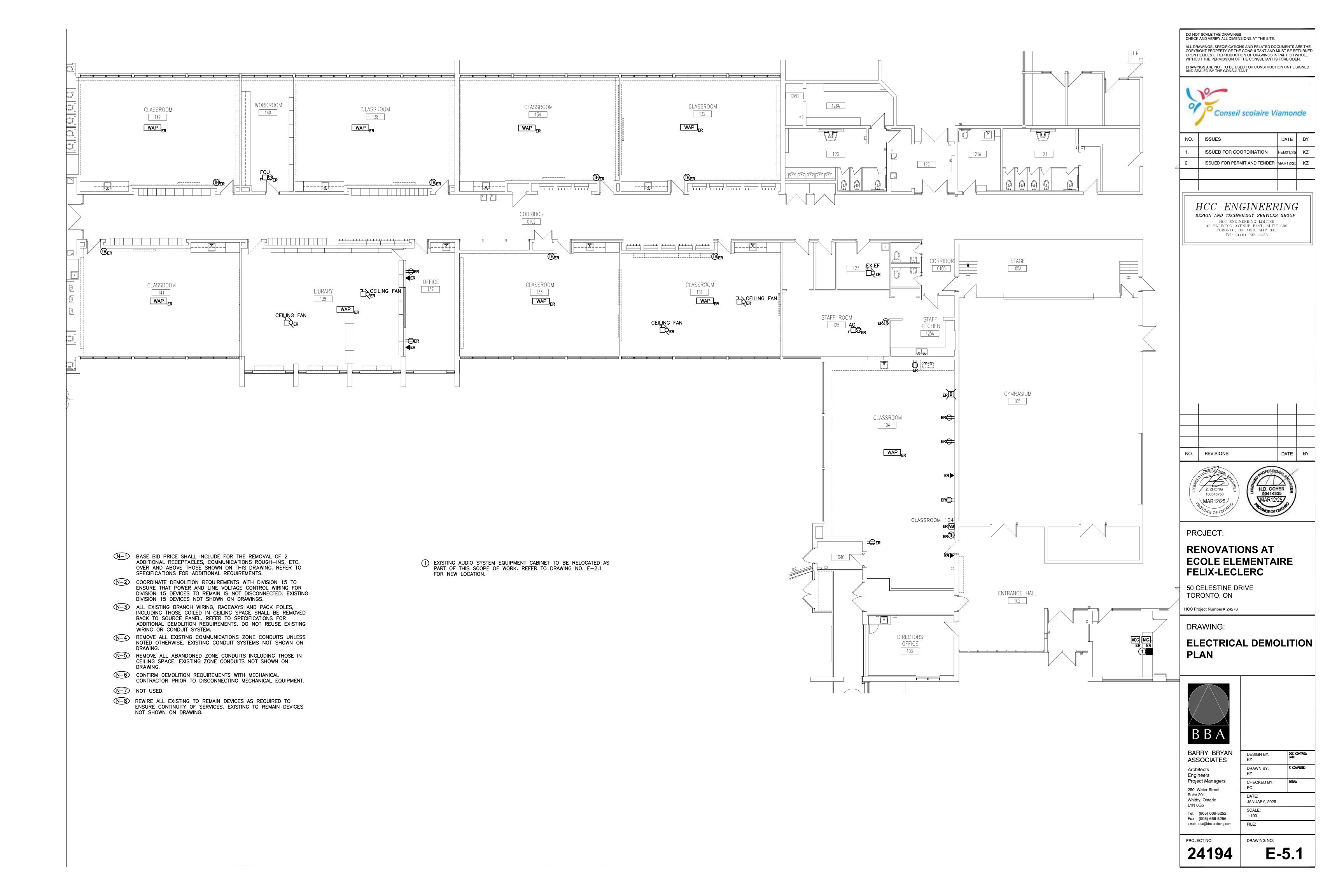
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