



Addendum # 2

Bid Opportunity: 25-7639-RFT - Alpine Public School HVAC Upgrade

**Closing Date: ~~Monday, March 31, 2025~~
Tuesday, April 8, 2025 2:00 PM**

The following issued by the Board shall form part of the Bid / Proposal Solicitation document. The revisions and additions noted herein along with any attachments shall be read in conjunction with all other related documents. This Addendum shall, take precedence over the previously issued documents where differences occur. Receipt of this addendum must be acknowledged in the Bidding System, bids&tenders.

If you have already submitted a Bid / Proposal, it will be automatically withdrawn as a result of this addendum. You must resubmit the Bid / Proposal acknowledging all addenda and revising your Bid / Proposal to comply with all addenda.

Question 1:

Could you provide the existing sprinkler plans for the building?

Answer 1:

The existing building is not sprinklered.

Question 2:

Please confirm the roof replacement area we should follow as the noted areas of 140sqm (A) and 123sqm (C) do not appear to match the scale of the drawing when double-checked.

Answer 2:

We can confirm the roof replacement areas are 140 sq.m. & 123 sq.m.

Question 3:

Please confirm the dates that the school will be available to start the removals work in all or any areas.

Answer 3:

Due to the scope of the work, the school will be available as of July 2, 2025.

Question 4:

Please clarify if 2x2 ceiling tiles are to match spec's for the 1729 fine fissured tile

Answer 4:

All new ceiling are to be 610x1220mm, 1729 fine fissured, per specification 09 51 13. Areas on the drawings showing 610x610 ceiling tiles are to be removed and replaced as required for new electrical work.

Question 5:

What are the generator requirements for size? and what is the purpose of the generator to back up?

Answer 5: CONTRACTOR TO PROVIDE TEMPORARY POWER DURING POWER OUTAGES. PROVIDE TEMPORARY PANEL AND BRANCH CIRCUIT CONNECTIONS TO SUIT. COORDINATE ADDITIONAL REQUIREMENTS WITH SCHOOL BOARD REPRESENTATIVE. TEMPORARY POWER TO BE PROVIDED FOR LOADS AS FOLLOWS:

15A-1P CIRCUIT - FIRE ALARM PANEL

15A-1P CIRCUIT - SECURITY PANEL

2 x 15A-1P CIRCUITS - EXTERIOR LIGHTING

5 x 15A-1P CIRCUITS - CORRIDOR LIGHTING

15 x 15A-1P CIRCUITS - SPARE

Question 6:

Would conduits running through the gym be acceptable for service back feeding?

Answer 6: No

Question 7:

Would we be able to run aluminum wire for secondary power from the transformer?

Answer 7: No

Question 8:

Would we be able to run aluminum for new roof top units?

Answer 8: No

Question 9:

The electrical drawings refers to a work scope to be completed under cash allowance by Enova. Is this cash allowance to be included in our bids and what is the intended value of this allowance ?

Answer 9: All work by Enova will be paid directly by school board, no allowance required.

Question 10:

How will the WRDSB handle potential cost increases on equipment for this project caused by tariffs, levies, and/or taxes not in place at this time ?

Answer 10:

The Board will review increase cost on a case by case basis once the project has been awarded.

Question 11:

Please clarify that we will have full access to interior work areas to begin demolition and removals and steel reinforcement work at April 14, 2025, as noted in addendum #1. If this is not correct, please confirm the date for this full access.

Answer 11:

Only preparation of shop drawings will start April 14th. On site construction will start July 2nd. 2025.

Question 12:

With regards to 01 35 23 Health and Safety, 1.8.5, please confirm that we do not require a full time person on site for only health and safety purposes, in addition to our full time site supervisor who is responsible for health & safety during the work.

Answer 12:

Site supervisor is required on site for health & safety during construction. No dedicated person is required on site.

Question 13:

Section 07 11 13: please clarify the requirements for bituminous waterproofing as the areas referenced in this section are not clearly identified on the plans.

Answer 13:

Please disregard spec section 07 11 13.

Question 14:

Can this job closing being extended by about a week?
Due to volume of tenders out currently.

Answer 14:

The tender closing has been revised to April 8th, 2025, at 2:00pm

Question 15:

We would like to ask for an extension to this closing.

Answer 15:

The tender closing has been revised to April 8th, 2025, at 2:00pm

Question 16:

Can you please provide a spec for fixture type A

Answer 16:

LIGHT FIXTURE SCHEDULE							
Item	Manufacturer/Catalog Number	Voltage	Lamp	Mounting	CRI	Listings	Description
A	COOPER CAT. #4SNLED-LD5-44SL-LW-UNV-L840-CD-1-AYC-WG/SNF-4FT LITHONIA CAT. #CLX L48 5000LM SEF RDL WD MWOLT GZ10 40K 80CRI WH/WGCLX48 SIGNIFY CAT. #SDS42448LBCST-UN3-DIM-FKR-126-SDS4WG	120V	LED 4601 LUMENS 4000K 38W	RECESSED	80	DLC DAMP LOC.	4' (1220mm) SURFACE LED STRIP LIGHT C/W WIDE LENSED OPTICAL DISTRIBUTION, CHAIN SUSPENSION KIT, 10% 0-10V DIMMING DRIVER, AND WIRE GUARD.
EMERG. BATT.	EM-2: BEGHELLI NV12 SERIES #NV12-200/SR EMERGLITE CAT. #12LSE SERIES LUMACELL CAT. #RGS SERIES STANPRO CAT. #SLA-12 SERIES AIMLITE CAT. #EBST12 SERIES READY-LITE CAT. #LD12X SERIES	12V/120V	LED 2-4W MR16	SURFACE	N/A	N/A	LONG LIFE, SEALED BATTERY, C/W MICRO SIZE 12V 4W (MINIMUM) LED HEADS.
COMBO UNIT	AIMLITE CAT. #CARPW SERIES EM-1 #CARPW12036X2SM4WLJATD EM-2 #CARPW12072X2SM4WLJATD STANPRO CAT. #PRMXL SERIES EM-1 #PRMXL10361-2N4LJ-AT EM-2 #PRMXL10721-2N4LJ-AT LUMACELL CAT. #LAC SERIES EM-1 #LACXW12502LD7ATN EM-2 #LACXW12722LD7ATN	12V/120V	LED 2-4W PAR16	SURFACE	N/A	N/A	LED EXTRUDED ALUMINUM PICTOGRAM FIXTURE C/W GREEN FACE AND WHITE LEGEND, UNIVERSAL MOUNTING TO SUIT WALL, END OR CEILING, MAXIMUM 2.5" (63mm) THICKNESS, 12V INTERNAL SEALED RECHARGABLE BATTERY PROVIDING MINIMUM EMERGENCY WATTAGE AS NOTED BY THE CATALOGUE NUMBER AND AUTOTEST FEATURE. INTEGRAL 12V LED HEADS TO HAVE COMPACT DESIGN WITH WHITE COLOUR, FULL AIMING ADJUSTMENT, AND 360° ROTATION. WHERE NOTED UNIT SHALL BE C/W WIREGUARD. FACES AND CHEVRONS TO SUIT DRAWINGS.
NOTES: ① LED LUMEN VALUES QUOTED FOR FIXTURES ARE TO BE CONSIDERED MINIMUM, AND AS ABSOLUTE OR DELIVERED LUMENS, LUMEN VALUES SHOULD NOT EXCEED MORE THAN 10% OF SPECIFIED OUTPUT. ② IF THERE ARE ANY DISCREPANCIES BETWEEN THE FIXTURE PART NUMBER AND DESCRIPTION, IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO BRING THESE TO THE ELECTRICAL CONSULTANT'S ATTENTION PRIOR TO TENDER CLOSE. NO EXTRAS WILL BE ENTERAINED FOR FAILURE TO DO SO. FINAL FIXTURE CHARACTERISTICS AND DESCRIPTION WILL BE MARKED BY CONSULTANT AT TIME OF SHOP DRAWING REVIEW.							

Question 17:

The vault spec and post are not valid specs is there an other option?

Answer 17:

Transformer vault information on detail E/E101. All requirements are to be coordinated with Enova.

The information below, attachments and drawings provide additional clarification and does not change the Scope or intent of the bid document.

STRUCUTRAL

Item 1: Structural

- .1 Please find attached One (1) typed page of instructions, Structural Addendum No.1, issued by MTE Consultants, dated March 19, 2025.

MECHANICAL & ELECTRICAL

Item 2: Mechanical & Electrical

- .1 Please find attached Three (3) typed page of instructions & Nine (9) full sized drawings, Addendum 01, issued by DEI Consulting Engineers, dated March 24, 2025.

- End of Addendum #2 -

This addendum, prepared by MTE Consultants, forms part of the contract documents and modifies the original specifications and drawings as follows.

STRUCTURAL DRAWINGS

AMMENDMENT NO.1

DRAWING S1.1

- a. Concrete notes added to drawing

CONCRETE AND CONCRETE REINFORCING

1. ALL CONCRETE WORK INCLUDING MATERIALS, MIXING, PLACING, FINISHING, CURING, COLD WEATHER PROTECTION, HOT WEATHER PROTECTION, FORMWORK AND RESHORING IN ACCORDANCE WITH A23.1 AND A23.3 CURRENT UNLESS NOTED OTHERWISE.
2. ALL CONCRETE REINFORCING INCLUDING MATERIALS, FABRICATION, DETAILING, LAP SPLICES, PLACEMENT, FIXING AND COVER IN ACCORDANCE WITH A23.1 AND A23.3 CURRENT UNLESS NOTED OTHERWISE HERE.
3. CURE ALL SLABS ON GRADE WITH PRE-APPROVED CURING COMPOUND COMPATIBLE WITH THE PROPOSED FLOORING ADHESIVE. MAINTAIN AIR TEMPERATURE AT OR ABOVE 10°C FOR SEVEN (7) DAYS.
4. ALL SLABS TO BE LEFT EXPOSED IN THE COMPETED BUILDING TO RECEIVE TWO COATS OF A PRE-APPROVED CONCRETE SEALER IMMEDIATELY PRIOR TO TURNING THE BUILDING OVER TO THE OWNER.
5. CONCRETE PROPERTIES:

LOCATION	SPEC 28 DAY	SLUMP	AIR CONTENT	EXPOSURE CLASS
HOUSEKEEPING PAD	25MPa	100 MAX.		N

6. REINFORCING STEEL TO BE GRADE 400, WITH A MINIMUM SPECIFIED YIELD STRENGTH OF 400MPa.

Enclosures:

None

END OF STRUCTURAL ADDENDUM NUMBER ONE

March 27, 2025

Client: Hossack Architecture
105-1939 Ironoak Way
Oakville, ON, L6H 3V8

RE: Alpine Public School – HVAC Upgrade
Kitchener, ON

Job #: 24355

Attn: Jonathan Knight, B.Arch.Sci., M.Arch., OAA, MRAIC/Guka Yogarajah

ADDENDUM 01

MECHANICAL

Item 1

1.0 Reference Specification Section 25 40 11 'Direct Digital Controls (DDC)'

.1 Replace Item 1.4 in its entirety with the following:

"1.4 MANUFACTURER AND INSTALLING CONTRACTOR

.1 The temperature control manufacturer shall be Distech Controls.

.2 The local contractor is available at phone (519) 893-2638.

.3 Any new building must be a seamless extension of the current Energy Management and Building Control System

.1 The existing Niagara software is, and shall continue to be, the only head-end BAS server for the entire School Board.

.2 The head-end server contains the secure Energy Management Settings (i.e. Master Setpoints & Schedules) that are sent to all schools in real-time. The control system must be an extension of the head-end server and be able to be managed exclusively through the Niagara head-end server.

.3 Monitoring of all school board control systems are done in real-time and must be presented at the exclusive Niagara head-end server as first-priority data.

.4 The Niagara head-end server has all the required controller databases and software to be able to centrally maintain and modify network configuration and controller software for the entire School Board. The Niagara head-end server is the only system that can access the programming variables inside the controllers for real-time configuration of setpoint and time scheduling parameters.

.5 The graphics and controller database must be presented inside the Niagara head-end server in its native format in order to preserve the real-time speed, integrity and multi-site administration of the entire system."

Item 2

2.0 Reference Attached Reissued Drawing M100

.1 Revise various schedule remarks as shown.

.2 Revise 'Multizone Unit Roof Curb Details' as shown.



Item 3**3.0 Reference Attached Reissued Drawing M201**

- .1 Existing standpipe system is not required. The contractor shall drain entire piping system and remove associated hoses. Existing fire extinguishers shall remain located in cabinets. Refer to attached reissued drawing M201.

Item 4**4.0 Reference Attached Reissued Drawings M201, M202, M301, and M302**

- .1 Revise ductwork in Seminar Room, Work Room, and AV Room as shown.
- .2 Provide averaging thermostat for work rooms as shown.
- .3 Revise electrical room and storage room louvre as shown.

ELECTRICAL**Item 1****1.0 Reference Specification Section 26 01 13 'Electrical Supplemental Tender Form'**

- .1 Delete section in its entirety.

Item 2**2.0 Reference Attached Reissued Drawing E101**

- .1 Reference reissued drawings for approximate locations of existing underground infrastructure.
- .2 Contractor to provide one (1) 1" spare duct for future parking lot lighting upgrade and one (1) 1-1/4" spare duct for future EV charging station(s). Refer to reissued drawings for additional information.
- .3 Details for rental generator added.
- .4 No utility cash allowance required, all utility costs by owner, all coordination by contractor.

Item 3**3.0 Reference Attached Reissued Drawings E201 and E301**

- .1 Door within Storage C is to be replaced. Contractor to include for relocation of adjacent door devices to suit installation.
- .2 Contractor to remove and reinstall all devices along run of new conduit connecting the new and old switchboard.
- .3 Fixture schedule added.

Item 4**4.0 Reference Attached Reissued Drawing E401**

- .1 Switchboard elevation detail updated to include phase loss relay and surge protection devices.
- .2 Exhaust fan is to be renamed from EF-1 to EF-6 and reverse acting thermostat is to be provided by the electrical contractor.



- .3 Supply and install mechanical seals at transformer vault and switchboard equal to Polywater PHRD series. Duct sealing compound must still be included per specifications.



Ahmad Awad, P.Eng.

