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GENERAL NOTES

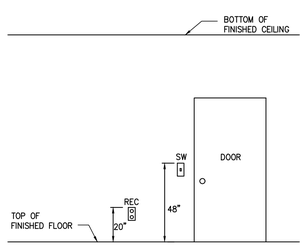
1. ALL ELECTRICAL WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE 2020 VERSION OF THE NATIONAL ELECTRICAL CODE AND ALL OTHER LOCAL CODES, LAWS, AND ORDINANCES. WHERE ONE CODE DIFFERS FROM ANOTHER, THE STRICTER OF THE TWO SHALL APPLY.
2. IT IS THE DUTY OF THE ELECTRICAL CONTRACTOR TO BE FAMILIAR WITH THE CONSTRUCTION DETAILS OF THE BUILDING. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE ELECTRICAL SYSTEM WITH ALL OTHER TRADES AND SHALL COMPLETE THE ELECTRICAL INSTALLATION AS SOON AS CONDITIONS WILL ALLOW.
3. ALL WORK SHALL BE DONE IN A NEAT, QUALITY MANNER WITH ALL WIRING AND RACEWAYS CONCEALED.
4. ALL ELECTRICAL DRAWINGS ARE GENERALLY DIAGRAMMATIC IN NATURE. THE ELECTRICAL CONTRACTOR SHALL CLOSELY COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES WORKING ON THE PREMISES.
5. WHERE CONDUIT AND WIRING HAS NOT BEEN SHOWN ON THE DRAWINGS THE ARRANGEMENT AND ROUTING OF LIGHTING AND RECEPTACLE BRANCH CIRCUITS WILL BE AT THE CONTRACTOR'S DISCRETION IN ACCORDANCE WITH GENERALLY ACCEPTED GOOD PRACTICE, N.E.C. REQUIREMENTS AND THE FOLLOWING LIMITATIONS:
   A. SIZE BRANCH CIRCUIT CONDUCTORS WITHIN THE FOLLOWING MAXIMUM LENGTH LIMITS: (MEASURE TO THE CENTER OF THE LOAD FOR LIGHTING CIRCUITS AND THE MOST REMOTE OUTLET FOR RECEPTACLE CIRCUITS)

	#12	#10	#8	#6
120V., 20A.	85'	110'	165'	270'
277V., 20A.	160'	250'	390'	600'

6. THIS PROJECT TO MEET NFPA 72 AND ADA REQUIREMENTS REGARDING MOUNTING HEIGHTS OF ELECTRICAL DEVICES.
7. RECESSED LIGHTING FIXTURES MUST HAVE 1/2" CLEARANCE FROM COMBUSTIBLE MATERIALS AND 3" CLEARANCE FROM INSTALLATION OR BE IC RATED PER ARTICLE 410.116 (A) 1 AND 2 AND 410.66 (B) OF THE 2020 NEC.
8. IN ACCORDANCE WITH SPECIFICATIONS, DURING CONSTRUCTION OPERATIONS, THE ELECTRICAL CONTRACTOR SHALL MAKE A RECORD OF ALL APPROVED CHANGES FROM THE CONTRACT DRAWINGS, INCLUDING ACCURATE DIMENSIONS WHERE APPLICABLE, AND SHALL ALSO RECORD ACCURATE DIMENSIONS LOCATING ALL BELOW-GRADE OUTSIDE ELECTRICAL UTILITES (WHETHER CHANGED OR NOT) WITH REFERENCE TO PERMANENT ABOVE-GRADE OBJECTS.
   AT THE COMPLETION OF THE WORK ALL SUCH CHANGES SHALL BE RECORDED NEATLY IN RED INK BY THE ELECTRICAL CONTRACTOR ON AN UNUSED SET OF THE ELECTRICAL CONTRACT DRAWINGS SUPPLIED BY THE ARCHITECT. THE RED LINE CHANGES SHALL BE REVIEWED AND APPROVED BY THE ENGINEER AND THE COMPLETED RECORD PRINTS RETURNED TO THE ARCHITECT.
9. MINIMUM SIZE CONDUIT FOR 20A CIRCUITS IS 3/4". HOME RUNS FROM AREA JUNCTION BOX TO BE ROUTED IN EMT CONDUIT. MC CABLE IS NOT ALLOWED IN OPEN CEILING AREAS.
10. ALL PRE-WIRED EQUIPMENT MUST BE LISTED AND LABELED BY AN APPROVED TESTING AGENCY PER ARTICLE 110.3 (A AND B) OF THE 2020 NEC.
11. THE TERMINATION PROVISIONS OF EQUIPMENT MUST BE USED IN DETERMINING THE AMPACITIES OF CONDUCTORS BASED ON TABLE 310.16 REGARDLESS OF THE INSTALLATION RATING OF THE CONDUCTORS PER ARTICLE 110.14 (C) 1 AND 2 OF THE 2020 NEC.
12. FLASH PROTECTION WARNING LABELS REQUIRED ON SWITCHBOARDS, PANEL BOARDS, AND MOTOR CONTROL CENTERS PER ARTICLE 110.16 OF THE 2020 NEC.
13. SPACES ABOUT ELECTRICAL EQUIPMENT MUST MEET 110.26 (A THROUGH F) ARTICLE 2020 NEC.
14. RACEWAYS AND CABLES INSTALLED ABOVE SUSPENDED CEILING REQUIRED TO HAVE INDEPENDENT SUPPORT WIRES CEILINGS GRID WIRES CANNOT BE USED TO SUPPORT RACEWAY AND CABLES UNLESS CEILING GRID IS RATED FOR SUPPORT PER ARTICLE 300.11 OF THE 2020 NEC.
15. TYPE NM, NMC, AND NMS CABLES CANNOT BE USED ABOVE SUSPENDED CEILINGS PER ARTICLE 334.12 IF THE 2020 NEC.
16. FLEXIBLE CORDS CANNOT BE USED AS A SUBSTITUED FOR FIXED WIRE OR CONCEALED ABOVE SUSPENDED CEILING PER ARTICLE 400.8 (1) AND (5) PER 2020 NEC.
17. INDIVIDUAL UNIT EQUIPMENT USED FOR EXIT SIGNS AND EMERGENCY LIGHTS THAT USES A RECHARGEABLE BATTERY MUST BE SUPPLIED BY THE CIRCUIT THAT SUPPLIES THE NORMAL LIGHTING FOR THAT AREA PER ARTICLE 700.12 (F) AND 700.17 OF THE 2020 NEC.

