

PNL A				PANELBOARD				208Y/120V, 3PH, 4W 600A M.C.B. SERIES RATED 65/10K A.I.C. GROUND BUS ISOLATED GROUND				
MOUNTING: FLUSH LOCATION: BOH REAR WALL TYPE: BOLT ON W/GROUND BUS NEMA RATING: 1				INTERIOR PANELBOARDS SHALL BE RECESSED WITH FLANGED/REMOVABLE SCREW-ON COVER. SURFACE MOUNTED PANELBOARDS OR HINGED/FLUSH COVERS NOT ALLOWED								
DESCRIPTION				KVA				DESCRIPTION				
WIRE BRKR PL				A B C				PL BRKR WIRE				
1	MC DISAPPLY LTS/MENUBRD/LED	12	20	1	0.79	1.00		1	20	12	FAX '87, MGR '84C, COMP '49A	2
3	HOOD CONTL PNL 'M4'	12	20	1		0.50	0.60	1	20	12	MUSIC 95-5, VCR, MONITOR	1
5	SERVICE POOL '44, PTR '86A' (2,6)	12	20	1				1	20	12	COMPUTER RECEP '83A' (2)	6
7		12	20	1		0.13		1	20	12	10J ICE MACHINE(6)	8
9	FLY LT, CO2 (1,6)	12	20	1		0.82	1.41	1	20	12	SPARE	10
11	RICE WARMER '54A' (1,4)	12	20	1				1	20	12	—	12
13	REF. PREP TABLE '340' (1)	12	20	1	1.80	0.58		1	20	12	REAR DOOR 'FLY FAN 'M8A'	14
15	REF. PREP TABLE '340' (1)	12	20	1			0.10	1	20	12	FIRE SUPPRESS SHUTDOWN	16
17	60" WORKTOP FRZR '30L' (1,4)	12	20	1		1.08	0.10	1	20	12	SMART SAE '62B'	18
19	BEV. '44B'(6)	12	20	1	1.12	1.30		1	20	10	INDUCT WELL 3F, 3G-GFI (1,4,6)	20
21	SERVING COUNTER '20'	12	20	1		1.80	1.30	1	20	10	INDUCT WELL 3F, 3G-GFI (1,4,6)	22
23	ICE TEA BREWER '90'(6)	12	20	1				1	20	10	INDUCT WELL 3F, 3G-GFI (1,4,6)	24
25	FOOD PROCESSOR '53'	12	20	1	1.20	1.30		1	20	10	INDUCT WELL 3F, 3G-GFI (1,4,6)	26
27	RICE COOKER '25A' (1,8)	12	20	1		1.78	1.30	1	20	10	INDUCT WELL 3F, 3G-GFI (1,4,6)	28
29	WALK-IN COOLER COIL '31M(1)	12	20	1	2.30			2	20	12	INDUCT WELL 3F, 3G-GFI (1,4,6)	30
31	RICE HLD CABINET '24H' (1,4,6)	10	20	1	1.78	1.30		1	20	10	INDUCT WELL 3F, 3G-GFI (1,4,6)	32
33	CHINESE RND 2OR &20Q (1,6)	12	20	1		0.20	0.84	1	20	12	RAD TOP HEATER '1S2B1' (1)	34
35	COKE/COMP OUTLET	12	20	1				1	20	12	RAD TOP HEATER '1S2B2' (1)	36
37	4B' BOOSTER OUTLET (6)	12	20	1	0.86	1.10		1	20	12	RAD TOP HEATER '1S2B2' (1)	38
39	SPARE	12	20	1			0.87	1	20	12	THAWING CABINET (1,6)	40
41	FLY LIGHT (6)	12	20	1				1	20	12	GAS WATER HEATER 'P3' (6)	42
43	DUCT DETECTORS	12	20	1	0.20	0.96		2	20	12	GAS WATER HEATER 'P3' (6)	44
45	LTC-FOG PREP/FEM (4)	10	20	1		0.77	0.2	1	20	12	DUCT DETECTORS	46
47	LTD DINING AREA	12	20	1				2	20	12	MICROWAVE - 55A (1,6)	48
49	SHOW WINDOW RECEPTS	12	20	1	0.72	0.90		—	—	—	—	50
51	GENERAL RECEPTS	12	20	1		0.72	0.18	1	20	12	FUTURE EQUIPMENT	52
53	EXTERIOR RECEPTS	12	20	1				1	20	12	FUTURE EQUIPMENT	54
55	SPARE	20	1	1	1.23			2	20	12	ICE MACHINE COND. '10J-S1' (1)	56
57	SPARE	20	1	1		1.23		—	—	—	—	58
59	SPARE	20	1	1			2.48	2	40	8	WALK IN FRZR COND.'32-S1'(1,7)	60
61	SPARE	10	20	1	2.48			2	—	—	—	62
63	LIGHTING-RRS & EF-3	12	20	1	0.7	1						

