



# **SENECA NIAGARA CASINO**

**310 4TH STREET** NIAGARA FALLS, NEW YORK 14303

**UPS-1 REPLACEMENT** 

100% DESIGN DOCUMENTS January 26, 2024



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Wendel Project No. 425570





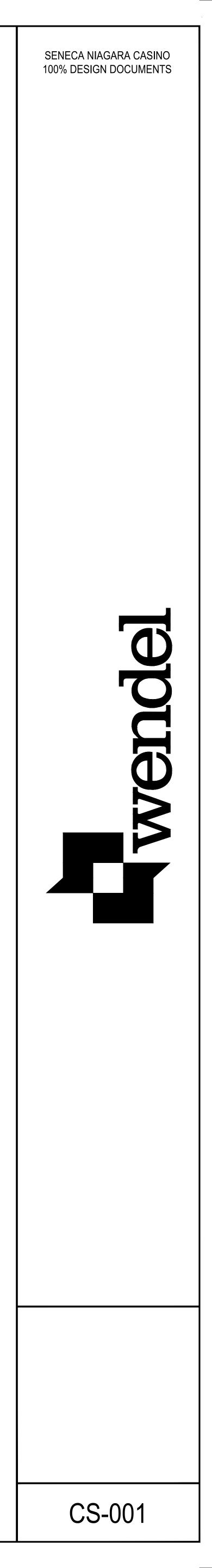
## DRAWING INDEX

COVERSHEET

ELECTRICAL E001 ELECTRICAL LEGEND AND ABBREVIATIONS E101 POWER PLAN

E102 STAGING PLAN

E601 SINGLE LINE DIAGRAM



RECEPTACLE	<u>S</u>	POWER ONE-I	LINE
LP2,12	DUPLEX RECEPTACLE OUTLET, 18" A.F.F., TAMPER RESISTANT, 20AMP COMMERCIAL GRADE GROUNDING TYPE WITH MATCHING COVERPLATE. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.	uttu ⊕rttu	POV
LP2,12	GFCI RECEPTACLE OUTLET, 18" A.F.F., TAMPER RESISTANT, 20AMP COMMERCIAL GRADE GROUNDING TYPE WITH MATCHING COVERPLATE. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.	) XXAF XXAT	MOI
LP2,12	DUPLEX RECEPTACLE OUTLET, 18" AFF., TAMPER RESISTANT, 20AMP COMMERCIAL GRADE GROUNDING TYPE WITH MATCHING COVERPLATE. TAG INDICATES PANELBOARD & DEDICATED BRANCH CIRCUIT THAT IT IS CONNECTED TO. RECEPTACLE SHALL BE SUPPLIED BY A GFCI CIRCUIT BREAKER. PROVIDE LABEL ON COVER "PROTECTED BY GFCI"		DRA
LP2,12	INDICATES (2) TAMPER RESISTANT, 20 AMP, COMMERCIAL GRADE RECEPTACLES IN 2-GANG BOX UNDER A COMMON MATCHING COVERPLATE. RECEPTACLES SHALL BE GROUNDING TYPE. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.		DIS
LP2,12	(2) GFCI RECEPTACLE OUTLETS, 18" A.F.F., TAMPER RESISTANT, 20AMP COMMERCIAL GRADE GROUNDING TYPE IN 2-GANG BACKBOX WITH MATCHING COMMON COVERPLATE. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.	Ç XX A	FUS
LP2,10,12	RANGE OR DRYER OUTLET VERIFY RECEPTACLE NEMA CONFIGURATION, RATING & INSTALLATION HEIGHT WITH SELECTED EQUIPMENT SUPPLIER. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO. COVER PLATES SHALL BE STAINLESS STEEL.	1PP1 225 MLO	
LP2,12	SPECIAL PURPOSE RECEPTACLE AS CALLED FOR ON DRAWINGS OR AS REQUIRED BY EQUIPMENT MANUFACTURER. VERIFY NEMA CONFIGURATION. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.	208Y/120V 3-PHASE 4-WIRE	PAN
LP2,12	FLOOR MOUNTED RECEPTACLE AS CALLED FOR ON DRAWINGS OR AS REQUIRED BY EQUIPMENT MANUFACTURER. UNLESS OTHERWISE NOTED, PROVIDE RECESSED IN CONCRETE WITH A METAL COVER. TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.		
/ALL─►J♂ _OOR──J♂	PROVIDE COMPLETE ELECTRICAL POWER CONNECTION TO MODULAR FURNITURE. WHIP TO BE PROVIDED WITH FURNITURE. CONNECTION SHALL INCLUDE MINIMUM WALL OR FLOOR JUNCTION BOX, WIRING TO CIRCUIT INDICATED, FINAL CONNECTION TO APPROPRIATE FURNITURE GROUP.		TRA
FB1● <sub>LP2,12</sub>	TYPE #1 FLOOR BOX WITH (1) DUPLEX RECEPTACLE.UNLESS OTHERWISE NOTED, PROVIDE RECESSED IN CONCRETE WITH A METAL COVER.TAG INDICATES PANELBOARD & BRANCH CIRCUIT THAT IT IS CONNECTED TO.	GFP	GR
POWER		SPD	SUF
J	WALL MOUNTED JUNCTION BOX, SIZE AS INDICATED OR PROVIDE MINIMUM SIZE REQUIRED BY LATEST EDITION OF NATIONAL ELECTRICAL CODE (NFPA 70-NEC).	PQM	POV
J	CEILING MOUNTED JUNCTION BOX, SIZE AS INDICATED OR PROVIDE MINIMUM SIZE REQUIRED BY LATEST EDITION OF NATIONAL ELECTRICAL CODE (NFPA 70-NEC).	DVM	DIG
•	PROVIDE COMPLETE ELECTRICAL CONNECTION TO EQUIPMENT INDICATED (INCLUDING DISCONNECT, CONDUCTORS, RACEWAY, & OTHER REQUIRED HARDWARE. XX-X INDICATES EQUIPMENT TAG. REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.	65000	AVA
<b>\O</b> '	PROVIDE COMPLETE ELECTRICAL CONNECTION TO MOTOR INDICATED (INCLUDING DISCONNECT, STARTER, CONDUCTORS, RACEWAY, & OTHER REQUIRED HARDWARE. XX-X INDICATES EQUIPMENT TAG. REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.		
●	EMERGENCY POWER OFF BUTTON (EPO). PROVIDE WHERE INDICATED ON DRAWINGS. PROVIDE ALL REQUIRED INTERFACES AS CALLED FOR ON DRAWINGS OR REQUIRED BY EQUIPMENT MANUFACTURER.		
	ELECTRICAL PANELBOARD, SURFACE MOUNTED. UNLESS OTHERWISE NOTED, INSTALL AT 72" A.F.F. TO THE TOP OF THE BOX.		
	ELECTRICAL PANELBOARD, FLUSH MOUNTED. UNLESS OTHERWISE NOTED, INSTALL AT 72" A.F.F. TO THE TOP OF THE BOX.		
• <b>9</b> [] 9 []	TYPICAL DISCONNECT (SAFETY SWITCH). REFER TO DRAWINGS FOR SIZE & ADDITIONAL FUSING REQUIREMENTS.		
	TYPICAL DRY-TYPE TRANSFORMER (SIZE MIGHT VARY). UNLESS OTHERWISE NOTED, PROVIDE FLOOR MOUNTED WITH CONCRETE EQUIPMENT PAD.		

