

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.
5. ELECTRICAL SERVICE ENTRANCE: ESTIMATED POINT-TO-POINT PRIMARY CONDUIT LENGTH = 175 FEET, ESTIMATED POINT-TO-POINT SECONDARY CONDUIT LENGTH = 30 FEET. THE CONTRACTOR SHALL USE THESE ESTIMATED CONDUIT LENGTHS AS THE MINIMUM INSTALLATION TO BE INCLUDED IN THE CONSTRUCTION BID.

SINGLE LINE DIAGRAM GENERAL NOTES

3

NOT TO SCALE

E-601

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 MAINS FUSES AND THE PANEL BRANCH CIRCUIT 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; AT PANEL 'SES' STATING 'CAUTION - 65/10 SERIES COMBINATION SYSTEM RATED 43,505 AMPERES, IDENTIFIED REPLACEMENT COMPONENTS REQUIRED'. AT PANEL 'A' STATING 'CAUTION - 65/10 SERIES COMBINATION SYSTEM RATED 35,908 AMPERES, IDENTIFIED REPLACEMENT COMPONENTS REQUIRED', AND AT PANEL 'B' STATING 'CAUTION - 65/10 SERIES COMBINATION SYSTEM RATED 30,570 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.
8. ALL FAULT CURRENT CALCULATIONS ARE BASED ON ASSUMED VALUES. ACTUAL AVAILABLE FAULT CURRENT MUST BE VERIFIED WITH UTILITY COMPANY AND ELECTRICAL EQUIPMENT A.I.C. REQUIREMENTS MUST BE RECALCULATED.

SERIES RATING NOTES

4

NOT TO SCALE

E-601

ELECTRICAL SERVICE ENTRANCE COORDINATION

NEW SERVICE REQUIRED: 600A, 120/208V, 3 PHASE, 4 WIRE

UTILITY COMPANY: LG&E

SERVICE TO BUILDING ROUTED: TBD

MR. TIMOTHY TOMLIN

AVAILABLE FAULT CURRENT: CONTRACTOR TO COORDINATE

PHONE: (502)364-8382

METERING LOCATION: EXTERIOR BUILDING

EMAIL: SANDY.WADE@LG&-KU.COM

ITEMS	CONTRACTOR		UTILITY COMPANY	
	FURNISHED BY	INSTALLED BY	FURNISHED BY	INSTALLED BY
PRIMARY CONDUCTORS			X	X
PRIMARY TERMINATIONS			X	X
PRIMARY CONDUIT(S)	X	X		
PRIMARY TRENCH/BACKFILL	X	X		
TRANSFORMER -(CONTRACTOR TO PROVIDE PAD PER/UTILITY REQ'S.)			X	X
SECONDARY CONDUCTORS (FROM XFMR TO UTILITY METER)	X	X		
SECONDARY TERMINATIONS @ TRANSFORMER (GC PROVIDE LUGS)			X	X
SECONDARY TERMINATIONS @ SERVICE ENTRANCE	X	X		
SECONDARY CONDUIT	X	X		
SECONDARY TRENCH/BACKFILL	X	X		
METERING CT'S - SELF CONTAINED METER			X	X
METER HOUSING-- PROVIDES TO CONTRACTOR AT NO CHARGE	X	X		

CONTRACTOR NOTE:

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.

DESIGNER NOTE:

1. ENGINEER/DESIGNER TO MODIFY ELECTRICAL COORDINATION FORM AS PER THEIR CONVERSATION WITH UTILITY PROVIDER.

PROVIDE AN ARC FLASH WARNING SIGN PER NEC 110.16.

INTERIOR PANELBOARDS SHALL BE RECESSED WITH FLANGED/REMOVABLE SCREW-ON COVER. SURFACE MOUNTED PANELBOARDS OR HINGED/FLUSH COVERS NOT ALLOWED

