

Addendum # 1 Bid Opportunity: 25-7706-RFT - Glenview Park Secondary School Elevator and Science Laboratory Renovation Closing Date: Wednesday, March 26, 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If you have already submitted a Bid / Proposal, it will be automatically withdrawn as a result of this addendum.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:

The cover page and title blocks for the architectural and structural drawing are labelled Glenview Park Secondary School HVAC improvements. This project is Glenview Park Secondary School Elevator and Science Laboratory Renovation. Please confirm the drawings issued are the correct drawings for this project. Answer 1: The drawings issued are the correct drawings for this project.

Question 2:

Drawing A3.3 schedules Window sills as "PL-1". There are no details or sections of the window sills. Could more detail be provided?

Answer 2: PL-1 to replace existing window sills in renovated science classrooms as shown on A3.3 attached to this addendum.

Question 3:

The specs call the ACM to be priced as the existing colour. Can you provide the specification for this.

Answer 3:

Specification provided in Section 07 42 16 of the specifications. Colour is to match the existing panels on the building.

Further Electrical Clarification:

Location of new Panel PP-5 as noted on the overall plan level 1 on drawing E101.



The new distribution panel PP-5 is planned to be added in the Main Electrical Rm where the Main Switchboard is located.

From this panel, we will have a new breaker to feed the elevator, new sub panel, and new distribution panel PP-MP up in the penthouse for all the Mechanical Equipment. This is noted on drawing E401.

Further Mechanical Clarification:

Please refer to attached addendum 01 issued by DEI Consulting Engineers dated March 20, 2025 for further clarifications.



FINISH MATERIAL SPECIFICATIONS

TH		FINISH MATERIAL
		PAINT
NO	(PT-1)	PT-1 (GENERAL WALL & CEILING COLOUR) BENJAMIN MOORE CC-20, DECORATOR'S WHITE *EGGSHELL FINISH ON WALL APPLICATIONS (GLOSS LEVEL G3) **FLAT FINISH AT CEILING APPLICATIONS (GLOSS LEVEL G1) ***BENJAMIN MOORE PRE-CATALYZED WATERBORNE EPOXY (OR APPROVED ALTERNATE BY DULUX OR SHERWIN WILLIAMS)
	(PT-2)	PT-2 (DOORS & TRIM) DULUX OONN 07/000, DEEP ONYX *SATIN FINISH AT TRIM APPLICATIONS (GLOSS LEVEL G4) **BENJAMIN MOORE PRE-CATALYZED WATERBORNE EPOXY (OR APPROVED ALTERNATE BY DULUX OR SHERWIN WILLIAMS)
		MELAMINE
	(MEL-1)	MEL-1 (SCIENCE LAB MILLWORK) PANOLAM, TFL COLOUR: S499, GALAXY WHITE FINISH: SATIN *WITH BASE-1 ON BASE OF MILLWORK **PROVIDE 3mm EDGEBANDING TO MATCH
	(MEL-2)	MEL-2 (INTERIOR OF CABINETS) UNIBOARD, TFL COLOUR: WHITE
	(
	PL-D	PLAM-1 (WINDOW SILLS) WILSONART 1573-60, FROSTY WHITE *PLAM TO BE ADHERED TO 3/4" PLYWOOD WITH 1 1/2" SQUARE EDGE PROFILE **1MM PVC TRANSLUSCENT SEALANT REQUIRED AROUND PERIMETER OF SILL
		SOLID SURFACE
	(SURF-1)	SURF-1 DURCON CHEMICAL RESISTANT SOLID PHENOLIC SIZE: 1" THICK COLOUR: CARBON BLACK EDGE: RADIUS
		HARDWARE
	(PULL-I)	PULL-1 CANADIAN BUILDERS' HARDWARE CBH 255 PULL
		CONCRETE SEALER
	CONC-)	CONC-1 W.R. MEADOWS OF CANADA LIMITED INTRAGUARD COLOUR: TRANSPARENT, MATTE FINISH

BENCH

A3.3

()

CHEMISTRY

LAB-A212

 \Box

(VSF-1)



1:75

	VINYL SHEET FLOORING
VSF-1)	VSF-1 (SCIENCE LAB FLOORING) TARKETT
	IQ OPTIMA, ROLLED GOOD
	COLOUR: 0853, THUNDER HEAD
	REFERENCE #: 3242853
	SIZE: 6.6' x 82' x 2mm THICK
	INSTALLATION: GLUE DOWN
	BASE: BASE-1
	*SCHLUTER (ATGB – BRUSHED NICKEL
	FINISH) FLOORING TRANSITION STRIPS
	REQUIRED WHERE FLOOR MATERIAL
	CHANGES. REFER TO FLOOR FINISHES
	PLAN FOR LOCATIONS.

WALL BASE

(BASE-1) BASE-1 (GENERAL & SCIENCE LAB) TARKETT PROFILE: TRADITIONAL VINYL SIZE: 4"H x 1/8" THICK COLOUR: 40, BLACK

(BASE-2) BASE-2 (PORCELAIN TILE BASE) 4" H TO BE CUT FROM PORT-1 *SCHLUTER JOLLY TRIM (ATGB FINISH) TO BE USED ON ALL EXPOSED EDGES

CEILING TILE

(ACT-1)	ACT-1
	ARSMTRONG
	CORTEGA SQUARE LAY-IN
	SIZE: 610mm x 1220mm
	COLOUR: WHITE
<u>`</u> \	GRID: 15/16"

PORCELAIN TILE

(ORT-1) PORT-1 (ELEVATOR WALL TILE) OLYMPIA TILE SERIES: PIETRA DI BRERA COLOUR: GRIGIO FINISH: MATTE SIZE: 12" x 24" GROUT: MAPEI, 107 IRON (SEAL GROUT) INSTALLATION: HORIZONTALLY STACKED * ADD SCHLUTER JOLLY TRIM (ATGB -BRUSHED NICKEL FINISH) ON ALL EXPOSED EDGES



- 1. SITE VERIFY ALL DIMENSIONS PRIOR TO FABRICATION. CONTRACTOR IS TO PROVIDE SHOP DRAWINGS FOR ALL MILLWORK.
- 2. ALL SOLID SURFACE COUNTERTOPS ARE TO HAVE SQUARE EDGE PROFILE TYPICAL, UNLESS NOTED OTHERWISE.
- 3. MITER ALL CORNERS OF SOLID SURFACE COUNTERTOP. POLISH ALL
- EXPOSED EDGES. NO SHARP CORNERS/EDGES.
- 4. APPROPRIATE BLOCKING REQUIRED IN WALL BEHIND ALL WALL HUNG MILLWORK. CONTRACTOR TO COORDINATE WITH MILLWORK DRAWINGS AND DESIGNER FOR LOCATION AND HEIGHT OF BLOCKING.
- 5. CONTRACTOR TO COORDINATE MILLWORK DRAWINGS WITH POWER/COMMUNICATION AND ELECTRICAL PLANS FOR LOCATIONS AND HEIGHTS. CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
- 6. ALL MILLWORK TO HAVE ADJUSTABLE SHELF PINS, UNLESS NOTED OTHERWISE.
- 7. ALL COUNTERTOPS ARE TO HAVE A 1" OVERHANG AT SINKS. 8. GRAIN DIRECTTION IS TO BE HORIZONTAL UNLESS NOT OTHERWISE
- ON THE FINISHES PLANS. 9. COORDINATING EDGE BANDING SHOULD BE PROVIDED FOR ALL MILLWORK. IF EXACT MATCH IS NOT AVAILABLE, DESIGNER IS TO BE CONSULTANT ON COLOUR SELECTION.

FINISH PLAN NOTES

- . REFER TO DRAWING FOR FLOORING INSTALL DIRECTION.
- 2. TRANSITION STRIPS REQUIRED ANYWHERE WHERE TWO DIFFERENT FLOORING MATERIALS MEET. CONTRACTOR TO COORDINATE APPROPRIATE PRODUCT/PROFILE WITH DESIGNER BEFORE ORDERING. UNLESS NOTED OTHERWISE, ALL TRANSITIONS TO OCCUR AT CENTERLINE OF DOOR FRAME.
- 3. PROVIDE SAMPLES OF ALL FINISHES FOR APPROVAL PRIOR TO INSTALLATION.
- 4. ALTERNATIVES TO BE SUBMITTED TO DESIGNER FOR REVIEW AND APPROVAL BEFORE ORDERING.
- 5. DOORS AND FRAMES TO BE PT-2 (GLOSS LEVEL G4).
- 3. ALL EXPOSED CEILINGS, DRYWALL CEILINGS AND BULKHEADS TO BE PAINTED PT-1 (GLOSS LEVEL G1), UNLESS NOTED OTHERWISE.
- . ALL COLUMNS AND WALLS TO BE PAINTED PT-1 (GLOSS LEVEL G3), UNLESS NOTED OTHERWISE.
- 8. ALL EXISTING WINDOW SILLS TO RECEIVE PLAM-1, UNLESS NOTED OTHERWISE.
- 9. USE BASE-1 UNLESS NOTED OTHERWISE.

DRYWALL FINISH LEGEND FINISH KEY NOTE DESCRIPTION I EVEL O UNFINISHED NO TAPE REQUIRED EVEL 1 TAPE AND JOINT COMPOUND EVEL 2 UNFINISHED OR TILE FINISH ONLY LEVEL 3 HEAVYWEIGHT FINISHES ONLY LEVEL 4 LIGHTWEIGHT FINISHES ONLY CLASSIC DRYWALL FINISH

PAI	nt gloss l	EVEL LEC	Gend
GLOSS LEVEL	FINISH TYPE	GLOSS @ 60°	SHEEN @ 85°
LEVEL G1	MATTE	MAX. 5 UNITS	max. 10 units
LEVEL G2	VELVET	max. 10 units	10 - 35 UNITS
LEVEL G3	EGSHELL	10 - 25 UNITS	10 - 35 UNITS
LEVEL G4	Satin	20 - 35 UNITS	min. 35 Units
LEVEL G5	semi-gloss	35 - 70 UNITS	-
LEVEL G6	TRADITIONAL GLOSS	70 - 85 UNITS	-
LEVEL G7	HIGH GLOSS	MIN. 85 UNITS	-

FINISH PLAN LEGEND

- INDICATES EXTENT OF WALL FINISH INDICATES FLOORING DIRECTION ____ INDICATES FLOORING TRANSITION x (xx.x) INDICATES INTERIOR ELEVATION PAINT FINISH (WALL U.N.O.) (PT-X) (LVT-X) LUXURY VINYL TILE CRPT-X CARPET TILE CER-X) CERAMIC TILE (FLOOR AND/OR WALL) PORT-D PORCELAIN TILE (FLOOR AND/OR WALL WALL COVERING
- (WC-1) CONC-X CONCRETE SEALER COATING (ETC-X) EPOXY COATING BASE-X

WALL BASE *REFER TO FINISH MATERIAL SPECIFICATIONS* FINISH PLAN KEYNOTES 1 2438 × 1220 WHITEBOARD. 2 NEW WINDOW PL-1 SILL TO MATCH SIZE OF EXSTING

mmmmm



HIS DRAWING IS AN INSTRUMENT OF SERVICE & IS

THE PROPERTY OF ABA ARCHITECTS INC. & CANNOT BE MODIFIED AND/OR REPRODUCED WITHOUT THE

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON

SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT, BEFORE PROCEEDING WITH THE WORK.

PERMISSION OF ABA ARCHITECTS INC.

DRAWINGS ARE NOT TO BE SCALED.





GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS 55 McKay St., Cambridge, ON, N1R 4G8

FINISH PLANS, MILLWORK ELEVATIONS AND DETAILS

As indicated HEET SIZE A3.3 24X36 ROJECT NUMBER 2024-081

TEACHER'S STATION

1:75



55 Northland Rd. Waterloo, ON N2V 1Y8

March 20, 2025

Client: ABA Architects Inc. 101 Randall Drive, Unit B Waterloo, ON N2V 1C5 RE: Glenview Park Secondary School Elevator & Science Laboratory Renovation Cambridge, ON

Job #: 24162

Attn: Anne Ceballo, Architectural Project Manager

ADDENDUM 01

MECHANICAL

ltem 1

- 1.0 Reference Attached Reissued Drawings M1.1 and M1.2
 - .1 Rename/revise 'Contractor Staging & Access to Site (Phase 1)' detail as per attached reissued drawing M1.1.
 - .2 In 'Fan Schedule (Phase 1)', revise EF-5 and EF-6 as follows:
 - .1 Capacity (cfm): 1200
 - .2 ESP (in wc): 0.375
 - .3 Accept. Manuf: Penn Barry FX12BH
 - .3 In 'Fan Schedule', remove general fan notes mentioning "ceiling fans".
 - .4 Add 'Pump Schedule' as per reissued drawing M1.1.
 - .5 Revise 'Unit Detail' as per attached reissued drawing M1.2.

Item 2

- 2.0 Reference Drawing M2.1 and Attached Sketch ADD01-M01
 - .1 In Office C115A, apply demo/reno Note #1 to thermostat.

Item 3

- 3.0 Reference Drawing M2.2 and Attached Sketch ADD01-M02
 - .1 In Mech B112A, add the following note to the existing compressor: "Contractor to confirm existing compressor no longer serves any equipment/controls following pneumatic demolition work. Upon confirmation, coordinate with Owner to remove existing compressor/pneumatic tubing completely."

Item 4

- 4.0 Reference Drawing M2.4 and Attached Sketch ADD01-M03
 - In 'Mechanical Room C200 Part Plan BAS (Phase 1)', add the following note to the existing unit heat adjacent to EX-F-1:
 "Existing unit heater to be integrated to BAS. All existing controls, actuators, and sensors to be replaced completely."

մԽ

Item 5

- 5.0 Reference Drawings M3.1 and M3.2
 - .1 No demolition work indicated. Delete page in its entirety.

Item 6

- 6.0 Reference Attached Reissued Drawing M3.3
 - .1 Revise piping as per attached reissued drawing M3.3.

ltem 7

- 7.0 Reference Drawing M3.4 and Attached Sketch ADD01-M04
 - .1 In Existing Corridor, provide 80 mm isolation ball valves on new heating water supply/return piping up to mechanical room.

Item 8

- 8.0 Reference Drawings M4.2 and M4.3 and Attached Sketches ADD01-M05 and ADD01-M06
 - .1 Revise ventilation demolition as per attached sketch ADD01-M05.
 - .2 Revise ventilation renovation as per attached sketch ADD01-M06.

Item 9

- 9.0 Reference Attached Reissued Drawing M6.1
 - .1 In 'Mechanical Room Piping & Drainage Demolition (Phase 2)', remove existing supply unit AH-5 control panel completely as per attached reissued drawing M6.1.
 - .2 In 'Mechanical Room Piping & Drainage Renovation (Phase 2)', revise HVAC-5 heating coil piping as per attached reissued drawing M6.1.
 - .3 Revise 'Specific Demolition Notes' and 'Specific Renovation Notes' as per attached reissued drawing M6.1.

Item 10

- 10.0 Reference Drawing M6.2 and Attached Sketches ADD01-M07 and ADD01-M08
 - .1 In 'Mechanical Room Ventilation Demolition (Phase 2)', remove existing obsolete exhaust fan and store on site as per attached sketch ADD01-M07 and ADD01-M08.
 - .2 Revise 'Specific Demolition Notes' as per attached sketch ADD01-M07.

Item 11

- 11.0 Reference Drawing M7.2 and Attached Sketch ADD01-M09
 - .1 Delete 'Air Handling Unit Heating Coil Piping (2-way Valve)' detail and replace with 'AHU Hydronic Coil Piping Schematic (w/ Pump)' detail as per attached sketch ADD01-M09.
 - .2 Revise 'Condensing Unit on Roof' detail as per attached sketch ADD01-M09.

ELECTRICAL

ltem 1

- 1.0 Reference Attached Reissued Specification Section 26 29 13 'Starters and Contactors'
 - .1 FVNR combination starter section added.

Item 2

- 2.0 Reference Attached Reissued Drawing E101
 - .1 Five (5) BAS panels added on key plan Levels 1 and 2. Provide 120V 15A receptacle and data (rough-in only) to each location. Exact location for each BAS panel to be confirmed on site with Mechanical Contractor and Owner. 120V circuit for BAS panel receptacle to be taken from nearest local panel available. Refer to allowances in electrical specification sections 26 05 75 and 26 27 26 for further details.
 - .2 Add existing mechanical equipment to be demolished on key plan levels 1 and 2. Disconnect and remove existing power and associated disconnect switch (if applicable) back to source panel or nearest junction box and make safe.
 - .3 Include as part of base bid price to relocate existing junction box, conduit, and wiring as required, currently installed in the main electrical room near proposed location of new Distribution Panel PP-5.

Item 3

- 3.0 Reference Attached Reissued Drawing E103
 - .1 EWS updated.

Item 4

- 4.0 Reference Attached Reissued Drawing E203
 - .1 Fire smoke damper added near Room A205.

Item 5

- 5.0 Reference Attached Reissued Drawing E304
 - .1 Existing exhaust fan unit to be demolished. Refer to detail A/304.
 - .2 HVAC-5 Circulation Pump (P-10) added. Provide 208V 3PH power and starter for equipment as shown. Refer to detail B/304.

Item 6

- 6.0 Reference Attached Reissued Drawing E401
 - .1 Revisions made to distribution riser diagram. See drawing for details.

Item 7

- 7.0 Reference Attached Reissued Drawing E402
 - .1 Update panel schedule 'Panel E.'
 - .2 Update panel schedule 'Panel MP.'

Steve Oatley Lead Designer, Partner 24162 Addendum 01 (M&E-Various)(various reissued dwgs) Mar 20 25.docx so/jb/smb

