DELAWARE ENGINEERING, D.P.C.

16 East Market Street
Red Hook, New York 12571

Tel: 518.452.1290 x402

August 17, 2023

To: ALL PLAN HOLDERS

Re: Port Ewen Fire District **Pages:** 8 (including this sheet)

Port Ewen Firehouse Construction Project

Addendum #2

Contracts for Construction

The following items in this addendum apply to the Port Ewen Firehouse Construction Project:

ITEM #25: CLARIFICATION – CONTRACT #1G – Drawing Sheet S501

- Truss connections can be bolted or welded as determined by the fabricator's licensed engineer responsible for connection design. All connections shall be designed for the axial loads indicated on 1/S501.
- Detail 7/S501 can be utilized for details 2/S501 & 3/S501 where a plate can be set with studs on bond beam and then the beam field welded to the beam. Plates shall be 3/8" minimum thickness; length of plate shall be 6" and width of plate shall be the measured width of the beam flange plus 1". Spacing of plates shall be at 24" on center as shown in 2/S501 and 3/S501 with (1) 5/8" diameter headed stud per plate.

ITEM #26: CLARIFICATION – CONTRACT #1H – Bid Alternate AT.1

- Louver LV-6 shall be included in the base bid and would be located on the east wall along column line 7 Sheet M101 where SG-3 penetrates the truck bay.
- The 8"duct and SG-1 from column line 7 Sheet M101 into the Vintage Vehicle Bay shall be part of Alternate #1 and not part of the base bid.

ITEM #27: ADDITION – CONTRACT #1G & #1H – Drawing M201

- The refrigerant lines going out to the CU's shall be installed four feet (4') underground in a 6" PVC pipe run. Each CU shall get a sperate 6" pipe run for a total of three (3) pipe runs. The mechanical contractor shall be responsible for furnishing and install the 6" PVC, the trenching and back fill. The GC shall be responsible for grading and seeding. Backfill shall include sand and locate tape.
- The mechanical contractor #1H shall be responsible for furnishing and installing the equipment pads for CU-1, CU-2, and CU-3.

ITEM #28: ADDITION – CONTRACT #1G, #1E, #1H, & #1P – Addendum #1

- All references to Contract #1 shall be directed to Contract #1G.
- All references to Contract #2 shall be directed to Contract #1E.
- All references to Contract #3 shall be directed to Contract #1H.
- All references to Contract #4 shall be directed to Contract #1P.

ITEM #29: CLARIFICATION – CONTRACT #1E – Electrical Service

- The electrical contractor shall run the primary conduit and conductors from pole on Route 9W, shown on C-102, to the electrical service transformer. This shall include a length of 10' GRC up the pole and conductors up the pole to the connection point.

ITEM #30: REVISION – CONTRACT #1G, #1E, #1H, & #1P – Advertisement for Bid

- Revise the bid date to September 5, 2023 at 12:00pm.
- The last date for questions is August 28, 2023 at 4pm.

ITEM #31: REVISION – CONTRACT #1E & #1H – Drawing E001

- Revised Note 20 to read "The electrical contractor shall furnish and install all equipment conduit and conductors for the HVAC equipment. For the temperature controls the electrical contractor shall furnish 120V circuits to junction boxes shown on the drawings. The HVAC contractor shall include transformers at these locations and run the low voltage conduit and conductors to the temperature control devices and equipment. Review HVAC and Plumbing drawings for equipment locations.
- Added a symbol for the temperature controller junction box.
- See attached plan with revisions.

ITEM #32: REVISION – CONTRACT #1E & #1H – Drawing E010

- Added conduit H9.1.
- See attached plan with revisions.

ITEM #33: REVISION – CONTRACT #1E & #1H – Drawing E103

- Added a location for the temperature controller junction boxes. The electrician shall run a 120V circuit to this location for the HVAC contractor to use for temperature control. The HVAC contractor shall run the conduit and conductors from this location as needed.
- See attached plan with revisions.

ITEM #34: REVISION – CONTRACT #1E & #1H – Drawing E203

- Added a location for the temperature controller junction boxes. The electrician shall run a 120V circuit to this location for the HVAC contractor to use for temperature control. The HVAC contractor shall run the conduit and conductors from this location as needed.
- See attached plan with revisions.

ITEM #35: ADDITION – CONTRACT #1E – Drawing E012

- Added a detail for the generator concrete pad.
- Added a detail for the utility transformer.
- See attached plan.

ITEM #36: CORRECTION – CONTRACT #1H & #1P – Drawing M601

- Currently M601 shows two BF-2 tags in the one-line diagram, but there is only a BF-1 shown in the chemical bag filter schedule. Both bag filters are needed change both tags to BF-1.
- Glycol Feeder (Tag:GF-1) shall be G-50-1A by Neptune, or equal.
    - 50 Gallon, with digital controller display, audible alarm and 120-volt (5-amp) plug.
- The plumbing contractor shall provide a ¾" DWCS tee and valve in the mechanical room. The Mechanical contractor shall extend to the hydronic system, and furnish and install the RPZ and PRV as shown on M-601.

ITEM #37: CLARIFICATION – CONTRACT #1H – Thermostats

- Thermostats will be field located with Owner's Rep. The Controls Contractor shall be responsible to furnish and install.

