LEGEND OF FEEDER SIZES

COPPER CONDUCTORS

FEEDER SYMBOL	CONDUCTORS (3 PHASE, 3 WIRE) WITH GROUND	RACEWAY SIZE CONDUIT	CONDUCTORS (3 PHASE, 4 WIRE) WITH GROUND	RACEWAY SIZE CONDUIT	NOMINAL AMPERE RATING
1	3#4 & 1#10G.	1"			60
2			4#4 & 1#10G.	1 1/4"	
3	3#4 & 1#8G.	1"			70
4			4#4 & 1#8G.	1 1/4"	
5	3#1 & 1#8G.	1 1/2"			100
6			4#1 & 1#8G.	1 1/2"	
7	3#1/0 & 1#6G.	1 1/2"			125
8			4#1/0 & 1#6G.	2"	
9	3#1/0 & 1#6G.	1 1/2"			150
10			4#1/0 & 1#6G.	2"	
11	3#2/0 & 1#6G.	2"			175
12			4#2/0 & 1#6G.	2"	
13	3#3/0 & 1#6G.	2"			200
14			4#3/0 & 1#6G.	2"	
15	3#4/0 & 1#4G.	2"			225
16			4#4/0 & 1#4G.	2 1/2"	
17	3#250 KCMIL & 1#4G.	2 1/2"			250
18			4#250 KCMIL & 1#4G.	3"	
19	3#350 KCMIL & 1#4G.	3"			300
20			4#350 KCMIL & 1#4G.	3"	
21	3#500 KCMIL & 1#3G.	3 1/2"			350
22			4#500 KCMIL & 1#3G.	4"	
23	3#600 KCMIL & 1#3G.	3 1/2"			400
24			4#600 KCMIL & 1#3G.	4"	
25	6#250 KCMIL & 2#2G.	2-2 1/2"			500
26			8#250 KCMIL & 2#2G.	2-3"	
27	6#350 KCMIL & 2#1G.	2-3"			600
28			8#350 KCMIL & 2#1G.	2-3"	
29	6#600 KCMIL & 2#1/0G.	2-3 1/2"			800
30			8#600 KCMIL & 2#1/0G.	2-4"	
31	9#400 KCMIL &3#2/0G.	3-3"			1000
32			12#400 KCMIL &3#2/0G.	3-3"	
33	9#600 KCMIL & 3#3/0G.	3-3 1/2"			1200
34			12#600 KCMIL & 3#3/0G.	3-4"	
35	12#600 KCMIL & 4#4/0G.	4-3 1/2"			1600
36			16#600 KCMIL & 4#4/0G.	4-4"	
37	15#600 KCMIL & 4#250 KCMIL G.	5-3 1/2"			2000
38			20#600 KCMIL & 4#250 KCMIL G.	5-4"	

NOTES:

1. 600KCMIL FEEDERS SHALL BE PROVIDED WITH MAC ADAPTERS AS REQUIRED TO COORDINATE WITH BREAKER LUG SIZES.
2. SEE SPECIFICATIONS FOR ACCEPTABLE CONDUCTOR TYPES.

MOTOR WIRING SCHEDULE

(FOR SINGLE SPEED, 480 VOLT MOTORS ONLY)

HORSE POWER	FEEDER - 480VOLT, 3ø, 3WIRE-CU
1/2	3#12 & 1#12G - 3/4"C.
3/4	3#12 & 1#12G - 3/4"C.
1	3#12 & 1#12G - 3/4"C.
1 1/2	3#12 & 1#12G - 3/4"C.
2	3#12 & 1#12G - 3/4"C.
3	3#12 & 1#12G - 3/4"C.
5	3#10 & 1#10G - 3/4"C.
7.5	3#10 & 1#10G - 3/4"C.
10	3#10 & 1#10G - 3/4"C.
15	3#8 & 1#8G - 3/4"C.
20	3#6 & 1#8G - 1"C.
25	3#6 & 1#6G - 1"C.
30	3#4 & 1#6G - 1 1/4"C.
40	3#3 & 1#6G - 1 1/4"C.
50	3#1 & 1#6G - 1 1/2"C.
60	3#1/0 & 1#4G - 2"C.
75	3#2/0 & 1#4G - 2"C.
100	3#3/0 & 1#3G - 2"C.
125	3#4/0 & 1#2G - 2 1/2"C.
150	3#350KCMIL & 1#1G - 3"C.
200	3#500KCMIL & 1#1G - 3"C.

