

**KEYNOTES** 

DEMOLISH PIPING, EQUIPMENT AND FIXTURES SHOWN CROSSED OUT.
 DEMOLISH EXISTING WATER CLOSET, LEAVE RELATED EXISTING WATER AND VENT IN PLACE FOR NEW FIXTURE.
 CHIP FLOOR TO REMOVE FLOOR DRAIN. PATCH FLOOR TO MATCH EXISTING.
 DEMOLISH WATER OUTLET AND ASSOCIATED PIPING. FIELD VERIFY WATER SUPPLY LINE LOCATION AND DEMO BACK TO MAIN AND CAP.



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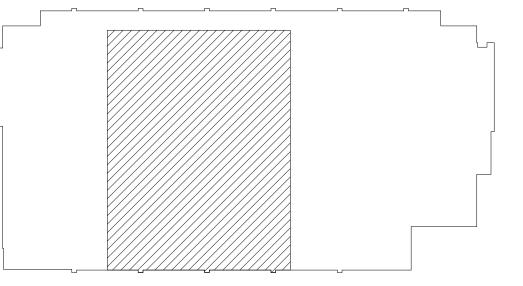


Intermountain Healthcare

MC - South Office Tower

Neurosurgery Clinic Expansion

**KEY PLAN** 



LEVEL 9
PLUMBING
DEMOLITION
PLAN

100% Construction Documents Apr 25, 2022

\_ PD101

1 Level 8
SCALE: 1/4" = 1'-0"

KEYNOTES

NEW CONNECTION TO EXISTING PIPING.
NEW WORK SHOWN DARK, EXISTING CONDITIONS SHOWN LIGHT.



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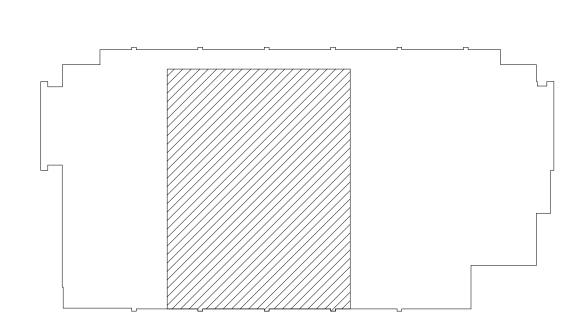




Intermountain Healthcare IMC - South Office Tower Neurosurgery Clinic Expansion

NJRA Project #

**KEY PLAN** 



LEVEL 8 PLUMBING PLAN

100% Construction Documents Apr 25, 2022

2100

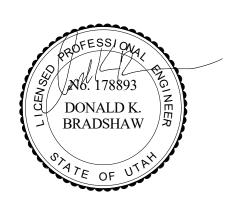
#### **KEYNOTES**

- INSTALL NEW WC-1 WATER CLOSET FIXTURE ON EXISTING UTILITY ROUGH IN.
   REINSTALL EXISTING ELECTRIC WATER HEATER. RELOCATE TO THIS LOCATION.
   NEW CONNECTION TO EXISTING WATER PIPING AND EXTEND AS SHOWN
   EXISTING CONDITIONS SHOWN LIGHT. NEW WORK SHOWN DARK. TYPICAL.
   MODIFY EXISTING FIRE SPRINKLER SYSTEM FOR CHANGES IN FLOOR PLAN AND REFLECTED CEILING PER NFPA 13. REMOVE AND REPLACE PIPING AS NECESSARY, RELOCATE AND ADD HEADS AS NECESSARY. CONTRACTOR TO FIELD VERIFY EXISTING PIPING, TYPICAL.
- EXISTING PIPING, TYPICAL.

  6 DROP SINK WASTE THRU WALL AND OFFSET IN TOE-KICK TO DROP THRU FLOOR AND AVOID BEAM BELOW.



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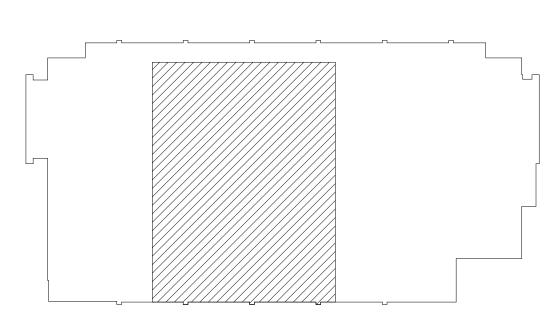


Intermountain Healthcare
IMC - South Office Tower
Neurosurgery Clinic Expansion
Muray, Utah 84107

Intermountain Healthcare

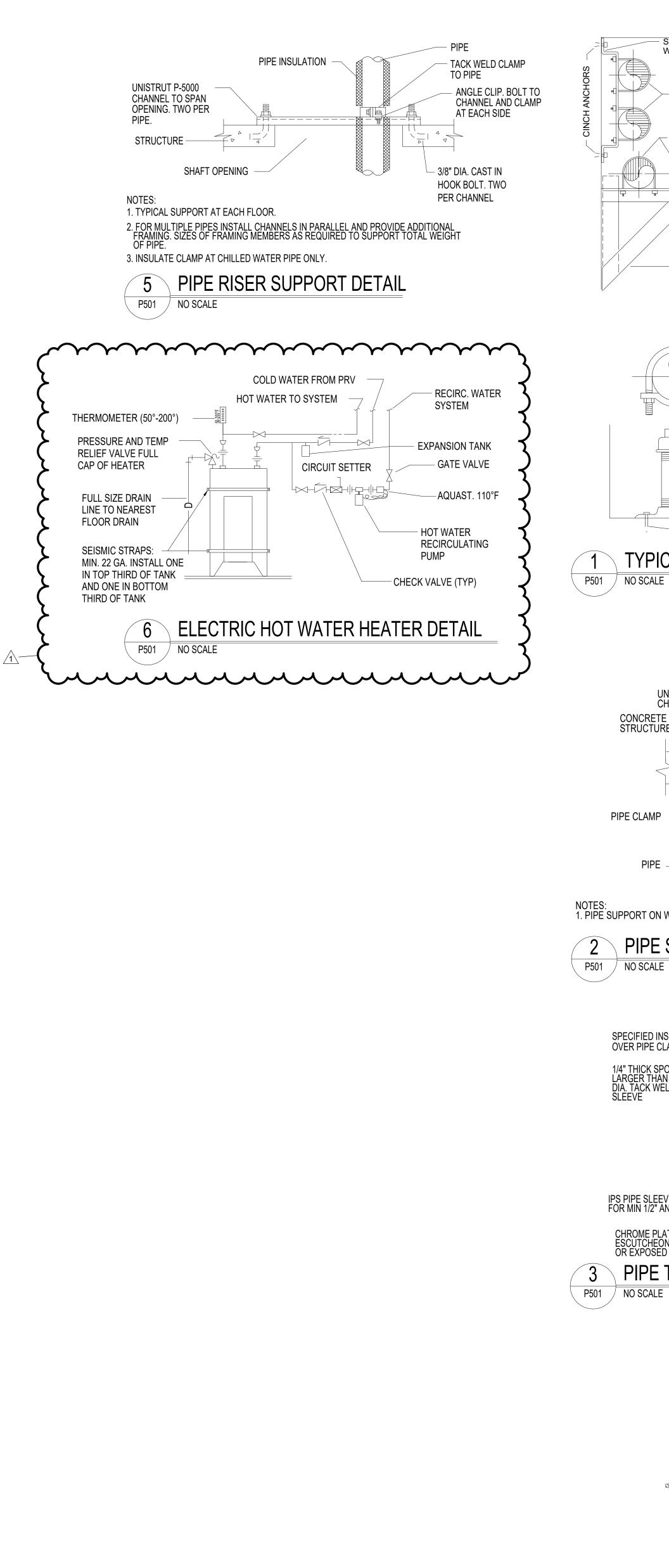
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Muray, Utah 84107

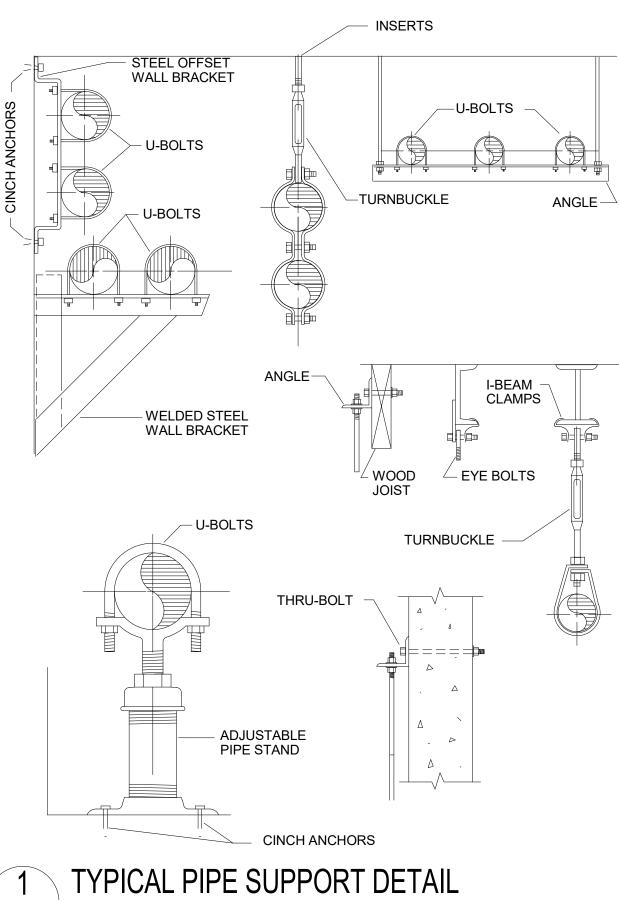
**KEY PLAN** 

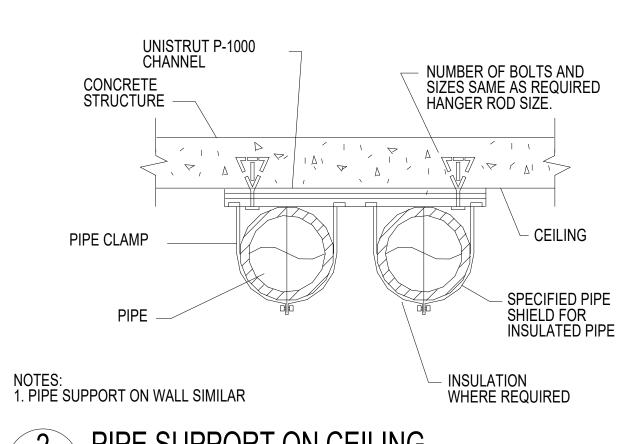


LEVEL 9 PLUMBING PLAN

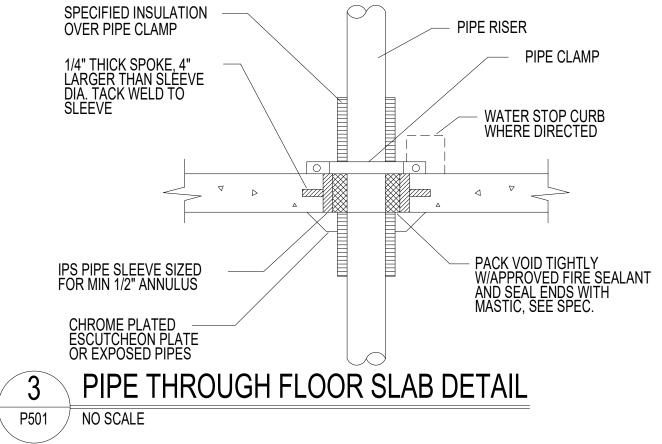
P101

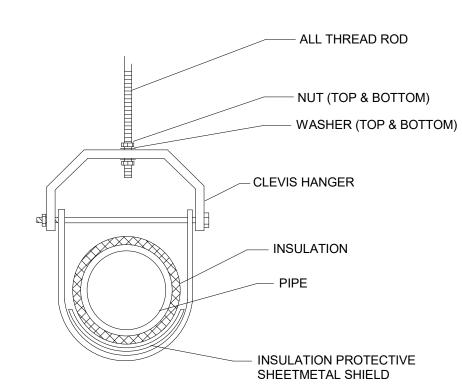








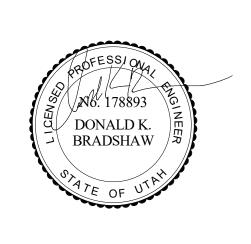




4 TYPICAL CLEVIS HANGER DETAIL
P501 NO SCALE



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Intermountain Healthcare IMC - South Office Tower Neurosurgery Clinic Expansion

NJRA Project #

1 AHJ REVIEW

PLUMBING DETAILS

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05.06.22

P501

						P	LUMBING FIXTURE SCHEDULE
		CW	HW	W	V		
ID	FIXTURE	(IN)	(IN)	(IN)	(IN)	NOTES	SPECIFICATION
FD-1	FLOOR DRAIN			2	2	GENERAL USE FLOOR DRAIN	FLOOR DRAIN: SMITH FIGURE 2005Y-P050 FLOOR DRAIN WITH CAST IRON BODY AND FLASHING COLLAR WITH 6-INCH ROUND NICKEL BRONZE ADJUSTABLE STRAINER HEAD WITH SECURED GRATE. PROVIDE DEEP SEAL TRAP AND TRAP GUARD TYPE TRAP SEAL DEVICE. PROVIDE 1/4" COPPER TUBE FOR WATER CONNECTION TO EQUIPMENT.
ICE-1	ICE MACHINE BOX	1/2		2	1 1/2	ICE MACHINE WATER OUTLET BOX WITH DRAIN	WATER OUTLET BOX: GUY GRAY MWB-9 WATER OUTLET BOX WITH DRAIN, QUARTER TURN BALL VALVE FOR USE WITH ICE MACHINE. INSTALL ONLY COLD WATER BALL VALVE. NOTCH COUNTERTOP BACK-SPLASH AND INSTALL OUTLET BOX DRAIN FLUSH WITH COUNTERTOP.
L-1	LAVATORY	1/2	1/2	1 1/2	1 1/2	WALL HUNG, GOOSENECK FAUCET WITH WRISTBLADES	LAVATORY: KOHLER K2030, GREENWICH, 20" X 18", VITREOUS CHINA, WITH FRONT OVERFLOW, 4" CENTERS. CHICAGO 786-GN8FCXKABCP FACUET, WITH WRIST BLADE HANDLES, GN8 RIGID/SWING GOOSENECK SPOUT WITH 0.5 GPM LAMINAR FLOW CONTROL IN SPOUT INLET. WATTS LFUSG-B-M2 THERMOSTATIC MIXING VALVE WITH WATTS # 7 DUAL CHECK VALVES ON HOT AND COLD LINES INSTALLED IN CEILING. FLEXIBLE STAINLESS STEEL SUPPLIES WITH WITH LOOSE KEY ANGLE STOPS. CHICAGO 327-XCP OPEN-GRID STRAINER AND CAST BRASS P-TRAP WITH CLEAN OUT PLUG. SMITH 0700-Z CONCEALED ARM CHAIR CARRIER WITH FOOT SUPPORT. PROVIDE ADA COMPLIANT UNDER COUNTER PIPING WRAP BY TRUE-BRO, COLOR TO BE WHITE.
S-1	SINK	1/2	1/2	2	1 1/2	EXAM ROOM SINK: BASIN INTEGRAL TO COUNTERTOP, GOOSENECK FAUCET WITH WRISTBLADES	SINK (BASIN INTEGRAL TO COUNTERTOP): CHICAGO 786-GN8FCXKABCP FACUET, WITH WRIST BLADE HANDLES, GN8FC 8" RIGID/SWING GOOSENECK SPOUT WITH 1.5 GPM LAMINAR FLOW CONTROL IN SPOUT. FLEXIBLE STAINLESS STEEL SUPPLIES WITH WITH LOOSE KEY ANGLE STOPS. FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS; CHICAGO 327-XCP OPEN-GRID STRAINER AND CAST BRASS P-TRAP WITH CLEAN OUT PLUG. PROVIDE ADA COMPLIANT UNDER COUNTER PIPING WRAP BY TRUE-BRO, COLOR TO BE WHITE.
S-2	SINK	1/2	1/2	2	1 1/2	COUNTER MOUNT, KITCHEN FAUCET WTH SINGLE LEVER OPERATION	SINK (STAINLESS STEEL, COUNTER MOUNTED, SINGLE COMPARTMENT): JUST SL-1921-A-GR 18 GA. TYPE 304 STAINLESS STEEL SINK,14" X 18" X 7-1/2" DEEP BASIN, SELF RIMMING, 8" CENTERS DRILLING WITH J-35 CUP STRAINER. SYMMONS S-23 SINGLE HANDLE FAUCET, WITH 2.2 GPM AERATOR. PROVIDE FLEXIBLE STAINLESS STEEL SUPPLIES WITH LOOSE KEY ANGLE STOPS, CAST BRASS P-TRAP WITH CLEAN-OUT PLUG.
WC-1	WATER CLOSET	1	-,-	4	2	STAFF AND PAT. TOILET RM.: FLOOR MOUNTED, FLUSH VALVE, ADA	WATER CLOSET: KOHLER K-4368 HIGHCLIFF VITREOUS CHINA, FLOOR MOUNTED, ELONGATED BOWL, 1-1/2" TOP SPUD, ADA TOILET WITH K-4670-C LUSTRA OPEN-FRONT SEAT. SLOAN WES-111 MANUAL DUAL FLUSH, 1.6 GPF FLUSH VALVE; PROVIDE "DIRT GRABBER" FLUSH VALVE FILTER, COORDINATE SIZE WITH FLUSH VALVE; NSTALL ACTUATOR ON WIDE SIDE OF FIXTURE.
WO-1	WATER OUTLET BOX	1/2	-,-			RECESSED WATER OUTLET BOX	WATER OUTLET: GUY GRAY MIB1AB WATER OUTLET BOX WITH QUARTER TURN BALL VALVE, RECESSED, POWDER COATED WHITE . PROVIDE 1/4" COPPER TUBE FOR WATER CONNECTION TO EQUIPMENT.

1. ALL UNDER GROUND WASTE AND VENT SHALL BE 2" OR GREATER PER DRAWINGS.

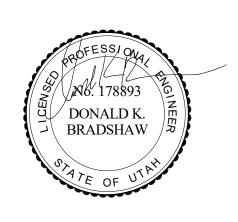
	ELECTRIC WATER HEATER SCHEDULE											
				RECOVERY	ELECTRICAL			PHYSICAL				
	MANUFACTURER			RATE				TANK	HEIGHT/			
	AND			@ 100 F				SIZE	DIA.			
ID	MODEL NUMBER	LOCATION	TYPE	DELTA T	(KW)	FLA	V/PH	(GAL)	(IN)	NOTES		
WH-1	BRADFORD WHITE RE120L6	WATER HEATER ROOM A927	TANK	25	6	7.2	480/3	19	27/20			

					PUMP S	CHE	DULE						
				FLUID			PUMP		ELECTRICA	L			
	MANUFACTURER			FLOW		HEAD			MOTOR		MOTOR		1
	AND			RATE	WORKING	LOSS	EFFICIENCY		SIZE		SPEED		
ID	MODEL NUMBER	LOCATION	TYPE	(GPM)	FLUID	(FT)	(%)	CONSTRUCTION	(W)	FLA	(RPM)	VOLT/PH/HZ	NO.
CP-1	B & G NBF-36	WATER HEATER ROOM	CIRCULATOR	1	WATER	5	-,-	BRONZE	270	2.3	3300n	120/1/60	

EXPANSION TANK SCHEDULE										
				FLUID		PHYSICAL				
	MANUFACTURER				MIN. TANK/	TANK	RELIEF	DIA./	NPT	
	AND			WORKING	ACCEPTANCE	SIZE	VALVE	HEIGHT	FITTING	
ID	MODEL NUMBER	LOCATION	TYPE	FLUID	(GAL)	(GAL)	(PSIG)	(IN)	(IN)	NOTES
ET-1	THERM-X-TROL ST-5	WATER HEATER ROOM		WATER	0.25	2	125	8/13	3/4	



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# ermountain Healthcare 1C - South Office Tower eurosurgery Clinic Expansion

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	SYMBOLS LEGEND
SYMBOL	E AND LINE SYMBOLS
	E AND LINE OTWIDGEO
A5 E-501	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
A5 E-201	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
A5 E-201	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
ROOM NAME	ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.
1	KEYNOTE INDICATOR.
	REVISION INDICATOR.
CU-1	EQUIPMENT INDICATOR.
X-X XMDP	MECHANICAL EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "XMDP" IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING
$\sim$	BREAK, ROUND
MATCH LINE SEE XX/X-XXX	MATCH LINE INDICATOR: CENTER, EXTRA WIDE LINE.
	NEW LINE: MEDIUM LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE
	EXISTING TO REMAIN LINE: THIN LINE.
	DEMOLITION LINE: DASHED, MEDIUM LINE
	PROPERTY LINE: DASHED, WIDE LINE.
	CONTRACT LIMIT LINE: DASHDOT, WIDE LINE.
XXX EF-X	ELECTRICAL EQUIPMENT INDICATOR. "XXX" INDICATES TYPE OF EQUIPMENT OR EQUIPMENT ID. "EF-X" IDENTIFIES MECHANICAL EQUIPMENT BEING SERVED. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
<u>X-X</u> 1LA-3	EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "1LA-3" IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDUL FOR ADDITIONAL INFORMATION.
WIRING ME	THODS
	WIRING.
<u></u>	WIRING TURNED UP OR TOWARDS OBSERVER.
0	WIRING TURNED DOWN OR AWAY FROM OBSERVER.
A-1	SINGLE BRANCH CIRCUIT HOME RUN TO PANELBOARD WITH DEDICATED NEUTRAL CONDUCTOR. LETTER AND NUMBER NOTATION IDENTIFY PANEL AND CIRCUIT NUMBER.
A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS.
A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT SCHEDULE.
	LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.
+	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
1	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
(HC)	ADA ACCESS PUSH PLATE
<b>D</b>	JUNCTION BOX.
Ф <sub>С</sub>	JUNCTION BOX, CEILING.
⊕ <sub>SC</sub>	JUNCTION BOX, SYSTEMS FURNITURE COMMUNICATION CONNECTION.
O <sub>SP</sub>	JUNCTION BOX, SYSTEMS FURNITURE POWER CONNECTION.
РВ	PULL BOX.
A"xB" +/-C'-D"	CABLE TRAY ABOVE ACCESSIBLE CEILING. "A" DENOTES CABLE TRAY WIDTH, "B" DENOTES CABLETRAY DEPTH. +/-C'-D" DENOTES CABLE TRAY ELEVATION ABOVE OR BELOW FINISHED SURFACE.
	LADDER RACK.
—J——J—	CABLE J-HOOKS ABOVE ACCESSIBLE CEILING.
<del></del>	MECHANICAL EQUIPMENT CONNECTION. REFER TO EQUIPMEN
₹ EV	SCHEDULE FOR REQUIREMENTS.  ELECTRIC VEHICLE CHARGING STATION.
TI	GROUND BUSBAR. REFER TO GROUNDING RISER DIAGRAM FOR ADDITIONAL INFORMATION.