ITEM #38: CLARIFICATION – CONTRACT #1H – BAS

- The BAS contractor shall be a sub-contractor to the Mechanical Contractor. The BAS contractor shall be an qualified firm specializing in HVAC controls who can meet the requirements of the specification.

ITEM #39: CORRECTION – CONTRACT #1P – Specification 221519

- There is no dryer needed for the air compressor.

ITEM #40: CLARIFICATION – CONTRACT #1P – Sprinkler System

- The sprinkler system shall be furnished and installed through the plumbing contract. The plumbing contractor shall retain the services of an engineer to design the sprinkler system and stamp the sprinkler system drawings.

NOTE

This Addendum is being distributed through usinglesspaper.com to everyone on the plan holders list. Should there be an issue with the system, please contact Ablen Amrod, PE at aamrod@delawareengineering.com or 518-452-1290.

ATTENTION

PLEASE SIGN BELOW AND email to aamrod@delawareengineering.com to verify receipt of this Addendum.

RECEIVED BY: _____

Company Name: _____

GENERAL ELECTRICAL NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING, INSTALLING AND CONNECTING ALL LINE AND LOW VOLTAGE CONDUIT, CONDUCTORS, SWITCHES, DISCONNECTS, JUNCTION BOXES, AND FIXTURES FOR POWER, TELECOMMUNICATIONS, AND LIGHTING SYSTEMS.
2. THE ELECTRICAL CONTRACTOR SHALL SUPPLY, RIG AND MOUNT THE ELECTRICAL GENERATORS, TRANSFER SWITCHES AND ASSOCIATED COMPONENTS.
3. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL CONDUIT, CONDUCTORS, AND ASSOCIATED ITEMS TO CONNECT THE GENERATORS TO THE BUILDING ELECTRICAL SYSTEM.
4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE GENERATOR START UP, TESTING, AND OWNER TRAINING PER THE CONSTRUCTION SPECIFICATIONS, AND SHALL ENSURE CORRECT FUNCTIONING OF THE INTERCONNECTION OF THE GENERATOR TO THE BUILDING ELECTRICAL SYSTEM.
5. PROVIDE A TYPEWRITTEN CIRCUIT DIRECTORY IN ALL NEW PANEL BOXES.
6. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING AND SCHEDULING ALL ELECTRICAL INSPECTIONS, PAY ALL FEES, AND SUBMIT A FINAL INSPECTION REPORT TO THE ENGINEER.
7. THE ELECTRICAL CONTRACTOR SHALL INSTALL ALL GROUNDING IN ACCORDANCE WITH NEC ARTICLE 250 AND ACCORDING TO THE REQUIREMENTS INDICATED ON THE DRAWINGS. EQUIPMENT GROUNDING CONDUCTORS SHALL BE USED. GROUNDING THROUGH RACEWAY AND CONDUITS IS NOT PERMITTED.
8. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL GROUND CONDUCTORS TO BOND THE FIRE HOUSE GROUNDING SYSTEM TOGETHER.
9. THE LOCATIONS AND ROUTES OF CONDUITS AND RACEWAYS SHOWN ON THESE DRAWINGS ARE SCHEMATIC. ALL CONDUITS ABOVE THE SLAB SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO THE BUILDING. CONDUITS ABOVE THE CEILING SHALL BE MOUNTED AS HIGH AS POSSIBLE. ALL BELOW GROUND CONDUITS SHALL BE INSTALLED USING THE MOST DIRECT ROUTE WITH CONSIDERATION OF PROPER COORDINATION WITH OTHER UTILITIES – UNDERGROUND OR ABOVE GROUND.
10. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUIT AND CONDUCTORS FOR TELEPHONE AND LAN SYSTEMS. ALL CONDUCTORS SHALL BE COPPER WITH TYPE THHN/THWN OR XHHW INSULATION UNLESS OTHERWISE NOTED. ALL CONDUCTORS SHALL BE SIZED PER NEC.
11. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LAMPS FOR ALL LIGHTING FIXTURES.
12. ALL DUPLEX RECEPTACLES SHALL BE MOUNTED VERTICALLY AND 18" NOMINALLY AFF TO BOTTOM OF BOX UNLESS OTHERWISE INDICATED.
13. FASTENING OF HANGERS TO THE ROOF WILL NOT BE PERMITTED. ANY CONTRACTOR RESPONSIBLE FOR PUNCTURING THE ROOF STRUCTURE WILL REPAIR THE ROOF AT THEIR EXPENSE.
14. ALL DISCONNECT SWITCHES AND SAFETY SWITCHES ARE TO BE HEAVY DUTY TYPE.
15. MC CABLE MAY BE USED FOR LIGHTS AND RECEPTACLES WHEN RUN IN A WALL CAVITY. THE MC CABLE SHALL NOT BE RUN SURFACE MOUNTED. WHEN LEAVING A WALL CAVITY, A BOX SHALL BE USED TO TRANSITION FROM MC CABLE TO CONDUIT AND CONDUCTORS. MC CABLE SHALL NOT BE ALLOWED TO LEAVE A PANEL BOX. ALL PANEL BOX ENTRIES SHALL BE MADE WITH CONDUIT AND CONDUCTORS.
16. "GREENFIELD" AND LIQUID TIGHT FLEX CONDUIT MAY BE USED IN LENGTHS NOT TO EXCEED 72".
17. THE ELECTRICAL CONTRACTOR SHALL CAULK ALL PENETRATIONS,RELATED TO ELECTRICAL WORK, IN 1 & 2 RATED HR FIRE WALL WITH 3M FIRE CAULK. SEAL LARGER OPENINGS WITH WIREMOLD "FLAMESTOPPER" KIT.
18. ALL EXTERIOR EXPOSED CONDUIT SHALL BE GRC.
19. ALL CONDUIT IN THE FIRE HOUSE SHALL BE EMT.
20. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT CONDUIT AND CONDUCTORS FOR THE HVAC EQUIPMENT. FOR THE TEMPERATURE CONTROLS THE ELECTRICAL CONTRACTOR SHALL FURNISH 120V CIRCUITS TO JUNCTION BOXES SHOWN ON THE DRAWINGS. THE HVAC CONTRACTOR SHALL INCLUDE TRANSFORMERS AT THESE LOCATIONS AND RUN THE LOW VOLTAGE CONDUIT AND CONDUCTORS TO THE TEMP CONTROL DEVICES AND EQUIPMENT. REVIEW HVAC AND PLUMBING DRAWINGS FOR EQUIPMENT LOCATIONS AND ELECTRICAL REQUIREMENTS. (2)
21. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ETHERNET CONDUIT AND CONDUCTORS.
22. ALL JUNCTION BOXES AND DISCONNECTS SHALL BE MOUNTED ABOVE THE FLOOD ELEVATION.
23. NO CONDUITS SHALL BE INSTALLED WITHIN THE UNCONDITIONED SPACE.

