# UPSTATE NEW GENERATOR INSTALLATION HODGE CENTER

SC STATE PROJECT #H34-I375

# UNIVERSITY OF SOUTH CAROLINA UPSTATE CAMPUS

Spartanburg, South Carolina

# PROJECT TEAM

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# INDEX OF DRAWINGS

### ELECTRICAL DRAWINGS

PROJECT TITLE SHEET

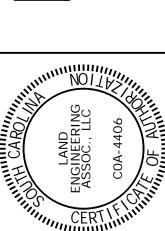
GENERAL NOTES, LEGEND, DETAILS, AND SCHEDULES

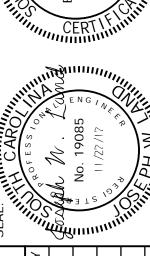
ELECTRICAL SINGLE-LINE DIAGRAM: RENOVATION

BASEMENT ELECTRICAL RENOVATION PLAN AND DETAILS 1st FLOOR ELECTRICAL RENOVATION PLAN AND SCHEDULES

2nd FLOOR ELECTRICAL RENOVATION PLAN

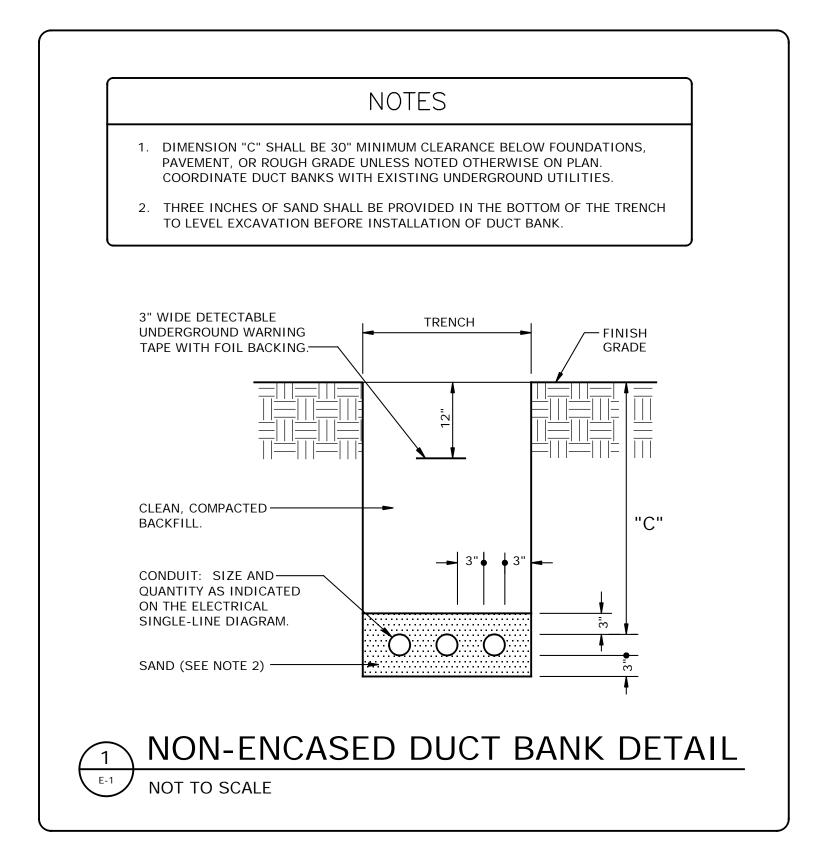


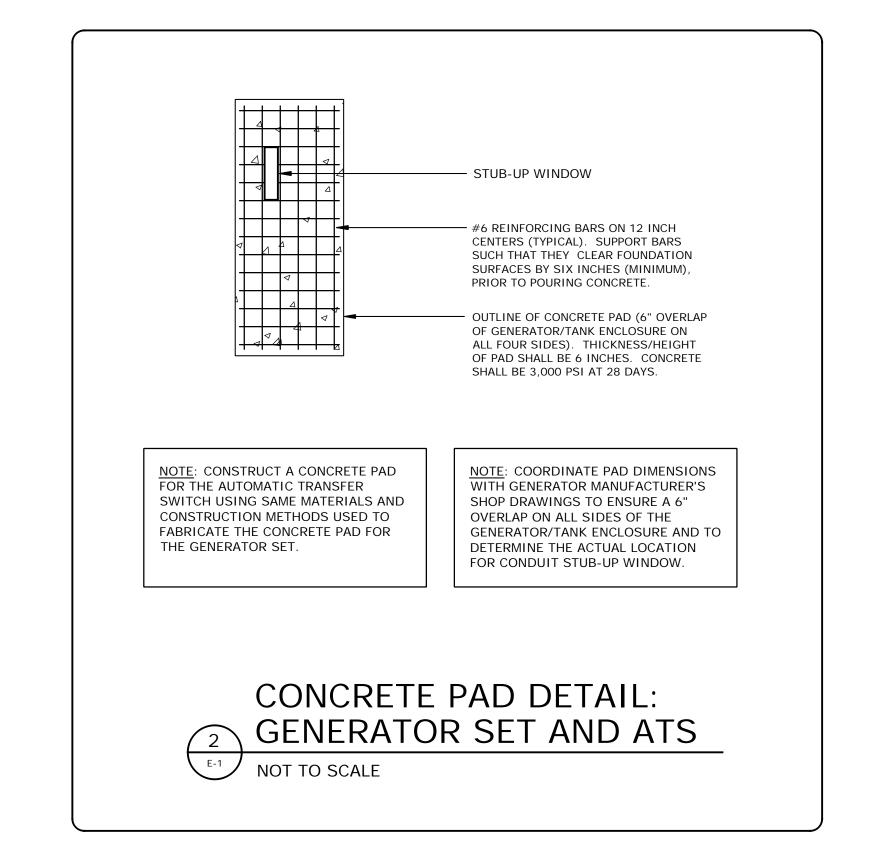






VICINITY MAP





225 AMP MAIN BREAKER NEMA-1 ENCLOSURE, SURFACE MOI	INITED								
35,000 A.I.C. SYM. (MINIMUM)	טווונט								
,									
LOADS SERVED	BKR. AMP	LOAD		(S / N)	)	l	LOAD	BKR.	LOADS SERVED
		KVA		(3 / 11)	NO.	KVA	AMP	EGNES SERVED	
XIST. F.A. & LTG. CIRCUIT BEM2	20	1.2	1			2	-	-	-
XISTING LIGHTING CIRCUIT BLP1-1	20	1.2	3	ļ <del>-   •  </del>		4	-	-	-
XISTING LIGHTING CIRCUIT BLP1-3		1.2	5	ļ—´ <u> </u>		6	-	-	-
XISTING LIGHTING CIRCUIT BLP1-5	20	1.2	7	<u> </u>		8	-	-	-
XISTING LIGHTING CIRCUIT BLP1-7	20	1.2	9			10	-	-	-
SPARE	20	0.0	11	<u>]</u>		12	-	-	-
SPARE	20	0.0	13	J <del></del>		14	-	-	-
SPARE	20	0.0	15	J <del></del>		16	-	-	-
SPARE	20	0.0	17	<u> </u>		18	-	-	-
SPARE	20	0.0	19	1 <del></del>	$-\uparrow$	20	10.3		
SPARE	20	0.0	21	1	$-\uparrow$	22	10.3	100	PANELBOARD "2EM1" (277/480V)
SPARE	20	0.0	23	1		24	10.3		
		-	25	1— <del>1</del>	$-\uparrow$	26	16.4		
SURGE PROTECTOR	30	-	27	1-1-+-	$-\uparrow$	28	16.4	150	PANELBOARD "1EM1" (277/480V)
		-	29	<u> </u>		30	16.4		

277/480V, 3 PH., 4W, 60 HZ 150 AMP MAIN BREAKER NEMA-1 ENCLOSURE, SURFACE MO 35,000 A.I.C. SYM. (MINIMUM)	UNTED									PANEL "1EM1"
10100000000	BKR.	LOAD	CKT.				СКТ.	LOAD	BKR.	10400 050450
LOADS SERVED	AMP	KVA	NO.	(S / N)		NO. K	KVA	AMP	LOADS SERVED	
EXISTING LIGHTING CIRCUIT LP1-1	20	1.2	1		lack	+	2	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT LP1-2	20	1.2	3		-	<del>                                     </del>	4	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT LP1-3	20	1.2	5				6	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT LP1-4	20	1.2	7		$\vdash$	<del>                                     </del>	8	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT LP1-6	20	1.2	9		-	<del>                                     </del>	10	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT LP1-8	20	1.2	11			<b>—</b>	12	-	-	SPACE / BLANK
EXIST. LIGHTING CIRCUIT 1LP1-5	20	1.2	13		$\vdash$	<del>                                     </del>	14	-	-	SPACE / BLANK
EXIST. LIGHTING CIRCUIT 1LP1-6	20	1.2	15		•	<del>                                     </del>	16	-	-	SPACE / BLANK
EXIST. LIGHTING CIRCUIT 1LP1-11	20	1.2	17			<b>—</b>	18	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT ALP1-5	20	1.2	19	-	$\vdash$	<del>                                     </del>	20	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT ALP1-7	20	1.2	21		•	<del>                                     </del>	22	-	-	SPACE / BLANK
SPARE	-	-	23			<b>—</b> —	24	-	-	SPACE / BLANK
SPARE	-	-	25	$\overline{}$	$\rightarrow$	$+$ $\uparrow$ -	26	12		
SPARE	-	-	27		•	$+-\uparrow-$	28	12	70	TRANSFORMER "1T2" / PANEL "1EM2"
SPARE	-	-	29			<b>—</b> —	30	12		
			TC	DTAL LOA	AD (K	(VA):4	9.2			

277/480V, 3 PH., 4W, 60 HZ										PANEL "2EM1"
100 AMP MAIN BREAKER	LINITED									
NEMA-1 ENCLOSURE, SURFACE MO 35,000 A.I.C. SYM. (MINIMUM)	UNIED									
35,000 A.T.C. STW. (WINTMOW)										
LOADO OFFILIED	BKR.	LOAD	CKT.		(C	.15	CKT.	LOAD	BKR.	10400 050/50
LOADS SERVED		KVA	NO.	(S / N)				KVA	AMP	LOADS SERVED
EXISTING LIGHTING CIRCUIT 2H1-1	20	1.2	1		<b>•</b>	+	2		-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT 2H1-2	20	1.2	3	]	-	+	4	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT 2H1-4	20	1.2	5			<b>—</b>	6	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT 2H1-5	20	1.2	7	]	<b>-</b>	+	8	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT 2H2-1	20	1.2	9		-	<del>                                     </del>	10	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT LP2-1	20	1.2	11			<b>—</b>	12	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT LP2-3	20	1.2	13	]	<b>-</b>	<del>                                     </del>	14	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT LP2-5	20	1.2	15		-	+	16	-	-	SPACE / BLANK
EXISTING LIGHTING CIRCUIT LP2-7	20	1.2	17			<b>—</b>	18	-	-	SPACE / BLANK
SPARE	20	0.0	19		<b>•</b>	+~	20	-	-	SPACE / BLANK
SPARE	20	0.0	21		-	<del>                                     </del>	22	-	-	SPACE / BLANK
SPARE	20	0.0	23			<b>—</b>	24	-	-	SPACE / BLANK
SPARE	20	0.0	25	]		+	26	6.7		
SPARE	20	0.0	27	]	-	+	28	6.7	45	TRANSFORMER "2T2" / PANEL "2L2
SPARE	20	0.0	29			<u> </u>	30	6.7		

120/208V, 3 PH., 4W, 60 HZ 150 AMP MAIN BREAKER NEMA-1 ENCLOSURE, SURFACE	MOUNTED								
10,000 A.I.C. SYM. (MINIMUM)									
LOADS SERVED	BKR.	LOAD KVA	CKT.	(S / I	N)	CKT.	LOAD KVA	BKR. AMP	LOADS SERVED
SPARE	20	0.0	1		+	2	-	-	SPACE / BLANK
SPARE	20	0.0	3	1	<del>                                     </del>	4	-	-	SPACE / BLANK
SPARE	20	0.0	5	1	<b>—</b> —	6	-	-	SPACE / BLANK
SPARE	20	0.0	7	1	<del>                                     </del>	8	-	-	SPACE / BLANK
SPARE	20	0.0	9	1	$+ \frown$	10	-	-	SPACE / BLANK
SPARE	20	0.0	11	1	<b>∳</b>	12	3.6	Ε0	FO ANAD DECEDIA CLE
SPARE	20	0.0	13	1	<del>                                     </del>	14	3.6	50	50-AMP RECEPTACLE
SPARE	20	0.0	15	1	$+$ $\uparrow$ -	16	3.6	F0	FO ANAD DECEDITACLE
SPARE	20	0.0	17	1	<b>—</b> —	18	3.6	50	50-AMP RECEPTACLE
SPARE	20	0.0	19	1	$+$ $\top$ -	20	3.6	FO	FO AME DECEDIACLE
SPARE	20	0.0	21	1	<del>                                     </del>	22	3.6	50	50-AMP RECEPTACLE
SPARE	20	0.0	23	1	<b>┿</b> ───	24	3.6	50	EO AMD DECEDEACLE
SPARE	20	0.0	25	1—~	+	26	3.6	50	50-AMP RECEPTACLE
SPARE	20	0.0	27	]	$+$ $\top$	28	3.6	50	50-AMP RECEPTACLE
SPARE	20	0.0	29	]	<b>—</b>	30	3.6	50	DU-AIVIP RECEPTACLE

#### ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
A ALP1-7	LIGHTING FIXTURE; TYPE AND CIRCUIT NUMBER AS INDICATED ON PLAN WITH AN INTEGRAL BATTERY PACK. SEE THE LIGHTING FIXTURE SCHEDULE ON DRAWING E-4 FOR ADDITIONAL SYMBOLS AND TYPES.
-	ELECTRICAL PANELBOARD. SURFACE MOUNT PANEL ON WALL WITH TOP AT 66 INCHES ABOVE FINISHED FLOOR.
	CONTROL PANEL, TYPE AS NOTED ON PLAN. SURFACE MOUNT PANEL ON WALL WITH TOP AT 60" ABOVE FINISHED FLOOR.
T	VOLTAGE TRANSFORMER. MOUNT TRANSFORMER AS INDICATED ON PLAN
	EXISTING SURFACE-MOUNTED ELECTRICAL PANELBOARD - TO REMAIN IN PLACE.
<del>-</del>	EXISTING FLUSH-MOUNTED ELECTRICAL PANELBOARD - TO REMAIN IN PLACE.
	EXISTING SURFACE-MOUNTED CONTROL PANEL - TO REMAIN IN PLACE.
T	EXISTING VOLTAGE TRANSFORMER - TO REMAIN IN PLACE.
$\Rightarrow$	EXISTING DUPLEX, 120-VOLT RECEPTACLE - TO REMAIN IN PLACE.
₩	EXISTING ILLUMINATED EXIT SIGN WITH INTEGRAL BATTERY PACK - TO REMAIN IN PLACE.
<b>□</b> ¢	EXISTING EMERGENCY LIGHTING UNIT WITH AN INTEGRAL BATTERY PACK - TO REMAIN IN PLACE.
•	EXISTING FLUORESCENT COVE LIGHTING FIXTURE - TO REMAIN IN PLACE
	EXISTING FLUORESCENT INDUSTRIAL STRIP FIXTURE - TO REMAIN IN PLACE.
•	EXISTING FLUORESCENT WALL-BRACKET FIXTURE - TO REMAIN IN PLACE.
•	EXISTING FLUORESCENT WALL-BRACKET FIXTURE - TO REMAIN IN PLACE.
	EXISTING FLUORESCENT WALL-BRACKET FIXTURE THAT IS CONNECTED TO TWO DIFFERENT POWER CIRCUITS - TO REMAIN IN PLACE.
$\boxtimes$	EXISTING FLUORESCENT TROFFER LIGHTING FIXTURE WITH AN INTEGRAL BATTERY PACK - TO REMAIN IN PLACE.
•	EXISTING FLUORESCENT TROFFER LIGHTING FIXTURE - TO REMAIN IN PLACE.
	EXISTING FLUORESCENT TROFFER FIXTURE THAT IS CONNECTED TO TWO DIFFERENT POWER CIRCUITS - TO REMAIN IN PLACE.
•	EXISTING FLUORESCENT TROFFER FIXTURE - TO REMAIN IN PLACE.
	EXISTING FLUORESCENT LIGHTING FIXTURE - TO REMAIN IN PLACE.

## GENERAL CONSTRUCTION NOTES

1. PROVIDE ALL WORK IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS:

INTERNATIONAL EXISTING BUILDING CODE 2015 EDITION NFPA 70 - NATIONAL ELECTRICAL CODE 2014 EDITION

NFPA 110 - STANDARD FOR EMERGENCY 2016 EDITION

AND STANDBY POWER SYSTEMS IEEE-C2 - ELECTRICAL SAFETY CODE 2012 EDITION

2. PROVIDE RACEWAY AND WIRING TO ALL DEVICES AND EQUIPMENT INDICATED ON THE CONTRACT DRAWINGS. THE DRAWINGS INDICATE PARTIAL RACEWAY AND WIRING REQUIREMENTS TO HELP CLARIFY DESIGN INTENT. WHERE RACEWAY AND/OR WIRING IS NOT INDICATED FOR DEVICES OR EQUIPMENT THE ARRANGEMENT, GROUPING, AND ROUTING SHALL BE PROVIDED IN ACCORDANCE WITH THE 2014 EDITION OF THE NATIONAL ELECTRICAL CODE.

3. RACEWAYS: RACEWAYS SHALL BE EMT WITH COMPRESSION TYPE FITTINGS UNLESS NOTED OR DETAILED OTHERWISE. CONCEAL RACEWAYS ABOVE EXISTING CEILINGS WHERE APPLICABLE. ALL WIRING SHALL BE COPPER WITH THWN INSULATION AND SHALL BE INSTALLED IN METAL RACEWAY UNLESS NOTED OR DETAILED OTHERWISE. PROVIDE MYERS HUBS ON ALL EXTERIOR RACEWAYS THAT ENTER METAL ENCLOSURES.

<u>UNDERGROUND RACEWAYS</u>: RACEWAYS SHALL BE SCHEDULE 40 PVC. ELBOWS SHALL BE LONG-SWEEP GALVANIZED RIGID STEEL TYPE (RMC).

- 4. INSTALL ELECTRICAL SYSTEMS WITHOUT INTERFERING WITH DUCTS, PIPES, STRUCTURAL MEMBERS, OR OTHER BUILDING SYSTEM.
- 5. ALL FIXTURES AND ELECTRICAL MATERIALS SHALL BE U.L. TESTED & LISTED OR BE TESTED & LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.
- 6. THOROUGHLY CLEAN ALL FIXTURES, DEVICES, AND SYSTEMS BEFORE PLACING IN OPERATION. RESTORE FINISHED SURFACES IF DAMAGED AND DELIVER THE ENTIRE INSTALLATION IN AN APPROVED CONDITION. THE CONTRACTOR SHALL INSTRUCT THE OWNER'S PERSONNEL IN THE PROPER OPERATION AND MAINTENANCE OF ALL FIXTURES AND SYSTEMS. FURNISH 3 SETS OF OPERATION AND MAINTENANCE MANUALS TO THE OWNER FOR THE INSTALLED LIGHTING
- 7. THE CONTRACTOR SHALL GUARANTEE THE WORK INSTALLED UNDER THIS CONTRACT FOR A PERIOD OF ONE YEAR AFTER DATE OF FINAL ACCEPTANCE. DEFECTS WHICH APPEAR AS A RESULT OF NORMAL USAGE SHALL BE REMEDIED BY THE CONTRACTOR TO THE COMPLETE SATISFACTION OF THE OWNER WITHOUT COST TO THE OWNER. SEE SPECIAL LIGHTING WARRANTY REQUIREMENTS IN LIGHTING FIXTURE SCHEDULE
- 8. POWER UTILITY: DUKE/PROGRESS ENERGY IS THE SERVING POWER UTILITY. COORDINATE ANY REQUIRED OUTAGES TO THE BUILDING'S ELECTRICAL SERVICE WITH THE OWNER AND WITH DUKE/PROGRESS ENERGY.
- 9. WALL PENETRATIONS: ALL CONDUIT PENETRATIONS THROUGH INTERIOR WALLS OF BUILDING SHALL BE 2-HOUR FIRESTOPPED (HILTI OR EQUAL).
- 10. EQUIPMENT LABELS: PROVIDE ENGRAVED PLASTIC LABELS FOR EACH PIECE OF NEW EQUIPMENT AND PROVIDE STAINLESS-STEEL SCREWS TO FASTEN LABELS TO EQUIPMENT. LABEL ALL EMERGENCY EQUIPMENT WITH RED LABELS AND ALL NORMAL-POWER EQUIPMENT WITH BLACK
- 11. PANELBOARD DIRECTORIES: PROVIDE UPDATED "TYPED" DIRECTORIES FOR EACH PANELBOARD WHERE LOADS ARE ADDED OR MODIFIED.
- 12. POWER OUTAGE TO THE BUILDING: THE CONTRACTOR WILL BE ALLOWED ONE 8-HOUR POWER OUTAGE TO THE EXISTING BUILDING'S ELECTRICAL SERVICE AS REQUIRED TO MODIFY RACEWAYS, PULL NEW CONDUCTORS, INSTALL THE AUTOMATIC TRANSFER SWITCH, ETC. THE GENERATOR SET DOES NOT HAVE TO BE OPERABLE AT THE END OF THE OUTAGE, BUT UTILITY POWER TO THE BUILDING SHALL BE RESTORED AND POWERED THROUGH THE AUTOMATIC TRANSFER SWITCH. THE 8-HOUR POWER OUTAGE TO THE BUILDING SHALL OCCUR ON A SATURDAY. SCHEDULE THE REQUIRED POWER OUTAGE TO THE BUILDING WITH THE OWNER 7 DAYS IN ADVANCE OF THE OUTAGE.
- 13. EQUIPMENT DELIVERY: SHOULD GENERATOR SET DELIVERY-TIME PROHIBIT COMPLETION OF THE WORK WITHIN THE 80-DAY COMPLETION SCHEDULE, THE PROJECT DURATION WILL BE ADJUSTED AS NECESSARY TO ALLOW 10 CALENDAR DAYS TO COMPLETE THE WORK AFTER DELIVERY OF THE GENERATOR SET. CONTRACTOR SHALL NOTIFY ENGINEER AND USC UPSTATE IN WRITING OF ANTICIPATED DELIVERY DATES FOR THE GENERATOR SET AND THE AUTOMATIC TRANSFER SWITCH WHEN THE ORDERS ARE PLACED.
- 14. CUTTING, DRILLING, FITTING, AND PATCHING: PROVIDE CHASES, SLOTS, AND OPENINGS IN BUILDING COMPONENTS TO ALLOW FOR ELECTRICAL INSTALLATIONS. PERFORM CUTTING, DRILLING, FITTING, AND PATCHING REQUIRED TO:
  - A) INSTALL EQUIPMENT, MATERIALS, AND RACEWAYS IN EXISTING STRUCTURES. B) REMOVE AND REPLACE DEFECTIVE WORK THAT DOES NOT CONFORM TO REQUIREMENTS OF THE CONTRACT DOCUMENTS.
  - C) UPON WRITTEN INSTRUCTIONS FROM THE ARCHITECT/ENGINEER, UNCOVER AND RESTORE WORK TO PROVIDE FOR ARCHITECT/ENGINEER OBSERVATION OF CONCEALED WORK.

PROTECT EXISTING STRUCTURES, FURNISHINGS, FINISHES, MECHANICAL SYSTEMS, AND ELECTRICAL SYSTEMS WHILE PERFORMING CUTTING, DRILLING, FITTING, AND PATCHING. PATCH EXISTING SURFACES AND BUILDING COMPONENTS USING NEW MATERIALS THAT MATCH EXISTING MATERIALS. PATCHING SHALL BE PERFORMED BY EXPERIENCED INSTALLERS. PROVIDE CONCRETE GROUT TO SEAL CONDUIT PENETRATIONS AT EXTERIOR WALLS SO THAT WATER DOES NOT ENTER THE BUILDING.

2 OF 6

OFFICE OF FACILITIES MANAGEM COLUMBIA, SC 29208

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SHEET IN SET: 2 OF 6

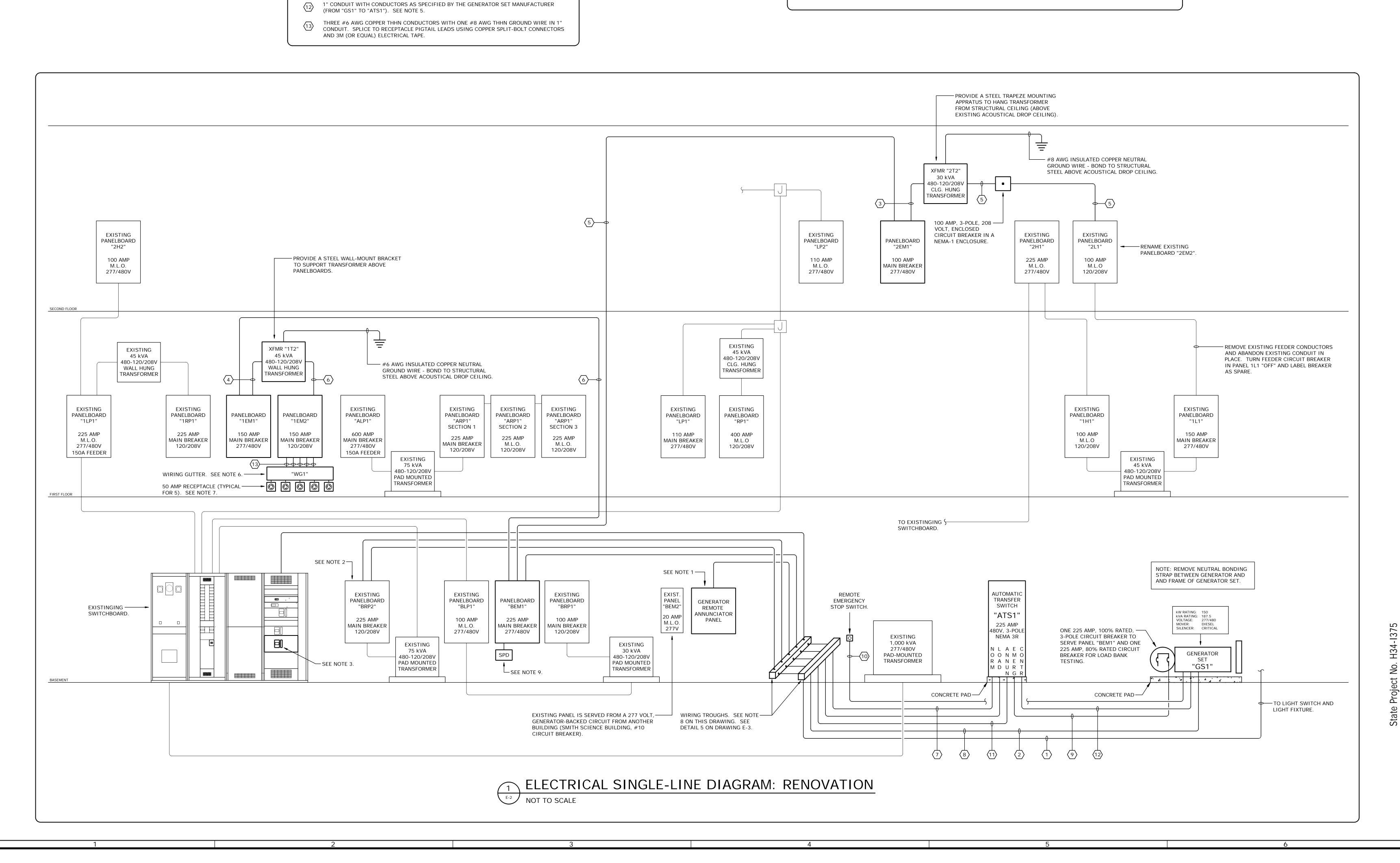
## WIRE & CONDUIT SCHEDULE TWO #12 AWG COPPER THWN CONDUCTORS WITH ONE #12 AWG COPPER THWN GROUND WIRE IN 3/4" CONDUIT (FROM "BRP2" TO EXTERIOR LIGHT SWITCH AND LIGHT FIXTURE). FOUR #10 AWG COPPER THWN CONDUCTORS WITH TWO #10 AWG THWN GROUND WIRE IN 1" CONDUIT (FROM "BRP2" TO "GS1"). SEE NOTE 5. THREE #8 AWG COPPER THHN CONDUCTORS WITH ONE #10 AWG COPPER THHN GROUND THREE #8 AWG COPPER INFIN CONDUCT. WIRE IN 3/4" CONDUIT. SEE NOTE 4. THREE #4 AWG COPPER THHN CONDUCTORS WITH ONE #8 AWG COPPER THHN GROUND THREE #4 AWG COPPER THEIR COINDS WIRE IN 1" CONDUIT. SEE NOTE 4. FOUR #3 AWG COPPER THHN CONDUCTORS WITH ONE #8 AWG COPPER THHN GROUND WIRE IN 1-1/4" CONDUIT. SEE NOTE 4. FOUR #1/0 AWG COPPER THHN CONDUCTORS WITH ONE #6 AWG COPPER THHN GROUND WIRE IN 2" CONDUIT. SEE NOTE 4. FOUR #4/0 AWG COPPER THWN CONDUCTORS WITH ONE #4 AWG COPPER GROUND WIRE IN 2.5" CONDUIT (FROM SWITCHBOARD TO "ATS1"). FOUR #4/0 AWG COPPER THWN CONDUCTORS WITH ONE #4 AWG COPPER GROUND WIRE IN 2.5" CONDUIT (FROM "ATS1" TO "BEM1"). FOUR #4/0 AWG COPPER THWN CONDUCTORS WITH ONE #4 AWG COPPER GROUND WIRE IN 2.5" CONDUIT (FROM "GS1" TO "ATS1"). SEE NOTE 5. TWO #14 AWG COPPER THWN CONDUCTORS WITH ONE #14 AWG COPPER THWN GROUND WIRE IN 3/4" CONDUIT (FROM "GS1" TO EMERGENCY STOP SWITCH). SEE NOTE 5. 3/4" CONDUIT WITH CONDUCTORS AS SPECIFIED BY THE GENERATOR SET MANUFACTURER (FROM "ATS1" TO REMOTE ANNUNCIATOR PANEL).

#### SINGLE-LINE DIAGRAM NOTES

- REMOTE ANNUNCIATOR PANEL: COORDINATE EXACT LOCATION OF THE REMOTE ANNUNCIATOR PANEL WITH THE OWNER PRIOR TO ROUGH-IN. TOP OF PANEL SHALL BE 60" ABOVE FINISHED FLOOR.
- EXISTING PANELBOARD "BRP2: EXISTING PANELBOARD IS A SQUARE-D #NQ442L2, 120/208 VOLT, 225 AMP, MAIN-BREAKER PANELBOARD. PROVIDE NEW CIRCUIT BREAKERS IN EXISTING PANEL AS REQUIRED TO SERVE GENERATOR BATTERY CHARGER AND WATER JACKET HEATER BRANCH CIRCUITS. UPDATE LOAD DIRECTORY IN PANELBOARD TO REFLECT ADDED LOADS.
- EXISTING MAIN SWITCHBOARD: EXISTING SWITCHBOARD SECTION IS A CUTLER-HAMMER POW-R-LINE C, 277/480 VOLT, 1600 AMP SWITCHBOARD. PROVIDE A 225 AMP, 480 VOLT, 3-POLE CIRCUIT BREAKER IN SWITCHBOARD TO SUPPLY NORMAL/UTILITY POWER TO AUTOMATIC TRANSFER SWITCH "ATS1". MODIFY EXISTING BUSSWORK AND PROVIDE BUSS CONNECTING KITS AND CONDUCTORS AS REQUIRED TO CONNECT CIRCUIT BREAKER. PROVIDE A CUSTOM FILLER PLATE/PANEL TO PROPERLY COVER OPENING IN SWITCHBOARD ENCLOSURE WHERE BREAKER IS ADDED.
- . RACEWAY CONNECTIONS TO TRANSFORMERS: FINAL RACEWAY CONNECTIONS TO TRANSFORMERS SHALL BE MADE WITH FLEXIBLE METAL
- . RACEWAY CONNECTIONS TO GENERATOR: FINAL RACEWAY CONNECTIONS TO THE GENERATOR SHALL BE MADE WITH LIQUID-TIGHT FLEXIBLE METAL CONDUIT (LFMC).
- 6. <u>WIRING GUTTER "WG1"</u>: PROVIDE A NEMA-1 6" x 6" x 36" STEEL WIRING GUTTER WITH HINGED DOOR AND CLAMP FASTENERS BELOW
- PANELBOARD "1EM2" TO MAKE SPLICE CONNECTIONS FOR RECEPTACLE PIGTAIL LEADS. . 50 AMP RECEPTACLES: PROVIDE FIVE HUBBELL SIDER II #SL50 (OR EQUAL) RECEPTACLES, EVENLY SPACED ALONG BOTTOM OF WIRING
- WWIRING TROUGHS: PROVIDE TWO 18" x 18" x 36" STEEL, WIRNG TROUGHS/WIREWAYS (ONE NEMA-1 RATED AND ONE NEMA-3R RATED) AND ASSOCIATED CONDUIT NIPPLES AT EXTERIOR BUILDING WALL TO TRANSITION OUTDOOR UNDERGROUND RACEWAYS ABOVE GROUND AND INTO BUILDING. ALSO PROVIDE SHEET METAL DIVIDERS IN THE TROUGHS AS REQUIRED TO MAINTAIN SEPARATION BETWEEN NORMAL POWER CONDUCTORS, GENERATOR-BACKED CONDUCTORS, AND CONTROL WIRING. CONNECT RACEWAYS TO TROUGHS IN

COMPLIANCE WITH ARTICLES 376.23(B) AND 314.28(A)(2) OF THE NATIONAL ELECTRICAL CODE.

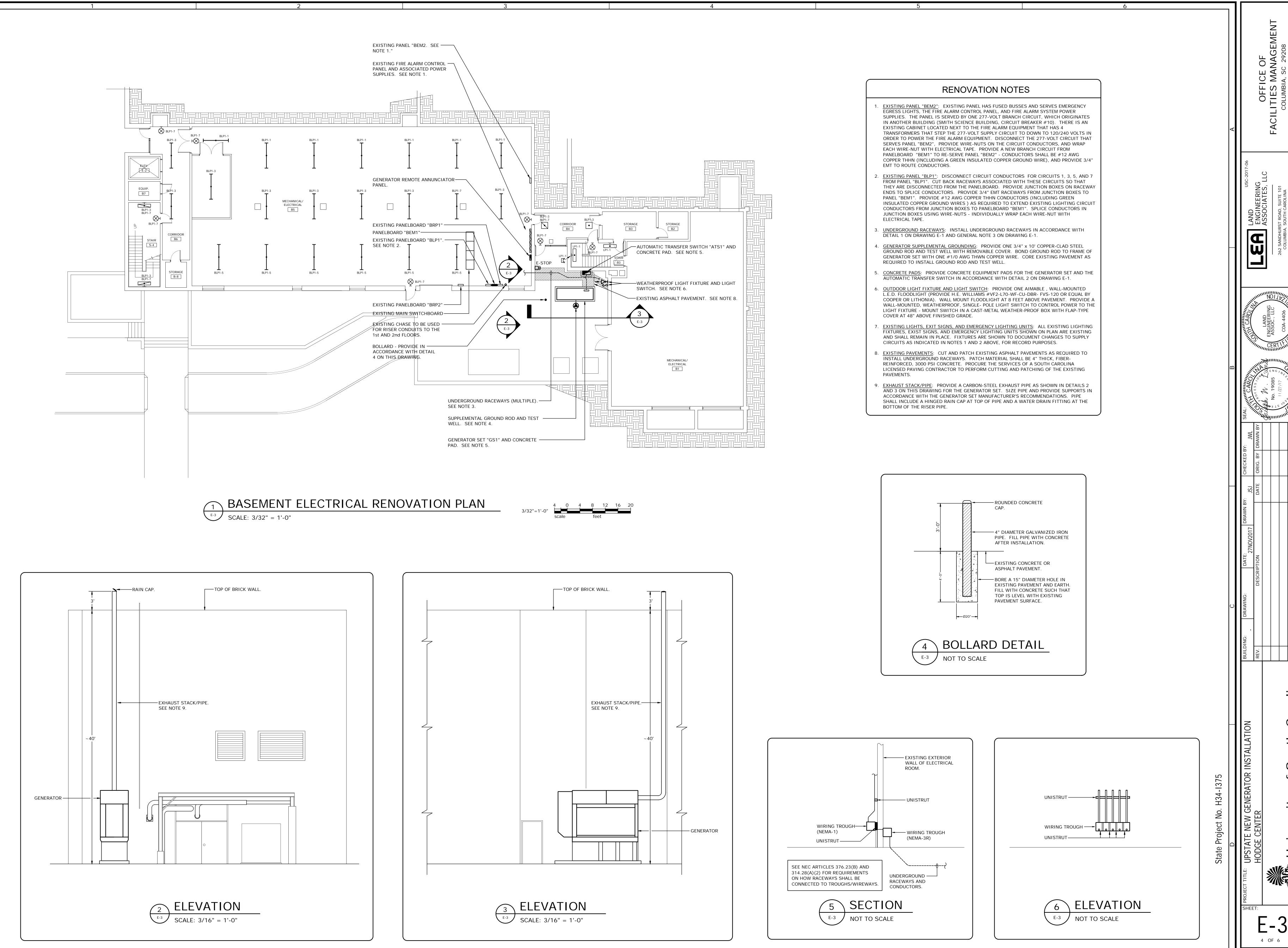
9. SURGE PROTECTION DEVICE (SPD): PROVIDE ONE 1300 JOULE SURGE PROTECTION DEVICE WITH A 40,000 AMP SURGE CURRENT RATING PER PHASE, 6 MODES OF PROTECTION, AND A 200,000 AMP SHORT-CIRCUIT CURRENT RATING TO PROTECT PANELBOARD "BEM1" (SQUARE-D OR EQUAL).

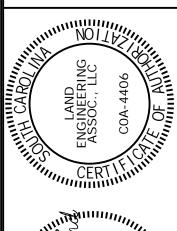


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3 OF 6







SHEET IN SET:

4 OF 6

