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C. PROVIDE 600V INSULATED COPPER CONDUCTORS FOR ALL WIRE SHOWN IN THIS SCHEDULE.

CIRCUIT LENGTH.

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GENERAL NOTES:

A. INCREASE WIRE ONE SIZE FOR SINGLE PHASE BRANCH CIRCUITS GREATER THAN 75 FEET IN

B. INCREASE WIRE ONE SIZE FOR THREE PHASE BRANCH CIRCUITS GREATER THAN 165 FEET IN

D. PROVIDE ADDITIONAL NEUTRAL CONDUCTOR FOR BRANCH CIRCUIT WHEN A BUCK OR BOOST TRANSFORMER IS REQUIRED OR HAS BEEN SPECIFIED.

E. FOLLOW THIS SCHEDULE FOR MC CABLE OR AC CABLE COPPER CONDUCTORS SIZING (MINUS THE CONDUIT SIZE).

	(FIXTURE OR UNIT EQUIP)	
WITCH	ED"		I

4€}

LIGHTING FIXTURES

7. PROVIDE No. 4 COPPER GROUND WIRE IN 3/4" PVC CONDUIT TO BUILDING MAIN SERVICE GROUNDING SYSTEM IN ORDER TO PROVIDE A SINGLE POINT GROUNDING SYSTEM. ALL CONCEALED, BURIED OR INACCESSIBLE CONNECTIONS SHALL BE EXOTHERMICALLY WELDED.

6. PROVIDE ENGRAVED, PLASTIC LAMINATE NAMEPLATE 6" ÁBOVE GROUND BUS. NAMEPLATE SHALL STATE IN 1/2"H LETTERS "EQUIPMENT GROUND" OR WORDING AS REQUIRED BY THE AUTHORITY

3. PROVIDE COPPER CABLE CLAMP FOR EACH CABLE CONNECTION. PROVIDE TIN PLATED

REQUIRED FOR A COMPLETE AND PROPERLY CONNECTED GROUNDING SYSTEM. PROVIDE SOLID COPPER OR BRONZE HARDWARE (BOLTS, NUTS WASHERS, ETC). PROVIDE TIN PLATED COMPONENTS WHERE DISSIMILAR METALS ARE CONNECTED TOGETHER. D. PROVIDE LENGTH OF BUS BAR AS REQUIRED TO MAINTAIN CORRECT SPACING BETWEEN LUGS.



MOUNT GROUNDING BUS AT IT CLOSET BACKBOARD.

