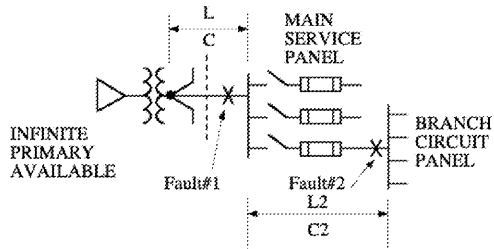


SAMPLE PROTOTYPE ADAPTATION

roibzzPROTO - Roll-On-In / Buzzed Bull Creamery
Combo SAMPLE PROTOTYPE ADAPTATION
12/FEB/2021

PRELIMINARY NOT FOR FINAL CONSTRUCTION

Wire AWG	Conduit Size	Wire + G - Cond
14	3/4"	14#14+1#14G-3/4"C
12	1"	12#12+1#12G-3/4"C
10	1 1/4"	10#10+1#10G-3/4"C
8	1 3/4"	8#8+1#8G-3/4"C
6	2"	6#6+1#6G-1"C
4	2 1/2"	4#4+1#4G-1 1/4"C
3	3"	3#3+1#3G-1 1/4"C
2	3 1/2"	2#2+1#2G-1 1/4"C
1	4"	1#1+1#1G-1 1/2"C
1/0	4 1/2"	1/0#1/0+1#1/0G-2"C
2/0	5"	2/0#2/0+1#2/0G-2"C
3/0	5 1/2"	3/0#3/0+1#3/0G-2"C
4/0	6"	4/0#4/0+1#4/0G-2 1/2"C
250	6 1/4"	250#250+1#250G-3"C
300	6 1/2"	300#300+1#300G-3"C
350	6 3/4"	350#350+1#350G-3"C
400	7"	400#400+1#400G-3 1/2"C
500	7 1/2"	500#500+1#500G-3 1/2"C
600	8"	600#600+1#600G-4"C
750	9"	750#750+1#750G-5"C
1000	10"	1000#1000+1#1000G-6"C



FAULT CIRCUIT CALCULATION	
KVA = 500	IFLA = KVA * 1000 / ELL - L / 1.73 = 1,390
L = 150	MULTIPLIER = 100 / 9 / TRF% = 48.15
C = 15082	ISCA = IFLA * MULTIPLIER = 66,932 at trans
ELL = 208	I = I * L / L - L / C / ELL = 8.534
TRF% = 2.31	M = 1 / (1 + R) = 0.153
	ISCA - ISCA * M = 10,239 Fault#1
L2 = 50	I = 1.73 * L2 * Fault#1 / C2 / ELL = 0.332
C2 = 12,843	M = 1 / (1 + R) = 0.751
	ISCA - IM = 7,689 Fault#2

