



08/16/17

EXISTING PANEL D																
NEW LOAD	WIRE SIZE	DESCRIPTION	Phase A KW	Phase B KW	Phase C KW	CKT. BKR. Poles	A	B	C	CKT. BKR. Poles	Phase A KW	Phase B KW	Phase C KW	DESCRIPTION	WIRE SIZE	NEW LOAD
-	-	TRACK LIGHTING @ BAR AREA				20/1 1				2 20/1				TRACK LIGHTS @ RESTROOM	-	-
-	-	BAR LIGHTS				20/1 3				4 20/1				DINING LIGHTS (PENDANT)	-	-
-	-	TRACK LIGHTING @ BAR AREA				20/1 5				6 20/1				DINING LIGHTS (PENDANT)	-	-
-	-	DINING LIGHTS (PENDANTS)				20/1 7				8 20/1				TRACK LIGHTS @ ENTRY	-	-
-	-	TRACK LIGHTS				20/1 9				10 20/1				ENTRY LIGHTS	-	-
✓	#12, 3/4" C	DINING LIGHTS	0.36		0.13	20/1 11				12 20/1				TRACK LIGHTS @ WAITING	-	-
✓	#12, 3/4" C	DINING LIGHTS	0.36			20/1 13				14 20/1				DINING LIGHTS	-	-
-	-	BAR LIGHTS				20/1 15				16 20/1				SPARE	-	-
-	-	DINING LIGHTS				20/1 17				18 20/1			0.06	TRACK LIGHTS @ DINING	-	✓
ADDITIONAL CONNECTED			KW 0.36	0.00	0.13				ADDED DIVERSITY:							
			AMPS 3.00	0.00	1.63											
ADDITIONAL KW			0.36			TO MDP			ADDITIONAL KW			0.36				
ADDITIONAL AMPS			1.55						ADDITIONAL AMPS			1.55				
VOLTAGE			208	Y/	120	PHASE	3			No OF WIRES	4			NEMA	1	ENCLOSURE
MAIN				CB	3	POLES	X	LUGS		BUS	100	AMPS			X	K&K
SERVICE ENTRANCE RATED					SPD					ISOLATED GROUND(BUS)						SURFACE
200% RATED NEUTRAL										FULLY RATED						FLUSH

EXISTING PANEL E																
NEW LOAD	WIRE SIZE	DESCRIPTION	Phase A KW	Phase B KW	Phase C KW	CKT. BKR. Poles	A	B	C	CKT. BKR. Poles	Phase A KW	Phase B KW	Phase C KW	DESCRIPTION	WIRE SIZE	NEW LOAD
-	-	TOWER FLOOD AND FLAG LIGHTS				20/1 1				2 20/1				DIS PLAY & PREP LIGHTS	-	-
-	-	EXTERIOR BUILDING LIGHTS				20/1 3				4 20/1				REAR BLDG. SECURITY LIGHTS	-	-
-	-	TOWER LIGHTS				20/1 5				6				MCH. ROOM HEATER	-	-
-	-	TOWER FLOOD LIGHTS				20/1 7				8 30/3					-	-
-	-	EXTERIOR LIGHTS				20/1 9				10				PREP AREA LIGHTS & OFFICE	-	-
-	-	EXTERIOR BUILDING LIGHTS				20/1 11				12 20/1				SPARE	-	-
✓	#12, 3/4" C	NEON OUTLETS	1.08			20/1 13				14 20/1			0.18	ROOF OUTLETS	#12, 3/4" C	✓
-	-	NIGHT LIGHT CIRCUIT				20/1 15				16 20/1				NEON OUTLETS	-	-
-	-	KITCHEN LIGHTS				20/1 17				18 20/1				BAR STRUCTURE NEON	-	-
-	-	EXTERIOR LIGHTS				20/1 19				20 20/1				SIGN NEON RECEP	-	-
-	-	SITE LIGHTING				30/2 21				22 30/1				NEON OUTLETS	-	-
-	-	SITE LIGHTING				30/2 23				24 20/1				TIME CLOCK & CONT.	-	-
-	-	SPARE				20/1 25				26 20/1				SPARE	-	-
-	-	SPARE				20/1 27				28 15/1				RESTROOM LIGHTS	-	-
-	-	VISUAL PAGING SYSTEM RECEPTS.				20/1 29				30 20/1				DISHROOM & PREP LIGHTS	-	-
-	-	SPARE				20/1 31				32 20/1				NEON OUTLETS	-	-
-	-	VISUAL PAGING SYSTEM RECEPTS.				20/1 33				34 20/1				RECP. TIN CEILING	-	-
-	-	SPARE				20/1 35				36 20/1				FAN CONTROL CENTER	-	-
-	-	VISUAL PAGING SYSTEM RECEPTS.				20/1 37				38					-	-
-	-	WATER SOFTNER				20/1 39				40 50/3					-	-
-	-	SPARE				20/1 41				42			0.00		-	-
ADDITIONAL CONNECTED			KW 1.08	0.18	0.00				ADDED DIVERSITY:							
			AMPS 9.00	1.50	0.00											
ADDITIONAL KW			1.26			TO MDP			ADDITIONAL KW			1.26				
ADDITIONAL AMPS			3.50						ADDITIONAL AMPS			3.50				
VOLTAGE			208	Y/	120	PHASE	3			No OF WIRES	4			NEMA	1	ENCLOSURE
MAIN				CB	3	POLES	X	LUGS		BUS	100	AMPS			X	K&K
SERVICE ENTRANCE RATED					SPD					ISOLATED GROUND(BUS)						SURFACE
200% RATED NEUTRAL										FULLY RATED						FLUSH