BRA	NCH	CIRCUIT CONDUCTORS (IN O SCHEDULE	CONDU	IT)	
СВ	POLE	WIRE SIZE (BASED UPON TYPE THW)	CONDUIT	PHASE	
15/20A	1	2-#12, 1-#12 EQUIPMENT GROUND	3/4"	1Ø 2W	
15/20A	2	2-#12, 1-#12 EQUIPMENT GROUND	3/4"	1Ø 2W	
15/20A	3	3-#12, 1-#12 EQUIPMENT GROUND	3/4"	3Ø 3W	
25A	1	2-#10, 1-#10 EQUIPMENT GROUND	3/4"	1Ø 2W	
25A	2	2-#10, 1-#10 EQUIPMENT GROUND	3/4"	1Ø 2W	
25A	3	3-#10, 1-#10 EQUIPMENT GROUND	3/4"	3Ø 3W	
30A	1	2-#10, 1-#10 EQUIPMENT GROUND	3/4"	1Ø 2W	
30A	2	2-#10, 1-#10 EQUIPMENT GROUND	3/4"	1Ø 2W	
30A	3	3-#10, 1-#10 EQUIPMENT GROUND	3/4"	3Ø 3W	
30A	3	3-#10, 1-#10 N., 1-#10 EQUIPMENT GROUND	3/4"	3Ø 4W	
35A	3	3-#8, 1-#10 EQUIPMENT GROUND	1"	3Ø 3W	
35A	3	3-#8, 1-#8 N., 1-#10 EQUIPMENT GROUND	1"	3Ø 4W	
40A	2	2-#8, 1-#10 EQUIPMENT GROUND	1"	1Ø 2W	
40A	3	3-#8, 1-#10 EQUIPMENT GROUND	1"	3Ø 3W	
40A	3	3-#8, 1-#8 N., 1-#10 EQUIPMENT GROUND	1"	3Ø 4W	
45A	2	2-#8, 1-#10 EQUIPMENT GROUND	1"	1Ø 2W	
45A	3	3-#8, 1-#10 EQUIPMENT GROUND	1"	3Ø 3W	
45A	3	3-#8, 1-#8 N., 1-#10 EQUIPMENT GROUND	1"	3Ø 4W	
50A	2	2-#8, 1-#10 EQUIPMENT GROUND	1"	1Ø 2W	
50A	3	3-#8, 1-#10 EQUIPMENT GROUND	1"	3Ø 3W	
50A	3	3-#8, 1-#8 N., 1-#10 EQUIPMENT GROUND	1"	3Ø 4W	
60A	2	2-#6, 1-#10 EQUIPMENT GROUND	1"	1Ø 2W	
60A	3	3-#6, 1-#10 EQUIPMENT GROUND	1"	3Ø 3W	
60A	3	3-#6, 1-#6 N., 1-#10 EQUIPMENT GROUND	1-1/4"	3Ø 4W	
70A	2	2-#4, 1-#8 EQUIPMENT GROUND	1"	1Ø 2W	
70A	3	3-#4, 1-#8 EQUIPMENT GROUND	1-1/4"	3Ø 3W	
70A	3	3-#4, 1-#4 N., 1-#8 EQUIPMENT GROUND	1-1/4"	3Ø 4W	
80A	2	2-#4, 1-#8 EQUIPMENT GROUND	1"	1Ø 2W	
80A	3	3-#4, 1-#8 EQUIPMENT GROUND	1-1/4"	3Ø 3W	
80A	3	3-#4, 1-#4 N., 1-#8 EQUIPMENT GROUND	1-1/4"	3Ø 4W	
90A	2	2-#3, 1-#8 EQUIPMENT GROUND	1"	1Ø 2W	
90A	3	3-#3, 1-#8 EQUIPMENT GROUND	1-1/4"	3Ø 3W	
90A	3	3-#3, 1-#4 N., 1-#8 EQUIPMENT GROUND	1-1/4"	3Ø 4W	
100A	2	2-#3, 1-#8 EQUIPMENT GROUND	1-1/4"	1Ø 2W	
100A	3	3-#3, 1-#8 EQUIPMENT GROUND	1-1/4"	3Ø 3W	
100A	3	3-#3, 1-#3 N., 1-#8 EQUIPMENT GROUND	1-1/4"	3Ø 4W	
150A	2	2-#1/0, 1-#6 EQUIPMENT GROUND	1-1/2"	1Ø 2W	



ELECTRICAL	SERVICE	CALCULATION

	CONNECTED	DEMAND			
RECEPTACLE LOAD	11,700	10,850			
LIGHTING >3 HR. LOAD	2,388	2,985			
OTHER LOADS	5,242	5,242			
RTU EQUIPMENT	32,660	26,220			
TOTAL	125,319	45,297			
188.7A DEMAND 200A SERVICE @ 240	ì				

- PANEL AND CIRCUIT BREAKER NOTED ITEMS
- ① EXISTING CIRCUIT BREAKER USED FOR NEW CIRCUIT. (2) EXISTING CIRCUIT TO REMAIN.
- ③ EXISTING CIRCUIT TO REMAIN. MODIFY AS INDICATED ON THE DRAWINGS.
- ④ REPLACE EXISTING CIRCUIT BREAKER WITH NEW CIRCUIT BREAKER INDICATED.
- (5) REMOVE EXISTING CIRCUIT BREAKER. INSTALL BLANK COVER AT SPACE.
- 6 NEW CIRCUIT BREAKER AT EXISTING SPACE FOR NEW CIRCUIT.
- T EXISTING CIRCUIT IS / WILL BECOME A SPARE. VERIFY CIRCUIT WILL NO LONGER BE USED OR NEEDED AT COMPLETION OF RENOVATION