				MECHANICAL LEGEND				
				Item Description	ltem	Description	Item De	Description
				CUT EXISTING & CONNECT	— —нwr— — Н	EATING WATER RETURN PIPING	TCV TEMPERATU	TURE CONTROL
					G N	IATURAL GAS PIPING	FE WALL MOUN EXTINGUISH	UNTED FIRE SHER
						GAS PIPING	FB FIRE BLANK	
				- NP - · - NON - POTABLE DOMESTIC		LOOR DRAIN WITH		ANOUT
		REFER TO DWG M2.3 FO WORK IN THIS AREA				RAP PRIMER	GO THERMOSTA	TAT (WITH OR GUARD)
Ravine Dr				DOMESTIC HOT WATER RECIRC. PIPING		EE CONNECTION	GO HUMIDISTAT WITHOUT GU	AT (WITH OR GUARD)
Clenview Park Secondary School				DOMESTIC TEMPERED WATER PIPING	G	PIPE DOWN	GOCCARBON DIO) (WITH OR WI	NOXIDE (CO2) SENSOR WITHOUT GUARD)
				DOMESTIC HARD COLD WATER	• F	PIPE UP	>>>>> TURNING VA	VANES
						CHECK VALVE		AIR DUCT EXHALIST AIR DUCT
				EX-SAN- EXISTING SANITARY PIPING		OUBLE CHECK VALVE ASSEMBLY		DUCT LINING
			REFER TO DWG			JNION	BALANCING	G DAMPER
	A CONTRACT OF A		M2.4 FOR WORK			STRAINER	MOTORIZED (OPPOSED	D DAMPER D BLADE)
				- PD-SAN- PUMPED SANITARY PIPING	I	SCREWED OR WELDED PIPE	FD FIRE DAMPE	PER
UNIT SECTIONS TO BE BROUGHT IN THROUGH LOUVER OPENING. EXISTING BLOCK COURSES					NO NO	NORMALLY OPEN		ROUND DUCT
TO BE REMOVED TO ACCOMMODATE. REFER TO ARCHITECTURAL DRAWINGS					NC M	NORMALLY CLOSED		
tighman Ave				-EX-STM - EXISTING STORM PIPING		BALL VALVE	Type Size DIFFUSER/G	/GRILLE SIZE (imp),
	GROUND FLOOR	SECOND FLOOR	/ <u>></u>	-STM	E	BUTTERFLY VALVE		C HEATING SI7F
				-STM STORM PIPING BELOW FLOOR	A (GATE VALVE	TYPE & CA	CAPACITY
	KEY	<u>Y PLAN</u>				OTORIZED VALVE ACTUATOR	RIC RETURN IN	IN CABINET
	SCALE	: N.T.S.				CONTROL VALVE ACTUATOR	AFF ABOVE FINIS	NISHED FLOOR
							AFR ABOVE FINIS	TO EXISTING
Google	GRILLE SCHEDULE (PHASE 1)	CAPA SPECIF	CITY INDICATED ON SCHEDULE REFER TO			BALANCING VALVE	PD PUMPED	
		ACC	ESSORIES AND ADDITIONAL INFORMATION.	HEATING WATER SUPPLY	⊷ ₹	SUPERVISING VALVE	EXISTING DU	DUCT (SIZE AS
	Item Type Grid Damper Manufacturer			·	· ·			•
$\langle \rangle$	BI SQUARE CEILING DIFFUSER NO NONE KRUEGER 1400A	4-CONE, FULLY ADJUSTABLE, 24x24, STEEL CEILING DIFFUSER A SUITABLE FOR LAY-IN T-BAR CEILING, OR DRYWALL CEILING WH	V/ROUND NECK. IEN C/W FRAME.	GENERAL NOTES	UNCTION WITH TH	IF PREPARED SPECIFICATION		
>	R1 CEILING RETURN GRILLE NO NONE KRUEGER EG-5	1/2x1/2x1/2 ALUMINUM EGGCRATE CORE,		REFER TO SPECIFICATIONS FOR DETAILS F	REGARDING REQUIF	RED SHOP DRAWINGS SUBMIS	SIONS, INDEPENDENT SITE TES	ESTING, AND
	(NON-DUCTED)	C/W CHANNEL BORDER FOR LAY-IN T-BAR CEILING.		 UPON COMPLETION OF THE PROJECT OR 	UPON COMPLETIO	N OF EACH INDIVIDUAL PHASI	OF THE PROJECT THE CON	ONTRACTORS
>	R2 CEILING RETURN GRILLE NO NONE KRUEGER S580 (DUCTED)	FIXED BLADE AT 45°, 1/2" SPACING, EXTRUDED ALUMINUM AIRFO LONG DIMENSION. C/W 1 1/4" FLAT BORDER & SCREWED FAST	OIL BLADES PARALLEL TO	 – POTABLE WATER TEST (SEE SPEC 22 – BACKFLOW TEST CERTIFICATE(S) FOR 	ATES BEFORE CON 11 16 PART 3) ALL TESTABLE DEV	IFORMANCE LETTERS ARE ISS /ICES	JED BY THE CONSULTANT:	
		MOUNTING.		 COPY OF MANDATORY TSSA/CSA-B149 LETTER FROM CONTRACTOR VERIFYING DOWNSTREAM DEVICES HAVE BEEN IN 	9 GAS PRESSURE THAT ALL REFRIG STALLED AND TEST	TEST TAG ERATION LEAK DETECTION SY IED.	STEMS AND THEIR INTERLOCK	CKS TO
EQUIPMENT ACCESS TO SITE (PHASE 1) Scale: N.T.S.	GENERAL DIFFUSER/GRILLE NOTES: 1. ACCEPTABLE MANUFACTURERS: EH PRICE, NAILOR, TITUS, KRUEGER, CARNES, METALAIRE, 2. GRILLE COLOURS ARE SELECTED BY ARCHITECT FROM STANDARD COLOUR CHART, UNLESS	TUTTLE & BAILEY S OTHERWISE NOTED.		- TSSA CERTIFICATE OF AUTHORIZATION	FOR SPLIT AIR C	ONDITIONING SYSTEMS (EXCEE SINGLE PACKAGE	DING 5 TONS)	
	3. PAINT INTERIOR OF DUCTWORK BEHIND GRILLE MATT BLACK (WHERE VISIBLE THRU GRILLI	E).						
SEMI_CUSTOM INDOOR AIR HANDLING LINIT SCHEDULE (PH				*FSP_IS	FXTERNAL	TO THE CABINET		
SLIVIT COSTONI INDOON AIN HANDLING ONT SCHEDOLL (FITA	Exhaust Air Fan Data	HEATING	HEAT RECOVERY		Weight (lbp)			
Item Type Capacity cfm Size hp Drive ESP in wc Voltage MCA MOCP Capacity cfm Size hp NNDOOR BUILT_UP_AIR CLASSROOM CLAS	Drive ESP in wc Voltage MCA MOCP Medium Coil Type Sens.Cap. Total Cap. Rows Ent LVG Face Vel Drive 2 0 2	I. PD. Air Medium Capacity EAT db LAT db 'F Flow (gpm) Type	Model Heating Capacity Cooling Capacity (Mf (MBH) © 0° db © 88° db/75° wt	BH) PD. Air Manufacturer Model b in. 0.00000000000000000000000000000000000	(approx.)	Remarks	TI, SUPPLY VED, DIRECT DRIVE RETI	RETURN FAN FOM MOTORS
HVAC-5 HANDLING UNIT OB ISON 0011 15,000 25 FREQUENCY DRIVE 1.0 208/3/60 93.8 150 15,000 2.0 GENERAL NOTES: ADDITION ADDITION <td< td=""><td>$\begin{array}{ c c c c c c c c c c c c c c c c c c c$</td><td>0.95 WATER 789 40 160 82 WHEEL SXA</td><td><u>x-1900-MS</u> 471 197</td><td>0.66 DAIKIN CAH033GDHM</td><td></td><td>BLE SPEED COMPRESSORS, ERW EC</td><td>NOMIZER BYPASS (FREE COOLING),</td><td>G), 200mm HIGH BASE</td></td<>	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	0.95 WATER 789 40 160 82 WHEEL SXA	<u>x-1900-MS</u> 471 197	0.66 DAIKIN CAH033GDHM		BLE SPEED COMPRESSORS, ERW EC	NOMIZER BYPASS (FREE COOLING),	G), 200mm HIGH BASE
 ACCEPTABLE MANUFACTURERS: DAIKIN, AAON UNIT SHIPPED IN SECTIONS TO STORAGE FACILITY, THEN TO SITE DURING PHASE 2 SOLID UNDERFLOOF SOLID UNDERFLOOF HINGED ACCESS DO 	ANT FASTENERS. – 2" (50mm) MERV 8 FILTERS (0) & LINER FACTOR PAINTED TO MATCH UNIT CASING FINISH. – LOW LEAKAGE OUTDOOR AIR DAM DORS. – MOTORIZED RELIEF DAMPER SPE	UTDOOR & EXHAUST AIRSTREAMS). – CC IPER (THERMALLY BROKEN) (3cfm/ft2 @ 1.0" wc). CC 2NG RETURN OUTDOOR AIR DAMPER (DAMPERS SHALL – HY)NTROLS LITE PACKAGE (ALL UNIT CONT)NTROLS CONTRACTOR). YDRONIC HEATING COIL, REFRIGERANT C	ROLS SHALL BE PROVIDED BY THE				
 DOUBLE WALL CONSTRUCTION C/W 2" (50mm) R-13 FOAM INSULATION & - FACTORY WIRED NO PERMATECTOR FINISH. - 2" (50mm) MERV 	TALE AND THE TALE	- SE - RE	GMENTED UNIT TO VRV/VRF AIR SOURCEFRIGERANT LEAK DETECTION.	CE HEAT PUMP SYSTEM.				
INDOOR AIR CONDITIONING UNIT SCHEDULE (PHASE 1)	CONDENSING UNIT SCHEDULE (PHASE	1)	<u>FAN SCHEDULE (Pł</u>	HASE 1)			CAPACITY INDICATED ON SPECIFICATION FOR CONS ACCESSORIES AND ADI	ON SCHEDULE REFER TO INSTRUCTION STANDARDS ADDITIONAL INFORMATION
Item Type Service Supply Air Data Unit MCA MOCP Voltage Manuf	acturer Model Item Type Weight MCA MOCP Voltage Manufactu	urer & Model Remarks	Item Type	Capacity ESP Fan Motor	Acceptable		Description	
DS-3 INDOOR WALL MOUNTED UNIT MACH. 231 2 Fhp R32 50± 1 15 208/1/60 LG LSN2	Ibs Ibs 43HLV CU-3 ROOF MOUNTED CONDENSING UNIT 140± 19 30 208/1/60 LG LSU243HLV	C/W LOW AMBIENT OPERATION, AC	EF-5 ROOF UPBLAST EXHAUST	1200 0.375 1375 1/4 120/1/60 PENN	BARRY 12BH	SPUN ALUMINUM MO	TOR COVER & FAN SHROUD,	D, UPBLAST, W/BELT
			FAN (CHEMISTRY)			24" HIGH INSULATED	BACKWARD INCLINED FAN, GA ROOF CURB, & BACKDRAFT	GALV BIRD SCREEN, T DAMPER
INDOOR VRF BRANCH SELECTOR BOX SCHEDULE	VVT CONTROL DAMPER SCHEDULE (PHASE 1)		EF-6 ROOF UPBLAST EXHAUST FAN (BIOLOGY)	1200 0.375 1375 1/4 120/1/60 PENN	BARRY 12BH	SPUN ALUMINUM MO DRIVE CENTRIFUGAL	TOR COVER & FAN SHROUD, BACKWARD INCLINED FAN, GA	D, UPBLAST, W/BELT GALV BIRD SCREEN,
ltem MCA MOCP Voltage & Remarks	Item Service Design Capacity(cfm) Size Item Se	rvice Design Capacity(cfm) Size				24" HIGH INSULATED	ROOF CURB, & BACKDRAFT	
BS-1A 0.4 15 208/1/60 DAIKIN BS-1A 0.4 15 208/1/60 DAIKIN	BPD-5.0A HVAC-5 900x300 VVT-5.14 CHEMISTRY	/ LAB A212 600 350x200	FAN (FUME HOOD)	0.75 1030 174 120/1/60 PENN	UANNI FAIZBH	SHROUD, UPBLAST, INCLINED FAN, GALV	V/BELT DRIVE CENTRIFUGAL E BIRD SCREEN, 24" HIGH INS	BACKWARD NSULATED ROOF
BS-1B 0.4 15 208/1/60 DAIKIN BSF4Q54TVJ	BPD-5.0B HVAC-5 900x300 VVT-5.15 CHEMISTRY	CLAB A210 600 350x200 (LAB A210 000 500 500	GENERAL FAN NOTFS:			CURB, & BACKDRAF	DAMPER	
BS-1C 0.4 15 208/1/60 DAIKIN BSF4Q54TVJ	VVT-5.1 CLASSROOM A215 & SEWING/ 1600 400x350 VVT-5.17 PREP ROO	LAD A210 600 350x200 M A208 450 250x225	1. ACCEPTABLE MANUFACTURERS: GREE 2. PROVIDE 24" TALL PREFABRICATED,	NHECK, PENN-BARRY, COOK, CARNES, ACME, TW INSULATED ROOF CURB FOR ALL ROOF MOUNTE!	VIN CITY, JENCO, E D FANS.	BUFFALO.		
BS-2A 0.4 15 208/1/60 DAIKIN BSF4Q54TVJ	WT-5.2 BUSINESS A213 600 350x200 WT-5.18 BIOLOGY A	206 600 350x200						
BS-2B 0.4 15 208/1/60 DAIKIN BSF4Q54TVJ DS_000 0.4 45 208/1/60 DAIKIN	VVT-5.3 BUSINESS A213 600 350x200 VVT-5.19 BIOLOGY A	206 600 350x200	ACID NEUTRALIZING	, TANK SCHEDULE (PHAS	<u>E 1)</u>			
BS-2C 0.4 15 208/1/60 BSF4Q54TVJ	VVT-5.4 BIOLOGY LAB A211 600 350x200 VVT-5.20 PREP ROO VVT-5.5 BIOLOGY LAB A211 600 350x200 VVT-5.20 PREP ROO	M A204 450 250x225	Item Type Capacity Capacity	Limestone y Charge Dimensions Manufacturer Model	-	Rar	narks	
AIR COOLED CONDENISING LINUT SOLIEDULE	WT-5.6 COMPUTERS A209 600 350x200 VVT-5.21 PHYSICS A VVT-5.6 COMPUTERS A209 600 350x200 VVT-5.22 PHYSICS A	202 300 225x200	NT-1 MOUNTED 68 30	Ibs Model 900 30"ø x 42" SMS AN-170	MOUNT FLUSH	WITH FLOOR C/W FRAME RING	, TRUSS HEAD BOLTS, HOT	T SUNK SECURING
AIR COULED CUNDEINSING UNIT SCHEDULE	VVT-5.7 COMPUTERS A209 600 350x200 VVT-5.23 WORKROOM	A A118 100 250x100	SI-1 MOUNTED IN N/A N/A	N/A 8.5"ø x 12.5" SMS SI-MQ	INSTALL IN MILL	WORK BELOW SINK. FOR LOC	LATIONS & QUANTITIES, REFER	PANEL. ER TO PLANS.
Item Type Total Heating Cooling Refrig. Liquid LP Gas Voltage MCA MOCP & Model 0UTDOOR DOOF Cooling	WT-5.8 DEPT HEAD A207 150 175x150 WT-5.24 TECH OFFI WGT-5.9 DEPT HEAD A207 150 175x150 WT-5.24 TECH OFFI	CE A118A 150 250x100						
CU-4A1 OUTDOOR ROUF 147.0 166.0 R410A 3/4 1-3/8 1-1/8 208/3/60 61.9 70 DAIKIN REYQ33XBTJA OUL 4A2 OUTDOOR ROOF 147.0 166.0 R410A 3/4 1-3/8 1-1/8 208/3/60 61.9 70 DAIKIN OUL 4A2 OUTDOOR ROOF 147.0 100.0 R410A 3/4 1-3/8 1-1/8 208/3/60 61.9 70 DAIKIN	VVI-5.9 DEFT HEAD A207 150 175x150 VVT-5.25 STORAGE A VVI-5.10 ART & MARKETING A205 1000 400x300 VVT-5.26 EDIT A114	B 150 250x100		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	~~~~		CAPACITY INDICATED ON SPECIFICATION FOR CONS	ON SCHEDULE REFER TO
CU-4AZ MOUNTED 147.0 166.0 R410A 3/4 1-3/8 1-1/8 208/3/60 61.9 70 REYQ33XBTJA	VVT-5.11 DARK ROOM N200 500 300x200 VVT-5.27 STORAGE	A114A 150 250x100					ACCESSORIES AND ADI	ADDITIONAL INFORMATION
CU-4B1 UUIDOOR ROUF 147.0 166.0 P410A 3/4 1 - 3/8 1 - 1/9 208 / 3/60 61.0 70 DAIKIN								
CU-4B1 OUTDOOR ROOF 147.0 166.0 R410A 3/4 1-3/8 1-1/8 208/3/60 61.9 70 DAIKIN CU-4B1 OUTDOOR ROOF 147.0 166.0 R410A 3/4 1-3/8 1-1/8 208/3/60 61.9 70 DAIKIN CU-4B2 OUTDOOR ROOF 147.0 166.0 R410A 3/4 1-3/8 1-1/8 208/3/60 61.9 70 DAIKIN CU-4B2 OUTDOOR ROOF 147.0 166.0 R410A 3/4 1-3/8 1-1/8 208/3/60 61.9 70 DAIKIN	VVT-5.12 ART A216 & ART A218 2000 500x350 VVT-5.28 N116	600 300x250	Item Type Capacity USgpm	Head Size Speed Manufacturer ft hp rpm & Model	160 0 44	Remarks		