NOTE: SHUNT TRIP REQUIRED FOR EXHAUST HOOD, ANSUL PANEL AND CONVECTION OVEN

ELECTRICAL PANEL R	400AMP	(1) 400 AMP PANEL	120/208/3PH/4W	MLO PANEL	AIC 22,000 AMPS	RECESSED	DESCRIPTION
DESCRIPTION	%	WATTS A	WATTS B	WATTS C	WIRE POLE BKR CIR	WATTS A WATTS B WATTS C	% DESCRIPTION
SPARE	L 125	1200			12 1 20 1	1200	100 R GFCI RECP ON ROOF
SPARE	L 125		1200		12 1 20 3	360	100 R TOILET ROOM RECEPT
SPARE	L 125			1200	12 1 20 5	1200	100 R TEL PANEL RECEPT
SPARE	L 125	1200			12 1 20 7	1200	100 R ROI SERVING REC
SPARE	L 125		1200		12 1 20 9	1200	100 R ROI SERVING REC
SPARE	L 125			1200	12 1 20 11	1200	125 S ROI MENU SIGN
POS ROI	R 100	500			12 1 20 13	1200	125 S ROI MENU SIGN
POS ROI	R 100		500		12 1 20 15	564	65 K LOW BOY
PRODUCTION LIGHTS	L 125			1200	12 1 20 17	180	65 K RICE WARMER
PRODUCTION LIGHTS	L 125	1200			12 1 20 19	100	65 K RICE WARMER
SERV COUNTER LIGHTS	L 125			1200	12 1 20 21	100	65 K RICE WARMER
SERV COUNTER LIGHTS	L 125			1200	12 1 20 23	100	65 K RICE WARMER
FAN LIGHTS	L 125	1200			12 1 20 25	1200	100 R ANSUL PANEL \$
TOILET & HALL LIGHTS	L 125		1200		12 1 20 27	500	65 K HOT WELL
\$ HOOD & MUA	K 65			1200	12 2 20 29	500	65 K AA
AA	K 65	1200			12 -- -- 31	240	65 K 1 DOOR REFRIG SAND
SPARE	L 125		1200		12 1 20 33	1152	65 K 2 DOOR REFRIG SAND
2 DOOR WORK TOP REF	K 65		984		12 1 20 35	800	125 L SPARE
WORK TABLE MISC	K 65	1200			12 1 20 37	500	65 K HEAT LAMP
WORK TABLE MISC	K 65		1200		12 1 20 39	575	65 K KEGERCATOR
FOOD PROCESSOR	K 65			1200	12 1 20 41	432	65 K GLASS CHILLER
INDUCTION RANGE	K 65	1200			12 1 20 43	1920	65 K GLASS WARMER
SPARE	L 125		1200		12 1 20 45	1200	125 L SPARE
DISHWASHER	K 65			1200	12 2 20 47	1356	65 K ICE MAKER
AA	K 65	1200			12 -- -- 49	168	65 K BEVERAGE DISPENSER
PRODUCTION MISC	K 65		1200		12 1 20 51	660	65 K BEVERAGE BUBBLER
SPARE	L 125			1200	12 1 20 53	1200	125 L SPARE
3 DOOR FREEZER	K 65	1380			12 1 20 55	1200	65 K WALK-IN REFRIG & LT
\$ CONVECTION OVEN	K 65		1596		12 1 20 57	1200	65 K AA
SPARE	L 125			1200	12 1 20 59	1200	25 L SPARE
PHASE TOTAL (LEFT RIGHT)		10517	12097	11980		7783 6148 8317	
PHASE A TOTAL		18300 WATTS		153 AMPS			
PHASE B TOTAL		18246 WATTS		152 AMPS			
PHASE C TOTAL		20297 WATTS		169 AMPS			
TOTAL		56843 WATTS		136 AMPS			

ELECTRICAL PANEL B	200 AMP	(1) 250 AMP PANEL	120/208/3PH/4W	MCB PANEL	AIC 22,000 AMPS	SURFACE	DESCRIPTION
DESCRIPTION	%	WATTS A	WATTS B	WATTS C	WIRE POLE BKR CIR	WATTS A WATTS B WATTS C	% DESCRIPTION
SIGN	S 125	1200			12 1 20 1	1200	100 R ELEC PANEL REC
SIGN	S 125		1200		12 1 20 2	1200	100 R SHOW WINDOWS REC
POS BZZ	R 100			1200	12 1 20 3	1200	100 R SHOW WINDOWS REC
POS BZZ	R 100	1200			12 1 20 5	1200	100 R CUSTOMER AREA REC
CUSTOMER LIGHTS	L 125			1200	12 1 20 7	1200	100 R HALLWAY REC
CUSTOMER LIGHTS	L 125		1200		12 1 20 9	1200	125 S BZZ MENU SIGN
SERV COUNTER LIGHTS	L 125	1200			12 1 20 11	1200	125 S BZZ MENU SIGN
SERV COUNTER LIGHTS	L 125			1200	12 1 20 13	1200	125 S BZZ MENU SIGN
SERV COUNTER LIGHTS	L 125			1200	12 1 20 15	1200	125 S BZZ MENU SIGN
**EM LTS/NIGHT LTS	L 125			1200	12 1 20 17	576	65 K MIXER
VITAMIX	K 65	1200			12 1 15 19	576	65 K MIXER
ESPRESSO	K 65	3120			12 2 30 21	576	65 K MIXER
AA	K 65			3120	12 -- -- 23	576	65 K MIXER
COFFEE GRINDER	K 65	1080			12 1 15 25	576	65 K MIXER
COFFEE GRINDER	K 65		1560		12 2 15 27	576	65 K MIXER
WAFFLE MAKER	K 65	1440			12 1 15 31	400	100 R PRINTER
PERCOLATOR	K 65		888		12 1 20 33	1200	125 L SPARE
JUICE	K 65		1080		12 1 20 35	1200	65 K NITRO TANK
SPACE	L 125	0			12 -- -- 37	600	65 K ICE MAKER
MISC KITCHEN EQUIP	K 65		1200		12 1 20 39	300	65 K 2 DOOR LC REFRIG
WINDOW SIGNS	S 100			1200	12 1 20 41	360	65 K SANDWICH REFRIG
WINDOW SIGNS	S 100	1200			12 1 20 43	800	125 L AHU-14
SPARE	L 125			1200	12 1 20 45	800	125 L AA
SPARE	L 125			1200	12 1 20 47	800	125 L AHU-15
SPARE	L 125	1200			12 1 20 49	800	125 L AA
SPARE	L 125			1200	12 1 20 51	800	125 L AHU-2A
SPARE	L 125			1200	12 1 20 53	800	125 L AA
WATER HEATER	G 100	2308			12 3 60 55	0	125 L SPACE
AA	G 100			2308	12 -- -- 57	0	125 L SPACE
AA	G 100			2308	12 -- -- 59	0	125 L SPACE
PHASE TOTAL (LEFT RIGHT)		12016	14207	14452		7439 8344 7963	
PHASE A TOTAL		19455 WATTS		162 AMPS			
PHASE B TOTAL		22551 WATTS		188 AMPS			
PHASE C TOTAL		22415 WATTS		187 AMPS			
TOTAL		64421 WATTS		179 AMPS			