MOTOR CONTROL CENTER MCCE-PH SCHEDULE

(FOR ADDITIONAL INFORMATION REFER TO ELECTRICAL SPECIFICATIONS)

480 VOLT — 3 PHASE — 3 WIRE — 65K AIC

MAIN BUS SIZE: 600 AMPS — GROUND BUS: AS REQUIRED

ITEM	NAMEPLATE	HP	KW	FLA	PHASE	VOLTS	BRANCH CIRCUIT OVERCURRENT DEVICE HMCP	BRANCH CIRCUIT OVERCURRENT DEVICE FEEDER C.B.	MOTOR CONTROLLER TYPE/SIZE		BRANCH CIRCUIT WIRING	NOTES
1	EX-2	5	-	7.6	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
2	EX-22	1.5	-	2.6	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
3	EX-5	3	-	4.8	3	480	SEE SPEC.		FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
4	EX-12	1.5	-	2.6	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
5	EX-14	5	-	7.6	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	STAND-BY
6	SPARE		-		3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
7	SPARE	1/2	-	1	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
8	SPARE		-		3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
9	SPARE	1/2	-	1	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
10	SPARE	1	-	1.8	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	

MOTOR CONTROL CENTER MCCN-PH SCHEDULE

(FOR ADDITIONAL INFORMATION REFER TO ELECTRICAL SPECIFICATIONS)

480 VOLT — 3 PHASE — 3 WIRE — 65K AIC

MAIN BUS SIZE: 600 AMPS — GROUND BUS: AS REQUIRED

ITEM	NAMEPLATE	HP	KW	FLA	PHASE	VOLTS	BRANCH CIRCUIT OVERCURRENT DEVICE HMCP	BRANCH CIRCUIT OVERCURRENT DEVICE FEEDER C.B.	MOTOR CONTROLLER TYPE/SIZE		BRANCH CIRCUIT WIRING	NOTES
1	EX-1	10	-	14	3	480	SEE SPEC.	-	FVNR	2	REFER TO MOTOR WIRING SCHEDULE	
2	EX-7	2	-	3.4	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
3	EX-8	2	-	3.4	3	480	SEE SPEC.		FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
4	EX-10 VIA VFD-17	7.5	-	11	3	480	SEE SPEC.	30A-3P			REFER TO MOTOR WIRING SCHEDULE	FEEDER BREAKER ONLY
5	EX-11	1	-	1.8	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
6	EX-16	3/4	-	1.4	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
7	EX-21	7.5	-	11	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
8	SF-1	5	-	7.6	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
9	SF-2	5	-	7.6	3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	FEEDER BREAKER ONLY
10	R2PH (VIA XFMR)	-	-	-	3	480	SEE SPEC.	30A-3P			REFER TO TRANSFORMER SCHEDULE	
11	SPARE	-	-	-	|	|	SEE SPEC.		FVNR	2		
12	SPARE	-	-	-	|	|	|	|	|	1		
13	SPARE	-	-	-	|	|	|	|	|	1		
14	SPARE	-	-	-	|	|	|	|	|	1		

MOTOR CONTROL CENTER MCCNG SCHEDULE

(FOR ADDITIONAL INFORMATION REFER TO ELECTRICAL SPECIFICATIONS)