SYMBOLS

- NEW #% AWG GROUND GRID EXOTHERMIC CONNECTION TO BUILDING FOUNDATION REINFORCING BAR
- NEW #4/0 AWG MAIN GROUND GRID CONDUCTOR BELOW GRADE (BURY 30" BELOW GRADE THROUGHOUT)
- 3/4"x 10' COPPER CLAD GROUND ROD WITH EXOTHERMIC CONNECTION TO MAIN GROUND GRID CONDUCTOR
- GROUND GRID RISER CONDUCTOR THROUGH SLAB FOR CONNECTION TO COLUMN, EQUIPMENT, ETC.
- EXOTHERMIC CONNECTION BETWEEN GROUND GRID CONDUCTOR
- NEW PANEL
- GP–2 — HOMERUN GP = GENERAL PURPOSE PANEL 'GP' 2 = CIRCUIT No.
- CONDUIT DOWN
- CONDUIT UP
- FLEXIBLE CONDUIT CONNECTION
- SPECIAL USE RECEPTACLE REFER TO INFORMATION ON INDIVIDUAL DRAWINGS
- GF LPA1–2 — NEW RECEPTACLE GF = GROUND FAULT WP = WEATHERPROOF LPA1–2 = FEED FROM PANEL LPA1 CIRCUIT 2
- 42"AFF — EXISTING SINGLE RECEPTACLE 42" AFF = 42 INCHES ABOVE FINISHED FLOOR
- A_4 — SWITCH – A = SWITCHING SCHEME 3 = 3 WAY 4 = 4 WAY M = MOTOR STARTER TYPE
- NEW TELEPHONE JACK
- NEW ETHERNET JACK
- EC — EQUIPMENT CONTROLLER
- WS — WATT STOPPER
- OC — OCCUPANCY SENSOR
- (2) TC — TEMP CONTROLLER CIRCUIT JBOX
- L.A. — LIGHTNING ARRESTOR
- 1600A / 1200A — SST LT ST I — DRAW–OUT TYPE SOLID STATE CIRCUIT BREAKER 1600A = FRAME SIZE 1200A = TRIP SENSOR LT = LONG TIME TRIP FUNCTION ST = SHORT TIME TRIP FUNCTION I = INSTANTANEOUS TRIP FUNCTION SST = SOLID STATE TRIP UNIT
- 400A / 300A — CIRCUIT BREAKER. 400A = FRAME SIZE 300A = TRIP RATING
- DRAW OUT TYPE CIRCUIT BREAKER
- 52 — DRAW–OUT TYPE POWER CIRCUIT BREAKER
- DELTA–WYE TRANSFORMER. SIZE AS INDICATED ON DRAWINGS.
- POTENTIAL TRANSFORMER
- CURRENT TRANSFORMER
- SSS — SOLID STATE SOFT STARTER
- LOCAL START/LOCK STOP CONTROLLER
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESION
- FACP — FIRE ALARM CONTROL PANEL
- RADIO — RADIO TRANSCEIVER
- OMNI DIRECTIONAL ANTENNA/WITH MODULE
- SOUNDER STROBE
- TM — 60 MIN TIMER
- NORMALLY OPEN CONTACT
- NORMALLY CLOSED CONTACT
- DISCONNECT SWITCH
- DISCONNECT SWITCH
- X — MOTOR. SIZE AS INDICATED ON DRAWINGS. X = HORSEPOWER
- K — KEY INTERLOCK
- J — JUNCTION BOX. SIZE AS SHOWN ON DRAWINGS.
- 80E — FUSE 80E = RATING
- GENERATOR SIZE AS INDICATED ON DRAWINGS
- A_{LPM-9} — LIGHTING FIXTURE CONTROLLED BY SWITCHING SCHEME A AND FED FROM LIGHTING PANEL LPM CIRCUIT 9
- VFD — VARIABLE FREQUENCY DRIVE
- E — EMERGENCY STOP
- A_A — COMBINATION DISCONNECT SWITCH MOTOR STARTER A = STARTER SIZE
- M — METHANE SENSOR
- O — OXYGEN SENSOR
- STROBE LIGHT
- F — PULL STATION WITH KEY RESET
- S — SMOKE DETECTOR PHOTO ELECTRIC
- H X — HEAT DETECTOR X=135 FOR 135DEG RATE OF RISE AND X=190 FOR 190DEG RATE OF RISE
- ANSUL — SUPPRESSION SYSTEM SUPERVISION
- DR — DOOR HOLDER WALL MOUNT
- NMM — ADDRESSABLE MINI MODULE
- XS — EXPLOSION PROOF SMOKE DETECTOR
- XF — EXPLOSION PROOF PULL STATION WITH KEY RESET
- EXTERIOR STROBE LIGHT WITH HORN
- ANN — ANNUNCIATOR