ELECTRICAL PIECE OF EQUIPMENT. REFER TO DRAWINGS FOR ADDITIONAL INFORMATION.

OWER TRANSFORMER, DELTA PRIMARY, WYE SECONDARY OR AS INDICATED. PROVIDE ALL REQUIRED GROUNDING.

MOLDED CASE CIRCUIT BREAKER. AF INDICATES FRAME SIZE, AT INDICATES TRIP SETTING

RAWOUT TYPE CIRCUIT BREAKER. AF INDICATES FRAME SIZE, AT INDICATES TRIP SETTING

DISCONNECT SWITCH & FUSIBLE SWITCH. XXAS INDICATES SWITCH AMPERE SIZE XXAF INDICATES FUSE AMPERE SIZE

FUSE, XX A INDICATES FUSE SIZE IN AMPERES.

ANELBOARD

RANSFER SWITCH.

BROUND FAULT PROTECTION.

SURGE PROTECTION.

OWER QUALITY METER.

DIGITAL VOLT METER.

VAILABLE FAULT CURRENT TAG (AMPS)

GENERAL NOTES: (FOR ALL DRAWINGS)

- A. THE DRAWINGS ARE DIAGRAMMATIC & INDICATE GENERALLY THE LOCATIONS OF THE MATERIAL & EQUIPMENT. THESE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE.
- B. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER INSTALLATION & OPERATION, SHALL BE INCLUDED IN THE CONTRACTOR'S BID, THE SAME AS IF HEREIN SPECIFIED OR SHOWN.
- C. ALL MATERIAL & INSTALLATION SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE NATIONAL ELECTRIC CODE, LATEST EDITION OF LOCAL CODES, & ORDINANCES.
- D. ALL CONDUITS ON EXPOSED WORK SHALL BE RUN AT RIGHT ANGLES TO, & PARALLEL WITH, THE SURROUNDING WALL & SHALL CONFORM TO THE FORM OF THE CEILING. DIAGONAL RUNS WILL NOT BE ALLOWED. BENDS IN PARALLEL CONDUIT RUNS SHALL BE CONCENTRIC. ALL CONDUIT SHALL RUN PERFECTLY STRAIGHT & TRUE.
- E. ALL CONDUIT RUNS ARE TO BE CONCEALED IN WALLS, CEILINGS, OR IN THE SLAB. CONTRACTOR SHALL COORDINATE CONDUIT INSTALLATION DURING BUILDING CONSTRUCTION WITH OTHER TRADES. RUN SURFACE RACEWAY ONLY WHERE CALLED FOR OR SHOWN ON THE DRAWINGS. EXPOSED CONDUIT SHALL ONLY BE INSTALLED WHERE MEANS OF CONCEALING DOES NOT EXIST. CONTRACTOR IS TO NOTIFY ENGINEER & GET OWNERS APPROVAL PRIOR TO RUNNING EXPOSED CONDUITS.
- F. INTERIOR RECEPTACLE & LIGHT FIXTURE BRANCH CIRCUITS SHALL BE IN EMT CONDUIT. A MAXIMUM OF (3) CIRCUITS CAN BE GROUPED TOGETHER IN A HOMERUN CONDUIT. EACH CIRCUIT SHALL HAVE SEPARATE NEUTRAL, GROUPING OF NEUTRALS SHALL NOT BE ACCEPTABLE. EACH CIRCUIT SHALL ALSO HAVE A GROUND WIRE SIZED PER NEC. USING CONDUIT, OR MC CABLE AS GROUND PATH SHALL NOT BE ACCEPTABLE. CABLE MUST BE SUPPORTED PER NEC, GROUPING OF GROUND WIRES [(1) GROUND PER (3) CIRCUITS] IS ACCEPTABLE. MAXIMUM 6' LENGTH OF MC CABLE ALLOWED FOR A WHIP CONNECTION TO LUMINAIRE ONLY. EXTERIOR (OUTDOOR) RECEPTACLE & LIGHT FIXTURE BRANCH CIRCUITS SHALL BE IN RMC CONDUIT OR AS PERMITTED IN THE SPECIFICATIONS.
- G. COORDINATE ALL LUMINAIRE & CEILING MOUNTED EQUIPMENT LOCATIONS & MOUNTING HARDWARE WITH ARCHITECTURAL CEILING PLANS PRIOR TO CONSTRUCTION.
- H. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED COSTS FOR SEALING ALL PENETRATIONS THROUGH FIRE & SMOKE WALLS USING UL APPROVED SEALANT & METHODS.
- I. CONTRACTOR MAY REUSE EXISTING CONCEALED CONDUIT UNLESS OTHERWISE NOTED ON THE PLANS.
- J. ALL RECEWAYS CROSSING BUILDING EXPANSION JOINTS SHALL BE EQUIPPED WITH EXPANSION FITTINGS.
- K. CONTRACTOR SHALL PROVIDE INFORMATION LABELS ON ALL RECEPTACLES, PANELBOARDS, JUNCTION BOXES, WALL SWITCHES, & DISCONNECT SWITCHES. LABELS SHALL BE PHENALIC TYPE WITH BLACK BACKGROUND & WHITE ENGRAVED LETTERING. LABEL SHALL INDICATED CIRCUIT/FEEDER SOURCE & EQUIPMENT ID NAME.