- (1) KITCHEN EQUIPMENT SHOWN AT 65% IN PANEL TOTALS PER NEC (KITCHEN EQUIPMENT).
- (2) TERMINATE GROUND ON ISOLATED GROUND BUS.
- (3) ROUTE CIRCUIT THROUGH LIGHTING CONTACTOR, CONTROLLED BY TIMECLOCK. REFER TO DETAILS, SHEET 11/E-400.
- (4) WIRE SIZE INCREASE DUE TO VOLTAGE DROP. SIZE EQUIPMENT GROUND CONDUCTOR PROPORTIONALLY PER NEC.
- (5) REFER TO ONE-LINE DIAGRAM FOR WIRE SIZES.
- (6) GFCI BREAKER.
- (7) INSTALL LOCKING DEVICE (LOCK-OFF FOR MAINTENANCE).

1. DISTRIBUTION PANEL SHALL BE I-LINE OR APPROVED EQUAL. PROVIDE AN ARC FLASH WARNING SIGN PER NEC 110.16.

PNL B			PANEL BOARD												
			(NEW)												
MOUNTING: FLUSH			<div> <div>INTERIOR PANELBOARDS SHALL BE RECESSED WITH FLANGED/REMOVABLE SCREW-ON COVER</div> <div>SURFACE MOUNTED PANELBOARDS OR HINGED/FLUSH COVERS NOT ALLOWED</div> </div>										208Y/120V, 3PH, 4W		
LOCATION: BOH REAR WALL												225A M.L.O.			
TYPE: BOLT ON W/GROUND BUS												SERIES RATED 65/10K A.I.C.			
NEMA RATING: 1												GROUND BUS			
	DESCRIPTION	WIRE	BRKR	PL	KVA						PL	BRKR	WIRE	DESCRIPTION	
					A		B		C						
1	LOGO 'S2'/I.D. SIGN 'S1' (3)	12	20	1	1.20	0.9					1	20	12	LIGHTING INVERTER	2
3	FUTURE GREASE REMOVAL TIME CLOCK -A , B & C	8	20	1			0.59				1	20		SPARE	4
5		12	20	1					0.02	0.90	1	20	12	21B MJ345 FRYER (1,6)	6
7	FUTURE SITE IRRIGATION DINING TV'S	—	20	1	0.18	5.64					3	60	6	DISHWASHER	8
9		12	20	1			1.12	5.64			—	—	—	—	10
11	SECURITY POS. MONITORS	12	20	1					0.23	5.64	—	—	—	—	12
13	SPARE	SPARE	20	1							1	20		SPARE	14
15	SPARE	SPARE	20	1							1	20		SPARE	16
17	SPARE	SPARE	20	1							1	20		SPARE	18
19	SPARE	SPARE	20	1							1	20		SPARE	20
21	SPARE	SPARE	20	1							1	20		SPARE	22
23	SPARE	SPARE	20	1							1	20		SPARE	24
25	SPARE	SPARE	20	1							3	20	12	EF-1	26
27	RTU CONVENIENCE OUTLETS	12	20	1							—	—	—	—	28
29		12	20	1					0.72	1.32	—	—	—	—	30
31	CU-1	10	30	3	2.57	1.32					3	20	12	EF-2	32
33	—	—	—	—			2.57	1.32			—	—	—	—	34
35	—	—	—	—					2.57	1.32	—	—	—	—	36
37	CU-2	10	30	3	2.57	2.10					3	30	12	MA-1	38
39	—	—	—	—			2.57	2.10			—	—	—	—	40
41	—	—	—	—					2.57	2.10	—	—	—	—	42
TOTAL					17.8		16.5		17.0		KVA				
PER NEC ARTICLE 220					149.16		135.00		137.5		AMPS				
TOTAL LOAD					50.40		KVA		140.00		AMPS				
FEEDER LOAD															