Senior Mechanical Engineer

24355 Addendum 01 (M&E-Various) Mar 27 25.docx

aa/ct/smb



PLUMBING FIXTURE SCHEDULE

Item	Type	Connection Sizes				Vent	Acceptable Manufacturer	Fixture Description	Acceptable Manufacturer	Trim Description	Accessories
		HW	CW	TW	Drain						
RD-1	ROOF DRAIN				NOTED		ZURN ZA121-CR MIFAB R1200-BU CONTOUR C1000DMP WATTS RD-100-BED-K SMITH 1015-C-R-AD	STANDARD ROOF DRAIN WITH CAST IRON BODY WITH ALUMINUM DOME, UNDER-DECK CLAMP TO SUIT ROOF CONSTRUCTION, ROOF SUMP RECEIVER, FLASHING CLAMP RING WITH INTEGRAL GRAVEL STOP.			

PENTHOUSE MULTIZONE UNIT SCHEDULE

Item	Type	AHU ZONE NUMBER	AHU Data			Medium	Coil Type	Cooling Coil Data				ESP in. wc	Gas Heating Section						Electrical Data				Manufacturer & Model	Remarks	Accessories	
			Supply cfm	OA cfm	Size Top			Nominal Tons	Total MBH	Sensible MBH	Latent MBH		High Fire INPUT MBH	High Fire OUTPUT MBH	Low Fire INPUT MBH	Low Fire OUTPUT MBH	AFUE	ESP in. wc	GAS PRESSURE in. w.c. (WV/MV)	Unit Voltage	MCA/MOCP	W/DOSS				W/O DOSS
MZ-1	MULTIZONE ROOF TOP UNIT		9,650	3,600		R454B	DX	26	316.0	240.7	80/67	55							4.5/10.5	208/3/60	161/175	66/70	CUSTOM EQUIPMENT PM23-40Y641	OUTDOOR CONDENSING UNIT MODEL: ML14XP1-060-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-060-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-048-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-048-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-048-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-048-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-048-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-048-233 PRETREAT SECTION PRETREAT SECTION	INTEGRAL CONDENSATE NEUTRALIZER WITH SINGLE POINT CONNECTION FOR EACH MULTIZONE UNIT ECONOMIZER FUNCTION ON ALL FURNACES SERVICE LIGHTING AND REFRIG. OUTLET FACTORY REFRIGERANT PIPING TO EXTERIOR FOR THE IN TO REMOTE HPS (FINAL PIPING BY THIS CONTRACTOR) SINGLE POINT GAS CONNECTION FIELD MEASUREMENT TO MATCH EXISTING ROOF CURB (ADAPTOR PROVIDED IF REQUIRED) AND MATCH EXISTING SA CONNECTIONS 2 FUSED DISCONNECTS (1 PER EACH LISTED POWER REQUIREMENT WITH AND WITHOUT COOLING) INTEGRATE WITH SPACE CO2 SENSORS SUITABLE FOR INLET GAS PRESSURE OF 3.5"	
		1	2,000	456	1.0									1.0					0.8							
		2	2,000	456	1.0									1.0					0.8							
		3	1,400	319	1.0									1.0					0.8							
		4	1,400	319	1.0									1.0					0.8							
		5	1,400	319	1.0									1.0					0.8							
		6	1,450	331	1.0									1.0					0.8							
		7	2,000	1,000	1.0									1.0					0.8							
		8	2,000	400	1.0									1.0					0.8							
		9																								
MZ-2	MULTIZONE ROOF TOP UNIT		7,960	2,400		R454B	DX	21	253.8	194.7	80/67	55							4.5/10.5	208/3/60	133/150	60/70	CUSTOM EQUIPMENT PM23-35Y641	OUTDOOR CONDENSING UNIT MODEL: ML14XP1-060-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-060-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-060-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-060-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-060-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-060-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-060-233 OUTDOOR CONDENSING UNIT MODEL: ML14XP1-060-233 PRETREAT SECTION PRETREAT SECTION	INTEGRATE WITH SPACE CO2 SENSORS SUITABLE FOR INLET GAS PRESSURE OF 3.5"	TAB CONTRACTOR SHALL BALANCE TO MINIMUM GA RATES BASED ON GFA. REVIEW GA RATES WITH GFA PRIOR TO COMPLETING ANY BALANCING.
		1	2000	301	1.0									1.0					0.8							
		2	NOT USED																							
		3	1,300	196	1.0									1.0					0.8							
		4	2,200	332	1.0									1.0					0.8							
		5	1,000	151	1.0									1.0					0.8							
		6	1,460	220	1.0									1.0					0.8							
		7	2,000	1,000	1.0									1.0					0.8							
		8	2,000	400	1.0									1.0					0.8							
		9																								

REFER TO ALTERNATE PRICE IN SPECIFICATIONS

MECHANICAL LEGEND

Item	Description	Item	Description
-----	ITEM TO BE REMOVED	FHC	FIRE HOSE CABINET
+	CUT EXISTING & CONNECT NEW PIPING	FEC	RECESSED CABINET MOUNTED FIRE EXTINGUISHER
CD	CONDENSATE DRAIN		SUPPLY AIR DUCT
G	NATURAL GAS		RETURN/EXHAUST AIR DUCT
RL	REFRIGERANT LIQUID		ACOUSTIC DUCT LINING
RS	REFRIGERANT SUCTION		THERMAL INSULATION
+	TEE CONNECTION	FSD	FIRE/SMOKE DAMPER
o	PIPE DOWN		RECTANGULAR DUCTWORK
o	PIPE UP		RIGID ROUND DUCT
+	REDUCER/INCREASER	---	FLEXIBLE ROUND DUCT
PRV	PRESSURE REDUCING VALVE	Type Size Capacity	DIFFUSER/GRILLE SIZE (imp), TYPE & CAPACITY (cfm)
U	UNION	AFF	ABOVE FINISHED FLOOR
+	SCREWED OR WELDED PIPE CAP	AFR	ABOVE FINISHED ROOF
+	PLUG VALVE	EXISTING DUCT (SIZE AS INDICATED)	
⊙	THERMOSTAT (WITH GUARD WHERE INDICATED)	C.E.T	CONNECT TO EXISTING
⊙	CO2 SENSOR (WITH GUARD WHERE INDICATED)		TRANSFER DUCT (SIZE AS INDICATED)

HVAC SYSTEM CLEANING

- ALL DUCT SYSTEMS FOR THE MULTIZONE HVAC SYSTEM IS TO BE CLEANED. REFER TO SPECIFICATION.
- DUCTWORK, DIFFUSERS, GRILLES, DAMPERS SHOWN ARE APPROXIMATE. RA CEILING GRILLES ARE NOT SHOWN, BUT ARE INCLUDED TO BE CLEANED.
- CONTRACTOR IS RESPONSIBLE FOR ACCESS TO THE DUCTWORK INCLUDING CEILING TILE REMOVAL & REINSTALLATION, DUCT OPENINGS, ETC TO ALLOW SYSTEM TO BE CLEANED.

GRILLE SCHEDULE

Item	Type	Equalizing Grid	Volume Damper	Acceptable Manufacturer	Description
D1	SQUARE CEILING DIFFUSER	YES	NONE	EH PRICE SCDA	MULTICONE, FULLY ADJUSTABLE, 24x24, STEEL CEILING DIFFUSER W/ROUND NECK. SUITABLE FOR LAY-IN T-BAR CEILING, OR DRYWALL CEILING WHEN C/W FRAME.
D2	ROUND DIFFUSER	YES	NONE	EH PRICE RCDA	MULTICONE, FULLY ADJUSTABLE, STEEL DIFFUSER W/ROUND NECK. SUITABLE FOR EXPOSED, HUNG INSTALLATION. PROVIDE CONCEALED SAFETY CHAIN FROM DIFFUSER UP INTO DUCTWORK.
R1	CEILING RETURN GRILLE (NON-DUCTED)	NO	NONE	EH PRICE 80-CH	1/2x1/2x1/2 ALUMINUM EGGRATE CORE, C/W CHANNEL BORDER FOR LAY-IN T-BAR CEILING.
LD1	LINEAR CEILING DIFFUSER	NO	NONE	EH PRICE SDS-100 WITH SDA PLENUM	2 SLOT (1" WIDE) LONG LINEAR DIFFUSER, EXTRUDED ALUMINUM CONSTRUCTION, SLOPED SHOULDER PLENUM, 180° AIR PATTERN ADJUSTMENT, SUITABLE FOR STANDARD LAY-IN T-BAR CEILING W/MITRED END FLANGES, & INSULATED PLENUM. LENGTH AS INDICATED.

GENERAL DIFFUSER/GRILLE NOTES:
1. ACCEPTABLE MANUFACTURERS: EH PRICE, NAILOR, TITUS, KRUEGER, CARNES, METALARE, TUTTLE & BAILEY
2. GRILLE COLOURS ARE SELECTED BY ARCHITECT FROM STANDARD COLOUR CHART, UNLESS OTHERWISE NOTED.
3. PAINT INTERIOR OF DUCTWORK BEHIND GRILLE MATT BLACK (WHERE VISIBLE THRU GRILLE).

FAN SCHEDULE

Item	Type	Capacity cfm	ESP in. wc	Fan Speed rpm	Motor hp	Motor Voltage	Acceptable Manufacturer	Description
EF-6	CEILING EXHAUST FAN	400	0.25	812	Fhp	120/1/60	GREENHECK SP-A1050-VG	ACoustically INSULATED STEEL HOUSING, DUAL CENTRIFUGAL BLOWER WHEELS, 90° DISCHARGE OUTLET W/BACKDRAFT DAMPER, C/W WHITE PAINTED ENAMEL STEEL GRILLE, VIBRATION ISOLATORS, 2.5 SONES