	SYMBOLS LEGEND
SYMBOL	DESCRIPTION
VIRING DE	VICES
ф	RECEPTACLE, SINGLE: NEMA 5-20R.
<del></del>	
	RECEPTACLE, DUPLEX: NEMA 5-20R.
∯ A	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
Ьc	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
<b>В</b> D	RECEPTACLE, DUPLEX, DEDICATED CIRCUIT: NEMA 5-20R.
U	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT
∯ DF	INTERRUPTER, DRINKING FOUNTAIN: CONCEAL WATER COOLER RECEPTACLE BEHIND WATER COOLER. SEE MECHANICAL/PLUMBING SHOP DRAWINGS FOR INSTALLATION
	REQUIREMENTS.
₿ıg	RECEPTACLE, DUPLEX, ISOLATED GROUND: NEMA 5-20R.
 ∦s	RECEPTACLE, DUPLEX, SWITCHED: NEMA 5-20R.
₩	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WET LABEL, "WEATHERPROOF IN USE": NEMA 5-20R.
	DECEDIACIE DUDIEV LICEDITAL CRADE, NEMA 5 200
	RECEPTACLE, DUPLEX, HOSPITAL GRADE: NEMA 5-20R.
<b>b</b>	RECEPTACLE, DUPLEX ON EMERGENCY POWER: NEMA 5-20R.
	RECEPTACLE, DUPLEX, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.
<u> </u>	RECEPTACLE, DUPLEX, CONNECTED TO UPS: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT
	INTERRUPTER: NEMA 5-20R.
<b>#</b>	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.
<b>—</b>	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.
<u></u>	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT
₩P	INTERRUPTER, WEATHERPROOF: NEMA 5-20R.
	RECEPTACLE, DUPLEX, RECESSED: NEMA 5-20R.
Øs	RECEPTACLE, DUPLEX, SWITCHED, RECESSED: NEMA 5-20R.
₩	RECEPTACLE, QUADRAPLEX: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX ON EMERGENCY
	POWER: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX, HOSPITAL GRADE: NEMA 5-20R.
•	RECEPTACLE, QUADRAPLEX, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.
<b>4</b>	RECEPTACLE, QUADRAPLEX, CONNECTED TO UPS: NEMA 5-20R.
#	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO
	MATCH EQUIPMENT PLUG.  RECEPTACLE, SPECIAL PURPOSE ON EMERGENCY POWER.
•	PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
₽□	RECEPTACLE, DRYER: NEMA 14-30R.
₩R	RECEPTACLE, RANGE: NEMA 14-50R.
	MULTI-OUTLET ASSEMBLY: NEMA 5-20R.
	DDOD CODD, OFF DETAIL
(D)	DROP CORD. SEE DETAIL.
(T)	THERMOSTAT.
FB#	FLUSH FLOOR BOX. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
PP#	POWER POLE. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR
DT#	FLUSH FIRE RATED POKE THRU. "#" SHOWN ON DRAWINGS.
PT#	REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
Ф	SWITCH, DIMMER.
X \$	SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED).
X	
\$2 X	SWITCH, DOUBLE POLE ("x" INDICATES FIXTURES CONTROLLED).
\$3	SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED).
X \$4	SWITCH, FOUR-WAY ("x" INDICATES FIXTURES CONTROLLED).
\$DS	SWITCH, DOOR.
**************************************	SWITCH, KEY OPERATED.
·	
\$P	SWITCH, PILOT LIGHT.
\$T	SWITCH, TIMER OPERATED.
\$WP	SWITCH, WEATHERPROOF.
—	RECEPTACLE, DUPLEX, TAMPER RESISTANT: NEMA 5-20R.
<u> </u>	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT
	INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.
•	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.
•	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT
	INTERRUPTER, CONNECTED TO UPS: NEMA 5-20R.
<u> </u>	RECEPTACLE, SINGLE PLEX, WITH USB OUTLET
恭	RECEPTACLE, DULEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED
$\Phi$	CONTROLLED THROUGH TIME OR OCCUPANCY BASED  CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
#	RECEPTACLE, QUADRAPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
#	INDICATES A RECEPTACLE IS AUTOMATICALLY CONTROLLED THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER TO PLANS FOR CONTROL METHOD)
#	THROUGH TIME OR OCCUPANCY BASED CONTROLS (REFER T

SYMBOI	SYMBOLS LEGEND  DESCRIPTION
	TRICAL AND COMMUNICATIONS UTILITIES
000	ELECTRIC LINE: THIN LINE. 1Ø = SINGLE PHASE,
—3ØUP—	2Ø = 2-PHASE, 3Ø = 3-PHASE, O = OVERHEAD, U = UNDERGROUND, P = PRIMARY, S = SECONDARY
<b></b>	LIGHTNING ARRESTOR.
<b>-</b> O-	UTILITY POLE.
-	UTILITY, DISTRIBUTION SWITCH OR SWITCHING STATION.
E	UTILITY, PRIMARY ELECTRICAL HAND HOLE.
M	UTILITY SERVICES, MANHOLE.
(c)	UTILITY, COMMUNICATIONS MANHOLE.
(E)	UTILITY, ELECTRICAL MANHOLE.
(T)	UTILITY, TELEPHONE MANHOLE.
E	PRECAST CONCRETE, COMMUNICATION VAULT.  PRECAST CONCRETE, ELECTRICAL VAULT.
<u> </u>	PRECAST CONCRETE, TELEPHONE VAULT.
ТМ	PRECAST CONCRETE, MANHOLE, TRANSFORMER VAULT.
TP	PRECAST CONCRETE, TRANSFORMER PAD.
Н	HAND HOLE.
S	SUBSTATION.
Т	TRANSFORMER.
ELECTRICA	AL POWER AND DISTRIBUTION
	FUSE WITH RATING (ONE-LINE DIAGRAM).
	DISCONNECT, FUSED (ONE-LINE DIAGRAM).
	DISCONNECT, NONFUSED (ONE-LINE DIAGRAM).
Ţ	DISCONNECT WITH FUSE AND MOTOR STARTER COMBINATION
5	(ONE-LINE DIAGRAM).
	OVEDLOAD BELAY (ONE LINE STACE)
<u> </u>	OVERLOAD RELAY (ONE-LINE DIAGRAM).
Ţ	STARTER (ONE-LINE DIAGRAM).
1	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
(	CIRCUIT BREAKER, MOLDED CASE WITH SHUNT TRIP (ONE-LINE DIAGRAM).
MCP	
( MCP	CIRCUIT BREAKER, MOTOR CIRCUIT PROTECTION (ONE-LINE DIAGRAM).
#AF #AT	CIRCUIT BREAKER, ADJUSTABLE TRIP. "225AF" REPRESENTS THE RATING AND "150AT" REPRESENTS THE TRIP SETTING. (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, SOLID STATE (ONE-LINE DIAGRAM).
l	CIRCUIT BREAKER, SOLID STATE WITH GROUND FAULT
GFP	PROTECTION (ONE-LINE DIAGRAM).
<b>⊘</b>	MOTOR.
<u> </u>	TRANSFORMER (ONE-LINE DIAGRAM).
—————————————————————————————————————	TRANSFORMER, CURRENT (ONE-LINE DIAGRAM).
→ 	BATTERY (ONE-LINE DIAGRAM).
'' ⊢	CAPACITOR (ONE-LINE DIAGRAM).
	DELTA CONNECTION (ONE-LINE DIAGRAM).
-	WYE CONNECTION (ONE-LINE DIAGRAM).
"1DPHA"	DISTRIBUTION DANIEL BOARD, MOTOR CONTROL
	DISTRIBUTION PANELBOARD, MOTOR CONTROL CENTER, PLUG-IN BUSWAY, MEDIUM VOLTAGE SWITCHBOARD (ONE-LINE DIAGRAM).
"41 "	
"1H"	PANELBOARD (ONE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS
	SHOWN (ONE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS
	SHOWN (ONE-LINE DIAGRAM).
)225/3 "1H"	DANIEL BOADD WITH MAIN AND OUR FEED ORDERS SERVED
	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER

SYMBOL	SYMBOLS LEGEND DESCRIPTION
	AL POWER AND DISTRIBUTION
4	
225/3 "1H"	PANELBOARD WITH MAIN LUGS ONLY AND SURGE PROTECTION
	WITH CIRCUIT BREAKER (ONE-LINE DIAGRAM).
<b>1</b> <sub>25/3</sub>	
225/3 "1H" 225/3 "1H"	PANELBOARD WITH SUB FEED LUGS (ONE-LINE DIAGRAM).
	PANELBOARD WITH SOB FEED LOGS (ONE-LINE DIAGRAM).
225/3	
"1H"    "1H"	PANELBOARD WITH CIRCUIT BREAKER AND SUB FEED LUGS (ONE-LINE DIAGRAM).
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM
L J	
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM
	·
	TRANSFER SWITCH (ONE-LINE DIAGRAM).
	DIGITAL MULTIMETER (ONE-LINE DIAGRAM).
	DIGITAL MOLTIMETER (ONE-LINE DIAGRAM).
	EARTH GROUND (ONE-LINE DIAGRAM).
	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM)
	<u> </u>
<b>→</b> G>	GENERATOR, ANNUNCIATOR (ONE-LINE DIAGRAM).
ЕРО	PUSH BUTTON, REMOTE EMERGENCY STOP.
G	GENERATOR, POWER (ONE-LINE DIAGRAM).
<u>(K)</u>	KIRK-KEY MECHANICAL INTERLOCK (ONE-LINE DIAGRAM)
(M)	METER.
BBF	BROAD BAND FILTER (ONE-LINE DIAGRAM).
	VARIABLE FREQUENCY MOTOR CONTROLLER (ONE-LINE
VFC VFD	DIAGRAM).
<u> </u>	DIODE (ONE-LINE DIAGRAM).
	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, UNFUSED.
<b></b>	STARTER, COMBINATION WITH DISCONNECT SWITCH.
	STARTER OR MOTOR CONTROLLER.
<del></del>	
•	PUSHBUTTON.
:	PUSHBUTTONS, MOTOR CONTROL.
	PANELBOARD CABINET, FLUSH MOUNTED.
ZZA	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
V///)	
//// DP#	DISTRIBUTION PANEL OR SWITCHBOARD.
	LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSUR
LP	SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD
\$ST	PROTECTION.
	TRANSFORMER (SEE ONE-LINE FOR SIZE)
ВВВ	BUSWAY.
+	RELAY CONTACT, NORMALLY CLOSED (ONE-LINE DIAGRAM).
$\dashv\vdash$	RELAY CONTACT, NORMALLY OPEN (ONE-LINE DIAGRAM).
ه ا ه	PUSHBUTTON, NORMALLY CLOSED (ONE-LINE DIAGRAM).
	PUSHBUTTON, NORMALLY OPEN (ONE-LINE DIAGRAM).
00	<u> </u>
<u></u>	PRESSURE SWITCH, CLOSE ON INCREASE (ONE-LINE DIAGRAM)
<u>T</u>	PRESSURE SWITCH, OPEN ON INCREASE (ONE-LINE DIAGRAM).
ر ا	SWITCH, NORMALLY CLOSED FLOAT (ONE-LINE DIAGRAM).
$\mathcal{O}_{\mathcal{S}}$	SWITCH, NORMALLY OPEN FLOAT (ONE-LINE DIAGRAM).
-o√o-	SWITCH, NORMALLY CLOSED LIMIT (ONE-LINE DIAGRAM).
-0/, 0-	SWITCH, NORMALLY OPEN LIMIT (ONE-LINE DIAGRAM).
-0- <u>1-</u> 0-	SWITCH, NORMALLY CLOSED TEMPERATURE ACTIVATED
-<	(ONE-LINE DIAGRAM).  SWITCH, NORMALLY OPEN TEMPERATURE ACTIVATED
τ <sub>γ</sub> ′	(ONE-LINE DIAGRAM).
-010-	SWITCH, NORMALLY CLOSED TIME DELAY (ONE-LINE DIAGRAM)
-o	SWITCH, NORMALLY OPEN TIME DELAY (ONE-LINE DIAGRAM).
-070	SWITCH, NORMALLY CLOSED FOOT OPERATED (ONE-LINE DIAGRAM).
0	SWITCH, MULTIPOSITION (ONE-LINE DIAGRAM).
<u>~</u>	SWITCH, SINGLE BREAK (ONE-LINE DIAGRAM).
	SPECIALIZED TRANSFER SWITCH (ONE-LINE DIAGRAM).
<b>↑</b> * * * * * * * * * * * * * * * * * * *	
**************************************	
	CIRCUIT BREAKER, DRAW OUT (ONE-LINE DIAGRAM).
**************************************	CIRCUIT BREAKER, DRAW OUT (ONE-LINE DIAGRAM).
GESM	GENERATOR ENGINE START MONITORING SYSTEM GENERATOR
	GENERATOR ENGINE START MONITORING SYSTEM GENERATOR MODULE (ONE-LINE DIAGRAM).  GENERATOR ENGINE START MONITORING SYSTEM ATS MODULE
GESM ESM PRM	GENERATOR ENGINE START MONITORING SYSTEM GENERATOR

# **ABBREVIATIONS**

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

SINGLE POLE KILOVOLT SINGLE-PHASE kVA KILOVOLT AMPERE 1WAY ONE-WAY kVAR KILOVOLT AMPERE REACTIVE TWO-CONDUCTOR KILOWATT kWh KILOWATT HOUR 2WAY TWO-WAY LED LIGHT EMITTING DIODE THREE-CONDUCTOR 3WAY THREE-WAY LFMC LIQUID TIGHT FLEXIBLE METAL 40UT QUADRUPLE RECEPTACLE CONDUIT LFNC LIQUID TIGHT FLEXIBLE OUTLET NONMETALLIC CONDUIT 4PDT FOUR-POLE DOUBLE THROW LPS LOW PRESSURE SODIUM 4PST FOUR-POLE SINGLE THROW LOCKED ROTOR AMPS LRA FOUR-WIRE LTG LIGHTING 4WAY FOUR-WAY LOW VOLTAGE ABOVE COUNTER MATV MASTER ANTENNA TELEVISION ARMORED CABLE SYSTEM AMERICANS WITH DISABILITIES MAX MAXIMUM METAL CLAD ADJACENT ABOVE FINISHED FLOOR MCA MINIMUM CIRCUIT AMPS MAIN CIRCUIT BREAKER ABOVE FINISHED GRADE MOTOR CONTROL CENTER AMPERE INTERRUPTING CAPACITY MCP MOTOR CIRCUIT PROTECTION ALUM ALUMINUM MDP MAIN DISTRIBUTION PANEL MOTOR GENERATOR AMPERE

MH

MIN

MLO

MTS

CONTRACTOR INSTALLED

CONSTRUCTION MANAGER

CONVENIENCE OUTLET

REPRESENTATIVE

CONTROL PANEL

CABLE TELEVISION

UNIT OF SOUND LEVEL

DOUBLE POLE, DOUBLE

DISCONNECT SWITCH

ELECTRICAL METALLIC TUBING

FIRE ALARM CONTROL PANEL

FLEXIBLE METAL CONDUIT

FULL VOLTAGE REVERSING

GROUND FAULT INTERRUPTER

GROUND FAULT PROTECTION

HIGH INTENSITY DISCHARGE

HAND-OFF-AUTOMATIC

HIGH POWER FACTOR

HIGH PRESSURE SODIUM

ELECTRIC NONMETALLIC

FURNITURE MOUNTED

FULL LOAD AMPS

FREIGHT ON BOARD

NON-REVERSING

GENERATOR

**HEAVY DUTY** 

HORSE POWER

HIGH VOLTAGE

INPUT/ OUTPUT

ISOLATED GROUND

INTERMEDIATE METAL

INSULATED/ ISOLATED

HERTZ

CONDUIT

INFRARED

J-BOX JUNCTION BOX

GROUND

CONTRACTING OFFICER'S

CURRENT TRANSFORMER

CF/OI CONTRACTOR FURNISHED/

BY ARCHITECT

CIRCUIT

CONDUIT

COPPER

EACH

EQUIP EQUIPMENT

**EXISTING** 

FVNR FULL VOLTAGE

FIRE ALARM

**EMERGENCY** 

EPO EMERGENCY POWER OFF

CND

COR

CTV

dBA

DS

EA

EM

EMT

ENT

EX

GEN

GFCI

GFP

GND

HD

HID

HOA

HPF

HPS

HV

HZ

IMC

IN/IS

OWNER INSTALLED

CFBA CUSTOM FINISH AS SELECTED

MANHOLE

MINIMUM

MAIN LUGS ONLY

MOCP MAXIMUM OVERCURRENT

NOT APPLICABLE

NORMALLY CLOSED

NEC NATIONAL ELECTRICAL CODE

MANUFACTURERS

NATIONAL FIRE CODE

NFPA NATIONAL FIRE PROTECTION

MANUAL TRANSFER SWITCH

PROTECTION

NEMA NATIONAL ELECTRICAL

ASSOCIATION

ASSOCIATION

NIGHT LIGHT

NOT IN CONTRACT

NORMALLY OPEN

OCP OVER CURRENT PROTECTION

OF/OI OWNER FURNISHED/ OWNER

OH DR OVERHEAD (COILING) DOOR

CONTRACTOR INSTALLED

POTENTIAL TRANSFORMER

NOT TO SCALE

ON CENTER

OF/CI OWNER FURNISHED/

INSTALLED

OFP OBTAIN FROM PLANS

OVERLOAD

PHASE

PANEL

PNL

PTZ

QTY

RPM

SCA

TTB

PUSHBUTTON

POWER FACTOR

PAN/TILT/ZOOM

RCP REFLECTED CEILING PLAN

RIGID METAL CONDUIT

RIGID NONMETAL CONDUIT

REVOLUTIONS PER MINUTE

REMOVE AND RELOCATE

SELECTED BY ARCHITECT

SELECTED BY ARCHITECT

SHORT CIRCUIT AMPS

SQUARE FOOT (FEET)

SPD SURGE PROTECTIVE DEVICE

SPDT SINGLE POLE, DOUBLE THROW

SPST SINGLE POLE, SINGLE THROW

QUANTITY

START/STOP

SCBA STANDARD COLOR AS

SFBA STANDARD FINISH AS

SPEC SPECIFICATION

ST SINGLE THROW

SWBD SWITCHBOARD

TWIST LOCK

TWISTED PAIR

TELEVISION

SUPPRESSER

UNDERFLOOR

CONTROLLER

UPS UNINTERRUPTIBLE POWER

VFC/VF VARIABLE FREQUENCY MOTOR

UGND UNDERGROUND

SUPPLY

VOLTS

VA VOLT AMPERE

WITH

XFMR TRANSFORMER

WP WEATHERPROOF

W/O WITHOUT

TELEPHONE POLE

TVSS TRANSIENT VOLTAGE SURGE

TELEPHONE TERMINAL BOARD

SWGR SWITCHGEAR

TYP TYPICAL

REMOVE

AMP ANN ANNUNCIATOR ACCESS POINT (WIRELESS AS REQUIRED AMPS SHORT CIRCUIT ASC ATS AUTOMATIC TRANSFER SWITCH AUDIO VISUAL AMERICAN WIRE GAGE AWG BUCK-BOOST TRANSFORMER BELOW FINISHED FLOOR

1PH

4W

ADA

AFF

AIC

AFG

BFF BFG BELOW FINISHED GRADE CEILING MOUNTED CATV COMMUNITY ANTENNA TELEVISION CIRCUIT BREAKER CCBA CUSTOM COLOR AS SELECTED NO BY ARCHITECT CCTV CLOSED CIRCUIT TELEVISION CF/CI CONTRACTOR FURNISHED/

THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES. APPROVED: THE TERM "APPROVED". WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

**DEFINITIONS** 

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS.

"SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE

"SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY

NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED",

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED",

THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR. EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

# GENERAL ELECTRICAL NOTES

CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED.

- OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM.
- A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT.
- B. THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES. AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.
- THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE. THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.
- EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.
- SUBMITTALS: PROVIDE ORIGINAL ELECTRONIC PDF FORMAT, BOUND, BOOKMARKED (EACH SECTION AND PRODUCT), AND HIGHLIGHTED. JOB NAME AND SUBCONTRACTOR SHALL BE ON THE FRONT COVER. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.
- REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.
- ALL WORK SHALL BE DONE ACCORDING TO THE CURRENT NATIONAL ELECTRIC CODE (NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.

# **ELECTRICAL SHEET INDEX**

EE001 SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES EE002 SYMBOLS LEGEND EE003 TELECOM SCHEDULES AND NOTES EE501 ELECTRICAL DETAILS EE701 TYPICAL MOUNTING HEIGHT DETAILS EE702 TYPICAL LABELING DETAILS EDP101 DEMOLITION POWER PLAN LEVEL 9 EDL101 | DEMOLITION LIGHTING PLAN LEVEL 9 EP100 OVERALL POWER PLAN LEVEL 9 EP101 POWER PLAN LEVEL 9 EP102 POWER PLAN PENTHOUSE EP401 TYPICAL/ENLARGED POWER PLANS EP501 GE DRAWINGS EP502 GE DRAWINGS EP601 ONE LINE DIAGRAM EL101 LIGHTING PLAN LEVEL 9 EL601 INTERIOR LIGHTING FIXTURE SCHEDULE EL602 LIGHTING CONTROL SCHEDULES ET100 OVERALL TELECOM PLAN LEVEL 9 ET101 | TELECOM PLAN LEVEL 9 ET501 | TELECOM EQUIPMENT RACK ELEVATIONS ET502 TELECOM DETAILS ET601 TELECOM RISER DIAGRAMS EY101 SECURITY PLAN LEVEL 9

EY601 SECURITY DETAILS & DIAGRAMS

FA101 FIRE ALARM PLAN LEVEL 9



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NJRA Project #

100% Construction Documents Apr 25, 2022

SHEET INDEX, ABBREVIATIONS, AND GENERAL NOTES

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SYMBOLS LEGEND SYMBOL DESCRIPTION LIGHTING FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. EM EMERGENCY. NIGHT LIGHT: DO NOT SWITCH. EGRESS DIRECTION ARROW (EXIT SIGNS). EXIT SIGN: SINGLE FACE; CEILING MOUNTED EXIT SIGN: SINGLE FACE; WALL MOUNTED EXIT SIGN: DOUBLE FACE; CEILING MOUNTED EXIT SIGN: DOUBLE FACE; WALL MOUNTED LIGHTING CONTROL OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING. OCCUPANCY SENSOR, DUAL TECHNOLOGY, WALL. **⊕** OCCUPANCY SENSOR, DUAL TECHNOLOGY, DIRECTIONAL. PHOTOCELL. PHOTOCELL, WALL MOUNTED. VACANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING. VACANCY SENSOR, DUAL TECHNOLOGY, WALL. CEILING FAN. SWITCH/OCCUPANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL. SWITCH/VACANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL. DIMMER SWITCH/OCCUPANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL. DIMMER SWITCH/VACANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL. LOW VOLTAGE DIGITAL LIGHTING CONTROL SWITCH: LETTER "a,b" INDICATES ZONING WHERE SHOWN (REFER TO PLANS, SCHEDULES, AND DETAILS FOR EXACT BUTTON CONFIGURATION AND PROGRAMMING REQUIREMENTS) DIGITAL LIGHTING ROOM CONTROLLER DIGITAL LIGHTING DIMMING CONTROLLER DIGITAL PLUG LOAD CONTROLLER LIGHTING NETWORK SWITCH. LIGHTING NETWORK ROUTER. LIGHTING NETWORK SEGMENT MANAGER LIGHTING NETWORK BRIDGE LIGHTING EMERGENCY TRANSFER DEVICE LIGHTING SPACE CONTROL TYPE. X INDICATES TYPE. SEE SCHEDULE / DIAGRAM. STRUCTURED CABLING TELEPHONE, WALL MOUNTED ("X" INDICATES QUANTITY OF DATA CONNECTION: WIRELESS ACCESS POINT (WAP). REQUIRES (2) DATA DROPS PER DEVICE TELEPHONE, WALL MOUNTED: WALL PHONE. OUTLET, DATA COMMUNICATION ("X" INDICATES QUANTITY OF OUTLET, BUILDING STANDARD COMBINATION TELEPHONE/ DATA COMMUNICATION. TELEPHONE TERMINAL BOARD, FIRE TREATED PLYWOOD PAINTED. LAN RACK, FLOOR STANDING. TWO-WAY COMMUNICATIONS TWO-WAY COMMUNICATIONS MAIN CONTROL STATION (ANNUNCIATOR) TWO-WAY COMMUNICATIONS REMOTE CALL STATION DATA CONNECTION: TWO-WAY EMERGENCY COMMUNICATION SYSTEM.

	SYMBOLS LEGEND
SYMBOL	
FIRE ALARI	M
FAA	FIRE ALARM ANNUNCIATOR PANEL.
FACP	FIRE ALARM CONTROL PANEL, SEMI-RECESSED.
FATC	FIRE ALARM TERMINAL CABINET: NAC, SLC, SPEAKER CIRCUITS; AMPLIFIERS, BATTERIES
HVAC	CONTROL PANEL FOR HVAC: SMOKE CONTROL, STAIR PRESSURIZATION.
EVAC	VOICE EVACUATION PANEL.
PRE	PRE-ACTION CONTROL PANEL.
MIC	REMOTE VOICE EVACUATION MICROPHONE.
FPC	FIRE PUMP CONTROLLER.
JPC	JOCKEY PUMP CONTROLLER.
С	AUTOMATIC DOOR CLOSERS: DOOR CLOSERS SHALL BE FURNISHED WITH DOOR HARDWARE AND CONNECTED BY FIRE ALARM INSTALLER.
СМ	CONTROL MODULE.
ММ	MONITOR MODULE.
F	FIRE ALARM MANUAL PULL STATION.
Ŀ	
R	SHUT DOWN RELAY: INSTALL RELAY IN CONTROL CIRCUIT OF EQUIPMENT TO BE CONTROLLED IN THE EVENT OF A FIRE.
FS	WATER FLOW SWITCH. FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED BY FIRE SPRINKLER
<u>. ~ </u>	CONTRACTOR AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
VS	VALVE SUPERVISORY SWITCH, TAMPER SWITCH. TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED BY FIRE SPRINKLER CONTRACTOR AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
PS	PRESSURE SUPERVISORY SWITCH. PRESSURE SWITCHES SHALL BE PROVIDED AND INSTALLED BY FIRE SPRINKLER CONTRACTOR AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE
<del></del>	SPRINKLER SHOP DRAWINGS
<u>5</u>	MAGNETIC DOOR HOLDER.
<u>(S)</u>	DETECTOR, SMOKE.
15	DETECTOR, SMOKE, WALL MOUNTED.
<b>2</b> A	DETECTOR, SMOKE WITH AUXILIARY CONTACT.
<b>₹</b> BR	DETECTOR, SMOKE, BEAM RECEIVER.
<b>⊘</b> BT	DETECTOR, SMOKE, BEAM TRANSMITTER.
<b>S</b> <sup>E</sup>	DETECTOR, SMOKE, ELEVATOR RECALL DESIGNATION.
<b>?</b> G	DETECTOR, SMOKE WITH GUARD.
(2) R	DETECTOR, SMOKE, RESIDENTIAL.
$\overline{}$	
<b>S</b> s	DETECTOR, SMOKE WITH STROBE.
<b>?</b> RS	DETECTOR, SMOKE, RESIDENTIAL WITH SOUNDER BASE.
<b>₹</b> AS	DETECTOR, SMOKE, AIR SAMPLING SYSTEM PORT LOCATION.
<b>S</b>	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
L <sub>SD</sub>	SMOKE DAMPER. 120V POWER FROM ELECTRICAL SYSTEM.
	COMBINATION FIRE/SMOKE DAMPER. 120V POWER FROM ELECTRICAL SYSTEM.
	DEMOTE ALABA INDICATINA AND THE CONTRACT
RTS	REMOTE ALARM INDICATING AND TEST SWITCH.
	DETECTOR, HEAT.
co	DETECTOR, CARBON MONOXIDE.
×	STROBE, WALL MOUNTED.
75	STROBE, WALL MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
WP	ALARM, HORN/SPEAKER, WALL MOUNTED, WEATHERPROOF.
	ALARM, HORN/STROBE, WALL MOUNTED, ONE ASSEMBLY.
75	ALARM, HORN/STROBE, WALL MOUNTED, ONE ASSEMBLY.
	SUBSCRIPT INDICATES CANDELA RATING.  ALARM, CHIME/STROBE, WALL MOUNTED, ONE ASSEMBLY.
	ALARM, HORN/STROBE WITH GUARD, WALL MOUNTED,
∭K G	ONE ASSEMBLY.
M	ALARM, MINI HORN/STROBE, WALL MOUNTED, ONE ASSEMBLY.
	SPEAKER, WALL MOUNTED, EVACUATION.
X	SPEAKER, WALL MOUNTED, EVACUATION, COMBINATION STROBE
75	SPEAKER, WALL MOUNTED, EVACUATION, COMBINATION STROBE. SUBSCRIPT INDICATES CANDELLA RATING.
<b>&gt;</b> ⊗⊲ 75	ALARM, HORN/STROBE, ONE ASSEMBLY, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
75	ALARM, HORN, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
75	SPEAKER/STROBE, CEILING MOUNTED. SUBSCRIPT INDICATES
	CANDELA RATING.  SPEAKER, CEILING MOUNTED.
	ALARM, STROBE, CEILING MOUNTED. SUBSCRIPT
(XX) 75	INDICATES CANDELA RATING.