POWER LEGEND

- 20A, 125V, 2P, NEMA 5-20R DUPLEX RECEPTACLE
- POWER OUTLET, 208V, SIZED AS NOTED.
- QUADRAPLEX OUTLET,(2 DUPLEX OUTLETS IN 2 GANG BOX WITH 2 GANG COVER PLATE
- 20A, 125V, 2P, 3W, NEMA 5-20R DUPLEX RECEPTACLE MOUNT 6" ABOVE COUNTER TO BOTTOM OF OUTLET BOX.
- FED-SPEC GRADE USB CHARGER WITH TAMPER-RESISTANT DUPLEX RECEPTACLE WIREMOLD #TR5262USB-IVORY OR APPROVED EQUAL.
- G — ADJACENT TO RECEPTACLE DENOTES GROUND FAULT INTERUPTER OUTLET, (FEED THRU TYPE).
- WP — ADJACENT TO RECEPTACLE INDICATES WEATHERPROOF IN-USE TYPE COVER.
- WR — ADJACENT TO RECEPTACLE INDICATES WEATHER RESISTANT TYPE RECEPTACLE.
- TYPICAL DATA/COMM OUTLET DOUBLE GANG OUTLET BOX WITH SINGLE GANG MUD RING. ROUTE 3/4 INCH CONDUIT TO ABOVE CEILING SPACE. PROVIDE PULL STRING. COMMUNICATIONS CONTRACTOR TO PROVIDE FACE PLATE, WIRING, AND FINAL CONNECTIONS.
- J — JUNCTION BOX
- LIGHTING OR RECEPTACLE PANEL BOARD.
- 30A/3P — DISCONNECT SWITCH.
- 30A/F/3P/3R — FUSED DISCONNECT SWITCH.
- FWE — DISCONNECT FURNISHED WITH EQUIPMENT
- SM — MOTOR RATED SWITCH, CONTINUOUS CURRENT RATED, QUANITY OF POLES AS REQUIRED
- EF — EXHAUST FAN.
- M 2HP — SEE MECHANICAL DWGS. FOR FAN SPECIFICATIONS. MOTOR, HORSEPOWER AS SHOWN.
- B-25 — "HOME-RUN" TO PANEL BOARD.



TYPICAL DEVICE MOUNTING HEIGHT
SCALE: NONE

EXISTING PANEL EP3

208/120 VOLT, 100 AMP MAIN LUGS ONLY, 3 PHASE, 4 WIRE
GENERAL ELECTRIC CATALOG #NLAB

CONN LOAD	CIRCUIT USE	S N	100A M. L. O.	S N	CIRCUIT USE	CONN LOAD	PHASE A	PHASE B	PHASE C
1320	EXISTING VENTILATOR & DEHUMIDIFIER (A15)	1		2	DEHUMIDIFIER (A1)	1080	2400		
1680	EXISTING VENTILATORS	3		4	EXISTING VENTILATORS	960		2640	
500	EXISTING VENTILATORS	5		6	EXISTING VENTILATORS	1200			1700
1080	DEHUMIDIFIER (A5S)	7		8	EXISTING VENTILATOR & DEHUMIDIFIER (A7)	1320	2400		
1080	DEHUMIDIFIER (A5)	9	*	10	DEHUMIDIFIER (A4)	1080		2160	
1080	DEHUMIDIFIER (A6)	11	*	12	DEHUMIDIFIER (A8)	1080			2160
1080	DEHUMIDIFIER (A10)	13		14	DEHUMIDIFIER (A9)	1080	2160		
1080	DEHUMIDIFIER (A12)	15		16	DEHUMIDIFIER (A13)	1080		2160	
1080	DEHUMIDIFIER (A13)	17		18	DEHUMIDIFIER (A17)	1080			2160

PHASE A	6960		
PHASE B		6960	
PHASE C			6020
TOTAL VA	19940		
CONNECTED AMPERAGE	56 AMPERES		

NOTES:

1. ALL CIRCUIT BREAKERS 20 AMPERE, SINGLE POLE, UNLESS NOTED OTHERWISE.
2. PROVIDE UPDATED TYPED PANEL SCHEDULE REFLECTING ANY ADDITIONS OR CHANGES TO PANEL.