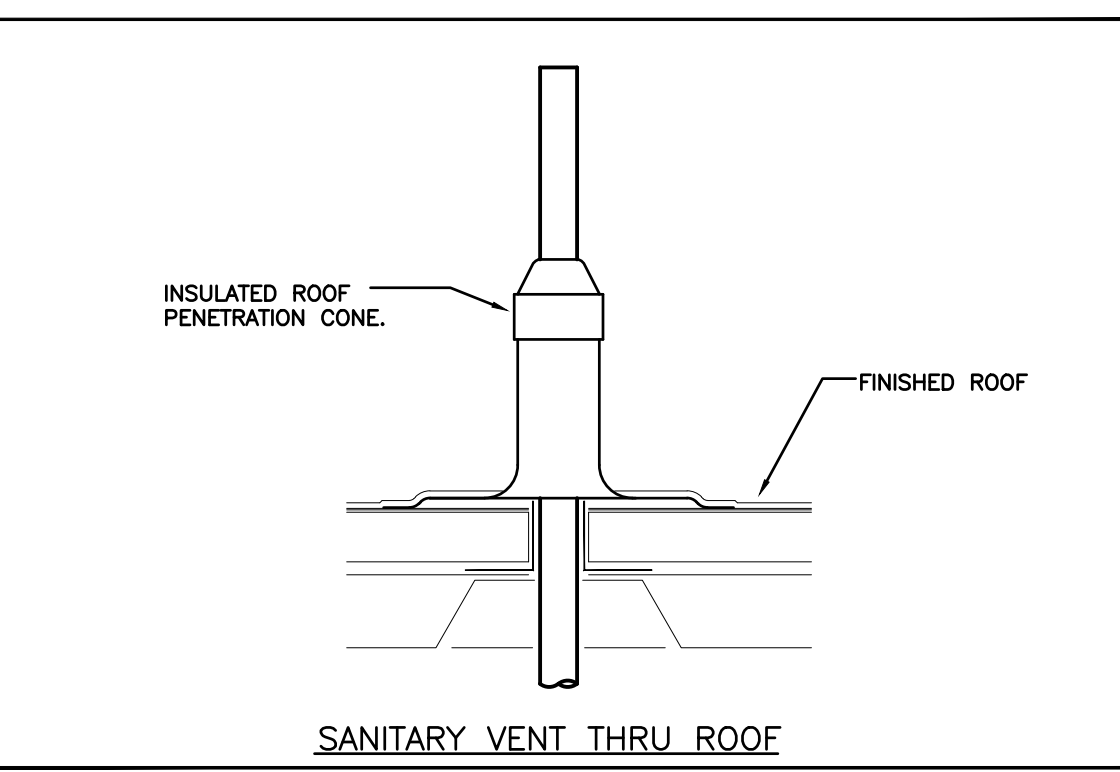
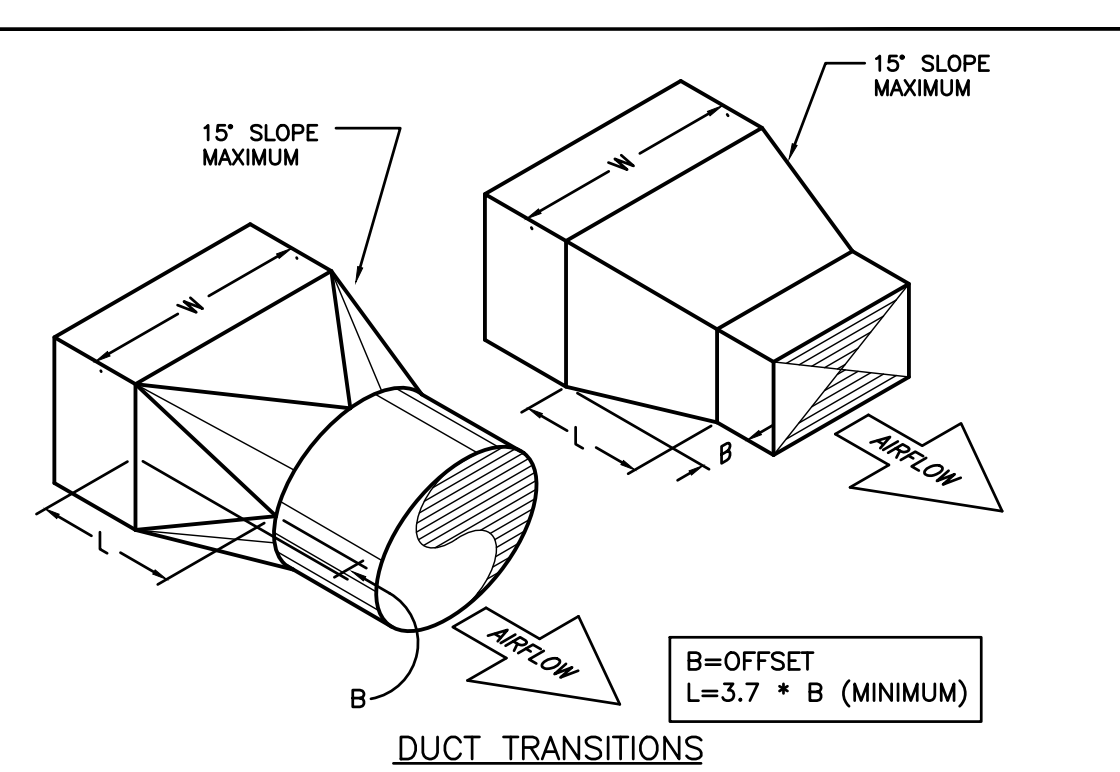
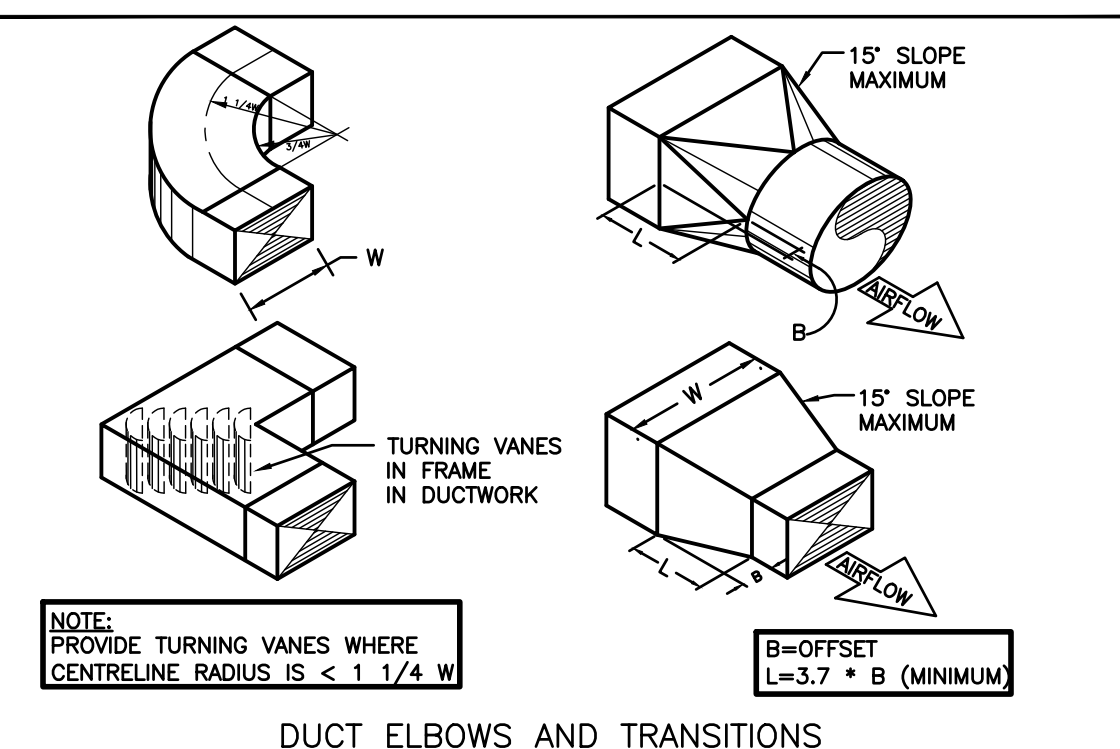
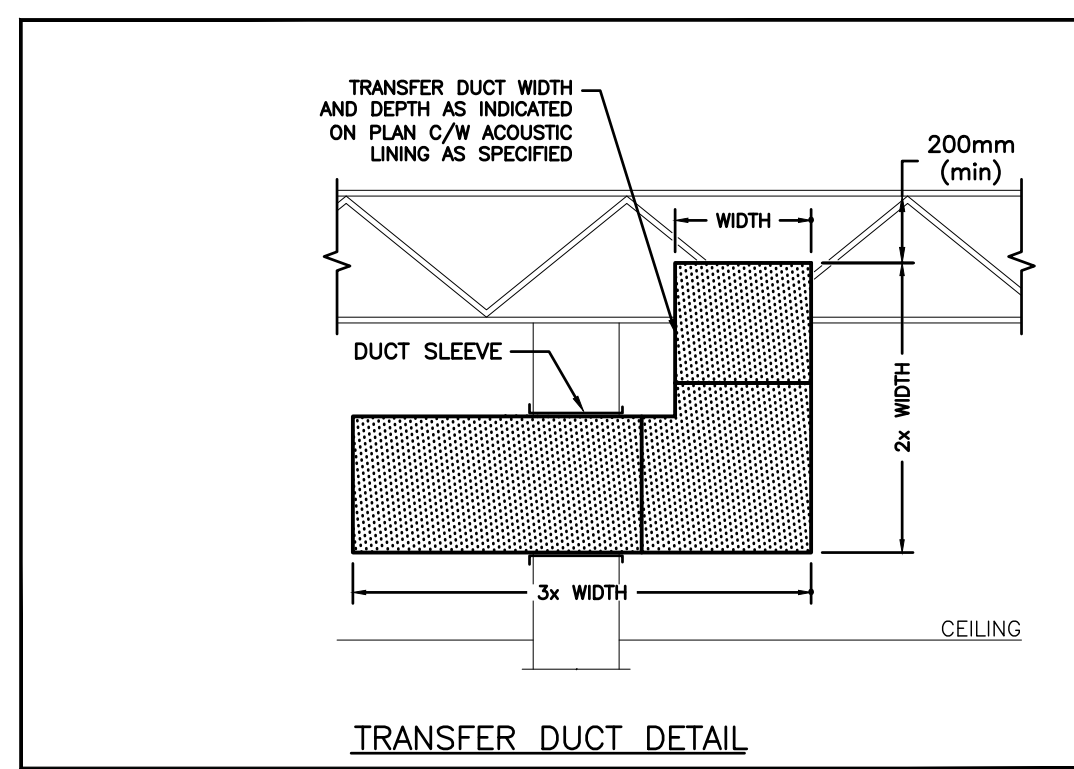
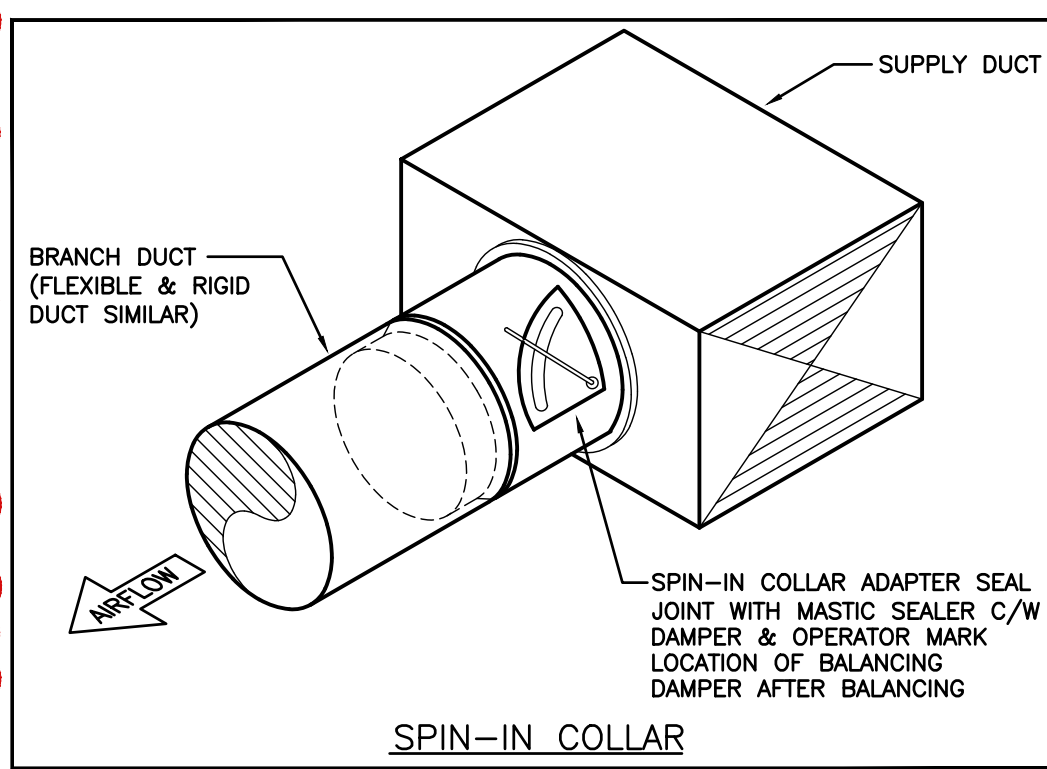
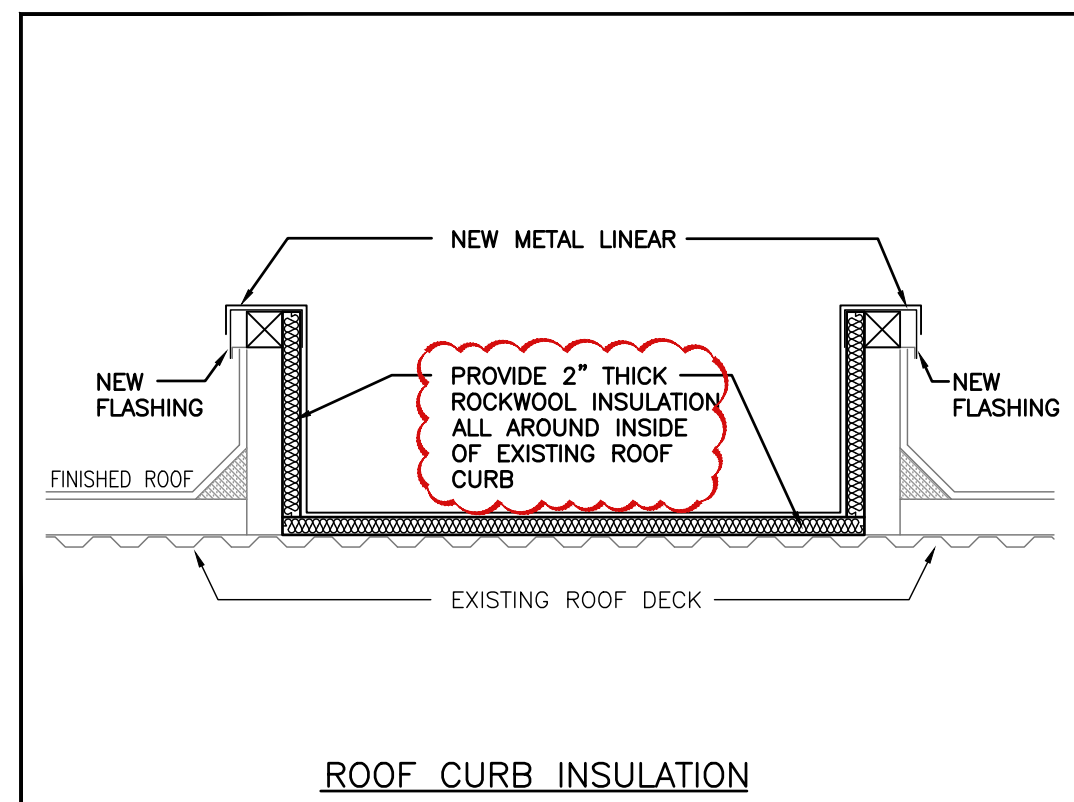
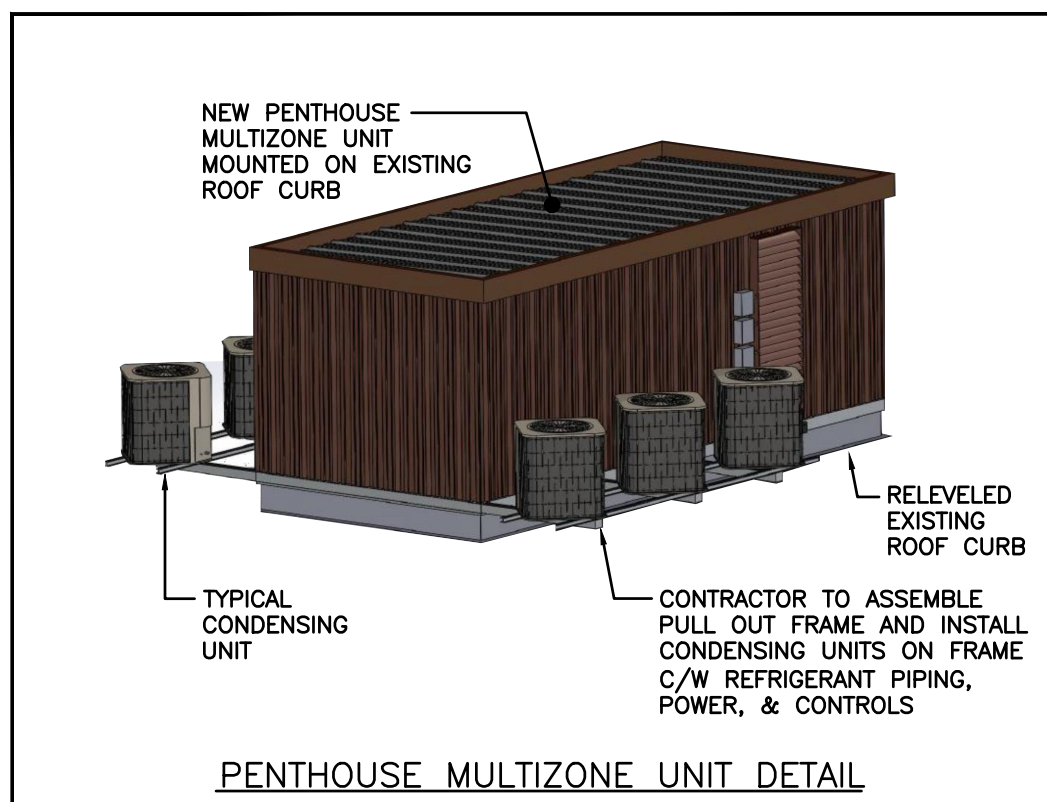
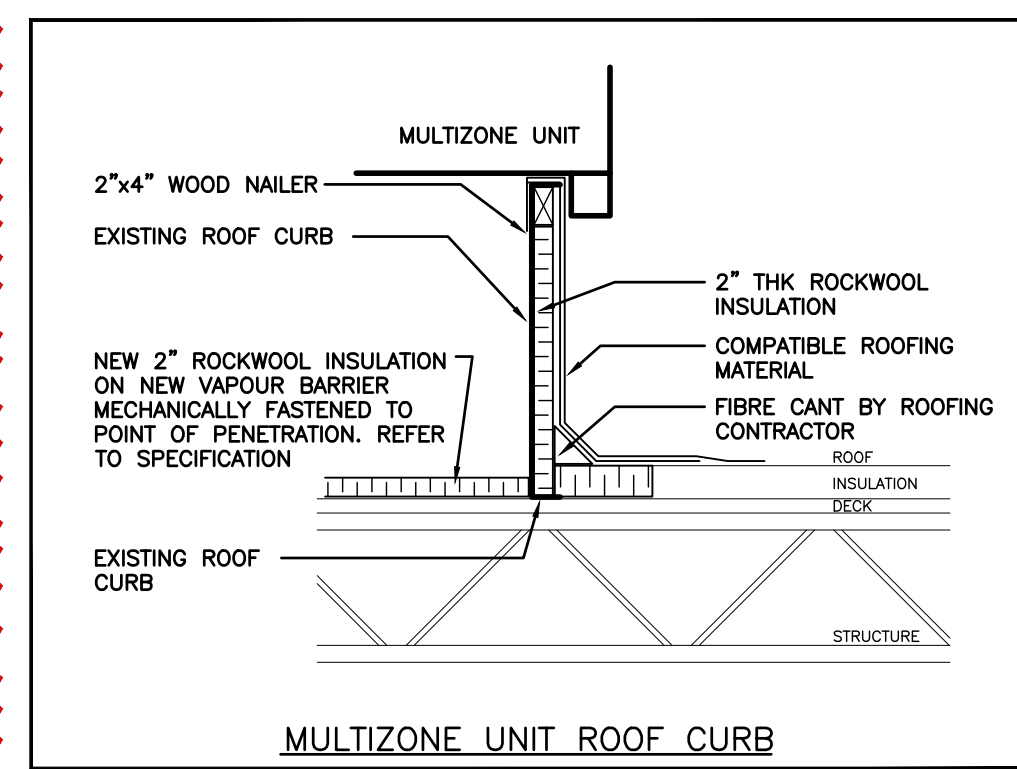
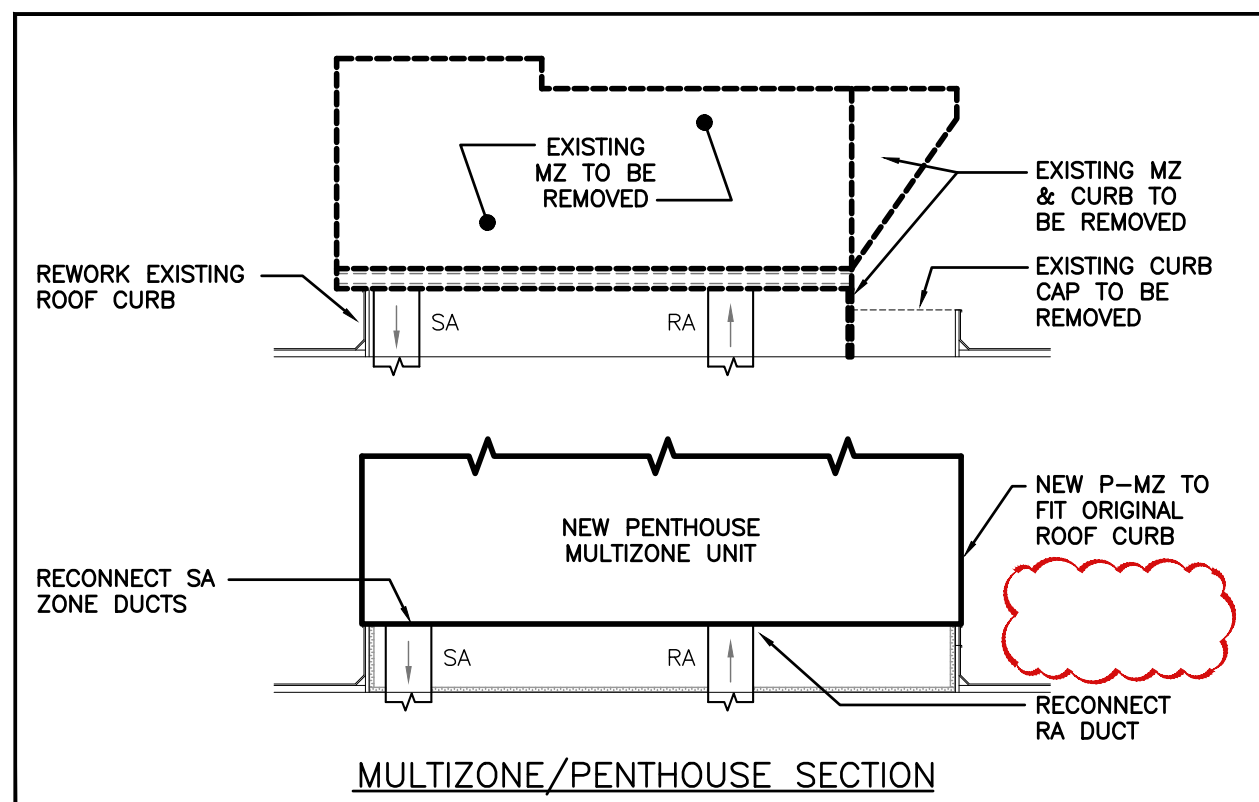
GENERAL FAN NOTES:
1. ACCEPTABLE MANUFACTURERS: BROAN, GREENHECK, ZONEX