480 VOLT — 3 PHASE — 3 WIRE — 65K AIC

MAIN BUS SIZE: 600 AMPS — GROUND BUS: AS REQUIRED

ITEM	NAMEPLATE	HP	KW	FLA	PHASE	VOLTS	BRANCH CIRCUIT OVERCURRENT DEVICE HMCP	BRANCH CIRCUIT OVERCURRENT DEVICE FEEDER C.B.	MOTOR CONTROLLER TYPE/SIZE		BRANCH CIRCUIT WIRING	NOTES
1	PUMP CWP-1	50	-	65	3	480	SEE SPEC.	-	FVNR	3	REFER TO MOTOR WIRING SCHEDULE	
2	PUMP CWP-2	50	-	65	3	480	SEE SPEC.	-	FVNR	3	REFER TO MOTOR WIRING SCHEDULE	
3	FUT PUMP CWP-1	50	-	65	3	480	SEE SPEC.		FVNR	3	REFER TO MOTOR WIRING SCHEDULE	
4	CHILLER PCH-1		15	27	3	480	SEE SPEC.	40A-3P			3-#8, 1-#8G-1"C	FEEDER BREAKER ONLY
5	SPARE		-		3	480	SEE SPEC.	-	FVNR	2	REFER TO MOTOR WIRING SCHEDULE	
6	SPARE		-		3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
7	SPARE		-		3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	
8	SPARE		-		3	480	SEE SPEC.	-	FVNR	1	REFER TO MOTOR WIRING SCHEDULE	

SCHEDULE OF PANELBOARDS

2 = 120/208V - 3ø - 4W S = SURFACE
4 = 277/480V - 3ø - 4W R = RECESSED
1 = 120/208V-1ø-3W PLUS GROUND

PANEL	MAINS MCB	MAINS MLO	MTG	C/B SERIES SPEC	DOUBLE TUB	NOTES	VOLTAGE	BRANCH CIRCUIT BREAKERS (1) POLE 20	30	40	50	(2) POLE 15	20	30	40	50	60	80	(3) POLE 20	30	40	50	60	70	80	100	150	1P SPACE
L4G1		100A	S	65K			4	24																				
R2G1		100A	S	10K			2	42																				
R2G2		225A	S	10K	X		2	78					1						1									
R2G3		100A	S	10K			2	42																				
P41G		100A	S	65K			4	5											4	2								7
L4SL		100A	S	65K			4	24																				
L411		100A	S	65K			4	18																				6
R211		225A	S	10K	X		2	83		1																		
R212		225A	S	10K	X		2	84																				
KP211		400A	R	10K	X	A.	2	28	1				6		1	2			3			2						
KP212		400A	R	10K	X	A.	2	48 (1)					5	(5) 1					2		(2) 1							6
R21R	100A	-	S	10K			2	20											2									4
L421		100A	S	65K			4	12																				6
R221		225A	S	10K	X		2	84																				
R222		225A	S	10K	X		2	74																				10
L431		100A	S	65K			4	12																				6
R231		225A	S	10K	X	B.	2	84																				
R232		225A	S	10K	X	C.	2	74																				
KP23		100A	S	10K			2	22						1														
L441		100A	S	65K			4	12																				6
R241		225A	S	10K	X		2	74																				10
R242		225A	S	10K	X		2	74																				10
KP24		100A	S	10K			2	22						1														
C4G1		100A	S	65K			4	10																				
C2G1	150A		S	10K	X		2	65																				19
CT2G1		100A	S	10K				20						5						2	2							
C411		225A	S	65K			4	10																	1			11
C211	150A		S	10K	X		2	65	1				1									2						10
CT211		100A	S	10K			2	20						1														8
CT212		100A	S	10K			2	20						1														8
C421		225A	S	65K			4	20		7															1			6
C221	150A		S	10K	X		2	60														1						10
C422		225A	S	65K			4	10		7															1			4
C222	150A		S	10K	X		2	84																				
CT221		100A	S	10K			2	20						1														8
C431		225A	S	65K			4	12																	1			9
C231		225A	S	10K	X		2	84																				
C232		225A	S	65K				60																				10
CT231		100A	S	10K				20						2														6
C441		225A	S	65K			4	13																	1			8
C241	150A		S	10K	X		2	84																				
CT241		100A	S	10K				20						2														6
EQ4G1		225A	S	65K			4	(1)											(9)	1	2	2			(1)			
EQ2G1	400A		S	10K			2	20																		2	1	13
EQ21		100A	R	10K			2	25											2	2								5
EQ2G2		100A	S	65K			4	19				1							3	1	1							6
LS4G1		100A	S	65K			4	24												1								3
LS2G1	50A		S	10K	X		2	15																				9
EQ4G2		225A	S	65K			4	15 (1)											3		1							15 (1)
LS4G1		100A	S	65K			4	24												1								3
LS2G1	50A		S	10K	X		2	16																				8
(1) CT222		100A	S	10K			2	20						1														8
EQ2PH	50A		S	10K			2	16																				8
R2PH	50A		S	10K			2	16																				8
EQ4PH1		225A	S	65K			4	6											4	1		2						
																												15