SYMBOL	SYMBOLS LEGEND  DESCRIPTION
CLOCK	DECOM HON
+©	CLOCK.
⊦© <sub>G</sub>	CLOCK, SURFACE WITH WIRE GUARD.
NURSE CA	_L 
<b>O</b>	JUNCTION BOX.
	CORRIDOR LIGHT.
B	BATHROOM PULL CORD STATION.
Ē	DUTY STATION.
Ē	EMERGENCY ASSISTANCE CALL STATION.
E CB	EMERGENCY ASSISTANCE CODE BLUE CALL STATION.
P	PATIENT STATION.
	STAFF STATION.
NCM	TOUCH SCREEN NURSE CALL MASTER STATION.
ZLC	ZONE LIGHT CONTROLLER.
CU	NURSE CALL AREA CONTROL UNIT & POWER SUPPLIES.
	NONSE CALL AILLA CONTINOL UNIT & FOWER SOFFEILS.
CCTV P>	
	CCTV CABLE, POWER.
	CCTV CABLE, VIDEO SIGNAL.
ССТУ	CCTV HEADEND EQUIPMENT.
М	CCTV MONITOR.
	CCTV CAMERA/ENCLOSURE WITH LENS, TYPICAL. SEE SCHEDULE.
PTZ>	CCTV CAMERA WITH PAN, TILT AND ZOOM.
2000	DANIAINO CAMEDA TRANCO (SECTIONALE)
360°	PANNING CAMERA TRANSVERSE ANGLE.
SECURITY	
X	SECURITY CABLE. SEE EQUIPMENT SCHEDULE FOR CABLE TYPE.
ACC	ACCESS CONTROL HEADEND EQUIPMENT.
CTR	SECURITY CONTROL PANEL.
SEC	INTRUSION DETECTION HEADEND EQUIPMENT.
#1	CARD ACCESS DOOR TYPE #1 OR AS NOTED. SEE
	SCHEDULE.
CR >	CARD READER.
KCR	KEYPAD/CARD READER COMBINATION.
	DOOR SWITCH, BALANCED MAGNETIC CONTROL.
⊚ <sub>ER</sub>	EXIT REQUEST.
■ <sub>RL</sub>	REMOTE DOOR RELEASE BUTTON.
	BELL.
	BUZZER.
	BUZZER, COMBINATION BELL.
 	SENSOR, BURIED VEHICULAR.
<b>(</b> }	SENSOR, GLASS BREAK.
$\Diamond$	SENSOR, VOLUMETRIC.
(CA)	CONTROLLED ACCESS POINT.
(IC)	INTERCOM STATION.
(IRU)	DUAL TECHNOLOGY PASSIVE INFRARED SENSOR AND
	ULTRASONIC MOTION DETECTOR.
(IR)	PASSIVE INFRARED SENSOR.
$\overline{}$	PASSIVE INFRARED SENSOR.  PANIC DURESS SWITCH.
P	
P U	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.
P U AP	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.
P U AP MSI	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.
P U AP MSI	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.  BUTION
P U AP MSI TV DISTRIE	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.  BUTION  TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.
P U AP MSI	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.  BUTION
P U AP MSI TV DISTRIE	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.  BUTION  TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.
P U AP MSI TV DISTRIE	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.  BUTION  TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.  TV DISTRIBUTION CABLE, TRUNK.
P U AP MSI TV DISTRIE TT TR CMB	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.  BUTION  TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.  TV DISTRIBUTION CABLE, TRUNK.  COMBINER.
P U AP MSI TV DISTRIE T TR CMB DC	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.  BUTION  TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.  TV DISTRIBUTION CABLE, TRUNK.  COMBINER.  DIRECTIONAL COUPLER.
P U U AP MSI TV DISTRIE TR CMB DC DA	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.  BUTION  TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.  TV DISTRIBUTION CABLE, TRUNK.  COMBINER.  DIRECTIONAL COUPLER.  DISTRIBUTION AMPLIFIER (ONE-LINE DIAGRAM).
P U AP MSI TV DISTRIE T T CMB DC DA SPL	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.  BUTION  TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.  TV DISTRIBUTION CABLE, TRUNK.  COMBINER.  DIRECTIONAL COUPLER.  DISTRIBUTION AMPLIFIER (ONE-LINE DIAGRAM).  SPLITTER (ONE-LINE DIAGRAM).
P U U AP MSI TV DISTRIE TR CMB DC DA SPL	PANIC DURESS SWITCH.  ULTRASONIC MOTION DETECTOR.  ANNUNCIATOR PANEL.  MASTER STATION, INTERCOM.  BUTION  TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.  TV DISTRIBUTION CABLE, TRUNK.  COMBINER.  DIRECTIONAL COUPLER.  DISTRIBUTION AMPLIFIER (ONE-LINE DIAGRAM).  SPLITTER (ONE-LINE DIAGRAM).  TV OUTLET.



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IMC - South Office

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SYMBOLS LEGEND

\_\_EE002

C	CABLE/OUTLET COLOR SCHEDULE					
COLOR	TYPE					
BLACK	TV COAX					
BLUE	ANALOG PHONE					
BLUE	DATA					
BLUE	IP SECURITY CAMERAS					
GREY	SECURITY CARD READERS					
ORANGE	CLINICAL ENGINEERING / NURSE CALL					
RED	FIRE SYSTEMS					
RED	FORESEER					
WHITE	PUBLIC ADDRESS					
YELLOW	WIRELESS					
GREEN	VENDOR NETWORK					

COPPER PATCH CORD SCHEDULE							
(CATEGO	PRY 6A F/UTP CABLES	S W/RJ-45 CONNEC	TORS)				
LENGTH (FEET)	COLOR	QUANTITY	UNIT COST (EACH)				
5'	BLUE	20% OF TOTAL PORTS IN TDR'S					
7'	BLUE	60% OF TOTAL PORTS IN TDR'S					
10'	BLUE	20% OF TOTAL PORTS IN TDR'S					

COP	PER PATCH COR	D SCHED	ULE				
(CATEGORY 5E CABLES W/RJ-45 CONNECTORS)							
LENGTH (FEET)	COLOR	QUANTITY	UNIT COST (EACH)				
5'	BLUE	10					
7'	BLUE	10					
10'	BLUE	10					

FIE	BER PATCH CORD	SCHEDU	LE					
(SINGLE-MODE W/LC CONNECTORS)								
LENGTH (METER)	COLOR	QUANTITY	UNIT COST (EACH)					
-	-	-	-					
3	YELLOW	4	-					
5	YELLOW	4	-					

WIRELESS PA	ATCH CORD PAT	CH CORD	SCHEDULE
(CAT	EGORY 6A F/UTP W RJ/4	5 CONNECTO	RS
LENGTH (METER)	COLOR	QUANTITY	UNIT COST (EACH)
7'	YELLOW	100% OF TOTAL PORTS IN TDR'S	

# FQUIPMENT/CABLE LIST

	LQUIFIVILINI/CADLL LIS	1
ABLING IN ROVIDE AL ESCRIPTION	INDICATED BELOW SHALL NOT BE CONSTRUED AS A "BILL OF MATERIALS". THIS LIST IDENTIFIES ITEMS OI STALLATION. WHERE THE ITEMS INDICATED ARE ONE PORTION OF AN ASSEMBLY, THE ENTIRE ASSEMBLY LL MISCELLANEOUS HARDWARE AND SUPPORTS WHICH MAY NOT BE LISTED HERE, FOR A COMPLETE INS DNS AND NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO BID. IF CATALOG NUMBERS DO NOT MATCH DE OMPLETE SUBMITTAL FOR APPROVAL PRIOR TO PURCHASING ANY EQUIPMENT OR CABLE. REFER TO SPE	Y SHALL BE PROVIDED UNLESS SPECIFIED OTHERWISE. STALLATION. COMPARE CATALOG NUMBERS WITH ESCRIPTIONS, THE DESCRIPTIONS TAKE PRECEDENCE.
SYMBOL	ITEM DESCRIPTION	ACCEPTABLE TYPES
	STATION CABLE, DATA - CATEGORY 6A FUTP PLENUM, BLUE, DATA	SIEMON 9A6P4-A5-06-R1A
	STATION CABLE, DATA - CATEGORY 6A FUTP PLENUM, YELLOW, WIRELESS DATA	SIEMON 9A6P4-A5-05-R1A
	BLANK INSERT, WHITE	SIEMON MX-BL-02
<b>A</b>	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION	SIEMON 10GMX-FPS04-02
V	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
((♠))	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 2 POSITION	SIEMON MX-SMZ2-02
<sup>♣</sup> C	CATEGORY 6A JACK - DATA, YELLOW	SIEMON Z6A-S05
	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 1 POSITION	SIEMON MX-SMZ1-02
	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
SPP1	48 PORT, 1RU ANGLE PATCH PANEL WITH OUTLETS	SIEMON Z6AS-PA-48
-J-J-J-	TRIPLE TREE J-HOOKS	ERICO CAT64HPSWM3

NOTE: ALL RACKS, LADDER, PATCH PANELS AND ACCESSORIES SHALL BE BLACK IN COLOR.

# **ABBREVIATIONS**

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

AUGMENTED CATEGORY **ENHANCED** 

**EQUIPMENT ROOM** FIBER PATCH PANEL GIGA HERTZ HORIZONTAL WIRE MANAGEMENT NOT IN CONTRACT

OWNER ELECTRONICS PLENUM POWER SUPPLY RISER PATCH PANEL

STATION PATCH PANEL TELECOMMUNICATIONS DISTRIBUTION ROOM

# VWM VERTICAL WIRE MANAGEMENT

# **DEFINITIONS**

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES. APPROVE: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND

STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS. FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

ELECTRONIC SYSTEMS: THE TERM "ELECTRONIC SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

# GENERAL PROJECT NOTES

- UNLESS OTHERWISE NOTED, INSTALL ALL CABLE INSIDE RACEWAY SYSTEMS. WHERE RACEWAY SYSTEMS HAVE NOT BEEN PROVIDED OR SPECIFIED, INSTALL CABLE THROUGH THE SPECIFIED "CADDY" CLIPS AT THE MINIMUM INTERVALS IDENTIFIED IN THE SPECIFICATIONS. SUPPORT "CADDY" CLIPS DIRECTLY FROM THE BUILDING STRUCTURE, NOT FROM OTHER BUILDING SYSTEM SUPPORT WIRES OR CABLE.
- PROVIDE PLENUM RATED CABLE IN ALL AIR PLENUMS. IF A PLENUM RATED CABLE IS NOT SPECIFIED, PROVIDE THE PLENUM RATED EQUIVALENT TO THE SPECIFIED CABLE.
- 3. LABEL ALL CABLE INSTALLED UNDER THIS CONTRACT REGARDLESS OF
- 4. THE EQUIPMENT LABELING IDENTIFIED ON DETAILS IN THESE DRAWINGS ARE EXAMPLES ONLY OF THE ACTUAL LABELING WHICH IS REQUIRED AS PART OF THIS CONTRACT. PRIOR TO FABRICATION, SUBMIT THE NOMENCLATURE FOR ALL LABELS TO THE OWNER FOR REVIEW. THIS REQUIREMENT INCLUDES BUT IS NOT LIMITED TO ALL CABLE LABELING, AND ALL EQUIPMENT LABELING.
- 5. IF OUTLET IS TERMINATED IN CEILING SPACE, LABEL THE T-BAR GRID WITH THE OUTLET NUMBER FOR EASY LOCATION AND IDENTIFICATION.
- 6. GROUND ALL EQUIPMENT RACKS INSTALLED UNDER THIS CONTRACT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
- PROVIDE THE QUANTITY OF PATCH PANELS REQUIRED +20% FOR THE TOTAL DATA OUTLETS SHOWN ON FLOOR PLANS FOR THE PARTICULAR LEVEL.
- RACK SPACE ALLOCATION SHOULD BE FOLLOWED PER DRAWINGS. IF YOU HAVE A SYSTEM THAT HAS NO RACK SPACE ALLOCATED PLEASE CALL BOE SAUSEDO AT 801-707-3805
- ENSURE ALL BASKET TRAY AND COMMUNICATIONS CONDUITS HAVE BEEN GROUNDED TO THE TEC/TDR, USING A MINIMUM #6 CU.
- 10. CONTRACTOR TO LOOSELY BUNDLE ALL CABLES TOGETHER BY FLOOR OR ORIGINATION.
- 11. FOR EVERY CABLE PULL SPECIFIED, COIL 15' OF EXCESS CABLE AT THE STATION END FOR FUTURE USE AND 3'-0" OF EXCESS CABLE AT THE TDR END. NEATLY COIL AND SECURE CABLE ABOVE THE CEILING OR BELOW FLOOR WHERE APPLICABLE.
- 12. COORDINATE WITH ALL SUBS TO ENSURE THAT ALL CABLES ARE PROTECTED FROM ANY DIRECT PAINT OR INCIDENTAL OVERSPRAY.



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TELECOM SCHEDULES AND NOTES

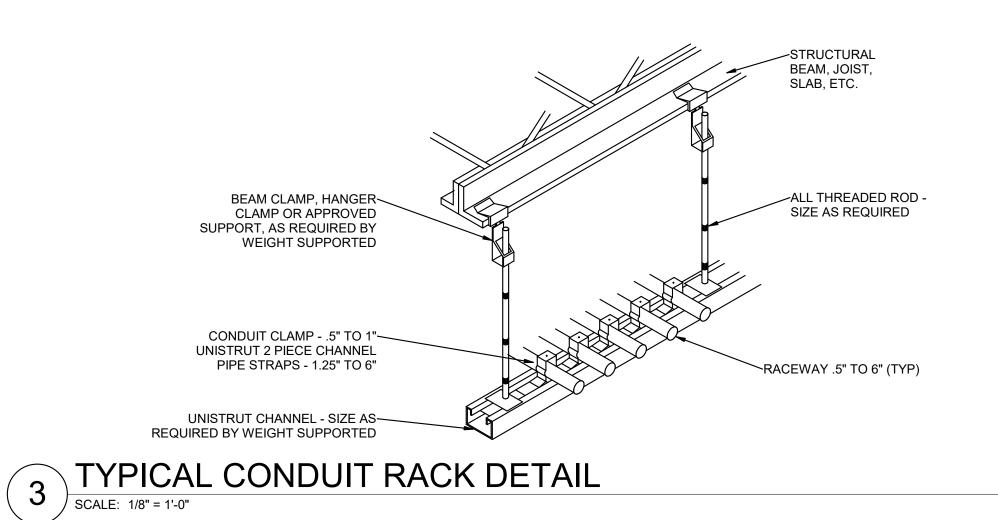
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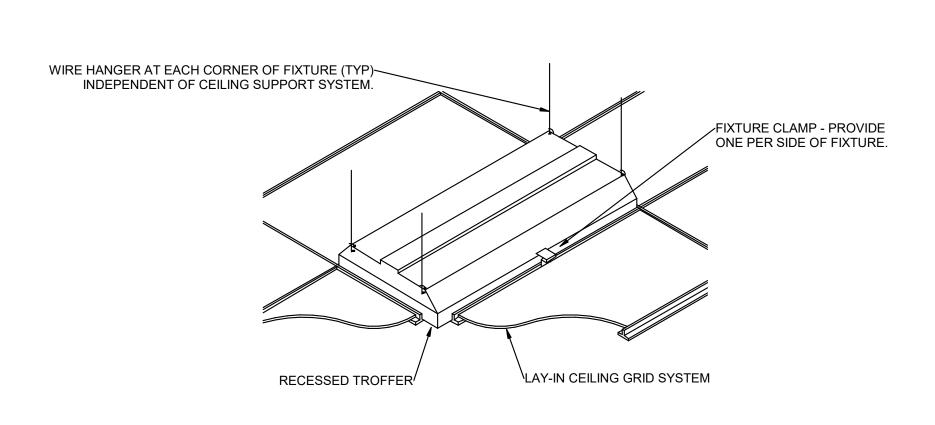


PROVIDE CONDUIT SUPPORTS IN ACCORDANCE WITH NEC

SPACING REQUIREMENTS FOR TYPE OF RACEWAY REQUIRED.

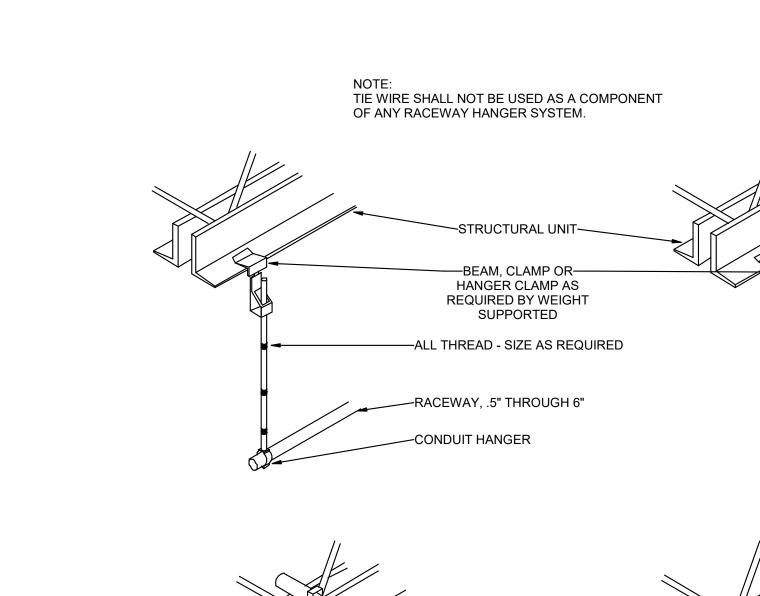
AS REQUIRED FOR TYPE OF CONSTRUCTION.

TYPICAL \$
OUTLET BOX



RECESSED FIXTURE MOUNTING DETAIL

SCALE: 1/8" = 1'-0"



BEAM, CLAMP OR HANGER
CLAMP AS REQUIRED BY
WEIGHT SUPPORTED

RACEWAY - .5" THROUGH 1"

ELECTRICAL DETAILS

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.5" THROUGH 1"

TYPICAL RACEWAY SUPPORT METHODS DETAIL

SCALE: 1/8" = 1'-0"

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4. IN ACCORDANCE WITH IBC 714.3.2 EXCEPTION 1, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE IN A RATED FIRE SEPARATION WALL MUST BE SEPARATED BY A MINIMUM OF 24" HORIZONTAL DISTANCE OR LISTED, SOUND AND FIRE RATED PUTTY PADS SHALL BE USED ON THE OUTLET BOXES.
5. IN NON-RATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 16" FOR SOUND ATTENUATION.

1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.

TYPICAL— OUTLET BOX

 LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.

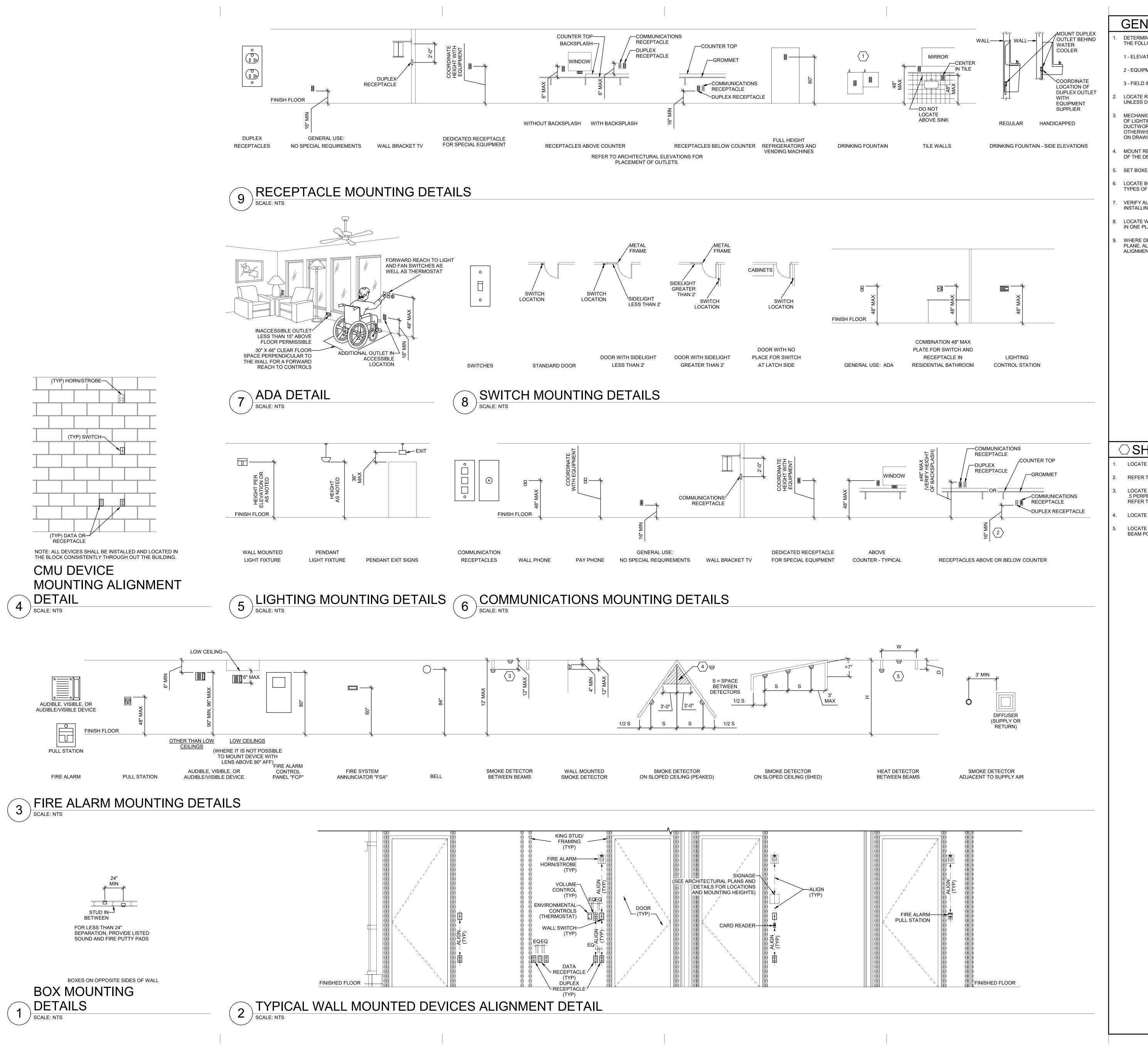
1 TYPICAL ROUGH-IN REQUIREMENTS DETAIL

SCALE: 1/8" = 1'-0"

PLASTER RINGS NOT SHOWN.

BAR STRAPS

EE501



# GENERAL SHEET NOTES

- DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:
- 1 ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).
- 2 EQUIPMENT SHOP DRAWINGS.
- 3 FIELD INSTRUCTIONS.
- LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.
- 3. MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.

MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.

- 5. SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.
- 6. LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.
- VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING SWITCHES.
- 8. LOCATE WIRING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.
- 9. WHERE DEVICES ARE LOCATED IN CLOSE PROXIMITY OF THE SAME VERTICAL PLANE, ALIGN DEVICES VERTICALLY PER THE TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL, UNLESS OTHERWISE INDICATED.

# ○ SHEET KEYNOTES

- LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
- REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
- LOCATE AT BOTTOM OF BEAMS (OR JOISTS) OR AT CEILING. (REDUCE SPACING BY .5 PERPENDICULAR TO BEAM OR JOIST DIRECTION.) FOR OTHER CONDITIONS, REFER TO NFPA 72.
- 4. LOCATE DETECTOR ANYWHERE IN SHADED AREA BUT NOT IN TOP 4" OF PEAK.
- LOCATE AT BOTTOM OF BEAMS IF D/H < .1 OR W/H < .4; OTHERWISE, LOCATE IN BEAM POCKET. FOR D > 4 REDUCE SPACING .33 PERPENDICULAR TO BEAMS.

ARCHITECTS

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TYPICAL MOUNTING HEIGHT

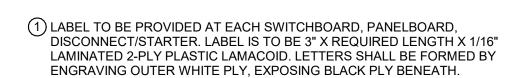
DETAILS

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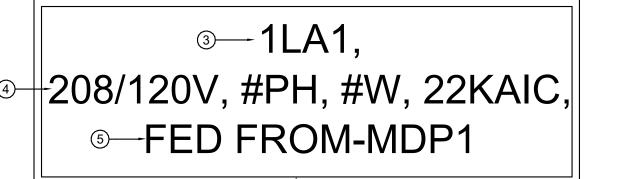
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(2) LABEL IS TO BE MOUNTED USING DOUBLE SIDED ADHESIVE TAPE COVERING THE BACK OF THE LABEL.

- (3) FIRST LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN. REPLACE THE LETTER/NUMBER WITH THOSE FOUND ON THE ONE-LINE DIAGRAM.
- (4) SECOND LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN. THE FOLLOWING SHALL BE PROVIDED, VOLTAGE, PHASE, NUMBER OF WIRES, AND AIC RATING OF DEVICE.
- (5) THIRD LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN. PROVIDE "FED FROM-" AND REPLACE MDP1 WITH THE DEVICES NAME THAT FEEDS THE PANELBOARD.



NOTE: EMERGENCY PANELS SHALL USE LAMACOID WITH RED OUTERPLY, EXPOSING WHITE LETTERING BENEATH. CONTRACTOR TO USE SAME LABEL SCHEME EXCEPT FIRST 'X' IS REPLACED WITH 'E' FOR EMERGENCY. SECOND 'X' TO BE 'L' FOR LOW OR 'H' FOR HIGH VOLTAGE (480/277V). LAST '#' TO BE REPLACED WITH LETTER INDICATING LOCATION OF PANEL.

# Standby generator — 4 automatically starts during power outage Type of Generator 5 EMERGENCY, DIESEL Generator location - 4

(1) LABEL TO BE PROVIDED THAT IS TO BE 4" X REQUIRED LENGTH X 1/16" LAMINATED 2-PLY PLASTIC LAMACOID. LETTERS SHALL BE FORMED BY ENGRAVING OUTER WHITE PLY, EXPOSING BLACK PLY BENEATH. LABEL SHALL BE INSTALLED AT THE SERVICE ENTRANCE EQUIPMENT

- (2) LABEL IS TO BE MOUNTED USING DOUBLE SIDED ADHESIVE TAPE COVERING THE BACK OF THE LABEL.
- (3) FIRST LINE: LETTERING IS TO BE 1/2" HIGH, CENTERED.
- (4) SECOND SET OF LINES: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN.
- (5) THIRD SET OF LINES: LETTERING TO BE 3/16" HIGH, CENTERED, AND FORMATTED AS SHOWN. UPDATE TYPE OF GENERATOR AND GENERATOR LOCATIONS FOR ACTUAL PROJECT VALUES.

SERVICE ENTRANCE **EQUIPMENT GENERATOR** SIGNAGE LABEL

# SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED.

(1) LABEL TO BE PROVIDED THAT IS TO BE 4" X REQUIRED LENGTH X 1/16" LAMINATED 2-PLY PLASTIC LAMACOID. LETTERS SHALL BE FORMED BY ENGRAVING OUTER WHITE PLY, EXPOSING BLACK PLY BENEATH. LABEL SHALL BE INSTALLED AT THE NORMAL POWER SOURCE

(2) LABEL IS TO BE MOUNTED USING DOUBLE SIDED ADHESIVE TAPE COVERING THE BACK OF THE LABEL.