WT CONTROL DAMPER SCHEDULE

Item	Capacity (cfm)			Size	Material	Stroke	Type	Remarks
	Design	Minimum	Maximum					
WT-1.1	300	90	510	250x200	X			SUPPLIED BY ENERGY CONTROLS, INSTALLED BY MECHANICAL CONTRACTOR.
WT-2.1	200	60	340	6"	X			SUPPLIED BY ENERGY CONTROLS, INSTALLED BY MECHANICAL CONTRACTOR.
WT-2.2	200	60	340	6"	X			SUPPLIED BY ENERGY CONTROLS, INSTALLED BY MECHANICAL CONTRACTOR.
WT-2.3	150	45	255	6"	X			SUPPLIED BY ENERGY CONTROLS, INSTALLED BY MECHANICAL CONTRACTOR.

ENERGY RECOVERY UNIT SCHEDULE

Item	Type	Supply Fan				Exhaust Fan				Energy Recovery				Electrical			Manufacturers & Model	Equal Manufacturer	Accessories	Remarks			
		Air Flow CFM	E.S.P. in	Electrical Voltage	HP Drive	Air Flow CFM	E.S.P. in	Electrical Voltage	HP Drive	Type	Heating Cap. (MBH) @ 70°F	Total Effectiveness (%)	Cooling Cap. (MBH) @ 70°F	Total Effectiveness (%)	Voltage	MCA					MOPP		
ERV-1	ENERGY RECOVERY VENTILATOR	3600	0.5	208/3/60	3.0	VFD	3600	0.5	208/3/60	3.0	VFD	Enthalpy Wheel	319.8	78.5	98.4	77.4	208/3/60	30.4	40	ALDES CW5000e	GREENHECK RUSKIN COOK	1. DEFROST DAMPER/RECIRC DEFROST CYCLE 2. VIBRATION ISOLATION RAIL AT CURB 3. CO2 CONTROLLER	INTERLOCK WITH MZ-1, C/W 24" INSULATED ROOF CURB, BACKET CARD, INTAKE AND EXHAUST HOOD, CO2 SENSOR, FAN INTERLOCK.
ERV-2	ENERGY RECOVERY VENTILATOR	2400	0.5	208/3/60	3.0	VFD	2400	0.5	208/3/60	3.0	VFD	Enthalpy Wheel	207.4	76.3	63.6	75.4	208/3/60	28.2	35	ALDES CW3000e	GREENHECK RUSKIN COOK	1. DEFROST DAMPER/RECIRC DEFROST CYCLE 2. VIBRATION ISOLATION RAIL AT CURB 3. CO2 CONTROLLER	INTERLOCK WITH MZ-2, C/W 24" INSULATED ROOF CURB, BACKET CARD, INTAKE AND EXHAUST HOOD, CO2 SENSOR, FAN INTERLOCK.



4	ISSUED FOR ADDENDUM 01	Mar. 26/25
3	ISSUED FOR PERMIT/TENDER	Mar. 05/25
2	ISSUED FOR 100% REVIEW	Feb. 21/25
1	ISSUED FOR OWNERS REVIEW	Feb. 10/25
NO	ISSUED	DATE

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WRDSB ALPINE PS HVAC UPGRADE

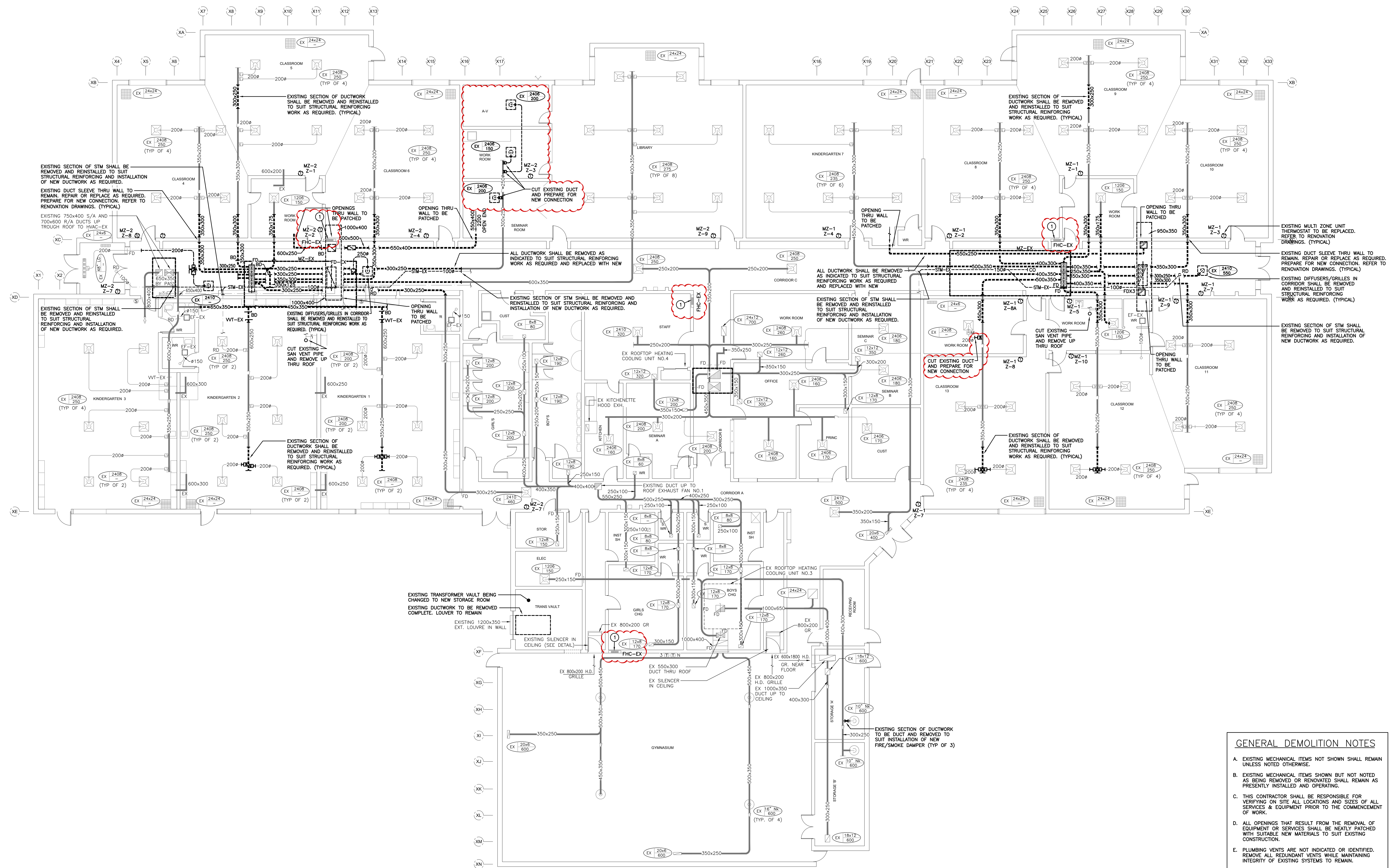
75 LUCERNE DRIVE, KITCHENER, ON.



LEGEND, SCHEDULES & DETAILS



SCALE	AS NOTED	PROJECT	24138
DATE	JAN. 2025	DRAWING	M100
DRAWN	IE / EH	CHECKED	AA / AD
PRINT DATE	JANUARY 25	CAD FILE	



GROUND FLOOR PLAN – DEMOLITION
SCALE: 1:100

GENERAL DEMOLITION NOTES

- A. EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- B. EXISTING MECHANICAL ITEMS SHOWN BUT NOT NOTED AS BEING REMOVED OR RENOVATED SHALL REMAIN AS PRESENTLY INSTALLED AND OPERATING.
- C. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SEWER & EQUIPMENT PRIOR TO THE COMMENCEMENT OF WORK.
- D. ALL OPENINGS THAT RESULT FROM THE REMOVAL OF EQUIPMENT OR SERVICES SHALL BE NEATLY PATCHED WITH SUITABLE NEW MATERIALS TO SUIT EXISTING CONSTRUCTION.
- E. PLUMBING VENTS ARE NOT INDICATED OR IDENTIFIED. ALL EXISTING REDUCED SIZE VENTS SHALL BE MAINTAINED TO MAINTAIN INTEGRITY OF EXISTING SYSTEMS TO REMAIN.
- F. REMOVAL OF EXISTING PIPING, OR DUCT SYSTEMS INCLUDES REMOVAL OF ALL HANGERS, INSULATION, FITTINGS, ETC.
- G. MAINTAIN INTEGRITY OF EXISTING SYSTEMS THAT ARE TO REMAIN OR BE MODIFIED.
- H. INSTALL NEW SYSTEM OR SERVICES WHERE REQUIRED TO MAINTAIN SYSTEM OPERATION PRIOR TO DEMOLITION OF EXISTING SERVICES.
- I. THIS CONTRACTOR IS TO REMOVE & REPLACE CEILINGS AS REQUIRED FOR REMOVAL/REPLACEMENT OF SERVICES.
- J. ALL DIFFUSER/GRILLES ARE TO BE CLEANED IN AREAS OF FLOORING REFER TO ARCHITECTURAL DRAWINGS.