CIRCUIT BREAKER PANELBOARD SCHEDULE

PANELBOARD DESIGNATION:		MANUFACTURER: SEE SPEC - SHEET E000		VOLTAGE: 120/208				
"PNL A"		TYPE: BOLT ON W/ GROUND BUS & ISOLATED GROUND		PHASE: 3				
		ENCLOSURE/SPACES: NEMA 1 84 POLES		WIRE: 4				
		MOUNTING/MAX. DIMENSION: SERIES RATED 65/10K		MAIN RATING (AMPS): 400				
		MIN. AIC RATING (AMPS):		MAIN TYPE: MAIN LUGS ONLY				
CIRC NO.	LOAD DESCRIPTION	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER ACC.	LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER ACC.	LOAD DESCRIPTION	CIRC NO.
				PHASE LOADS (VA)				
				A B C				
1	WIC DISPLAY LTS/MENUBRD/LED	20	GF	424 1424 1000	20	GF	FAX "87", "MR 94C", COMP "49A"	2
3	HOOD CONTL PNL "M4"	20	GF	500 1100 600	20	GF	MUSIC, VCR, MONITOR	4
5	SER. AREA POS'n "84", PTRS "86A" (2)	20	GF	360 860 500	20	GF	COMPUTER RECP "83A" (2)	6
7	DR. THRU POS'n "84", PTRS "86A" (2)	20	GF	550 880 130	20	GF	10J ICE MACHINE	8
9	CARB. "4B" SEC. MON. "95-4-53" (1)	20	GF	910 2320 1410	20	GF	CHF-25 AIR CURTAIN "M8A"	10
11	RICE WARNER "54" (1)	20	GF	110 1520 1410	20	GF		12
13	REF. PREP TABLE "34-0" (1)	20	GF	1440 1800 360	20	GF	REAR DRO-FLY FAN "M9A"	14
15	UNDER CTR FRZR "340" (1)	20	GF	1080 1080 0	20	GF	SPARE	16
17	WOPTOP FREEZER "30K" (1)	20	GF	1080 1080 0	20	GF	SPARE	18
19	BEV. DISP. "4AB", ICE MAC. "10J" (1)	20	GF	1250 3200 1950	20	GF	INDUCTION DRY WELL 3J, 3K (1,4)	20
21	SERVING COUNTER	20	GF	180 2130 1950	20	GF	INDUCTION DRY WELL 3J, 3K (1,4)	22
23	ICE TEA BREWER "9D"	20	GF	1780 3730 1950	20	GF	INDUCTION DRY WELL 3J, 3K (1,4)	24
25	FOOD PROCESSOR "53"	20	GF	340 2290 1950	20	GF	INDUCTION DRY WELL 3J, 3K (1,4)	26
27	EP-3	20	GF	576 2926 1950	20	GF	INDUCTION DRY WELL 3J, 3K (1,4)	28
29	WALK-IN COOLER CABIN "31" (1)	20	GF	240 1865 1625	20	GF	INDUCTION DRY WELL 3J, 3K (1,4)	30
31	RICE HOLDING CABINET "24H" (1,4)	20	GF	1780 3405 1625	20	GF	INDUCTION DRY WELL 3J, 3K (1,4)	32
33	(SHUNT)	ST	0	625 475 625	20	GF	RADIANT TOP HEATER "152B" (1)	34
35	SPARE	0	0	475 475 475	20	GF	RADIANT TOP HEATER "152B" (1)	36
37	SPARE	0	0	625 625 625	20	GF	RADIANT TOP HEATER "152B" (1)	38
39	HEAT WRAP "32A"	20	GF	500 975 475	40	GF	RADIANT TOP HEATER "152B" (1)	40
41	FLY LIGHT	20	GF	180 655 475	20	GF	RADIANT TOP HEATER "152B" (1)	42
43	DUCT DETECTORS	20	GF	200 200 0	20	GF	SPARE	44
45	LTC-FOOD PREP (4)	20	GF	1230 1230 0	20	GF	SPARE	46
47	LTC-DINING AREA	20	GF	1212 2112 900	15	GF	MICROWAVE - 55A (1)	48
49	SHOW WINDOW RECEPS	20	GF	540 1440 900	20	GF		50
51	GENERAL RECEPS	20	GF	1260 1260 0	20	GF	FUTURE EQUIPMENT	52
53	EXTERIOR RECEPS	20	GF	360 860 500	20	GF	DINING TV'S	54
55	SPARE	20	GF	0 1230 1230	20	GF	ICE MACHINE CON. "10J" (1)	56
57	SPARE	20	GF	0 1230 1230	20	GF		58
59	GAS WATER HEATER P2	20	GF	630 2710 2080	20	GF	WALK IN FRZR CON. "32-S1"	60
61	ICE TEA BREWER "9D" (1,4)	20	GF	1780 3860 2080	2	GF		62
63	LIGHTING - EM / RESTROOMS (4)	20	GF	70 1630 1560	20	GF	WALK IN COOLER CON. "31-S1"	64
65	SUPP WARMERS "3T" (1,4)	20	GF	805 2365 1560	2	GF		66
67	DT WINDOW "M10/SENSOR BAR	20	GF	500 6745 6245	60	RTU-3		68
69	INDUCTION DRY WELL 3J, 3K (1,4)	20	GF	1950 8195 6245	3	GF		70
71	INDUCTION DRY WELL 3J, 3K (1,4)	20	GF	1950 8195 6245	3	GF		72
73	ELECTRIC GRILL - "23B" (1)	40	GF	3002 9247 6245	60	RTU-2		74
75	SHUNT	3	0	3002 9247 6245	3	GF		76
77	SHUNT	3	0	3002 9247 6245	3	GF		78
79	INDUCTION DRY WELL 3J, 3K (1,4)	20	GF	1950 8195 6245	40	RTU-1		80
81	INDUCTION DRY WELL 3J, 3K (1,4)	20	GF	1950 8195 6245	3	GF		82
83	INDUCTION DRY WELL 3J, 3K (1,4)	20	GF	1950 8195 6245	3	GF		84
CONNECTED SUBTOTAL (VA):				39329	38681	40807	118817 TOTAL CONNECTED (VA)	
+DIVERSIFIED COOLING TOTAL (VA):				35382	34799	36712	COOLING CONTROLLING LOAD	
+DIVERSIFIED HEATING TOTAL (VA):				35382	34799	36712	1.00 FUTURE FACTOR (INCLUDED)	
PHASE LOADS (AMPS):				295	290	306	306 CALCULATED PANEL SIZING AMPS	
CIRCUIT BREAKER ACC. ABBREVIATIONS:		(*) DIVERSIFIED LOADS HAVE BEEN CALCULATED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.)						
GF - GROUND-FAULT CIRCUIT INTERRUPTER								
AF - ARC-FAULT CIRCUIT INTERRUPTER								
ST - SHUNT TRIP								
HL-ON - HANDLE-LOCK ON DEVICE								
HL-OFF - HANDLE-LOCK OFF DEVICE								
EPD - EQUIPMENT PROTECTION DEVICE								
ACCESSORIES:								
		a. PROVIDE PANELBOARD WITH ISOLATED GROUND BAR.						
		b.						
		c.						