(3) FIRST LINE: LETTERING IS TO BE 1/2" HIGH, CENTERED (4) SECOND SET OF LINES: LETTERING IS TO BE 1/4" HIGH, CENTERED, AND FORMATTED AS SHOWN.



# TYPICAL PANELBOARD/SWITCHBOARD LABEL

(1) LABEL TO BE PROVIDED THAT IS TO BE 4" X REQUIRED LENGTH X 1/16" LAMINATED 2-PLY PLASTIC LAMACOID. LETTERS SHALL BE FORMED BY ENGRAVING OUTER WHITE PLY, EXPOSING BLACK PLY BENEATH.

(2) LABEL IS TO BE MOUNTED USING DOUBLE SIDED ADHESIVE TAPE COVERING (3) FIRST LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, WITH THE EQUIPMENT

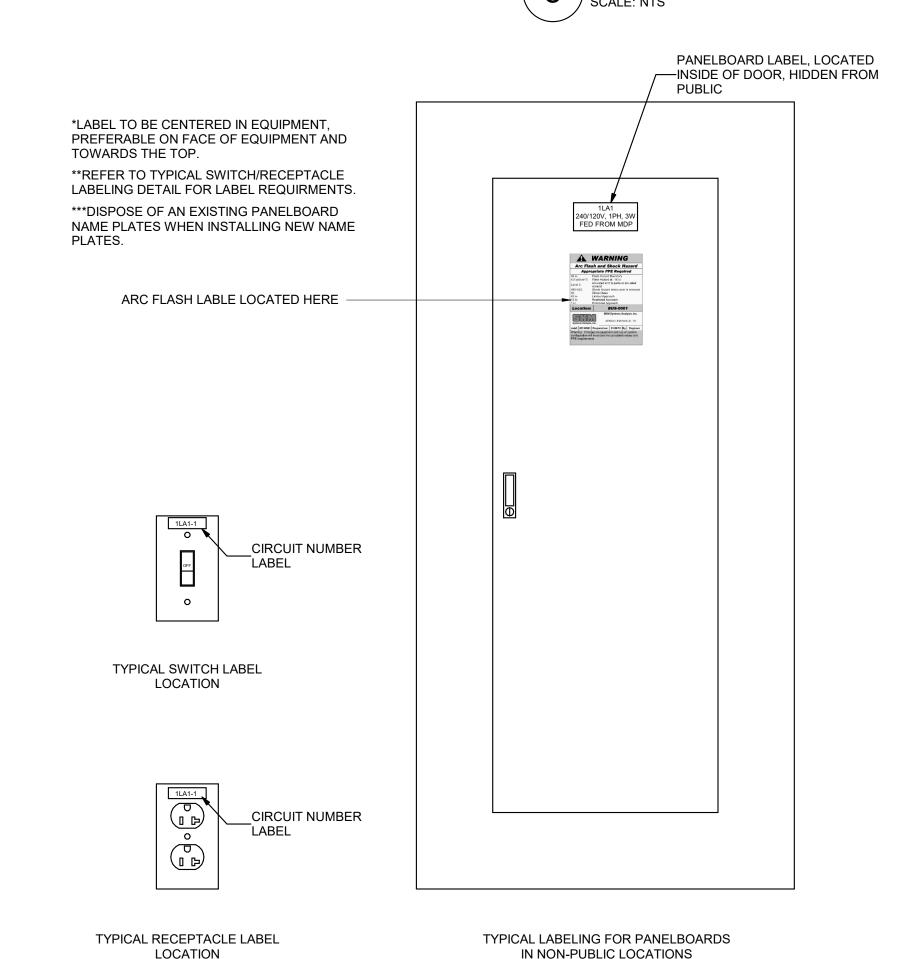
ID MATCHING PLANS. (4) SECOND LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN. THE FOLLOWING SHALL BE PROVIDED, VOLTAGE, PHASE,

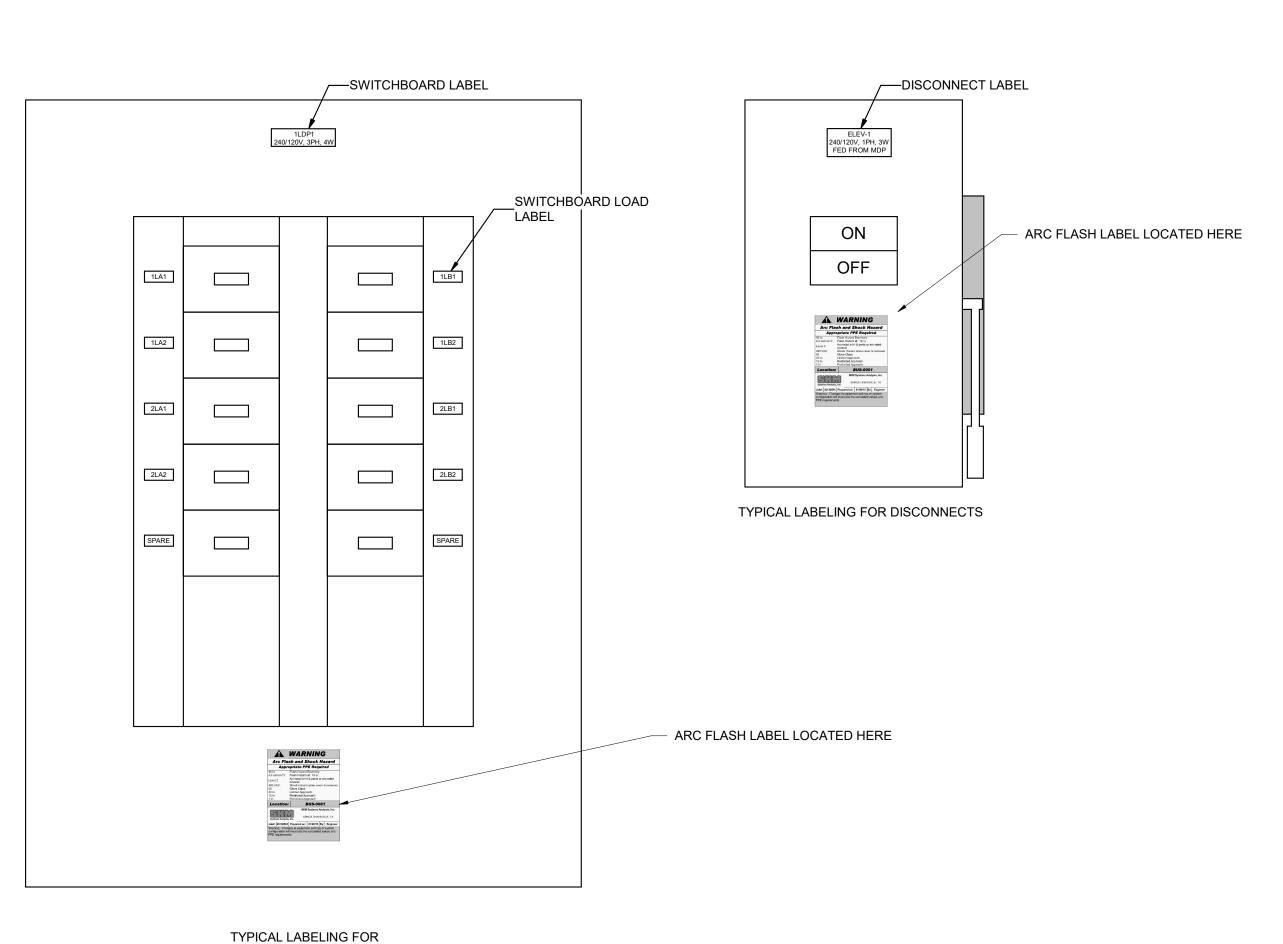
NUMBER OF WIRES, AND AIC RATING OF GEAR. (5) THIRD & FOURTH LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN. LABEL WITH ACTUAL AVAILABLE FAULT CURRENT AND ASSOCIATED CLEARING TIME.

<sup>③</sup>
→MDP1, -480Y/277V, 3PH, 4W, 22KAIC, **SHAVAILABLE FAULT CURRENT -**XX,XXX A MCB CLEARING TIME -X.XX SECONDS

(1)-/

TYPICAL MAIN SERVICE EQUIPMENT/GEAR LABEL





SWITCHBOARDS

GENERATOR DOCKING 4—XXX AMPS ⑤—480/277V, #PH, #W **®—PHASE ROTATION** <sup>⑨</sup>
— SYSTEM BONDING NEUTRAL TO GROUND BOND AT TEMPORARY GENERATOR

REQUIRED - YES

1) LABEL IS TO BE SIZED APPROPRATELY 1/16" LAMINATED 2-PLY PLASTIC LAMACOID. LETTERS SHALL BE FORMED BY ENGRAVING OUTER RED PLY, EXPOSING WHITE PLY BENEATH.

(2) LABEL IS TO BE MOUNTED USING DOUBLE SIDED ADHESIVE TAPE COVERING THE BACK OF THE LABEL.

(3) FIRST LINE: LETTERING IS TO BE 1/4" HIGH, CENTERED, AND FORMATTED AS SHOWN. REPLACE THE LETTER/NUMBER WITH THOSE FOUND ON THE ONE-

(4) SECOND LINE: LETTERING IS TO BE 1/4" HIGH, CENTERED, AND FORMATTED AS SHOWN. THE FOLLOWING SHALL BE PROVIDED, AMPACITY OF GENERATOR DOCKING STATION. (5) THIRD LINE: LETTERING IS TO BE 1/4" HIGH, CENTERED, AND FORMATTED AS

SHOWN. THE FOLLOWING SHALL BE PROVIDED, VOLTAGE, PHASE, NUMBER (6) FOURTH LINE: ARROW SHOULD BE SIZED APPROPRIATELY AND CENTERED. LETTERING SHALL BE 1/2" HIGH, FORMATTED AS SHOWN.

(7) FIFTH LINE: LETTERING IS TO BE 1/4" HIGH, CENTERED, AND FORMATTED AS (8) SIXTH LINE: LETTERING IS TO BE 1/4" HIGH, CENTERED, AND FORMATTED AS

 $^{(9)}$  SYSTEM BONDING REQUIREMENTS LIST : YES = FOR SEPARATELY DERIVED GENERATOR SYSTEM NO = FOR NON-SEPARATELY DERIVED GENERATOR SYSTEM

**GENERAL NOTES:**  CONTRACTOR SHALL FIELD VERIFY PHASE ROTATION AND APPLY APPROPRIATE LABEL FOR ROTATION.

 LABEL TO BE PERMANENTLY AFFIXED TO EQUIPMENT LABEL VALUES TO BE UPDATED FOR ACTUAL EQUIPMENT INSTALLED.

GENERATOR DOCKING STATION LABEL

TYPICAL SWITCH, RECEPTACLE AND PANELBOARD LABELING LOCATION DETAIL

SCALE: NTS

LABELING DETAILS

TYPICAL

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GENERAL SHEET NOTES

UNLESS NOTED OTHERWISE REMOVE ALL LIGHTING FIXTURES DEVICES AND EQUIPMENT SHOWN DASHED. REMOVE CONDUIT AND WIRING BACK TO PANELBOARD OF ORIGIN OR TO FIRST ACTIVE DEVICE THAT REMAINS.

SALVAGE ALL LIGHT FIXTURES, TWIST-LOCK RECEPTACLES AND WALLPLATES, CEILING SPEAKERS AND SECURITY AND FIRE ALARM DEVICES TO OWNER. PROTECT SALVAGED EQUIPMENT FROM DAMAGE.

PRIOR TO SUBMITTING BID, VISIT THE SITE AND FIELD VERIFY THE EXTENT OF ELECTRICAL DEMOLITION WORK TO MEET THE INTENT OF THE BID DOCUMENTS AND

INCLUDE ALL COSTS IN BID. PRIOR TO REMOVAL OF ANY ELECTRICAL EQUIPMENT OR WIRING, FIELD VERIFY THAT THE EQUIPMENT OR WIRING IS INACTIVE OR NO LONGER IN USE.

REMOVE ALL DEVICES, RACEWAYS AND WIRING FROM WALLS TO BE REMOVED. WHERE ACTIVE RACEWAYS OCCUR IN WALLS TO BE REMOVED, RE-ROUTE THE

RACEWAY WITH ASSOCIATED WIRING TO KEEP THE CIRCUIT OPERATIONAL. REMOVE ALL FIRE ALARM DEVICES WHERE EXISTING WALLS AND CEILINGS ARE BEING REMOVED, WITH ASSOCIATED CONDUIT AND WIRING. EXISTING FIRE ALARM DEVICES AND SYSTEM NOT INDICATED FOR REMOVAL SHALL REMAIN ACTIVE THROUGHOUT DEMOLITION AND CONSTRUCTION UNTIL THE NEW SYSTEM IS TESTED AND OPERATIONAL. MAINTAIN ALL CLASS A FIRE ALARM INITIATING AND INDICATING LOOPS WHERE EXISTING DEVICES ARE REMOVED.

REMOVE ALL ABANDONED RACEWAY, CONDUIT, WIRING AND CABLING WHETHER ABANDONED PREVIOUS TO THIS PROJECT OR AS A RESULT OF THIS PROJECT. NOT ALL ABANDONED ITEMS ARE SHOWN ON THESE PLANS AND FIELD VERIFICATION OF DEMOLITION SCOPE EXTENT IS REQUIRED.

DEVICES MARKED "RR" ARE TO BE REMOVED AND RELOCATED PER NEW PLANS. EXTEND CIRCUITING AS REQUIRED FOR RELOCATION. REFER TO ARCHITECTURAL DRAWINGS FOR REMOVAL OF MOTORS, CONDUIT, CONDUCTOR AND CONTROL WIRING ASSOCIATED WITH EXISTING MOTORIZED

DOORS, PARTITIONS AND LIGHTING.

10 DEMOLISH ALL WI-FI ACCESS POINTS WHETHER SHOWN ON DRAWINGS OR NOT WITHIN SCOPE OF WORK AREA. REMOVE FEEDERS FOR ALL DEMOLISHED PANELS, DISCONNETS, ETC. BACK TO

12 ALL ITEMS INDICATED TO REMAIN SHALL BE PROTECTED DURING ALL PHASES OF

13 CONTRACTOR TO TRACE AND LABEL ALL EXISTING LOADS TO REMAIN, THAT ARE CURRENTLY FED FROM PANELS THAT ARE BEING DEMOLISHED IN THIS PHASE. THESE LOADS TO BE RE-FED FROM NEW PANELS IN NEXT PHASE.

14 ALL HVAC UNITS TO BE REMOVED BY MECHANICAL CONTRACTOR UNLESS NOTED OTHERWISE. REMOVE ALL ASSOCIATED RACEWAYS AND CONDUCTORS BACK TO

# ○ SHEET KEYNOTES

REMOVE AND RELOCATE BRANCH PANEL TO NEW WALL.

ARCHITECTS

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DEMOLITION POWER PLAN LEVEL 9

EDP101

**KEY PLAN** 

1 DEMOLITION POWER PLAN LEVEL 9
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

INCLUDE ALL COSTS IN BID.

DOORS, PARTITIONS AND LIGHTING.

UNLESS NOTED OTHERWISE REMOVE ALL LIGHTING FIXTURES DEVICES AND EQUIPMENT SHOWN DASHED. REMOVE CONDUIT AND WIRING BACK TO PANELBOARD OF ORIGIN OR TO FIRST ACTIVE DEVICE THAT REMAINS.

SALVAGE ALL LIGHT FIXTURES, TWIST-LOCK RECEPTACLES AND WALLPLATES, CEILING SPEAKERS AND SECURITY AND FIRE ALARM DEVICES TO OWNER. PROTECT

SALVAGED EQUIPMENT FROM DAMAGE. PRIOR TO SUBMITTING BID, VISIT THE SITE AND FIELD VERIFY THE EXTENT OF ELECTRICAL DEMOLITION WORK TO MEET THE INTENT OF THE BID DOCUMENTS AND

PRIOR TO REMOVAL OF ANY ELECTRICAL EQUIPMENT OR WIRING, FIELD VERIFY THAT THE EQUIPMENT OR WIRING IS INACTIVE OR NO LONGER IN USE. REMOVE ALL DEVICES, RACEWAYS AND WIRING FROM WALLS TO BE REMOVED.

WHERE ACTIVE RACEWAYS OCCUR IN WALLS TO BE REMOVED, RE-ROUTE THE RACEWAY WITH ASSOCIATED WIRING TO KEEP THE CIRCUIT OPERATIONAL.

REMOVE ALL FIRE ALARM DEVICES WHERE EXISTING WALLS AND CEILINGS ARE BEING REMOVED, WITH ASSOCIATED CONDUIT AND WIRING. EXISTING FIRE ALARM DEVICES AND SYSTEM NOT INDICATED FOR REMOVAL SHALL REMAIN ACTIVE THROUGHOUT DEMOLITION AND CONSTRUCTION UNTIL THE NEW SYSTEM IS TESTED AND OPERATIONAL. MAINTAIN ALL CLASS A FIRE ALARM INITIATING AND INDICATING LOOPS WHERE EXISTING DEVICES ARE REMOVED.

REMOVE ALL ABANDONED RACEWAY, CONDUIT, WIRING AND CABLING WHETHER ABANDONED PREVIOUS TO THIS PROJECT OR AS A RESULT OF THIS PROJECT. NOT ALL ABANDONED ITEMS ARE SHOWN ON THESE PLANS AND FIELD VERIFICATION OF DEMOLITION SCOPE EXTENT IS REQUIRED.

DEVICES MARKED "RR" ARE TO BE REMOVED AND RELOCATED PER NEW PLANS. EXTEND CIRCUITING AS REQUIRED FOR RELOCATION. REFER TO ARCHITECTURAL DRAWINGS FOR REMOVAL OF MOTORS, CONDUIT, CONDUCTOR AND CONTROL WIRING ASSOCIATED WITH EXISTING MOTORIZED

10 DEMOLISH ALL WI-FI ACCESS POINTS WHETHER SHOWN ON DRAWINGS OR NOT WITHIN SCOPE OF WORK AREA. REMOVE FEEDERS FOR ALL DEMOLISHED PANELS, DISCONNETS, ETC. BACK TO

12 ALL ITEMS INDICATED TO REMAIN SHALL BE PROTECTED DURING ALL PHASES OF

13 CONTRACTOR TO TRACE AND LABEL ALL EXISTING LOADS TO REMAIN, THAT ARE CURRENTLY FED FROM PANELS THAT ARE BEING DEMOLISHED IN THIS PHASE. THESE LOADS TO BE RE-FED FROM NEW PANELS IN NEXT PHASE.

14 ALL HVAC UNITS TO BE REMOVED BY MECHANICAL CONTRACTOR UNLESS NOTED OTHERWISE. REMOVE ALL ASSOCIATED RACEWAYS AND CONDUCTORS BACK TO

# ○ SHEET KEYNOTES

RELOCATE LOBBY LINEAR FIXTURES 2' TO THE WEST

**KEY PLAN** 

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ARCHITECTS

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DEMOLITION LIGHTING PLAN LEVEL 9

EDL101

DEMOLITION LIGHTING PLAN LEVEL 9

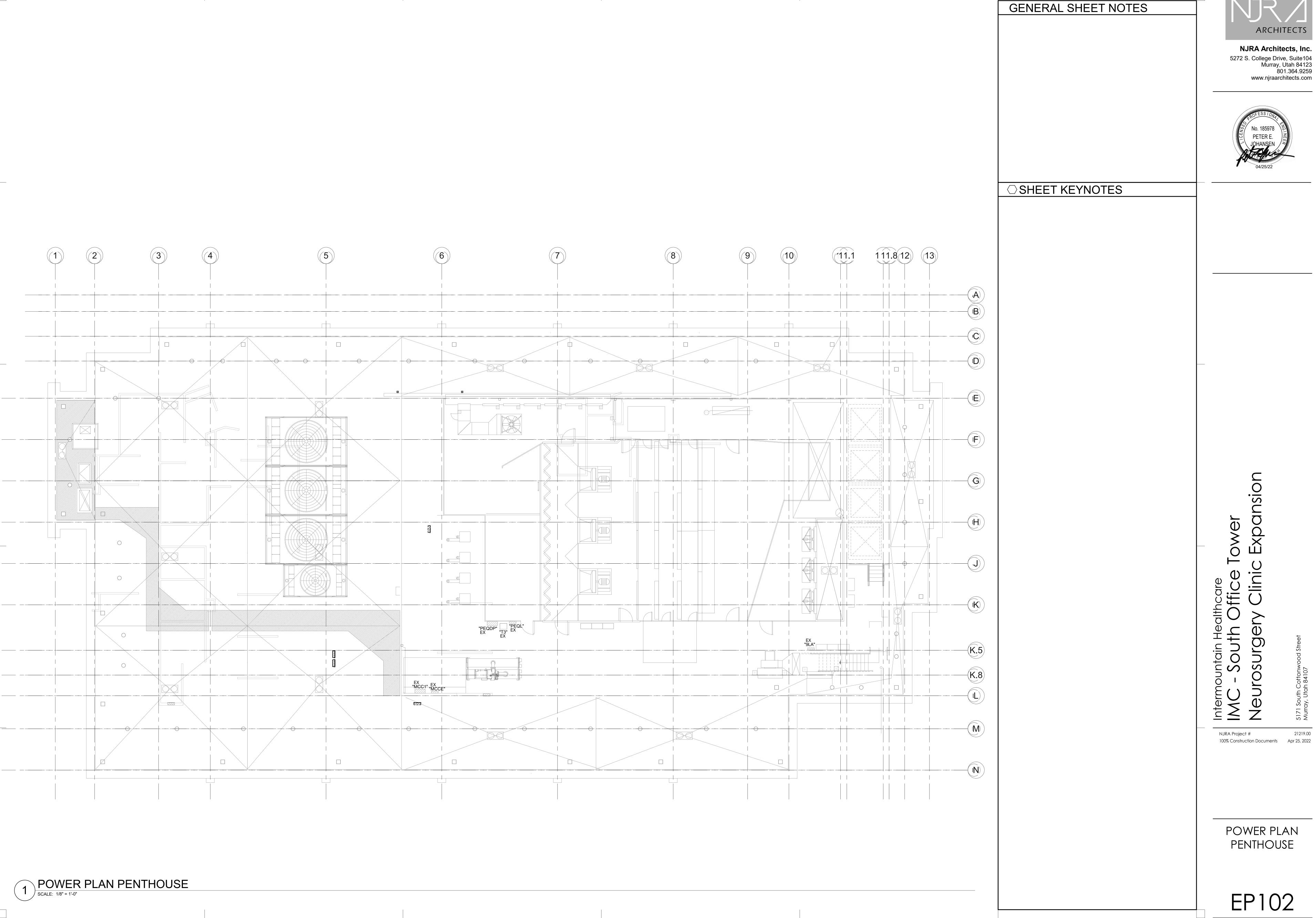
SCALE: 1/4" = 1'-0"

ARCHITECTS NJRA Architects, Inc.



POWER PLAN LEVEL 9

1 POWER PLAN LEVEL 9
SCALE: 1/4" = 1'-0"



ARCHITECTS NJRA Architects, Inc.

○SHEET KEYNOTES NJRA Project # 21219.00 100% Construction Documents Apr 25, 2022 TYPICAL/ENLARGED

GENERAL SHEET NOTES

ARCHITECTS

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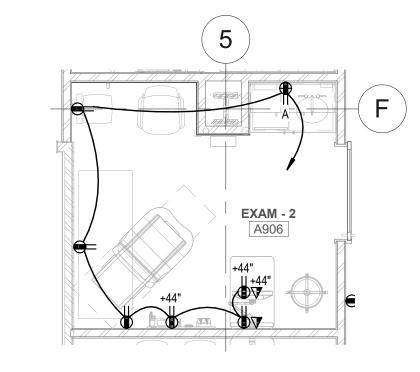
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POWER

PLANS

EP401

TYPICAL EXAM ROOM 1 POWER PLAN
SCALE: 1/4" = 1'-0"



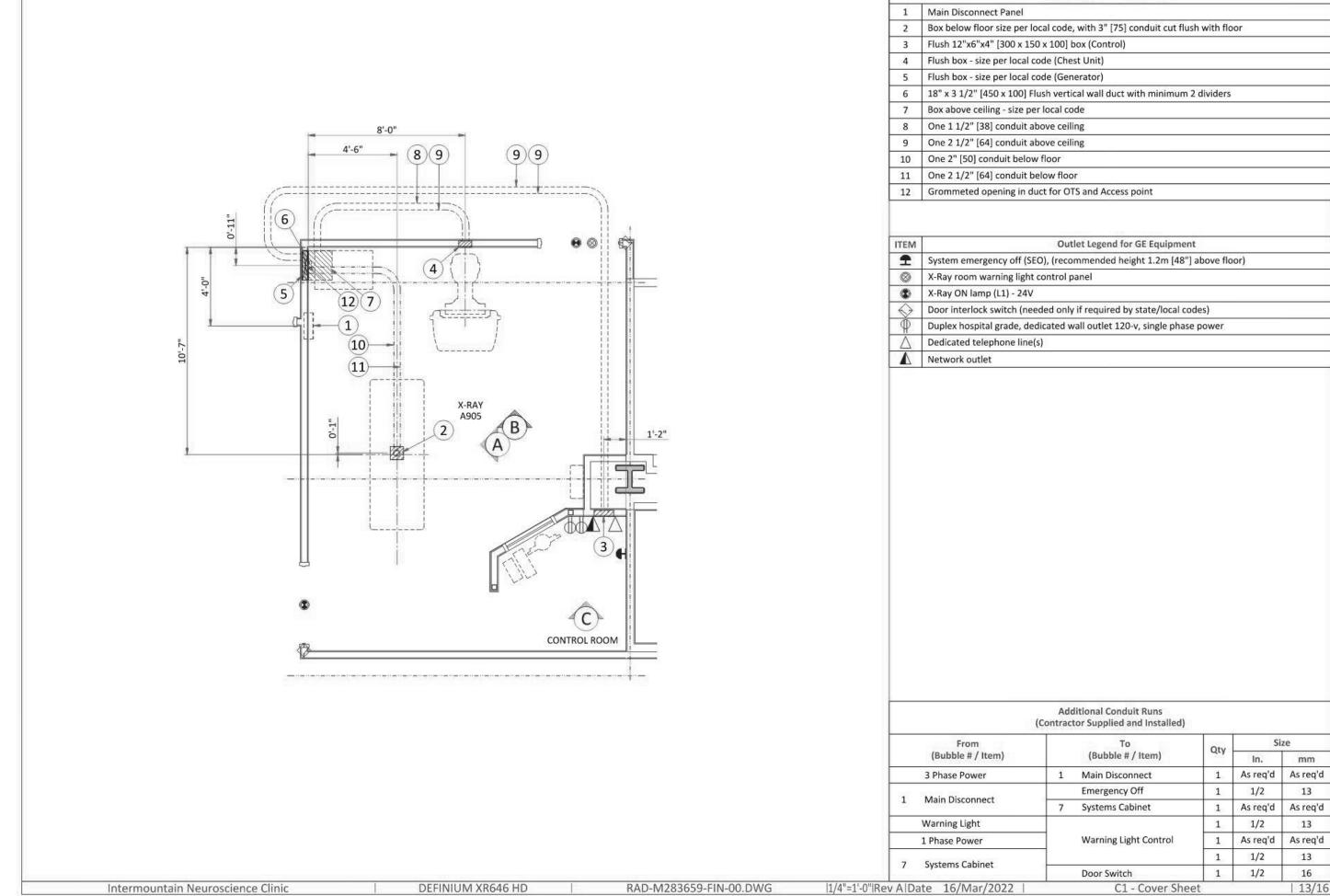
TYPICA EXAM - 2 POWER PLAN

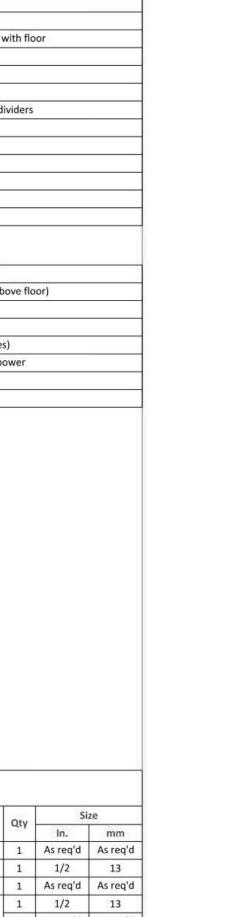
SCALE: 1/4" = 1'-0"

Intermountain Neuroscience Clinic

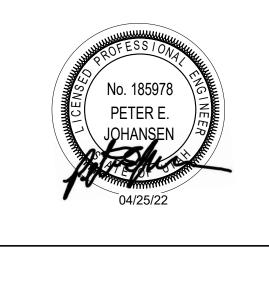
shown on this plan.