NOTE A:
PROVIDE THE FOLLOWING BREAKERS WITH 120V SHUNT TRIP, CONNECTED TO HOOD FIRE SUPPRESSION SYSTEM.
(7)20A-1P, (2)50-2P, (1)40A-2P
(1)30A-1P, (2)60-3P

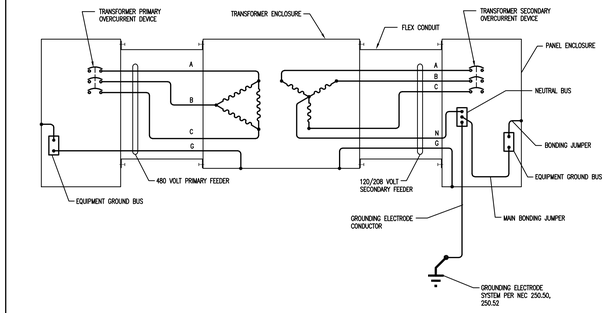
NOTE B:
PROVIDE (2)20A-1P WITH GFCI.

NOTE C:
PROVIDE (14)20A-1P WITH GFCI.

OPERATING ROOM ISOLATION POWER PANEL SCHEDULE

O.R. NO.	O.R. PANEL DESIGNATION	KVA RATING	PRIMARY VOLTAGE	SECONDARY VOLTAGE	PRIMARY BREAKER	BRANCH BREAKERS	NOTES
1	IPOR1	7.5KVA	277V	120V	35A-1P	(16)-20A-2P	
2	IPOR2	7.5KVA	277V	120V	35A-1P	(16)-20A-2P	
3	IPOR3	7.5KVA	277V	120V	35A-1P	(16)-20A-2P	
4	IPOR4	7.5KVA	277V	120V	35A-1P	(16)-20A-2P	
5	IPOR5	7.5KVA	277V	120V	35A-1P	(16)-20A-2P	
6	IPOR6	7.5KVA	277V	120V	35A-1P	(16)-20A-2P	
7	IPOR7	7.5KVA	277V	120V	35A-1P	(16)-20A-2P	
LAZER SURG	IPORLZ2	25KVA	480V	208V	70A-2P	(4)-50A-2P	
LAZER SURG	IPORLZ1	25KVA	480V	208V	70A-2P	(4)-50A-2P	

(1)



