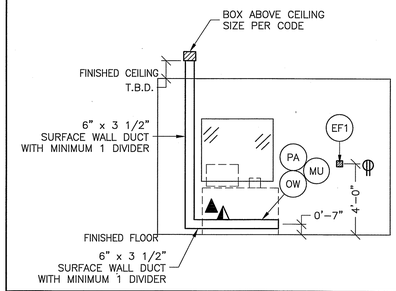
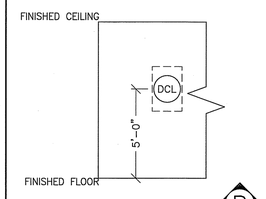
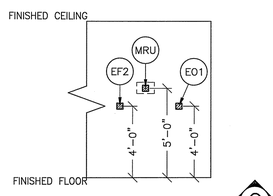
SCALE: 1/4" = 1'-0"

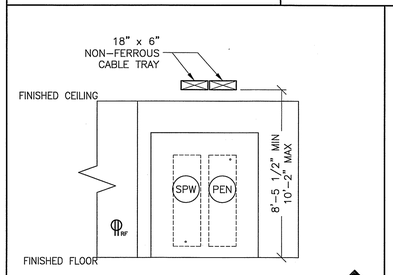
ELECTRICAL PLAN

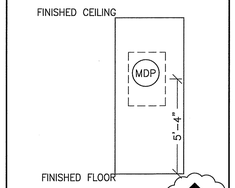
RECOMMENDED CEILING HEIGHT = 8'-9"