reloca comm not ii which meet speci the c consu comp are r the c Do n © 20	All off off of the unsereptine drawings show general arra- ces. Follow as closely as a ruction will permit. Obtain ation of service from Consu- nencement of the work. The ndicate all offsets fitting ar- may be required. Provide the required conditions. Dr fications, etc., prepared and consultant are the property ultant and must be returned to be duplicated or cop- consent of the Consultant. ot scale this drawing. 25 DEI Consulting Engineer REVISIONS	t of the work. ngement of ctual building approval for ultant before e drawings do nd accessories e the same to rawings and d issued by of the d at the e documents bied without s. DATE
1	ISSUED FOR 75% REVIEW	2025.01.31
2		2025.03.05
	DEESS / ONLY	
	5 Mar 25 M.B. WHITE 100149074 ROLINCE OF ONTAGE	CNGINEER OL
СНГ		DATE
	RONOLOGY DET 55 Ph Ph Ph Ph Ph Ph Ph Ph Ph Ph	DATE
	RONOLOGY DESCRIPTION Physical Street Cambridge Street Cambridge	DATE Northland Road, aterdoo, ON, N2V 1Y8 one: 519-725-355 bistie: deiassociates.ca bistie: deiassociates.ca Deers fr Aquatic
	RONOLOGY DET MANE B CONDECTION ADDIEST ADDIE	DATE Northland Road, aterloo, ON, N2V 1Y8 one: 519-725-3555 ebsite: deiassociates.ca oject Number: 24162 AQUATIC
	RONOLOGY DET SUBJECT STATE SUBJECTION STATE S	DATE Northland Road, aterdoo, ON, N2V 1Y8 one: 519-725-355 ebsite: deiassociates.ca biect Number: 24162 AQUATIC Neers Ma AQUATIC

<u>PLU</u>	<u>MBING FIXTL</u>	IRE SCH	HEDL	JLE	<u>(PHASE 1)</u>					
	_	Connec	ction Siz	zes		Fixture		Trim		Accessories
ltem	Туре	HW CW TV	W Drair	n Vent	Acceptable Manufacturer	Fixture Description	Acceptable Manufacturer	Trim Description	Acceptable Manufacturer	Accessory Description
S-1	STAINLESS STEEL SCIENCE SINK (STUDENT)	15	40	32	KINDRED LBS6407/316-1/3 NOVANNI 1013/316	SINK: SINGLE COMPARTMENT, LEDGE-BACK. FROM 1.0 mm (20 GAUGE) THICK TYPE 316 POLISHED STAINLESS STEEL, SELF-RIMMING, UNDERCOATED, CLAMPS. OVERALL SIZES: 410 mm X 520 mm X 175 mm (18 1/8" X 20 5/8" X 7").	DELTA W660-10 ZURN Z825B1 MOEN COMMERCIAL 8103	FAUCET: CHROME PLATED BRASS, LABORATORY TYPE WITH GOOSENECK SWING SPOUT WITH SERRATED NOZZLE, ANGLE VACUUM BREAKER, AERATOR, INDEXED HOODED LEVER HANDLE, ACCESSORIES TO LIMIT MAXIMUM FLOW RATE TO 3.80 I/min (1.1 gpm) AT 413 kPa (60 psi).		
S-2	BARRIER FREE STAINLESS STEEL SCIENCE SINGLE SINK (STUDENT)	15	40	32	KINDRED LBS6407/316-1/3 NOVANNI 1013/316	SINK: SINGLE COMPARTMENT, LEDGE-BACK. FROM 1.0 mm (20 GAUGE) THICK TYPE 316 POLISHED STAINLESS STEEL, SELF-RIMMING, UNDERCOATED, CLAMPS. OVERALL SIZES: 410 mm X 520 mm X 175 mm (18 1/8" X 20 5/8" X 7").	DELTA W660-10 ZURN Z825B1 MOEN COMMERCIAL 8103	FAUCET: CHROME PLATED BRASS, LABORATORY TYPE WITH GOOSENECK SWING SPOUT WITH SERRATED NOZZLE, ANGLE VACUUM BREAKER, AERATOR, INDEXED HOODED LEVER HANDLE, ACCESSORIES TO LIMIT MAXIMUM FLOW RATE TO 3.80 I/min (1.1 gpm) AT 413 kPa (60 psi).		INSULATION: INSULATE WASTE AND SUPPLIES WITH UL LISTED PREFORMED INSULATION SYSTEM COMPLETE WITH SEAMLESS JACKET. WASTE FITTING: INTEGRAL STAINLESS STEEL BASKET STRAINER/STOPPER, TAILPIECE, CAST BRASS P-TRAP WITH CLEANOUT.
S–3	STAINLESS STEEL SCIENCE SINK (TEACHER)	15 15	40	32	KINDRED LBS6807/316-1/3 NOVANNI 1017/316	SINK: SINGLE COMPARTMENT, LEDGE-BACK. FROM 1.0 mm (20 GAUGE) THICK TYPE 316 POLISHED STAINLESS STEEL, SELF-RIMMING, UNDERCOATED, CLAMPS. OVERALL SIZES: 510 mm X 520 mm X 175 mm (20" X 20 1/2" X 7").	DELTA W6720 ZURN Z826B1-6F MOEN COMMERCIAL 8113	FAUCET: CHROME PLATED BRASS, LABORATORY TYPE WITH GOOSENECK SWING SPOUT WITH SERRATED NOZZLE, VACUUM BREAKER, AERATOR, INDEXED HOODED LEVER HANDLES, ACCESSORIES TO LIMIT MAXIMUM FLOW RATE TO 8.35 I/min (2.2 gpm) AT 413 kPa (60 psi).		
EW-1	EYE WASH	15 15	32	32	HAWS 7260BT-7270BT BRADLEY S19-220 GUARDIAN G1750P-TMV	250 MM (10") DIAMETER IMPACT RESISTANT BOWL CHROME PLATED BRASS SPRAY HEADS COMPLETE WITH COVERS, AND WALL MOUNTING BRACKET. TEPID WATER MIXING VALVE MEETING REQUIREMENTS OF ANSI STANDARD Z358.1-2004. MIXING VALVE IS TO PROVIDE WATER TEMPERATURE BETWEEN 15.5°C (60°) AND 38°C (100°F). 15 MM (1/2") CHROME PLATED BRASS STAY OPEN BALL VALVE COMPLETE WITH PUSH HANDLE.			HAWS TWBS.EWE BRADLEY S19–2000 GUARDIAN G3600	TEMPERING VALVE TO BLEND HOT AND COLD WATER TO DELIVER TEPID WATER. AS REQUIRED BY ANSI Z358.1
G-1	GAS TURRET (DOUBLE) STUDENT				DELTA W6225 ZURN	COUNTER MOUNTED DOUBLE BALL VALVE HOSE COCK 180° PATTERN. VANDAL RESISTANT HANDLE, INDEX BUTTON, O-RING SEAL, SERRATED HOSE, TAILPIECE WITH COUPLING NUT.				
G-2	GAS TURRET (DOUBLE) (TEACHER)				DELTA W6220 ZURN	COUNTER MOUNTED DOUBLE BALL VALVE HOSE COCK 90° PATTERN. VANDAL RESISTANT HANDLE, INDEX BUTTON, O-RING SEAL, SERRATED HOSE, TAILPIECE WITH COUPLING NUT.				
FD-1	ELEVATOR SUMP DRAIN		NOTE	D 1 1/2	ZURN Z-629 WATTS DRAINAGE MIFAB CONTOUR C2900NB	GENERAL DUTY VERTICAL WALL DRAIN, CAST IRON BODY, CLAMPING COLLAR, NICKEL-BRONZE STRAINER. C/W INTEGRAL BACKWATER VALVE				
							9500+			
			>							



PHASE	1)





HVAC—5 UNIT DETAIL scale: n.t.s.







SHEET SIZE

24x36

PROJECT NUMBER

M1.2







ALL WORK SHOWN TO REPLACE THE EXISTING PNEUMATIC CONTROLS WITH DDC CONTROLS IS AN IDENTIFIED PRICE.

SPECIFIC DEMO/RENO NOTES

- EXISTING PNEUMATIC THERMOSTAT/SENSOR TO BE 1. REMOVED COMPLETE. REMOVE WIRING/TUBING BACK TO SOURCE. EXISTING PNEUMATIC TUBING TO BE SOLDERED/CRIMPED IN CONCEALED LOCATION. PROVIDE NEW DDC THERMOSTAT.
- 2. EXISTING THERMOSTAT CONTROLS TO BE REMOVED COMPLETE & REPLACED WITH NEW DDC CONTROLS (PLATE SENSOR) TO CONTROL NEW TCV IN MECH ROOM. NEW TO TO BE SUPPLIED BY BAS CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.
- 3. EXISTING TCV, ISOLATION, & BALANCING VALVES TO BE REMOVED AND REPLACED WITH NEW. SIZE TO MATCH EXISTING.
- 4. EXISTING PNEUMATIC CONTROL VALVE(S) TO BE REMOVED FROM BOOSTER COIL(S) & REPLACED W/ NEW DDC CONTROL VALVE(S). NEW TCV(S) TO BE SUPPLIED BY BAS CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.
- 5. EXISTING RADIATION CABINET, PIPING & WALLFIN TO BE CUT & REMOVED BEYOND COMPLETE. PROVIDE NEW END TRIM TO MATCH EXISTING CABINET HEIGHT.
- 6. EXISTING PNEUMATIC MOTORIZED DAMPER ACTUATOR TO BE REMOVED COMPLETE. PROVIDE NEW DDC ACTATOR.
- 7. EXISTING UNIT HEATER TO BE INTEGRATED TO BAS. ALL EXISTING CONTROLS, ACTUATORS, AND SENSORS TO BE REPLACED COMPLETE. ·····













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.
- 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 DUCTWORK TO BE CUT AND REMOVED BEYOND COMPLETE.
- EXISTING FAN/UNIT TO BE REMOVED COMPLETE. EXISTING DUCTWORK TO BE REMOVED COMPLETE.
- EXISTING BLOCK WALL (BELOW LOUVER) TO BE TEMPORARILY REMOVED TO ACCOMMODATS INSTALLATION OF NEW UNIT INTO ROOM. REFER TO ARCHICTURAL DRAWINGS FOR EXTENT OF BLOCK WALL REMOVAL.
- EXISTING LOUVER TO BE REMOVED COMPLETE. EXISTING PNEUMATIC MOTORIZED DAMPER ACTUATOR TO BE REMOVED COMPLETE. EXISTING COMPRESSED AIR TUBING/ CONTROL TO BE REMOVED COMPLETE/ BACK TO SOURCE.
- EXISTING PNEUMATIC TUBING TO BE SOLDERED/CRIMPED IN CONCEALED LOCATION. EXISTING PNEUMATIC MOTORIZED DAMPER TO
- BE REMOVED COMPLETE. EXISTING COMPRESSED AIR TUBING/ CONTROL TO BE REMOVED COMPLETE/ BACK TO SOURCE. EXISTING PNEUMATIC TUBING TO BE SOLDERED/CRIMPED IN CONCEALED LOCATION.