PROVIDE AN ARC FLASH WARNING SIGN PER NEC 110.16.

INTERIOR PANELBOARDS SHALL BE RECESSED WITH FLANGED/REMOVABLE SCREW-ON COVER. SURFACE MOUNTED PANELBOARDS OR HINGED/FLUSH COVERS NOT ALLOWED

CIRCUIT BREAKER PANELBOARD SCHEDULE

PANELBOARD DESIGNATION:		MANUFACTURER: SEE SPEC - SHEET E000				VOLTAGE: 120/208								
		TYPE: BOLT ON W/ GROUND BUS				PHASE: 3								
"PNL B"		ENCLOSURE/SPACES: NEMA 1 42 POLES				WIRE: 4								
		MOUNTING/MAX. DIMENSION:				MAIN RATING (AMPS): 225								
		MIN. AIC RATING (AMPS): SERIES RATED 65/10K				MAIN TYPE: MAIN LUGS ONLY								
CIRC NO.	LOAD DESCRIPTION	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER ACC.	LOAD (VA)	PHASE LOADS (VA)			LOAD (VA)	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER ACC.	LOAD DESCRIPTION	CIRC NO.		
				A B C										
1	BUILDING SIGNS S1,S2,S3 & S4	20		1000	2230	////	////	1230	20		ICE MACHINE/COOL. "10J-S1"	2		
3	EXTERIOR LIGHTING - POLE (3,4)	20		867	////	////	2097	1230	20	*	"	4		
5	EXTERIOR LIGHTING - POLE (3,4)	20		867	////	////	2097	5743	4876	60		CU-1	6	
7	IRRIGATION CONTROLS	20		180	////	////	5096	4876	3	*	"	8		
9	4AB	20	GF	1116	////	////	5092	4876	3	*	"	10		
11	SECURITY/POS MONIORS	20		230	////	////	390	160	20		CANOPY LIGHTING (3)	12		
13	HYPERCATIVE TIMER SYS.	20		100	260	////	////	160	20		CANOPY LIGHTING (3)	14		
15	DINING TV	20		250	////	////	0	0	20		SPARE	16		
17	SPARE	20		0	////	////	0	0	20		SPARE	18		
19	EXTERIOR FIN LIGHTS	20		1000	1000	////	////	0	20		SPARE	20		
21	MONUMENT SIGN (3,4)	20		500	////	////	500	////	0	20		SPARE	22	
23	DR THRU LTC (3)	20		180	////	////	250	180	0	20		SPARE	24	
25	DR THRU CANPY LTS/MENUBRD	20		1500	2386	////	////	886	15		ET-1	26		
27	DR THRU ORG. CONFRM. SCREEN	20		1000	1886	////	////	886	3	*	"	28		
29	RTU'S CONVENIENCE RECEPS	20		540	////	////	1426	886	3	*	"	30		
31	SNOW MELT CABLE SYSTEM	20		500	1386	////	////	886	15		ET-2	32		
33	SNOW MELT CABLE SYSTEM	20		500	1386	////	////	886	3	*	"	34		
35	MJ345 Fryer (1)	20		960	////	////	1846	886	3	*	"	36		
37	(SHUNT)		ST	0	2252	////	////	2252	30		MAJ-1	38		
39	SNOW MELT CABLE SYSTEM	20		500	////	////	2752	2252	3	*	"	40		
41	SPARE	20		0	////	////	2252	2252	3	*	"	42		
CONNECTED SUBTOTAL (VA)				14570			14863			11837			41090 TOTAL CONNECTED (VA)	
+DIVERSIFIED COOLING TOTAL (VA)				14865			15164			12077			COOLING CONTROLLING LOAD	
+DIVERSIFIED HEATING TOTAL (VA)				14865			15164			12077			1.00 FUTURE FACTOR (INCLUDED)	
PHASE LOADS (AMPS)				124			127			101			127 CALCULATED PANEL SIZING AMPS	
CIRCUIT BREAKER ACC. ABBREVIATIONS:														
GF - GROUND-FAULT CIRCUIT INTERRUPTER														
AF - ARC-FAULT CIRCUIT INTERRUPTER														
ST - SHUNT TRIP														
HL-ON - HANDLE-LOCK ON DEVICE														
HL-OFF - HANDLE-LOCK OFF DEVICE														
EPD - EQUIPMENT PROTECTION DEVICE														
ACCESSORIES:														
a.														
b.														
c.														
(DIVERSIFIED LOADS HAVE BEEN CALCULATED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.)														