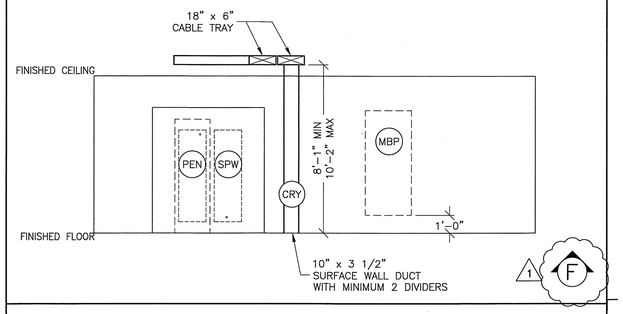


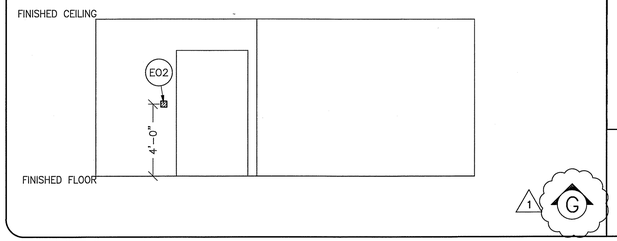










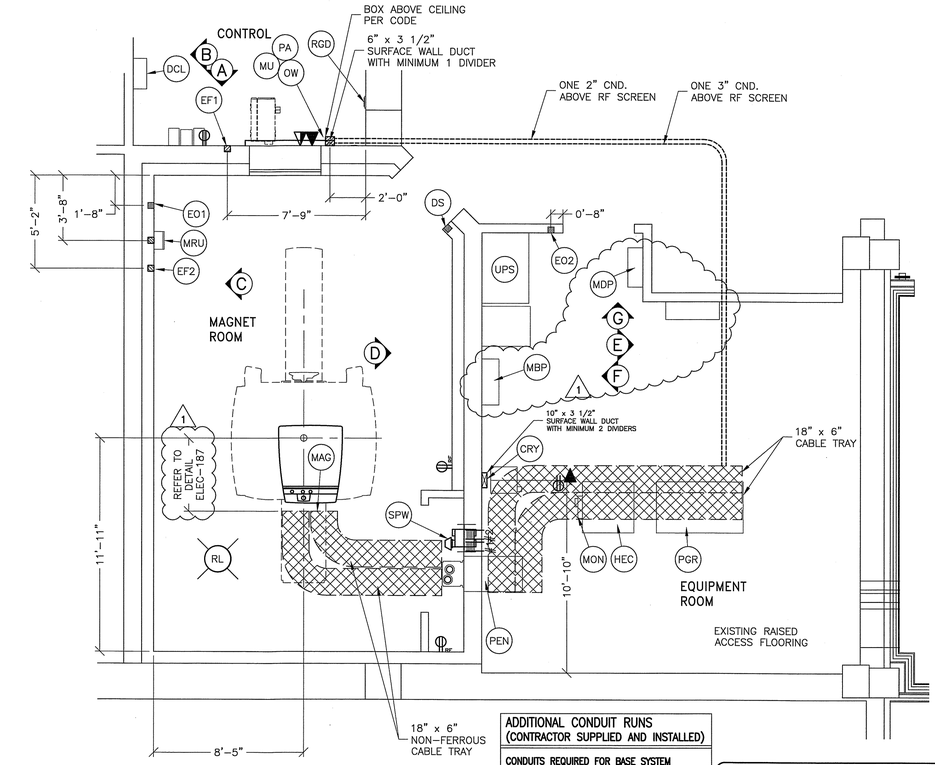


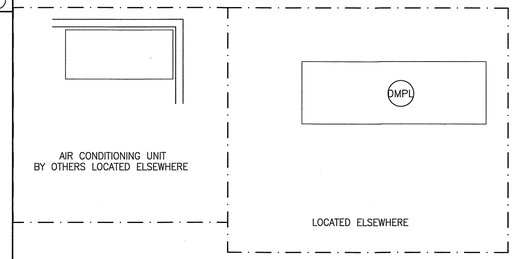
FEEDER TABLE – DISCOVERY/OPTIMA

- CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
- RECOMMENDED FEEDER SIZES FROM DIST. TRANS. TO MDP, ALL CALCULATIONS BASED UPON A 20 FT. (6.1m) RUN FROM MDP TO PGR USING 1/0 AWG.
- THE GROUNDING CONDUCTOR ( ) SHALL BE COPPER AND WILL RUN IN THE SAME CONDUIT AS THE FEEDERS FROM EQUIPMENT BACK TO THE ROOM POWER SOURCE GROUNDING POINT.
- IF THE GENERAL ELECTRIC EQUIPMENT IS BEING FED BY A DELTA SECONDARY, IT IS RECOMMENDED THAT THE B PHASE ON THE SECONDARY BE CONNECTED TO GROUND TO PREVENT DAMAGE TO THE SYSTEM.
- NEUTRAL MUST BE TERMINATED PRIOR TO OR INSIDE THE MAIN DISCONNECT PANEL AND NOT BROUGHT INTO THE PGR OR HEC CABINET.
- * MINIMUM WIRE SIZE FOR CIRCUIT BREAKER, BASED ON RECOMMENDED OVERCURRENT PROTECTION.
- **FOR A FULL SYSTEM UPS REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.**

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE							
	342–418 380		360–440 400		374–456 415		**432–528 480**	
	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND	FEEDER	GROUND
100	* 3/0	(4)	* 3/0	(4)	* 3/0	(4)	* 3/0	(4)
150	* 3/0	(4)	* 3/0	(4)	* 3/0	(4)	* 3/0	(4)
200	* 3/0	(4)	* 3/0	(4)	* 3/0	(4)	* 3/0	(4)
250	4/0	(2)	3/0	(4)	3/0	(4)	* 3/0	(4)
300	250M	(2)	4/0	(2)	4/0	(2)	* 3/0	(4)
350	300M	(2)	300M	(2)	250M	(2)	3/0	(4)
400	400M	(1/0)	350M	(2)	300M	(2)	4/0	(2)
450	500M	(1/0)	400M	(1/0)	350M	(2)	4/0	(2)

REV. DATE: 03/02/11





ADDITIONAL CONDUIT RUNS (CONTRACTOR SUPPLIED AND INSTALLED)

CONDUITS REQUIRED FOR BASE SYSTEM

REV DATE: 14.Oct.11

MDP	TO	PGR	ONE CND. AS REQ'D
MDP	TO	HEC	ONE CND. AS REQ'D
MDP	TO	EO2	ONE 1/2" CND.
EO2	TO	SPW	ONE 1/2" CND.
DS	TO	PGR	ONE 3/4" CND.
EO1	TO	SPW	ONE 3/4" CND.
MRU	TO	PEN	ONE 1" CND.
MRU	TO	RF #1 FILTER	ONE CND. AS REQ'D
RF #1 FILTER	TO	120-V 1ø POWER	CONDUIT AS REQ'D
RL	TO	RF #2 FILTER	ONE CND. AS REQ'D
RF #2 FILTER	TO	FACILITY EMERGENCY POWER	CONDUIT AS REQ'D

NOTE: SEE E2 PAGE FOR STANDARD RUN LENGTHS

CONDUITS REQUIRED FOR FULL SYSTEM UPS

MBP	TO	MDP	ONE CND. AS REQ'D. SIZE PER FEEDER TABLE
MBP	TO	UPS	TWO CNDS. AS REQ'D.
MBP	TO	480-V 3ø POWER	CND. AS REQ'D REFER TO DETAIL ELEC-118