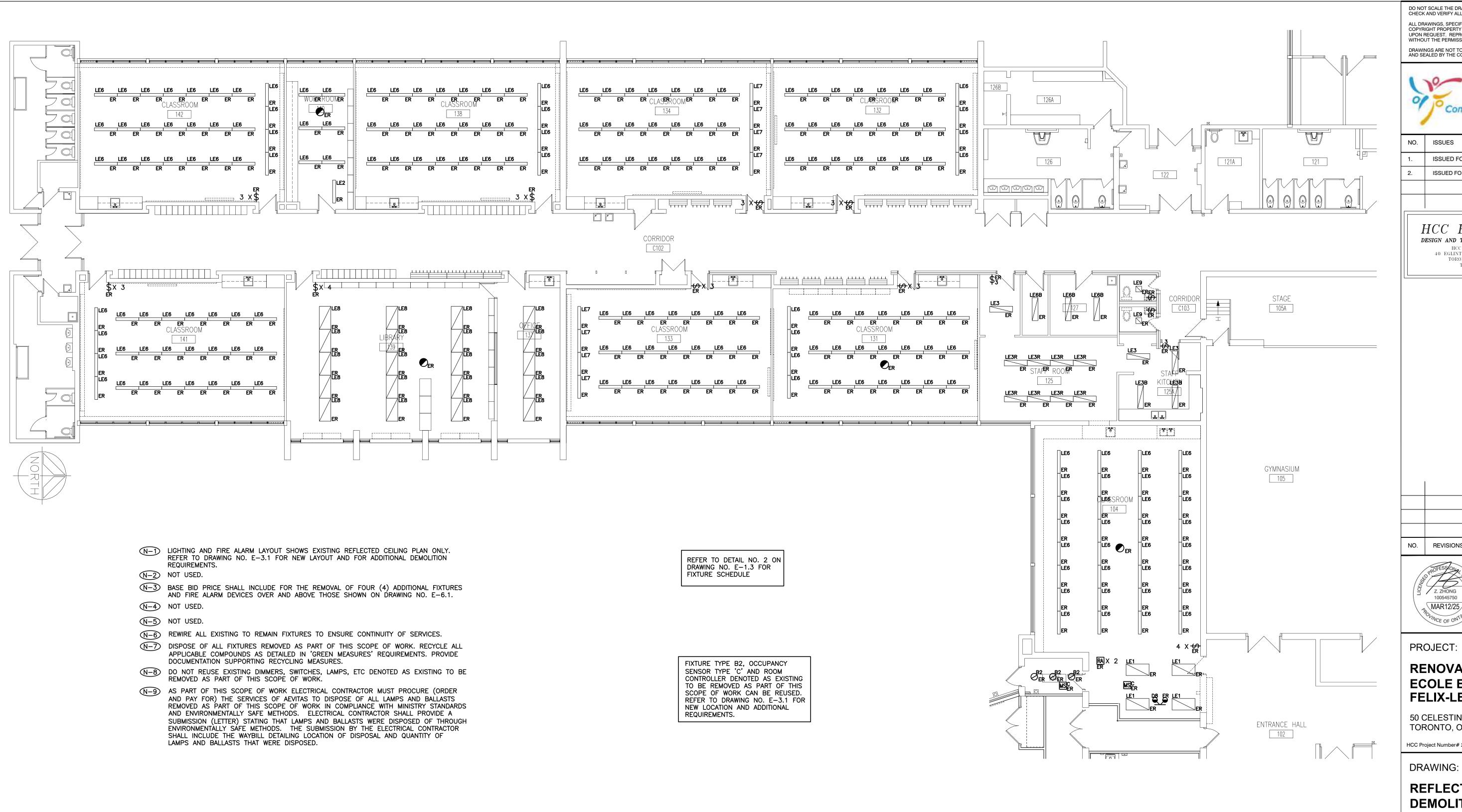
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PROJECT NO: **24194** 