BID PLANS

DATE: 8/17/2023
DRAWN BY: AFA
SCALE: AS SHOWN
REVIEWED BY: RF
PROJECT NO.: 21-2345
FILE:

HESNOR ENGINEERING ASSOCIATES — WWW.HESNOR.COM
KEYSTONE ASSOCIATES — WWW.KEYSTONE.COM
DELAWARE ENGINEERING, D.P.C. — CIVIL AND ENVIRONMENTAL ENGINEERING — WWW.DELAWAREENGINEERING.COM

STATE OF NEW YORK — ALEX F. AMROD — 092555 — LICENSED PROFESSIONAL ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION
1	6/16/23	CONSTRUCTION ADDENDUM#2
2	8/17/23	

PORT EWEN FIRE DEPARTMENT
ULSTER COUNTY, NY

ELECTRICAL NOTES

SHEET: E001

H:\Drawings\Port Ewen\PE_ONE_LINE ADD2.dwg

CONDUIT AND CABLE SCHEDULE

CONDUIT NO.	CONDUIT SIZE	CABLE QTY.	CABLE SIZE	PURPOSE	FROM	VIA	TO	REMARKS
A1.1	2-4"	4EA	600kCM	POWER	UTILITY		MDS	
A1.2	2-4"	4EA	600kCM	POWER	MDS		ATS	
A1.3	1"	8	#12	POWER	UTILITY		METER	
A2.1	4"	4	500kCM	POWER	GENERATOR		ATS	
A2.2	1 1/2"	4	#6	POWER	GENERATOR		LP1	
A2.3	1"	12	#14	CONTROL	GENERATOR		ANNUCIATOR	
A2.4	2-4"	4EA	600kCM	POWER	ATS		MDP	
A2.5	3/4"	6	#14	CONTROL	ATS		ANNUNCIATOR	
A3.1	2"	4	#2	POWER	MDP		LP1	
A3.2	3"	4	4/0	POWER	MDP		LP2	
A3.3	3"	4	600kCM	POWER	MDP		LP3	
A3.4	4"	4	4/0	POWER	MDP		HP1	
A3.5	2"	4	#2	POWER	MDP		HP2	
A4.1	2"	1	FIBER/CBL	COMMUNICATION	PHONE/CABLE UTILITY		FIREWALL	
C1.1	3/4"	4	#12	POWER	HP1		CF-1	
C1.2	3/4"	1	CAT6	CONTROL	CF-1		CF-1 CTRL	
C2.1	3/4"	4	#12	POWER	HP1		CF-2	
C2.2	3/4"	1	CAT6	CONTROL	CF-2		CF-2 CTRL	
C3.1	3/4"	4	#12	POWER	HP1		CF-3	
C3.2	3/4"	1	CAT6	CONTROL	CF-3		CF-3 CTRL	
C4.1	3/4"	4	#12	POWER	HP1		CF-4	
C4.2	3/4"	1	CAT6	CONTROL	CF-4		CF-4 CTRL	
C5.1	3/4"	4	#12	POWER	HP1		CF-5	
C5.2	3/4"	1	CAT6	CONTROL	CF-5		CF-5 CTRL	
C6.1	3/4"	4	#12	POWER	HP1		CF-6	
C6.2	3/4"	1	CAT6	CONTROL	CF-6		CF-6 CTRL	
H1.1	3/4"	4	#12	POWER	HP1		VRF-1-1	
H1.2	3/4"	4	#12	POWER	HP1		VRF-1-2	