* DENOTES NEW CIRCUIT BREAKER TO BE PURCHASED AND INSTALLED BY ELECTRICAL CONTRACTOR. AIC RATING TO MATCH EXISTING.

ELECTRICAL SPECIFICATIONS

General Provisions

1. All Electrical work shall be executed in accordance with the 2020 version of the National Electrical Code and all other local codes, laws, and ordinances. Where one code differs from another, the stricter of the two shall apply.
2. It is the duty of the Electrical contractor to be familiar with the construction details of the building. The contractor shall coordinate the installation of the electrical system with all other trades and shall complete the electrical installation as soon as conditions will allow.
3. Payment of all fees, permits, and licenses required to complete the electrical installation shall be the responsibility of the electrical contractor.
4. All work shall be done in a neat, quality manner with all wiring and raceways concealed.
5. All electrical work shall be warranted by the electrical contractor for one (1) year from the date of acceptance by the owner or his designated representative.
6. All electrical drawings are generally diagrammatic in nature. The electrical contractor shall closely coordinate all electrical work will all other trades working on the premises.
7. Electrical contractor shall submit five (5) sets of catalog cuts, brochures, or other technical data for all equipment furnished under this contract to the engineer for his review.
8. All requests for prior approval shall be submitted to the engineer no later than ten (10) days prior to the bid date unless noted as "approved equal" in a written addendum. All manufactures shall be specified herein or as shown on the contract documents.
9. See general notes, schedules, and legends on the electrical drawing set for any additional requirements to the contract.
10. Electrical contractor is to contact the engineer after installation of all switch, receptacle, telephone, television, and lighting boxes for an on-site review before any wiring is installed or wall surfaces are complete. The architect may, at this point, make adjustments to the box locations as desired.
11. All electrical panelboards and lighting equipment shall be restrained per seismic requirements of the appropriate building code in effect.

Electrical Raceways

1. All cutting and patching required for and resulting from the electrical installation work shall be patched and repaired to restore the original surface finish. This repair work is the responsibility of the electrical contractor.
2. Contractor shall install sleeves for conduits that pass through grade beams, foundations, walls, and slabs before concrete is poured. Contractor shall do all necessary cutting and sealing afterwards in an approved manner.
3. All penetrations through fire-rated walls shall be patched with a UL approved fire sealant equal to at least the rating of the wall.
4. Wiring system is to be concealed above the suspended ceiling or in walls where possible. Conduit is to be installed parallel to building lines and clear of all openings, depressions, pipes, ducts, structure, etc.
5. Conduit is to be installed between cabinets and boxes with no more than four (4) 90 degree bends. Conduit is to be securely fastened in place with straps, hangers and steel supports as required. Conduit is not to be fastened or supported from the ceiling grid or supporting wires. Conduit ends shall be reamed and conduit shall be thoroughly cleaned before installation. Openings in conduit shall be plugged or properly covered.
6. Terminals on switches and outlets shall not be used to "feed through" to the next switch or outlet. The removal of a receptacle or fixture or any other device fed from a box shall not interfere with conductor continuity.
7. Conduit shall be furnished as shown on the electrical drawings. Approved types are heavy wall rigid steel hot dipped galvanized or EMT with compression type fittings and connections. All runs shall be continuous with all joints and connections pulled tight. Conduit shall be required in and under all slabs and in masonry walls. PVC conduit may be used underground or under slabs. Minimum conduit size shall be 3/4".
8. Contractor shall install a nylon pull wire in each empty conduit.
9. Contractor to include an equipment grounding conductor in each conduit. Conductor size to be determined by National Electrical Code requirements.

Conductors

1. Conductors shall be soft-annealed 98% copper. All conductors larger than #8 AWG shall be stranded. Minimum size conductor shall be #12 AWG unless otherwise specified. No aluminum conductors will be permitted. Type THHN shall not be used underground, outside, at service entrances or in wet locations. All insulation shall be rated at 600 volts.

The following insulation types are permitted:

#10 AWG and smaller THW,THWN,THHN
#8 AWG to #4/0 AWG THW, THHN
Over 4/0 AWG THW
Service Entrance USE, RHW
Wire through fluorescent fixture or within 3' of heating equipment THHN

Conductors shall be color coded as follows:

	208/120 Volt Y	480/277 Volt Y
Phase A	Black	Brown
Phase B	Red	Orange
Phase C	Blue	Yellow
Neutral	White	White/Grey
Ground	Green	Green

Distribution

1. Electrical power service voltage shall be as noted on the drawings. Size of the electrical service conductors shall be as shown on the riser diagram. All service connections and grounding detail shall be per the National Electrical Code article 250 and shall be inspected before covering.
2. Contractor shall comply with the 2020 National Electrical Code and all laws that apply to electrical installations.
3. All material used on the project shall be new and conform to Underwriters Laboratories (UL) standards.
4. Contractor to verify voltage drops and A.I.C. ratings for all equipment connected and verify the size of all electrical system breakers, conduit, wire size, etc.

