THREE PHASE FEEDER LEGEND FOR COPPER CONDUCTORS

No.	AMP RATING	THREE WIRE WITH GROUND		No.	FOUR WIRE WITH GROUND	
		CONDUCTORS	CONDUIT		CONDUCTORS	CONDUIT
1	15	3 #12 & 1 #12 G	3/4"	1N	4 #12 & 1 #12 G	3/4"
2	20	3 #12 & 1 #12 G	3/4"	2N	4 #12 & 1 #12 G	3/4"
3	30	3 #10 & 1 #10 G	3/4"	3N	4 #10 & 1 #10 G	3/4"
4	40	3 #8 & 1 #10 G	3/4"	4N	4 #8 & 1 #10 G	1"
5	50	3 #6 & 1 #10 G	1"	5N	4 #6 & 1 #10 G	1-1/2"
6	60	3 #4 & 1 #10 G	1-1/2"	6N	4 #4 & 1 #10 G	1-1/2"
7	70	3 #4 & 1 #8 G	1-1/2"	7N	4 #4 & 1 #8 G	1-1/2"
8	80	3 #2 & 1 #8 G	1-1/2"	8N	4 #2 & 1 #8 G	1-1/2"
9	90	3 #2 & 1 #8 G	1-1/2"	9N	4 #2 & 1 #8 G	1-1/2"
10	100	3 #1 & 1 #6 G	1-1/2"	10N	4 #1 & 1 #6 G	2"
11	125	3 #1/0 & 1 #6 G	1-1/2"	11N	4 #1/0 & 1 #6 G	2"
12	150	3 #1/0 & 1 #6 G	1-1/2"	12N	4 #1/0 & 1 #6 G	2"
13	175	3 #2/0 & 1 #6 G	2"	13N	4 #2/0 & 1 #6 G	2"
14	200	3 #3/0 & 1 #6 G	2"	14N	4 #3/0 & 1 #6 G	2-1/2"
15	225	3 #4/0 & 1 #4 G	2-1/2"	15N	4 #4/0 & 1 #4 G	3"
16	250	3-350 KCM & 1 #4 G	3"	16N	4-350 KCM & 1 #4 G	3"
17	300	3-350 KCM & 1 #4 G	3"	17N	4-350 KCM & 1 #4 G	3"
18	350	3-500 KCM & 1 #2 G	3"	18N	4-500 KCM & 1 #2 G	3-1/2"
19	400	6-#3/0 & 2 #2 G	(2)3"	19N	8-#3/0 & 2 #2 G	(2) 2-1/2"
20	500	6-350 KCM & 2 #2 G	(2)3"	20N	8-350 KCM & 2 #2 G	(2) 3-1/2"
21	600	6-350 KCM & 2 #1 G	(2)3"	21N	8-350 KCM & 2 #1 G	(2) 3-1/2"
22	800	9-350 KCM & 3 #1/0 G	(3)3"	22N	12-350 KCM & 3 #1/0 G	(3) 3-1/2"
23	1000	9-500 KCM & 3 #2/0 G	(3)3-1/2"	23N	12-500 KCM & 3 #2/0 G	(3) 3-1/2"
24	1200	12-350 KCM & 4 #3/0 G	(4)3"	24N	16-350 KCM & 4 #3/0 G	(4) 3-1/2"

NOTE: VERIFY THAT TERMINATION POINTS CAN ACCOMMODATE THE FEEDER SIZES.

