

PANELBOARD: SP		DISTRIBUTION: 120/208 Wye		A.I.C. RATING: 10K										
SUPPLIED FROM: SE		PHASES: 3		MAINS RATING: 200 A										
MOUNTING: SURFACE		ENCLOSURE: Type 1		MCB RATING: 200 A										
WIRE SIZE	CKT	DESCRIPTION	BKR	P	A	B	C	P	BKR	DESCRIPTION	CKT	WIRE SIZE		
2-#12, 1-#10, 1-#8	1	PANEL "UPS"	100	2	7.9	0.2			1	20	DEMARC RACK REC.	2	1-#12, 1-#10, 1-#8	
2-#12, 1-#10, 1-#8	3	42U RACK REC.	20	2		7.5	0.2		1	20	42U RACK REC.	4	1-#12, 1-#10, 1-#8	
2-#12, 1-#10, 1-#8	5	42U RACK REC.	20	2	1.0	1.0			2	20	42U RACK REC.	6	2-#12, 1-#10, 1-#8	
2-#12, 1-#10, 1-#8	7	42U RACK REC.	20	1			1.0	1.0	2	20	42U RACK REC.	8	2-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	9	FIBER RACK REC.	20	1		0.2	0.2		1	20	SERVER 139 REC.	10	1-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	11	FIBER RACK REC.	20	1			0.2	0.2	1	20	RACK 6509 REC.	12	1-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	13	POE RAC REC.	20	1	0.2	0.0			1	20	SPARE	14	---	
---	15	SPARE	20	1		0.0	0.0		1	20	SPARE	16	---	
---	17	SPARE	20	1				0.0	0.0	1	20	SPARE	18	---
---	19	SPARE	20	1	0.0	0.0			1	20	SPARE	20	---	
---	21	SPARE	20	1				0.0	0.0	1	20	SPARE	22	---
---	23	SPARE	20	1				0.0	0.0	1	20	SPARE	24	---
---	25	SPARE	20	1	0.0	0.0			1	20	SPARE	26	---	
---	27	SPARE	20	1				0.0	0.0	1	20	SPARE	28	---
---	29	SPARE	20	1				0.0	0.0	1	20	SPARE	30	---
---	31	PREPARED SPACE	---	---	0.0	0.0			---	---	PREPARED SPACE	32	---	
---	33	PREPARED SPACE	---	---				0.0	0.0	---	PREPARED SPACE	34	---	
---	35	PREPARED SPACE	---	---				0.0	0.0	---	PREPARED SPACE	36	---	
---	37	PREPARED SPACE	---	---	0.0	0.0			---	---	PREPARED SPACE	38	---	
---	39	PREPARED SPACE	---	---				0.0	0.0	3	15	SPD-1	40	---
---	41	PREPARED SPACE	---	---				0.0	0.0	---	---	---	42	---
TOTAL PER PHASE KVA:			10.2			8.1			2.4			CONNECTED KVA: 20.7		
TOTAL PER PHASE AMPACITY:			93			74			20			CONNECTED AMPACITY: 57		

PANELBOARD: UPS		DISTRIBUTION: 120/208 Single		A.I.C. RATING: 10K										
SUPPLIED FROM: SP		PHASES: 1		MAINS RATING: 100 A										
MOUNTING: SURFACE		ENCLOSURE: Type 1		MCB RATING: 100 A										
WIRE SIZE	CKT	DESCRIPTION	BKR	P	A	B	C	P	BKR	DESCRIPTION	CKT	WIRE SIZE		
1-#12, 1-#10, 1-#8	1	DEMARC RACK REC.	20	1	0.4	0.2			1	20	DEMARC RACK REC.	2	1-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	3	42U RACK REC.	20	1			1.2	1.2	1	20	42U RACK REC.	4	1-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	5	42U RACK REC.	20	1	1.2	1.2			1	20	42U RACK REC.	6	1-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	7	42U RACK REC.	20	1			1.2	1.2	1	20	42U RACK REC.	8	1-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	9	42U RACK REC.	20	1	1.2	1.2			1	20	42U RACK REC.	10	1-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	11	42U RACK REC.	20	1			0.2	1.0	2	20	42U RACK REC.	12	2-#12, 1-#10, 1-#8	
2-#12, 1-#10, 1-#8	13	42U RACK REC.	20	2	1.0	1.0			1	20	FIBER RACK REC.	16	1-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	15	42U RACK REC.	20	1			1.0	0.2	1	20	FIBER RACK REC.	18	1-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	17	SERVER 139 REC.	20	1	0.2	0.2			1	20	RACK 6509 REC.	20	1-#12, 1-#10, 1-#8	
1-#12, 1-#10, 1-#8	19	POE RAC REC.	20	1	0.0	0.2			1	20	SERVER 139 LTG	22	1-#12, 1-#10, 1-#8	
---	21	SPARE	20	1			0.0	0.0	1	20	SPARE	24	---	
---	23	SPARE	20	1			0.0	0.0	1	20	SPARE	26	---	
---	25	SPARE	20	1	0.0	0.0			1	20	SPARE	28	---	
---	27	SPARE	20	1			0.0	0.0	1	20	SPARE	30	---	
---	29	SPARE	20	1	0.0	0.0			1	20	SPARE	30	---	
TOTAL PER PHASE KVA:			7.9			7.5			15.4			CONNECTED KVA: 15.4		
TOTAL PER PHASE AMPACITY:			75			72			74			CONNECTED AMPACITY: 74		