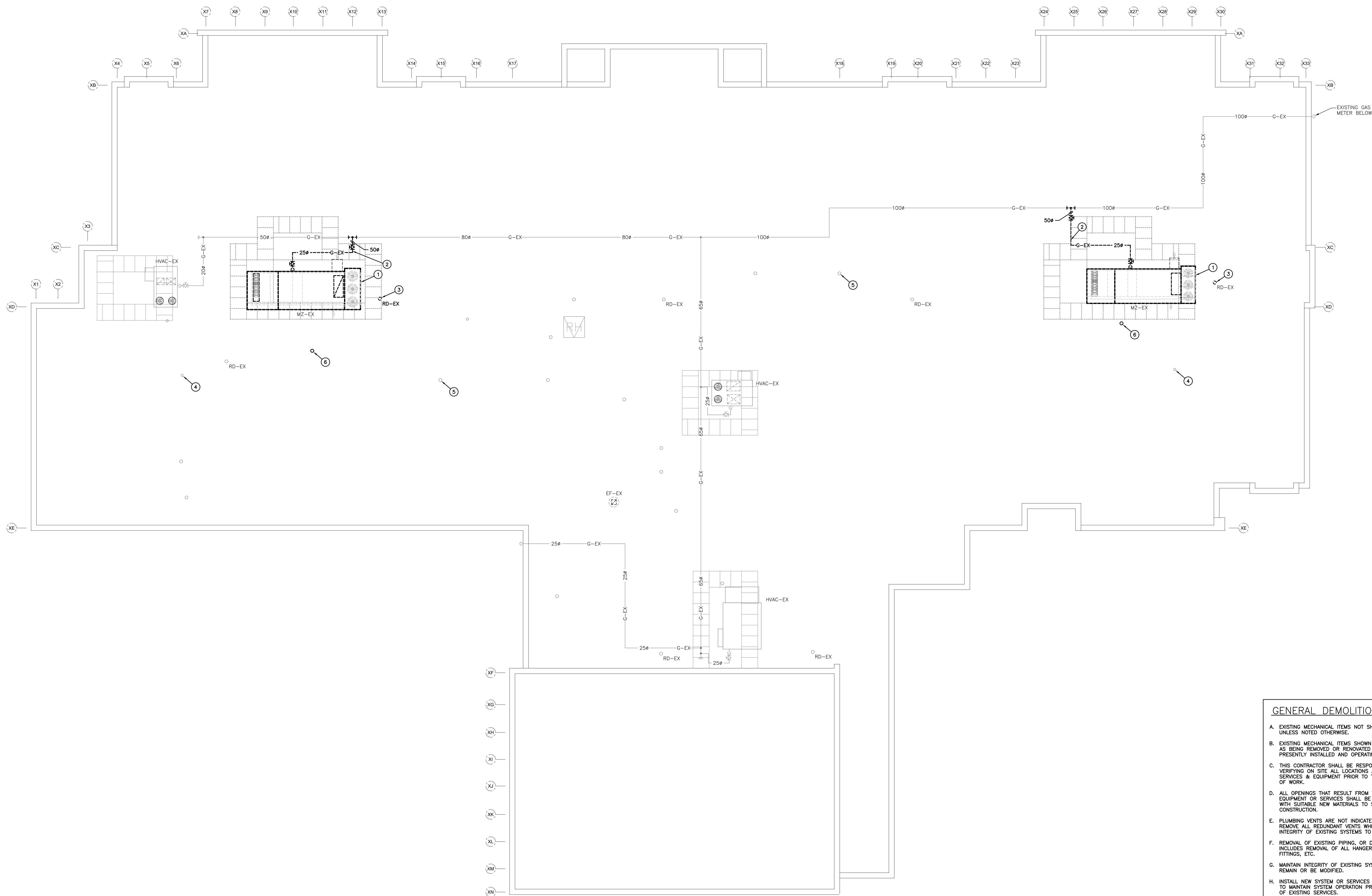
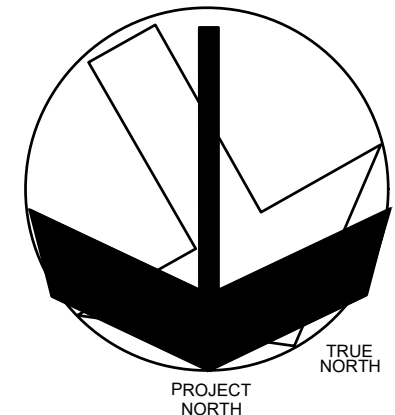
SPECIFIC DEMOLITION NOTES

1. EXISTING STANDPIPE SYSTEM IS NOT REQUIRED. THIS CONTRACTOR SHALL DRAIN ENTIRE PIPING SYSTEM AND REMOVE ASSOCIATED HOSES. EXISTING FIRE EXTINGUISHERS SHALL REMAIN LOCATED IN CABINETS.



GROUND FLOOR PLAN DEMOLITION





ROOF PLAN — DEMOLITION
SCALE: 1:100

GENERAL DEMOLITION NOTES

- EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- EXISTING MECHANICAL ITEMS SHOWN BUT NOT NOTED AS BEING REMOVED OR RENOVATED SHALL REMAIN AS PRESENTLY INSTALLED AND OPERATING.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SERVICES & EQUIPMENT PRIOR TO THE COMMENCEMENT OF WORK.
- ALL OPENINGS THAT RESULT FROM THE REMOVAL OF EQUIPMENT OR SERVICES SHALL BE NEATLY PATCHED WITH SUITABLE NEW MATERIALS TO SUIT EXISTING CONSTRUCTION.
- PLUMBING VENTS ARE NOT INDICATED OR IDENTIFIED. REMOVE ALL REDUNDANT VENTS WHILE MAINTAINING INTEGRITY OF EXISTING SYSTEMS TO REMAIN.
- REMOVAL OF EXISTING PIPING, OR DUCT SYSTEMS INCLUDES REMOVAL OF ALL HANGERS, INSULATION, FITTINGS, ETC.
- MAINTAIN INTEGRITY OF EXISTING SYSTEMS THAT ARE TO REMAIN OR BE MODIFIED.
- INSTALL NEW SYSTEM OR SERVICES WHERE REQUIRED TO MAINTAIN SYSTEM OPERATION PRIOR TO DEMOLITION OF EXISTING SERVICES.
- THIS CONTRACTOR IS TO REMOVE & REPLACE CEILINGS AS REQUIRED FOR REMOVAL/REPLACEMENT OF SERVICES.

SPECIFIC DEMOLITION NOTES

- EXISTING MULTIZONE RTU TO BE REMOVED COMPLETE. DISCONNECT SA & RA DUCTS, POWER, GAS, & CONTROLS. EXISTING CURB TO REMAIN IN PLACE. PREPARE FOR NEW UNIT REPLACEMENT.
- CUT & REMOVE EXISTING SECTION OF GAS PIPING.
- REMOVE AND RELOCATE EXISTING ROOF DRAIN. CUT EXISTING STORM PIPE AND PREPARE FOR NEW CONNECTION ON FLOOR BELOW. REFER TO RENOVATION DRAWINGS.
- EXISTING EA VENT THRU ROOF (TYP.)
- EXISTING SAN VENT THRU ROOF (TYP.)
- REMOVE AND RELOCATE EXISTING SAN VENT. CUT EXISTING SAN PIPE AND PREPARE FOR NEW CONNECTION ON FLOOR BELOW. REFER TO RENOVATION DRAWINGS.

WRDSB ALPINE PS HVAC UPGRADE

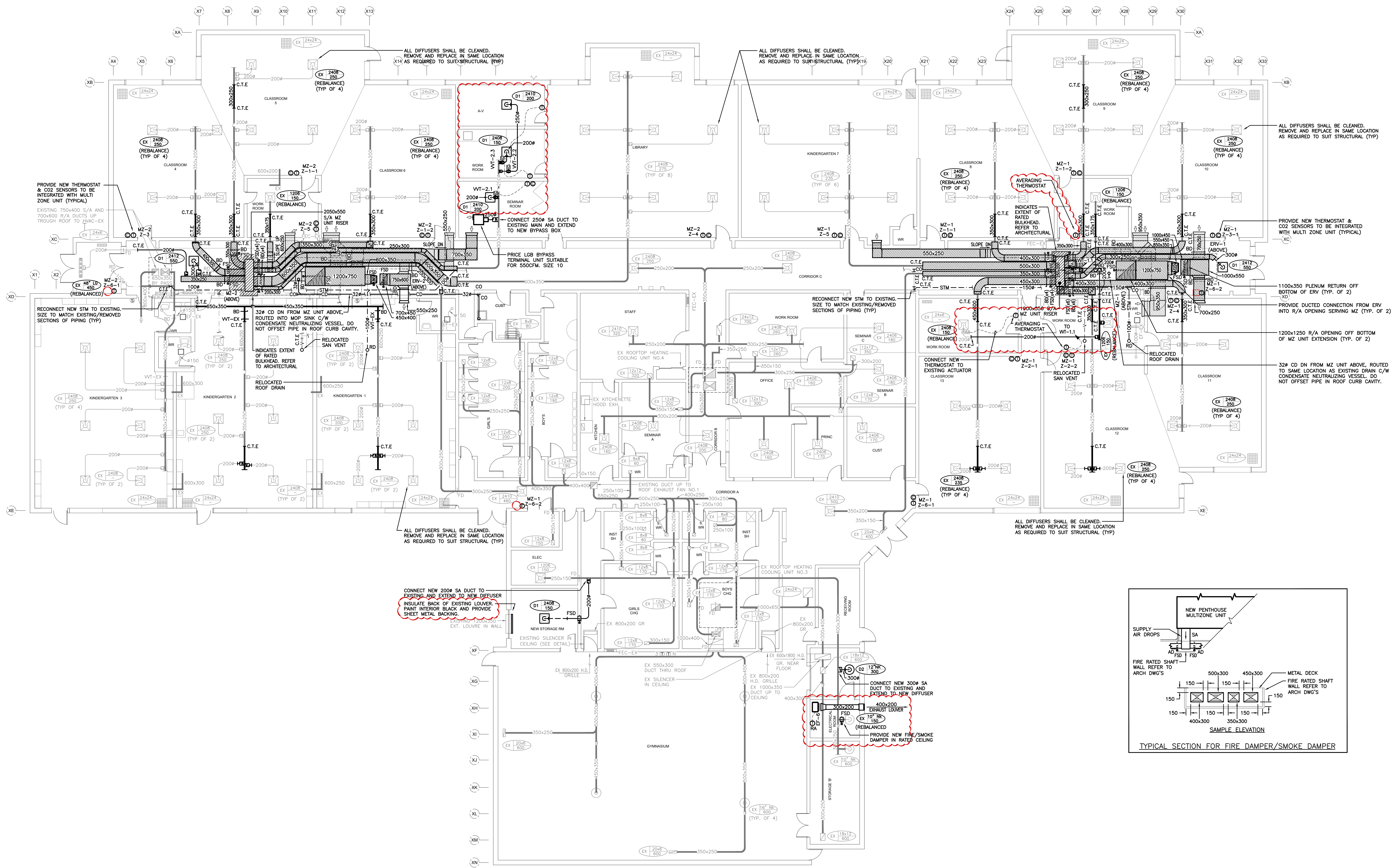
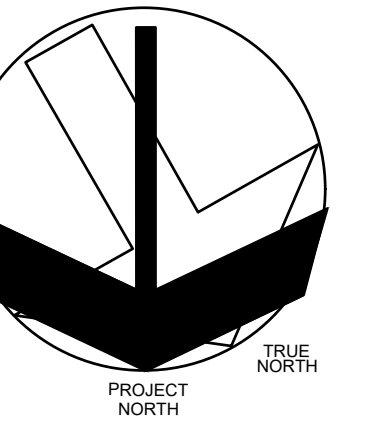
75 LUCERNE DRIVE,
KITCHENER, ON.



ROOF PLAN DEMOLITION



SCALE	AS NOTED	PROJECT
DATE	JAN. 2025	24138
DRAWN	IE / EH	DRAWING
CHECKED	AA / AD	M202
PRINT DATE	JANUARY 25	
CAD FILE		



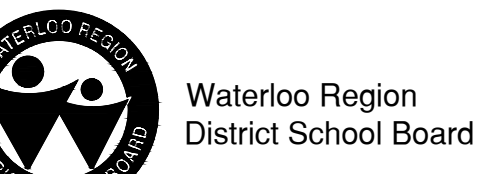
GROUND FLOOR PLAN - RENOVATION
SCALE: 1:100

4	ISSUED FOR ADDENDUM 01	Mar. 26/25
3	ISSUED FOR PERMIT/TENDER	Mar. 05/25
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WRDSB ALPINE PS HVAC
UPGRADE