EXISTING PANEL S																
NEW LOAD	WIRE SIZE	DESCRIPTION	Phase A KW	Phase B KW	Phase C KW	CKT. BKR. Poles	A	B	C	CKT. BKR. Poles	Phase A KW	Phase B KW	Phase C KW	DESCRIPTION	WIRE SIZE	NEW LOAD
-	-	CONV. OVEN @ PREP				20/1 1				2 20/1				CONV. OVEN @ PREP	-	-
-	-	SPARE				20/1 3				4 20/1				REFRIG. STAND	-	-
-	-	TIMERS				20/1 5				6 20/1				REFRIG. STAND	-	-
-	-	WARM DRAHER				20/1 7				8 20/1				SPARE	-	-
✓	#12, 3/4" C	DINING FANS	0.20			20/1 9				10 20/1				CONV. OVEN @ BAKE	-	-
-	-	SPARE				20/1 11				12 20/1				CONV. OVEN @ BAKE	-	-
-	-	SPARE				20/1 13				14 20/1				24" GRIDDLE	-	-
-	-	SPARE				20/1 15				16 20/1				SPARE	-	-
-	-	STEAM KETTLE				20/1 17				18 20/1				SPARE	-	-
-	-	REFRIG. STAND W/ DRAWERS				20/1 19				20 20/1				SPARE	-	-
-	-	SLICER				20/1 21				22 20/1				SPARE	-	-
-	-	RECEPTACLE				20/1 23				24 20/1				SPARE	-	-
-	-	RECEPTACLE				20/1 25				26 30/1				BUN TOASTER	-	-
-	-	RECEPTACLE				20/1 27				28 30/1				MICROWAVE	-	-
-	-	RECEPTACLE				20/1 29				30 30/1				MICROWAVE	-	-
-	-	SPARE				20/1 31				32 20/1				BUZZER	-	-
-	-	SPARE				20/1 33				34 20/1				SPARE	-	-
-	-	SPARE				20/1 35				36 20/1				SPARE	-	-
-	-	LETTUCE SPINNER				20/1 37				38 20/1				SPARE	-	-
-	-	POWER HUB W/ VEGETABLE				20/1 39				40 20/1				SPARE	-	-
-	-	SPARE				20/1 41				42 20/1			0.00	SPARE	-	-
ADDITIONAL CONNECTED			KW 0.00	0.20	0.00				ADDED DIVERSITY:							
			AMPS 0.00	1.67	0.00											
ADDITIONAL KW			0.20			TO MDP			ADDITIONAL KW			0.20				
ADDITIONAL AMPS			0.36						ADDITIONAL AMPS			0.36				
VOLTAGE			208	Y/	120	PHASE	3			No OF WIRES	4			NEMA	1	ENCLOSURE
MAIN				CB	3	POLES	X	LUGS		BUS	125	AMPS			X	K&K
SERVICE ENTRANCE RATED					SPD					ISOLATED GROUND(BUS)						SURFACE
200% RATED NEUTRAL										FULLY RATED						FLUSH