DELETED

2.

3.

6.





'A' M6.3





The contractor shall verify all dimensions and report all



Consulting Engineers Ոհ

MECHANICAL | ELECTRICAL | AQUATIC 55 Northland Road, Waterloo, ON, N2V 1Y8 Phone: 519-725-3555 Project No.: 24162 GLENVIEW PARK SS REFERENCE DRAWING M6.2

GLENVIEW PARK SS REFERENCE DRAWING M7.2

Part 1 General

1.1 SHOP DRAWINGS AND PRODUCT DATA

- .1 Submit shop drawings in accordance with Electrical General Requirements Section.
- .2 Indicate:
 - .1 Mounting method and dimensions.
 - .2 Starter/contactor size and type.
 - .3 Layout of identified internal and front panel components.
 - .4 Enclosure types.
 - .5 Wiring diagram for each type of starter.
 - .6 Interconnection diagrams.

1.2 OPERATION AND MAINTENANCE DATA

- .1 Provide operation and maintenance data for incorporation into manual specified in Electrical General Requirements Section.
- .2 Include operation and maintenance data for each type and style of starter/contactor.

1.3 MAINTENANCE MATERIALS

- .1 Provide maintenance materials in accordance with Electrical General Requirements Section.
- .2 Provide listed spare parts for each different size and type of starter:
 - .1 1 operating coil.
 - .2 3 fuses.
 - .3 10% indicating lamp bulbs used.

Part 2 Products

2.1 MATERIALS

- .1 Starters: must conform to CSAC22.2 No. 14 (latest edition) and EEMAC E14-1.
- .2 Control transformers must conform to CSAC22.2 No. 66 (latest edition).
- .3 Auto-transformers must conform to CSAC22.2 No 47 (latest edition).
- .4 Contactors must conform to CSA C22.2 No. 14 (latest edition).
- .5 Half size starters will not be accepted. NEMA and IEC rated starters are acceptable.

2.2 MANUAL MOTOR STARTERS

.1 Single and Three phase manual motor starters of size, type, rating, and enclosure type as indicated, with components as follows:

- .1 Switching mechanism, quick make and break.
- .2 One or Three overload heaters, manual reset, trip indicating handle.
- .3 Toggle switch: standard duty labeled "on"/"off".
- .4 Indicating light: standard duty type and red colour.
- .5 Locking tab to permit padlocking in "ON" or "OFF" position.

2.3 FULL VOLTAGE MAGNETIC STARTERS

- .1 Magnetic and combination magnetic starters of size, type, rating and enclosure type as indicated with components as follows:
 - .1 Contactor solenoid operated, rapid action type.
 - .2 Motor overload protective device in each phase, manually reset from outside enclosure.
 - .3 Wiring and schematic diagram inside starter enclosure in visible location.
 - .4 Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram.
- .2 Combination type starters to include fused disconnect switch with operating lever on outside of enclosure to control disconnect, and provision for:
 - .1 Locking in "OFF" position with up to 3 padlocks.
 - .2 Independent locking of enclosure door.
 - .3 Provision for preventing switching to "ON" position while enclosure door open.
- .3 Accessories:
 - .1 Pushbuttons Selector switches standard duty labeled as indicated.
 - .2 Indicating lights: standard duty type and color as indicated.
 - .3 1-N/O and 1-N/C spare auxiliary contacts unless otherwise indicated.
 - .4 1 red pilot light for "stop" or "off" and 1 green light for "start" or "on". ADD01

2.4 CONTROL TRANSFORMER

- .1 Single phase, dry type, control transformer with primary voltage as indicated and secondary voltage to suit remote control device, complete with secondary fuse, installed in with starter as indicated.
- .2 Size control transformer for control circuit load plus 20% spare capacity.

2.5 CONTACTORS

- .1 Electrically held and controlled by pilot devices as indicated and rated for type of load controlled.
- .2 Complete with 2 normally open and 2 normally closed auxiliary contacts unless indicated otherwise.
- .3 Mount in CSA Enclosure 1 unless otherwise indicated.
- .4 Include following options in cover:

- .1 Red indicating lamp.
- .2 Hand Off Auto selector switch.
- .5 Control transformer: mounted in contactor enclosure.
- .6 Contactors must be definite purpose.

2.6 FINISHES

.1 Apply finishes to enclosure in accordance with Electrical General Requirements Section.

2.7 EQUIPMENT IDENTIFICATION

- .1 Provide equipment identification in accordance with Electrical General Requirements Section.
- .2 Manual starter designation label: black plate, white letters, size 1, engraved as indicated.
- .3 Magnetic starter designation label: black plate, white letters, size 2, engraved as indicated.
- .4 Contactor designation label:

black plate, white letters, size 4, indicating name of load controlled.

2.8 ACCEPTABLE MANUFACTURERS

- .1 The acceptable manufacturers are as follows:
 - .1 Allen Bradley
 - .2 Eaton
 - .3 Siemens
 - .4 Group Schneider
 - .5 Klockner Moeller

Part 3 Execution

3.1 INSTALLATION

- .1 Install starters, connect power and control as indicated.
- .2 Ensure correct fuses and overload devices elements installed.

3.2 FIELD QUALITY CONTROL

- .1 Perform tests in accordance with Electrical General Requirements Section.
- .2 Operate switches, contactors to verify correct functioning.
- .3 Perform starting and stopping sequences of contactors and relays.
- .4 Check that sequence controls, interlocking with other separate related starters, equipment, control devices, operate as indicated.

Updated w ADD01

.5 Install contactors and connect auxiliary control devices.

END OF SECTION

ELECT	RICAL SYMBOLS		NOTE: ALL SYMBOLS MAY NOT BE USED
	LIGHTING		POWER
X	LIGHT FIXTURE TYPE AS INDICATED	φ	WALL MOUNTED RECEPTACLE (15A-120V)
×////	LIGHT FIXTURE (HATCHING DENOTES NIGHTLIGHT)	P	WALL MOUNTED T-SLOT RECEPTACLE (20A-120V)
EM-X	COMBINATION EMERGENCY/EXIT TYPE AS INDICATED (EM-X INDICATES BATTERY	A	T-SLOT RECEPTACLE MTD. ABOVE COUNTER (20A-120V)
	UNIT TYPE, DC-X INDICATES DC CIRCUIT AND X-X INDICATES AC SOURCE CIRCUIT)	₽₽s	RECEPTACLE MTD. ABOVE COUNTER S = SPLIT (15A-120V)
ØØ	CEILING OR WALL MOUNTED LIGHT FIXTURE TYPE AS INDICATED	٥	DIRECT CONNECTION
<u>×</u>	WALL MOUNTED EXIT LIGHT SHADING INDICATES FACE	JB	JUNCTION BOX
1231	CEILING MOUNTED EXIT LIGHT ARROWS DENOTE DIRECTION SHADING INDICATES FACE		PANEL AS INDICATED
<u>r</u> rr	SINGLE OR TWIN EMERGENCY LIGHTING FIXTURE	ď	FUSED DISCONNECT
Ħ	RECESSED REMOTE EMERGENCY FIXTURES	C	UNFUSED DISCONNECT
	CEILING RECESSED BATTERY UNIT C/W INTEGRAL EMERGENCY FIXTURES	VFD	VARIABLE FREQUENCY DRIVE
	BATTERY UNIT WITH INTEGRAL EMERGENCY FIXTURE (EM-X INDICATES	•	PUSH-BUTTON STATION (QUANTITY OF BUTTONS AS PER PLANS)
	DC CIRCUIT AND X-X INDICATES AC SOURCE CIRCUIT)	DVR	DUAL VOLTAGE RELAY
\$	SINGLE POLE SWITCH (3=3 WAY, 4=4 WAY, P=PILOT LIGHT, K=KEYED, DM=DIMMER, M=MOTOR RATED)		MANUAL STARTER
\$os	OCCUPANCY SENSOR (PASSIVE)	Ø	MAGNETIC STARTER
OSD/OSR \$	OCCUPANCY SENSOR: OSD=DUAL TECHNOLOGY OSR=DUAL CIRCUIT/DUAL TECHNOLOGY	×	COMBINATION MAGNETIC STARTER
os	CEILING MOUNTED MOTION SENSOR	_₫\	SURFACE RACEWAY C/W DEVICES AS NOTED (REFER TO SPECIFICATIONS)
DR	DIGITAL ROOM CONTROLLER	RA	THERMOSTAT (RA = REVERSE ACTING)
ЗВ	DIGITAL WALL STATION, 'X' DENOTES NUMBER OF CONTROL BUTTONS IN SINGLE GANG	0	METER
	FIRE ALARM		UNISTRUT UPSTAND
•	HEAT DETECTOR (135 DEGREE RATE OF RISE AND FIXED TEMPERATURE)		TRANSFORMER
(S) _{RL}	SMOKE DETECTOR (RL=RELAY BASE)		SECURITY
e S	DUCT TYPE SMOKE DETECTOR	DC	DOOR CONTACT C/W 19mmC TO NEAREST SECURITY JUNCTION BOX (REFER TO DETAIL)
	ALARM BELL	ES	ELECTRIC STRIKE. CONFIRM ROUGHIN WITH DOOR HARDWARE.
FSD	FIRE SMOKE DAMPER		CARD/FOB READER ROUGH-IN AS A SINGLE GANG BOX AT 1100mm AFF C/W
	DATA		DOOR FRAME. CONFIRM ROUGH-IN WITH DOOR HARDWARE.
▼	SINGLE WALL MOUNTED TELEPHONE OUTLET C/W 3/4" (21mm) C TO CABLE MANAGEMENT SYSTEM.		GENERAL
	SINGLE COMPUTER OUTLET C/W 3/4" (21mm) C TO CABLE MANAGEMENT SYSTEM.	ER	INDICATES EXISTING ITEM TO REMAIN
V	COMBINATION SINGLE VOICE/SINGLE COMPUTER OUTLET UNLESS OTHERWISE	D	INDICATES EXISTING ITEM TO BE DEMOLISHED
	NOTED C/W 3/4" (21mm) C TO CABLE MANAGEMENT SYSTEM.	R	INDICATES EXISTING ITEM TO BE RELOCATED/ IN RELOCATED POSITION
WAP	WIRELESS ACCESS POINT. PROVIDE 3/4" (21mm) C TO CABLE MANAGEMENT SYSTEM.	GF	GROUND FAULT
©	HANGER SYSTEM (REFER TO DETAILS)	WP	WEATHERPROOF
\$	HANDSET (ND = NON DIAL STYLE)	CLG	CEILING MOUNTED
	COMMUNICATIONS	X	NOTE INDICATOR
Ŷ	CLOCK AS PER SPECIFICATIONS		MECHANICAL ITEM INDICATOR
¥	WALL MOUNTED SPEAKER (CS = COLUMN SPEAKER)	STA	ANDARD CIRCUIT LABELLING
∀	WALL MOUNTED SPEAKER C/W CALL IN SWITCH		A - 1 - 1 POWER PANEL LABEL
V	CEILING MOUNTED SPEAKER	swii	CIRCUIT INDICATION

PROJECT NAME GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS 55 McKay St., Cambridge, ON, N1R 4G8 _____ _____ DRAWING TITLE _____ LEGEND AND OVERALL PLANS _____ _____ DRAWING NUMBER SCALE As indicated SHEET SIZE E101 24X36 PROJECT NUMBER

24162

commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the Consultant are the property of the Consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing. © 2025 DEI Consulting Engineers Inc.