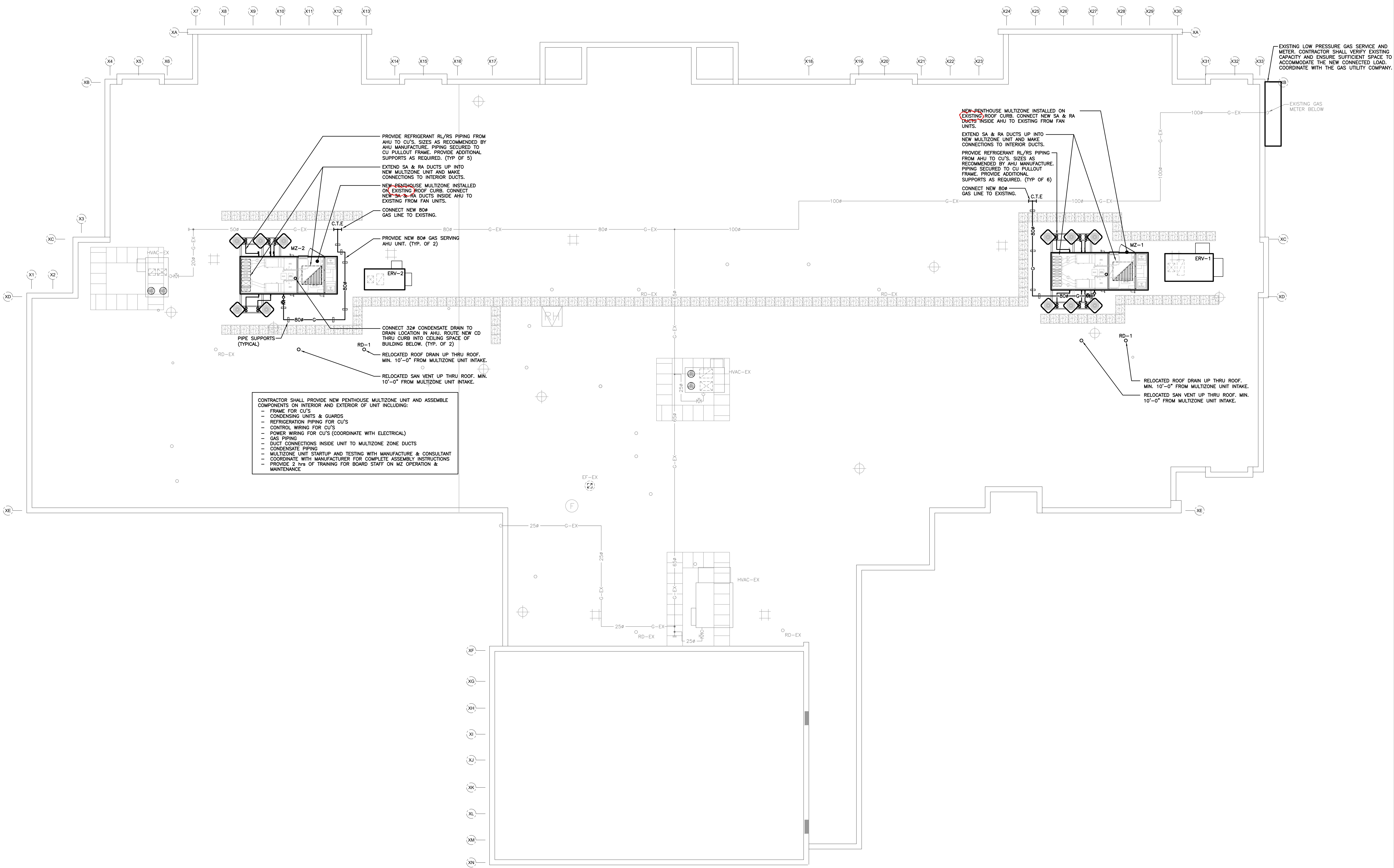
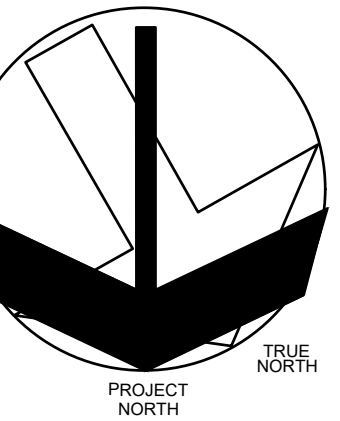
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GROUND FLOOR
PLAN RENOVATION



SCALE	PROJECT
AS NOTED	24138
DATE	JAN. 2025
DRAWN	IE / EH
CHECKED	AA / AD
PRINT DATE	JANUARY 25
CAD FILE	



CONTRACTOR SHALL PROVIDE NEW PENTHOUSE MULTIZONE UNIT AND ASSEMBLE COMPONENTS ON INTERIOR AND EXTERIOR OF UNIT INCLUDING:

- FRAME FOR CU'S
- CONDENSING UNITS & GUARDS
- REFRIGERATION PIPING FOR CU'S
- CONTROL WIRING FOR CU'S
- POWER WIRING FOR CU'S (COORDINATE WITH ELECTRICAL)
- GAS PIPING
- DUCT CONNECTIONS INSIDE UNIT TO MULTIZONE ZONE DUCTS
- CONDENSATE PIPING
- MULTIZONE UNIT STARTUP AND TESTING WITH MANUFACTURE & CONSULTANT
- COORDINATE WITH MANUFACTURER FOR COMPLETE ASSEMBLY INSTRUCTIONS
- PROVIDE 2 hrs OF TRAINING FOR BOARD STAFF ON MZ OPERATION & MAINTENANCE

NEW-PENTHOUSE MULTIZONE INSTALLED ON EXISTING ROOF CURB. CONNECT NEW SA & RA DUCTS INSIDE AHU TO EXISTING FROM FAN UNITS.

EXTEND SA & RA DUCTS UP INTO NEW MULTIZONE UNIT AND MAKE CONNECTIONS TO INTERIOR DUCTS.

PROVIDE REFRIGERANT RL/RS PIPING FROM AHU TO CU'S. SIZES AS RECOMMENDED BY AHU MANUFACTURE. PIPING SECURED TO CU PULLOUT FRAME. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED. (TYP OF 6)

CONNECT NEW 80# GAS LINE TO EXISTING.

EXISTING LOW PRESSURE GAS SERVICE AND METER. CONTRACTOR SHALL VERIFY EXISTING CAPACITY AND ENSURE SUFFICIENT SPACE TO ACCOMMODATE THE NEW CONNECTED LOAD. COORDINATE WITH THE GAS UTILITY COMPANY.

EXISTING GAS METER BELOW

RELOCATED ROOF DRAIN UP THRU ROOF. MIN. 10'-0" FROM MULTIZONE UNIT INTAKE.

RELOCATED SAN VENT UP THRU ROOF. MIN. 10'-0" FROM MULTIZONE UNIT INTAKE.

ROOF PLAN - RENOVATION
SCALE: 1:100

4	ISSUED FOR ADDENDUM 01	Mar. 26/25
3	ISSUED FOR PERMIT/TENDER	Mar. 05/25
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WRDSB ALPINE PS HVAC
UPGRADE

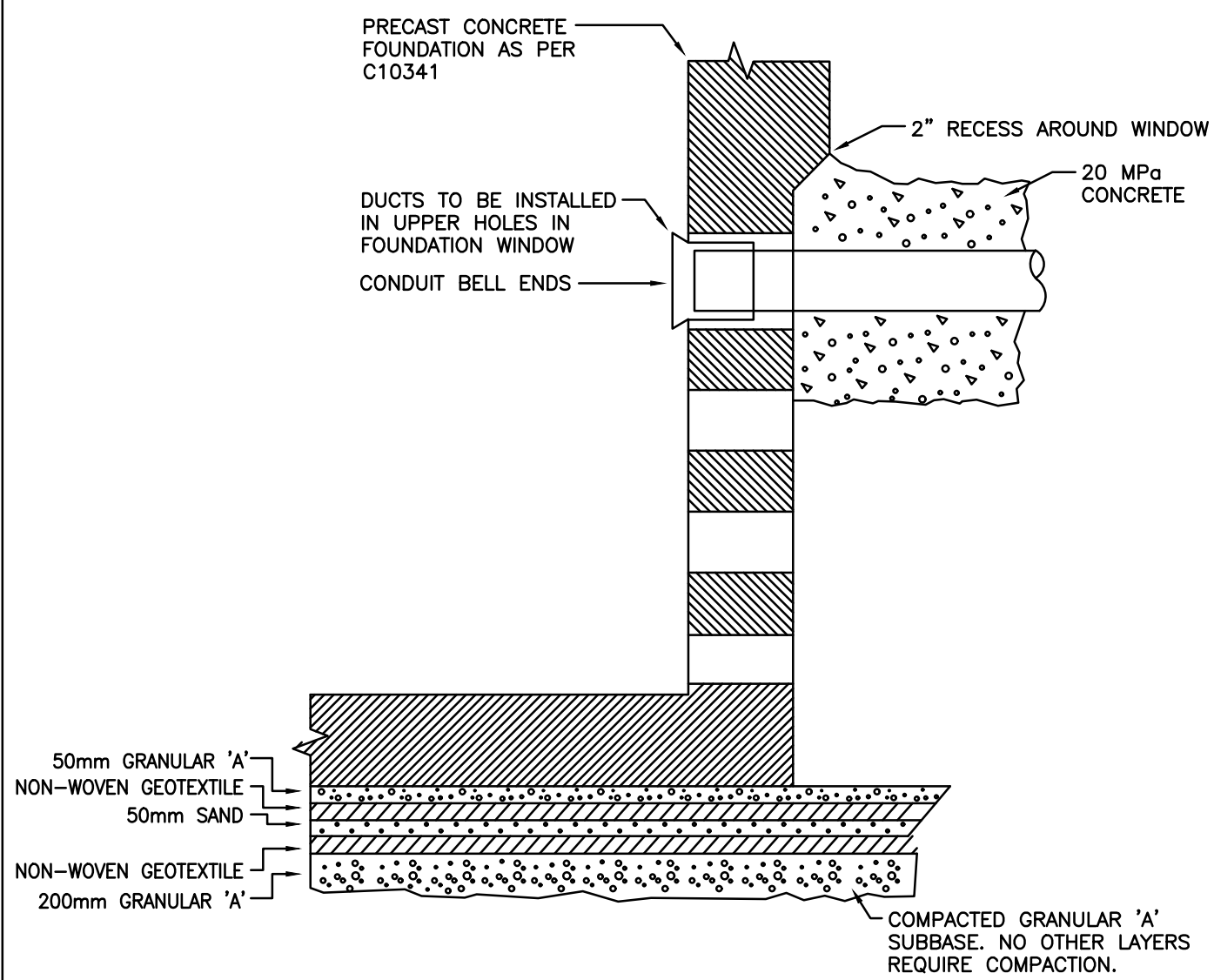
75 LUCERNE DRIVE,
KITCHENER, ON.