H1.3	3/4"	4	#12	POWER	HP1		VRF-1-3	
H1.4	3/4"	4	#12	POWER	HP1		VRF-1-4	
H1.5	3/4"	4	#12	POWER	HP1		VRF-2-1	
H1.6	3/4"	4	#12	POWER	HP1		VRF-2-2	
H1.7	3/4"	4	#12	POWER	HP1		VRF-2-3	
H1.8	3/4"	4	#12	POWER	HP1		VRF-2-4	
H1.9	3/4"	4	#12	POWER	HP1		HRV-1	
H2.1	3/4"	4	#12	POWER	HP1		EF-1-1	
H2.2	3/4"	4	#12	POWER	HP1		EF-1-2	
H2.3	3/4"	4	#12	POWER	HP1		EF-1-3	
H2.4	3/4"	4	#12	POWER	HP1		EF-1-4	
H2.5	3/4"	4	#12	POWER	HP1		EF-1-5	
H2.6	3/4"	4	#12	POWER	HP1		EF-1-6	
H2.7	3/4"	4	#12	POWER	HP1		EF-1-7	
H2.8	3/4"	4	#12	POWER	HP1		EF-2-1	
H2.9	3/4"	4	#12	POWER	HP1		KEF-1	
H3.1	3/4"	4	#12	POWER	HP1		HEATERS	U1.1,U1.2,U1.3,U1.4
H3.2	3/4"	4	#12	POWER	HP1		HEATERS	U1.5,C1.2,C1.4
H3.3	3/4"	4	#12	POWER	HP1		HEATERS	C1.1,C1.3
H3.4	3/4"	4	#12	POWER	HP1		HEATERS	U2.1
H4.1	1-1/2"	4	#2	POWER	LP3		CU-1	
H4.2	1-1/2"	4	#2	POWER	LP3		CU-2	
H4.3	1-1/2"	4	#2	POWER	LP3		CU-3	
H4.4	3/4"	4	#12	POWER	HP1		HRB-1-1	
H4.5	3/4"	4	#12	POWER	HP1		HRB-2-1	
H5.1	3/4"	3	#12	POWER	HP2		BLR-1	
H5.2	3/4"	3	#12	POWER	HP2		BLR-2	
H5.3	3/4"	4	#12	POWER	HP2	VFD	BP-1	
H5.4	3/4"	4	#12	POWER	HP2	VFD	BP-2	
H5.5	3/4"	4	#12	POWER	HP2		P-1	
H5.6	3/4"	4	#12	POWER	HP2	VFD	P-1A	
H5.7	3/4"	4	#12	POWER	HP2	VFD	P-2A	
H5.8	3/4"	4	#12	POWER	HP2	VFD	P-2B	
H6.1	3/4"	3	#12	POWER	HP2		P-L1	
H6.2	3/4"	3	#12	POWER	HP2		P-L2	
H6.3	3/4"	3	#12	POWER	HP2		P-L3	
H6.4	3/4"	3	#12	POWER	HP2		P-L4	
H6.5	3/4"	3	#12	POWER	HP2		P-L5	
H6.6	3/4"	3	#12	POWER	HP2		P-L6	

NOTES

1) ELECTRICAL CONTRACTOR SHALL FURNISH AND SUPPLY TEMPORARY POWER WHILE SHUTTING DOWN FOR ANY ELECTRICAL REMOVALS.

2) THE ELECTRICAL CONTRACTOR SHALL SHALL FURNISH AND INSTALL ALL LIGHTING PANELS. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT AND CONDUCTORS FROM THE LIGHTING PANELS TO ALL LOADS.