MOTOR DATA SCHEDULE 460 VOLT 3 PHASE

HORSEPOWER	FULL LOAD AMPS	FEEDER	GROUND	CONDUIT	OVERCURRENT PROTECTION DEVICE (AMPS) (NOTE 2)	STARTER (NEMA SIZE)	DISCONNECT (AMPS)
0.5	1.10	3 #12 G.	1 #12 G.	3/4"	15	00	30
0.75	1.60	3 #12 G.	1 #12 G.	3/4"	15	00	30
1	2.10	3 #12 G.	1 #12 G.	3/4"	15	00	30
1.5	3.00	3 #12 G.	1 #12 G.	3/4"	15	00	30
2	3.40	3 #12 G.	1 #12 G.	3/4"	15	00	30
3	4.80	3 #12 G.	1 #12 G.	3/4"	15	0	30
5	7.60	3 #10 G.	1 #10 G.	3/4"	25	0	30
7.5	11.00	3 #10 G.	1 #10 G.	3/4"	30	1	30
10	14.00	3 #10 G.	1 #10 G.	3/4"	35	1	30
15	21.00	3 #8 G.	1 #10 G.	3/4"	60	2	60
20	27.00	3 #8 G.	1 #8 G.	3/4"	70	2	60
25	34.00	3 #6 G.	1 #8 G.	1"	90	2	100
30	40.00	3 #6 G.	1 #8 G.	1"	100	3	100
40	52.00	3 #4 G.	1 #6 G.	1"	150	3	100
50	65.00	3 #2 G.	1 #6 G.	1 1/2"	175	3	200
60	77.00	3 #1 G.	1 #6 G.	1 1/2"	200	4	200
75	96.00	3 #1/0 G.	1 #6 G.	1 1/2"	250	4	200
100	124.00	3 #2/0 G.	1 #4 G.	1 1/2"	350	4	400
125	156.00	3 #3/0 G.	1 #2 G.	2"	400	5	400
150	180.00	3 #4/0 G.	1 #2 G.	2"	450	5	600
200	240.00	3 - 350 KCML	1 #1 G.	2 1/2"	600	5	800

NOTES:

1. DISCONNECT SIZES ARE BASED ON HORSEPOWER RATINGS OF HEAVY DUTY SWITCHES.
2. ALL BREAKERS RATED 200A AND GREATER MUST HAVE ADJUSTABLE INSTANTANEOUS SETTINGS. ALL BREAKERS RATED 400A AND GREATER MUST HAVE ELECTRONIC TRIP UNITS WITH ADJUSTABLE LONG-TIME, SHORT-TIME AND INSTANTANEOUS.

LIGHTING FIXTURE SCHEDULE

FIXT. TYPE	DESCRIPTION	MOUNTING	LAMP NO.	LAMP WATTS	LAMP TYPE	VOLTS	REMARKS
	2' x 2' FLUORESCENT PARABOLIC						
F5A	2'x2' FLUORESCENT, 3" DEEP PARABOLIC LOUVER, 9 CELL 6" RADIUS, GRID CEILING	RECESSED	2	31	F31T8/835	277	
	FLUORESCENT PENDANT						
FPA	4' FLUORESCENT INDUSTRIAL STRIP WITH 20% UPLIGHT	PENDANT	2	32	F32T8/835	277	
FPB	8' FLUORESCENT INDUSTRIAL STRIP WITH 20% UPLIGHT	PENDANT	4	32	F32T8/835	277	8' , 4 LAMP FIXTURE
	FLUORESCENT SURFACE						
FSC	4' FLUORESCENT NARROWSTRIP FIXTURE, 1 LAMP	SURFACE	1	32	F32T8/835	277	
	FLUORESCENT WALL						
FWN	4' FLUORESCENT DIRECT/INDIRECT WITH WRAP AROUND LENS	WALL	2	32	F32T8/835	277	
	FLUORESCENT WALL DECORATIVE						
W1A	ENCLOSED AND GASKETED WALL MTD.COMPACT FLUORESCENT W/GLASS GLOBE & GUARD	WALL	1	26	CFTR26W/GX24q/835	277	
	EXIT SIGNS						
E1A	EXIT SIGN- SINGLE FACE POLYCARBONATE HOUSING	CEILING	-	3	L.E.D	120/277	
E1B	EXIT SIGN -DUAL FACE POLYCARBONATE HOUSING	CEILING	-	3	L.E.D	120/277	
	EMERGENCY BATTERY FIXTURES						
E2B	12 VOLT LEAD CALCIUM BATTERY UNIT WITH DUAL LIGHTING HEADS	WALL	2	18	PAR36	120/277	
	EXTERIOR WALL						
W2J	EXTERIOR METAL HALIDE WALL MOUNT LUMINAIRE W. QUARTZ RESTRIKE	WALL	1	70	M98	277	
			1	100	100Q/CL	277	
W2K	EXTERIOR METAL HALIDE WALL MOUNT LUMINAIRE W. QUARTZ RESTRIKE	WALL	1	100	M90	277	
			1	100	100Q/CL	277	