1. WIRE SIZE SHALL BE MINIMUM #12 AWG, THWN SOLID COPPER UNLESS OTHERWISE NOTED. PROVIDE GROUND WIRE WHERE SHOWN OR REQUIRED BY CODE. INCREASE WIRE SIZE TO COMPENSATE FOR VOLTAGE DROP WHERE TOTAL LENGTH OF ANY BRANCH EXCEEDS 100 FEET.
2. SHORT CIRCUIT CURRENT INFORMATION FROM THE UTILITY IS NOT AVAILABLE AT THIS TIME. CONTRACTOR SHALL OBTAIN THIS INFORMATION WHEN AVAILABLE AND CALCULATE THE 3-PHASE FAULT CURRENT AT EACH PANEL USING COOPER BUSSMAN BULLETIN EDP-1, "A SIMPLE APPROACH TO SHORT CIRCUIT CALCULATIONS" (2004) OR "SPD ELECTRICAL PROTECTION HANDBOOK" (2017), SECTION 4. PROVIDE PANELS WITH INTERRUPTING CAPACITIES AT LEAST 10% ABOVE CALCULATED VALUES.

1. UNLESS NOTED, ALL DEVICES AND TERMINATIONS 100 AMPS AND LESS TO BE RATED FOR 60°C WIRE, OVER 100 AMPS, 75°C WIRE.
2. CONTRACTOR TO SUBMIT SERVICE ENTRANCE GEAR SHOP DRAWINGS TO SERVING UTILITY COMPANY FOR APPROVAL.
3. ALL WIRE #8 AND SMALLER TO BE THWN/THHN CU.; #6 AND LARGER TO BE XHHW CU.
4. THE DESIGN PROFESSIONAL HAS PERFORMED ALL REQUIRED LOAD CALCULATIONS AND VERIFIES THAT ALL UPSTREAM PANELS AND EQUIPMENT ARE NOT OVERLOADED.

1. ENTIRE INSTALLATION TO COMPLY WITH N.E.C. 110.22 AND 240.86(B).
2. NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM WITHOUT THE PRIOR APPROVAL OF THE DESIGN ELECTRICAL ENGINEER AND THE ELECTRICAL INSPECTOR.
3. A TWO TIER 65000/10000 AIC SERIES RATING SYSTEM IS SPECIFIED BETWEEN THE SES CIRCUIT BREAKER AND THE BRANCH CIRCUIT PANEL BREAKERS. NO SUBSTITUTIONS - UNLESS A FULLY RATED SYSTEM IS PROVIDED.
4. MOTOR CONTRIBUTION TO THE FAULT CURRENT IS LESS THAN 1% OF THE INTERRUPTING RATING OF THE DOWNSTREAM CIRCUIT BREAKER(S).
5. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LABELS AT ALL COMPONENTS OF THE SERIES PROTECTED SYSTEM:
 - A. PANEL 'SES' STATING "CAUTION - 65/10 SERIES COMBINATION SYSTEM RATED _____ AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED" _____
 - B. PANEL 'A' STATING "CAUTION - 22/10 SERIES COMBINATION SYSTEM RATED _____ AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED" _____
 - C. PANEL 'B' STATING "CAUTION - 22/10 SERIES COMBINATION SYSTEM RATED _____ AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED" _____
6. EQUIPMENT SUPPLIER TO PROVIDE CUT SHEETS OF ALL SERIES RATED COMPONENTS (I.E. FUSES, CIRCUIT BREAKERS) HI-LIGHTING EACH ITEM AND THE SPECIFIC LISTING/TESTING OF EACH ITEM'S SERIES RATING WITH THE OTHER.
7. POST THIS INFORMATION ON THE JOB-SITE WITH PERMIT FOR CITY ELECTRICAL INSPECTOR'S REVIEW/APPROVAL.

TO UTILITY MAIN
DISC. #1
VIA WIREWAY

EXTERIOR

INTERIOR

4#600MCM & 1#1/0 G IN 4" C (EXISTING)

EXISTING

DISC. PANDA
600A, 208/120V
3PH, 4W
EXISTING

4#600MCM & 1#1/0 G IN 4" C (EXISTING)

PANEL 'A'
SEC.1
600A, 208/120V
3PH, 4W
EXISTING

SEC.2

PANEL 'B'
225A, 208/120V
3PH, 4W
NEW

4#3/0 & 1#6G IN 2" C

GROUND

1. CONTRACTOR TO FIELD VERIFY AND COORDINATE THEIR RESPONSIBILITIES FOR ELECTRICAL SERVICE ENTRANCE WITH ELECTRICAL SERVICE PROVIDER; AND PROVIDE BID WITH ALL ASSOCIATED COSTS WITH NO ADDITIONAL COST TO OWNER.

SINGLE LINE DIAGRAM		2
	NOT TO SCALE	E-601