Grounding is critical to equipment function and patient safety. Site must conform to wiring specifications





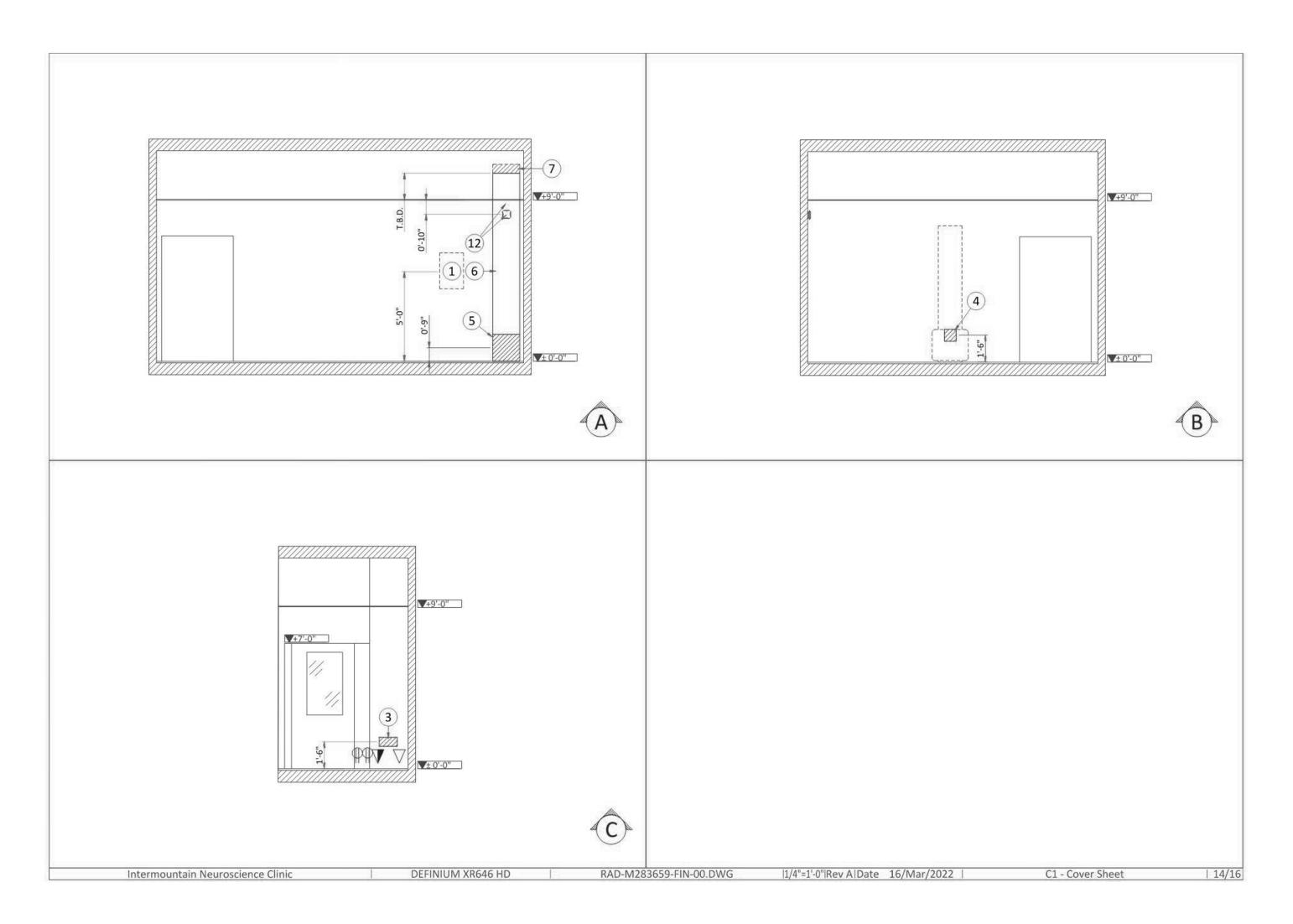
ELECTRCAL LAYOUT ITEM LIST



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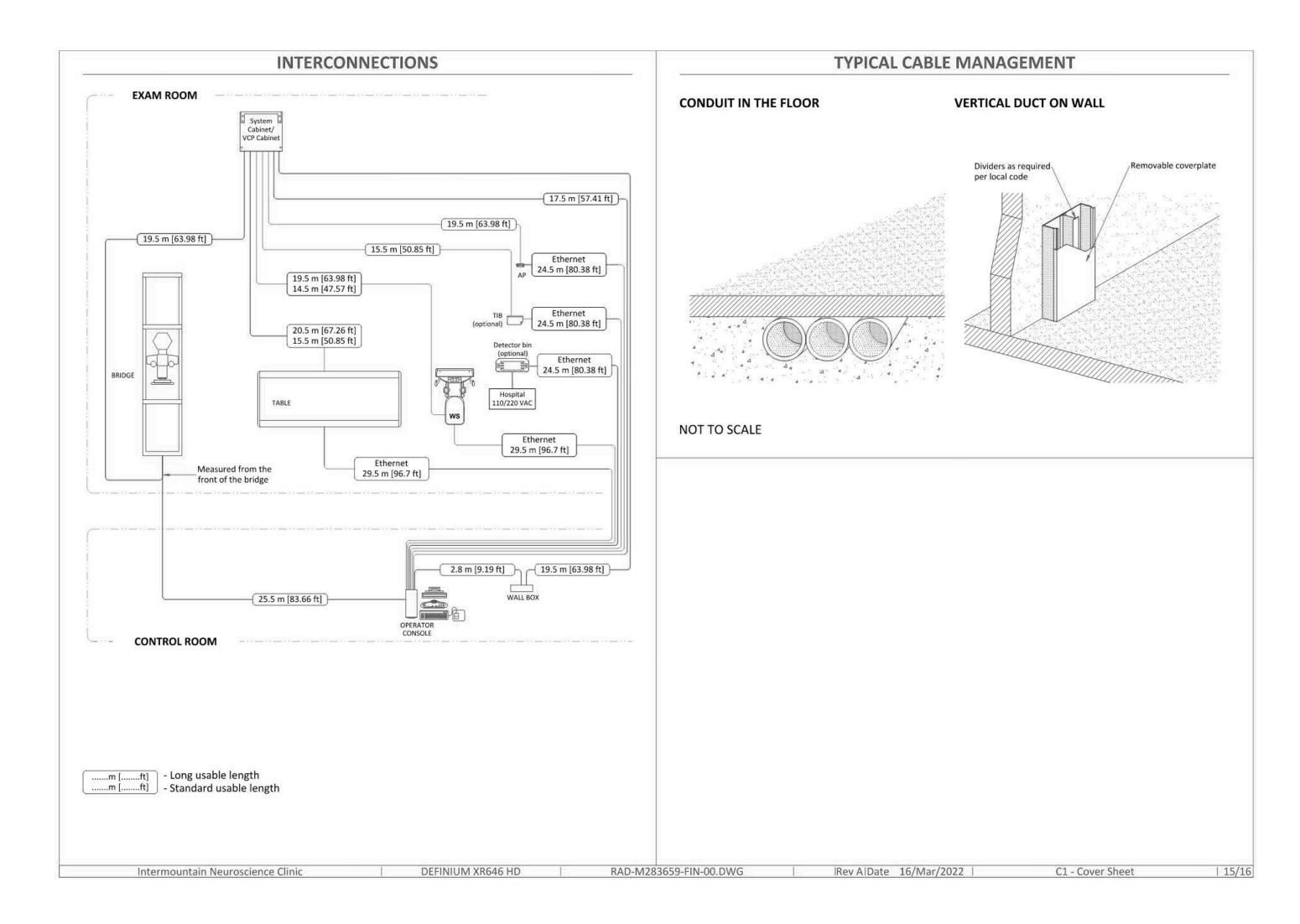
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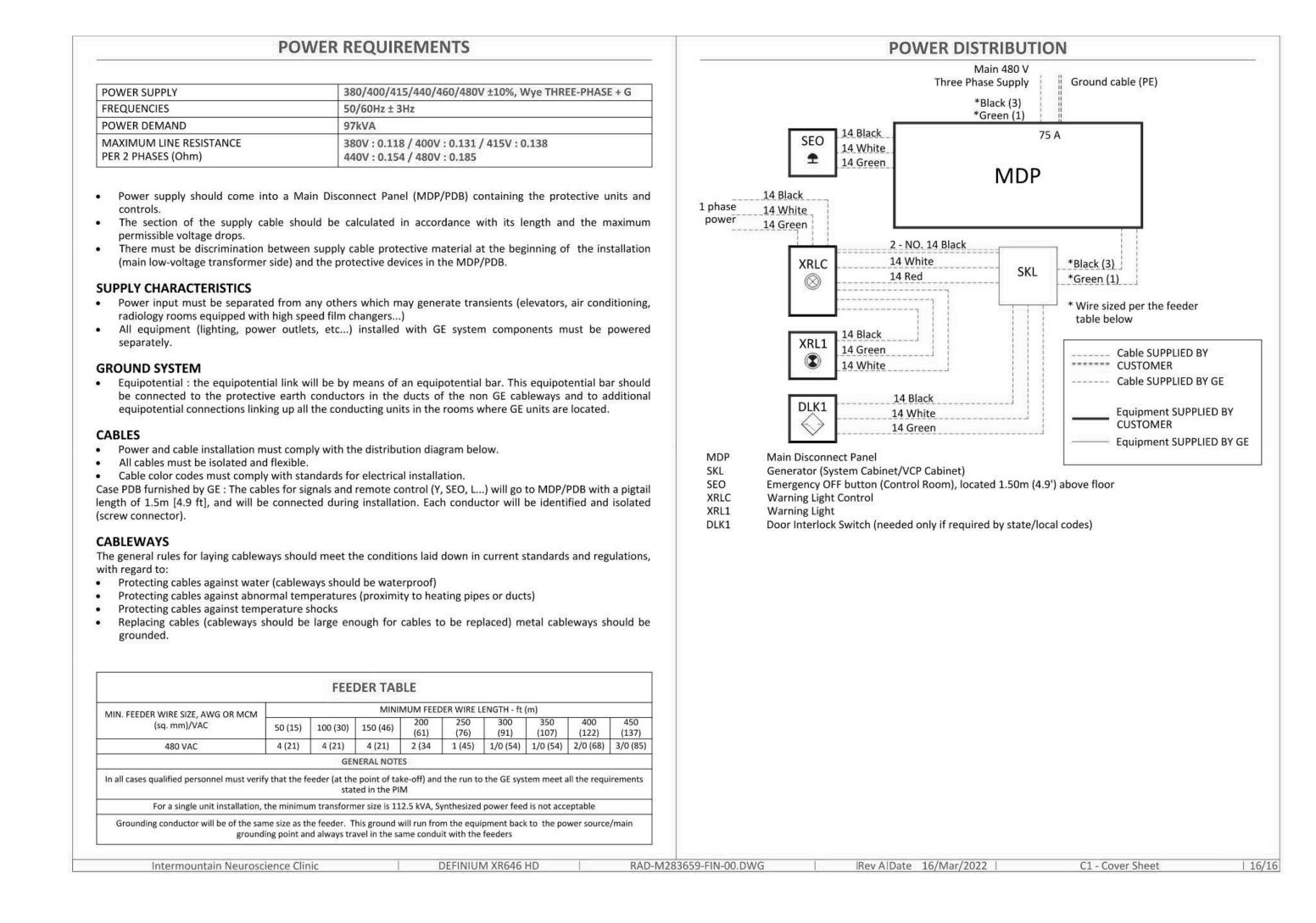


GE Drawings

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NJRA Project #







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Intermountain Healthcare IMC - South Office Tower Neurosurgery Clinic Expansion

NJRA Project #

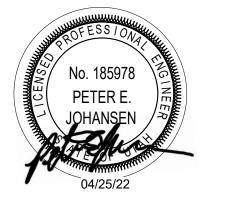
GE Drawings

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GROUNDING CONDUCTOR TO BE THE SAME SIZE AS CURRENT CARRYING CONDUCTORS.

NJR / ARCHITECTS

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OLT:	S/PHAS	SE/WIF	RE:		PAN	EL SI	ZE & TYPE: MAIN SIZE AND	TYPE:	:		FED	FROM	<b>/</b> 1:	CABINET: LOCATION:		NC	OTES:			
20/20	8V, 3 F	PH 4 W	'IRE		22" V	V x 6"	D, BOLT-ON 125 AMPERE MA	IN LU	GS					SURFACE CORRIDOR A925						
CCE	SSORI	ES:			PAN	EL DII	RECTORY, IDENTIFICATION, GROU	NDING	BAR	1				AIC F	RATIN	<b>G</b> : 0				
CKT		ОСР		LO	AD (k	VA)			Р	HASE	LOA	,D			LO	AD (k\	VA)		ОСР	СКТ
NO	AMP	POLE	BKR	LTG	PWR	СО	DESCRIPTION	1	A	E	3	(	;	DESCRIPTION	СО	PWR	LTG	BKR F	OLE AN	
1	20	1		0.8	0.0	0.0	LIGHTING ROOM A905, A915	0.8	1.4					CO ROOM A925, A918	1.4	0.0	0.0		1 2	) 2
3	20	1		1.0	0.0	0.0	LTG A908, A913, A914, A909, A90			1.0	1.3			POWER EXAM - 9 A920	0.0	1.3	0.0		1 2	) 4
5	20	1		0.9	0.0	0.0	LIGHTING ROOM A902, A906, A91					0.9	1.3	POWER EXAM - 10 A924	0.0	1.3	0.0		1 2	) 6
7	20	1		0.6	0.0	0.0	LIGHTING ROOM A911, A910, A93	. 0.6	1.3					POWER EXAM - 7 A922	0.0	1.3	0.0		1 2	8 (
9	20	1		0.0	0.0	0.5	CO X-RAY A905			0.5	1.3			POWER EXAM -8 A921	0.0	1.3	0.0		1 2	) 10
11	20	1		0.0	0.0	0.7	CO X-RAY A905					0.7	0.1	POWER WATER HEATER ROOM A927	0.0	0.2	0.0		2 3	) 12
13	20	1		0.0	0.0	1.1	CO WORKSTATION A915	1.1	0.1											. 14
15	20	1		0.0	0.0	1.6	CO WORKSTATION A915			1.6	1.1			CO BREAK/ CONFERENCE ROOM	1.1	0.0	0.0		1 2	) 16
17	20	1		0.0	0.0	1.1	CO WORKSTATION A915					1.1	0.4	CO BREAK/ CONFERENCE ROOM	0.4	0.0	0.0		1 2	) 18
19	20	1		0.0	0.0	1.6	CO WORKSTATION A915	1.6	0.4					CO BREAK/ CONFERENCE ROOM	0.4	0.0	0.0		1 2	20
21	20	1		0.0	1.3	0.0	POWER EXAM - 6 A914			1.3	1.3			CO NEUROSCIENCE	1.3	0.0	0.0		1 2	) 22
23	20	1		0.0	0.0	1.3	CO ROOM A909, A910					1.3	0.7	CO NEUROSCIENCE	0.7	0.0	0.0		1 2	24
25	20	1		0.0	1.3	0.0	POWER EXAM - 4 A908	1.3	1.1					CO NEUROSCIENCE	1.1	0.0	0.0		1 2	26
27	20	1		0.0	0.0	1.1	CO CHECK-IN A904			1.1	0.2			CO BREAK/ CONFERENCE ROOM	0.2	0.0	0.0		1 2	28
29	20	1		0.0	0.0	0.9	CO ROOM A904, A903					0.9	0.4	CO BREAK/ CONFERENCE ROOM	0.4	0.0	0.0		1 2	30
31	20	1		0.0	0.0	1.1	CO ROOM A907, A903, A917	1.1	0.2					POWER CORRIDOR A911	0.0	0.2	0.0		1 2	32
33	20	1		0.0	0.0	0.2	CO PRINT/COPY A903			0.2	0.2			POWER CORRIDOR A918	0.0	0.2	0.0		1 2	34
35	20	1		0.0	1.3	0.0	POWER EXAM- 1 A902					1.3	0.0	SPARE					1 2	36
37	20	1		0.0	1.3	0.0	POWER EXAM - 2 A906	1.3	0.0					SPARE					1 2	38
39	20	1		0.0	1.3	0.0	POWER EXAM - 5 A913			1.3	0.0			SPARE					1 2	40
41	20	1					SPARE					0.0	0.0	SPARE					1 2	) 42
OTA	_S:						CONNECTED kVA PER PHASE	1	12	1	2	9	)	CONNECT	ED TO	OTAL I	kVA =	3	3	
							CONNECTED AMPS PER PHASE	10	05	10	06	7	5	AVERAGE CONNECTED AM	PS PE	R PHA	ASE =	9	2	
C	IVERS	IFIED	LOAD	CALC	ULAT	IONS														
LIC	SHTING	G & CC					• kVA @ 125% = 4.2 kVA - 100° • kVA @ 78% = 14.0 kVA - FIRS							DIVER @ 50% AVERAGE				/A = <b>30</b> SE = <b>84</b>		

BKR: GF=GFCI, GF3=30mA GFCI CAPABLE OF BEING LOCKED OUT IN OPEN POSITION, IG=ISOLATED GROUND, AF=AFCI, ST=SHUNT TRIP, RED=PROVIDE RED COLORED BREAKER, AF=ARC FAULT CURRENT INTERRUPTER, GA=COMBINATION OF GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTER, GS=COMBINATION OF SHUNT TRIP WITH GFCI

MCC1 800A, 277/480V, 3 PHASE, 4W 100/3 FRS-80 19 1 75/3 CB1

PARTIAL ONE LINE DIAGRAM

SCALE: NTS

	C		PER ON[						ND
			DULE NUMI		<u>.                                     </u>				
**	-	SUBSO	CRIPT (NOT	ΓE 5)		(E.G	6.)[5] IG		
SYM	AMP	HH AMPS	CONDUIT	CONDU	JCTOR (I	NOTE 1)	IG/HH	SE	NOTES
1	20	-	.75	2	12	12	12	8	2
2	20	-	.75	3	12	12	12	8	2,3
3	20	24	.75	4	12	12	12	8	2,3
4	30	-	.75	2	10	10	10	8	2
<u>5</u>	30 30	32	.75 .75	3	10 10	10 10	10 10	8 8	2
7	40	32	./5	2	8	10	8	6	2
8	40	_	1	3	8	10	8	6	2
9	40	44	1	4	8	10	8	6	2
10	55	-	1	2	6	10	8	4	2
11	55	-	1	3	6	10	8	4	2
12	55	60	1.25	4	6	10	8	4	2
13	70	-	1	2	4	8	4	2	2
(14)	70	-	1.25	3	4	8	4	2	2
(15)	70	76	1.25	4	4	8	4	2	2
(16) (17)	85 85	-	1.25 1.25	3	3	8	3	2	2
(18)	85	92	1.25	4	3	8	3	2	2
(19)	95	-	1.25	3	2	8	2	2	2
20	95	104	1.50	4	2	8	2	2	2
21	130	-	1.50	3	1	6	2	2	2
22	130	116	1.50	4	1	6	2	2	2
23	150	-	2	3	1/0	6	2	1/0	2
24	150	136	2	4	1/0	6	2	1/0	2
25	175	-	2	3	2/0	6	2	2/0	2
26	175	156	2	4	2/0	6	2	2/0	2
27 28	200	- 180	2.50	3	3/0	6 6	2	2/0 2/0	2
29	230	-	2.50	3	3/0 4/0	4	2	2/0	2
30	230	208	2.50	4	4/0	4	2	2/0	2
(31)	255	-	2.50	3	250	4	1	2/0	2
32	255	232	2.50	4	250	4	1	2/0	2
33	310	-	3	3	350	3	1/0	3/0	2
34	310	280	3	4	350	3	1/0	3/0	2
35	380	-	3.50	3	500	3	3/0	3/0	2
36	380	344	4	4	500	3	3/0	3/0	2
37	400	-	2 EA 2	3	3/0	3	3/0	3/0	2
<u>38</u> 39	400 510	360	2 EA 2.50 2 EA 2.50	3	3/0 250	3 1	3/0 4/0	3/0 3/0	2
40	510	464	2 EA 3	4	250	1	4/0	3/0	2
41	620	-	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	560	2 EA 3	4	350	1/0	4/0	3/0	2,4
43	760	-	2 EA 3.50	3	500	1/0	4/0	3/0	2,4
44	760	688	2 EA 4	4	500	1/0	4/0	3/0	2,4
45	855	-	3 EA 3	3	300	2/0	4/0	3/0	2,4
46	855	768	3 EA 3	4	300	2/0	4/0	3/0	2,4
47	1000	-	3 EA 3.50	3	400	2/0	4/0	3/0	4
<u>48</u> <u>49</u>	1000 1140	912	3 EA 3.50 3 EA 4	3	400 500	2/0 3/0	4/0 4/0	3/0 3/0	4
50	1140	1032	3 EA 4	4	500	3/0	4/0	3/0	4
51	1240	-	4 EA 3	3	350	3/0	4/0	3/0	4
52	1240	1120	4 EA 3	4	350	3/0	4/0	3/0	4
53	1675	1520	5 EA 4	4	400	4/0	4/0	4/0	4
54	2010	1824	6 EA 4	4	400	250	250	250	4
55	2660	2408	7 EA 4	4	500	350	350	350	4
<u>56</u>	3040	2752	8 EA 4	4	500	500	500	500	4
<u>57</u>	4180	3784	11 EA 4	4	500	500	500	500	4
<u>58</u>	-	-	5 EA 4	-	-	-	-	-	6
<u>59</u> 60	-	-	5 10 EA 4	-	-	-	-	-	6
									<u> </u>
1			CONDUIT SHOWN A NOTE 5. AL	RE SHC	WN FOR	EACH C	ONDUIT V	VITH MOI	DIFICATIONS

CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATION:
 AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS
 OTHERWISE NOTED.
 PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN
 CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN

CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN TABLE.

B. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.

PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
 GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.

5. SYMBOL SUBSCRIPTS:

"2N": INCLUDE TWO NEUTRAL CONDUCTORS SIZED AS
SCHEDULED FOR PHASE AND NEUTRAL CONDUCTORS
WHERE THE CONDUCTOR IS #1/0 OR LARGER. INCLUDE
A SINGLE 200% RATED CONDUCTOR THAT IS TWICE THE
AMPACITY OF THE SCHEDULED PHASE AND NEUTRAL

"FG" FULL SIZE GROUND, SIZE EQUIPMENT GROUNDING CONDUCTOR TO BE SAME SIZE AS THE PHASE CONDUCTORS.

CONDUCTOR WHERE THE CONDCUTOR IS BELOW #1/0

"HH": NEUTRAL CURRENTS EXIST DUE TO HIGH HARMONIC
"NONLINEAR" LOADS. CURRENT CARRYING
CONDUCTORS DERATED ACCORDINGLY. PROVIDE THE
IG/HH SIZE FOR THE EQUIPMENT GROUNDING
CONDUCTOR.

"IG": INCLUDE IG (INSULATED/ISOLATED GROUND CONDUCTOR) SCHEDULED ALONG WITH THE GROUND OF EQUIPMENT GROUND CONDUCTOR.

"SE": SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN, WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEM.