Grounding

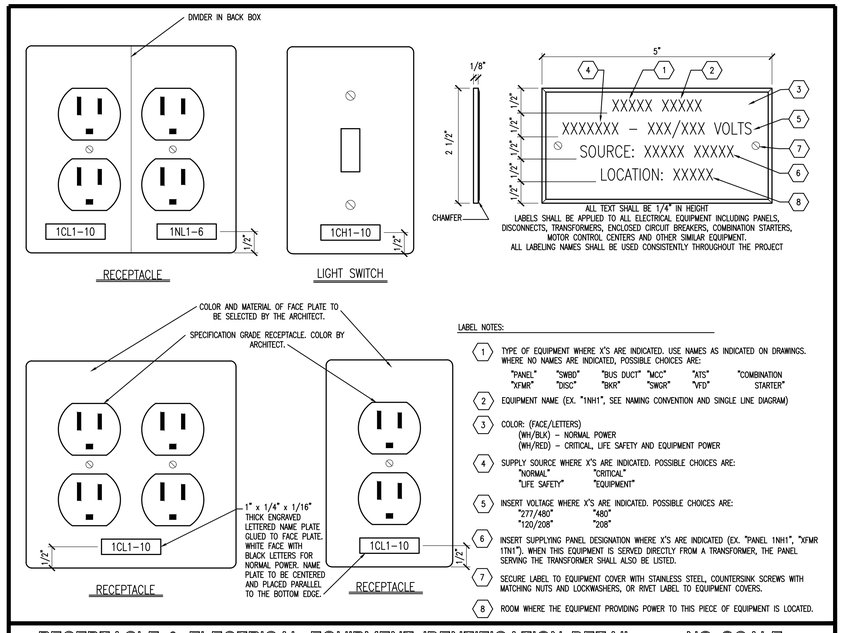
1. All metallic conduit, supports, cabinets, panelboards, and other electrical system components shall be permanently grounded per the National Electrical Code. All grounding devices and clamps shall be of the type approved specifically for grounding use. All circuits shall include a grounding conductor sized per National Electrical Code requirements.

Panelboards

1. All circuit breakers must show positive indication of tripped breaker.
2. All electrical equipment, panels, switches, etc., shall be tagged with white plastic nameplates with 1/4"H black letters. Nameplate shall show equipment designation and operating voltage.

Devices and Boxes

1. All outlet, lighting, and switch boxes shall be pressed steel where used in overhead and concealed areas. Receptacles and switches in exposed areas shall be installed in ferrous alloy or cast aluminum boxes with appropriate sheet steel covers.
2. Unless otherwise indicated , all lighting switches shall be flush mounted 44" above finished floor or 7" above finished countertop.
3. All receptacles shall be flush mounted 18" above finished floor or 7" above finished countertop unless otherwise indicated. Receptacles above countertops shall be mounted horizontally unless otherwise noted. Notify architect for configuration of location after boxes are set, but before wire is pulled or walls are constructed. Contractor shall certify that all receptacles are tested for proper polarity prior to final inspection.
4. All low voltage wiring for HVAC controls shall be done by the mechanical contractor. All line voltage HVAC wiring shall be done by the electrical contractor. Electrical contractor shall review HVAC specifications and plans and coordinate with HVAC contractor to provide all requirements.
5. All switch and receptacle cover plates to be brushed stainless steel unless otherwise specified by owner. Consult with owner before purchasing cover plates.