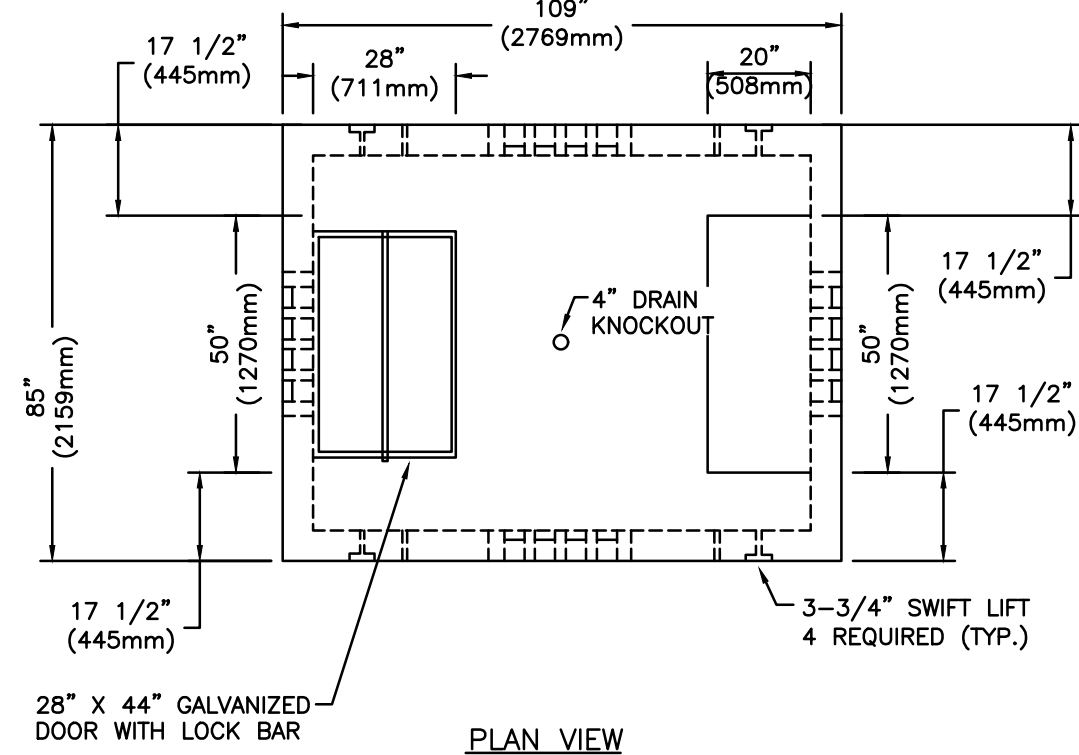
ROOF PLAN
RENOVATION



SCALE	AS NOTED	PROJECT	24138
DATE	JAN. 2025	DRAWING	M302
DRAWN	IE / EH	PRINT DATE	JANUARY 25
CHECKED	AA / AD	CAD FILE	

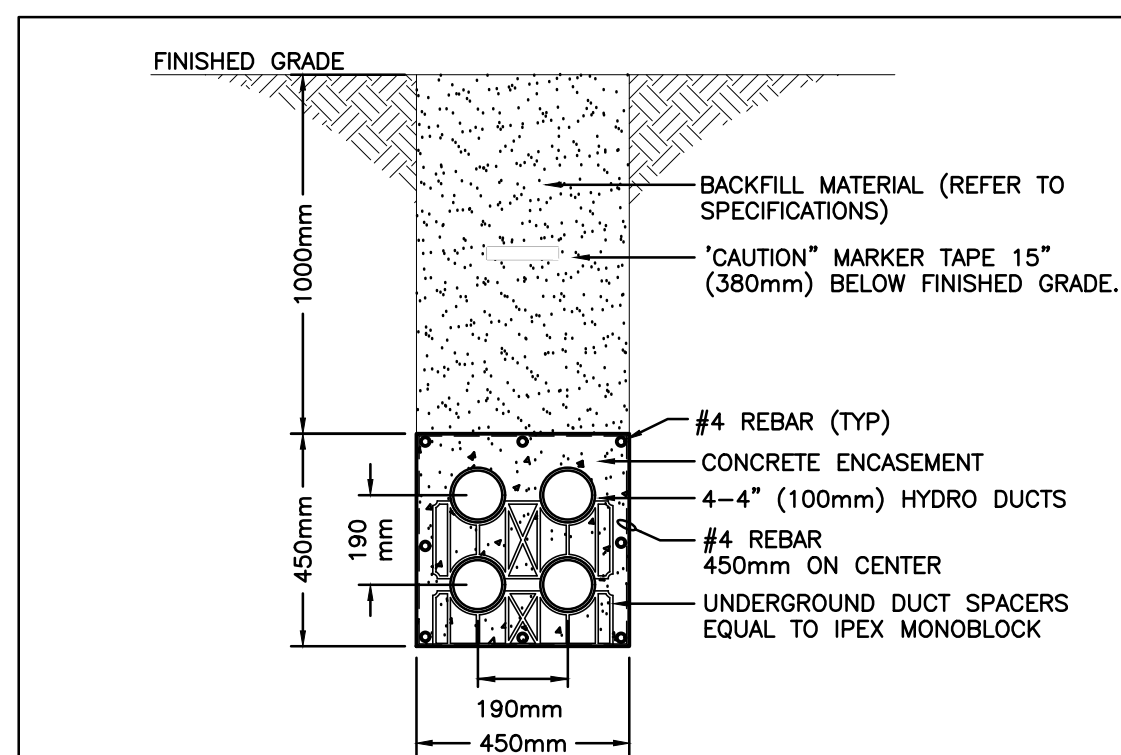


A1-DETAIL OF DUCT BANK TERMINATION THROUGH THREE PHASE PAD MOUNTED TRANSFORMER PRECAST CONCRETE FOUNDATION
SCALE: NTS



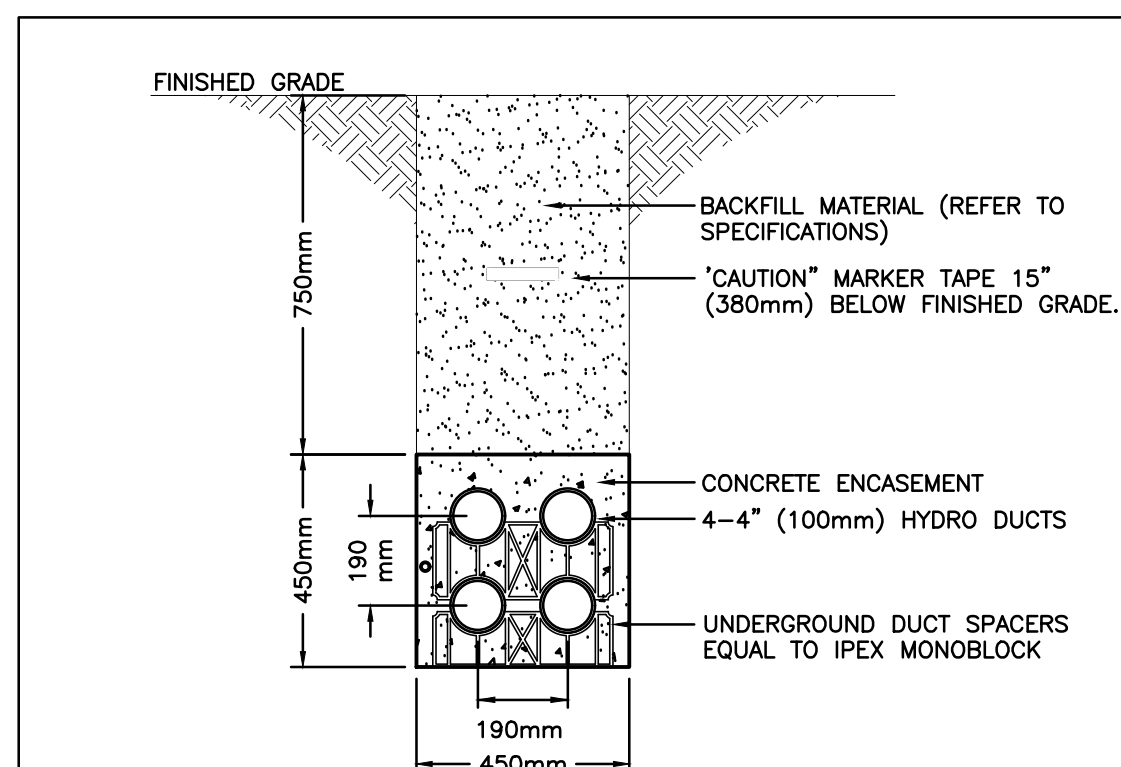
A2-DETAIL OF THREE PHASE PAD-MOUNT TRANSFORMER FOUNDATION C/W ENTRANCE WAY DESIGN SPECIFICATIONS
SCALE: NTS

A-TRANSFORMER BASE DETAIL
SCALE: NTS



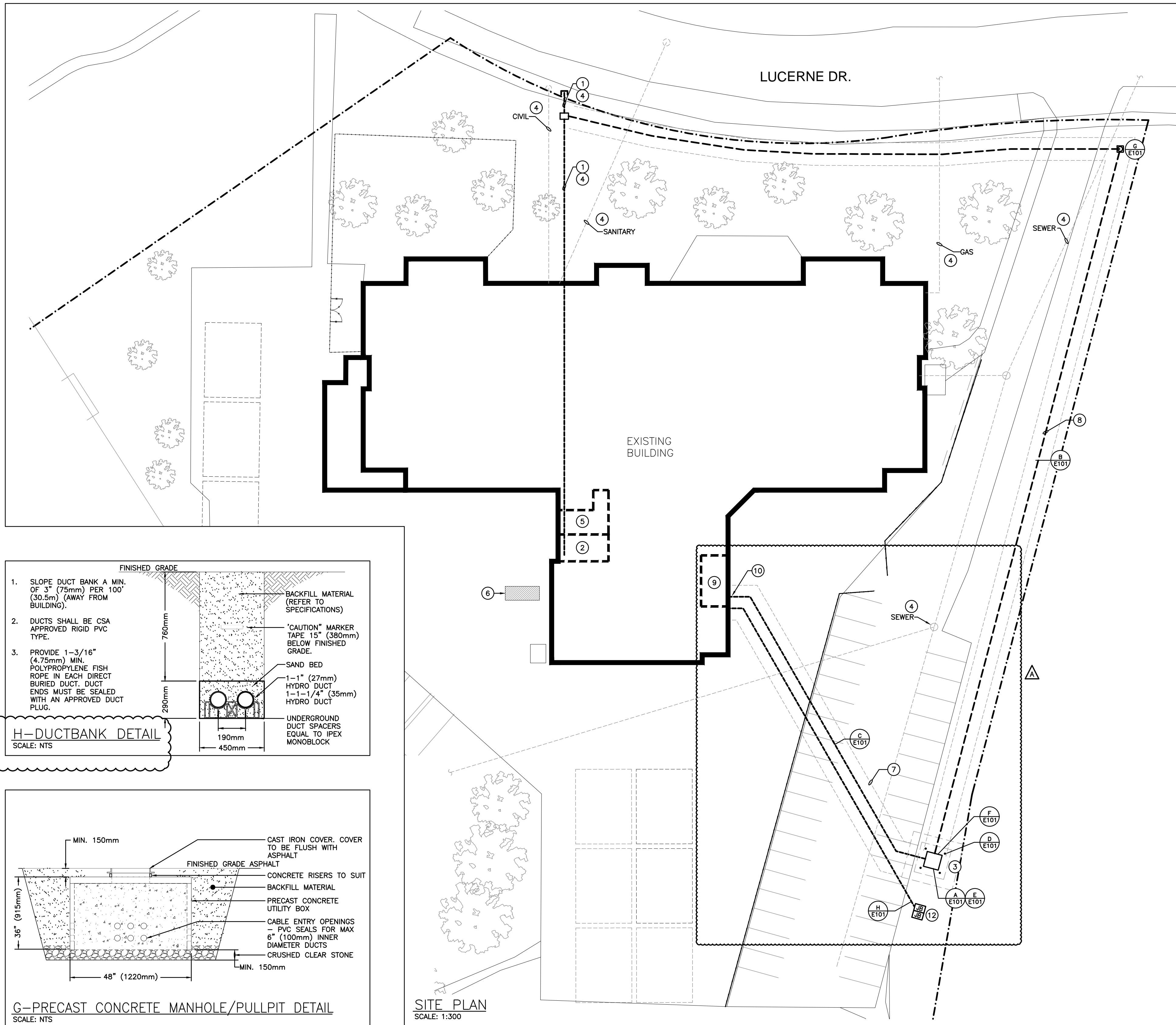
1. ENCASE DUCTS IN 20 MPa CONCRETE ON 1/2" (13mm) PEA GRAVEL.
2. SLOPE DUCT BANK A MIN. OF 3" (75mm) PER 100' (30.5m) (AWAY FROM BUILDING).
3. CONCRETE ENCASED DUCTS SHALL BE CSA APPROVED PVC TYPE II.
4. DUCTS NOT ENCASED IN CONCRETE SHALL BE CSA APPROVED RIGID PVC TYPE.
5. PROVIDE 1-3/16" (4.75mm) MIN. POLYPROPYLENE FISH ROPE IN EACH CONCRETE ENCASED OR DIRECT BURIED DUCT. DUCT ENDS MUST BE SEALED WITH AN APPROVED DUCT PLUG.

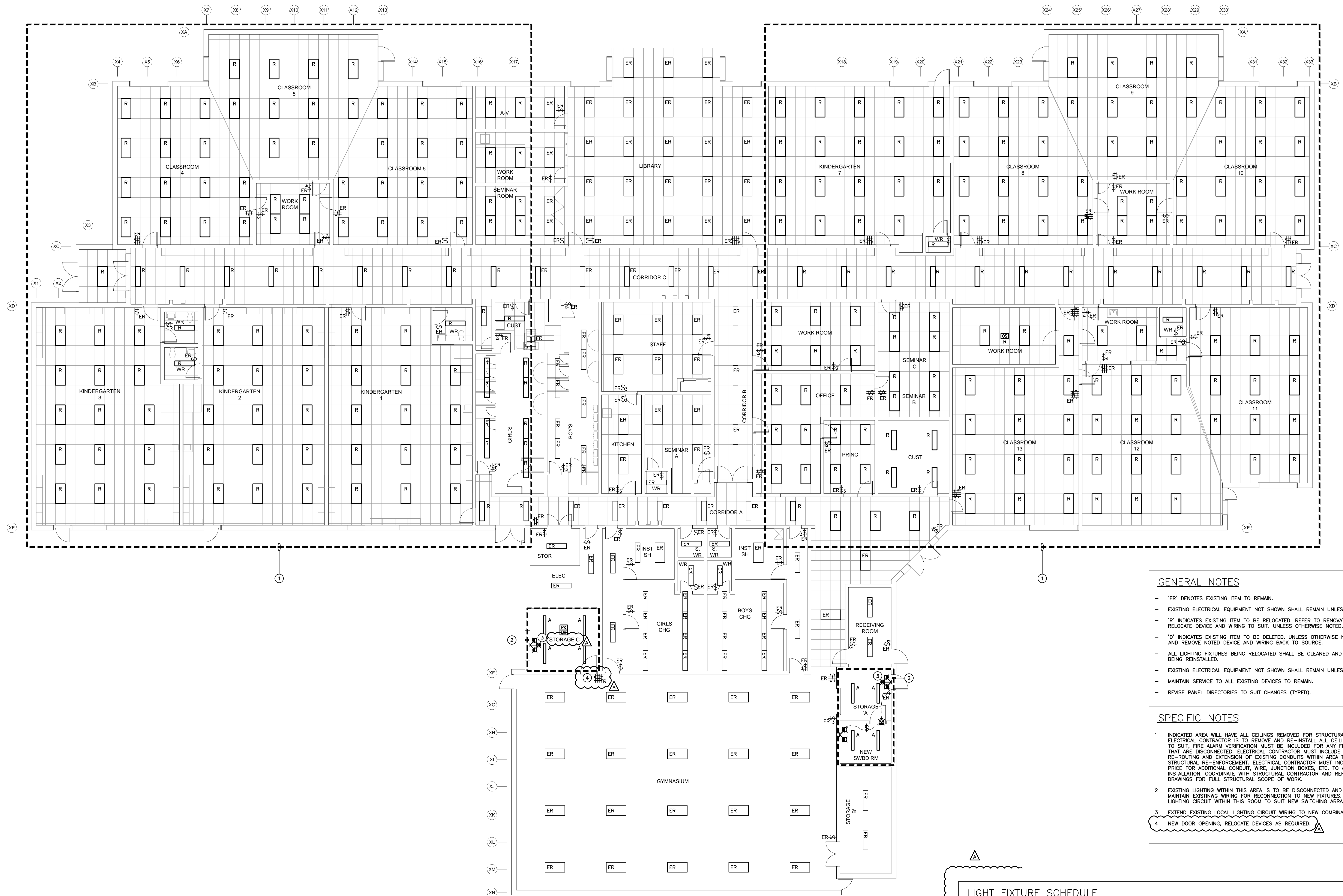
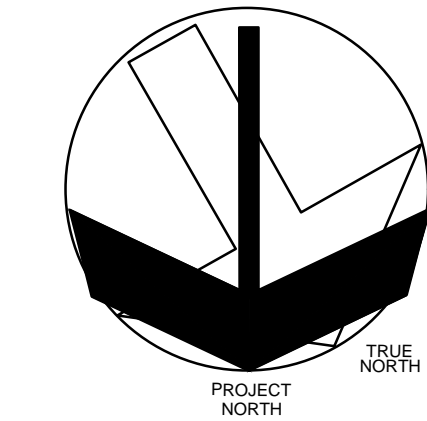
B-PRIMARY DUCTBANK DETAIL
SCALE: NTS



1. ENCASE DUCTS IN 20 MPa CONCRETE ON 1/2" (13mm) PEA GRAVEL.
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3. CONCRETE ENCASED DUCTS SHALL BE CSA APPROVED PVC TYPE II.
4. DUCTS NOT ENCASED IN CONCRETE SHALL BE CSA APPROVED RIGID PVC TYPE.
5. PROVIDE 1-3/16" (4.75mm) MIN. POLYPROPYLENE FISH ROPE IN EACH CONCRETE ENCASED OR DIRECT BURIED DUCT. DUCT ENDS MUST BE SEALED WITH AN APPROVED DUCT PLUG.

C-SECONDARY DUCTBANK DETAIL
SCALE: NTS





GENERAL NOTES

- "E" DENOTES EXISTING ITEM TO REMAIN.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- "R" INDICATES EXISTING ITEM TO BE RELOCATED, REFER TO RENOVATION DRAWINGS AND RELOCATE DEVICE AND WIRING TO SUIT. UNLESS OTHERWISE NOTED.
- "D" INDICATES EXISTING ITEM TO BE DELETED, UNLESS OTHERWISE NOTED DISCONNECT AND REMOVE NOTED DEVICES AND WIRING TO SUIT.
- ALL LIGHTING FIXTURES BEING RELOCATED SHALL BE CLEANED AND CHECKED PRIOR TO BEING REINSTALLED.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- MAINTAIN SERVICE TO ALL EXISTING DEVICES.
- REVISI PANEL DIRECTORIES TO SUIT CHANGES (TYPED).

SPECIFIC NOTES

1. INDICATED AREA WILL HAVE ALL CELINGS REMOVED FOR STRUCTURAL RE-ENFORCEMENT. ELECTRICAL CONTRACTOR IS TO REMOVE AND RE-INSTALL ALL CEILING MOUNTED DEVICES (LIGHTS, SMOKE DETECTORS, ETC.) AND RE-CONNECT TO EXISTING WIRING. ALL DEVICES THAT ARE DISCONNECTED, ELECTRICAL CONTRACTOR MUST INCLUDE THE REMOVAL, REPAIR AND RE-INSTALL OF ALL DEVICES. ELECTRICAL CONTRACTOR IS TO ALLOW FOR STRUCTURAL RE-ENFORCEMENT. ELECTRICAL CONTRACTOR MUST INCLUDE IN TENDER THE COST OF ALL MATERIALS AND LABOR TO RE-INSTALL AND RE-CONNECT TO EXISTING INSTALLATION, COORDINATE WITH STRUCTURAL CONTRACTOR AND REFER TO STRUCTURAL DRAWINGS FOR ALL STRUCTURAL SCHEMATIC WORK.
2. EXISTING LIGHTING WIRING TO BE DISCONNECTED AND REMOVED COMPLETE. MAINTAIN LIGHTING WIRING FOR RE-CONNECT TO NEW FIXTURES, RE-WORK EXISTING LIGHTING CIRCUIT WITHIN THIS ROOM TO SUIT NEW SWITCHING ARRANGEMENT/CONTROLS.
3. EXTEND EXISTING LOCAL LIGHTING CIRCUIT WIRING TO NEW COMBINATION UNIT.
4. NEW DOOR OPENING, RELOCATE DEVICES AS REQUIRED.