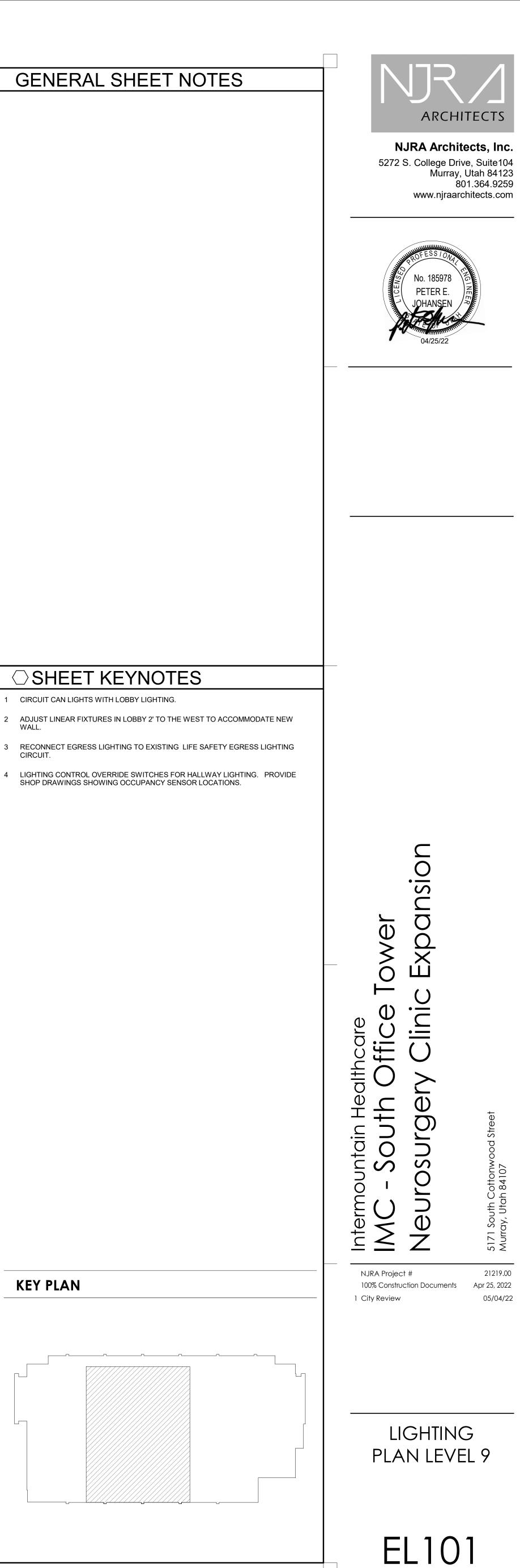
RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

ONE LINE DIAGRAM

100% Construction Documents Apr 25, 2022

NJRA Project #

xpansion



05/04/22

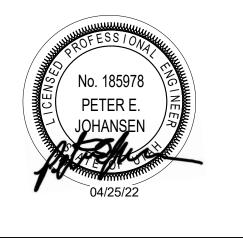
1 LIGHTING PLAN LEVEL 9
SCALE: 1/4" = 1'-0"

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INTERIOR LIGHTING FIXTURE SCHEDULE **GENERAL NOTES ABBREVIATIONS REFLECTOR** MOUNTING **LUMINAIRE OPTIONS** DIFFUSER/LENS PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS B - BASE ARHR - AIR RETURN AND HEAT REJECTION MW - MATTE WHITE - ACRYLIC #THICK OP - NONE/OPEN AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND C - CEILING DL - DAMP LOCATION BL - BLACK #OA - ACRYLIC #THICK (OPAL) SP - SPECULAR INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR F - FLANGE EQC - EARTHQUAKE CLIPS SL - SILVER GC - GLASS (CLEAR) SS - SEMI-SPECULAR G - GRID GO - GLASS (OPAL) D - DIFFUSE (WHITE ENAMEL) - FUSING GL - GOLD CL - CLEAR P - PENDANT HLD - HINGED AND LATCHED DOOR - GLASS (FROSTED) SC - SPECULAR (COLORED) CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS PL POLE SGL - SOFT GLOW LENS HOUSE SIDE SHIELD - PAINTED WHITE PR - PRISMATIC - EXTRUDED ALUMINUM FDR - FULL DEPTH REFLECTOR R - RECESSED - PHOTOCELL SWITCH HPL - HIGH PERFORMANCE LENS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. S - SURFACE - QUARTZ RESTRIKE S - STEEL DS - DIFFUSE (SEMI SPECULAR) SILVER CGL - CONVEX GLASS LENS - LOW IRIDESCENT ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, W - WALL ST - STATIC GALVANIZED STEEL - WIRE GUARD CAST - SATIN LENS - IRIDESCENT AND DO NOT INCLUDE ANY TAXES. WL - WET LOCATION - COLOR BY ARCHITECT SL - SILVER SUBSTITUTIONS AND/OR EQUAL FIXTURES MUST RECEIVE APPROVAL PRIOR TO SCBA - STANDARD COLOR BY GL - GOLD ARCHITECT BIDDING, THEY MUST BE SUBMITTED TO THE ENGINEER NO LESS THAN 2 WEEKS CA - CLEAR ALZAK - CUSTOM COLOR BY PRIOR TO BID OPENING. MEETS FEDERAL SAMPLES MUST BE PROVIDED FOR ANY AND ALL FIXTURES UPON A/E REQUEST STANDARD 209D PRIOR TO RELEASING FIXTURES. THERMALLY PROTECTED 6. ALL FIXTURES SHALL BE LISTED AND APPROVED FOR THEIR INTENDED USE AND - FLUSH - REGRESS DIAMETER - MITERED 5. VERIFY THE PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS. COMPLY WITH THE "INTERIOR LIGHTING" SECTION OF THE SPECIFICATIONS. 8. REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, DRIVERS, AND LAMPS. . ALL LIGHT FIXTURES TO BE EITHER "DLC" OR "LIGHTING FACTS" LISTED OR TO BE LENGTH APPROVED BY ARCHITECT/ENGINEER AND OWNER. MANUFACTURER (CATALOG SERIES) **OPTION 3 OPTION 1 OPTION 2** GOTHAM (DX-1) 6" ROUND, RECESSED LED DOWNLIGHT, SEMI-SPECULAR 0-10V DIMMING REFLECTOR, WHITE TRIM FINISH (EVO-35/15-6AR-WD-LSS-(10%) MVOLT-EZ10) (DX-2) 6" ROUND, RECESSED LED DOWNLIGHT, SEMI-SPECULAR REFLECTOR, WHITE TRIM FINISH 0' - 6" CR LED 4000K 0-10V DIMMING 120/277 23 GOTHAM (EVO-35/20-6AR-WD-LSS-MVOLT-EZ10) DUAL-LITE (LECDGWA) EVENLITE (TEX-AC-G-2M) CHLORIDE (44RLU-2-G) (E10-1) EXIT SIGN, EDGE LIT LED ACRYLIC, SINGLE FACE, GREEN NO DIMMING 120/277 AC ONLY LETTERING, BRUSHED ALUMINUM FINISH, UNIVERSAL MOUNTING (E10-2) EXIT SIGN, EDGE LIT LED ACRYLIC, DUAL FACE, GREEN NO DIMMING 120/277 3 AC ONLY DUAL-LITE (LECDGWA) LETTERING, BRUSHED ALUMINUM FINISH, UNIVERSAL MOUNTING 2' - 0" 2' - 0" -0-10V DIMMING 120/277 40 2' X 2' LED FLAT PANEL, GRID LAY-IN VIVIDLEDS (VVDES2240-35-UNV-WH-2' X 4' LED FLAT PANEL, GRID LAY-IN VIVIDLEDS 0-10V DIMMING (VVDES2450-35-V27-WH-0-10V DIMMING 120/277 60 VIVIDLEDS 2' X 4' LED FLAT PANEL, GRID LAY-IN (VVDES2461-35-V27-WH-(GS-1) 2' X 2' LED TROFFER, EDGE LIT PANELS, GRID LAY-IN 2' - 0" 2' - 0" - -METALUX 0-10V DIMMING (22EN-LD2-25-UNV-L835-C (4111-D1-ST-L-8B-D-S-7-2-(GS-2) 2' X 4' LED TROFFER, EDGE LIT PANELS, GRID LAY-IN 4' - 0" 2' - 0" - -0-10V DIMMING 120/277 38 METALUX LEDALITE (24EN-LD2-45-UNV-L835-C (4224-D1-ST-L-8B-D-S-7-2-D1-U) 4" X 10' LINEAR RECESSED SLOT, GRID MOUNT 10' - 0" 0' - 4" - -CR LED 4000K 0-10V DIMMING 120/277 60 -(E4A-835-10'-GX-U-OL1-1-ELV DIMMING 120/277 8 LED UNDER CABINET LIGHT 2' - 0" 0' - 4" - -DAY-BRITE (LINCS100E-L28-935-UNV-WHG-DIM) (AUCLED-1-MW-11L35K-2 4-277) (WS-2) 2' LED VANITY LIGHT, SATIN CHROME FINISH, 2.25" WIDE 2' - 0" 0' - 2.25" -WS LED 4000K NO DIMMING 120/277 19 EDGE LIGHT



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Intermountain Healthcare

IMC - South Office Tower

Neurosurgery Clinic Expansion

(TW12-S11-1RE-24"-35K-C (3541-24"G-LED-17.40-120 (LW496-OP-XX-LED-277) H)

INTERIOR LIGHTING FIXTURE SCHEDULE

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Intermountain Healthcare

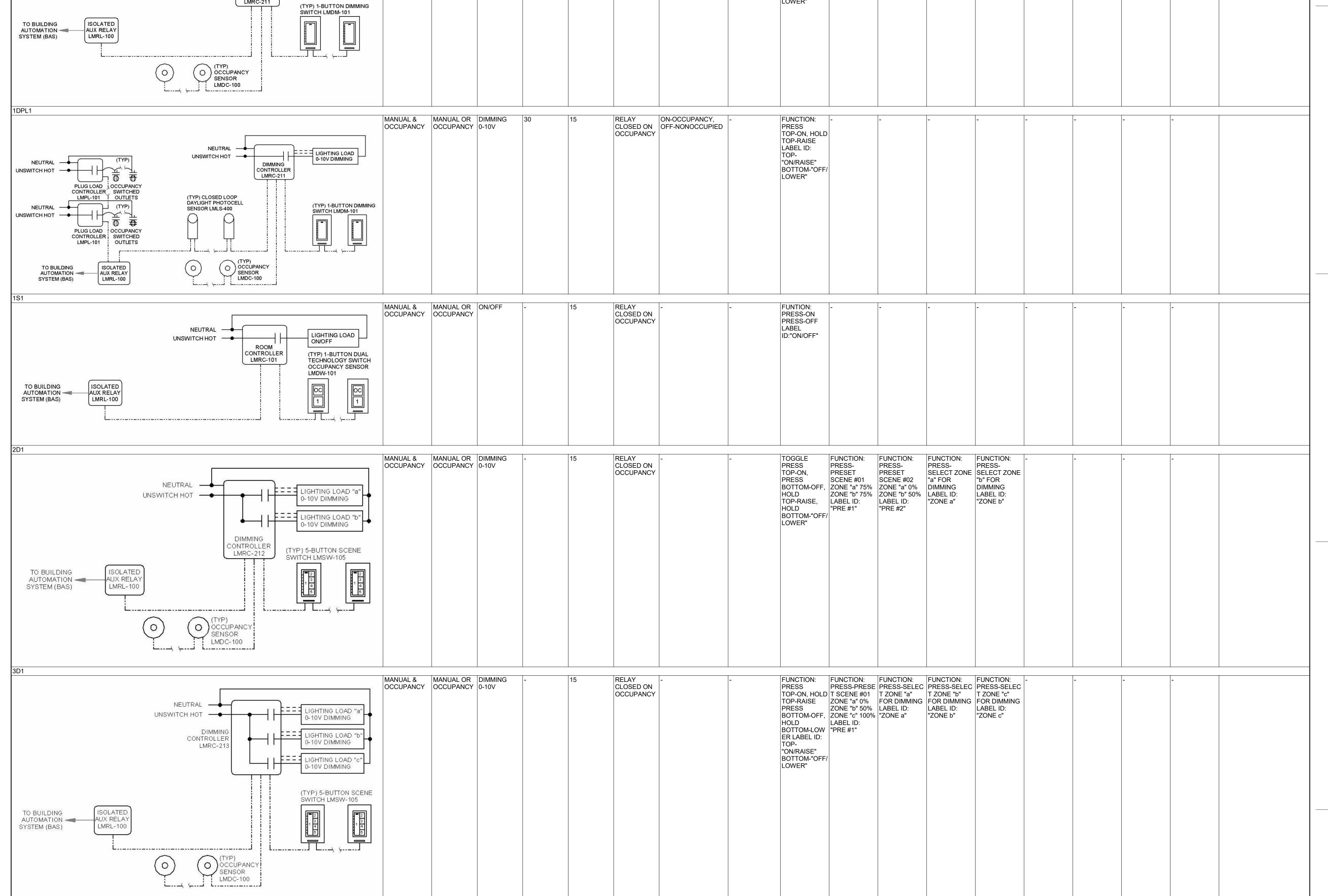
IMC - South Office Tower

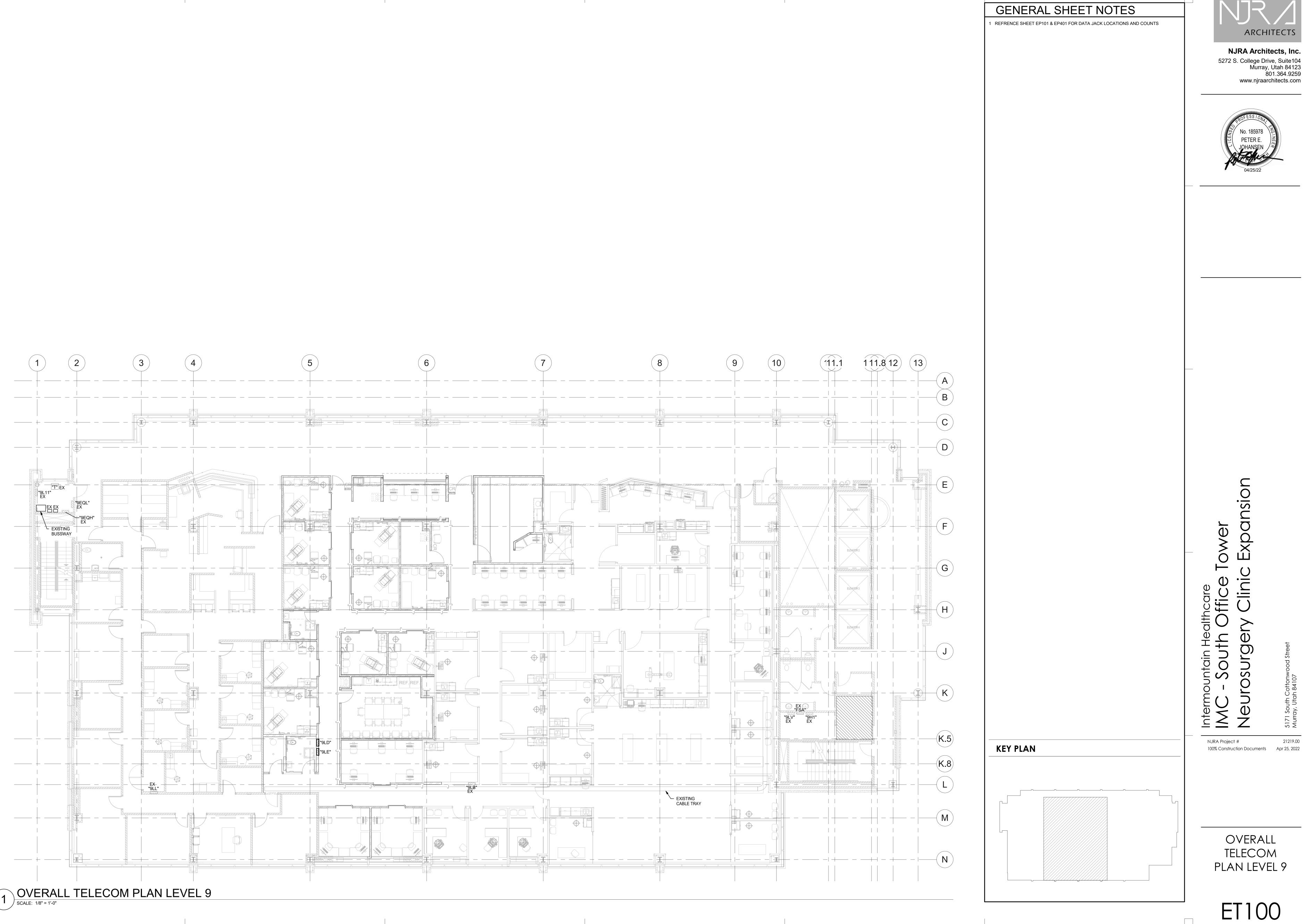
Neurosurgery Clinic Expansion

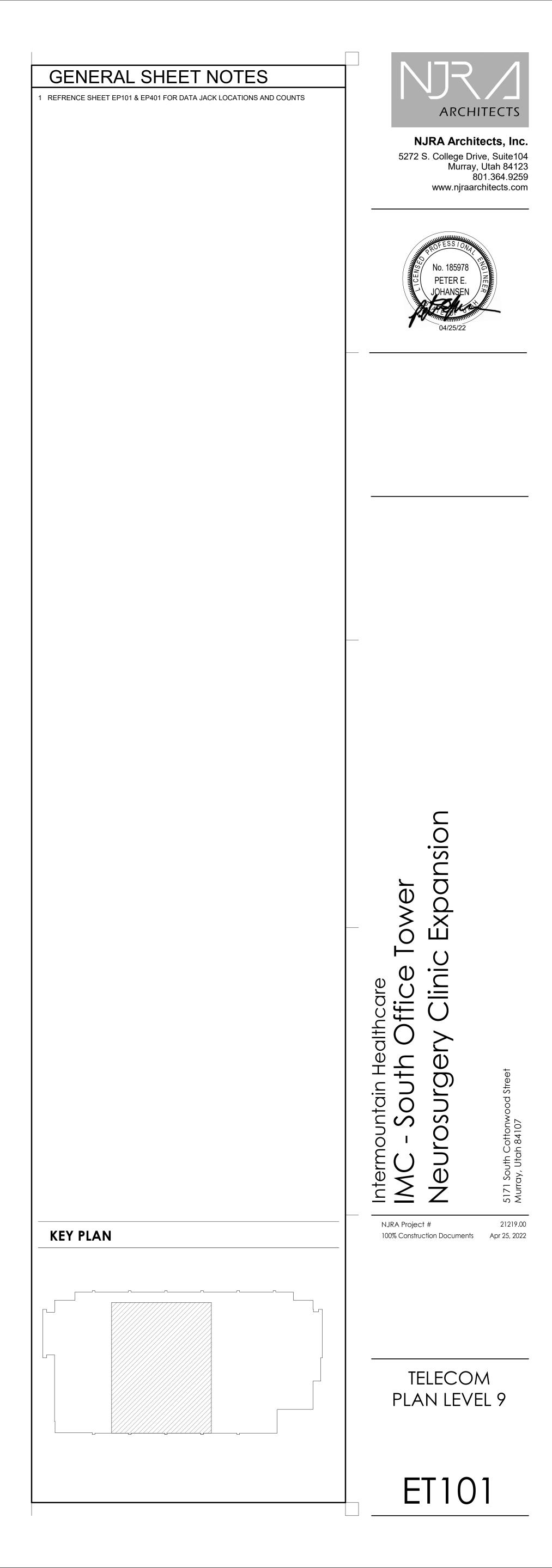
LIGHTING CONTROL SCHEDULES

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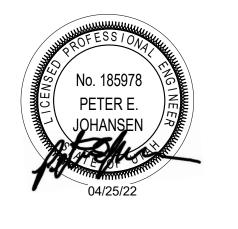
1 TELECOM PLAN LEVEL 9
SCALE: 1/4" = 1'-0"

SHEET KEYNOTES

COORDINATE FINAL TERMINATION LOCATION WITH OWNER PRIOR TO INSTILLATION.



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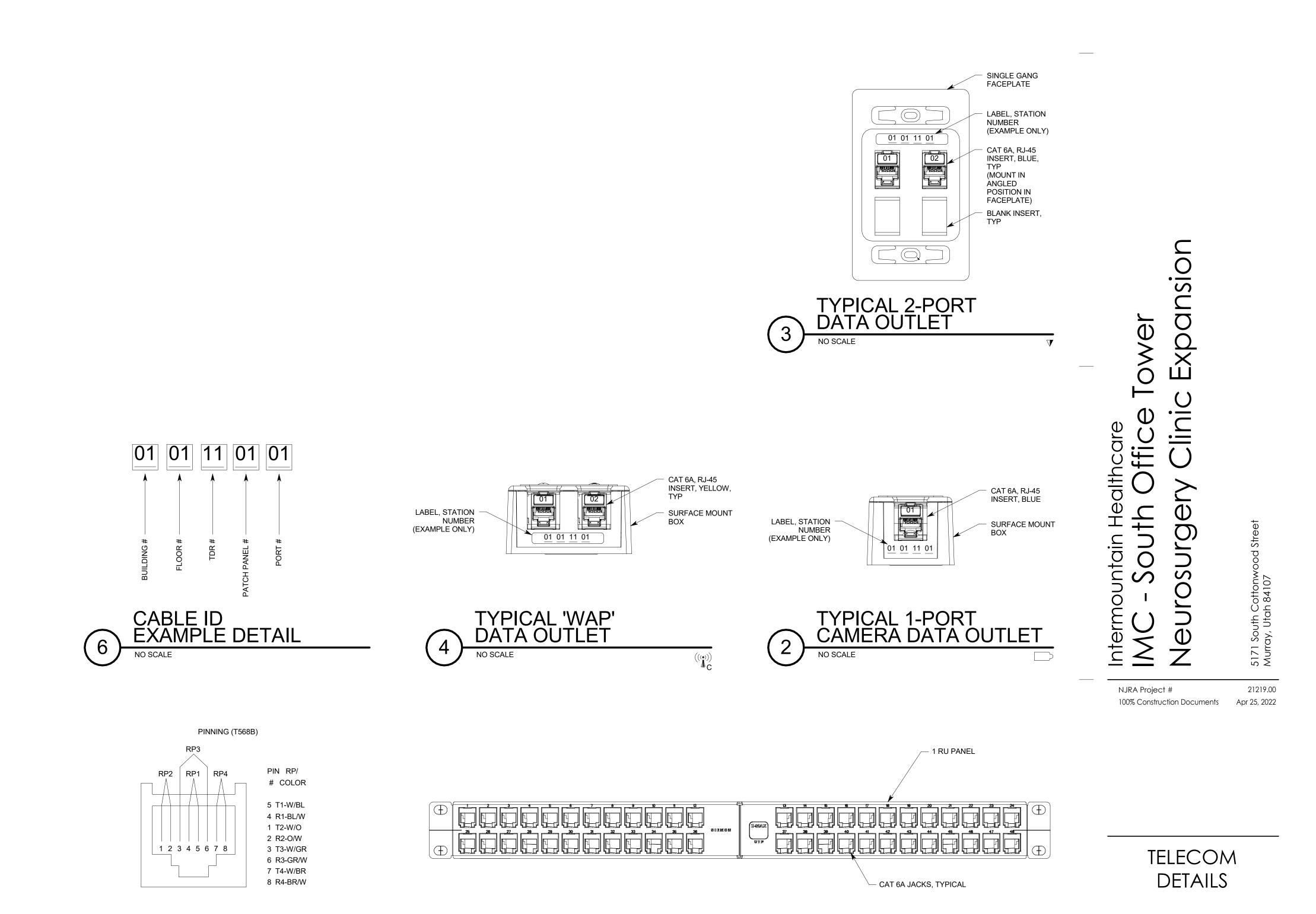
TELECOM EQUIPMENT RACK ELEVATIONS

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ET501







STATION PATCH PANEL, (SPP1), TDR

TYPICAL VOICE-DATA OUTLET PINNING DETAIL

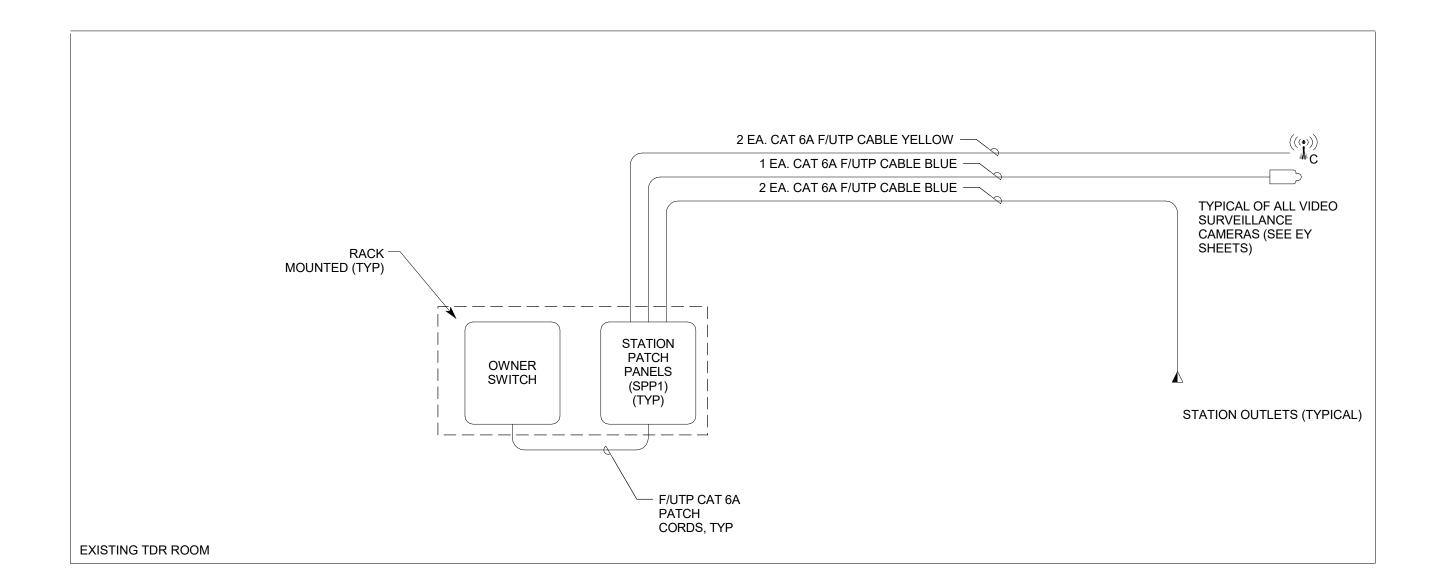
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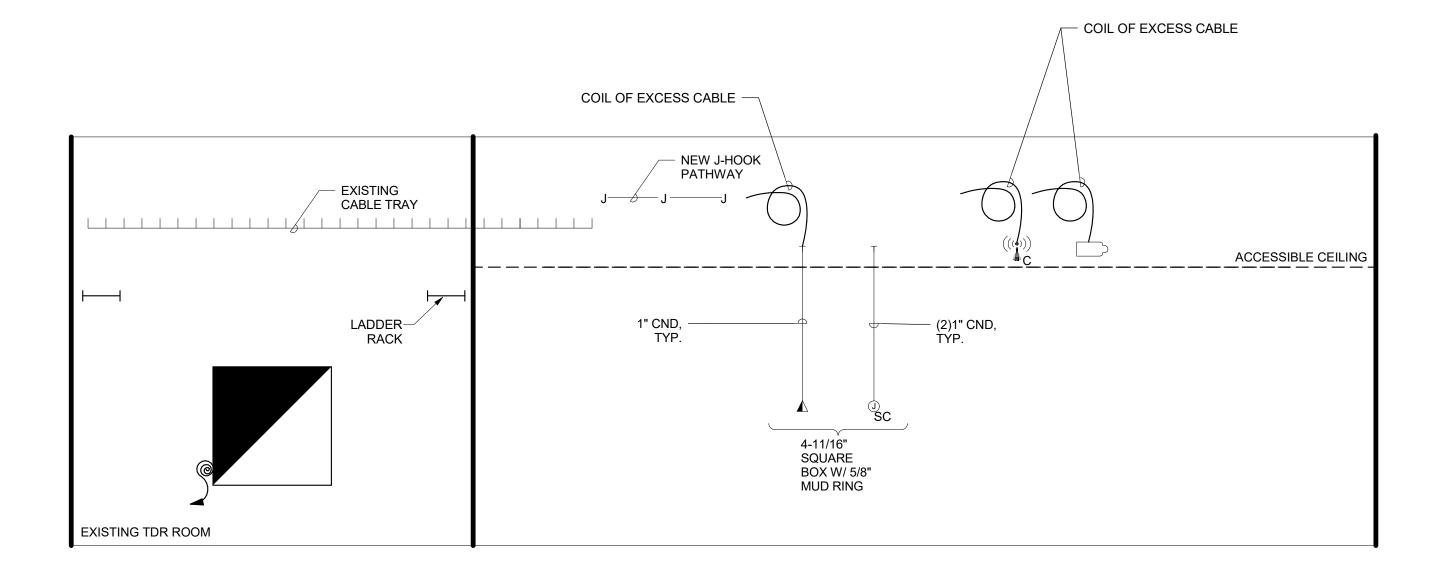