480-120/208V 3 PHASE DRY TYPE TRANSFORMER SCHEDULE USING CIRCUIT BREAKERS

kVA	PRIMARY CB	PRIMARY FEEDER	SECONDARY CB	SECONDARY FEEDER
15	25	3 #10 & 1 #10 G IN 3/4" C.	60	4 #6 & 1 #10 G IN 1 1/2" C.
30	60	3 #6 & 1 #10 G IN 1" C.	110	4 #1 & 1 #6 G IN 2" C.
45	70	3 #4 & 1 #8 G IN 1 1/2" C.	175	4 #2/0 & 1 #6 G IN 2" C.
75	150	3 #1/0 & 1#6 G IN 1 1/2" C.	225	4-350 KCML & 1 #4 G IN 3" C.
112.5	200	3 #2/0 & 1#6 G IN 2" C.	400	8 #3/0 & 2 #2 G IN (2) 2 1/2" C.

TRANSFER SWITCH SCHEDULE

DESIGNATION	BYPASS ISOLATION	VOLTAGE	POLES	S/N	AMP RATING	W.S.R.	LOCATION	REMARKS
PPEQ1	YES	480/277V	3	NO	260	42K	EMERGENCY ELECTRICAL ROOM	
PPEQ2	YES	480/277V	3	NO	1000	85K	EMERGENCY ELECTRICAL ROOM	
PPLS1	YES	480/277V	3	NO	100	42K	EMERGENCY ELECTRICAL ROOM	