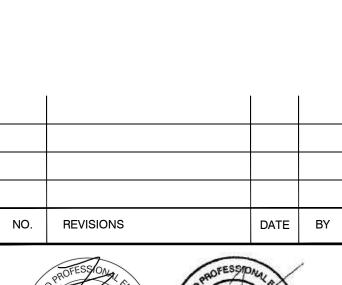


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50 CELESTINE DRIVE TORONTO, ON

HCC Project Number# 24273

REFLECTED CEILING **DEMOLITION PLAN** 



BARRY BRYAN ASSOCIATES Architects Engineers Project Managers 250 Water Street Suite 201 Whitby, Ontario

L1N 0G5

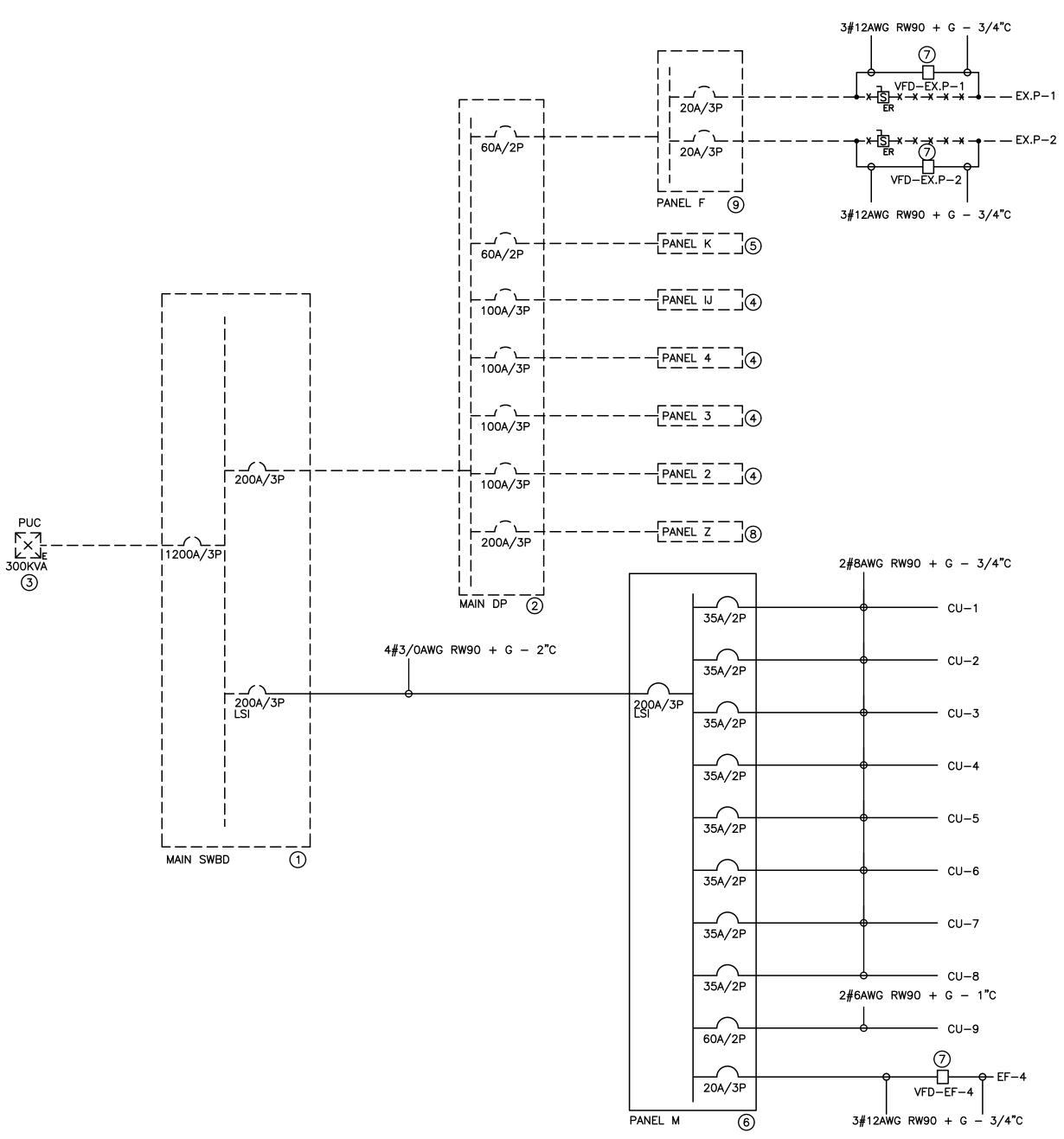
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DOC CONTROL:

PROJECT NO:

DRAWING NO: 24194 E-6.1



- N-1) RISER IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR DEVICE QUANTITY AND LOCATIONS.
- N-2 PROVIDE FIRE RATED PLYWOOD BACKBOARDS FOR ALL ELECTRICAL DISTRIBUTION EQUIPMENT PROVIDED AS PART OF THIS CONTRACT. PAINT BACKBOARDS WITH FIRE RETARDANT PAINT (COLOUR AS DIRECTED ON SITE BY PROJECT MANAGER). FIRE RATED STAMP MUST BE ON ALL PIECES PROVIDED AND MUST BE VISIBLE WHEN INSTALLED. DO NOT PAINT OVER STAMP.
- N-3 ALL INDOOR DISTRIBUTION PROVIDED AS PART OF THIS SCOPE OF WORK MUST BE TYPE 2 ENCLOSURE, UNLESS SPECIFICALLY NOTED OTHERWISE. PROVIDE COMPRESSION FITTINGS FOR SERVICES ENTERING DISTRIBUTION.
- N-4 PROVIDE DEDICATED CORE DRILLED WALL AND FLOOR PENETRATIONS ON EVERY FLOOR. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAY RESULTS. ALL X-RAYS MUST BE REVIEWED AND APPROVED BY LANDLORD PRIOR TO CORE DRILLING.
- N-5 NOT USED.
- N-6 ALL BREAKERS REQUIRED TO COMPLETE ALL SCOPES OF WORK TO BE NEW. DO NOT REUSE EXISTING BREAKERS.
- N-7) ROUTE ALL CONDUIT SYSTEMS AROUND EXISTING DUCT WORK, BEAMS, NEW DUCT WORK AND PIPING AS REQUIRED TO ACCOMMODATE ALL INSTALLATION REQUIREMENTS. REFER TO MECHANICAL DRAWINGS AND DESIGNER DRAWINGS FOR ADDITIONAL DETAILS.
- N-8 PROVIDE TEMPORARY POWER AND LIGHTING THROUGHOUT PROJECT TO ACCOMMODATE REQUIREMENTS OF ALL TRADES. REQUIREMENTS INCLUDE PROVIDING EXTENSION CORDS, EXTENSION LIGHTING AND EQUIPMENT REQUIRED FOR THE WORK OF ALL TRADES. ALL COSTS RELATED TO THIS WORK SHALL BE INCLUDED IN THE BASE BID PRICE.

- (1) EXISTING SERVICE ENTRANCE SWITCH BOARD 120/208V/3PH/4W/1200A MCB/SQ D QED/50KA RMS
- (2) EXISTING DISTRIBUTION PANEL 120/208V/3PH/4W/600A MAINS/EATON PL3A/50KA RMS
- 3 EXISTING PAD MOUNT UTILITY TRANSFORMER 2400/4160V/120/208V/3PH/4W
- (4) EXISTING RECEPTACLE PANEL 120/208V/3PH/4W/100A MAINS/42 CCT/EATON PL1A/10KA RMS
- 5 EXISTING RECEPTACLE PANEL 120/240V/1PH/3W/100A MAINS/18 CCT/EATON PL1A/10KA RMS
- 6 RECEPTACLE PANEL 120/208V/3PH/4W/200A MCB/84CCT 20"W/SQ D NQ/COPPER BUS/10KA RMS
- 7) VFD SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR
- 8 EXISTING RECEPTACLE PANEL 120/208V/3PH/4W/225A MAINS/42 CCT/EATON PL1A/10KA RMS
- 9 EXISTING RECEPTACLE PANEL 120/208V/3PH/4W/225A MAINS/42 CCT/SQ D E2/10KA RMS

DENOTES NEW PROVIDED BY ELECTRICAL CONTRACTOR

---- DENOTES EXISTING TO REMAIN

- + + + + + DENOTES EXISTING TO BE REMOVED BY ELECTRICAL CONTRACTOR

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1.	ISSUED FOR COORDINATION	FEB21/25	KZ
2.	ISSUED FOR PERMIT AND TENDER	MAR12/25	KZ

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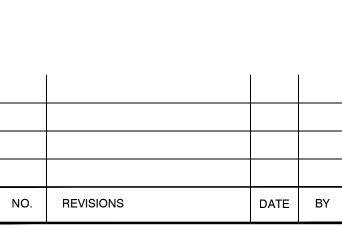
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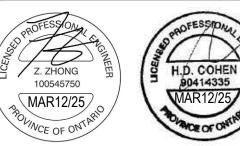
HCC ENGINEERING LIMITED

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TORONTO, ONTARIO, M4P 3A2

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PROJECT:

# RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC

50 CELESTINE DRIVE TORONTO, ON

HCC Project Number# 24273

.