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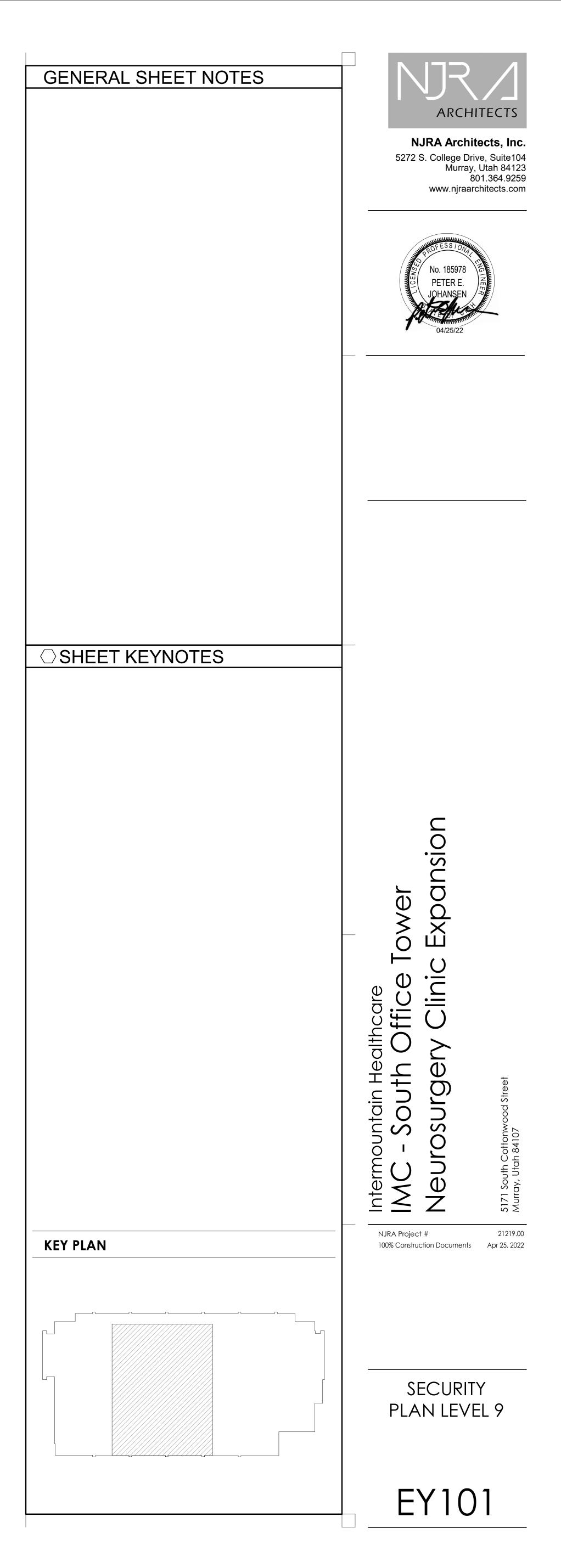
# TELECOM CABLING RISER DIAGRAM NO SCALE



TELECOM RISER DIAGRAMS

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NJRA Project #



DBL = DOUBLE
DIR = DIRECTION HDWR = HARDWARE C = CONDUIT

4SQ = FOUR SQUARE W/ = WITH 1G = 1 GANG PWR = POWER ACC = ACCESSIBLE

OCC = OCCUPANCY TYP = TYPICAL L/PS = LOCK POWER SUPPLY CR = CARD READER CI = DOOR CONTACT INDICATOR EPT = ELECTRIC POWER TRANSFER

ES = ELECTRIC STRIKE ED = EXIT DEVICE ML = ELECTROMAGNETIC LOCK KS = KEY SWITCH ACS = ACCESS CONTROL SYSTEM EL = ELECTRIC LOCKSET MD = MOTION DETECTOR TLC = TIME/SYSTEM LOCK CONTROL

ELC = EMERGENCY LOCK CONTROL IDS = INTRUSION DETECTION SYSTEM ADA = AUTO DOOR OPENER REX = REQUEST TO EXIT FA = FIRE ALARM SYSTEM OFP = OBTAIN FROM PLANS A/R = AS REQUIRED EED = ELECTRIC EXIT DEVICE

AEL = ACCESS ELECTRIC LOCKSET AED = ACCESS ELECTRIC EXIT DEVICE FH = FRAME HARNESS DH = DOOR HARNESS EH = ELECTRIC HINGE PB = PUSH BUTTON RELEASE PP = PUSH PAD ACTUATOR EDL = ELECTRIC DEADLATCH

EED = ELECTRIC EXIT DEVICE

SYMBOL DESCRIPTION

CR | CARD READER

(PUBLIC ENTRY TO PATIENT FLOORS)

(BEHAVIORAL HEALTH)

APERIO HUB (IP)

P DURESS BUTTON

ACCESS DOOR TYPE SCHEDULE.

IP INTERCOM WALL STATION

VSS VIDEO SURVEILLANCE SYSTEM

NOTES

PROVIDE RACEWAY AND EQUIPMENT AS INDICATED FOR CARD ACCESS DOOR TYPE INDICATED. REFER TO SECTION 281300 AND CARD ACCESS LOCK CONTROL DETAILS FOR ADDITIONAL REQUIREMENTS.

PROVIDE CONCEALED .75" C TYPICAL FOR LINES SHOWN TO DEVICE BOXES ON PROTECTED SIDE AND UNPROTECTED SIDE ELEVATIONS. CONFIRM CORRECT CARD ACCESS DOOR RACEWAY, LOCK

VOLTAGE, AND EXIT SWITCH CURRENT RATING (2 AMPS MIN.) WITH

DIV. 8 FURNISHED CARD ACCESS DOOR HARDWARE PER DIV. 8 DOOR |

HARDWARE SPECIFICATIONS. LOCATE CARD READER BOX AS INDICATED ON FLOOR PLANS. RACEWAY AND BOXES BY DIV. 26. REFER TO 281300 FOR CARD

ACCESS SYSTEM REQUIREMENTS. DOUBLE 4SQ J-BOX ON PROTECTED SIDE OF DOORWAY (SIDE OPPOSITE OF CARD READER) ABOVE ACCESSIBLE CEILING OR IN OTHER ACCESSIBLE LOCATION. PROVIDE COVER FOR J-BOX.

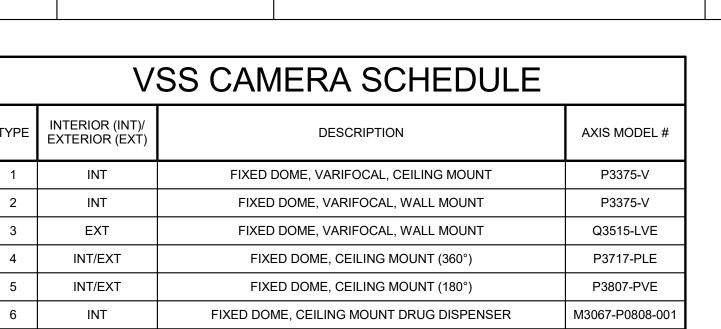
ELECTRIC LOCKING HARDWARE (MAG LOCKS, ELECTRIC STRIKES, POWER TRANSFER HINGES, ETC.) BY DIV 8. REVIEW DOOR HARDWARE FURNISHED AND VERIFY LOCK VOLTAGES AND OPERATIONAL FUNCTIONALITY OF LOCKS. CONTACT ENGINEER WITH QUESTIONS OR CONCERNS.

HARDWARE SET:

EXT

CARD ACCESS DOOR TYPE SCHEDULE UNPROTECTED SIDE ELEVATION DESCRIPTION PROTECTED SIDE ELEVATION DIVISION OF WORK AND COMMENTS TYPE# TYPE 1 TO ACS SINGLE DOOR, 1 CARD READER ACCESS ELECTRIC | SECURITY CONTRACTOR PROVIDES: (FREE EGRESS) AEL, L/PS, FH, DH HARDWARE CONTRACTOR PROVIDES: 4SQ J-BOX →J CONTINUOUS HINGE POWER FRAME HARNESS EH, EM CLOSER ABOVE ACC TRANSFER IN .75" C LOCK CONTROLLED BY: CARD READER - EM CLOSER 1G IN DOOR \*HARDWARE BY 281300 **BOX IN FRAME** HARDWARE ELECTRIC POWER HINGE 1G BOX IN LOCKSET FRAME DOOR HARNESS IN DOOR HARDWARE SET: TYPE 2 SINGLE DOOR, 1 CARD **SECURITY CONTRACTOR PROVIDES:** ELECTRIC EXIT READER, AED, L/PS, FH, DH (FREE EGRESS) **HARDWARE CONTRACTOR PROVIDES:** 4SQ J-BOX -— FRAME HARNESS ● EPT ABOVE ACC FRAME POWER TRANSFER IN .75" C LOCK CONTROLLED BY: CEILING CARD READER IN DOOR \*HARDWARE BY 281300 HARDWARE ELECTRIC POWER ELECTRIC -TRANSFER 1G BOX EXIT DEVICE DOOR HARNESS CRASH BAR IN DOOR

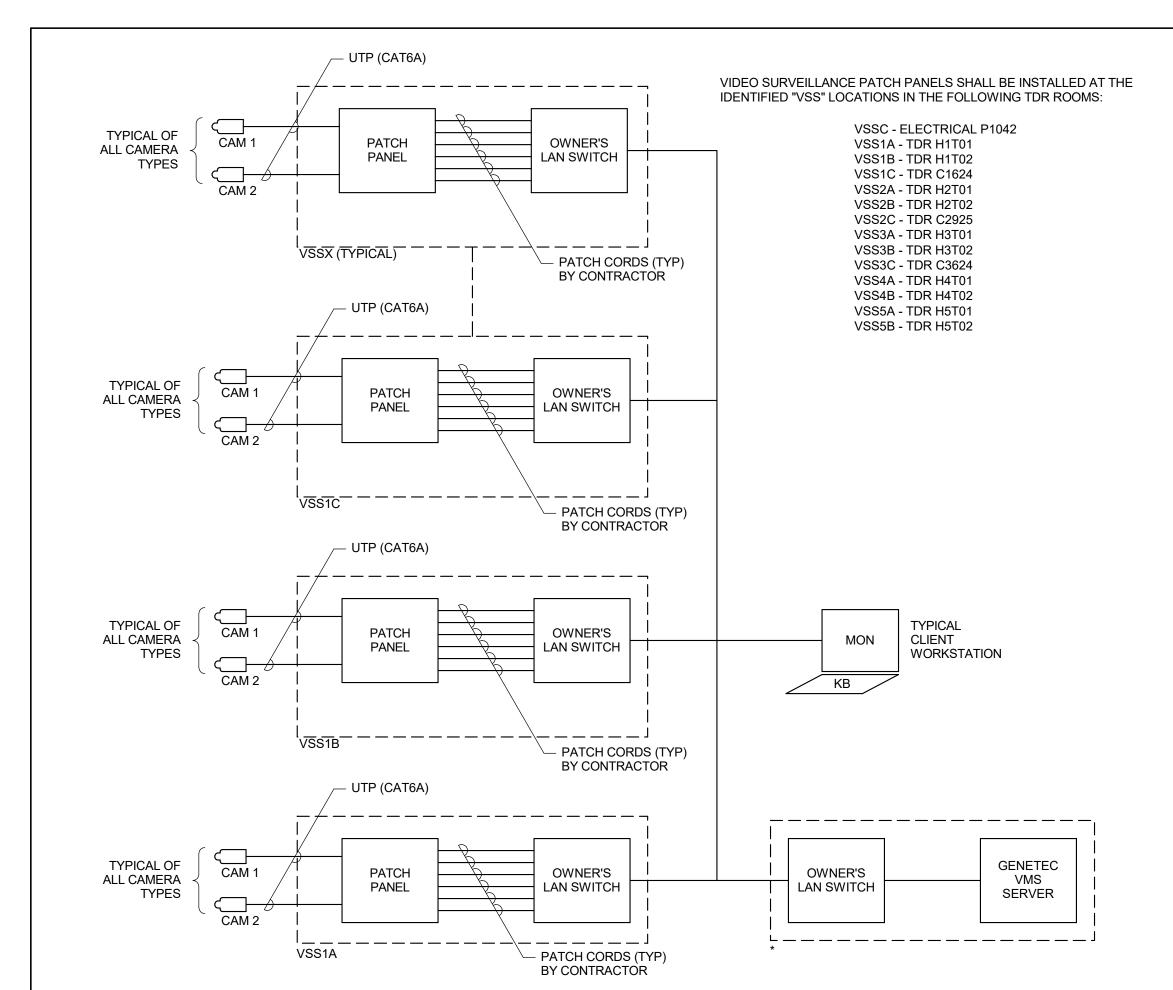
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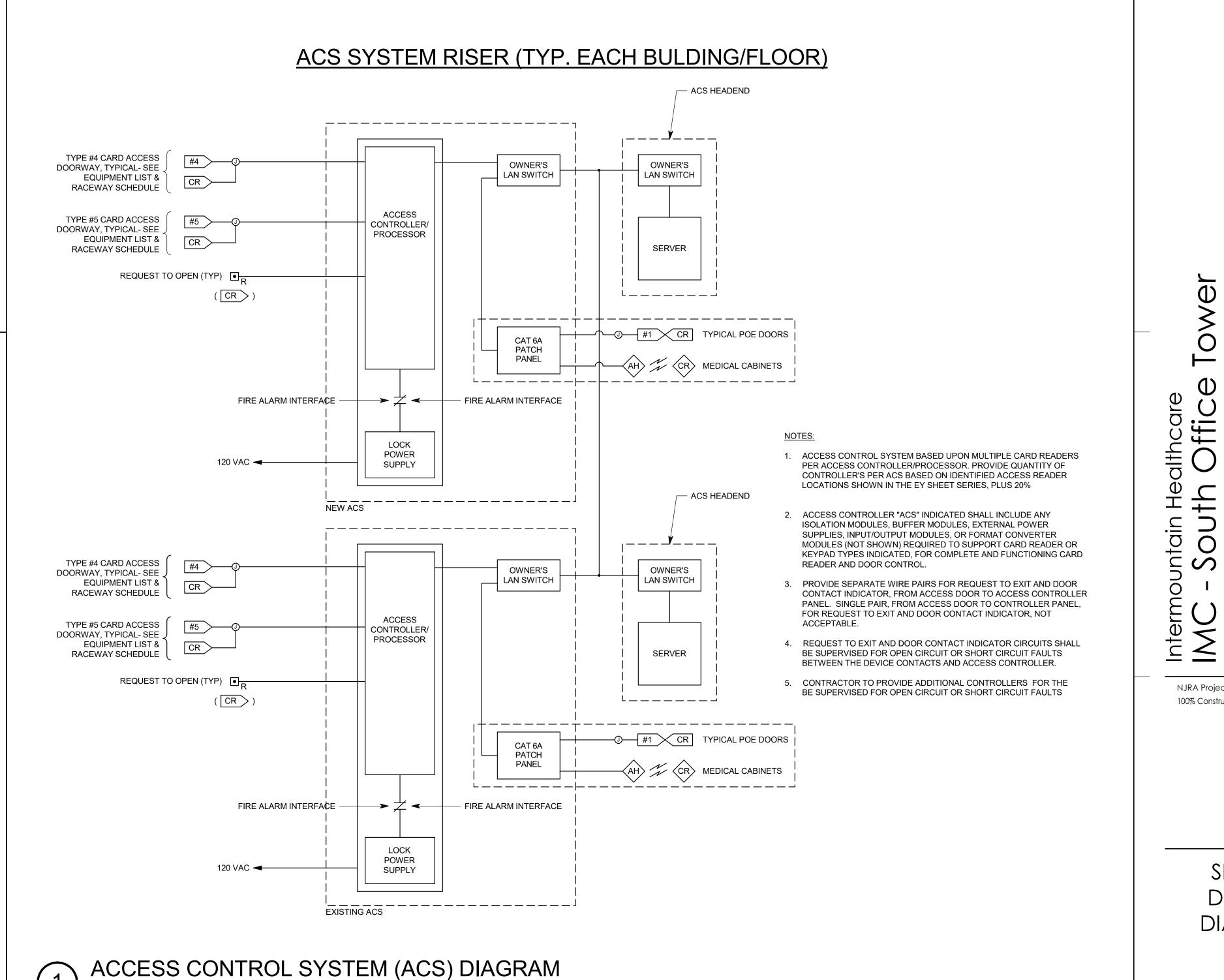


PARAPET MOUNT ARM, PAN TILT ZOOM

DESCRIPTION	INCLUDES
INTERIOR CAMERA - FIXED DOME (CEILING MOUNTED)	* JUNCTION BOX ABOVE ACCESSIBLE CEILING WITH 1" CONDUIT TO VSS
INTERIOR CAMERA - FIXED DOME (WALL MOUNTED)	* JUNCTION BOX AT +90" ABOVE FINISHED FLOOR, WITH 1" CONDUIT BACK TO VSS
EXTERIOR CAMERA - FIXED DOME (WALL MOUNTED)	* JUNCTION BOX AT +120" ABOVE FINISHED FLOOR, WITH 1" CONDUIT BACK TO VSS







SECURITY DETAILS & DIAGRAMS

100% Construction Documents Apr 25, 2022

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NJRA Project #

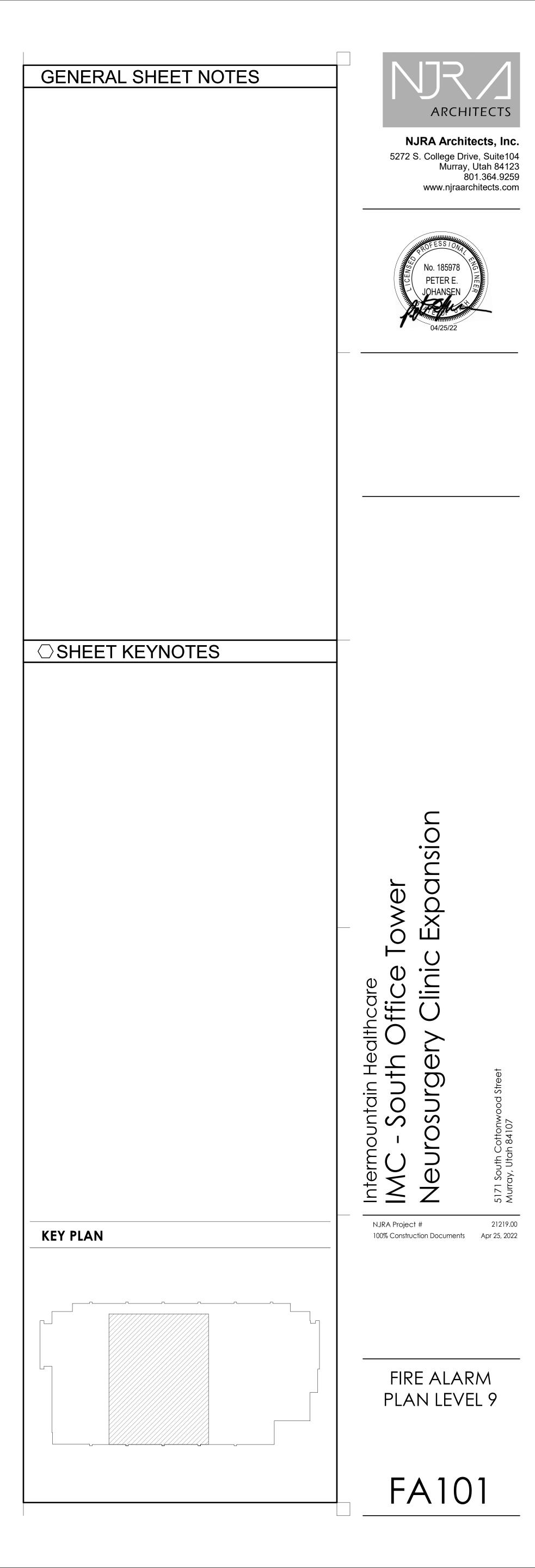
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**ARCHITECTS** 

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A	16/Mar/2022 DATE		Final DC-334414 MODIFICATIONS			Intermo	Salt Lake (	• •	linic	
02 - 03 - 04 - 05 -	C1 - Cover Sheet C2 - Disclaimer - A1 - General Not A2 - Equipment L A3 - Section View	es ayout ⁄s	10 - S3 - Structural Details (1) 11 - S4 - Structural Details (2) 12 - E1 - Electrical Notes 13 - E2 - Electrical Layout 14 - E3 - Electrical Elevations	(g	<b>GE</b>	Health	icare	8	/endel Larson 01-891-9934 el.larson@ge.com	
07 - 08 -	A4 - Equipment [ M1 - HVAC S1 - Structural No S2 - Structural La		15 - E4 - Details-Interconnections 16 - E5 - Power Requirements				FINAL S			
A mand	atory component of this		llation manual. Failure to reference the Pre Installation manual will result in	Drav	vn by	Verified by	Concession	S.O. (GON)	PIM Manual	Rev
	Pre Installation do		ed for site design and preparation. accessed on the web at: www.gehealthcare.com/siteplanning	Т	ST	TST	-	2008459683.3	5643972-1EN	6
GE does	s not take responsibility fi	or any damages resulting from changes on annot accept responsibility for any dama	drawings made by others. Errors may occur by not referring to the complete ge due to the partial use of GE final issue drawings, however caused. All	Format	Scale		File Name		Date	Sheet
dimensi	ons are in millimeters un	less otherwise specified. Do not scale from	printed pdf files. GE accepts no responsibility or liability for defective work m these drawings.	А3	1/4"=1'-0"	RAD-M	283659-FIN-00-A	DWG	16/Mar/2022	01/16

#### DISCLAIMER

#### GENERAL SPECIFICATIONS

- GE is not responsible for the installation of developers and associated equipment, lighting, cassette trays and protective screens or derivatives not mentioned in the order.
- The final study contains recommendations for the location of GE equipment and associated devices, electrical wiring and room arrangements. When preparing the study, every effort has been made to consider every
- aspect of the actual equipment expected to be installed. The layout of the equipment offered by GE, the dimensions given for the premises, the details provided for the pre-installation work and electrical power supply are given according to the information noted during
- on-site study and the wishes expressed by the customer. The room dimensions used to create the equipment layout may originate from a previous layout and may not
- be accurate as they may not have been verified on site. GE cannot take any responsibility for errors due to lack of information.
- · Dimensions apply to finished surfaces of the room.
- Actual configuration may differ from options presented in some typical views or tables.
- If this set of final drawings has been approved by the customer, any subsequent modification of the site must be subject to further investigation by GE about the feasibility of installing the equipment. Any reservations
- The equipment layout indicates the placement and interconnection of the indicated equipment components. There may be local requirements that could impact the placement of these components. It remains the customer's responsibility to ensure that the site and final equipment placement complies with all applicable
- All work required to install GE equipment must be carried out in compliance with the building regulations and the safety standards of legal force in the country concerned.
- These drawings are not to be used for actual construction purposes. The company cannot take responsibility for any damage resulting therefrom.

#### CUSTOMER RESPONSIBILITIES

- It is the responsibility of the customer to prepare the site in accordance with the specifications stated in the final study. A detailed site readiness checklist is provided by GE. It is the responsibility of the customer to ensure all requirements are fulfilled and that the site conforms to all specifications defined in the checklist and final study. The GE Project Manager of Installation (PMI) will work in cooperation with the customer to follow up and ensure that actions in the checklist are complete, and if necessary, will aid in the rescheduling of the delivery and installation date.
- Prior to installation, a structrual engineer of record must ensure that the floor and ceiling is designed in such a way that the loads of the installed system can be securely borne and transferred. The layout of additional structural elements, dimensioning and the selection of appropriate installation methods are the sole responsibility of the structural engineer. Execution of load bearing structures supporting equipment on the ceiling, floor or walls are the customer's responsibility.

#### RADIO-PROTECTION

 Suitable radiological protection must be determined by a qualified radiological physicist in conformation with local regulations. GE does not take responsibility for the specification or provision of radio-protection.

THE UNDERSIGNED, HEREBY C	ERTIFIES THAT I HAVE READ AND APPROVED TI	HE PLANS IN THIS DOCUMENT.
DATE	NAME	SIGNATURE

#### GLOBAL SITE READINESS CHECKLIST (DI)

#### DOC1809666 Rev. 7

Site Ready Checks at Installation

EHS Site Requirements Overall access route to the scan room free from obstruction / high hazards. Enough space to store tools, equipment, parts, install waste and the general area free from obstruction and trip hazards.

Enough necessary facilities for the GE employees available. No 3rd parties working in the area that may affect the safety of the installation activity.

Area free from any chemical, gas, dust, welding fume exposure and has painting been completed and dry. All emergency routes identified, signed and clear from obstruction.

Accessible single source lockable panel that LOTO can be applied to for GE equipment installation (MDP and/or PDU). There are no other conditions or hazards that you have observed or have been made aware of by the customer or contractors on site.

Required for Mechanical Install start Room dimensions, including ceiling height, for all Exam, Equipment/Technical & Control rooms meets GE specifications.

Ceiling support structure, if indicated on the GE drawing, is in the correct location and at the correct height according to the Original Equipment Manufacturer specifications.

