



JOB NO.  
10-020

DRWN: CHK  
TWG WSBJR

SCALE:  
AS NOTED

ISSUE:  
August 3, 2011  
For Bid

TITLE  
SCHEDULES,  
LEGENDS, AND  
DETAILS

SHEET

E3.3

PANEL HP SECTION 1 120/208V 3PH 4W 600 AMP BUS - MCB 42K AIC NEMA TYPE 1 (SURFACE)

CKT #	LOAD DESCRIPTION	AF	AT	P	CA	DF	DA	CKT #	LOAD DESCRIPTION	AF	AT	P	CA	DF	DA
1	PANEL "EP-1" FEEDER	100	100	3	33	0.96	31	2	SPARE	20	20	1	1.00	0	0
3					33	0.96	31	4	SPARE	20	20	1	1.00	0	0
5					33	0.96	31	6	LIGHTS - RM 001	20	20	1	6	1.00	6
7	LIGHTS - PARKING (RM000)	20	20	1	6	1.00	6	8	SPARE	20	20	1	1.00	0	0
9	HEAT TRACE CONTROL PANEL	20	20	1	2	1.00	2	10	LIGHTS - RM 002	20	20	1	8	1.00	8
11	LIGHTS - RMs 100A, 100B	20	20	1	10	1.00	10	12	BB	20	20	1	6	1.00	6
13	NIGHT LIGHTS - RMs 100A, 100B	20	20	1	12	1.00	12	14	OUTLETS - RM 100A	20	20	1	8	0.50	4
15	DRYER RM 100E	20	20	2	15	0.60	9	16	OUTLETS - RM 100B	20	20	1	14	0.50	7
17	DRYER RM 100E	20	20	2	15	0.60	9	18	OUTLETS - RM 100F	20	20	1	11	0.50	5
19	DRYER RM 100E	20	20	2	15	0.60	9	20	OUTLETS - RM 100E	20	20	1	9	0.50	5
21	DRYER RM 100E	20	20	2	15	1.00	15	22	WASHER - RM 100E	20	20	1	12	1.00	12
23	DRYER RM 100E	20	20	2	15	1.00	15	24	WASHER - RM 100E	20	20	1	12	1.00	12
25	DRYER RM 100E	20	20	2	15	1.00	15	26	WASHER - RM 100E	20	20	1	12	1.00	12
27	LIGHTS - RM 100G	20	20	1	8	1.00	8	28	OUTLETS - RM 100G	20	20	1	9	0.50	5
29	LIGHTS - RMs 100G, 100H	20	20	1	8	1.00	8	30	OUTLETS - RM 100G	20	20	1	9	0.50	5
31	LIGHTS - RM 200A	20	20	1	8	1.00	8	31	SPARE	20	20	1	3	0.50	2
33	NIGHT LIGHTS - RM 200A	20	20	1	8	1.00	8	34	OUTLETS - RM 100H	20	20	1	3	0.50	2
35	LIGHTS RM 300A	20	20	1	8	1.00	8	36	REFRIGERATOR RM 100H	20	20	1	14	0.50	7
37	NIGHT LIGHTS - RM 300A	20	20	1	8	1.00	8	38	OUTLETS - RM 200A	20	20	1	14	0.50	7
39	LIGHTS - RM 400A	20	20	1	8	1.00	8	40	OUTLETS - RM 300A	20	20	1	14	0.50	7
41	NIGHT LIGHTS - RM 400A	20	20	1	8	1.00	8	42	OUTLETS - RM 400A	20	20	1	14	0.50	7

Main Level, Maintenance

AF - Amp Frame (Breaker Size)	HP 1	Tot Amps/PH - Connected Load	152.33	HP 1 & 2	Tot Amps/PH - Connected Load	577.17
AT - Amp Tip (Breaker Size)		Demand Factor	82.17%		Demand Factor	72.85%
P - Poles (Per Breaker)		Total Amps/PH - Demand	125.17		Total Amps/PH - Demand	420.45
A - Amps		Connected KVA	53.23		Connected KVA	207.69
CA - Connected Amperes		Demand KVA	46.04		Demand KVA	146.93
DF - Demand Factor (1 - 1)		Min. Panel Size (Demand x 1.25) - Amps	156.46		Min. Panel Size (Demand x 1.25) - Amps	625.56
DA - Demand Amperes		Panel Size (Demand x 1.56) - Amperes	195.26		Panel Size (Demand x 1.56) - Amperes	655.90
MLO - Main Lug Only					Generator	150
MCB - Main Circuit Breaker					Remain load with Calc factors less KWD/Elev	481
					100% rated cb	Total 631