RECEPTACLE & ELECTRICAL EQUIPMENT IDENTIFICATION DETAIL NO SCALE

REV	DATE	DESCRIPTION	DWN	CKD	APP
0	07-07-2023	ISSUE FOR BID	RP	RM	HPB

SOUTH CAROLINA MATRIX ENGINEERING INC. No. C01034 CERTIFICATE OF AUTHORIZATION

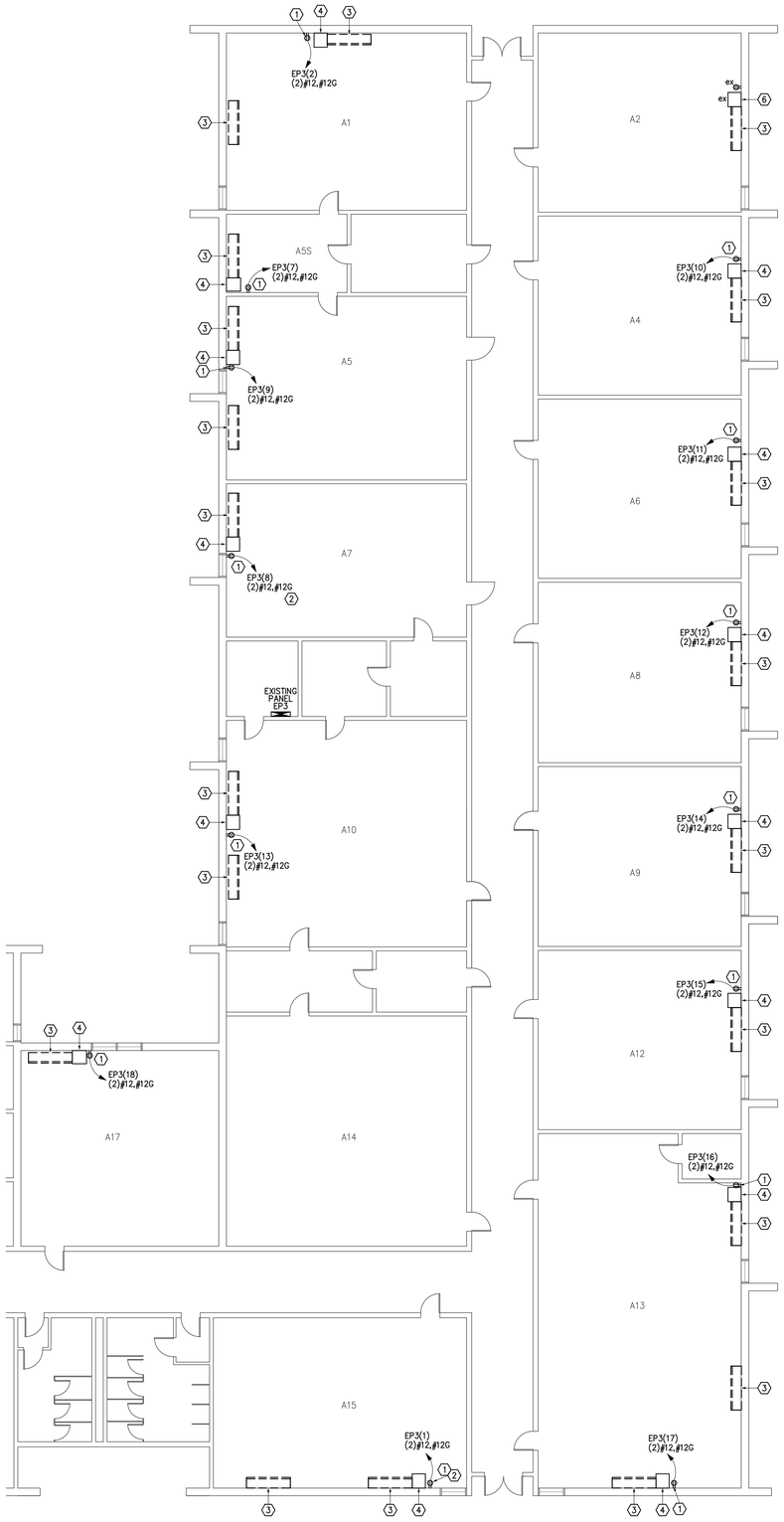
SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 9801 RANDY P. BUNDY II 07-07-2023

PROJECT NAME, LOCATION & DESCRIPTION
SPARTANBURG COMMUNITY COLLEGE
SCC POWERS BUILDING
'A' WING DEHUMIDIFICATION
107 COMMUNITY COLLEGE DRIVE
SPARTANBURG, SC 29303

MATRIX ENGINEERING, INC.
912 SOUTH PINE STREET
SPARTANBURG, SOUTH CAROLINA
(864)583-8274
29302
www.matrixeng.com

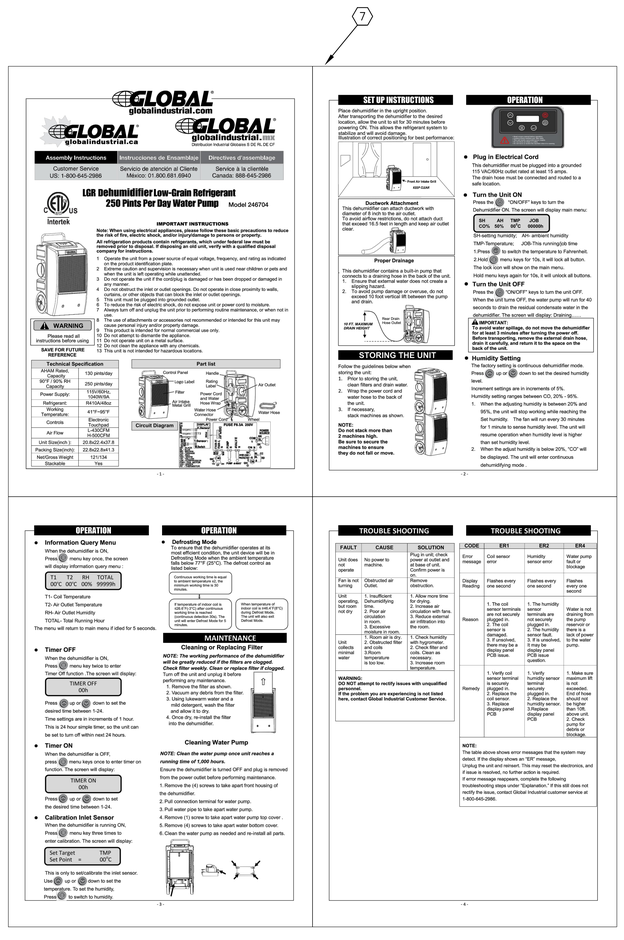
GENERAL NOTES, LEGENDS, ELECTRICAL SPECIFICATIONS & PANEL SCHEDULE

SCALE NONE	DWG NO E1.0
DATE JULY 07, 2023	
FILE NAME E1.0.dwg	PROJECT NO 2023-141
REV 0	



POWER PLAN

SCALE: 1/8"=1'-0"



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Assembly Instructions	Instrucciones de Ensamblaje	Directives d'assemblage
Customer Service US: 1-800-645-2986	Servicio de atención al Cliente México: 01.800.681.6940	Service à la clientèle Canada: 888-645-2986

LGR Dehumidifier Low-Grain Refrigerant 250 Pints Per Day Water Pump Model 246704

IMPORTANT INSTRUCTIONS

Note: When using electrical appliances, please follow these basic precautions to reduce the risk of fire, electric shock and injury to persons or property:

All refrigeration products contain refrigerants, which under federal law must be removed prior to disposal. If disposing an old unit, verify with a qualified disposal company for instructions.