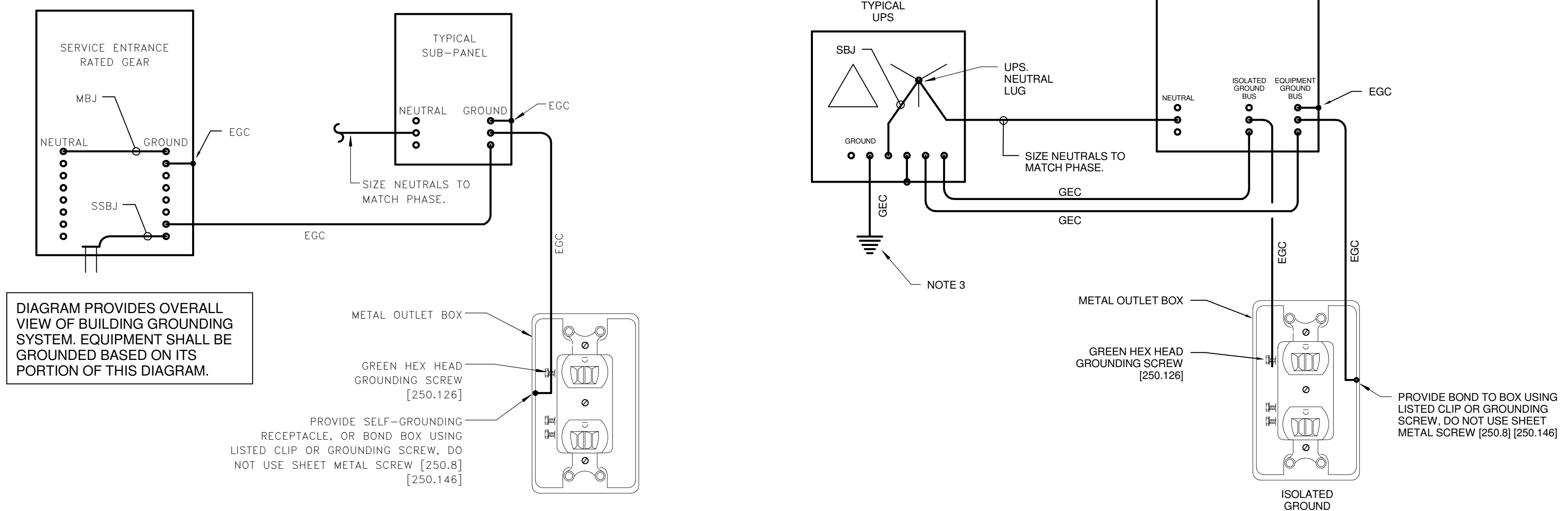
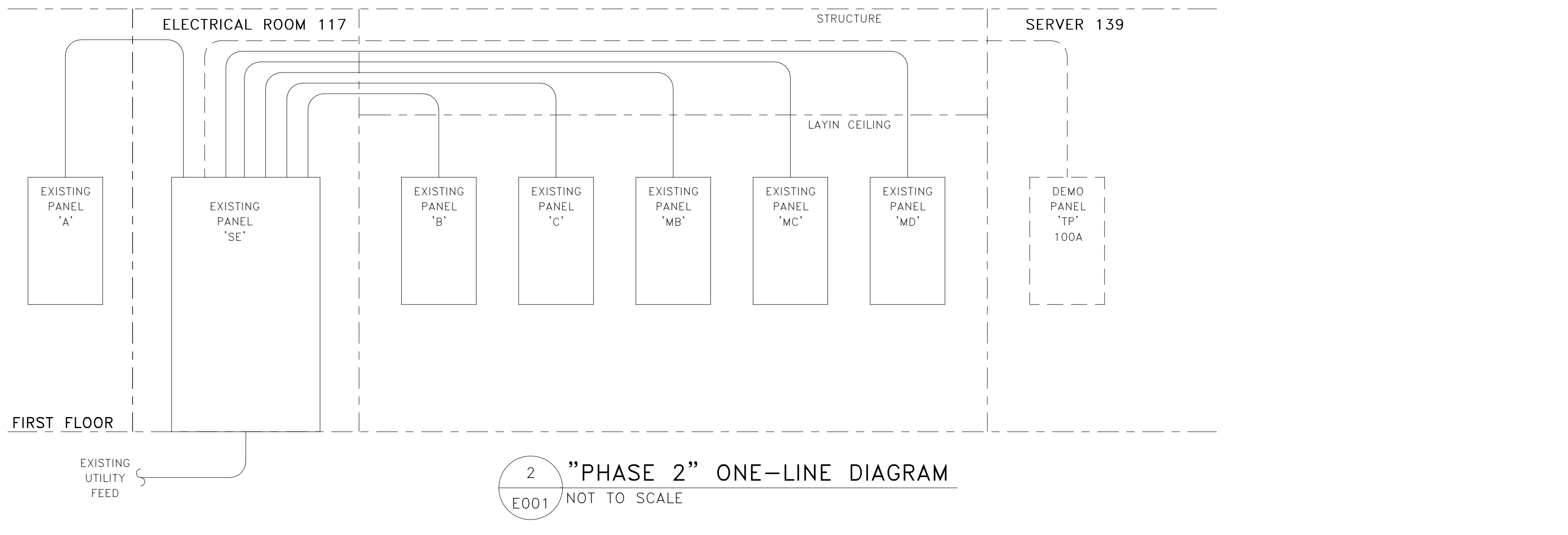
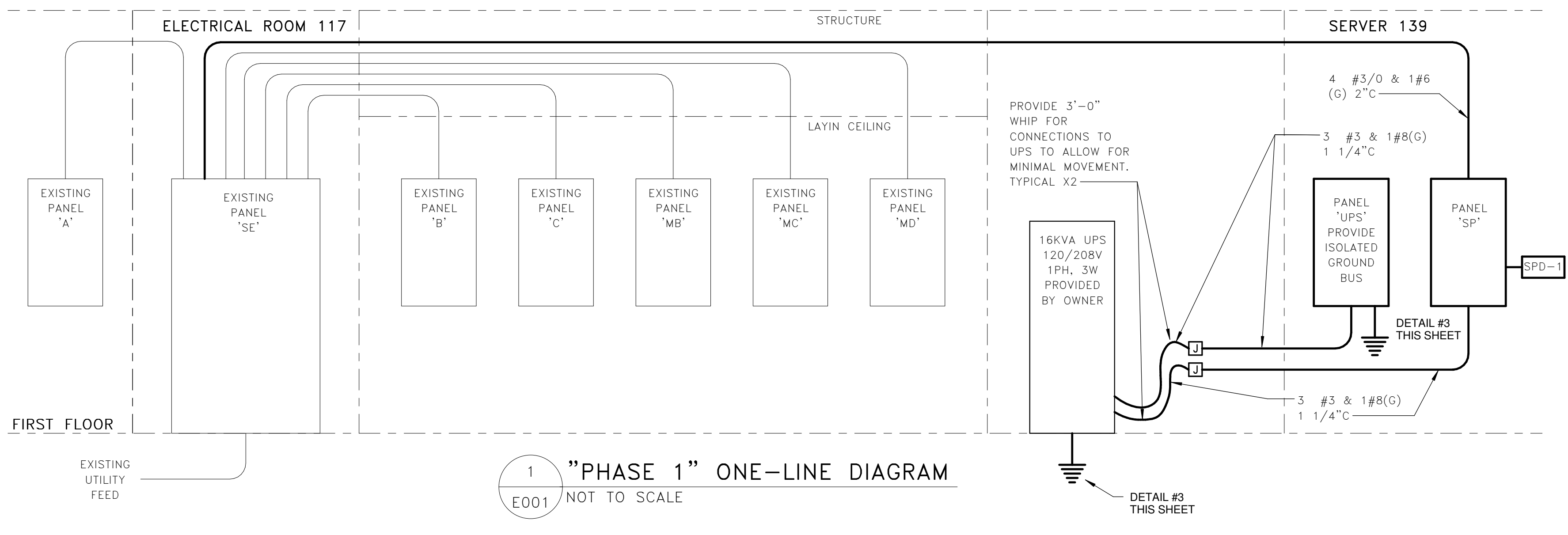
EXISTING SWITCHBOARD: SE		VOLTS: 120/208 Wye		A.I.C. RATING: EXISTING		
SUPPLY FROM:		PHASES: 3		MAINS TYPE: MCB		
ENCLOSURE: Type 1		MAINS: 1200 A		MCB RATING: 1200 A		
CKT	DESCRIPTION	POLES	FRAME	TRIP	LOAD	COMMENTS
1	PANEL "SP"	3	200 A	200 A	20.66	PROVIDE CIRCUIT BREAKER IN EXISTING SPACE
2	EXISTING PANEL "A"	3	---	225 A	0.00	
3	EXISTING PANEL "B"	3	---	150 A	0.00	
4	EXISTING PANEL "C"	3	---	150 A	0.00	
5	EXISTING PANEL "MB"	3	---	350 A	0.00	
6	EXISTING PANEL "MC"	3	---	400 A	0.00	
7	EXISTING PANEL "MD"	3	---	200 A	0.00	
8	EXISTING SPARE	3	---	100 A	0.00	
9	EXISTING SPARE	3	---	100 A	0.00	
TOTAL CONNECTED KVA:		20.66		57		
TOTAL CONNECTED AMPACITY:		57		5		
LOAD TYPE:		CONNECTED KVA:		SWITCHBOARD TOTALS:		
LIGHTING:		0.18		ADDITIONAL CONNECTED LOAD:		20.66
RECEPTACLES:				ADDITIONAL CONNECTED CURRENT:		57
HVAC:				SWITCHBOARD CAPACITY %:		5
MOTORS:						
KITCHEN:						
OTHERS:						