CONDUITS REQUIRED FOR Dimplex Chiller

DMPL	TO	RGD	ONE 3/4" CND.
DMPL	TO	480-V 3ø POWER	CONDUIT AS REQUIRED

JUNCTION POINT NOTES

- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMERS ELECTRICAL CONTRACTOR.
- CONDUIT AND DUCT RUNS SHALL HAVE SWEEP RADIUS BENDS
- CONDUITS AND DUCT ABOVE CEILING OR BELOW FINISHED FLOOR MUST BE INSTALLED AS NEAR TO CEILING OR FLOOR AS POSSIBLE TO REDUCE RUN LENGTH.
- CEILING MOUNTED JUNCTION BOXES ILLUSTRATED ON THIS PLAN MUST BE INSTALLED FLUSH WITH FINISHED CEILING.
- ALL DUCTWORK MUST MEET THE FOLLOWING REQUIREMENTS:
  1. DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
  2. DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
  3. DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
  4. PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
- ALL OPENINGS IN ACCESS FLOORING ARE TO BE CUT OUT AND FINISHED OFF WITH GROMMET MATERIAL BY THE CUSTOMERS CONTRACTOR.
- GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATORS CONTROL ROOM.
- 10 FOOT PIGTAILS AT ALL JUNCTION POINTS.
- ALL WIRING MUST BE THHN OR TFFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT INSULATION. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
- GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.

ELECTRICAL OUTLET LEGEND

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS. HEIGHT ABOVE FLOOR DETERMINED BY LOCAL CODES UNLESS OTHERWISE SPECIFIED.

- DUPLEX HOSPITAL GRADE, DEDICATED WALL OUTLET 120-V, SINGLE PHASE POWER
- DUPLEX HOSPITAL GRADE, DEDICATED OUTLET 120-V, SINGLE PHASE OUTLET ROUTED THROUGH RF FILTER
- NETWORK OUTLET (SEE ELECTRICAL DETAILS ELEC-83 AND ELEC-84 OR ELEC-87)
- DEDICATED TELEPHONE LINES/NETWORK CONNECTION (SEE ELECTRICAL DETAIL ELEC-78)

GE Project Manager: JIM DOMBROSKI
Telephone: 603-934-3739

THE GE HPI TECHNICAL SUPPORT GROUP IS AN ADDITIONAL RESOURCE THAT CAN PROVIDE ANSWERS FOR GENERAL GE PRODUCT SITING QUESTIONS AND CAN BE REACHED AT (877)-305-9677

JUNCTION POINT DESCRIPTIONS

POINT	DESCRIPTION	QTY.	THE FOLLOWING MATERIALS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER'S ELECTRICAL CONTRACTOR: HARDWARE	DETAIL NO., SHT. E3
CRY	SHIELD COOLER CABINET	1	32 IN. OF GROMMET MATERIAL FOR AN 8 X 8 IN. OPENING IN DUCT COVER	ELEC-6
DCL	DC LIGHTING	1	SEE DETAILS	ELEC-54
DMPL	DIMPLEX CHILLER	1	BOX AS REQUIRED	
DS	RF DOOR SWITCH	1 1	SINGLE GANG BOX RF DOOR SWITCH RATED FOR 24 VOLTS AND 750 MILLIAMPERES, NORMALLY OPEN (OFF) WHEN DOOR IS OPEN	
EF1	RF EXHAUST FAN SWITCH	1 1 1	COVERPLATE SINGLE GANG BOX SINGLE POLE SWITCH	ELEC-55
EF2	RF EXHAUST FAN SWITCH	1 1 1	COVERPLATE SINGLE GANG BOX SINGLE POLE SWITCH	ELEC-55
EO1	EMERGENCY OFF BUTTON	1	SINGLE GANG BOX	ELEC-16
EO2	EMERGENCY OFF BUTTON	1	SINGLE GANG BOX	ELEC-16
HEC	HEAT EXCHANGER CABINET	1 2	GROMMET MATERIAL 36IN. FLEXIBLE POWER LINE SERVICE LOOPS	
MAG	MAGNET	1	GROMMET MATERIAL	1 ELEC-187
MBP	MAINTENANCE BYPASS PANEL	1	FLEXIBLE CONDUIT AS REQUIRED	ELEC-119
MDP	MAIN DISCONNECT	1 2	200-AMP PANEL INCLUDED IN ORDER PUSHBUTTONS AND COVERS INCLUDED	ELEC-152
MON	MAGNET MONITOR	1	FITTINGS AS REQUIRED	
MRU	MAGNET RUNDOWN UNIT	1 1	COVERPLATE WITH 1 IN. KNOCKOUT IN CENTER 4 X 4 X 2 IN. BOX	ELEC-8
MU	MUSIC SYSTEM	1	SAME ROUTING AS OW	
OW	OPERATOR WORKSPACE	1	12 IN. OF GROMMET MATERIAL FOR A 3 X 3 IN. OPENING IN DUCT COVER	ELEC-5
PA	PATIENT ALERT CONTROL BOX	1	SAME ROUTING AS OW	
PEN	RF PENETRATION PANEL CABINET	1	GROMMET MATERIAL	ELEC-153
PGR	POWER, GRADIENT, RF CABINET	1 1 1 1	6 FT. LENGTH OF SUITABLE FLEXIBLE METAL CONDUIT GROMMET MATERIAL SUITABLE BUSHING & LOCKNUT	
RGD	REMOTE DISPLAY	1	BOX AS REQUIRED	
RL	MAGNET ROOM LIGHTS	1 1 1	LOCKNUT BOX AS REQUIRED INCANDESCENT LIGHT FIXTURE	
SPW	RF PENETRATION PANEL	1	GROMMET MATERIAL	ELEC-166
UPS	UNINTERRUPTIBLE POWER SYSTEM	1	CONNECT EXTERNALLY	ELEC-119