CONDUIT AND CABLE SCHEDULE

CONDUIT NO.	CONDUIT SIZE	CABLE QTY.	CABLE SIZE	PURPOSE	FROM	VIA	TO	REMARKS
H7.1	3/4"	3	#12	POWER	HP2		LV-1	
H7.2	3/4"	3	#12	POWER	HP2		LV-2	
H7.3	3/4"	3	#12	POWER	HP2		LV-3	
H7.4	3/4"	3	#12	POWER	HP2		LV-4	
H7.5	3/4"	3	#12	POWER	HP2		LV-5	
H7.6	3/4"	3	#12	POWER	HP2		LV-6	
H7.7	3/4"	3	#12	POWER	HP2		LV-7	
H8.1	3/4"	4	#12	POWER	HP2		ERV-1	
H8.2	3/4"	4	#12	POWER	HP2		MUA-1	
H9.1	3/4"	3	#12	POWER	HP2		TEMP CONT JB	MULTIPLE LOCATIONS
E1.1	3/4"	4	#10	POWER	LP2		ELEVATOR CP	
E1.2	3/4"	3	#12	POWER	LP2		ELEVATOR CP	
E1.3	3/4"	4	#12	POWER	LP2		ELEVATOR SUMP PUMP	
O1.1	3/4"	4	#12	POWER	LP3		OHD-1	
O1.2	3/4"	8	#12	POWER	OHD-1		OHD-1 CONTROL STATION	
O2.1	3/4"	4	#12	POWER	LP3		OHD-2	
O2.2	3/4"	8	#12	POWER	OHD-2		OHD-2 CONTROL STATION	
O3.1	3/4"	4	#12	POWER	LP3		OHD-3	
O3.2	3/4"	8	#12	POWER	OHD-3		OHD-3 CONTROL STATION	
O4.1	3/4"	4	#12	POWER	LP3		OHD-4	
O4.2	3/4"	8	#12	POWER	OHD-4		OHD-4 CONTROL STATION	
O5.1	3/4"	4	#12	POWER	LP3		OHD-5	
O5.2	3/4"	8	#12	POWER	OHD-5		OHD-5 CONTROL STATION	
O6.1	3/4"	4	#12	POWER	LP3		OHD-6	
O6.2	3/4"	8	#12	POWER	OHD-6		OHD-6 CONTROL STATION	
O7.1	3/4"	4	#12	POWER	LP3		OHD-7	
O7.2	3/4"	8	#12	POWER	OHD-7		OHD-7 CONTROL STATION	
R1.1	3/4"	4	#12	POWER	LP3	STARTER	HR-1-EF	
R1.2	3/4"	3	#12	POWER	LP3		HR-1	
R2.1	3/4"	4	#12	POWER	LP3	STARTER	HR-2-EF	
R2.2	3/4"	3	#12	POWER	LP3		HR-2	
R3.1	3/4"	4	#12	POWER	LP3	STARTER	HR-3-EF	
R3.2	3/4"	3	#12	POWER	LP3		HR-3	
R4.1	3/4"	4	#12	POWER	LP3	STARTER	HR-4-EF	
R4.2	3/4"	3	#12	POWER	LP3		HR-4	
R5.1	3/4"	4	#12	POWER	LP3	STARTER	HR-5-EF	
R5.2	3/4"	3	#12	POWER	LP3		HR-5	
R6.1	3/4"	4	#12	POWER	LP3	STARTER	HR-6-EF	
R6.2	3/4"	3	#12	POWER	LP3		HR-6	
K1.1	3/4"	4	#10	POWER	LP2		DISHWASHER	
K1.2	1"	5	#8	POWER	LP2		GRIDDLE	
K1.3	3/4"	4	#12	POWER	LP2		AIR FRYER	
K1.4	3/4"	4	#10	POWER	LP2		PIZZA OVEN	
K1.5	3/4"	4	#10	POWER	LP2		WARMER	
K1.6	3/4"	4	#10	POWER	LP2		REFRIGERATOR/FREEZER	
K1.7	3/4"	4	#10	POWER	LP2		STOVE	
K1.8	3/4"	4	#10	POWER	LP2		HOOD	
K1.9	3/4"	3	#12	POWER	LP2		HOOD CP	
K1.10	3/4"	4	#12	POWER	HOOD CP		KEF-1	
K1.11	3/4"	8	#14	POWER	HOOD CP		FIRE ALARM PANEL	
K1.12	3/4"	6	#14	POWER	HOOD CP		MUA	
P1.1	3/4"	4	#10	POWER	HP2		COMPRESSOR	
P1.2	3/4"	4	#10	POWER	HP2		GRINDER PUMP	
P1.3	3/4"	4	#10	POWER	HP2		WATER HEATER	

EA = EACH

BID PLANS

SHEET: E010

CONDUIT SCHEDULE

PORT EWEN FIRE DEPARTMENT
ULSTER COUNTY, NY

REVISIONS

NO.	DATE	DESCRIPTION
1	6/16/23	CONSTRUCTION
2	8/17/23	ADDENDUM#2

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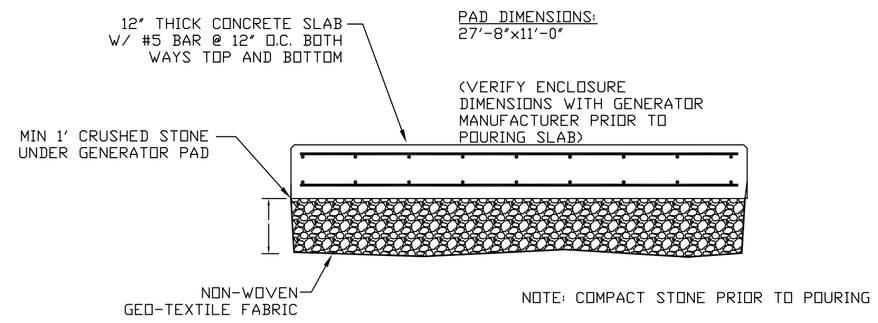
KEYSTONE ASSOCIATES — WWW.KEYSCOMP.COM