CIRCUIT BREAKER PANELBOARD SCHEDULE

PANELBOARD DESIGNATION:		MANUFACTURER: SEE SPEC - SHEET E000				VOLTAGE: 120/208			
		TYPE: GROUND BUS & ISOLATED GROUND				PHASE: 3			
"SES"		ENCLOSURE/SPACES: NEMA 3R 18 POLES				WIRE: 4			
		MOUNTING/MAX. DIMENSION: MIN. AIC RATING (AMPS): 65000				MAIN RATING (AMPS): 600			
		MIN. TYPE: MAIN BREAKER							
CIRC NO.	LOAD DESCRIPTION	CIRCUIT BREAKER AMPS	CIRCUIT BREAKER ACC.	LOAD (VA)	PHASE LOADS (VA)	LOAD (VA)	CIRCUIT BREAKER AMPS	LOAD DESCRIPTION	CIRC NO.
				A B C					
1	PANELBOARD "A"	400		39329	39329	38681	0	SPACE	2
3	"	3		36681	36681	40807	0	SPACE	4
5	"	3		40807	40807	14570	0	SPACE	6
7	PANELBOARD "B"	200		14570	14570	14863	0	SPACE	8
9	"	3		14863	14863	11837	0	SPACE	10
11	"	3		11837	11837	0	0	SPACE	12
13	SPACE			0	0	0	0	SPACE	14
15	SPACE			0	0	0	0	SPACE	16
17	SPACE			0	0	0	0	SPACE	18
CONNECTED SUBTOTAL (VA)				39329	39329	38681	0	159907 TOTAL CONNECTED (VA)	
+DIVERSIFIED COOLING TOTAL (VA)				50160	49830	48992	0	COOLING CONTROLLING LOAD	
+DIVERSIFIED HEATING TOTAL (VA)				50160	49830	48992	1.00	FUTURE FACTOR (INCLUDED)	
PHASE LOADS (AMPS)				418	416	409	418	CALCULATED PANEL SIZING AMPS	
CIRCUIT BREAKER ACC. ABBREVIATIONS:				(a. DIVERSIFIED LOADS HAVE BEEN CALCULATED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.)					
GF = GROUND-FAULT CIRCUIT INTERRUPTER				ACCESSORIES:					
AF = ARC-FAULT CIRCUIT INTERRUPTER				a. PROVIDE PANELBOARD WITH ISOLATED GROUND BAR.					
ST = SHUNT TRIP				b.					
HL-ON = HANDLE-LOCK ON DEVICE				c.					
HL-OFF = HANDLE-LOCK OFF DEVICE									
EPD = EQUIPMENT PROTECTION DEVICE									

SERVICE LOAD DIVERSITY TABLE		CONNECTED
LOAD TYPES		LOAD
1	GENERAL RECEPTACLES	3380
2	GENERAL RECEPTACLES	0
3	KITCHEN EQUIPMENT	44432
4	LIGHTING	8350
5	HVAC	74925
6	REFRIGERATION	7450
7	CONTINUOUS	9480
8	NON—CONTINUOUS	11890
CONNECTED TOTAL		0