EXISTING MDP									
NEW LOAD	CKT. #	FRAME SIZE	TRIP RATING	NO OF POLES	INTERRUPTING CAPACITY	LOAD SERVED	WIRE SIZE	KW LOAD	REMARKS
-	-	800 AMP MAIN BREAKER	800	3	-	MAIN	-	-	100% RATED BREAKER - NO EXPECTATIONS
-	1	100	80	3	-	DISH MACHINE	4-#3, 1-#6 GND, 1 1/2" C	-	-
-	2	100	80	3	-	RTU-1	3-#3, 1-#6 GND, 1 1/2" C	-	12 1/2 TON
-	3	100	90	3	-	RTU-2	3-#2, 1-#6 GND, 1 1/2" C	-	15 TON
-	4	100	90	3	-	RTU-3	3-#2, 1-#6 GND, 1 1/2" C	-	15 TON
-	5	200	125	3	-	RTU-4	3-#1/0, 1-#6 GND, 2" C	-	20 TON
-	6	100	90	3	-	RTU-5	3-#2, 1-#6 GND, 1 1/2" C	-	15 TON
-	7	200	200	3	-	PANEL A	4-#3/0 1-#6 GND, 2" C	-	-
-	8	200	200	3	-	PANEL B	4-#3/0 1-#6 GND, 2" C	-	-
-	9	200	200	3	-	PANEL C	4-#3/0 1-#6 GND, 2" C	-	-
-	10	100	100	3	-	PANEL D (DIMMER)	4-#2, 1-#6 GND, 1 1/2" C	0.56	-
-	11	225	225	3	-	PANEL E	4-#4/0 1-#4 GND, 2 1/2" C	1.26	-
-	12	100	100	3	-	PANEL IG	4-#1, 1-#6 GND, 2" C	-	-
-	13	200	200	3	-	PANEL S	4-#3/0 1-#6 GND, 2" C	0.20	SPARE TRIP BREAKER
✓	14	200	110	3	-	RHU-1	3-#1, 1-#6 GND, 2" C	32.43	-
-	15	-	-	-	-	-	-	-	-

PROVIDE WITH 200% VOLTAGE POLE HAZARD CIRCUIT BREAKER AND CONNECT WITH (B) #1 CU, (1) #6 CU GND, 2" C. VERIFY EXISTING CONDITIONS IN FIELD AND MAKE ADJUSTMENTS AS REQUIRED. VERIFY EXISTING PANEL SPACE IN PANEL PRIOR TO CONSTRUCTION.