HESNOR ENGINEERING ASSOCIATES — WWW.HESNOR.COM

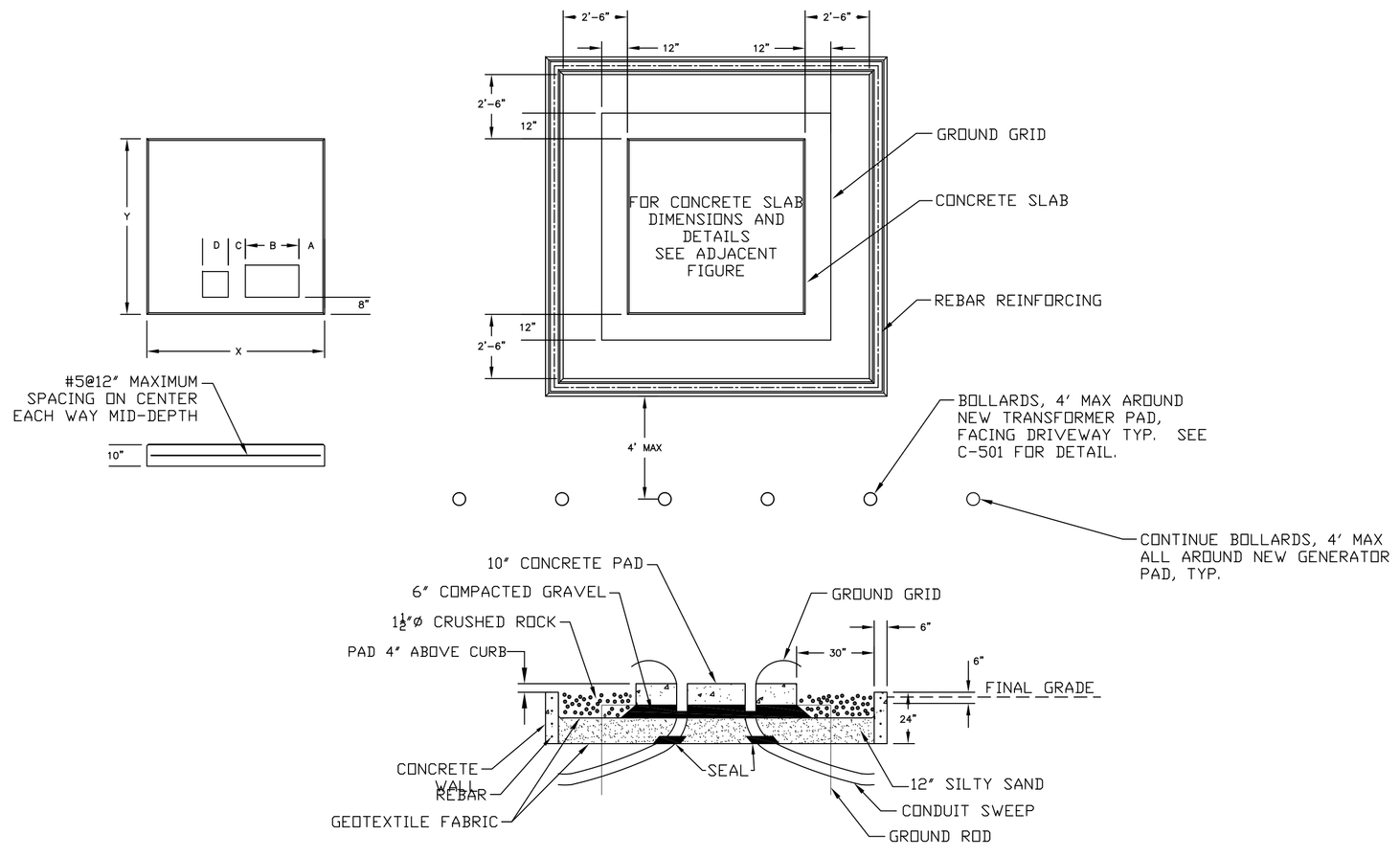
DATE: 8/17/2023
DRAWN BY: AFA
SCALE: AS SHOWN
REVIEWED BY: RF
PROJECT NO.: 21-2343
FILE:

NOTES:

⚠2 1. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A UFER GROUNDING GRID UNDER THE GENERATOR PAD. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL TWO GROUNDING ELECTRODES AT THE MAIN DISCONNECT SWITCH. THE GROUNDING SHALL BE CONNECTED FROM THE MAIN SERVICE TO THE MAIN DISCONNECT SWITCH WITH 4/0 GROUNDING CONDUCTORS.



⚠2 **GENERATOR PAD DETAIL**
SCALE: NTS



⚠2 TYPICAL TRANSFORMER PAD
SCALE: NTS

3-PHASE PADMOUNTS	15 kV
DIMENSIONS	750-2500kVA
X	83"
Y	82"
A	12"
B	25"
C	8"
D	12"
E	15"
F	12"

⚠2 **TYPICAL TRANSFORMER CONCRETE PAD DIMENSIONS**
SCALE: N.T.S.

DATE: 8/17/2023
DRAWN BY: AA
SCALE: AS SHOWN
REVIEWED BY: AA
PROJECT NO.: 21-2345
FILE:

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REVISIONS

NO.	DATE	DESCRIPTION
⚠2	8/17/23	ADDENDUM#2

PORT EWEN FIRE DEPARTMENT
ULSTER COUNTY, NY

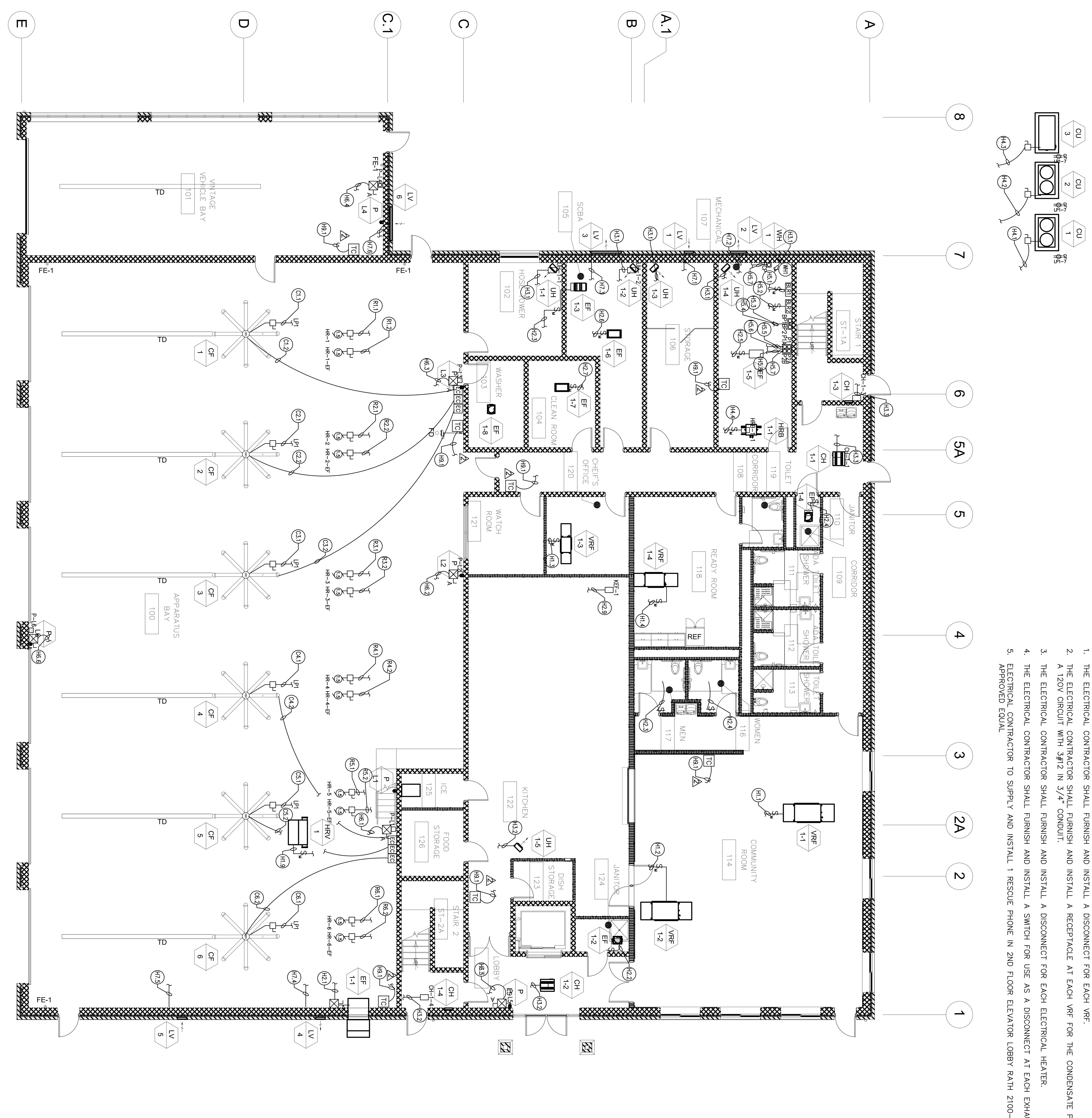
ELECTRICAL DETAILS

BID PLANS

SHEET:
E-012

H:\Drawings\Port Ewen\PE_LIGHTING_DETAIL ADD 8.17.23.dwg

H:\Drawings\Port Ewen\PE_ELEC_HVAC ADD2 08.17.23.dwg



FIRST FLOOR ELECTRICAL HVAC

SCALE: 1/8" = 1'

NOTES

1. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A DISCONNECT FOR EACH VRF.
2. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A RECEPTACLE AT EACH VRF FOR THE CONDENSATE PUMP. THIS SHALL INCLUDE A 120V CIRCUIT WITH 3#12 IN 3/4" CONDUIT.
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A DISCONNECT FOR EACH ELECTRICAL HEATER.
4. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A SWITCH FOR USE AS A DISCONNECT AT EACH EXHAUST FAN.
5. ELECTRICAL CONTRACTOR TO SUPPLY AND INSTALL 1 RESCUE PHONE IN 2ND FLOOR ELEVATOR LOBBY RATH 2100-958NSR OR ENGINEER APPROVED EQUAL

BID PLANS

SHEET: E103

FIRST FLOOR HVAC ELECTRICAL PLAN

PORT EWEN FIRE DEPARTMENT
ULSTER COUNTY, NY

REVISIONS

NO.	DATE	DESCRIPTION
1	6/16/23	CONSTRUCTION
2	8/17/23	ADDENDUM#2

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DRAWN BY: AFA
SCALE: AS SHOWN
REVIEWED BY: RF
PROJECT NO.: 21-2343
FILE:

H:\Drawings\Port Ewen\PE_ELEC_HVAC ADD2 08.17.23.dwg

SECOND FLOOR ELECTRICAL HVAC

SCALE: 1/8" = 1'

BID PLANS

SHEET: E203

SECOND FLOOR
HVAC ELECTRICAL
PLAN

PORT EWEN FIRE
DEPARTMENT
ULSTER COUNTY, NY

REVISIONS

NO.	DATE	DESCRIPTION
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2	8/17/23	ADDENDUM#2

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