CIRCUIT USAGE NOTE: CIRCUIT USAGE IS DERIVED FROM A CURSORY FIELD REVIEW AND PARTIAL PANEL SCHEDULES. VERIFY ALL EXISTING CIRCUITS INCLUDING USAGE. VERIFY CIRCUITS LABELED AS SPARE WILL NO LONGER BE NEEDED AT CONCLUSION OF RENOVATION. IF NEW CIRCUITS ARE INDICATED AT THE LOCATION OF A CIRCUIT THAT MUST REMAIN, RELOCATE THE NEW CIRCUIT TO OTHER AVAILABLE SPARE CIRCUIT BREAKERS ON THE SAME PANEL. IF ANY DESCREPANCIES ARE FOUND NOTIFY ENGINEER OF ACTUAL FOUND CONDITIONS.

PANELBOARD DESIGNATION:							A					EXISTING PANEL					
VOLTAGE:	240/120V	1PH-3W MAINS RATING:			ING:	225 AMPS			IPS	MAIN CB TRIP RATING:			200	AMF	S		
SURFACE	МСВ			FEED THRU LUGS								INTERRUPTING RATING:) AIC		
FLUSH			F									ENCLOSURE:			MA 1		
A SER\	/ES B		CB SIZE	LOAD VA	CKT#				CKT#	LOAD VA		CB SIZE	A	SERVES	в В		
AHU-A		3	60/2	5520	1				2	1080/900	1/	1) 20/20	REC-RECEPT	ION RE	C-RECEP	TION	
		3		5520	3	Ì			4	2415	0	30/2	CU / AHU-C	I			
AHU-B		3	30/2	2185	5				6	2415	0						
		3		2185	7	Ī			8	1080/360	1)	1) 20/20	REC-OPEN	OFF R	EC-OPEN	OFF	
PLAN COUNTER		1	20	180	9				10		Ø	30	SPARE				
WORKSTATIONS	3	1	20	720	11	Ī			12	783	1	20	LIGHTING-BREAK/OFFICE/		FFICE/RE	С	
WORKSTATIONS		20	720	13	Π			14		Ø	15	SPARE					
WORKSTATIONS	ORKSTATIONS		20	720	15	Ī			16	1000	4	20/2	WATER HEATER				
COPIER		1	20	900	17				18	1000	4						
REFRIG	SPARE	1)(7) 20/20	900/	19	T			20	/1080		20/20	SPARE	R	ECEP-RR'	S	
RECEP-BREAK	RECEP-BREAK	1/0	1) 20/20	180/180	21				22	900/720	1)(1) 20/20	RECEP-OFF/BRK RECEP-OFF		FICE		
CU / AHU-D		0	15/2	1380	23	Ī			24	360	4	20	IT CLOSET				
		0		1380	25				26	360	4	20	IT CLOSET				
CU / AHU-E		1	20/2	1610	27	Ī			28	1240	1	20	LIGHTING-O	PEN OF	FICE		
		1		1610	29				30	320	0	20	LTG-EXTER	OR			
RECEPS / LTG-SAFE ROOM		1	20	585	31	Ī			32	1035	0	15/2	CU-B				
CU-A		2	30/2	2185	33				34	1035	2						
		0		2185	35				36	696	2	20/2	IRR PUMP				
WORKSTATIONS	3	1	20	720	37				38	696	2						
WORKSTATIONS		1	20	720	39				40	50	0	15	IRR TIMER				
						A	l	в					DEMAND: 45.2 KW 188.7A			7A	



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Project No. Drawn By Checked By Date

16-0663 B.A.K. B.P.Z. 05-11-2016

Revisions:



Bryan P. Zapf, P.E. FL # 46141

"To the best of the Architect's or Engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and applicable fire safety standards as determined by local authority in accordance with Chapter 553 and 663 of Florida Statutes."

100% PERMIT DOCUMENTS



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