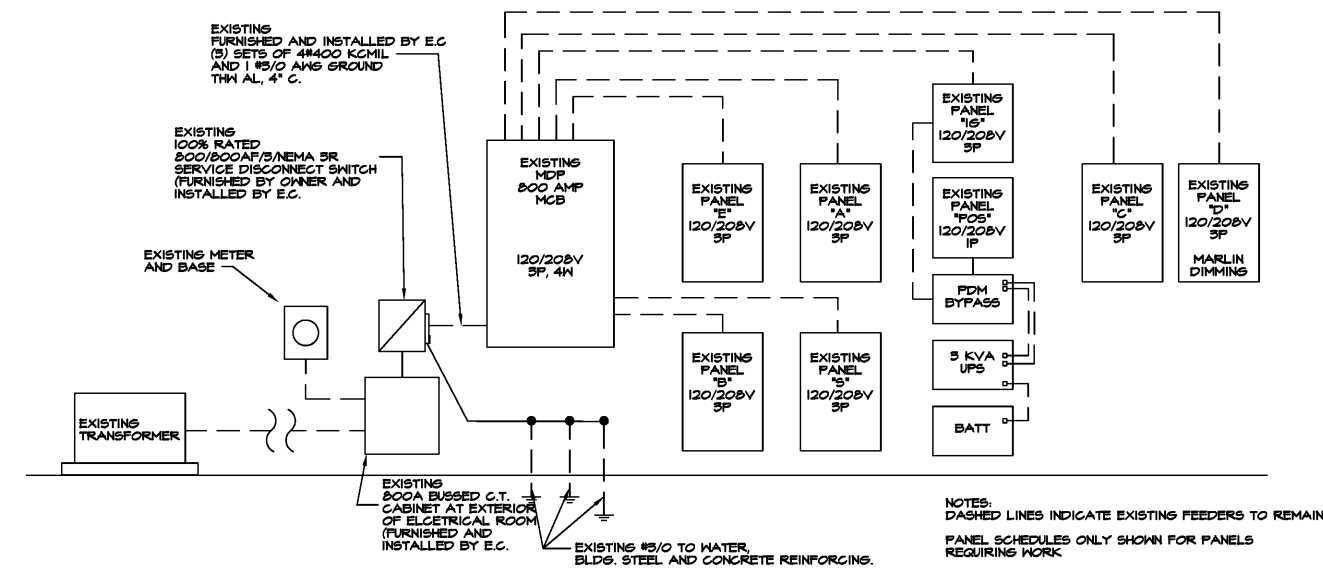
INDICATES ADDITIONAL NEW LOAD

CONTRACTOR IS RESPONSIBLE FOR LOADING ON ALL PANELS AND FEEDERS PER THE N.E.C. CONTRACTOR SHALL KEEP CIRCUIT CONTINUITY TO DEVICES TO REMAIN. E.C. SHALL VERIFY THAT ALL LOADS PLACED ON EXISTING PANELS AND FEEDERS DO NOT EXCEED THE MAXIMUM LOADING REQUIREMENT PER THE LATEST EDITION OF THE N.E.C. NOTIFY A/E OF OVERLOADS POSSIBLE.

ONLY PANELS WITH ADDITIONAL NEW LOADS ARE SHOWN. BESIDES VERIFYING THAT THE NEW LOADS DO NOT OVERLOAD EXISTING PANELS AND FEEDERS, THE CONTRACTOR IS ALSO RESPONSIBLE TO CALCULATE AND VERIFY THAT ALL UPSTREAM PANELS AND FEEDERS ARE NOT OVERLOADED DUE TO THE NEW LOADS. CONTRACTOR SHALL NOTIFY ENGINEER OF LOAD CALCULATIONS PRIOR TO COMMENCING WORK.

CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY AND CALCULATE SHORT CIRCUIT FAULT CURRENT AND ARC FLASH AND PROVIDE LABELS ON ELECTRICAL EQUIPMENT PER N.E.C. AND LOCAL JURISDICTION. CONTRACTOR SHALL PROVIDE EQUIPMENT RATED FOR FAULT CURRENT.

DIVERSITY SCHEDULE	
EXISTING DEMAND LOAD (BASED ON LARGEST UTILITY BILL AUG 2016)	179.2 KW
	224 KW
NEW ADDITIONAL LOAD FROM MDP PANEL	34.45 KW
NEW TOTAL DEMAND LOAD	258.45 KW
NEW TOTAL DEMAND AMPS	717.91 AMPS
EXISTING INCOMING SERVICE	800 AMPS



RISER DIAGRAM SHOWN FOR REFERENCE ONLY TO SHOW GENERAL ARRANGEMENT OF PANELS. E.C. SHALL VERIFY ALL FEEDERS AND ARRANGEMENT OF PANELS IN FIELD. NOTIFY A/E OF ANY DISCREPANCIES THAT WOULD PROHIBIT COMPLETION OF WORK.

EXISTING ELECTRICAL RISER DIAGRAM N.T.S.

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