SITE DISTRIBUTION CONDUIT SCHEDULE

CONDUIT NO.	ORIGIN	DESTINATION	VIA	SIZE	CONDUIT USE	REMARKS
NORMAL POWER CONDUITS						
N61	PAD MOUNT TRANSFORMER 1A	SWITCHGEAR PPNSWGR3 MAIN SWITCH		5"	NORMAL FEEDER	
N62	PAD MOUNT TRANSFORMER 1A	SWITCHGEAR PPNSWGR3 MAIN SWITCH		5"	SPARE	
N63	PAD MOUNT TRANSFORMER 2A	SWITCHGEAR PPNSWGR1 MAIN C.B.		3.5"	NORMAL FEEDER	
N64	PAD MOUNT TRANSFORMER 2A	SWITCHGEAR PPNSWGR1 MAIN C.B.		3.5"	NORMAL FEEDER	
N65	PAD MOUNT TRANSFORMER 2A	SWITCHGEAR PPNSWGR1 MAIN C.B.		3.5"	NORMAL FEEDER	
N66	PAD MOUNT TRANSFORMER 2A	SWITCHGEAR PPNSWGR1 MAIN C.B.		3.5"	NORMAL FEEDER	
N67	PAD MOUNT TRANSFORMER 2A	SWITCHGEAR PPNSWGR1 MAIN C.B.		3.5"	NORMAL FEEDER	
N68	PAD MOUNT TRANSFORMER 2A	SWITCHGEAR PPNSWGR1 MAIN C.B.		3.5"	NORMAL FEEDER	
N69	PAD MOUNT TRANSFORMER 2A	SWITCHGEAR PPNSWGR1 MAIN C.B.		3.5"	NORMAL FEEDER	
N70	PAD MOUNT TRANSFORMER 2A	SWITCHGEAR PPNSWGR1 MAIN C.B.		3.5"	NORMAL FEEDER	
N71	PAD MOUNT TRANSFORMER 2B	SWITCHGEAR PPNSWGR2 MAIN C.B.		3.5"	NORMAL FEEDER	
N72	PAD MOUNT TRANSFORMER 2B	SWITCHGEAR PPNSWGR2 MAIN C.B.		3.5"	NORMAL FEEDER	
N73	PAD MOUNT TRANSFORMER 2B	SWITCHGEAR PPNSWGR2 MAIN C.B.		3.5"	NORMAL FEEDER	
N74	PAD MOUNT TRANSFORMER 2B	SWITCHGEAR PPNSWGR2 MAIN C.B.		3.5"	NORMAL FEEDER	
N75	PAD MOUNT TRANSFORMER 2B	SWITCHGEAR PPNSWGR2 MAIN C.B.		3.5"	NORMAL FEEDER	
N76	PAD MOUNT TRANSFORMER 2B	SWITCHGEAR PPNSWGR2 MAIN C.B.		3.5"	NORMAL FEEDER	
N77	PAD MOUNT TRANSFORMER 2B	SWITCHGEAR PPNSWGR2 MAIN C.B.		3.5"	NORMAL FEEDER	
N78	PAD MOUNT TRANSFORMER 2B	SWITCHGEAR PPNSWGR2 MAIN C.B.		3.5"	NORMAL FEEDER	
N79						
N80						
N81						
N82						
N83						
N84						
N85						
N86						
N87						
N88						
N89						
N90						
EMERGENCY POWER CONDUITS						
E1-A	SWITCHGEAR PPESWGR1 DIST. C.B.	BEAN BUILDING 5KV SWITCH 1A	CONDUIT E1 F&I UNDER SITE PACKAGE	5"	EMERGENCY FEEDER	
E2-A	SWITCHGEAR PPESWGR1 DIST. C.B.	BEAN BUILDING 5KV SWITCH 1A	CONDUIT E2 F&I UNDER SITE PACKAGE	5"	SPARE	
E3-A	SWITCHGEAR PPESWGR1 DIST. C.B.	CHARLES ST. BUILDING 5KV SWITCH 1B	CONDUIT E3 F&I UNDER SITE PACKAGE	5"	EMERGENCY FEEDER	
E4-A	SWITCHGEAR PPESWGR1 DIST. C.B.	CHARLES ST. BUILDING 5KV SWITCH 1B	CONDUIT E4 F&I UNDER SITE PACKAGE	5"	SPARE	
E7-A	GENERATOR SWITCHGEAR ROOM	EMH-E1	CONDUIT E7 F&I UNDER SITE PACKAGE	5"	SPARE	TERMINATE AND CAP 12" AFF
E8-A	GENERATOR SWITCHGEAR ROOM	EMH-E1	CONDUIT E8 F&I UNDER SITE PACKAGE	5"	SPARE	TERMINATE AND CAP 12" AFF
E61	SWITCHGEAR PPESWGR1 DIST. C.B.	PAD MOUNT TRANSFORMER 1B		5"	EMERGENCY FEEDER	
E62	SWITCHGEAR PPESWGR1 DIST. C.B.	PAD MOUNT TRANSFORMER 1B		5"	SPARE	
E63	SWITCHGEAR PPESWGR1 DIST. C.B.	PAD MOUNT TRANSFORMER 3	EMH-E3	5"	EMERGENCY FEEDER	
E64	SWITCHGEAR PPESWGR1 DIST. C.B.	PAD MOUNT TRANSFORMER 3	EMH-E3	5"	SPARE	
E65	SWITCHGEAR PPESWGR1 DIST. C.B.	EMH-E3		5"	SPARE	
E66	SWITCHGEAR PPESWGR1 DIST. C.B.	EMH-E3		5"	SPARE	
E67	SWITCHGEAR PPESWGR1 DIST. C.B.	EMH-E3		5"	SPARE	
E68	SWITCHGEAR PPESWGR1 DIST. C.B.	EMH-E3		5"	SPARE	
E69	SWITCHGEAR PPESWGR1 DIST. C.B.	EMH-E3		5"	SPARE	
E70	SWITCHGEAR PPESWGR1 DIST. C.B.	EMH-E3		5"	SPARE	
E71	SWITCHGEAR PPESWGR1 DIST. C.B.	EMH-E3		5"	SPARE	
E72	SWITCHGEAR PPESWGR1 DIST. C.B.	EMH-E3		5"	SPARE	
E73	SWITCHGEAR PPESWGR1 DIST. C.B.	EMH-E3		5"	SPARE	
E74	SWITCHGEAR PPESWGR1 DIST. C.B.	EMH-E3		5"	SPARE	
E75	PAD MOUNT TRANSFORMER 3	SWITCHGEAR PPESWGR2 MAIN C.B.		3.5"	EMERGENCY FEEDER	
E76	PAD MOUNT TRANSFORMER 4	SWITCHGEAR PPESWGR2 MAIN C.B.		3.5"	EMERGENCY FEEDER	
E77	PAD MOUNT TRANSFORMER 5	SWITCHGEAR PPESWGR2 MAIN C.B.		3.5"	EMERGENCY FEEDER	
E78	PAD MOUNT TRANSFORMER 6	SWITCHGEAR PPESWGR2 MAIN C.B.		3.5"	EMERGENCY FEEDER	
E79						
E80						
E81						
E82						
E83						
E84						
E85						
E86						
E87						
E88						
E89						
E90						
COMMUNICATIONS CONDUITS						
C5-A	FACP IN CUP OPERATOR'S OFFICE	L. L. BEAN BUILDING	CH1 AND CH3	5"	FIRE ALARM	
C6-A	CUP NORMAL SWITCHGEAR ROOM	L. L. BEAN BUILDING	CH1 AND CH3	5"	TELEPHONE	TERMINATE WITHIN 24" OF TELE. BACKBOARD
C7-A	CUP NORMAL SWITCHGEAR ROOM	L. L. BEAN BUILDING	CH1 AND CH3	5"	SPARE	TERMINATE AND CAP 12" AFF
C8-A	SWITCHGEAR PPESWGR1 MASTER CTRL.	L. L. BEAN BUILDING	CH1 AND CH3	5"	GENERATOR START AND ANNUNCIATOR	
C31	FUEL OIL ALARM PNL. IN CUP OPER. OFFICE	UNDERGROUND BOILER FUEL OIL TANK #1	EMH-E3	1"	FUEL OIL ALARMS	TERMINATE AT EXISTING TANK CTRL. TERMINAL BLOCK
C32	UNDERGROUND BOILER FUEL OIL TANK #1	UNDERGROUND BOILER FUEL OIL TANK #2		1"	FUEL OIL ALARMS	TERMINATE AT EXISTING TANK CTRL. TERMINAL BLOCK
C33	UNDERGROUND BOILER FUEL OIL TANK #2	UNDERGROUND GENERATOR FUEL OIL TANK		1"	FUEL OIL ALARMS	TERMINATE AT EXISTING TANK CTRL. TERMINAL BLOCK
C34						
C35						
C36						
C37						
C38						
C39						
C40						
LOW VOLTAGE EMERGENCY POWER CONDUITS						
LE11	DISTRIBUTION PANEL PPDPEQ411	FOP-1 CTRL. PANEL IN PUMPHOUSE	EMH-E3	3/4"	FOP-1	
LE12	DISTRIBUTION PANEL PPDPEQ412	FOP-1 CTRL. PANEL IN PUMPHOUSE	EMH-E3	3/4"	FOP-2	
LE13						
LE14						
LE15						
LE16						
LE17						
LE18						
LE19						
LE20						