DRAWING:

ELECTRICAL
SINGLE LINE DIAGRAM



BARRY BRYAN ASSOCIATES Architects Engineers Project Managers

Project Manager
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e-mail: bba@bba-archeng.com

JANUARY, 2025

SCALE:
NTS

FILE:

DOC CONTROL:

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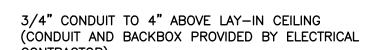
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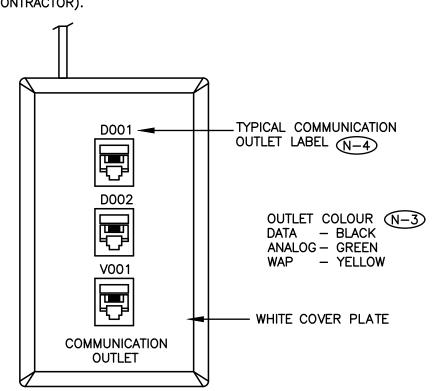
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PROJECT NO: **24194** 

DRAWING NO:





▼/∇/A/B

- PROVIDE BLANK INSERT FOR NON-UTILIZED OPENINGS. REFER TO FLOOR PLANS FOR EXACT QUANTITY OF CABLES AND OUTLETS AT EACH LOCATION.
- N-2 UTILIZE BLUE CABLES FOR DATA AND GREY CABLES
- N-3 CONFIRM OUTLET COLOUR AND ORIENTATION WITH CONSULTANT PRIOR TO ORDERING MATERIALS.
- N-4) CONFIRM LABELING SCHEME WITH CONSULTANT PRIOR TO PREPARING LABELS.

\_\_\_\_<del>|</del>

(10) R01

TYPICAL WALL MOUNTED OFFICE GROUP OUTLET DETAIL (C-1.1) SCALE: NTS

PATCH CORD LENGTH N-1	1'	5'	7'	10'	15'
CAT6 COPPER PATCH N-3 CORDS ROOM 129 END	20	0	0	0	0
CAT6 COPPER PATCH CORDS WORKSTATION END	0	0	0	20	0

· ·		RED GRFFN
1 12221 110142 / 4011		OILLII
BAS / CHUBB SECURITY	_	ORANGE
		BLUE
		WHITE
ALL OTHER NETWORK REQUIREMENTS	_	YELLOW
ı	INTERCONNECTION OF NETWORKING EQUIPMENT TELEPHONE / VOIP BAS / CHUBB SECURITY SECURITY CAMERAS WIRELESS ANTENNA	INTERCONNECTION OF NETWORKING EQUIPMENT— TELEPHONE / VOIP — BAS / CHUBB SECURITY — SECURITY CAMERAS — WIRELESS ANTENNA —

- N-1) SUPPLY AND INSTALL QUANTITY OF PATCH CORDS INDICATED IN SCHEDULE. CONFIRM EXACT LENGTH WITH CLIENT PRIOR TO ORDERING. AT EQUIPMENT RACK END AND EQUIPMENT CABINET END PATCH CORD LENGTHS SHALL BE SELECTED TO MINIMIZE SLACK.
- N-2 AS PART OF THIS SCOPE OF WORK COMMUNICATIONS CONTRACTOR SHALL PATCH ALL OWNER SUPPLIED SERVERS, SWITCHES, NETWORK GEAR, GATEWAYS, ETC. PATCHING SCHEDULE TO BE PROVIDED BY OWNER DURING CONSTRUCTION.
- N-3 IDENTIFY PATCH CORDS AT BOTH ENDS WITH MECHANICALLY PRINTED SELF-ADHESIVE LABELS.
- N-4 PROVIDE AN ADDITIONAL FIVE (5) 1' RED PATCH CORDS TO BE HANDED OVER TO CLIENT AT END OF PROJECT.
- N-5 PROVIDE AN ADDITIONAL TEN (10) 1' YELLOW PATCH CORDS TO BE HANDED OVER TO CLIENT AT END OF PROJECT.

N-1) DETAIL IS DIAGRAMMATIC ONLY. PROVIDE QUANTITY OF HORIZONTAL CABLING,

N-2 REFER TO FLOOR PLAN DRAWINGS FOR DEVICE QUANTITY AND LOCATIONS.

N-5) BASE BID PRICE SHALL INCLUDE FOR A TOTAL OF 20 PATCHES AT THE RACK.

RACK MOUNT ALL OWNER PROVIDED SWITCHES, SERVERS, ETC. PROVIDE

(N-6) AS PART OF THIS SCOPE OF WORK COMMUNICATIONS CONTRACTOR SHALL

REFER TO DETAIL NO. 2 ON DRAWING NO. C-1.1 FOR PATCH CORD QUANTITY

N-4 ROUTE DATA HORIZONTAL (FLOOR) CABLES AND INTERLINK CABLES TO

RESPECTIVE RACK MOUNTED PATCH PANELS.