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before

PROJECT NORTH⊄

No.	REVISIONS	DATE
1	ISSUED FOR 50% PROGRESS	2024.01.14
2	ISSUED FOR 75% REVIEW	2025.01.31
4	ISSUED FOR PERMIT/TENDER	2025.03.05
5	ISSUED FOR ADDENDUM 01	2025.03.20

aba architects inc.

SHEET LIST

SHEET NUMBER	SHEET NAME
E101	LEGEND AND OVERALL PLANS
E102	ELECTRICAL DETAILS & SCHEDULES
E103	EQUIPMENT WIRING SCHEDULE
E104	LIGHTING CONTROL DETAILS
E105	LIGHT FIXTURE SCHEDULE
E201	LEVEL 2 - SCIENCE WING - ELECTRICAL DEMOLITION PLAN
E202	LEVEL 1 - SCIENCE WING - ELECTRICAL RENOVATION PLAN
E203	LEVEL 2 - SCIENCE WING - ELECTRICAL RENOVATION PLAN
E204	ROOF - SCIENCE WING - POWER & SYSTEMS RENOVATION PLAN
E301	ENLARGED PLANS (1 OF 4)
E302	ENLARGED PLANS (2 OF 4)
E303	ENLARGED PLANS (3 OF 4)
E304	ENLARGED PLANS (4 OF 4)
E401	DISTRIBUTION RISER DIAGRAM - RENOVATION
E402	PANEL SCHEDULES
E501	PARTIAL FIRE ALARM RISER DIAGRAM AND ANNUNICIATOR SCHEDULE

EQUIP	MENT WIRING SCHE	DULE		Electrica	al Data			Sta	arter		Ctrl	Device		solating Devi	ce				Remo	te Items				Oth	ner Interlock	E = ELECTRICAL M = MECHANICAL O = OTHERS	errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of service Follow as closely as actual building construction will permit. Obtain approval for relocation of service fro Consultant before commencement of the work. The drawings do not indicate all offsets fitting and
																											accessories which may be required. Provide the sa to meet the required conditions. Drawings and specifications, etc., prepared and iss by the Consultant are the property of the Consultan and must be returned at the completion of the proje These documents are not to be duplicated or copies without the consent of the Consultant. Do not scale this drawing. © 2025 DEI Consulting Engineers Inc.
Mechanical Item	Description	Provided By	Voltage	Size hp/k///Amps	Phase	MOCP	Magnetic	Manual Combination	Contactor	ECM (No Separate Starter Device)	Hand/Off/Auto On/Off Selector	High/Low/Off Pilot Linht	Disconnect	WP Disconnect Breaker/Fuse	Starter/Device Wired by	Thermostat RA Thermostat	Programmable Time Clock Variable Speed Control	Current Sensor	Ucc Serisor Dual Voltage Relay	Interval Timer VRF System Controll Panel	Smoke Control System Panel	Control Panel Wired by	Bidg Auto System Wired By	Miscellaneous 1	Miscellaneous 2 Interlock to	Remarks BHASE 1	PROJECT
EF-5	ROOFTOP EXHAUST FAN (CHEM	ISTRY M	I 120	0 1/4 HP	1						E			EE	E							M/E	M		MOT. DAMPER	PHASE 1 PROVIDE INDICATING LIGHT. INTERLOCK TO MOTORIZED DAMPER	No. REVISIONS DATE 1 ISSUED FOR 50% PROGRESS 2024.01 2 ISSUED FOR 75% REVIEW 2025.01
EF-6	ROOFTOP EXHAUST FAN (BIOLO)GY A211) M	I 120	0 1/4 HP	1						E			EE	E				M			M/E	M M		MOT. DAMPER	PROVIDE INDICATING LIGHT. INTERLOCK TO MOTORIZED DAMPER	4 ISSUED FOR PERMIT/TENDER 2025.03 5 ISSUED FOR ADDENDUM 01 2025.03
EF-7	ROOFTOP EXHAUST FAN (CHEMI A212 FUME HOOD)	ISTRY M	120	0 1/4 HP	1		E				E			E E	E				M			M/E	M M		FUME HOOD & MOT. DAMPER M	E CONNECT TO SWITCH ON FUME HOOD. INTERLOCK TO MOTORIZED DAMPER	
SP-1	ELEVATOR SUMP (SIMPLEX)	M	208	0.5 HP	3								E	E	E							M M/E				PROVIDE RECEPTACLE FOR HIGH LEVEL ALARM. WIRE FLOATS THROUGH CONTROL PANEL	
DS-3	WALL MOUNTED AIR CONDITION MACH. RM)	IER (ELEV. M	120	1.0 AMPS	1	15							E	E	E	М						М	M M		CU-1 N	A POWER FROM/THROUGH CONDENSING UNIT	
CU-3	OUTDOOR CONDENSING UNIT	М	208	19 AMPS	1	30								E E	E								M M		AC-1	Λ	
GSV	GAS SOLENOID VALVE	М	120	FHP	1									E	E				М			M/E	M M			REFER TO PLANS FOR NUMBER & LOCATIONS	
BAS	BAS PANEL	М	120	FHP	1								E	E	E								M M			PROVIDE TWO DATA DROPS AND RECEPTACLE. REFER TO PLANS FOR NUMBER & LOCATIONS	
NT	ACID NEUTRALIZING TANK	М	120	FHP	1								E	E	E											PROVIDE RECEPTACLE	
PHASE 2																											
HVAC-5-SF	INDOOR HVAC UNIT SUPPLY FAN	N M	208	93.8 AMPS	3	150			N	1			E	E	E								M M		CU-4A CU-4B	75 FLA. MOTOR C/W FACTORY PROVIDED EXTERNAL JUNCTION BOX. VFD INSTALL AND POWER CONNECTION BY ELECTRICAL DIVISION	
HVAC-5-EF	INDOOR HVAC UNIT RETURN/EX FAN (X2)	HAUST M	208	2 @ 31.3 A	3	45			N	1			E	E	E								M M			13.9 FLA (X2). ECM FANS FACTORY-WIRED TO CONTROL BOX. FIELD POWER TO POWER BLOCK BY ELECTRICAL DIVISION	
HVAC-5-ERV	V INDOOR HVAC UNIT ENERGY REW	COVERY M	208	3.0 A	3	15			N	1			E	E	E								M M			2.4 FLA. FACTORY WIRED TO FACTORY-INSTALLED VFD. FIELD POWER TO POWER BLOCK BY ELECTRICAL DIVISION	- CHRONOLOGY DATE
HVAC-5-UC	INDOOR HVAC UNIT CONTROLLE	ER M	120	FHP	1	15							E	E	E								M M			FIELD SUPPLIED. INTERFACE TO ALL HVAC-5 COMPONENTS TO MANAGE UNIT FUNCTION	
CU-4A1	CONDENSING UNIT	M	208	61.9 A	3	70								EE	E								M M		HVAC-5	CU-4A IS TWO MODULES. REFER TO PLANS FOR NUMBER & LOCATIONS.	55 Northland Road, Waterloo, ON, N2V 1 Phone: 519-725-3555 Website: deiassociate
CU-4A2	CONDENSING UNIT	M	208	61.9 A	3	70								EE	E								M M		HVAC-5	CU-4A IS TWO MODULES. REFER TO PLANS FOR NUMBER & LOCATIONS.	Consulting Engineers
CU-4B1	CONDENSING UNIT	M	208	61.9 A	3	70								EE	E								M M		HVAC-5	CU-4B IS TWO MODULES. REFER TO PLANS FOR NUMBER & LOCATIONS.	MECHANICAL ELECTRICAL AQUATIC
CU-4B2	CONDENSING UNIT	M	208	61.9 A	3	70								EE	E								M M		HVAC-5	CU-4B IS TWO MODULES. REFER TO PLANS FOR NUMBER & LOCATIONS.	
BS-	BRANCH SELECTOR BOX	M	208	6 0.4 A	1								E	E	E								M M		HVAC-5, CU-4A, CU-4B	OF BRANCH BOXES FOR EACH CONDENSING UNIT	G
				0.3 A									E		E								M M		CU-4A CU-4B	REFER TO PLANS FOR NUMBER & LOCATIONS	
P-10				0.5 HP		h																			han han ha		a b a architects inc. 101 Randall Drive, Unit B, Waterloo ON, TEL 519 884 2711 www.abarchitect.ca
Notes: 1	PROVIDE MAIN FEED TO UNIT. P	ROVIDE ADDITIC	ONAL FE	ED FROM TERM	/INAL ST	RIPS WITH	HIN UNIT TO	D VARIABL	E FREQUE	NCY DRIVE A	AND BACK	TO UNIT (IN	SEPARAT	E CONDUIT	S). COORE	DINATE CON	IDUCTOR S	IZE TO AND F	ROM VAR	RIABLE FRE	QUENCY DR	IVE WITH M	ECHANICAL	L SHOP DI	RAWINGS.		CLIENT
																											SECONDARY SCHOC HVAC IMPROVEMEN 55 McKay St., Cambridge, ON, N1R 4G8
																											EQUIPMENT WIRING SCHEDULE
																											SCALE DRAWING NUMBER
																											24X36 E103 PROJECT NUMBER 24162

NOTES: CIRCUIT LABELS

PROVIDE P-TOUCH LABELS INDICATING PANEL AND CIRCUIT LABEL ON ALL LIGHT SWITCH, LIGHTING CONTROL STATION, AND RECEPTACLE DEVICE FACEPLATES. INCLUDE SWITCH LEG INDICATION FOR LIGHTING CONTROLS AND SWITCHES. REFER TO SPECIFICATIONS FOR FURTHER DETAILS AND REQUIREMENTS.

GENERAL NOTES - RENOVATION 'ER' INDICATES EXISTING ITEM TO REMAIN

'R' INDICATES EXISTING ITEM IN RELOCATED POSITION. ALL DEVICES SHOWN ARE NEW UNLESS OTHERWISE NOTED EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED. MAINTAIN SERVICE TO ALL EXISTING DEVICES TO REMAIN. REVISE PANEL DIRECTORIES TO SUIT CHANGES (TYPED).