LIGHT FIXTURE SCHEDULE

Item	Manufacturer/Catalog Number	Voltage	Lamp	Mounted	CRI	Listings	Description
A	COOPER CAT. #4NLED-105-4SL-UW-LN-U840-CD-1-AYC-WG/SNF-4ET LUMINA CAT. #OLX LAB 5000LM SEF ROL WD MAOL Q10 4K 80DR W/NDOLX48 SONY CAT. #SS5448.BCST-UAS-DM-FRR-126-SD5AWG	120V	LED 4601 LUMENS 4000K 35W	RECESSED	80	DLC DAMP. LOC.	4" (122mm) SURFACE LED STRIP LIGHT C/W WIDE LENSED OPTIC DISTRIBUTOR, CHAIN SUSPENSION KIT, 10% -10V DIMMING DRIVER, AND WIRE GUARD.
EMERG. BATT.	EM-2: BEGHELLI NV12 SERIES #NV12-200/SR EMERGILITE CAT. #12LSE SERIES LUMACELL CAT. #RGS SERIES STANPRO CAT. #SLA-12 SERIES AMULITE CAT. #EBST12 SERIES READY-LITE CAT. #LED12X SERIES	12V/120V	LED 2-4W MR16	SURFACE	N/A	N/A	LONG LIFE, SEALED BATTERY, C/W MICRO SIZE 12V 4W (MINIMUM) LED HEADS.
COMBO UNIT	AMULITE CAT. #CAPRP SERIES EM-1 #CAPRP12036X2SM4W/LIATD EM-2 #CAPRP12072X2SM4W/LIATD STANPRO CAT. #PRWLX SERIES EM-1 #PRWLX10361-2N4U/LIAT EM-2 #PRWLX10721-2N4U/LIAT LUMACELL CAT. #SLC SERIES EM-1 #LACXW12036LD7ATN EM-2 #LACXW12722LD7ATN	12V/120V	LED 2-4W PR4B	SURFACE	N/A	N/A	LED EXTRUDED ALUMINUM PICTOGRAM FIXTURE C/W GREEN FACE AND WHITE LEGEND, UNIVERSAL MOUNTING TO SUIT WALL, END OR CEILING, MAXIMUM 2.5" (63mm) THICKNESS, 12V INTERNAL SEALED RECHARGEABLE BATTERY PROVIDING MINIMUM EMERGENCY WATTAGE AS NOTED BY THE CATALOGUE NUMBER AND AUTOTEST FEATURE, INTERNAL 12V LED HEADS TO HAVE COMPACT DESIGN WITH WHITE COLOUR, FULL ADJUSTMENT, AND 360° ROTATION, WHERE NOTED UNIT SHALL BE C/W WIREGUARD, FACES AND CHEVRONS TO SUIT DRAWINGS.

NOTES: (1) LED LUMEN VALUES QUOTED FOR FIXTURES ARE TO BE CONSIDERED MINIMUM, AND AS ABSOLUTE OR DELIVERED LUMENS. LUMEN VALUES SHOULD NOT EXCEED MORE THAN 10% OF SPECIFIED OUTPUT. (2) IF THERE ARE ANY DISCREPANCIES BETWEEN THE FIXTURE PART NUMBER AND DESCRIPTION, IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO BRING THESE TO THE ELECTRICAL CONSULTANT'S ATTENTION PRIOR TO TENDER CLOSE. NO EXTRAS WILL BE ENTERTAINED FOR FAILURE TO DO SO. FINAL FIXTURE CHARACTERISTICS AND DESCRIPTION WILL BE MARKED BY CONSULTANT AT TIME OF SHOP DRAWING REVIEW.

WRDSB ALPINE PS HVAC
UPGRADE

LUCERNE DRIVE,
KITCHENER, ON.

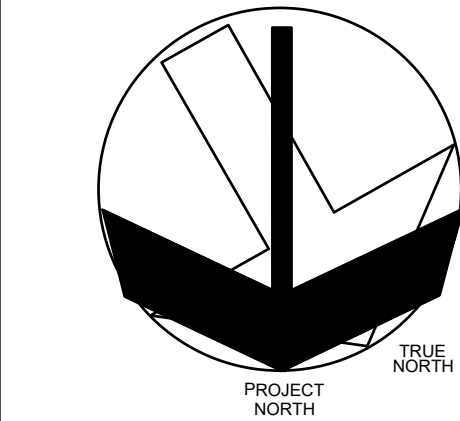
Waterloo Region
District School Board

OVERALL LIGHTING PLAN



5 Northland Road, Waterloo, ON N2V 1Y8
Phone: 519-725-3555
Website: deliassociates.ca
Project Number: 24355

DATE AS NOTED	PROJECT 24138
DATE JAN. 2025	
AWN CT	DRAWING E201
CHECKED DM	
PRINT DATE 0 FILE	JANUARY 25



A	RE-ISSUED FOR ADDENDUM	Mar. 13/25
3	ISSUED FOR PERMIT/TENDER	Mar. 05/25
2	ISSUED FOR 100% REVIEW	Feb. 21/25
1	ISSUED FOR OWNERS REVIEW	Feb. 10/25
NO	ISSUED	DATE

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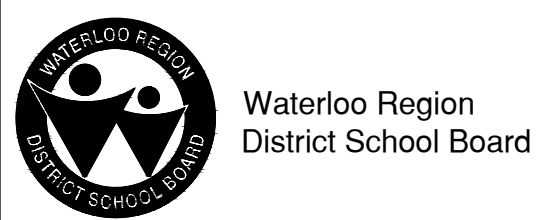
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UPGRADE

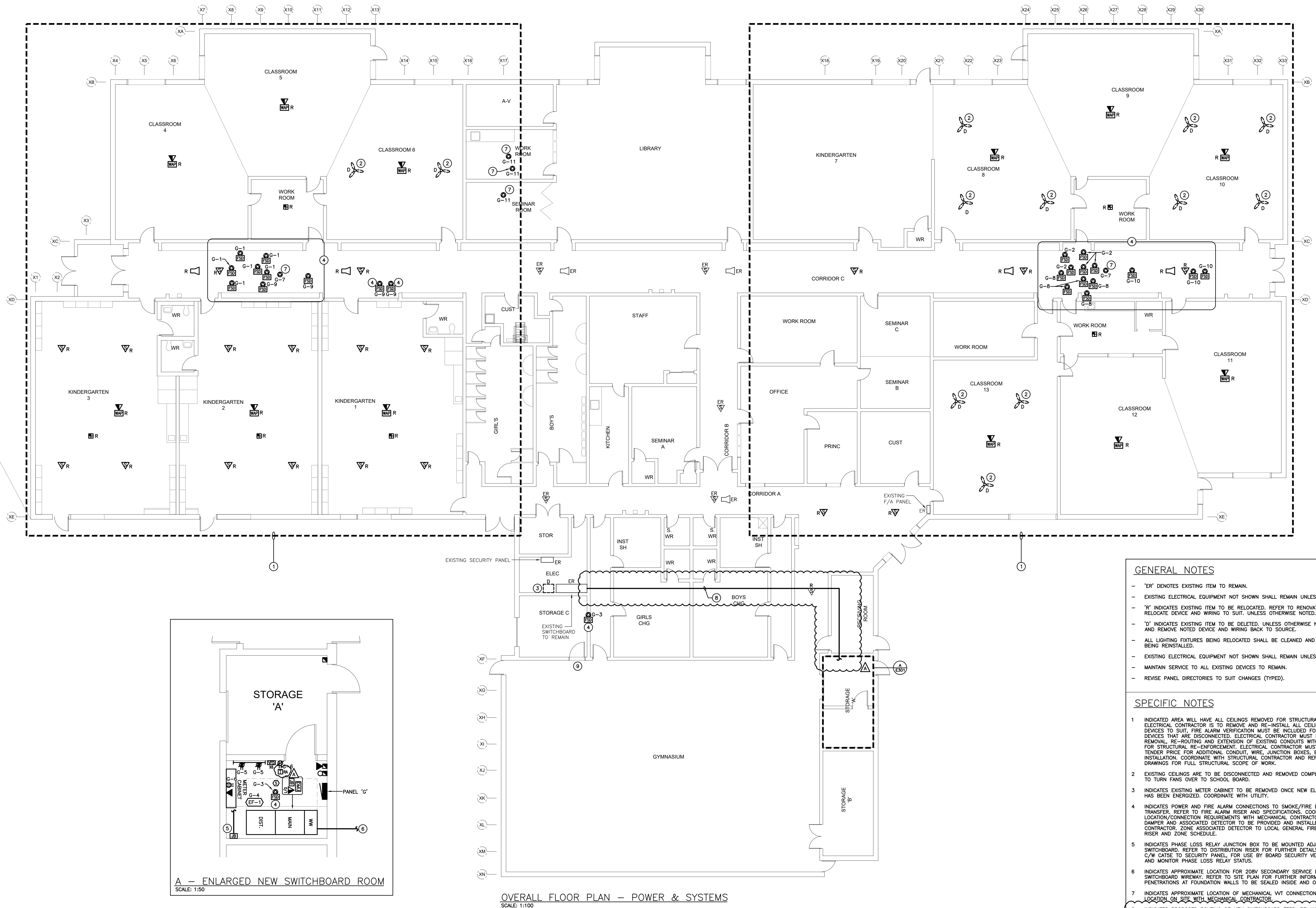
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OVERALL POWER AND SYSTEMS PLAN



SCALE AS NOTED	PROJECT 24138
DATE JAN. 2025	
DRAWN CT	DRAWING E301
CHECKED DM	
PRINT DATE CAD FILE	JANUARY 25



GENERAL NOTES

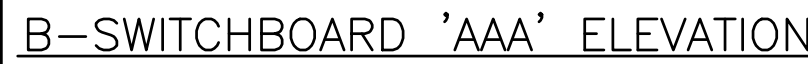
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- "D" INDICATES EXISTING ITEM TO BE DELETED, UNLESS OTHERWISE NOTED DISCONNECT AND REMOVE NOTED DEVICES AND WIRING TO SUIT.
- ALL LIGHTING FIXTURES BEING RELOCATED SHALL BE CLEANED AND CHECKED PRIOR TO BEING REINSTALLED.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- MAINTAIN SERVICE TO ALL EXISTING DEVICES (TYPED).
- REVISE PANEL DIRECTORIES TO SUIT CHANGES (TYPED).

SPECIFIC NOTES

1. INDICATED AREA WILL HAVE ALL CELINGS REMOVED FOR STRUCTURAL, RE-ENFORCEMENT, ELECTRICAL CONTRACTOR IS TO REMOVE AND RE-INSTALL ALL CEILING MOUNTED DETECTOR. DETECTOR SHALL BE RE-ROUTED TO BE SECURED FOR ANY FIRE ALARM DEVICES THAT ARE DISCONNECTED. ELECTRICAL CONTRACTOR MUST INCLUDE THE RE-ROUTING AND EXTENSION OF EXISTING CONDUITS WITHIN AREA TO ALLOW FOR ELECTRICAL RE-ROUTING. ELECTRICAL CONTRACTOR MUST INCLUDE THE TENDER PRICE FOR ADDITIONAL CONDUIT, WIRE, JUNCTION BOXES, ETC. TO ALLOW FOR RE-ROUTING OF EXISTING DETECTOR. CONTRACTOR TO REFER TO STRUCTURAL DRAWINGS FOR FULL STRUCTURAL SCOPE OF WORK.
2. EXISTING CEILINGS ARE TO BE DISCONNECTED AND REMOVED COMPLETE. CONTRACTOR TO TURN FANS OVER TO SCHOOL BOARD.
3. INDICATES EXISTING METER CABINET TO BE REMOVED ONCE NEW ELECTRICAL SERVICE HAS BEEN ENERGIZED. COORDINATE WITH UTILITY.
4. INDICATES POWER AND FIRE ALARM CONNECTIONS TO SMOKE/FIRE DAMPERS AT DUCT MOUNTING. REFER TO ALL SPECIFICATIONS COORDINATING ELECTRICAL CONNECTION/CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR. SMOKE/FIRE DAMPER AND ASSOCIATED DETECTOR TO BE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR TO PROVIDE DETECTOR TO TERMINATE PER ZONE AND ZONE SCHEDULE.
5. INDICATES PHASE LOSS RELAY JUNCTION BOX TO BE MOUNTED ADJACENT TO SWITCHBOARD. REFER TO DISTRIBUTION RIVER FOR FURTHER DETAILS. Provide 25mm minimum conduit to second floor. TO BE SECURED BY BOARD SECURITY VENDOR TO TERMINATE AND MONITOR PHASE LOSS RELAY STATUS.
6. INDICATES APPROXIMATE LOCATION FOR 208V SECONDARY SERVICE DUCTS INTO SWITCHBOARD WIREWAY. REFER TO SITE PLAN FOR FURTHER INFORMATION. COORDINATE ALL CONNECTIONS AT FIRE ALARM CONTROL UNIT TO BE SEALED INTO AND OUT.
7. INDICATES APPROXIMATE LOCATION OF MECHANICAL W/VT CONNECTION. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL CONTRACTOR.
8. INDICATES PROPOSED ROUTING OF NEW SWITCHBOARD FEED. RE AND RE ALL CEILING DUCT AND CONDUIT TO SITE INSTALLATION.
9. NEW DOOR OPENING, RELOCATE DEVICES AS REQUIRED.



- COMPOUND MUST STILL BE INCLUDED PER SPECIFICATIONS.



NOTE: THE INDICATED PANEL ASSEMBLY MUST HAVE AN INTERRUPTING CAPACITY OF 14000A .
PROVIDE BY EITHER FULLY RATED BREAKERS OR INTEGRATED EQUIPMENT RATING WITH
THE UPSTREAM BREAKER.

Notes: