ADDENDUM #1

Project Name	SCC- Giles Campus Horticulture Pavilion Renovation
Project Number	H59-N385-PD
Date Issued	June 29, 2026

Note: The bidder must acknowledge receipt of this Addendum in the box(es) provided on the Bid Form. Failure to acknowledge may be grounds for rejection of the bid.

UPDATES

The following items below supersede the originally published bid documents and are intended to clarify the requirements for the Spartanburg Community College Giles Campus Horticulture Pavilion Renovation project.

1. In Sheet M-0.02, the heat pump's 30 kW 3-phase electric auxiliary heater has been removed and the electrical values in the HVAC unit schedule has changed. Note 14 has been added to add 2x 15 kW single-phase 240V open coil duct heaters (30kW total), UL or ETL listed, Markel Mechanical HF, or approved equal. Heaters must meet the following specifications:

A. Heater shall be 240V, single-phase, 15 kW, and 2-stage
B. Heater to be ETL listed for zero clearance to combustible surfaces and bear ETL label. Heater shall meet requirements of the latest National Electric Code.
C. Terminal box shall be constructed of galvanized steel: 20 Ga, if box is 18" x 18" or smaller, 18 Ga, if box is larger. Box must have a solid cover, of the same gauge, with a piano hinge on the longest side.
D. Insulation consisting of ¼" high density fiberglass, or equivalent R-value, to be provided, attached to the cabinet, between the cabinet and heating section.
E. Primary over-temperature protection shall be provided by built in disc or capillary type automatic reset thermal cutouts. Controls to be UL listed and of the "fail safe" type.
F. Secondary over-temperature protection shall consist of a sufficient number of load carrying replaceable disc controls to de-energize the elements if the primary system fails.
G. Fuse link type heat limiters shall not be acceptable.
H. Element housing to be 18 Ga galvanized steel and to be roll-formed construction with multiple brakes and ribs for stiffness and rigidity.
I. Element rack to be 20 Ga galvanized steel and formed with multiple brakes and ribs for

stiffness and rigidity.

J. Ceramic coil supports to be floating, but contained and easily replaceable.

K. Ceramic coil supports to be on staggered spacing per rack to eliminate blank areas in the air pattern through the heater, and provide uniform heating over the entire cross section of the element.

L. Racks to support element coils on no more than 3-1/2" centers.

2. In Sheet M-0.02, the sequence of operations for the new 15 kW duct Auxiliary heaters have been added.

3. In Sheet M-1.01 the location of the 2x 15kW 240V 1-phase duct heaters are called out. Ensure installation location follows manufacturer's instructions.

4. In Sheet M-1.01, the Add A Phase Converter will share the same equipment pad as HP-1, so the pad has been extended.

5. In Sheet M-2.01, Detail 4 (exterior equipment pad detail), additional measurements and a new note number 3 have been added to clarify that the reinforcement shall have a minimum of 1.5" of concrete cover.

6. If any material substitutions are required for a bid, specification 01 63 00 (attached to the end of the Project Manual) outlines the procedure to request a substitution. Briefly, a substitution form, attached at the end of the substitution specification section, must be filled out and approved for every substitution prior to bid submission. Substitutions will not be allowed, except where indicated in the substitution specification without prior approval.

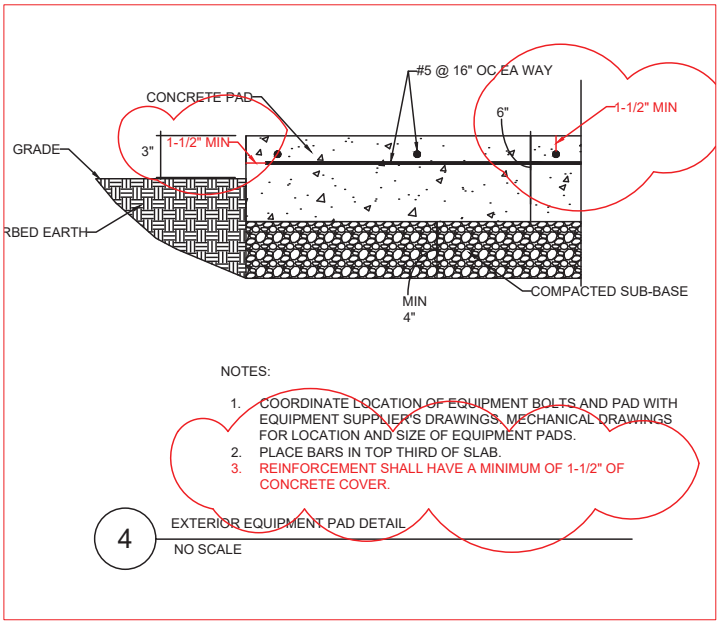
7. In Sheet E-1.2, Add A Phase Converter Detail, the phase converter system was clarified which altered the required conductors and disconnect to the converter. An additional note was added to clarify that the phase converter will now only be used for motors, not for the duct heaters since the new duct heaters are now 1-Phase.

8. In Sheet E-1.2, Power Riser Diagram, clarification has been provided as to what to budget with respect to where the utility terminates the service and where the contractor will pick it up. Assume a distance to the service disconnect of 100 feet. A Duke Energy approved meter socket will need to be provided. Conductors have been updated based on the new loads and distances.

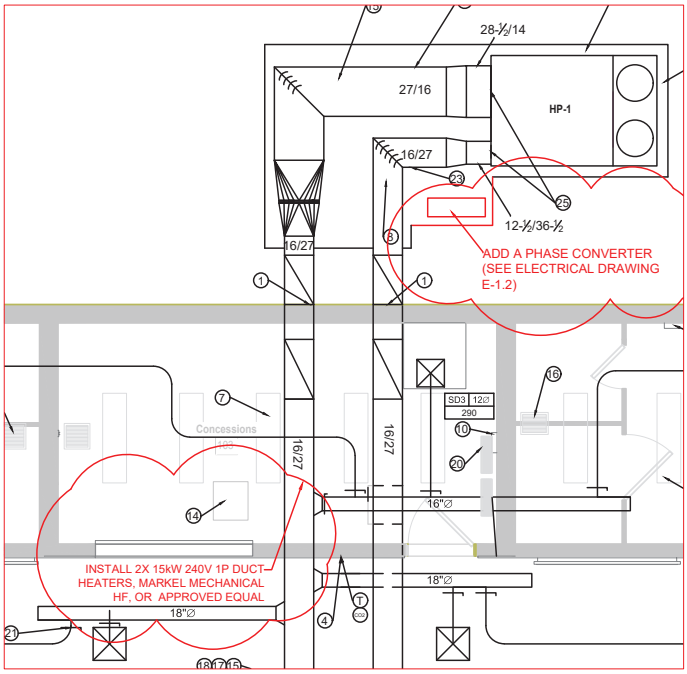
9. In Sheet E-1.2, Panelboard Schedule B was altered to reflect the replacement of the restroom fans, and the addition of the rear light.

10. In Sheet E-1.2, Panelboard Schedule A was altered to reflect the removal of the 30 kW auxiliary heater from the HP and the addition of the two new 15 kW auxiliary duct heaters.

11. In Sheet E-1.00, 2 new key notes (9 and 10) have been added to provide details regarding the new 15kW auxiliary duct heaters and a light/receptacle in the attic to accompany the heaters. Note 3 has been altered to update the Add a Phase Converter model and associated hardware. Restroom exhaust fans are no longer indicated as ETR.



DETAIL 4 SHEET M-2.01



NEW WORK PLAN SHEET M-1.01

PACKAGED ROOFTOP UNITS

TAG	MODEL	Fan Data		Cooling Performance							EH + HP Performance				Electrical Data					NOTES
		ACFM	ESP (IWG)	TOTAL CAPACITY (BTU/h)	SENSIBLE CAPACITY (BTU/h)	EFFICIENCY (AT AHRI)	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	Electric Heat KW	OUTPUT (MBH)	EAT (°F)	LAT (°F)	VOLT/PH/Hz	INDOOR MOTOR HP	Unit FLA	Unit MCA	Unit MOCP	
HP-1	DSH1203L000141C	4026	1.20	116,672	92,952	15.2 IEER/11.4 EER	80.00	67.00	59.00	57.90	0	116	47	70.2	208/230/3/60	3.5	50.9/50.9	55.2/55.2	70/70	All

NOTES:

1.PROVIDE FACTORY INSTALLED TWO STAGE COOLING

2.PROVIDE FACTORY INSTALLED UNIT CONTROLLER, WITH BACNET COMMUNICATION, CAPABLE OF DEMAND CONTROLLED VENTILATION, ECONOMIZER CONTROL, HUMIDITY CONTROL SEQUENCES, AND TEMPERATURE CONTROL, DAIKIN ILINQ, OR APPROVED EQUAL

3.PROVIDE FACTORY INSTALLED R32 SENSOR

4.PROVIDE FIELD INSTALLED HAIL GUARD

5.PROVIDE FIELD INSTALLED ULTRA LOW-LEAK HORIZONTAL ECONOMIZER W/ ENTHALPY SENSOR FOR DIFFERENTIAL CONTROL

6.CONTRACTOR TO PROVIDE FUSED DISCONNECT SWITCH; SEE ELECTRICAL DRAWINGS/SPECS

7.PROVIDE FACTORY INSTALLED HORIZONTAL DUCT CONNECTIONS

8.PROVIDE WALL MOUNTED PROGRAMMABLE THERMOSTAT, CAPABLE OF 7 DAY SCHEDULING, DISPLAYING/CONTROLLING TEMPERATURE, AND HUMIDITY. DAIKIN MODEL D4272C, OR APPROVED EQUAL.

9.PROVIDE FIELD INSTALLED C02 SENSOR FOR DEMAND CONTROL VENTILATION (WALL MTD)

10.PROVIDE FIELD INSTALLED FILTRATION AT THE UNIT-MERV8

11.PROVIDE DRAIN PAN OVERFLOW SWITCH

12.UNIT WILL BE GROUND RAD MOUNTED

13.PROVIDE SMOKE SENSOR IN RETURN DUCT

14. PROVIDE 2X 15 kW (30 kW TOTAL) 240V 1P DUCT HEATERS, MARKEL MECHANICAL HF, OR APPROVED EQUAL

GRILLES, REGISTERS, AND DIFFUSERS SCHEDULE

MARK	MODEL NUMBER	GRILL SIZE	DESIGN CFM	NECK SIZE	NOTES
RD1	HART COOLEY RE5	18" X 18"		20" DIA	1, 2
SD1	HART COOLEY ARS4	18" X 18"	470	14" DIA	1, 2
SD2	HART COOLEY ARS4	12 X 12"	215	12" DIA	1, 2
SD3	HART COOLEY ARS4	15" X 15"	290	12" DIA	1, 2

1. INCLUDE INSULATED BLANKET.

2. SEAL EDGES OF GRILLS AGAINST CEILING.

PACKAGED HEAT PUMP HP-1 SEQUENCE OF OPERATIONS

- DURING NORMAL OPERATION, HP-1 SHALL BE ENABLED (ON) AND DISABLED (OFF) BY THE SPACE THERMOSTAT.
- HP-1 SHALL BE DISABLED UNLESS PHASE CONVERTER SENDS START SIGNAL INDICATING 3-PHASE POWER IS AVAILABLE.
- HP-1 SHALL BE DISABLED BY INTERNAL ALARMS FOR REFRIGERANT LEAK OR OTHER CRITICAL UNIT ISSUES.

OCCUPIED/UNOCCUPIED SCHEDULE

HP-1 SHALL OPERATE IN OCCUPIED OR UNOCCUPIED MODE AS DETERMINED BY SCHEDULE PROGRAMMED AT THE LOCAL SPACE THERMOSTAT

- WHEN IN OCCUPIED MODE THE SUPPLY FAN SHALL OPERATE CONTINUOUSLY AND MODULATE SPEED TO MAINTAIN DESIGN CFM.
- WHEN IN UNOCCUPIED MODE THE SUPPLY FAN SHALL OPERATE INTERMITTENTLY BASED ON A CALL FOR HEATING OR COOLING. WHEN OPERATING THE FAN SHALL MODULATE SPEED TO MAINTAIN DESIGN CFM.

INDOOR TEMERATURE CONTROL

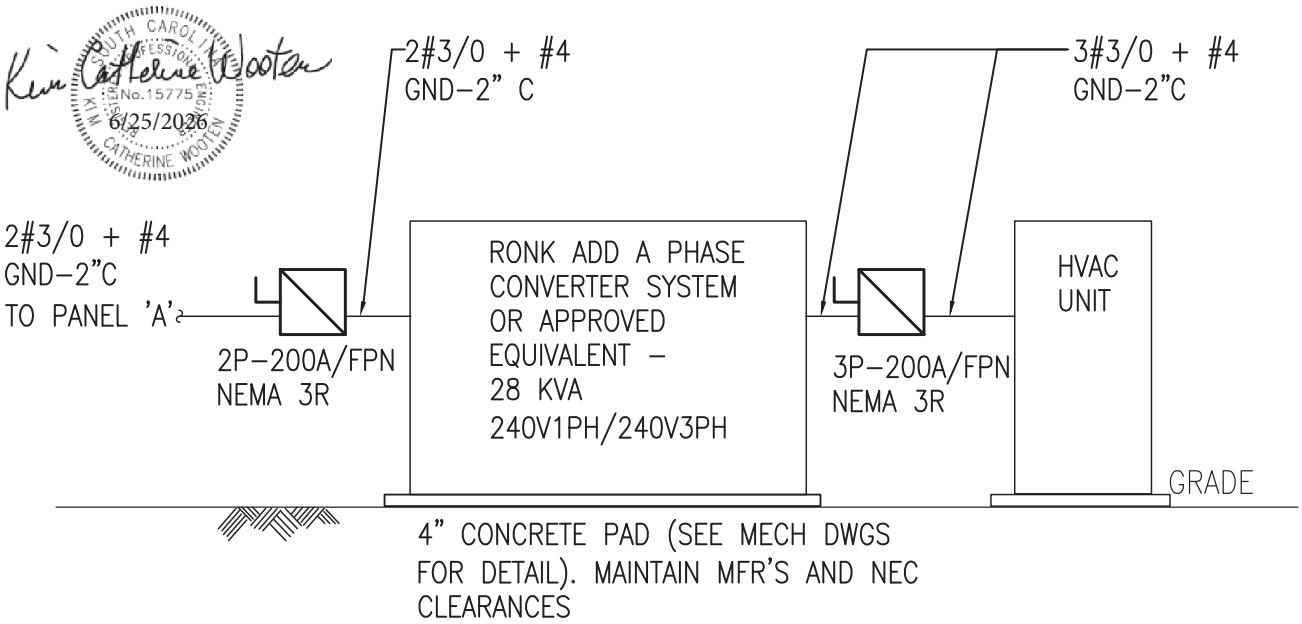
- INDOOR SPACE TEMPERATURE SHALL BE CONTROLLED BY THE SPACE THERMOSTAT.
- COOLING MODE:
  - COOLING SETPOINTS SHALL BE
    - OCCUPIED MODE: 75°F (ADJ)
    - UNOCCUPIED MODE: 80°F (ADJ)
  - WHEN THE OUTSIDE AIR TEMPERATURE IS GREATER THAN 65°F THE HP SHALL BE IN COOLING MODE.
  - WHEN IN COOLING MODE HP-1 SHALL INHERENTLY MODULATE COMPRESSORS TO MAINTAIN DISCHARGE AIR TEMPERATURE OF 55°F (ADJ).
- HEATING MODE:
  - HEATING SETPOINTS SHALL BE
    - OCCUPIED MODE: 70°F (ADJ)
    - UNOCCUPIED MODE: 65°F (ADJ)
- AUXILIARY HEAT
  - WHEN THE SPACE TEMPERATURE FALLS BELOW THE ACTIVE HEATING SETPOINT BY MORE THAN THE AUXILIARY HEAT OFFSET (3°F, ADJ), ELECTRIC STAGES ARE COMMANDED ON. ALLOW FOR 2 STAGES.
  - WHEN THE HEAT PUMP HEATING IS LOCKED OUT, THE COMPRESSORS WILL NOT BE USED FOR HEATING AND THE INSTALLED AUXILIARY ELECTRIC HEATING STAGES WILL BE USED, FOLLOWING THE ABOVE SEQUENCE.

ONBOARD SMOKE DETECTOR

- IF SMOKE IS DETECTED, THE ON-BOARD CONTROLLER SHALL SHUT DOWN THE UNIT.

OUTSIDE AIR DEMAND CONTROLLED VENTILATION

- WHEN HP-1 IS OFF OR IN THE UNOCCUPIED MODE THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL BE CLOSED.
- WHEN HP-1 IS IN OCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL BE CONTROLLED TO MAINTAIN CO_2 SETPOINT (1,000 PPM, ADJ) AS SENSED BY THE SPACE CO_2 SENSOR.
- WHEN HP-1 IS IN OCCUPIED MODE, IF CO_2 SENSOR IS READING BELOW CO_2 SETPOINT (1,000 PPM, ADJ.), THE OUTSIDE AIR DAMPER SHALL BE SET TO THE VENT MINIMUM DEMAND CONTROLLED VENTILATION POSITION OF 106 CFM (ADJ) OF OUTDOOR AIR.
- WHEN HP-1 IS IN OCCUPIED MODE, IF CO_2 SENSOR IS READING ABOVE CO_2 SETPOINT (1,000 PPM, ADJ.), THE OUTSIDE AIR DAMPER SHALL MODULATE BETWEEN THE VENT MINIMUM DEMAND CONTROLLED VENTILATION POSITION AND THE CODE VENT MINIMUM POSITION OF 845 CFM (ADJ) OF OUTDOOR AIR.
- IF THE CO_2 SENSOR IS NOT AVAILABLE, THE OUTSIDE AIR DAMPER SHALL MAINTAIN AT THE CODE VENT MINIMUM POSITION.



SOUTH CAROLINA PROFESSIONAL ENGINEER No.15775 KIM CATHERINE WOOTEN

Kim Catherine Wooten

6/25/2026

ADD A PHASE CONVERTER DETAIL

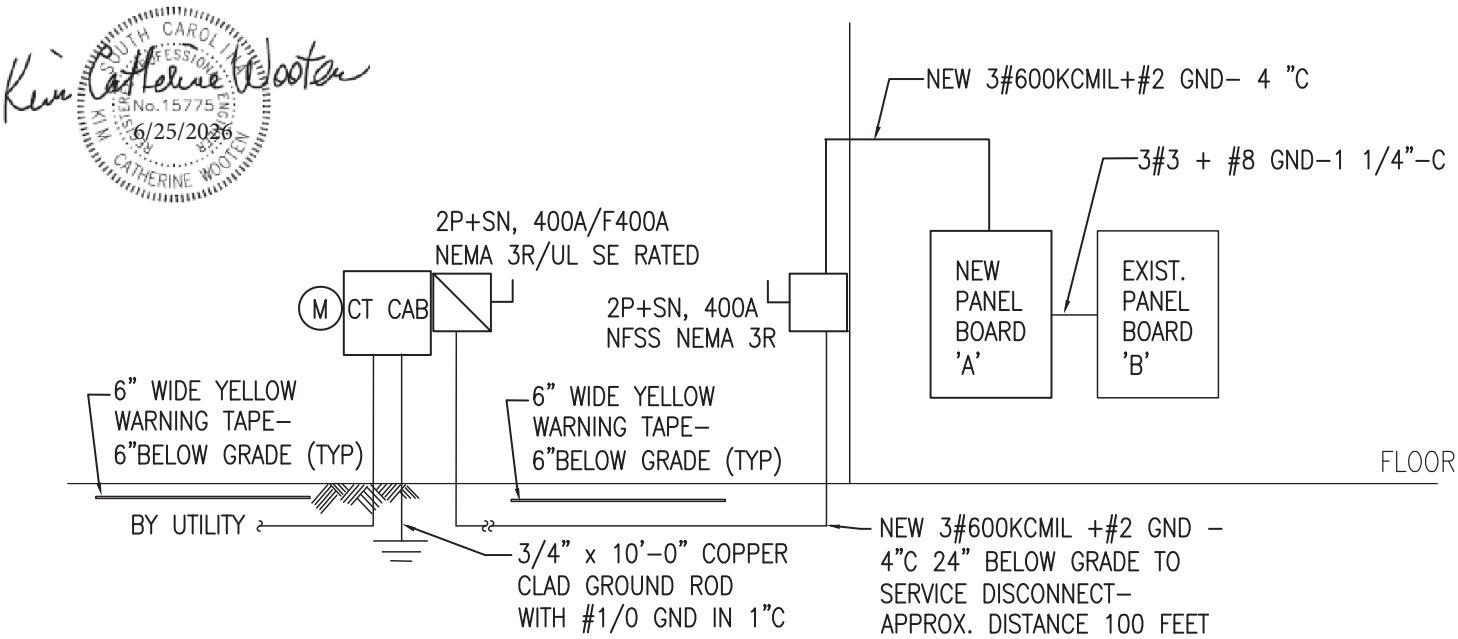
NOTES:

A. PROVIDE CONTROL AND POWER WIRING FROM PHASE CONVERTER TO HVAC UNIT CONTROLLER AND BETWEEN INTERNAL PHASE CONVERTER(S) PER MANUFACTURER'S INSTRUCTIONS.

B. CONNECT PHASE CONVERTER(S) IN PARALLEL TO PROVIDE THREE PHASE POWER PER MANUFACTURER'S INSTRUCTIONS. PROVIDE INTERNAL WIRING AS DIRECTED BY MFR.

C. HVAC UNIT SHALL NOT RUN UNTIL PHASE CONVERTER SENDS START SIGNAL TO HVAC UNIT AFTER THREE PHASE POWER IS AVAILABLE.

D. RONK PHASE CONVERTER IS FOR MOTORS ONLY. DUCT HEATERS SHALL BE FED FROM SOURCE INDICATED ON THE ELECTRICAL DRAWINGS.



GENERAL NOTES:

A. ALL WORK IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED. PROVIDE NEW SERVICE AND RECONNECT EXISTING AS SHOWN AND AS REQUIRED.

B. PROVIDE NEW CT CABINET AND METER SOCKET FOR NEW 400 AMP 120/240 VOLT SINGLE PHASE SERVICE IN ACCORDANCE WITH UTILITY REQUIREMENTS. MOUNT ON 4" COATED STEEL POSTS WITH 24" DEEP CONCRETE BASES. INCLUDE $5,000 ALLOWANCE FOR UTILITY PRIMARY WORK.

POWER RISER DIAGRAM

PANELBOARD "B"

LOCATION: WORK ROOM — 100 A MAIN BUS RATING

VOLTAGE : 240 / 120V 1PH 3W — MOUNTING: SURFACE — 100A MAIN CIRCUIT BREAKER

BRANCH CIRCUIT										BRKR	PHASE		BRKR	BRANCH CIRCUIT								
CKT	LOAD DESCRIPTION	LOAD (KVA) LTG	REC	MTR	H/C	OTH	KIT	WIRE SIZE	C (IN)	TRIP/ POLE	A	B	TRIP/ POLE	WIRE SIZE	C (IN)	LOAD (KVA) LTG	REC	MTR	H/C	OTH	KIT	LOAD DESCRIPTION	CKT
1	WOMEN'S RECEPT		0.18					EXIST		20/1			20/1	EXIST							0.72	KITCHEN RECEPT - FRIDGE	2
3	KITCHEN RECEPT		0.72					EXIST		20/1			20/1	EXIST			0.72					KITCHEN RECEPT	4
5	KITCHEN RECEPT		0.72					EXIST		20/1			20/1	EXIST			0.72				1.00	KITCHEN RECEPT/WATER HTR	6
7	OUTSIDE RECEPT		0.72					EXIST		20/1			20/1	EXIST			0.72					OUTSIDE RECEPT	8
9	OUTSIDE RECEPT/SECURITY LT	0.10	0.72					EXIST		20/1			20/1	EXIST			0.72					OUTSIDE RECEPT	10
11	WOMEN'S HEATER - NOT IN USE							EXIST		20/2			20/1	EXIST								SPARE	12
13	-							EXIST					20/1	EXIST								SPARE	14
15	MEN'S HEATER - NOT IN USE							EXIST		20/2			20/1	EXIST								SPARE	16
17	-							EXIST					20/1	EXIST								SPARE	18
19	WOMENS LIGHTS/FAN	0.15		0.30				2#12, #12G	EX.	20/1			20/1	EXIST								SPARE	20
21	KITCHEN LIGHTS	0.25						EXIST		20/1			20/1	EXIST		0.10						MENS LIGHTS	22
23	KITCHEN FAN			0.30				2#12, #12G	EX.	20/1			20/1	EXIST				0.40				OUTSIDE BAY LTS/FANS	24
25	OUTSIDE LTS/FRONT BAY LTS	0.25		0.30				EXIST		20/1			20/1	2#12, #12G	EX.		0.18	0.30				MENS RECEPT/FAN	26
27	NEW LIGHTS	0.40								20/1			20/2	EXIST								UNKNOWN	28
29	NEW LIGHTS	0.40								20/1				EXIST								UNKNOWN	30

CONNECTED LOAD	KVA	AMPS
PHASE A	6.7	56
PHASE B	4.4	37
TOTAL	11.1	46

22,000 AMPS MIN. INTERRUPTING CAPACITY (RMS SYM. AMPS)

	CONNECTED (KVA)	DEMAND (KVA)
LIGHTING/CONTINUOUS	1.7	1.7
RECEPTACLES	6.1	6.1
MOTORS	1.6	1.6
HVAC	0.0	0.0
OTHER	0.0	0.0
KITCHEN	1.7	1.1

LARGEST MOTOR (KVA) ____

TOTAL DEMAND LOAD 10.5 KVA

DEMAND AMPS 44 AMPS

NOTES:

A. EXISTING PANELBOARD. CIRCUIT INFORMATION BASED ON EX. SCHEDULE

B. COPPER BUSSES.

C. WIRE SIZES ARE MINIMUM, INCREASE FOR VOLTAGE DROP.

D. PROVIDE NEW PANELBOARD SCHEDULE TO REFLECT ANY CHANGES

E. RECONNECT EXISTING CIRCUITS. PROVIDE NEW WIRING + RACEWAYS TO MATCH EXISTING AND PER CODE AS REQUIRED. NO NM WIRING ALLOWED.

F. CONNECT NEW EXH. FANS TO EXISTING CIRCUITS. SEE MECH. DWGS.

6/25/2026

PANELBOARD "A"

LOCATION: WORK ROOM — 400 A MAIN BUS RATING

VOLTAGE : 240 / 120V 1PH 3W — MOUNTING: SURFACE — 400 A MAIN LUGS ONLY

BRANCH CIRCUIT										BRKR	PHASE		BRKR	BRANCH CIRCUIT									
CKT	LOAD DESCRIPTION	LOAD (KVA) LTG	REC	MTR	H/C	OTH	KIT	WIRE SIZE	C (IN)	TRIP/ POLE	A	B	TRIP/ POLE	WIRE SIZE	C (IN)	LOAD (KVA) LTG	REC	MTR	H/C	OTH	KIT	LOAD DESCRIPTION	CKT
1	ADD A PHASE CONVERTER FOR NEW HVAC UNIT NOTE D.			8.40				SEE POWER RISER DIAGRAM		200/2												UNUSABLE OPPOSITE SUB FEED BREAKER	2
3				8.40																			4
5																							6
7										20/1			20/1				0.36					OUTDOOR/ATTIC RECEPTS.	8
9	EXISTING PANELBOARD 'B'	1.10	3.24	0.60	0.00	0.00	1.72	SEE POWER RISER DIAGRAM		100/2			90/2	2#3,1#8G	1"				15.00			ELEC. HEAT	10
11		0.55	2.88	1.00	0.00	0.00	0.00												15.00				12
13	SPARE									20/2			90/2	2#3,1#8G	1"				15.00			ELEC. HEAT	14
15	-																		15.00				16
17	SPARE									20/2			20/1	2#12, #12G	3/4"	0.10						ATTIC LIGHT	18
19	-												20/1									SPARE	20
21	SPACE ONLY												20/1									SPARE	22
23	SPACE ONLY												20/1									SPARE	24

CONNECTED LOAD	KVA	AMPS
PHASE A	45.2	376
PHASE B	43.2	360
TOTAL	88.4	368

22,000 AMPS MIN. INTERRUPTING CAPACITY (RMS SYM. AMPS)

	CONNECTED (KVA)	DEMAND (KVA)
LIGHTING/CONTINUOUS	1.8	1.8
RECEPTACLES	6.5	6.5
MOTORS	18.4	18.4
HVAC	60.0	60.0
OTHER	0.0	0.0
KITCHEN	1.7	1.1

LARGEST MOTOR (KVA) ____

TOTAL DEMAND LOAD 87.7 KVA

DEMAND AMPS 366 AMPS

NOTES:

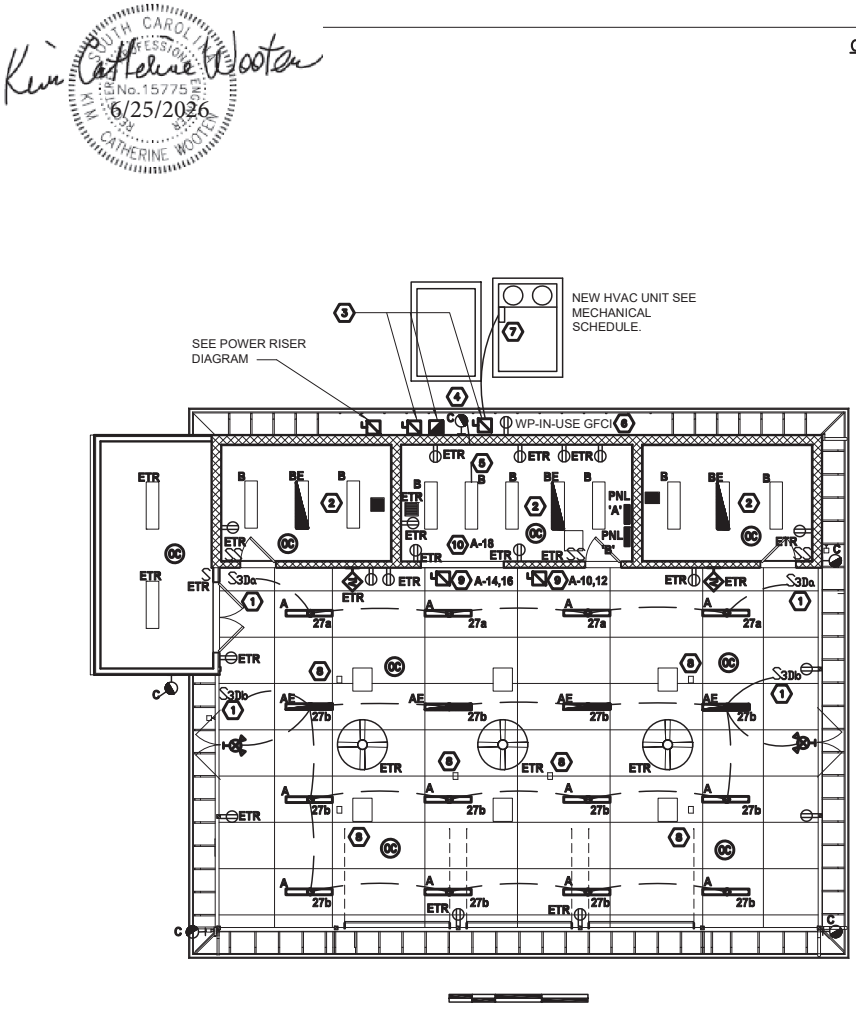
A. DOOR IN DOOR CONSTRUCTION

B. COPPER BUSSES.

C. WIRE SIZES ARE MINIMUM, INCREASE FOR VOLTAGE DROP.

D. CONNECT SUB FEED BREAKER ON LOAD SIDE OF MAIN LUGS. FEED THROUGH LUGS NOT ALLOWED.

E. MATCH BRACING TO FAULT CURRENT AVAILABLE WITH UTILITY PRIOR TO ORDERING EQUIPMENT.



GENERAL NOTES:

A. EXISTING ELECTRICAL WORK SHALL REMAIN UON. REMOVE EXISTING LUMINAIRES IN CLASSROOM. PATCH CEILING AS REQUIRED.

B. COORDINATE LOCATION OF NEW LIGHTS WITH EXISTING FANS, CEILING ACCESS HATCHES AND OVERHEAD DOOR TRACKS.

C. PROVIDE UPDATED PANELBOARD SCHEDULE FOR REVISED CIRCUITS SERVING NEW WORK. MARK ALL UNUSED CIRCUITS AS "SPARE".

D. ALL WIRING AND RACEWAYS SHALL BE RUN CONCEALED. EXISTING CABLING ABOVE THE CEILING MAY BE REUSED TO SERVE NEW LUMINAIRES TO THE EXTENT POSSIBLE IF AN ACCEPTABLE WIRING METHOD (EMT OR MC CABLE).

KEY NOTES:

(1) FLUSH MOUNT ON NEW POST AND WALL FRAMING. FINAL LOCATION TO BE AS DIRECTED BY OWNER PRIOR TO ROUGH-IN.

(2) REMOVE EXISTING SURFACE MOUNTED FLUORESCENT LUMINAIRES AND DISPOSE OF LAMPS IN ACCORDANCE WITH ENVIRONMENTAL REGULATIONS. PROVIDE NEW LED STRIP LIGHTS AND RECONNECT TO EXISTING CIRCUIT.

(3) PROVIDE RONK ADD A PHASE CONVERTER SYSTEM, 28 KVA RATED, 240V/208V SINGLE TO THREE PHASE, NEMA 3R ENCLOSURE, OR EQUIVALENT. PROVIDE 2P200ANFSS/3R ON INPUT, 3P/3R/200A/F@150A FSS ON OUTPUT. SEE DETAIL.

(4) PROVIDE WALL MOUNTED FLOOD LIGHT TO MATCH EXISTING. PROVIDE WITH PHOTOCELL. CONNECT TO ADJACENT LIGHT.

(5) CONNECT TO EXISTING CIRCUIT. 2/12,#12G, 3/4"C.

(6) CONNECT TO PANELBOARD A-8. 2/12,#12G, 3/4"C.

(7) CONNECT TO A-1,3 VIA ADD A PHASE CONVERTER. SEE PANELBOARD SCHEDULE. PROVIDE 1"C FOR CONTROL WIRING AND TERMINATE AS DIRECTED BY MECHANICAL CONTRACTOR.

(8) REMOVE EXISTING SURFACE MOUNTED LIGHTS AND ASSOCIATED CONTROLS IN THIS AREA AND INSTALL NEW LUMINAIRES AS INDICATED. REUSE EXISTING CIRCUITS TO THE EXTENT POSSIBLE. CONNECT TO NEW OCCUPANCY SENSORS AND DIMMER SWITCHES INDICATED.

(9) ELECTRIC DUCT HEATER, 15 KW 230 VOLTS, SINGLE PHASE. PROVIDE 2P-100A FSS, FPN. COORDINATE LOCATION WITH MECH.

(10) PROVIDE TYPE 'B' LIGHT AND DUPLEX 5-20R RECEPTACLE IN ATTIC FOR MECH. EQUIP SERVICE. PROVIDE 3 WAY SWITCH ON WALL IN KITCHEN AND LABEL "FOR ATTIC LIGHT." PROVIDE 3 WAY SWITCH WITH PILOT LIGHT NEAR HATCH IN ATTIC.