SEE SWITCHBOARD DATA FOR ELECTRONIC BREAKER SETTINGS

PANEL HP SECTION 2 120/208V 3PH 4W 600 AMP BUS - MCB 42K AIC NEMA TYPE 1 (SURFACE)

CKT #	LOAD DESCRIPTION	AF	AT	P	CA	DF	DA	CKT #	LOAD DESCRIPTION	AF	AT	P	CA	DF	DA
43	OUTLETS - PARKING (RM000)	20	20	1	9	0.50	5	44		20	20	1	40	1.00	40
45	SPARE	20	20	1	1.00	0	0	46	ERV1 (ON ROOF)	50	50	3	40	1.00	40
47	POLE MOUNTED LIGHT	20	20	1	6	1.00	6	48		20	20	1	1.00	0	0
49	POLE MOUNTED LIGHT	20	20	1	6	1.00	6	50	SPARE	20	20	1	1.00	0	0
51	POLE MOUNTED LIGHT	20	20	1	6	1.00	6	52	LIGHTS - STAIR 2	20	20	1	12	1.00	12
53	SPARE	20	20	1	1.00	0	0	54	LIGHTS - STAIR 1	20	20	1	12	1.00	12
55	SPARE	20	20	1	1.00	0	0	56		20	20	1	40	1.00	40
57	SPARE	20	20	1	1.00	0	0	58	ERV2 (ON ROOF)	50	50	3	40	1.00	40
59	OUTLETS - RMs 000, 001	20	20	1	8	0.50	4	60		20	20	1	40	1.00	40
61	SPACE							62	SPACE						
63	CP (ERV1 ON ROOF)	20	20	1	2	1.00	2	64	CP (ERV2 ON ROOF)	20	20	1	2	1.00	2
65	LIGHTS - RM 006	20	20	1	8	1.00	8	66	OUTLETS - RM 006	20	20	1	5	0.50	2
67	SPACE							68	CORRIDOR LTG	20	20	1	5	0	0
69	SPACE							70	SPACE						
71	SPACE							72	SPACE						
73								74	SPACE						
75	PANEL "EP-2" FEEDER	225	225	3	162	0.34	55	76	SPACE						
77					162	0.34	55	78	SPACE						
79					69	0.81	56	80					87	0.95	83
81	PANEL "HP2" FEEDER	225	225	3	69	0.81	56	82	PANEL "BP" FEEDER	225	225	3	87	0.95	83
83					69	0.81	56	84					87	0.95	83

Main Level, Maintenance

AF - Amp Frame	HP2	Tot Amps/PH - Connected Load	424.83	MOTOR LOADS - CB = FLA X 2.5 (rec max)		
AT - Amp Tip		Demand Factor	69.51%	SIZE CB'S AND OVERLOADS PER NAMEPLATE		
P - Poles		Total Amps/PH - Demand	295.28	DATA AND MFRGR RECOMMENDATION.		
A - Amps		Connected KVA	152.87			
CA - Connected Amperes		Demand KVA	106.25			
DF - Demand Factor (1 - 1)		Min. Panel Size (Demand x 1.25) - Amps	168.10			
DA - Demand Amperes		Panel Size (Demand x 1.56) - Amperes	460.64			
MLO - Main Lug Only						
MCB - Main Circuit Breaker						

SEE SWITCHBOARD DATA FOR ELECTRONIC BREAKER SETTINGS

PANEL EP-1 SECTION 1 120/208 3PH 4W 100 AMP BUS - MLO 22K AIC NEMA TYPE 1 (SURFACE)