SPECIFIC NOTES

- UTILIZE EXISTING LOCAL LIGHTING CIRCUIT MADE AVAILABLE FROM DEMOLITION FOR AREA NOTED AND CONNECT TO NEW LIGHT FIXTURE(S) AND CONTROLS AS SHOWN FOR A COMPLETE WORKING SYSTEM.
- INDICATES EXISTING FIRE ALARM DEVICE IN RELOCATED POSITION. REWORK AND EXTEND EXISTING CONDUIT AND WIRING AS REQUIRED TO SUIT REVISED LOCATION. EXISTING DEVICE SHALL BE RE-VERIFIED IN CONFORMANCE WITH CAN/ULC-S537 "VERIFICATION OF FIRE ALARM SYSTEMS" TO ENSURE SATISFACTORY
- OPERATION ALL EXISTING DEVICES ON CEILINGS WITHIN AREA SHOWN SHALL BE REINSTALLED TO ACCOMMODATE NEW CEILINGS AND FIXTURES. REWORK/EXTEND EXISTING WIRING MADE AVAILABLE DURING REMOVAL AS REQUIRED
- O SUIT INDICATES DIGITAL ROOM CONTROLLER TO BE INSTALLED IN ACCESSIBLE CEILING SPACE FOR CONTROL OF NOTED OCCUPANCY SENSORS. REFER TO LIGHTING CONTROL DETAILS.
- UTILIZE EXISTING BACKBOXES MADE AVAILABLE FROM DEMOLITION AND PROVIDE DIMMING WALL STATION(S) AS SHOWN FOR CONTROL OF LIGHTING GROUPS AS INDICATED. PROVIDE BLANK COVERPLATE FOR INACTIVE
- REDUNDANT SWITCHES. INDICATES DIGITAL ROOM CONTROLLER TO BE INSTALLED IN ACCESSIBLE CEILING SPACE FOR CONTROL OF 6 LIGHTING FIXTURES. REFER TO LIGHTING CONTROL DETAILS.
- PROVIDE NEW DIGITAL LIGHTING SWITCHES SHOWN C/W WIREMOLD TO CEILING TO CONCEAL CONTROL WIRING. REFER TO LIGHTING CONTROL DETAILS AND TO SPECIFICATIONS FOR FURTHER DETAILS AND REQUIREMENTS.

SPECIFIC NOTES The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from INDICATED DETECTOR C/W RELAY BASE FOR RELEASE OF ELECTROMAGNETIC DOOR HOLDER AS SHOWN. Consultant before commencement of the work. LOCATE DETECTOR WITHIN 1.5m AND CENTRE ON DOOR(S) BEING HELD OPEN. WHEN INDICATED DEVICE IS IN The drawings do not indicate all offsets fitting and ALARM, THE ASSOCIATED RELAY IN THE DEVICE BASE IS CLOSE AND CAUSE ASSOCIATED DOOR HOLDS TO accessories which may be required. Provide the same RELEASE. THROUGH PROGRAMMING, WHEN INDICATED DEVICE IS IN ALARM, THE ASSOCIATED RELAY FROM THE to meet the required conditions. FIRE ALARM PANEL ON GENERAL ALARM SHALL CASE DOOR HOLDS TO RELEASE. Drawings and specifications, etc., prepared and issued INDICATES MAGNETIC HOLD OPEN DEVICE PROVIDED AS PART OF THIS SCOPE OF WORK WHICH SHALL BE by the Consultant are the property of the Consultant RELEASED UPON SIGNAL FROM FIRE ALARM SYSTEM. REFER TO DETAIL H/E104, FIRE ALARM RISER DIAGRAM and must be returned at the completion of the project. AND TO SPECIFICATIONS FOR FURTHER DETAILS AND REQUIREMENTS. COORDINATE EXACT LOCATION TO These documents are not to be duplicated or copied INSTALL MAGNETIC HOLD OPEN DEVICE WITH ARCHITECT AND DOOR SWING. Do not scale this drawing. PROVIDE 120V 15A HARDWIRED CONNECTION C/W JUNCTION BOX AND STEP DOWN TRANSFORMER (120V:24V) ABOVE ACCESSIBLE CEILING SPACE AND LOW VOLTAGE WIRING TO MAGNETIC DOOR HOLD OPEN DEVICES. REFER TO DETAIL E/E102 AND TO SPECIFICATIONS FOR FURTHER DETAILS AND REQUIREMENTS. PROVIDE NEW EMERGENCY BATTERY UNIT SHOWN AND CONNECT TO UNSWITCHED SIDE OF EXISTING LOCAL LIGHTING CIRCUIT. 12 REWORK AND EXTEND EXISTING LOCAL EXIT SIGNAGE CIRCUIT AND CONNECT TO NEW EXIT SIGN INDICATED.

CONNECT NEW FIRE ALARM DEVICE INDICATED TO EXISTING LOCAL INITIATING CIRCUIT. RE-VERIFY PORTIONS OF ALARM SYSTEM TO CAN/ULC-S537. REFER TO SPECIFICATIONS FOR FURTHER DETAILS AND REQUIREMENTS. CONFIRM EXACT LOCATION OF EXISTING CEILING MOUNT RECEPTACLE BEING RELOCATED ON SITE WITH OWNER. REWORK AND EXTEND, EXISTING CONDUIT AND WIRING AS REQUIRED TO SUIT \sim PROVIDE 120V POWER AND FIRE ALARM CONNECTIONS TO FIRE/SMOKE DAMPER C/W INTEGRAL SMOKE 15 DETECTOR. REFER TO FIRE ALARM SPECIFICATIONS AND TO RISER DIAGRAM FOR FURTHER DETAILS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

24162

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before

commencement of the work.

A - ROOF - MECHANICAL ROOM - POWER & SYSTEMS - DEMOLITION PLAN SCALE: 1:50

B - ROOF - MECHANICAL ROOM - POWER & SYSTEMS - RENOVATION PLAN SCALE: 1:50

GENERAL NOTES - DEMOLITION

- 'ER' INDICATES 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 DEMOLISHED. UNLESS OTHERWISE NOTED DISCONNECT AND REMOVE NOTED DEVICE AND WIRING BACK TO SOURCE. ALL LIGHTING FIXTURES BEING RELOCATED SHALL BE CLEANED AND CHECKED PRIOR TO BEING REINSTALLED.

GENERAL NOTES - RENOVATION

- 'ER' INDICATES EXISTING ITEM TO REMAIN. - 'R' INDICATES EXISTING ITEM IN RELOCATED POSITION. ALL DEVICES SHOWN ARE NEW UNLESS OTHERWISE NOTED.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- MAINTAIN SERVICE TO ALL EXISTING DEVICES TO REMAIN. REVISE PANEL DIRECTORIES TO SUIT CHANGES (TYPED).

SPECIFIC NOTES

- INDICATES EXISTING FAN UNIT TO BE REMOVED COMPLETE BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL REMOVE EXISTING CONDUIT AND WIRING BACK TO SOURCE PANEL AND MAKE SAFE. MARK BREAKER AS SPARE.
- INDICATES DUCT TYPE SMOKE DETECTOR MOUNTED IN STRAIGHT SECTION OF SUPPLY DUCT OF MECHANICAL DUCT. REFER TO MECHANICAL DRAWINGS FOR PROPOSED DUCT LOCATIONS AND FURTHER DETAILS.
- COORDINATE EXACT LOCATION TO INSTALL DUCT SMOKE DETECTOR WITH DUCT STRUCTURE AND ACCESSORIES (SILENCERS) FOR SUITABLE RUN. CONFIRM LOCATION, DETAILS AND REQUIREMENTS WITH THE FIRE ALARM MANUFACTURER AND MECHANICAL CONTRACTOR.
- CONNECT NEW FIRE ALARM INITIATING DEVICE TO EXISTING LOCAL INITIATING CIRCUIT.RE-VERIFY PORTIONS OF ALARM SYSTEM TO CAN/ULC-S537. REFER TO SPECIFICATIONS FOR FURTHER DETAILS AND REQUIREMENTS.
- INDICATES EXISTING EXHAUST FAN DISCONNECT SWITCH TO BE REMOVED AS PART OF THIS SCOPE OF WORK. COORDINATE EXACT LOCATION AND DETAILS WITH MECHANICAL CONTRACTOR.

No.	REVISIONS	DATE
2	ISSUED FOR 75% REVIEW	2025.01.31
4	ISSUED FOR PERMIT/TENDER	2025.03.05
5	ISSUED FOR ADDENDUM 01	2025.03.20
	·	
	<u>.</u>	

aba architects inc.

PROJECT NAME

GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS 55 McKay St., Cambridge, ON, N1R 4G8 DRAWING TITLE ENLARGED PLANS (4

(
C	JF 4)
	-

E304

DRAWING NUMBER SCALE 1:50

24X36 PROJECT NUMBER 24162

SHEET SIZE

	GENERAL NOTES - DISTRIBUTION RISER
А	RISER IS DIAGRAMMATIC ONLY. REFER TO FLOOR PLANS FOR LOCATION OF ALL DISTRIBUTION EQUIPMENT AND FURTHER REQUIREMENTS.
В	REFER TO SPECIFICATIONS FOR FURTHER INFORMATION REGARDING MOULDED CASE CIRCUIT BREAKERS.
С	PROVIDE GROUND WIRE IN ALL BRANCH CIRCUITS AND FEEDERS TO SUIT THE ONTARIO ELECTRICAL SAFETY CODE.
D	ALL LIGHTING CIRCUITS SHALL BE PROVIDED WITH SEPARATE NEUTRALS. SIZE BRANCH CONDUITS ACCORDINGLY.
E	ALL DISTRIBUTION EQUIPMENT SHALL BE PROVIDED WITH WARNING LABELS CONFORMING TO THE ONTARIO ELECTRICAL SAFETY CODE RULE #2-306(1)(2).
F	REFER TO PANEL SCHEDULES FOR QUANTITY OF CIRCUITS AND FURTHER DETAILS.
G	ALL CONDUCTORS FOR THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN A SEPARATE ENCLOSED CONDUIT SYSTEM.

SPECIFIC NOTES

	1	PROVIDE NEW BREAKER INDICATED C/W NEW REQUIRED MOUNTING HARDWARE TO ACCOMMODATE WIRE SIZE INDICATED. PROCURE FOR THE SERVICES OF SCHNEIDER FIELD SERVICES GROUP TO REWORK, MODIFY AND RECERTIFY PANEL BUS AS REQUIRED TO FACILITATE INSTALLATION OF NEW BREAKER PROVIDED AS PART OF THIS SCOPE OF WORK.
	2	NOT USED.
	3	CONNECTIONS TO THE LINE SIDE OF ELEVATOR CONTROL PANEL SHALL BE UNDER THE DIRECT GUIDANCE OF THE ELEVATOR CONTRACTOR. CONFIRM ALL POWER, DISCONNECT SWITCH AND CONTROL WIRING REQUIREMENTS WITH ELEVATOR SHOP DRAWINGS PRIOR TO PROCURING AND INSTALLING ELECTRICAL REQUIREMENTS.
	4	DISCONNECT SWITCH INDICATED FOR ELEVATOR CONTROL PANEL MUST BE LOCKABLE (I.E EQUIPPED WITH MEANS FOR LOCKING IT IN THE OPEN POSITION). PROVIDE TWO (2) SETS OF ELEVATOR RATED AUXILIARY CONTACTS TO SUIT THE ELEVATOR CONTRACTOR. COORDINATE EXACT LOCATION TO MOUNT DISCONNECT SWITCH ON SITE WITH ELEVATOR CONTRACTOR.
	5	NOT USED.
ľ	6	NOT USED.
	7	PROVIDE NEW 60A-3P FUSES IN EXISTING 60A-3P FUSIBLE DISCONNECT SWITCH INDICATED.
	8	CONTRACTOR SHALL SWING OVER TEN (10) EXISTING CIRCUITS AS REQUIRED FROM PANEL PP-PV TO NEW PANEL PV PROVIDED AS PART OF THIS SCOPE OF WORK TO MAINTAIN EXISTING SERVICES. REFER TO RENOVATION PLAN FOR LOCATION OF NEW PANEL. EXISTING TO REMAIN SERVICES TO BE IDENTIFIED DURING CONSTRUCTION AND ARE NOT SHOWN ON THE DRAWINGS. PROVIDE NEW BREAKERS AND EXTEND EXISTING CONDUIT AND WIRE FEEDING EXISTING BRANCH DEVICES AND TIE INTO RESPECTIVE CIRCUITS RELOCATED TO NEW PANEL PV.
	9	CONTRACTOR SHALL SWING OVER TEN (10) EXISTING CIRCUITS AS REQUIRED FROM PANEL PP-PS TO NEW PANEL PS PROVIDED AS PART OF THIS SCOPE OF WORK TO MAINTAIN EXISTING SERVICES. REFER TO RENOVATION PLAN FOR LOCATION OF NEW PANEL. EXISTING TO REMAIN SERVICES TO BE IDENTIFIED DURING CONSTRUCTION AND ARE NOT SHOWN ON THE DRAWINGS. PROVIDE NEW BREAKERS AND EXTEND EXISTING CONDUIT AND WIRE FEEDING EXISTING BRANCH DEVICES AND TIE INTO RESPECTIVE CIRCUITS RELOCATED TO NEW PANEL PS.
	10	INDICATES RECEPTACLE PANEL - 120/208V, 3PH/4W, 100A MAINS, 10KAIC
	11	INDICATES 208V 3 PHASE 200A DISCONNECT SWITCH C/W 150A CLASS D FUSES.
Γ	12	INDICATES RECEPTACLE PANEL - 120/208V, 3PH/4W, 225A MAINS, 25KAIC