* WESTINGHOUSE PRL4B TYPE PANEL

SURGE PROTECTION DEVICE (SPD) SCHEDULE						
SPD ID	LOCATIO N TYPE	SURGE CURRENT RATING	SURGE COUNTER	VISUAL & AUDIBLE ALARM	NETWORK MONITORING	ENCLOSURE
SPD1	TYPE 2	80kA / mode	YES	YES	NO	NEMA 12

BEA BELKA ENGINEERING ASSOCIATES, INC. MT21502

7 CLUSTERS COURT, SUITE 201
COLUMBIA, SOUTH CAROLINA 29210
(803) 731-0650 fax (803) 731-2880
SHAWN GRAVLIN
EMAIL: SGravlin@att.net



3 TYPICAL GROUNDING DETAIL
E001 NOT TO SCALE

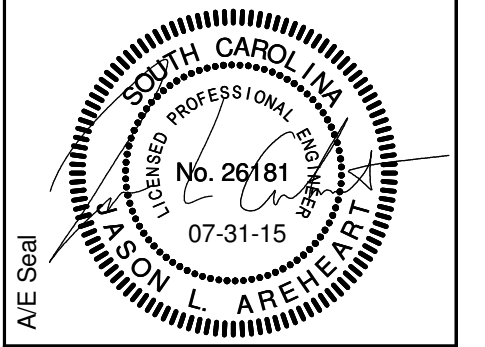
5 ISOLATED GROUNDING DETAIL
E001 NOT TO SCALE

- GENERAL "POWER" NOTES**
- ALL BRANCH CIRCUITS INDICATED ON THESE PLANS TO BE LARGER THAN NO. 12 AWG SHALL BE SIZED AS INDICATED FOR THE ENTIRE LENGTH OF THE CIRCUIT.
 - WHEN A RECEPTACLE IS INDICATED TO BE MOUNTED ADJACENT TO A COMPUTER/TELEPHONE/ TELEVISION OUTLET, THE DEVICE(S) SHALL BE MOUNTED WITHIN 6" CENTER-TO-CENTER.
 - STUB-UP (6) 3/4-INCH SPARE CONDUITS FROM EACH FLUSH MOUNTED PANELBOARD TO ABOVE FINISHED CEILING.
 - PROVIDE AND INSTALL AN ENGRAVED LAMINATED PLASTIC NAMEPLATE ON EACH ITEM OF ELECTRICAL EQUIPMENT SERVING MECHANICAL EQUIPMENT WHICH MATCH MECHANICAL DESCRIPTIONS, TO INDICATE THE DESIGNATION OF THE UNIT ON THE PLANS & THE BRANCH CIRCUIT SERVING THE EQUIPMENT.
 - PROVIDE NEMA CONFIGURATION RECEPTACLES TO MATCH PLUGS ON EQUIPMENT FURNISHED.
 - PROVIDE LABEL ON FACE OF COVER PLATE OF ALL RECEPTACLES INDICATING PANEL AND BRANCH CIRCUIT TO WHICH EACH DEVICE IS CONNECTED.