CKT #	LOAD DESCRIPTION	AF	AT	P	CA	DF	DA	CKT #	LOAD DESCRIPTION	AF	AT	P	CA	DF	DA
1	SPARE	20	20	1	1.00	0	0	2	SPARE	20	20	1	1.00	0	0
3	SPARE	20	20	1	1.00	0	0	4	SPARE	20	20	1	1.00	0	0
5	SPARE	20	20	1	1.00	0	0	6	F, A, C, P	20	20	1	4	1.00	4
7	LIGHTS - PARKING (RM 000)	20	20	1	6	1.00	6	8	SPARE	20	20	1	1.00	0	0
9	LIGHTS - PARKING (RM 007)	20	20	1	10	1.00	10	10	BUILDING MOUNTED LIGHTS	20	20	1	6	1.00	6
11	COMMUNICATIONS OUTLET	20	20	1	6	1.00	6	12	BUILDING MOUNTED LIGHTS	20	20	1	6	1.00	6
13	COMMUNICATIONS OUTLET	20	20	1	6	1.00	6	14	BUILDING MOUNTED LIGHTS	20	20	1	6	1.00	6
15	COMMUNICATIONS OUTLET	20	20	1	6	1.00	6	16	PHOTO CELL AND CLOCK	20	20	1	12	1.00	12
17	COMMUNICATIONS OUTLET	20	20	1	6	1.00	6	18	SITE BOLLARD	20	20	1	8	1.00	8
19	SPARE	20	20	1	0.50	0	0	20	SITE LTG PARKING	20	20	1	8	1.00	8
21	SPARE	20	20	1	1.00	0	0	22	SITE LTG STREET LIGHTING	20	20	2	4	0.50	2
23	SPARE	20	20	1	1.00	0	0	24		20	20	1	4	0.50	2
25	SPACE							26	SPACE						
27	SPACE							28	SPACE						
29	SPACE							30	SPACE						
31	SPACE							32	SPACE						
33	SPACE							34	SPACE						
35	SPACE							36	SPACE						
37	SPACE							38	SPACE						
39	SPACE							40	SPACE						
41	SPACE							42	SPACE						

Main Level, Maintenance

AF - Amp Frame		Tot Amps/PH - Connected Load	32.67	MOTOR LOADS - CB = FLA X 2.5 (rec max)		
AT - Amp Tip		Demand Factor	95.82%	SIZE CB'S AND OVERLOADS PER NAMEPLATE		
P - Poles		Total Amps/PH - Demand	31.33	DATA AND MFRGR RECOMMENDATION.		
A - Amps		Connected KVA	11.75			
CA - Connected Amperes		Demand KVA	11.27			
DF - Demand Factor (1 - 1)		Min. Panel Size (Demand x 1.25) - Amps	39.17			
DA - Demand Amperes		Panel Size (Demand x 1.56) - Amperes	48.88			
MLO - Main Lug Only						
MCB - Main Circuit Breaker						

SEE SWITCHBOARD DATA FOR ELECTRONIC BREAKER SETTINGS

PANEL HP2 120/208V 3PH 4W 225 AMP BUS - MLO 22K AIC NEMA TYPE 1 (SURFACE)

CKT #	LOAD DESCRIPTION	AF	AT	P	CA	DF	DA	CKT #	LOAD DESCRIPTION	AF	AT	P	CA	DF	DA
1	LIGHTS - RM 007	20	20	1	8	1.00	8	2	SPARE	20	20	1	1.00	0	0
3	OUTLETS - RM 007	20	20	1	15	0.50	8	4	HEAT TRACE CONTROL PANEL	20	20	1	3	1.00	3
5	LIGHTS - RM 008	20	20	1	10	1.00	10	6	OUTLETS - RM 100L	20	20	1	5	0.50	2
7	LIGHTS - RMs 100K, 100L	20	20	1	10	1.00	10	8	LIGHTS - RM 200C	20	20	1	10	1.00	10
9	NIGHT LIGHTS - RM 200C	20	20	1	10	1.00	10	10	NIGHT LIGHTS - RM 200C	20	20	1	8	0.50	4
11	LIGHTS - RM 300C	20	20	1	10	1.00	10	12	OUTLETS - RM 200C	20	20	1	6	0.50	3
13	NIGHT LIGHTS - RM 300C	20	20	1	10	1.00	10	14	LIGHTS - RM 300C	20	20	1	10	0.50	5
15	LIGHTS - RM 400C	20	20	1	10	1.00	10	16	NIGHT LIGHTS - RM 300C	20	20	1	8	0.50	4
17	NIGHT LIGHTS - RM 400C	20	20	1	8	1.00	8	18	OUTLETS - RM 300C	20	20	1	6	0.50	3
19	OUTLET (ERV2 ROOF)	20	20	1	6	0.50	3	20	LIGHTS - RM 400C	20	20	1	12	1.00	12
21	LIGHTS - STAIR 3	20	20	1	10	1.00	10	22	NIGHT LIGHTS - RM 400C	20	20	1	12	1.00	12
23	SPARE	20	20	1	1.00	0	0	24	OUTLETS - RM 400C	20	20	1	6	0.50	3
2															