INDICATES PREPARED SPACE FOR FUTURE BREAKER. PROVIDE ALL REQUIRED MOUNTING HARDWARE AND ACCESSORIES. 13

Foll peri Cor The acc to n Dra by t and The with Do © 2	drawings show general arrangeme ow as closely as actual building cor mit. Obtain approval for relocation o isultant before commencement of th drawings do not indicate all offsets essories which may be required. Pr neet the required conditions. wings and specifications, etc., prepa he Consultant are the property of th must be returned at the completion se documents are not to be duplica out the consent of the Consultant. not scale this drawing. 025 DEI Consulting Engineers Inc.	nt of services. Istruction will f service from ne work. fitting and rovide the same ared and issued e Consultant of the project. ted or copied
	PROJECT	
No. 1 2 4 5	REVISIONS ISSUED FOR 50% PROGRESS ISSUED FOR 75% REVIEW ISSUED FOR PERMIT/TENDER ISSUED FOR ADDENDUM 01	DATE 2024.01.14 2025.01.31 2025.03.05 2025.03.20
C M	CHRONOLOGY	DATE DATE DATE DATE DATE DATE DATE DATE DATE DATE DATE DATE DATE DATE DATE
	CORPORE STATES TO Randal Drive. Unil B. Waterloo ON. TEL 519 884 2711 www.	inc .
CLIENT	DIST ALCT SCHOOL BOR	
PROJE SE H	GLENVIEW PA GLENVIEW PA ECONDARY SC VAC IMPROVE 55 McKay St., Cambridge, ON,	ARK HOOL MENTS nir 4g8
DRAW	DISTRIBUTION F	RISER -

RENOVATION

SCALE

SHEET SIZE

1:1

24X36

PROJECT NUMBER 24162 DRAWING NUMBER

E401

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before

commencement of the work.

PANEL PS

MAINS: 100 A MOUNTING: SURFACE

	MOUNTING: SURFACE	NEUTRAL BUS: 100%						ENCLOSURE: TYPE 2						
СКТ	Load Name	Туре	Rating	Poles	A	в	С	Poles	Rating	Туре	Load Name	СКТ		
1	WORKBENCH RECEPTACLES		20 A	1				1	20 A		WORKBENCH RECEPTACLES	2		
3	WORKBENCH RECEPTACLES		20 A	1				1	20 A		WORKBENCH RECEPTACLES	4		
5	WORKBENCH RECEPTACLES		20 A	1				1	20 A		WORKBENCH RECEPTACLES	6		
7	WORKBENCH RECEPTACLES		20 A	1				1	20 A		WORKBENCH RECEPTACLES	8		
9	WALL RECEPTACLES		15 A	1				1	15 A		GAS SOLENOID VALVE	10		
11	CEILING RECEPTACLE		15 A	1				1	15 A		BAS PANEL	12		
13	EXISTING BRANCH CIRCUIT		15 A	1				1	15 A		EXISTING BRANCH CIRCUIT	14		
15	EXISTING BRANCH CIRCUIT		15 A	1				1	15 A		EXISTING BRANCH CIRCUIT	16		
17	EXISTING BRANCH CIRCUIT	-	15 A	1				1	15 A		EXISTING BRANCH CIRCUIT	18		
19	EXISTING BRANCH CIRCUIT		15 A	1				1	15 A		EXISTING BRANCH CIRCUIT	20		
21	EXISTING BRANCH CIRCUIT	-	15 A	1				1	15 A		EXISTING BRANCH CIRCUIT	22		
23	FIRE SMOKE DAMPER		15 A	1				1	15 A		SPARE	24		
25	SPARE		20 A	1				1	15 A		SPARE	26		
27	SPARE		20 A	1				1	15 A		SPARE	28		
29	SPARE	-	20 A	1				1	15 A		SPARE	30		

PANEL PV MAINS: 100 A MOUNTING: SURFACE

СКТ	Load Name
1	WORKBEN
3	WORKBEN
5	WORKBEN
7	WORKBEN
9	WORKBEN
11	W/
13	GAS
15	EXISTING
17	EXISTING
19	EXISTING
21	EXISTING
23	EXISTING
25	
27	
29	
NOTE	ES:

PANEL MP

MAINS: 225 A MOUNTING: SURFACE

СКТ	Load Name	Туре	Rating	Poles	A	В	CI	Poles	Rating	Туре	Load Name	СКТ
1			45.4	0				0	45.0			2
3	BRANCH SELECTOR CU-4A		15 A	2				2	15 A		BRANCH SELECTOR CU-4B	4
5	ROOF MAINTENANCE RECEPTACLE		20 A	1				1	15 A		ROOF EXHAUST FAN (EF-6)	6
7	ROOF MAINTENANCE RECEPTACLE		20 A	1				1	15 A		ROOF EXHAUST FAN (EF-5)	8
9	ROOF MAINTENANCE RECEPTACLE		20 A	1				2	15 0			10
11	HVAC UNIT CONTROLLER (HVAC-5-UC)		15 A	1				2	IDA			12
13								1	20 A		MECH. ROOM RECEPTACLE	14
15	HVAC ENERGY RECOVERY WHEEL (HVAC-5-FRW)		15 A	3				1	15 A		ROOF EXHAUST FAN (EF-7)	16
17	(2	15 0			18
19			45.4	0				2	IDA			20
21	CONTROL BOX CB		15 A	2				2	15 0			22
23			15 4	<u>ر</u>				2	IDA			24
25	CONTROL BOX CB		IS A	2				2	15 0			26
27								2	15 A			28
29								0	00.4			30
31			00.4	0				~~~	ZUA	GFI	MECHANICAL PIPE HEAT TRACING	-32
33	MECHANICAL PIPE HEAT TRACING	GFI	20 A	2			ſ					34
35							į	3	15 A		HVAC-5 CIRCULATION PUMP (P-10)	36
37							λ					38
39							5	\mathcal{P}	\square	\sim		40
41												42
43												44
45												46
47												48
49												50
51												52
53												54
55												56
57												58
59												60
61												62
63												64
65												66
67	SPARE		15 A	1				1	20 A		SPARE	68
69	SPARE		15 A	1				1	20 A		SPARE	70
71	SPARE		15 A	1				1	20 A		SPARE	72
NOTES	2				. 1						·	

	PANEL E										
	MAINS: 225 A	,	VOLTA	GE: 12)/20	8V 3	PH4W		INTER	RUPTING CAPACITY: 25 KAIC	
	MOUNTING: SURFACE	NEUTRAL BUS: 100%							ENCLOSURE: TYPE 2		
скт	Load Name	Туре	Rating	Poles	A	вС	Poles	Rating	Туре	Load Name	CK
1	ELEV. MACHINE RM LIGHTING		15 A	1			1	15 A		ELEVATOR PIT LIGHTING	2
3	ELEV MACHINE RM RECEPTACLE		20 A	1			1	20 A		ELEVATOR PIT / SHAFT RECEPTACLES	4
5			20.4				1	15 A		ELEVATOR CAB LIGHTING	6
7	CONDENSING UNIT (CU-3)		30 A	2			1	15 A		ELEVATOR CAB COMMUNICATION	8
9	ROOF MAINTENANCE RECEPTACLE		20 A	1			1	15 A		TANK COOLER	10
11	SUMP PUMP CONTROL PANEL		15 A	1							12
13	SUMP PUMP ALARM RECEPTACLE		15 A	1			3	15 A		SUMP PUMP (SP-1)	14
15	DOOR OPERATOR LEVEL 1 STAIR		15 A	1							16
17	DOOR HOLD OPEN	\sim	15 A	1			1	20 A		NEUTRALIZING TANK RECEPTACLE A118	18
19	FIRE SMOKE DAMPER - RM A205	1	15 A	1							20
21/		\sim			7						22
23											24
25											26
27											28
29											30
31											32
33											34
35											36
37	SPARE		15 A	1			1	20 A		SPARE	38
39	SPARE		15 A	1			1	20 A		SPARE	40
41	SPARE		15 A	1			1	20 A		SPARE	42

VOLTAGE: 120/208V 3PH4W NEUTRAL BUS: 100%

VOLTAGE: 120/208V 3PH4W NEUTRAL BUS: 100%

INTERRUPTING CAPACITY: 10 KAIC

Type Rating Poles A B C Poles Rating Type 20 A 1 1 20 A NCH RECEPTACLES 20 A 1 1 20 A NCH RECEPTACLES 20 A 1 1 20 A NCH RECEPTACLES NCH RECEPTACLES 20 A 1 1 20 A 20 A 1 1 20 A NCH RECEPTACLES 15 A 1 1 15 A VALL RECEPTACLES
 15 A
 1
 1
 15 A
 - EXISTING BRANCH CIRCUIT

 15 A
 1
 1
 15 A
 - EXISTING BRANCH CIRCUIT
 S SOLENOID VALVE IG BRANCH CIRCUIT -- 15 A 1 15 A -- EXISTING BRANCH CIRCUIT IG BRANCH CIRCUIT
 NG BRANCH CIRCUIT
 - 15 A
 1
 1
 15 A
 - EXISTING BRANCH CIRCUIT

 NG BRANCH CIRCUIT
 - 15 A
 1
 1
 15 A
 - EXISTING BRANCH CIRCUIT
 NG BRANCH CIRCUIT---15 A1115 AFIRE SMOKE DAMPERSPARE---15 A1120 A---SPARESPARE---15 A1120 A---SPARE
 SPARE
 - 15 A
 1
 1
 20 A
 - SPARE

VOLTAGE: 120/208V 3PH4W

NEUTRAL BUS: 100%

СКТ Load Name WORKBENCH RECEPTACLES 2 WORKBENCH RECEPTACLES 4 6 WORKBENCH RECEPTACLES WORKBENCH RECEPTACLES 8 10 WORKBENCH RECEPTACLES 12 CEILING RECEPTACLE 14 16 18 20 22 24 26

28 30

ENCLOSURE: TYPE 2

INTERRUPTING CAPACITY: 10 KAIC

INTERRUPTING CAPACITY: 25 kAIC ENCLOSURE: TYPE 2

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the Consultant are the property of the Consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing. © 2025 DEI Consulting Engineers Inc.

PROJECT NORTH∏

aba architects inc.

PROJECT NAME

GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS 55 McKay St., Cambridge, ON, N1R 4G8

PANEL SCHEDULES

DRAWING NUMBER

E402

RAWING TITLE	

SCALE

SHEET SIZE

24X36

24162

PROJECT NUMBER