1. Operate the unit from a power source of equal voltage, frequency, and rating as indicated on the product specification sticker.
2. Extreme caution and supervision is necessary when unit is used near children or pets and when the unit is left operating while unattended.
3. Do not operate the unit if the cord(plug is damaged or has been dropped or damaged in any manner.
4. Do not obstruct the inlet or outlet openings. Do not operate in close proximity to walls, curtains or furniture that may block the inlet or outlet openings.
5. This unit must be plugged into grounded outlet.
6. To reduce the risk of electric shock, do not expose unit or power cord to moisture.
7. Always turn off and unplug the unit prior to performing routine maintenance, or when not in use.
8. The use of attachments or accessories not recommended or intended for this unit may cause personal injury and/or property damage.
9. This product is intended for normal commercial use only.
10. Do not place unit on a carpeted surface.
11. Do not operate unit on a metal surface.
12. Do not clean the appliance with any chemicals.
13. This unit is not intended for hazardous locations.

WARNING

Please read all instructions before using

SAVE FOR FUTURE REFERENCE

Technical Specification

AHAM Rated Capacity 90°F / 50% Rel Capacity:	130 pints/day 250 pints/day
Power Supply:	115V/60Hz 10A/960VA
Refrigerant:	R410A/46oz
Working Temperature:	41°F~90°F
Controls:	Electronic Touchpad
Air Flow:	L-430CFM H-550CFM
Unit Size(inch):	20.8x22.4x37.8
Packing Size(inch):	22.8x22.8x41.3
Net/Gross Weight:	121/134
Stackable:	Yes

Part list

- 1 -

SET UP INSTRUCTIONS

Place dehumidifier in the upright position.
After transporting the dehumidifier to the desired location, allow the unit to sit for 30 minutes before powering ON. This allows the refrigerant system to stabilize and will avoid damage.
Restriction of correct positioning for best performance:

Ductwork Attachment
This dehumidifier includes an exhaust port with diameter of 8 inch to the air outlet.
To avoid airflow restrictions, do not attach duct that exceed 16.5 feet in length and keep air outlet clear.

Proper Drainage
This dehumidifier contains a built-in pump that connects to a draining hose in the back of the unit.
1. Ensure that external water does not create a stopping hazard.
2. To prevent potential damage or overuse, do not exceed 10 foot vertical lift between the pump and drain.

STORING THE UNIT

Follow the guidelines below when storing the unit:
1. Prior to storing the unit, clean filters and drain water.
2. Wrap the power cord and water hose to the back of the unit.
3. If necessary, stack machines as shown.

NOTE:
Do not stack more than 2 machines high.
Be sure to secure the machines to ensure they do not fall or move.

OPERATION

- **Plug in Electrical Cord**
  This dehumidifier must be plugged into a grounded 115 VAC/60Hz outlet rated at least 15 amps.
  The drain hose must be connected and routed to a safe location.
- **Turn the Unit ON**
  Press the "ON/OFF" keys to turn the Dehumidifier ON. The screen will display main menu:

RH	AH	TMP	JOB
50%	36%	80°C	0000h

RH:setting humidity; AH: ambient humidity
TMP:Temperature; JOB:This running/job time

1.Press to switch the temperature to Fahrenheit.
2.Hold menu keys for 10s; It will lock all button.
The lock icon will show on the main menu.
Hold menu keys again for 10s, It will unlock all buttons.

- **Turn the Unit OFF**
  Press the "ON/OFF" keys to turn the unit OFF.
  When the unit turns OFF, the water pump will run for 40 seconds to drain the residual condensate water in the dehumidifier. The screen will display: Draining.

IMPORTANT:
As with all electrical appliances, do not move the dehumidifier for at least 3 minutes after turning the power off. Before transporting, remove the external drain hose, drain it carefully, and return it to the space on the back of the unit.

- **Humidity Setting**
  The factory setting is continuous dehumidifier mode.
  Press up or down to set the desired humidity level.
  Increment settings are in increments of 5%.
  Humidity setting ranges between CO, 20% - 95%.
  1. When the adjusting humidity is between 20% and 95%, the unit will stop working while reaching the Set humidity. The fan will run every 30 minutes for 1 minute to sense humidity level. The unit will resume operation when humidity level is higher than set humidity level.
  2. When the adjust humidity is below 20%, "CO" will be displayed. The unit will enter continuous dehumidifying mode.