#### **ABBREVIATIONS:**

WP	INDICATES WEATHERPROOF DEVICE OR EQUIPMENT
WG	INDICATES DEVICE SHALL HAVE WIRE GUARD PROTECTION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
(ETR)	EXISTING EQUIPMENT SHALL REMAIN IN PLACE
ÒC Í	OVER COUNTER (INSTALL 12" ABOVE COUNTER HEIGHT)
UC	UNDER COUNTER (INSTALL 18" ABOVE FINISHED FLOOR)
VNAC	VISUAL NOTIFICATION APPLIANCE CIRCUIT
ANAC	AUDIO NOTIFICATION APPLIANCE CIRCUIT
SLC	SIGNALING LINE CIRCUIT
ATS	AUTOMATIC TRANSFER SWITCH
HP	HORSEPOWER
kW	KILOWATT
kVA	KILOVOLT-AMPERES
VFD	VARIABLE FREQUENCY DRIVE
EM	EMERGENCY
NL	NIGHTLIGHT (TYPICAL FOR LIGHTING, 'ON' ALL THE TIME)
LTG	LIGHTING
CPWR	CONTINUOUS LOAD (POWER)
PWR	POWER
EH	ELECTRIC HEAT
KIT	KITCHEN EQUIPMENT
LMTR	LARGEST MOTOR
EQP	SHOP EQUIPMENT
NEC	NATIONAL ELECTRICAL CODE

MLO MAIN LUGS ONLY MCB AWG MAIN CIRCUIT BREAKER AMERICAN WIRE GAGE

## **BRANCH CIRCUIT WIRING NOTES:**

A. UNLESS OTHERWISE NOTED, MINIMUM HOMERUN (HOMERUN SHALL BE CONSIDERED TOTAL LENGTH FROM SOURCE TO LAST DEVICE ON THE CIRCUIT) CONDUCTORS FOR 20A/1P BRANCH CIRCUITS INCLUDING LIGHTING SHALL BE AS FOLLOWS: 1-100FT - #12 AWG • 101-150FT - #10 AWG

- 151-250FT #8 AWG • 251-400FT - #6 AWG.
- 401 & LONGER #4 AWG. REDUCE CONDUCTORS SIZE TO A MAXIMUM CONDUCTOR SIZE THAT THE LOAD TERMINALS CAN ACCOMMODATE, REDUCED SIZE NOT LONGER THAN ONE FOOT. INCREASE RACEWAY SIZE AS NEEDED PER NEC, FOR THE LARGER SIZES OF CONDUCTORS.

# REMOVAL (TYPICAL FOR ALL DEVICES):



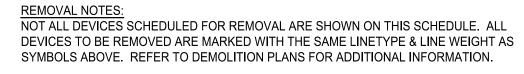
TYPICAL POWER & SYSTEMS DEVICE SCHEDULED FOR REMOVAL. DISCONNECT & REMOVE ALL ASSOCIATED ELECTRICAL WORK AS INDICATED ON CONTRACT DOCUMENTS. REINSTALL AS REQUIRED

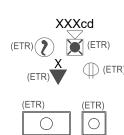
 Typical luminaire scheduled for removal. Refer t

 Luminaire schedule for additional information.

TYPICAL LUMINAIRE SCHEDULED FOR REMOVAL. REFER TO



# EXISTING TO REMAIN (TYPICAL FOR ALL DEVICES):



TYPICAL POWER & SYSTEMS DEVICE EXISTING TO REMAIN IN PLACE.

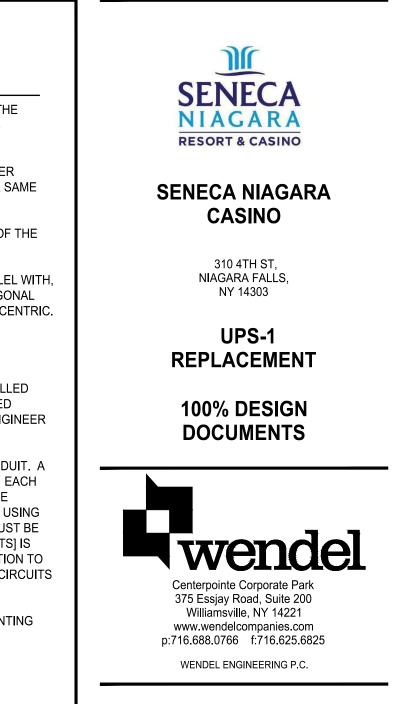


(ETR) (ETR)

EXISTING TO REMAIN NOTES: NOT ALL EXISTING DEVICES SCHEDULED TO REMAIN ARE SHOWN ON THIS SCHEDULE. ALL DEVICES SCHEDULED TO REMAIN ARE MARKED WITH THE SAME LINETYPE & LINE WEIGHT AS SYMBOLS ABOVE. REFER TO FLOOR PLAN DRAWINGS FOR ADDITIONAL INFORMATION.

GENERAL SYMBOLS NOTE:

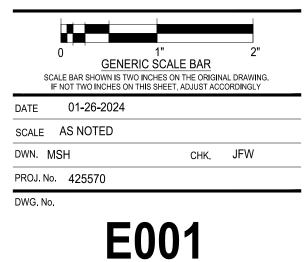
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NO

DWG. TITLE



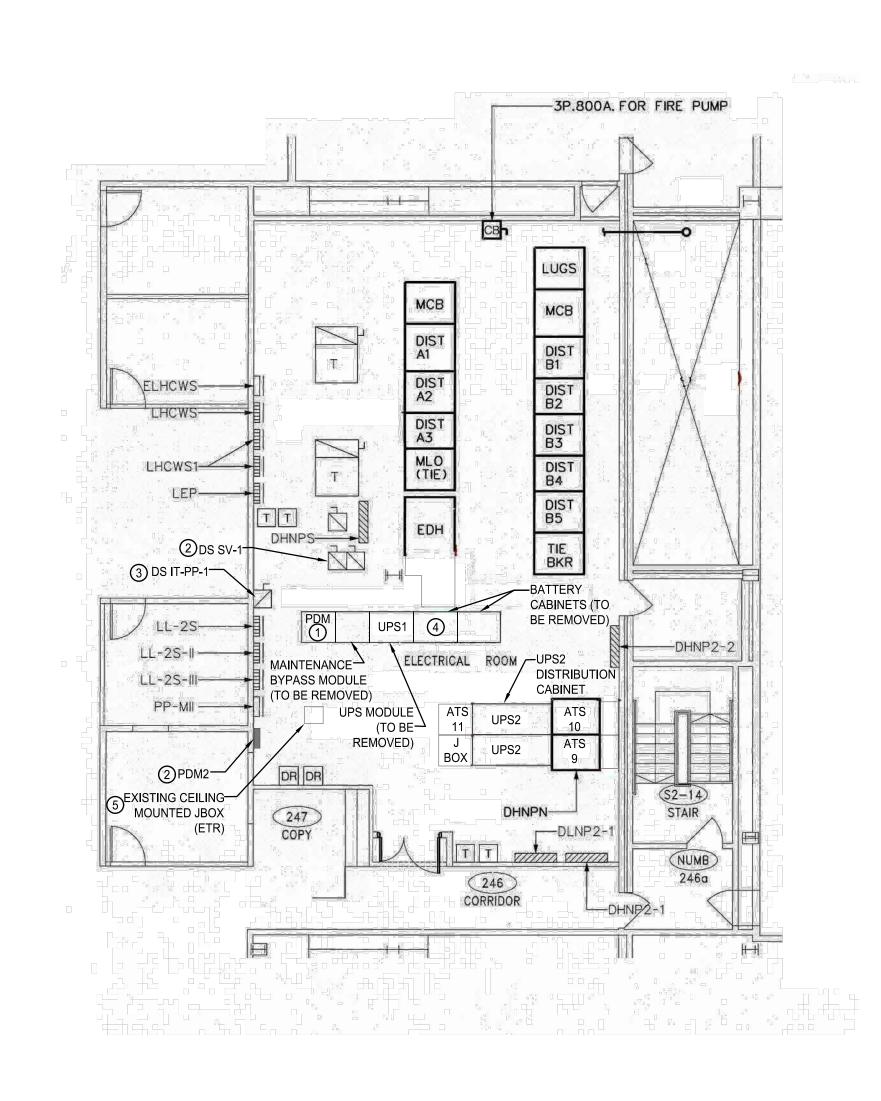
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REVISIONS

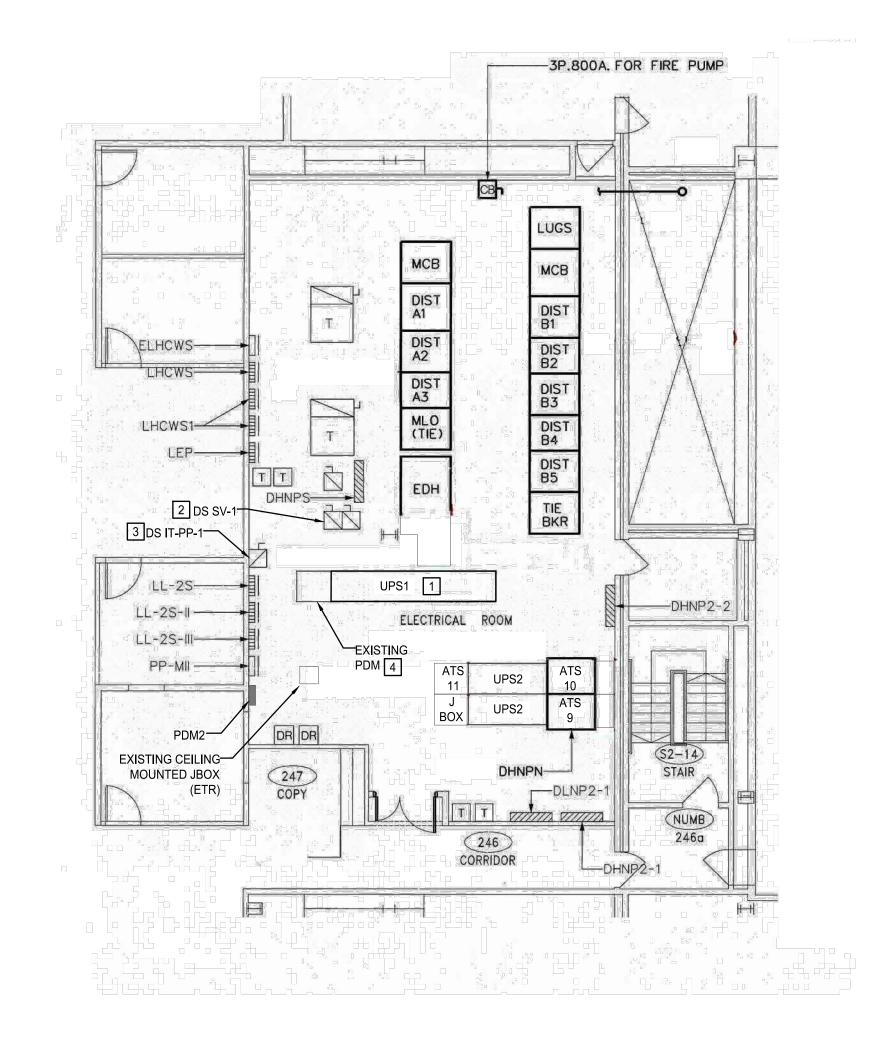
ELECTRICAL LEGEND

AND ABBREVIATIONS

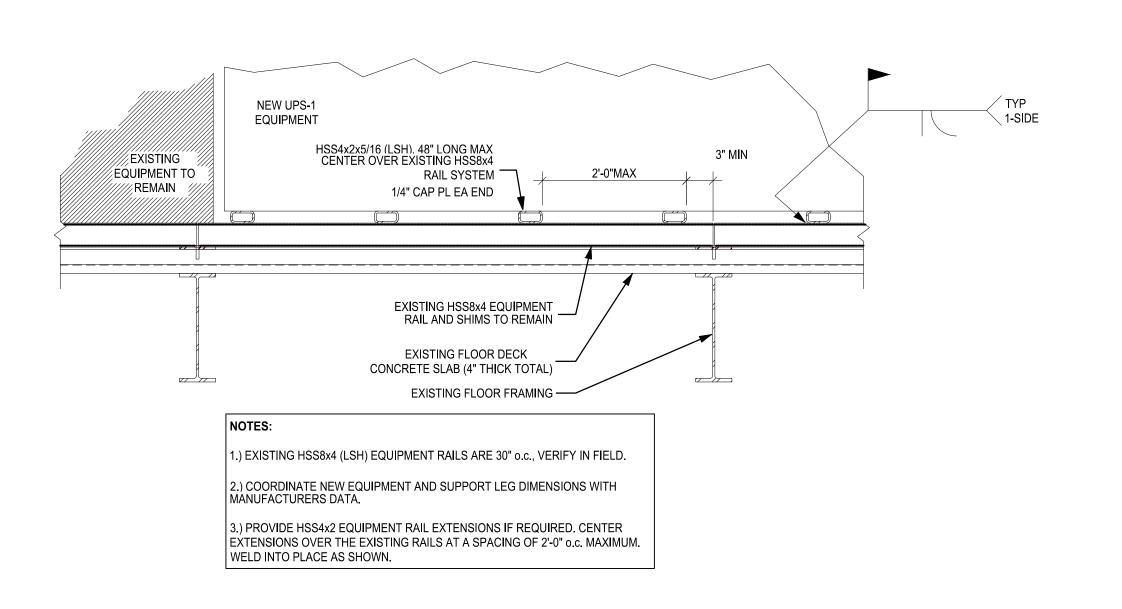
DATE



1) EXISTING POWER PLAN



2 PROPOSED POWER PLAN SCALE: 1/8"=1'



3 STRUCTURAL SUPPORT

## GENERAL DEMOLITION NOTES:

- A. MAINTAIN INTEGRITY OF EXISTING CIRCUIT WIRING PRESENTLY INSTALLED & SERVING EQUIPMENT OUTSIDE THE WORK AREA. VERIFY ROUTE OF EACH FEEDER & BRANCH CIRCUIT SCHEDULED FOR REMOVAL.
- B. PROVIDE PROTECTION FOR ALL EXISTING CONSTRUCTION SYSTEMS/EQUIPMENT SCHEDULED TO REMAIN DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OR RECONDITIONING OF EQUIPMENT/ITEMS DAMAGED DURING REMOVALS.
- C. FIRE ALARM & SECURITY SYSTEMS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. PROVIDE TEMPORARY WIRING AS REQUIRED TO MAINTAIN FIRE ALARM SYSTEM DETECTION/NOTIFICATION THROUGHOUT CONSTRUCTION PHASE & OPERATION OF SECURITY SYSTEM. NOTIFY OWNER OF AREAS TO BE SHUTDOWN WHILE WORK IS BEING PERFORMED. FIRE ALARM & SECURITY SYSTEMS SHALL BE FULLY OPERATIONAL AT END OF EACH WORK DAY. CONTRACTOR SHALL NOT LEAVE ANY AREAS WITHOUT FIRE ALARM SYSTEM BEING FULLY FUNCTIONAL & SECURITY SYSTEM FULLY OPERATIONAL.
- D. UNLESS OTHERWISE NOTED, DISCONNECT & REMOVE ALL ELECTRICAL WORK ASSOCIATED WITH DEVICE/FIXTURES SCHEDULED FOR REMOVAL. ASSOCIATED ELECTRICAL WORK SHALL INCLUDE CONDUIT, BOXES, CONNECTORS, ETC. BACK TO SOURCE PANEL.
- E. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL ELECTRICAL DEVICES & MISC. ITEMS AS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR ANY COST ASSOCIATED WITH DISPOSAL.
- H. DEMOLITION SHOWN SHALL BE SELECTIVE. UNLESS OTHERWISE INDICATED ON THE PLAN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF DISCREPANCIES FOUND IN THE FIELD PRIOR TO DEMOLITION OF ANY ITEMS NOT SHOWN. CONTRACTOR SHALL, AT HIS EXPENSE, REPLACE OR REPAIR ANY DEMOLISHED ITEM(S) THAT WERE NOT CALLED FOR ON THE PLANS OR BROUGHT TO ENGINEERS ATTENTION.

#### $\otimes$ DEMOLITION NOTES:

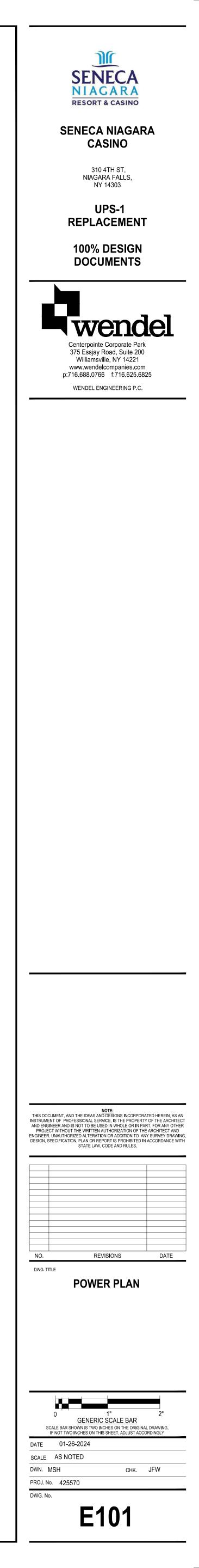
- 1. PDM POWER DISTRIBUTION MODULE, EXISTING TO REMAIN. TEMPORARILY REFEED PDM FROM UPS-2. PROVIDE 250AF BREAKER IN UPS-2 TYPE TO MATCH EXISTING. PROVIDE (4)#3/0, (1)#6GND FROM UPS-2 TO TERMINAL LUGS IN PDM.
- 2. COORDINATE WITH OWNER TRANSFER OF ALL LOADS ON ASSOCIATED PANEL TO ALTERNATE SOURCE (UPS-2). EACH LOAD HAS REDUNDANT RECEPTACLE AT ITS LOCATION AND MUST BE TRANSFERRED OVER.
- 3. TEMPORARILY REFEED DS IT-PP-1 FROM UPS-2, EXISTING SPARE BREAKER CB-11. PROVIDE (4) #3/0, (1) #6GND TO DS IT-PP-1.
- 4. UPS-1; TO BE REMOVED AND TURNED OVER TO OWNER. CONTRACTOR RESPONSIBLE FOR TRANSPORTING UPS TO LOCATION ON SITE (OUTSIDE OF THE ELECTRICAL ROOM) TO BE DETERMINED BY THE OWNER. DISCONNECT FEED TO UPS-1 FROM EDH AND DHNP2-1 AND PREPARE FOR REUSE.
- 5. EXISTING JBOX FED FROM UPS2 CB11 SPARE BREAKER, SEE ONE LINE DIAGRAM ON DRAWING E601. UTILIZE THIS JBOX TO FEED DS IT-PP-1.

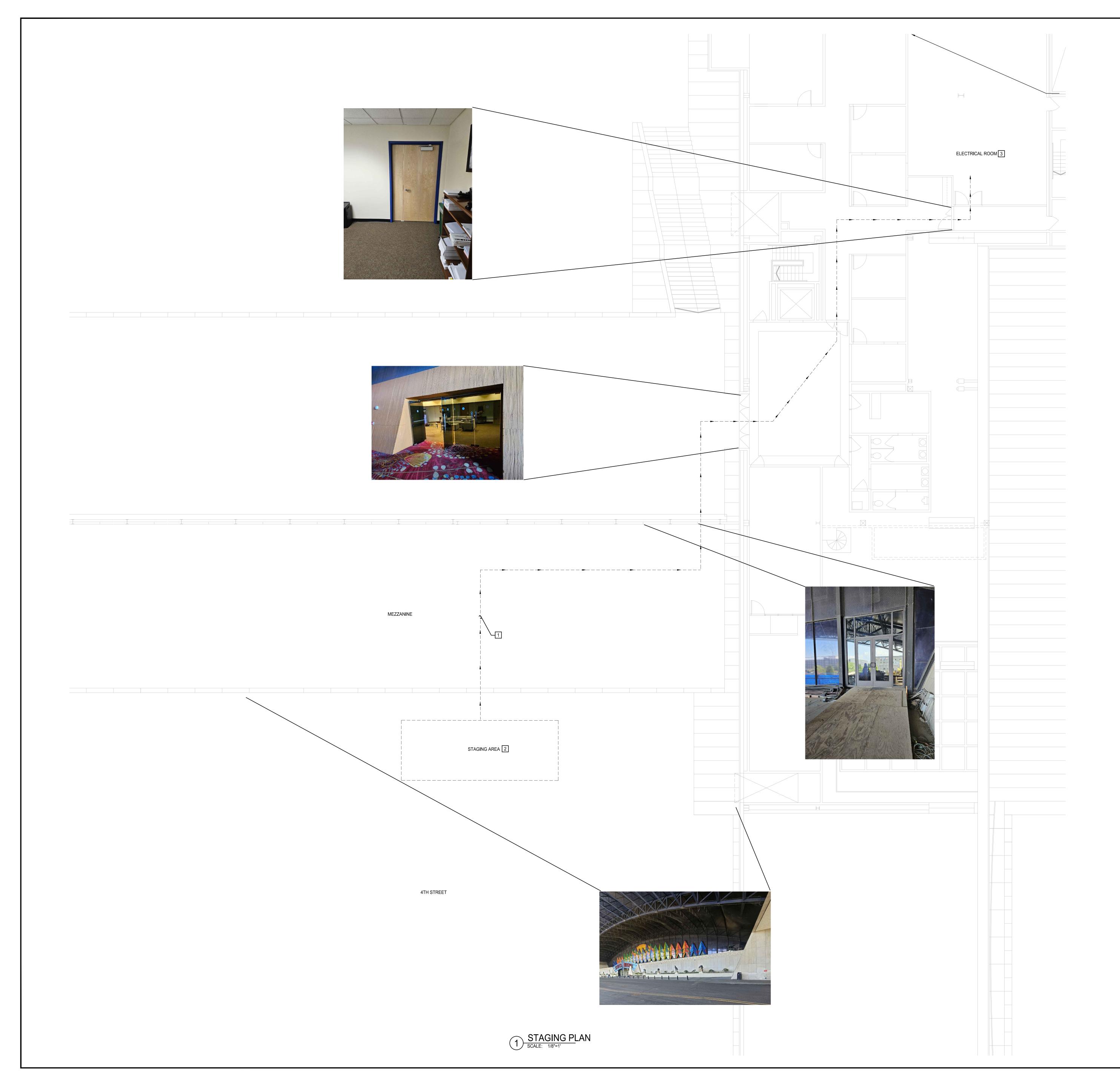
#### **GENERAL NOTES:**

- A. ANY REQUIRED ELECTRICAL EQUIPMENT SHUTDOWN SHALL BE COORDINATED WITH OWNER REPRESENTATIVE. WORK SHALL BE PERFORMED DURING OFF HOURS AS DETERMINED BY OWNER. CONTRACTOR TO PROVIDE WRITTEN NOTICE A MINIMUM OF 1 WEEK PRIOR TO ANY SHUTDOWN.
- B. CONTRACTOR TO PROTECT LOOSE TEMPORARY WIRING FROM ACCIDENTAL DAMAGE PER NEC 590.4(H) AND TO SUPPORT LOOSE CABLES PER NEC 590.4(J).

#### ☑ CONSTRUCTION NOTES:

- 1. MOUNT NEW UPS TO EXISTING RAIL STRUCTURE, SEE DETAIL 3 THIS DRAWING. SEE ONE LINE DIAGRAM ON E601 FOR CONDUIT AND WIRE FOR CONNECTIONS TO EXISTING PDM, EXISTING DISCONNECTS IT-PP-1, AND SV-1. RECONNECT 480V RECTIFIER INPUT AND BYPASS INPUT FEEDS FROM PANELS EDH AND DHNP2-1 RESPECTIVELY.
- 2. DISCONNECT EXISTING FEED TO DS SV-1 AND RECONNECT TO NEW 200A DISTRIBUTION BREAKER. SEE ONE LINE DIAGRAM ON E601 FOR ADDITIONAL DETAILS.
- 3. DISCONNECT TEMPORARY FEED TO DS IT-PP-1 AND RECONNECT TO NEW 200A DISTRIBUTION BREAKER IN UPS-1, SEE ONE LINE DIAGRAM ON DRAWING E601.
- 4. REFEED EXISTING PDM FROM NEW UPS OUTPUT BREAKER, (1) 250A BREAKER. SEE PROPOSED ONE LINE DIAGRAM DETAIL 3 ON DRAWING E601.



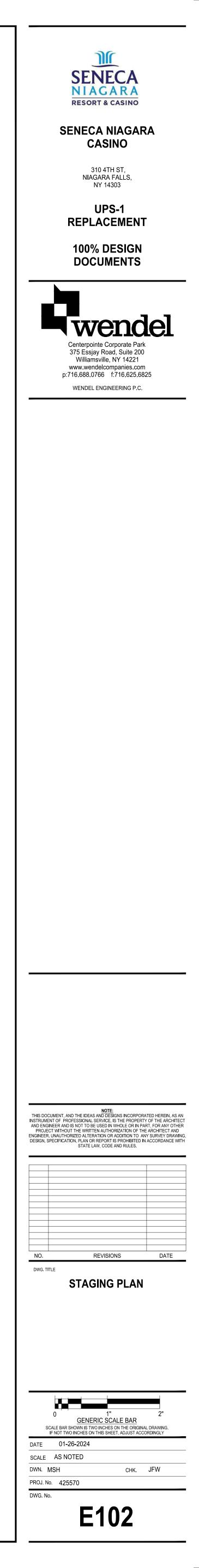


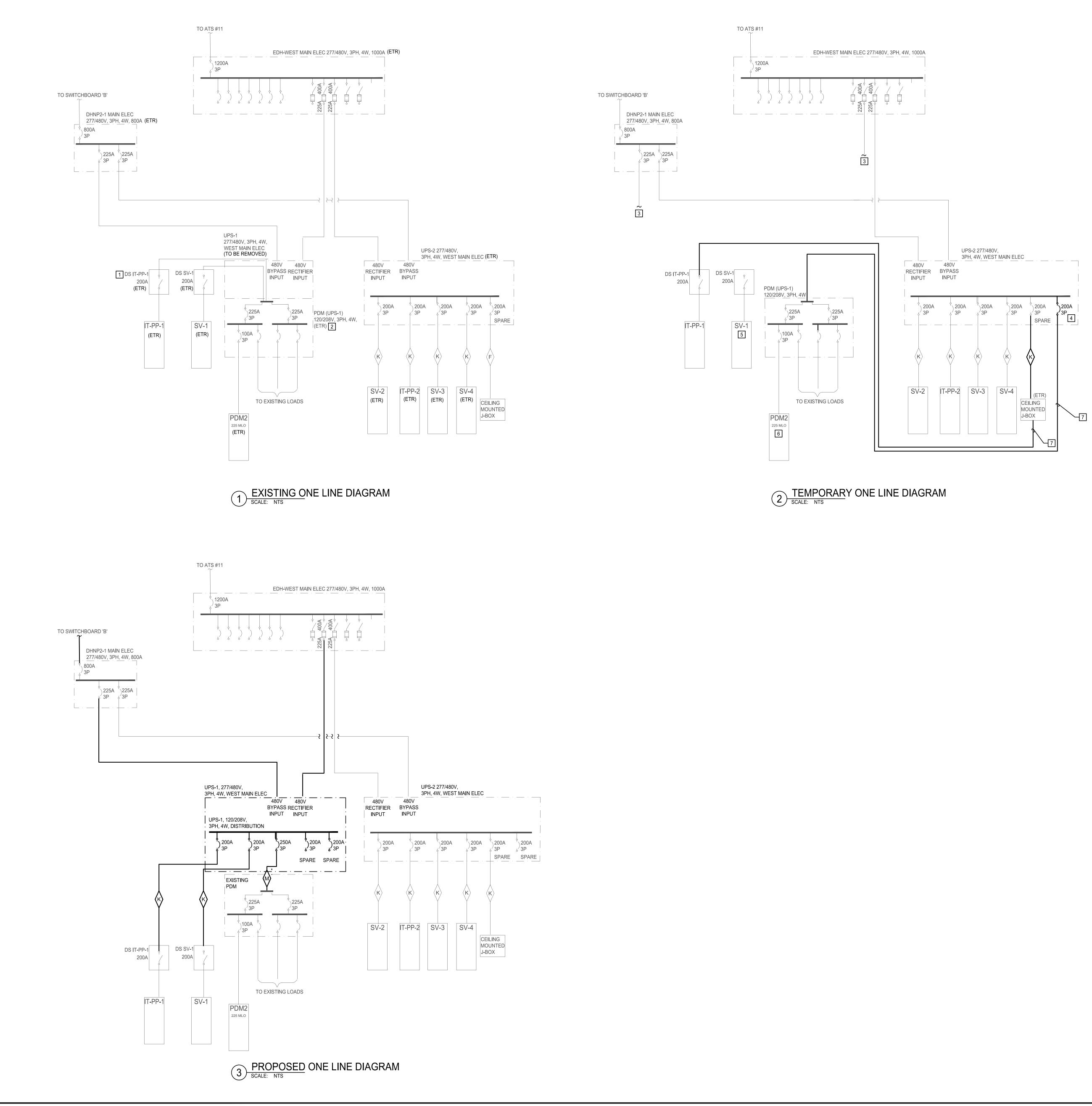
## GENERAL NOTES:

A. CONTRACTOR RESPONSIBLE FOR TRANSPORTING THE NEW UPS FROM OWNER'S WAREHOUSE LOCATED AT 6000 PACKARD RD, SUITE 100 NIAGARA FALLS 14304 TO THE SITE. CONTRACTOR RESPONSIBLE FOR ALL RIGGING NECESSARY FOR INSTALLATION OF THE UPS SYSTEM IN THE 2ND FLOOR ELECTRICAL ROOM.

#### ☑ CONSTRUCTION NOTES:

- 1. PROPOSED PATH FOR TRANSPORTING THE UPS EQUIPMENT INTO THE ELECTRICAL ROOM. CONTRACTOR TO INSPECT AND FIELD VERIFY PATH PRIOR TO DELIVERY OF UPS.
- 2. STAGING AREA; CONTRACTOR TO UTILIZE THIS AREA FOR ALL STAGING AND RIGGING. UPS EQUIPMENT TO BE CRANED/LIFTED ONTO THE MEZZANINE AREA FROM THIS LOCATION AND THEN BROUGHT INTO THE ELECTRICAL ROOM FOLLOWING THE PATH NOTED. CONTRACTOR TO PROTECT EXISTING EQUIPMENT AND PIPING LOCATED ON THE MEZZANINE WHILE TRANSPORTING THE UPS. CONTRACTOR RESPONSIBLE FOR ANY TRAFFIC CONTROL NEEDED ON 4TH STREET DURING THE PROCESS OF RIGGING OF THE UPS EQUIPMENT.
- ELECTRICAL ROOM; SEE DRAWING E-101 FOR LOCATION OF UPS IN THE ELECTRICAL ROOM.