LIGHTING AND POWER PANELBOARD SCHEDULE

PANEL NAME	MAINS MLO	MAINS MCB	VOLTAGE	PHASE	WIRE	TOTAL POLES	CIRCUIT BREAKERS ACTIVE AND SPARE 20/1	20/2	20/3	25/3	15/2	25/2	30/3	50/1	50/2	50/3	70/3	150/3	SINGLE POLE SPACES	INTER CAPACITY SYM KILO-AMPS	MOUNTING	NOTES
PPN411		100	480/277	3	4	42	39									1					SURFACE	
PPN211		110	208/120	3	4	42	42														SURFACE	
PPLS411		60	480/277	3	4	42	39			1											SURFACE	
PPLS211		60	208/120	3	4	42	42														SURFACE	
PPEQ211		110	208/120	3	4	42	38				1	1									SURFACE	
PPEQ212		110	208/120	3	4	42	42														SURFACE	

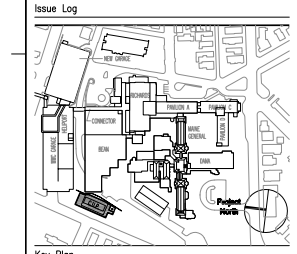
NOTES:

1. PROVIDE PANEL WITH FEED-THRU LUGS TO ACCOMMODATE ADDITIONAL TUBS AS INDICATED ON FLOOR PLANS.
2. PROVIDE 20A/1P STANDARD GROUND FAULT TYPE CIRCUIT BREAKERS IN QUANTITIES INDICATED.

General Notes:

MARK	ISSUE DATE	DESCRIPTION
		FOR PERMIT ONLY - NOT FOR CONSTRUCTION
PERMIT	09/24/04	PERMIT SET - NOT FOR CONSTRUCTION

Issue Log



Key Plan

TRO
Architecture
Planning
Engineering
Interior Design
The Ritchie Organization
80 Bridge Street
Newton, MA 02458-1194
617-969-9400

Maine Medical Center
Central Utility Plant
Portland, Maine

Drawing Title
ELECTRICAL SCHEDULE SHEET 1

0' 0 0 0 0

Commission No.	4677	Date Issued	
Scale	NONE	Sheet Number	
Drawn By	K.G.		
Approved By	D.A.B.		E700
Filename	4677E-SCHED		

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