- 2 -

OPERATION

- **Information Query Menu**
  When the dehumidifier is ON,
  Press menu key once, the screen will display information query menu :

T1	T2	RH	TOTAL
00°C	00°C	00%	9999h

T1- Coil Temperature
T2- Air Outlet Temperature
RH-Air Outlet Humidity
TOTAL- Total Running Hour
The menu will return to main menu if sided for 5 seconds.

- **Timer OFF**
  When the dehumidifier is ON,
  Press menu key twice to enter Timer Off function. The screen will display:

TIMER OFF
00h

Press up or down to set the desired time between 1-24.
Time settings are in increments of 1 hour.
This is 24 hour simple timer, so the unit can be set to turn off within next 24 hours.

- **Timer ON**
  When the dehumidifier is OFF,
  press menu keys once to enter timer on function. The screen will display:

TIMER ON
00h

Press up or down to set the desired time between 1-24.

- **Calibration Inlet Sensor**
  When the dehumidifier is running ON,
  Press menu key three times to enter calibration. The screen will display:

Set Target Set Point =	TMP 00°C

This is only to extra/calibrate the inlet sensor.
Use up or down to set the temperature. To set the humidity,
Press to switch to humidity.

OPERATION

- **Defrosting Mode**
  To ensure that the dehumidifier operates at its most efficient condition, the unit device will be in Defrosting Mode when the ambient temperature falls below 77°F (25°C). The defrost control as stated below:

Defrosting Mode is ON when the ambient temperature is equal or below 77°F (25°C) and the compressor working time is 30 minutes.	If temperature of indoor coil is ≤28.4°F(-2°C) after continuous operation for 30 minutes (Continuous detection 30s), The unit will enter Defrost Mode for 5 minutes.
When temperature of indoor coil is ≥46.4°F(8°C) for 30 seconds, The unit will exits and Defrost Mode.	

MAINTENANCE

Cleaning or Replacing Filter

NOTE: The working performance of the dehumidifier will be greatly reduced if the filters are clogged. Clean the filter every 2 weeks or replace filter if clogged.

Turn off the unit and unplug it before performing any maintenance.
1. Remove the filter as shown.
2. Vacuum any debris from the filter.
3. Using lukewarm water and a mild detergent, wash the filter and allow it to dry.
4. Once dry, re-install the filter into the dehumidifier.

Cleaning Water Pump

NOTE: Clean the water pump once unit reaches a running time of 1,000 hours.

Ensure the dehumidifier is turned OFF and plug is removed from the power outlet before performing maintenance.
1. Remove the (4) screws to take apart front housing of the dehumidifier.
2. Pull connection terminal for water pump.
3. Pull water pipe to take apart water pump.
4. Remove (1) screw to take apart water pump top cover .
5. Remove (4) screws to take apart water bottom cover.
6. Clean the water pump as needed and re-install all parts.

- 3 -

TROUBLE SHOOTING

FAULT	CAUSE	SOLUTION
Unit does not operate	No power to machine.	Plug in unit, check power at outlet and at base of unit, confirm power is on.
Fan is not turning	Obstructed air Outlet.	Remove obstruction.
Unit operating, but room not dry	1. Insufficient Dehumidifying time. 2. Poor air circulation in room. 3. Excessive moisture in room.	1. Allow more time for drying. 2. Increase air circulation with fans. 3. Reduce external air infiltration into the room.
Unit collects excessive water	1. Room air is dry. 2. Obstructed filter and coils. 3. Room temperature is too low.	1. Check humidity with hygrometer. 2. Check filter and coils and clean if necessary. 3. Increase room temperature.

WARNING:
Do not attempt to rectify issues with unqualified personnel.
If the problem you are experiencing is not listed here, contact Global Industrial Customer Service.

TROUBLE SHOOTING

CODE	ER1	ER2	ER4
Error message	Coil sensor error	Humidity sensor error	Water pump fault or stockage
Display Reading	Flashes every one second	Flashes every one second	Flashes every one second
Reason	1. The coil sensor terminals are not securely plugged in. 2. The coil sensor is damaged. 3. If not resolved, there may be a display panel PCB issue.	1. The humidity sensor terminals are not securely plugged in. 2. The humidity sensor fault. 3. If not resolved, it may be display panel PCB issue question.	Water is not draining from the pump properly or there is a lack of power to the water pump.
Remedy	1. Verify coil sensor terminal are fully plugged in. 2. Replace the coil sensor. 3. Replace display panel PCB.	1. Verify humidity sensor terminal are securely plugged in. 2. Replace the humidity sensor. 3. Replace display panel PCB.	1. Make sure maximum lift height is not exceeded. End of hose should not be higher than 10 ft. above unit. 2. Check hose for debris or blockage.

NOTE:
This table above shows error messages that the system may detect. If the display shows an "ER" message,
unplug the unit and reconnect. This may reset the electronics, and if issue is resolved, no further action is required.
If error message reappears, complete the following troubleshooting steps under "Explanation." If this still does not rectify the issue, contact Global Industrial customer service at 1-800-645-2986.