- GENERAL "ELECTRICAL" NOTES**
- BRANCH CIRCUIT WIRING SHALL BE NO. 12 AWG UNLESS NOTED OTHERWISE. WHERE CONDUCTOR AND RACEWAY SIZE ARE SHOWN AT HOMERUN, SUCH SIZE SHALL BE USED FOR THE ENTIRE CIRCUIT. EXCEPTION: FINAL CONNECTION TO DEVICES, IN OUTLET BOXES, IS NOT REQUIRED TO BE LARGER THAN NO. 12 AWG.
 - PRIOR TO ROUGH-IN, COORDINATE THE LOCATION AND MOUNTING HEIGHT OF ALL WALL MOUNTED DEVICES WITH OWNERS REPRESENTATIVE AND EXISTING CONDITIONS. IN THE EVENT OF A CONFLICT, NOTIFY THE OWNERS ENGINEER. MINOR ADJUSTMENTS IN DEVICE LOCATION, I.E. 5"-0" IN ANY DIRECTION SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
 - OUTLET BOXES FOR SWITCHES, RECEPTACLES, ETC MOUNTED ON OPPOSITE SIDES OF FIRE RATED PARTITIONS SHALL NOT BE MOUNTED IN THE SAME WALL CAVITY. SEPARATE WALL PENETRATIONS BY MOUNTING ON OPPOSITE SIDES OF WALL STUDS OR OTHER VERTICAL STRUCTURAL MEMBER IN THE WALL.
 - RACEWAYS SHALL BE INSTALLED CONCEALED IN NEW WALL CONSTRUCTION ABOVE CEILINGS, BELOW FLOOR, AND IN OTHER CAVITIES TO THE GREATEST EXTENT POSSIBLE. WHERE EXPOSED RACEWAYS MUST BE USED, LAYOUT RACEWAYS TO MINIMIZE THE NUMBER OF VERTICAL RUNS.
 - FEEDER CONDUITS & BRANCH CIRCUITS SHALL COMPLY WITH DETAILS ON DRAWINGS AND SHALL BE ROUTED OVERHEAD ABOVE LAYIN CEILING. ALL WORK SHALL BE COORDINATED WITH OWNER BEFORE AND DURING CONSTRUCTION.
 - A GROUND CONDUCTOR SHALL BE PROVIDED IN ALL RACEWAYS UNLESS NOTED OTHERWISE.
 - THE USE OF MC CABLE IS NOT ALLOWED.
 - SEAL ALL EXISTING AND NEW FIRE RATED WALL PENETRATIONS IN THE CONSTRUCTION AREA.
 - WHEREVER ON THE ELECTRICAL DRAWINGS THE WORD "PROVIDE" IS USED, IT SHALL BE INFERRED TO MEAN "FURNISH AND INSTALL".

ELECTRICAL DRAWING INDEX	
#	SHEET NAME
E001	ELECTRICAL NOTES & LEGENDS
E101	PHASED ELECTRICAL FLOOR PLANS

ABBREVIATIONS	
ABR	DESCRIPTION
(E)	EXISTING
AFF	ABOVE FINISHED FLOOR
IG	ISOLATED GROUND
J-	BOX JUNCTION BOX
NEC	NATIONAL ELECTRIC CODE
OC	ON CENTER
SPD	SURGE PROTECTION DEVICE
UNO	UNLESS OTHERWISE NOTED
W/	WITH



BELKA ENGINEERING ASSOCIATES, INC.

SALUDA HALL COMM HUB
MIDLANDS TECHNICAL COLLEGE AIRPORT CAMPUS
ELECTRICAL NOTES & LEGENDS

REV	
JOB No.	MT21502
DATE:	07/31/15
DRAWN BY:	SG
CHECK BY:	SG
SHEET	NUMBER
E001	
SHEETS	1 OF 2

PLOT DATE: Issue Date