CONTRACTOR SUPPLIED AND INSTALLED WIRING

ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM – TO	QUANTITY, WIRE SIZE/COLOR
RF FAN > EF1	1-BLACK, 1-WHITE – <SIZE AS REQUIRED>
EF1 > EF2	1-BLACK, 1-WHITE – <SIZE AS REQUIRED>
3 PHASE > MBP	4-BLACK, 1-GREEN <SIZE AS REQUIRED>
MBP > UPS <FEED IN>	4-BLACK, 1-GREEN <SIZE AS REQUIRED>
MBP > UPS <FEED OUT>	4-BLACK, 1-GREEN <SIZE AS REQUIRED>
MBP > A	3-BLACK, 1-GREEN – REFER TO FEEDER TABLE
480-V > DMPL	4-BLACK, 1-GREEN <SIZE AS REQUIRED>
MDP > EO2	1-BLACK, 1-RED, 1-GREEN – <SIZE AS REQUIRED>
480-V > MDP	3-BLACK, 1-WHITE, 1-GREEN – REFER TO FEEDER TABLE
120-V > RF FILTER	1-BLACK, 1-WHITE, 1-GREEN – <SIZE AS REQUIRED>
RF FILTER > RL	1-BLACK, 1-WHITE, 1-GREEN – <SIZE AS REQUIRED>
CONVERTER > RF FILTER	1-BLACK, 1-WHITE, 1-GREEN – <SIZE AS REQUIRED>
EMER PWR > CONVERTER	1-BLACK, 1-WHITE, 1-GREEN – <SIZE AS REQUIRED>
RF GND STUD > RF FILTR	1-GREEN <SIZE AS REQUIRED FOR EACH FILTER>
MDP > HEC	3-NO. 8 BLACK, 1-NO. 8 GREEN
MDP > PGR	3-NO. 1/0 BLACK, 1-NO. 1/0 GREEN
RF FILTER > MRU	1-BLACK, 1-WHITE, 1-GREEN – <SIZE AS REQUIRED>

GE Healthcare
Healthcare Project Implementation – Design Center
Wisconsin
Milwaukee,

SHEET TITLE: ELECTRICAL LAYOUT

MODALITY TYPE: DISCOVERY MR 750w GEM

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO FUNCTIONAL REQUIREMENTS OF THE EQUIPMENT. THIS PLAN IS NOT TO BE USED FOR ACTUAL CONSTRUCTION PURPOSES, HOWEVER, AND THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE: MAINE MEDICAL CENTER
PORTLAND, MAINE

PROJECT	REVISION
132054	01

DATE: 02.Jul.13
DRAWN BY: MCK
CHECKED BY: JGA
GON NO: 4108424
GON DT: 27.Jun.13

REVISION HISTORY:
1 KMR – 26.Aug.13
CHECKED BY: PMM

SHEET
E1

This drawing is based on Sketch No.: 13nef045

RQ – 137547 PIM R4