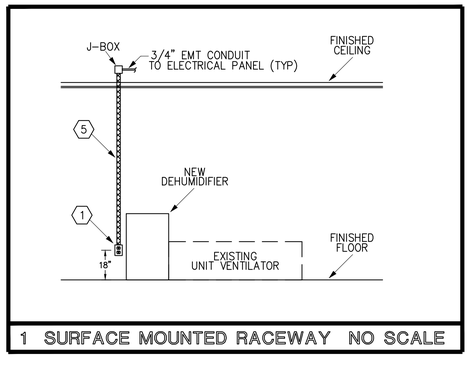
- 4 -

GENERAL POWER PLAN NOTES:

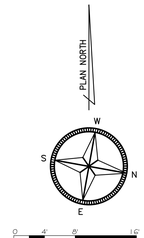
1. ELECTRICAL CONTRACTOR TO PROVIDE UL LISTED FIRE STOP ASSEMBLY FOR ALL DEVICES INSTALLED IN FIRE WALLS.
2. DO NOT SHARE NEUTRALS.
3. ELECTRICAL CONTRACTOR TO COORDINATE ALL WORK WITH FACILITIES DIRECTOR & COLLEGE HVAC DEPARTMENT PRIOR TO ANY WORK BEING PERFORMED. ELECTRICAL CONTRACTOR MAY ACT AS A GENERAL CONTRACTOR FOR THIS PROJECT.
4. "ex" ADJACENT TO EQUIPMENT DENOTES EXISTING EQUIPMENT TO REMAIN.
5. ELECTRICAL CONTRACTOR TO PERFORM A SITE VISIT DURING BIDDING PHASE PRIOR TO SUBMITTING PRICING. COORDINATE TIME AND DATE WITH SPARTANBURG COMMUNITY COLLEGE.
6. ALL SURFACE MOUNTED RACEWAY SHALL BE INSTALLED IN A NEAT AND ORDERLY FASHION AND ROUTED PERPENDICULAR AND PARALLEL TO BUILDING LINES.

KEYED POWER PLAN NOTES:

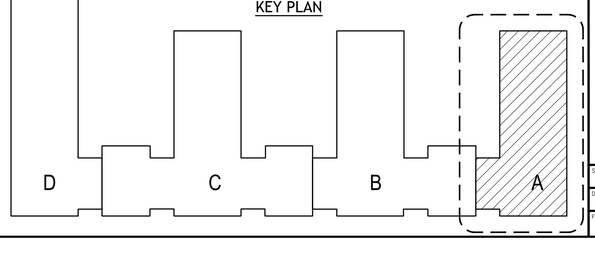
1. DENOTES NEW SURFACE MOUNTED DUPLEX 20AMP RECEPTACLE TO BE PURCHASED AND INSTALLED BY ELECTRICAL CONTRACTOR FOR DEHUMIDIFIER. ELECTRICAL CONTRACTOR TO UTILIZE SURFACE MOUNTED RACEWAY LEGRAND WIREMOLD CATALOG #2400–FINISH (OR EQUAL) TO FACILITATE WIRING. COORDINATE WITH SPARTANBURG COMMUNITY COLLEGE HVAC DEPARTMENT FOR EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO INSTALLATION. SEE DETAIL BELOW FOR MORE INFORMATION.
2. ELECTRICAL CONTRACTOR TO WIRE NEW DEHUMIDIFIER TO CIRCUIT CURRENTLY SERVING EXISTING VENTILATOR IN ROOM.
3. DENOTES EXISTING UNIT VENTILATOR TO REMAIN IN USE.
4. ELECTRICAL CONTRACTOR TO PURCHASE AND INSTALL DEHUMIDIFIER. DEHUMIDIFIER TO BE GLOBAL INDUSTRIAL LGR TYPE DEHUMIDIFIER. SEE SAME SHEET FOR MORE INFORMATION.
5. ELECTRICAL CONTRACTOR TO UTILIZE SURFACE MOUNTED RACEWAY AS SHOWN. COORDINATE EXACT MOUNTING LOCATION WITH FACILITY DIRECTOR PRIOR TO INSTALLATION.
6. DENOTES PRIOR INSTALLATION OF DEHUMIDIFICATION UNIT TO TEST FUNCTIONALITY OF EQUIPMENT (NO WORK).
7. ELECTRICAL CONTRACTOR TO PURCHASE AND INSTALL DE–HUMIDIFICATION UNIT AND ADHERE TO ALL INSTALLATION REQUIREMENTS AS STATED BY MANUFACTURER ON SHEETS AT LEFT.



1 SURFACE MOUNTED RACEWAY NO SCALE



KEY PLAN



REV	DATE	DESCRIPTION	DWN	CKD	APP
0	07–07–2023	ISSUE FOR BID	RP	RM	HPB

SOUTH CAROLINA MATRIX ENGINEERING INC. No. C01034 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 9801 HOWARD PRESTON BUNN II 07-07-2023

PROJ NAME, LOCATION & DESCRIPTION

SPARTANBURG COMMUNITY COLLEGE
SCC POWERS BUILDING
'A' WING DEHUMIDIFICATION
107 COMMUNITY COLLEGE DRIVE
SPARTANBURG, SC 29303

MATRIX ENGINEERING, INC.
912 SOUTH PINE STREET
SPARTANBURG, SOUTH CAROLINA 29302
(864)583-8274
www.matrixeI.com

POWER PLAN

SCALE: AS NOTED	DWG NO: E2.0
DATE: JULY 07, 2023	
FILE NAME: E2.0.dwg	PROJECT NO: 2023–141
REV: 0	

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