REQUIRED MOUNTING SCREWS.

PATCH CORDS, ETC, TO ENSURE A FULLY OPERATIONAL PREMISES WIRING

- N-6 PROVIDE AN ADDITIONAL TEN (10) 1' LILAC PATCH CORDS TO BE HANDED OVER TO CLIENT AT END OF PROJECT.
- N-7) PROVIDE AN ADDITIONAL TEN (10) 10' LILAC PATCH CORDS TO BE HANDED OVER TO CLIENT AT END OF PRÓJECT.
- PATCH CORD SCHEDULE C-1.1 SCALE: NTS

N-3 NOT USED.

- SUBSTITUTES ARE NOT PERMITTED FOR ALL SPECIFIED
- SHOP DRAWINGS ARE REQUIRED FOR ALL PRODUCTS SPECIFIED FOR THIS PROJECT INCLUDING BUT NOT LIMITED TO EQUIPMENT CABINET, PATCH PANELS, HORIZONTAL CABLES, BACKBONE CABLES, TERMINATION HARDWARE, LABELS AND FACEPLATES.
- COMMUNICATIONS CONTRACTOR AND ALL SUBCONTRACTORS MUST READ AND COMPLY WITH COMMUNICATIONS SPECIFICATIONS (ISSUED AS A SEPARATE DOCUMENT).
- INSTALLATION OF ALL DEVICES AND SERVICES MUST COMPLY WITH ALL LOCAL SEISMIC RESTRAINT REQUIREMENTS.
- ALL SCOPES OF WORK REQUIRED TO BE COMPLETED WITHIN OCCUPIED AREAS, INCLUDING WORK RELATED TO DEFICIENCIES MUST BE COMPLETED BETWEEN 4PM AND 11PM DURING THE WEEK. REMOVAL AND REINSTALLATION OF CEILING TILES IN THE OCCUPIED AREAS TO ACCOMMODATE ALL SCOPES OF WORK SHALL BE PROVIDED BY THE COMMUNICATIONS CONTRACTOR.
- AS BUILT DRAWING REQUIREMENTS: AS BUILT DRAWINGS TO BE PREPARED AND SUBMITTED IN AUTOCAD FORMAT BY THE COMMUNICATIONS
- CONTRACTOR. ALL DEMOLITION SCOPES OF WORK ARE TO BE ERASED
- FROM AS BUILT DRAWINGS. ROUTING OF MAIN STATION CABLING RUNS, BACKBONE CABLES, ETC. TO BE SHOWN ON AS BUILT DRAWINGS.

CABLING COLOUR CODING FOR VARIOUS SYSTEMS IS AS FOLLOWS:

ADMIN OFFICE 104B

BLUE - SECURITY CAMERA CCTV/COMMUNICATIONS DATA

GREY - COMMUNICATIONS VOICE (ANALOG)

ORANGE- BAS AND ACCESS CONTROL

WHITE - WIRELESS ANTENNA

YELLOW - MISCELLANEOUS NETWORK SYSTEMS

REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

## LEGEND

- WALL MOUNTED OFFICE GROUP CONSISTING OF DATA (1ST) OUTLET C/W ONE (1) 4 PAIR CAT6 UTP CABLE.
- WALL MOUNTED OFFICE GROUP CONSISTING OF DATA (1ST) AND ANALOG (1ST) OUTLETS C/W TWO (2) 4 PAIR CAT6 UTP CABLES.
- WALL MOUNTED OFFICE GROUP CONSISTING OF DATA (1ST) OUTLET C/W ONE (1) 4 PAIR CATSE UTP CABLE.
- CEILING MOUNTED WAP GROUP CONSISTING OF DATA (1ST) AND DATA (2ND) OUTLETS C/W TWO (2) 4 PAIR CATSE UTP CABLES. PROVIDE TWO (2) RJ45 TO CEILING CONNECTOR.
- DATA OUTLET C/W ONE (1) 4 PAIR CAT6 UTP CABLE
- ANALOG OUTLET C/W ONE (1) 4 PAIR CAT6 UTP CABLE
- DENOTES EXISTING DEVICE TO REMAIN
- DENOTES EXISTING DEVICE TO BE REMOVED BACK TO SOURCE
- DENOTES RELOCATED OFFICE GROUP. DISCONNECT EXISTING OUTLETS AND PULL CABLES OUT FROM EXISTING DEVICE TO CEILING SPACE. REFEED NEW DEVICE INDICATED. PROVIDE NEW OUTLETS AND FACEPLATES. TERMINATE, LABEL AND TEST ALL CABLES.