	FEEDER SIZE SCHEDULE (COPPER)											
		WIRE SIZE AWG OR KCMIL		EDERS WITH NT GROUND	3-WIRE FEEDERS WITH EQUIPMENT GROUND		4-WIRE SEPARATELY DERIVED SYSTEM FEEDERS GROUNDING ELECTRODE CONDUCTOR			4-WIRE FEEDERS W/O EQUIPMENT GROUND (UTILITY SECONDARY)		
RATING	PHASE & NEUTRAL	GND.		CONDUIT SIZE		CONDUIT SIZE	#	GEC	CONDUIT SIZE		CONDUIT SIZE	
20	12	12	А	3/4"	A1	3/4"	A2	8	3/4"	A3	3/4"	
30	10	10	В	3/4"	B1	3/4"	B2	8	3/4"	B3	3/4"	
40	8	10	С	3/4"	C1	3/4"	C2	8	3/4"	C3	3/4"	
60	6	10	D	1"	D1	1"	D2	8	1"	D3	1"	
70	4	10	E	1-1/4"	E1	1-1/4"	E2	8	1-1/4"	E3	1 1/4"	
100	2	8	F	1-1/4"	F1	1-1/4"	F2	8	1-1/4"	F3	1 1/4"	
110	1	6	G	1-1/2"	G1	1-1/2"	G2	6	1-1/2"	G3	1 1/2"	
125	1/0	6	Н	2"	H1	2"	H2	6	2"	H3	2"	
150	1/0	6	I	2"	I1	2"	12	6	2"	13	2"	
175	2/0	6	J	2"	J1	2"	J2	4	2"	J3	2"	
200	3/0	6	K	2"	K1	2"	K2	4	2"	K3	2"	
225	4/0	4	L	2-1/2"	L1	2-1/2"	L2	2	2-1/2"	L3	2 1/2"	
250	250	4	М	2-1/2"	M1	2-1/2"	M2	2	2-1/2"	M3	2 1/2"	
300	350	4	N	3"	N1	3"	N2	2	3"	N3	3"	
350	500	2	0	3"	01	3"	O2	2	3"	O3	3"	
400	600	2	Р	4"	P1	3"	P2	1/0	3"	P3	3"	
450	(2) 4/0	2	Q	(2) 2-1/2"	Q1	(2) 2-1/2"	Q2	1/0	(2) 2-1/2"	Q3	(2) 2-1/2"	
500	(2) 250	2	R	(2) 2-1/2"	R1	(2) 2-1/2"	R2	1/0	(2) 2-1/2"	R3	(2) 2-1/2"	
600	(2) 350	1	S	(2) 4"	S1	(2) 4"	S2	3/0	(2) 4"	S3	(2) 4"	
700	(2) 500	1/0	Т	(2) 4"	T1	(2) 4"	T2	3/0	(2) 4"	Т3	(2) 4"	
800	(2) 600	1/0	U	(2) 4"	U1	(2) 4"	U2	3/0	(2) 4"	U3	(2) 4"	
1000	(3) 500	2/0	V	(3) 4"	V1	(3) 4"	V2	3/0	(3) 4"	V3	(3) 4"	
1200	(3) 600	3/0	W	(3) 4"	W1	(3) 4"	W2	3/0	(3) 4"	W3	(3) 4"	
1600	(4) 600	4/0	Х	(4) 4"	X1	(4) 4"	X2	3/0	(4) 4"	X3	(4) 4"	
2000	(5) 600	250	Y	(5) 4"	Y1	(5) 4"	Y2	3/0	(5) 4"	Y3	(5) 4"	
2500	(6) 600	350	Z	(6) 4"	Z1	(6) 4"	Z2	3/0	(6) 4"	Z3	(6) 4"	
3000	(8) 500	500	AA	(8) 4"	AA1	(8) 4"	AA2	3/0	(8) 4"	AA3	(8) 4"	
4000	(10) 600	500	BB	(10) 4"	BB1	(10) 4"	BB2	3/0	(10) 4"	BB3	(10) 4"	
5000	(12) 600	2-500	CC	(12) 4"	CC1	(12) 4"	CC2	3/0	(12) 4"	CC3	(12) 4"	
6000	(16) 500	2-500	DD	(16) 4"	DD1	(16) 4"	DD2	3/0	(16) 4"	DD3	(16) 4"	

- **GENERAL NOTES:**
- A. ANY REQUIRED ELECTRICAL EQUIPMENT SHUTDOWN SHALL BE COORDINATED WITH OWNER REPRESENTATIVE. WORK SHALL BE PERFORMED DURING OFF HOURS AS DETERMINED BY OWNER. CONTRACTOR TO PROVIDE WRITTEN NOTICE A MINIMUM OF 1 WEEK PRIOR TO ANY SHUTDOWN.
- ☑ CONSTRUCTION NOTES:
- 1. IT-PP-1 TO BE TEMPORARILY FED FROM EXISTING SPARE BREAKER CB-11 IN UPS-2, SEE TEMPORARY ONE LINE DIAGRAM THIS DRAWING AND DRAWING E101. 2. PDM (UPS-1) TO BE TEMPORARILY FED FROM UPS-2. SEE TEMPORARY ONE LINE THIS DRAWING AND DRAWING E101 FOR ADDITIONAL DETAILS. TERMINATE WIRES ON
- TERMINAL LUGS IN PDM. 3. EXISTING CONDUCTORS TO UPS-1 TO REMAIN AND BE PREPARED FOR REUSE. UTLIZE EXISTING CONDUCTORS TO REFEED NEW UPS-1 UNIT. EXTEND CONDUCTORS AS NECESSARY. BREAKERS FEEDING THESE CONDUCTORS TO BE LOCKED IN THE OFF POSITION UNTIL RECONNECTION TO THE NEW UPS-1 IS COMPLETE.
- 4. PROVIDE 250AF BREAKER IN AVAILABLE SPACE IN UPS2, TYPE TO MATCH EXISTING. SET TO 200A TRIP.
- 5. LOADS ON SV-1 TO BE TRANSFERRED TO UPS-2 VIA RECEPTACLE LOCATED AT THE LOAD. SEE DRAWING E101 FOR ADDITIONAL INFORMATION. LOADS TO BE TRANSFERRED BACK TO UPS1 ONCE NEW UPS IS INSTALLED.
- 6. LOADS ON PDM2 TO BE TRANSFERRED TO UPS-2 VIA RECEPTACLE LOCATED AT THE LOAD. SEE DRAWING E101 FOR ADDITIONAL INFORMATION. EXISTING FEED FROM UPS1 PDM TO REMAIN, LOADS TO BE TRANSFERRED BACK TO UPS1 WHEN NEW UPS INSTALLED.
- 7. PROVIDE (4)#3/0 AND #6 GND FOR TEMPORARY POWER FEEDS, WELDING CABLE ACCEPTABLE. CONTRACTOR TO PROTECT LOOSE TEMPORARY WIRING FROM ACCIDENTAL DAMAGE PER NEC 590.4(H) AND TO SUPPORT LOOSE CABLES PER NEC 590.4(J).