DRY TYPE TRANSFORMER SCHEDULE AND CONNECTION DIAGRAM — NTS

DRY TYPE TRANSFORMER SCHEDULE

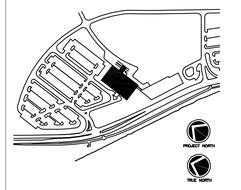
SIZE	KVA	PRIMARY AMPS	SECONDARY AMPS	480 VOLT (2) OVERCURRENT	208 VOLT (3) OVERCURRENT	480V PRIMARY FEEDER	120/208V SECONDARY FEEDER	GROUNDING (4) CONDUCTOR
T1	9	11	25	20A, 3P	30A, 3P	3#12 & 1#12G - 3/4"C.	4#10 & 1#10G - 3/4"C.	1#8 - 3/4"C
T2	15	18	42	30A, 3P	50A, 3P	3#10 & 1#10G - 3/4"C.	4#6 & 1#8G - 1"C.	1#8 - 3/4"C
T3	30	36	83	60A, 3P	100A, 3P	3#4 & 1#10G - 1"C.	4#1 & 1#6G - 1 1/2"C.	1#6 - 3/4"C
T4	45	54	125	80A, 3P	150A, 3P	3#3 & 1#8G - 1 1/4"C.	4#1/0 & 1#6G - 2"C.	1#6 - 3/4"C
T5	75	90	208	150A, 3P	250A, 3P	3#1/0 & 1#6G - 1 1/2"C.	4#250 KCMIL & 1#2G - 3"C.	1#2 - 3/4"C
T6	112.5	135	313	250A, 3P	400A, 3P	3#250 KCMIL & 1#4G - 2 1/2"C.	4#500 KCMIL & 1#1/0G - 4"C.	1#1/0 - 3/4"C.
T7	150	181	417	300A, 3P	500A, 3P	3#350 KCMIL & 1#4G - 3"C.	8#250 KCMIL & 2#1/0G 2-3"C.	1#1/0 - 3/4"C
T8	225	270	625	400A, 3P	800A, 3P	3#500 KCMIL & 1#3G - 3 1/2"C.	8#500 KCMIL & 2#2/0G 2-4"C.	1#2/0 - 3/4"C
T9	300	361	834	600A, 3P	1000A, 3P	6#350 KCMIL & 2#1G 2-3"C.	12#400 KCMIL & 3#3/0G 3-3"C.	1#3/0 - 3/4"C
T10	500	600	1400	1000A, 3P	1600A, 3P	9#400 KCMIL & 3#2/0G 3-3"C.	16#600 KCMIL & 4#300 KCMIL G 4-4"C.	1#300KCMIL-1"C.

TRANSFORMER SCHEDULE NOTES:

1. ALL PHASE AND NEUTRAL CONDUCTOR SIZES ARE BASED ON COPPER CONDUCTORS PER N.E.C. TABLE 310-16.
2. MANUFACTURERS SELECTION FOR THE TYPE OF PRIMARY BREAKER (THERMAL MAGNETIC VS. SOLID STATE) SHALL ENSURE COORDINATION WITH TRANSFORMER IN-RUSH CURRENT. IF MIS-COORDINATION IS IDENTIFIED BY THE COORDINATION STUDY, THE MANUFACTURER SHALL REPLACE THE DEVICE WITH A DEVICE THAT WILL PROPERLY COORDINATE, AT NO ADDITIONAL COST.
3. SECONDARY OVERCURRENT PROTECTION SHALL BE LOCATED WITHIN A PANELBOARD (MAIN BREAKER) OR INDIVIDUALLY MOUNTED CIRCUIT BREAKER. THE SECONDARY OVERCURRENT PROTECTION DEVICE SHALL BE LOCATED SUCH THAT THE MAXIMUM LENGTH OF SECONDARY CONDUCTORS DO NOT EXCEED 10'-0".
4. SIZE OF TRANSFORMER BONDING JUMPERS AND GROUNDING ELECTRODE CONDUCTOR.
5. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE UNSPLICED AND INSTALLED AS OPEN WIRING OR RUN IN NON METALLIC (PVC SCHEDULE 40) CONDUIT TO PROTECT IT FROM SEVERE DAMAGE.
6. 600 KCMIL CONDUCTORS AND LARGER SHALL BE PROVIDED WITH MAC ADAPTERS AS REQUIRED TO COORDINATE WITH BREAKER LUG SIZES.

Revisions

1	Addendum #1	11/22/06



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It is the responsibility of the Construction Manager/General Contractor and all Sub-Contractors to verify all dimensions and accept conditions of prior work by related trades before proceeding with any work.

Date
11/10/06 Final-Issued for Constructio

Drawn By
Francis Cauffman Foley Hoffmann

Scale
NONE

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Project Title

Mercy Health Care System of Maine

FORE RIVER SHORT STAY HOSPITAL

MERCY

Project Number
F05-4898

Drawing Title and Number
ELECTRICAL SCHEDULE OF PANELBOARDS

E5-3

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