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LOAD SUMMARY			NEC REQUIREMENTS		
DESCRIPTION	CONNECTED	% DEMAND WATTS	ITEM	NOTES	PERCENT
(L) LIGHTS/SPARES	23,600	125	29,500 WATTS	RECEPTACLE LOAD	FIRST 10 KVA 100
(R) RECEPT**	7,360	100	7,360 WATTS		OVER 10 KVA 50
(H) HVAC	0	125	0 WATTS	LIGHTING LOAD	ALL 125
(S) SIGN	2,400	125	3,000 WATTS	KITCHEN EQUIPMENT	1 UNIT 100
(M) MOTOR	0	125	0 WATTS		2 UNITS 100
(K) KITCHEN EQUIP	26,127	65	16,983 WATTS		3 UNITS 90
(G) GENERAL	0	100	0 WATTS		4 UNITS 80
**RECEPT REDUCTION (W-10KVA)/2			56843 WATTS		5 UNITS 70
TOTAL	59,487		158 AMPS		6 UNITS 65
TOTAL	165		TOTAL DEMAND	RESTAURANT / ALL ELECT	0-325KVA/325KVA+ 80% / 50%
			120/208/3P/4W	OTHER / ALL ELECT	0-325KVA/325KVA+ 100% / 70%
			400AMP SERVICE		

LOAD SUMMARY			NEC REQUIREMENTS		
DESCRIPTION	CONNECTED	% DEMAND WATTS	ITEM	NOTES	PERCENT
(L) LIGHTS/SPARES	14,400	125	18,000 WATTS	RECEPTACLE LOAD	FIRST 10 KVA 100
(R) RECEPT**	8,800	100	8,800 WATTS		OVER 10 KVA 50
(H) HVAC	4,800	125	6,000 WATTS	LIGHTING LOAD	ALL 125
(S) SIGN	8,400	125	10,500 WATTS	KITCHEN EQUIPMENT	1 UNIT 100
(M) MOTOR	0	125	0 WATTS		2 UNITS 100
(K) KITCHEN EQUIP	22,764	65	14,797 WATTS		3 UNITS 90
(G) GENERAL	6,924	100	6,924 WATTS		4 UNITS 80
**RECEPT REDUCTION (W-10KVA)/2			65021 WATTS		5 UNITS 70
TOTAL	66,088		181 AMPS		6 UNITS 65
TOTAL	184		TOTAL DEMAND	RESTAURANT / ALL ELECT	0-325KVA/325KVA+ 80% / 50%
			120/208/3P/4W	OTHER / ALL ELECT	0-325KVA/325KVA+ 100% / 70%
			200AMP SERVICE		

GC WILL PROVIDE ALL ELECTRICAL PANELS WITH A SCHEDULE WITH EACH BREAKER MARKED AS TO IT'S CLEAR, EVIDENT AND SPECIFIC PURPOSE