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Conseil scolaire Viamonde

DATE BY

MAR12/25 KZ

DESIGN AND TECHNOLOGY SERVICES GROUP HCC ENGINEERING LIMITED 40 EGLINTON AVENUE EAST, SUITE 600 TORONTO, ONTARIO, M4P 3A2 Tel: (416) 932-2423



DATE BY

## DRAWING LIST

C-1.1 - COMMUNICATIONS LEGEND AND DETAILS

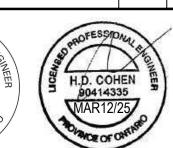
C-2.0 - COMMUNICATIONS FACULTY PLAN

C-2.1 - COMMUNICATIONS PLAN

ELECTRICAL ROOM

C-4.1 - COMMUNICATIONS DEMOLITION PLAN

NO. REVISIONS Z. ZHONG 100545750



#### **PROJECT:**

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

HCC Project Number# 24273

DRAWING:

### COMMUNICATIONS LEGEND AND DETAILS



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Tel: (905) 666-5252

24194

Suite 201

L1N 0G5

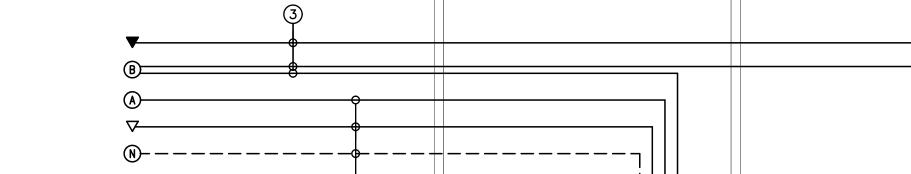
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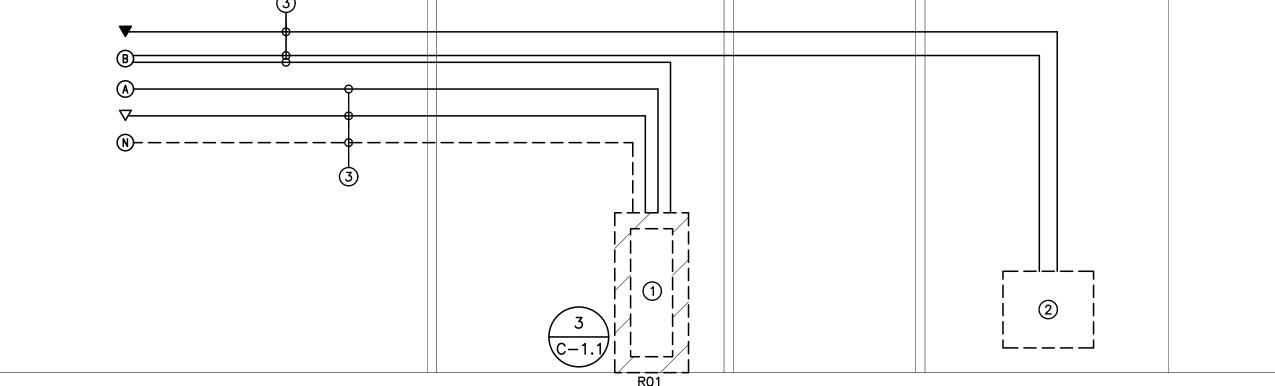
DOC\_CONTROL:

AS SHOWN Fax: (905) 666-5256 e-mail: bba@bba-archeng.com FILE: PROJECT NO:

DRAWING NO: **C-1.**1



- (1) EXISTING 1RMU PDU RF MOTE RFM SERIES
- (2) EXISTING 1RMU 48 PORT ACTIVE SWITCH ARUBA 2540 JL357A
- (3) EXISTING 1RMU 48 PORT CAT 5E PATCH PANEL
- (4) EXISTING 1RMU 24 PORT CAT 5E PATCH PANEL
- (5) EXISTING 1RMU NETWORK SERVICE PLATFORM JUNIPER NFX250
- (6) EXISTING 1RMU HPE MSR3012 ROUTER JG409B HP
- (7) EXISTING 1RMU 24 PORT ACTIVE SWITCH ARUBA 2540 JL356A
- (8) EXISTING 1RMU FIBRE PATCH PANEL
- (9) EXISTING 1RMU 24 PORT CAT 5E PATCH PANEL SYSTIMAX
- (10) EXISTING EQUIPMENT RACK RF MOTE
- 11) 2RMU 48 PORT CAT6 PATCH PANEL PROVIDED AS PART OF THIS SCOPE OF
- (12) 1RMU NETWORK SWITCH SUPPLIED BY CLIENT AND INSTALLED BY COMMUNICATIONS CONTRACTOR



HUB ROOM 129

- N-1) RISER IS DIAGRAMMATIC ONLY.
- N-2 NOT USED.
- N-3 PROVIDE PUNCH DOWN BLOCK ASSEMBLY CONSISTING OF BELDEN QMBIX12E MOUNT AND QCBIX1A CONNECTORS. PROVIDE QUANTITY OF CONNECTORS REQUIRED TO TERMINATE ALL CABLES PROVIDED AS PART OF THIS SCOPE OF
- N-4 NOT USED.
- N-5 REFER TO COMMUNICATIONS PLANS FOR LOCATION OF CABINETS.
- N-6 PROVIDE DEDICATED FLOOR AND WALL PENETRATIONS FOR ENTIRE ROUTING OF FIBER OPTIC CABLES, VOICE RISER CABLES, VOICE HOUSE CABLES AND DATA INTERLINK CABLES. EXACT LOCATION OF ALL CORE DRILLS TO BE DETERMINED BY X-RAY RESULTS. X-RAYS MUST BE REVIEWED AND APPROVED BY LANDLORD PRIOR TO CORE DRILLING.
- N-7 SUPPORT CABLES TIGHT TO WALLS/CEILING SLAB UTILIZING CABLE TIE MOUNTS AND VELCRO TIE WRAPS.

- (1) EXISTING NETWORK EQUIPMENT RACK
- (2) EXISTING VOICE MDF PLYWOOD BACKBOARD
- (3) TYPICAL 4 PAIR CAT 6 UTP DATA CABLES PROVIDED AS PART OF THIS SCOPE OF WORK

DENOTES NEW PROVIDED BY COMMUNICATIONS CONTRACTOR ———— DENOTES EXISTING TO REMAIN

\* \* \* \* DENOTES EXISTING TO BE REMOVED BY COMMUNICATIONS CONTRACTOR

COMMUNICATIONS RISER DIAGRAM

EXISTING EQUIPMENT RACK RO1 ELEVATION - ROOM 129 SCALE: NTS

TELEPHONE / VOIP

SECURITY CAMERAS

WIRELESS ANTENNA

BAS / CHUBB SECURITY

PATCH PANEL OUTLET COLOUR CODING:

ALL OTHER NETWORK REQUIREMENTS

INTERCONNECTION OF NETWORKING EQUIPMENT - RED

CONFIRM PLACEMENT OF EQUIPMENT WITH OWNER PRIOR

TO RACKING PATCH PANELS, ACTIVE SWITCHES, ETC.

GREEN

BLUE

WHITE

YELLOW

- ORANGE

SCALE: NTS



N-1 EXACT LOCATION OF DEVICES TO BE COORDINATED WITH ELECTRICAL CONTRACTOR.

- 1 EXISTING VOICE MDF BACKBOARD
- 2 EXISTING NETWORK EQUIPMENT RACK

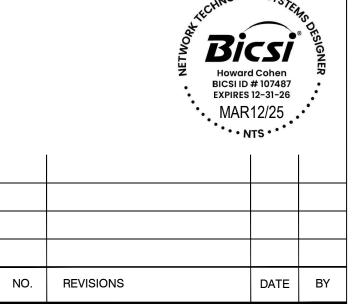
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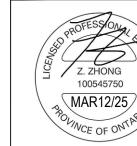
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PROJECT:

#### **RENOVATIONS AT ECOLE ELEMENTAIRE FELIX-LECLERC**

50 CELESTINE DRIVE TORONTO, ON

HCC Project Number# 24273

DRAWING:

COMMUNICATIONS **FACILITY PLAN** 



BARRY BRYAN ASSOCIATES Architects

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C-2.0

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