Levelness and spacing has been measured, and is ready for the installation of any GE supplied components. Overhead support Structure (unistrut) has been confirmed with customer/contractor to meet required GE provided criteria. Finished ceiling is installed. If applicable ceiling tiles installed per PMI discretion.

Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications. Entry door threshold meets PIM requirement.

Rooms that will contain equipment, including staging areas if applicable, are construction debris free. Precautions must be taken to prevent

debris from entering rooms containing equipment. Cable ways (floor/wall/ceiling/Access Flooring) are available for installation of GE cables are of correct length and diameter.

Cable ways routes per GE Final drawings and cable access openings areas installed at a time determined by GEHC PM. Surface floor duct can be installed at time of system installation.

Adequate room illumination installed and working. Customer supplied countertops where GE equipment will be installed are in place.

Required for Calibration Start HVAC systems Installed, and the site meets minimum environmental operational system requirements.

System power & grounding (PDB/MDP) is available as per GE specifications. System power & grounding (PDB/MDP) is installed at point of final connection and ready to use. Lock Out Tag Out is available.

PMI to confirm all feeder wires and breaker are size appropriately. EPO installed if needed. PMI to confirm with electrician all power and signal cables are well terminated ensuring there are no loose connections.

Network outlets installed. Computer network available and working.

Lead doors and windows complete or scheduled to be installed. If applicable, radiation protection (shielding) finished & radioprotection regulatory approval for installation obtained.

Note: The details shown here are only an extract from DOC1809666. For the complete document please contact your PMI.

DEFINIUM XR646 HD RAD-M283659-FIN-00.DWG - Rev A Date 16/Mar/2022 C1 - Cover Sheet

# CUSTOMER SITE READINESS REQUIREMENTS

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE healthcare installation project manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE healthcare installation project manager can supply a reference list of rigging contractors.
- New construction requires the following;
- Secure area for equipment, Power for drills and other test equipment, Capability for image analysis,

Intermountain Neuroscience Clin

- Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- For CT, MR, PET/CT, and SPECT systems it is required to minimize vibrations within the scan room. It is the customer's responsibility to contract a vibration consultant/engineer to implement site design modifications to meet the GE vibration specification. Refer to the system preinstallation manual for vibration specifications.

# **ENVIRONMENTAL SPECIFICATIONS**

C1 - Cover Sheet

# MAGNETIC INTERFERENCE

In order to avoid interference on the system, static field limits from the surrounding environment must be less than <1 Gauss around the unit.

For the electronic ballast of fluorescent lamp in exam room, the operating frequency should be above 42 kHz.

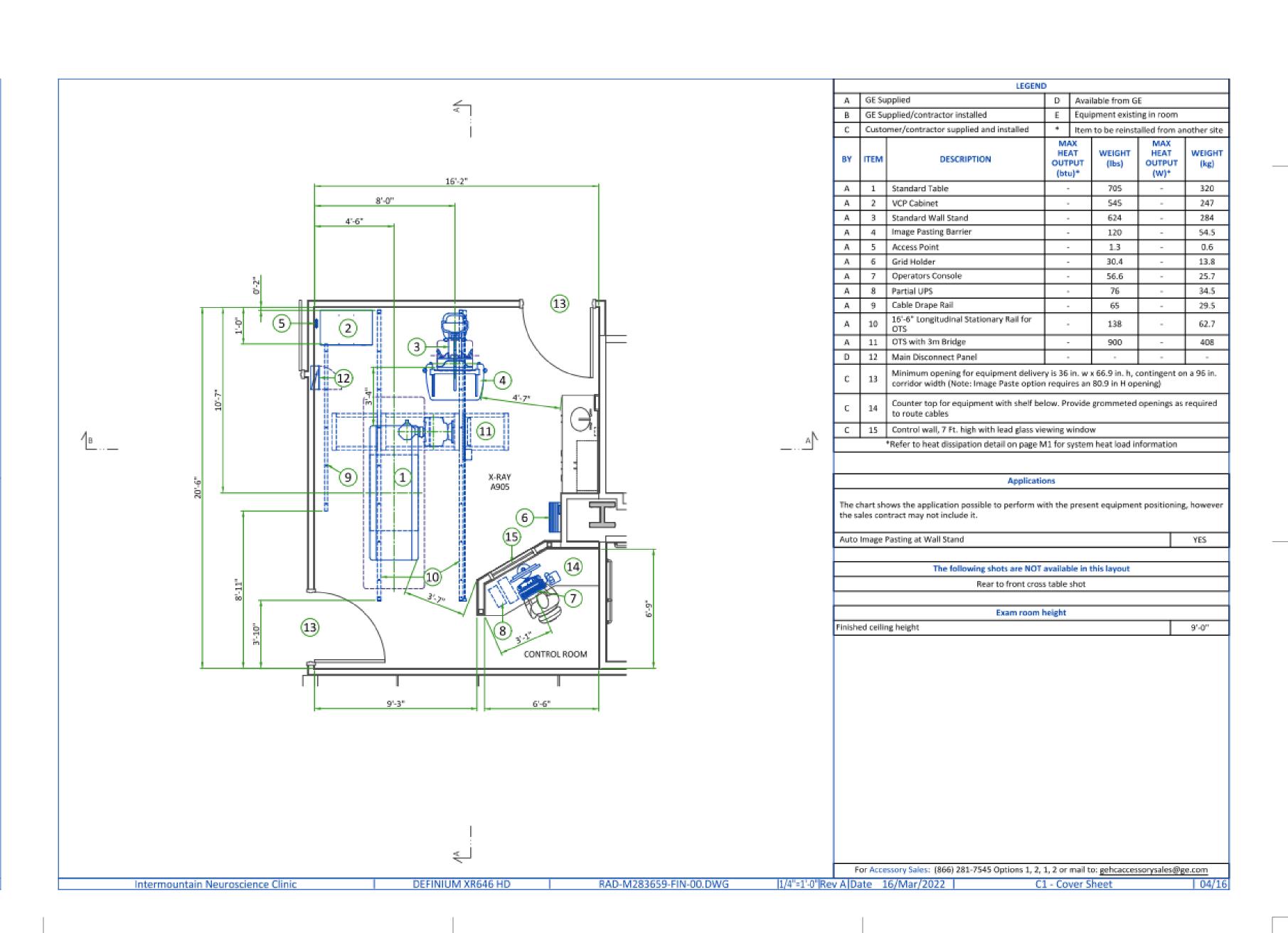
Rev A|Date 16/Mar/2022

# LIGHT REQUIREMENTS

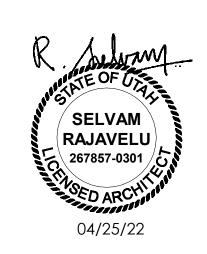
Measured 1 m [3.28 ft] from any point in system. In-use: less than 60 dBA Stand-by: less than 55 dBA

ACOUSTIC OUTPUT

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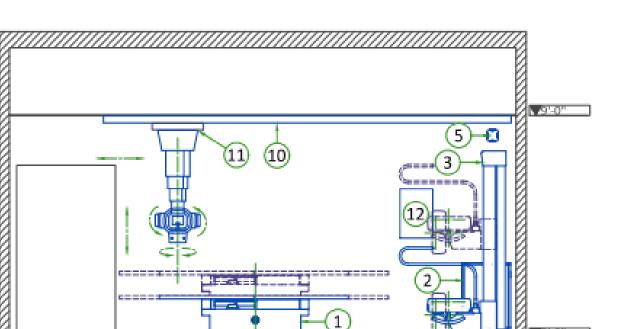
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Equipment Drawings

# FRONT VIEW A-A'



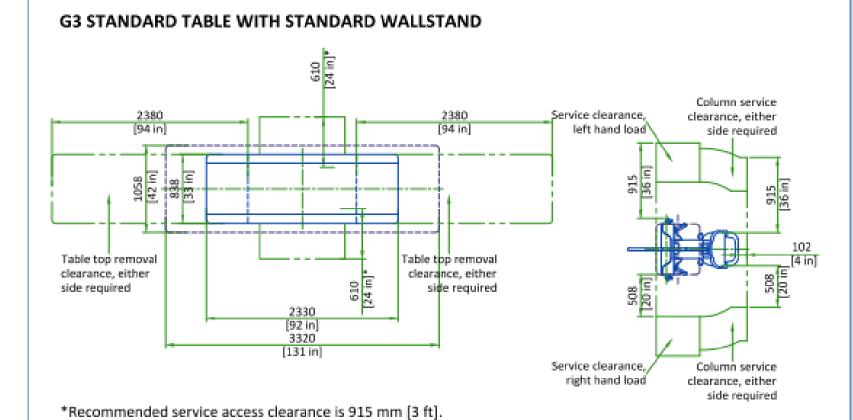
#### EXAM ROOM CEILING HEIGHTS

RECOMMENDED AND MINIMUM ROOM HEIGHTS								
CONFIGURATION	SPECIFICATIONS	CEILING	HEIGHT					
2m or 3m Bridge	Recommended	2836 mm	111.6 in					
2m or 3m Bridge	Minimum	2686 mm	105.75 in					
2m or 3m Bridge with Standard Wallstand at Head Position	Minimum	2686 mm	105.75 in					
2m or 3m Bridge with Extend Wallstand at Head Position	Minimum	2790 mm	109.84 in					
2m or 3m Bridge with Standard/Extend Wallstand at Foot Position	Minimum	2725 mm	107.28 in					

Note: measured from the floor to the top of the longitudinal rails

CEILING HE	IGHT WITH FOOTSTOOL
CEILING HEIGHT (mm [in])	COMMENTS
2686 ~ 2966 [105.7 ~ 116.8]	Patient barrier only (197 mm [7.8 in]), no need for footstool
2966 ~ 3036 [116.8 ~ 119.5]	Need 267 mm [10.5 in] footstool
3036 ~ 3179 [119.5 ~ 125.2]	Need 410 mm [16.1 in] footstool

#### CLEARANCE AREAS



#### THE CUSTOMER/CONTRACTOR SHOULD:

- Provide an area adjacent to the installation site for delivery and unloading of the GE equipment.
- Ensure that the dimensions of all doors, corridors, ceiling heights are sufficient to accommodate the movement of GE equipment from the delivery area into the definitive installation room.
- Ensure that access routes for equipment will accommodate the weights of the equipment and any

DELIVERY

transportation, lifting and rigging equipment. Ensure that all necessary arrangements for stopping and unloading on public or private property not belonging to the customer have been made.

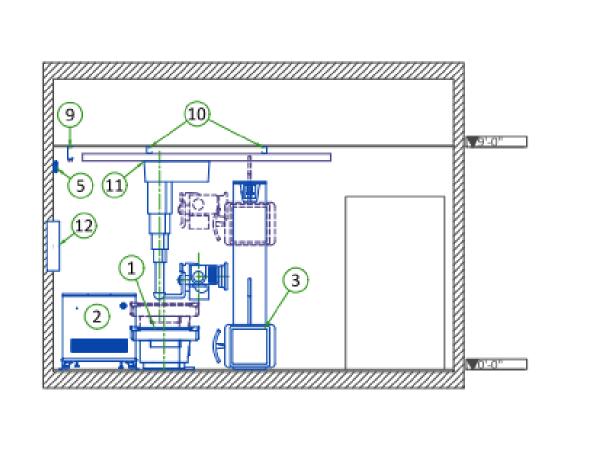
DIMENU	NOME OF BEHINER	V WITH BOLLV TRA	NCDODT FO	LUDBAENT	
	SIONS OF DELIVER	Y WITH DOLLY TRA	NSPORTEG	UIPIVIENT	
EQUIPMENT		DIMENSIONS			WEIGHT
	LENGTH	2111 mm	83.1 in		
STANDARD WALLSTAND	WIDTH	911 mm	35.9 in	260 kg + dolly	573 lbs + dolly
	HEIGHT	1860 mm	73.2 in	7	
	LENGTH	1319 mm	52 in		
G3 STANDARD TABLE	WIDTH	833 mm	33 in	267.5 kg + dolly	590 lbs + dolly
	HEIGHT	570 mm	22.4 in	]	
	LENGTH	5920 mm	233 in		
STATIONARY RAILS (5.79 m) (set of 2 rails)	WIDTH	178 mm	7 in	62.6 kg+ fixture	138 lbs+ fixture
dame and the second	HEIGHT	76 mm	3 in	100000	TIACOTO
	LENGTH	900 mm	35.4 in		
OTS	WIDTH	940 mm	37 in	217 kg	478 lbs
	HEIGHT	1020 mm	40 in	1	

# **ARCHITECTS**

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# SIDE VIEW B-B'



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1/4"=1'-0"|Rev A|Date 16/Mar/2022 |

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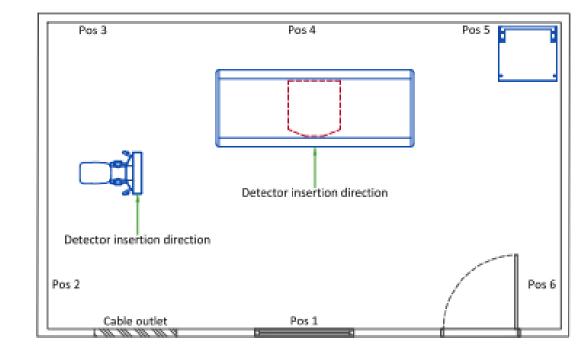
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# **ACCESS POINT POSITION**

AP Wall-mounting position:

SCALE 1:50

- There are 6 different positions available for AP wall-mounting. Install at more than 2.5 m [8.2 ft] height from floor level to avoid potential blocking from human or other
- One Ethernet cable to Magic PC and one power cable to system cabinet are connected on the back of the AP.
- Use wall mount adapter included with AP.
- AP is only provided for wireless system, it is not included in Non Wireless Configuration system.



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# TEMPERATURE AND HUMIDITY SPECIFICATIONS

# IN-USE CONDITIONS

	EXAM	ROOM	CONTROL ROOM		
Temperature	Min	Max	Min	Max	
remperature	15°C [59°F]	32°C [90°F]	15°C [59°F]	32°C [90°F]	
Temperature gradient	< 10°C/h [< 50°F/h]		< 10°C/h [< 50°F/h]		
Relative humidity (1)	20% t	o 75%	20% t	0 75%	
Humidity gradient	< 30	%/h	< 30	%/h	

# STORAGE CONDITIONS

Temperature	-5°C [23°F] to +50°C [122°F]
Temperature gradient	< 20°C/h [< 68°F/h]
Relative humidity (1)	10% to 85%
Humidity gradient	< 30%/h
Steeres Issues the OS day	

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Storage longer than 90 days is not recommended. Non-condensing

#### AIR RENEWAL According to local standards.

In case of using air conditioning systems that have a risk of water leakage it is recommended not to install it above electric equipment or to take measures to protect the equipment from dropping water.

# **HEAT DISSIPATION DETAILS**

STANDBY   IN-USE	STANDBY   IN-USE	STANDBY   IN-USE	SYSTEM POWER CONSUMPTION	HEAT OUTPUT			
andby Current 2.0 A 2.2 kW 7507 BTU/hr	tinuous Power 2.0 A 2.2 kW 7507 BTU/hr	andby Current 2.0 A 2.2 kW 7507 BTU/h	STSTEM FOWER CONSUMPTION	STANDBY		IN-USE	
ntinuous Power 2.2 kW 7507 BTU/hr	tinuous Power 2.2 kW 7507 BTU/hr	ontinuous Power 2.2 kW 7507 BTU/h	Standby Power	1.0 kW	3412 BTU/hr		
			Standby Current	2.0 A			
ntinuous Current 4.5 A	tinuous Current 4.5 A	ontinuous Current 4.5 A	Continuous Power			2.2 kW	7507 BTU/hr
			Continuous Current			4.5 A	

# STRUCTURAL NOTES

- Methods of support for the steelwork that will permit attachment to structural steel or through bolts in concrete construction should be favored. Do not use concrete or masonry anchors in direct tension.
- All units that are wall mounted or wall supported are to be provided with supports where necessary. Wall supports are to be supplied and installed by the customer or his contractors. See plan for suggested locations.
- Control walls shall be constructed to minimum 2130mm (7'-0") high.
- Dimensions are to finished surfaces of room.

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- Customers contractor must provide all penetrations in post tension floors.
- Customers contractor must provide and install any non-standard anchoring. Documents for standard anchoring methods are included with GE equipment drawings for geographic areas that require such documentation.
- obstruction encountered while drilling by the GE installer such as rebar etc. It is the customer's responsibility to perform any floor or wall penetrations that may be required. The customer is also responsible for ensuring that no subsurface utilities (e.g., electrical or any other form of wiring, conduits, piping, duct work or structural supports (i.e. post tension cables or rebar)) will interfere or come in contact with subsurface penetration operations (e.g. drilling and installation of anchors/screws) performed during the installation process. To ensure worker safety, GE installers will perform surface

Customers contractor must provide and install hardware for "through the floor" anchoring and/or any bracing

under access floors. This contractor must also provide floor drilling that cannot be completed because of an

- penetration operations only after the customer's validation and completion of the "GE surface penetration
- Different anchor types are used to install the components of the system. Refer to Structural Requirements Section(s) of the Pre-Installation Manual for each anchor requirement.
- Refer to the Structural Requirements Section for the required minimum embedment. The ground surface must be flat and leveled, maximum tolerance for leveling is ±1.5 mm per 1 m (0.2 in per 10 feet). A grout pad provided by the contractor is required to meet this specification. The maximum pad thickness is 6.3 mm (0.25 in).

# CEILING REQUIREMENTS

To allow installation of the stationary rail cross-members, clearance is required between the ends of the stationary rails and the walls.

It is recommended that sprinkler heads not be placed between the stationary rails. All sprinkler heads should be mounted so they do not extend downward more than 6.35 mm [1/4 in] from the ceiling while in the 'resting'

In addition, there should not be anything mounted in the ceiling (i.e. lights, A/C returns, etc) between the stationary rails. This is because the OTS longitudinal drive belt assembly is located on the movable bridge, approximately centered between the two stationary rails, and may come into contact with those ceiling-mounted items during normal use.

Stationary rails are designed for top (ceiling) mounting. Rails can be ordered and are supplied in the following sizes:

- 4115 mm [13 ft 6 in] - 5334 mm [17 ft 6 in] - 4420 mm [14 ft 6 in] - 5640 mm [18 ft 6 in]

- 4724 mm [15 ft 6 in] - 5791 mm [19 ft]

- 5030 mm [16 ft 6 in]

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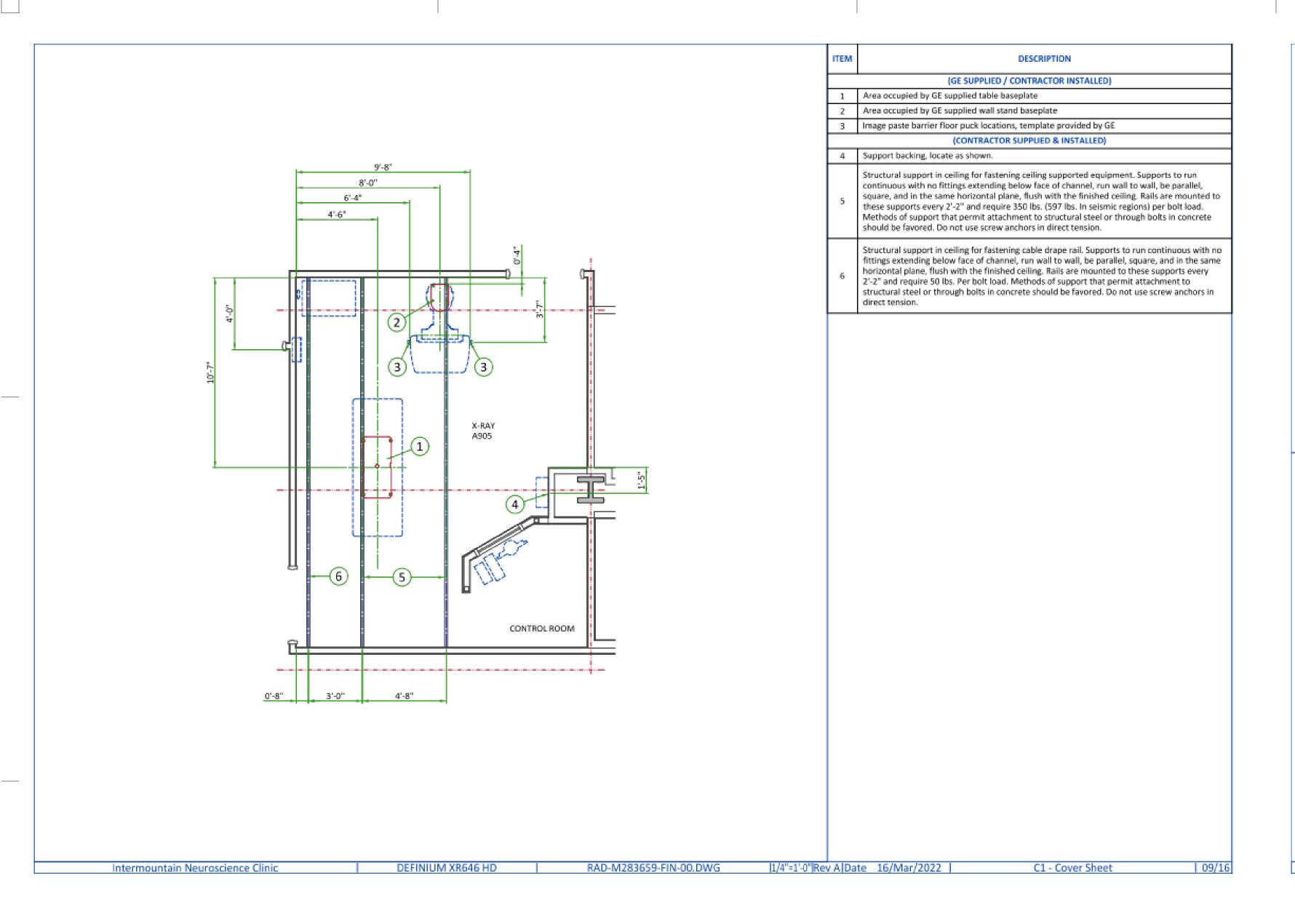
The choice of length depends on room size, configuration and the possible presence of obstructions.

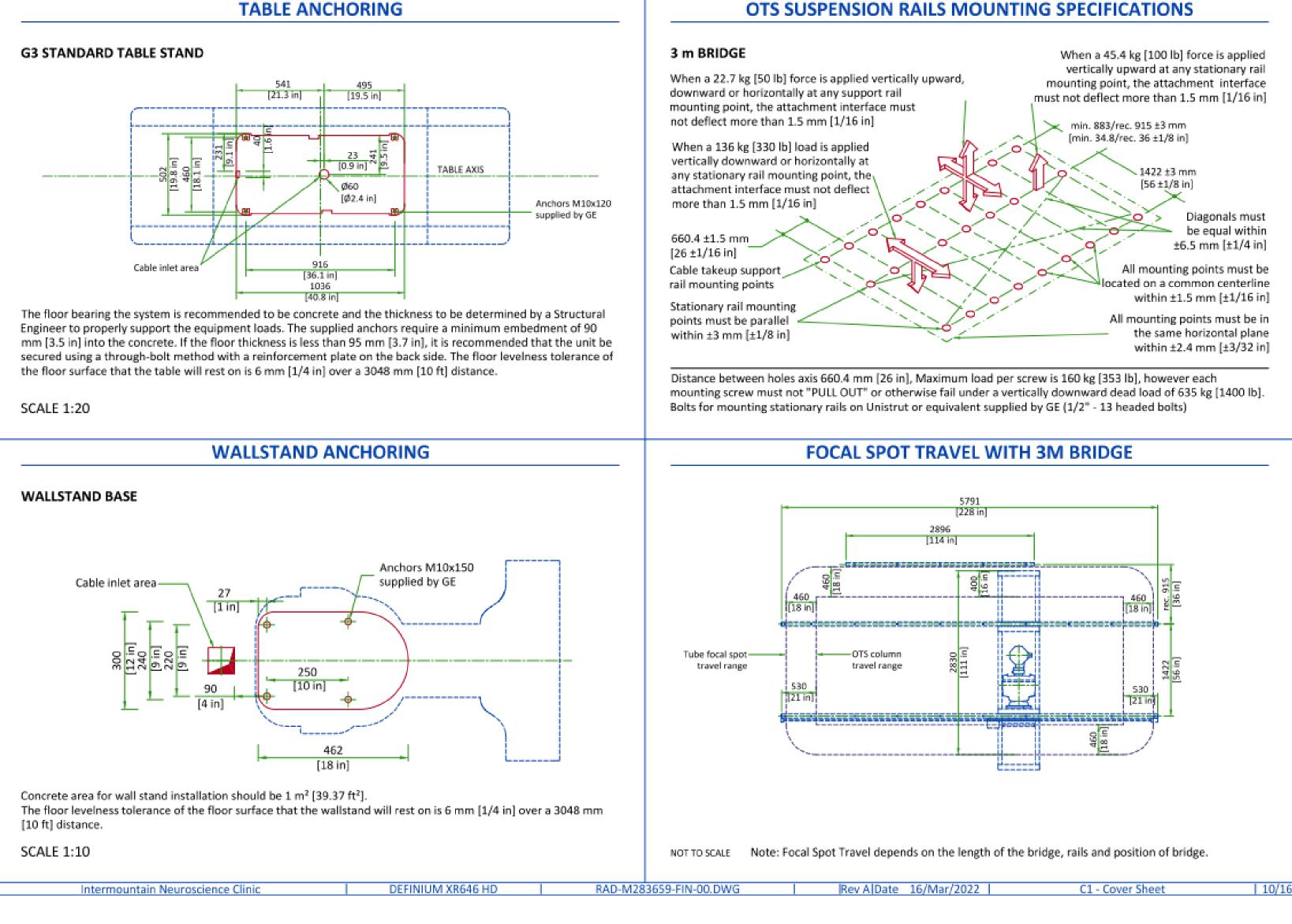
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CONNECTIVITY REQUIREMENTS

Your new GE Healthcare imaging modality will require local and remote connectivity to enable our full range of

Local connectivity - This allows your system to connect to local devices such as PACS and modality worklist.

We will require network information to configure the system(s), and a live ethernet port(s) prior to the

Remote connectivity - Your GE Healthcare service warranty includes InSite™ (applicable to InSite capable

products), a powerful broadband-based service which enables digital tools that can help guard your hospital against equipment downtime and revenue loss by quickly connecting you to a GE Healthcare

Depending on product family and software version, imaging systems can be connected in one of the following

Please provide the GE project manager with the contact information for the resource that can provide information required to set up these connections. GEHC will send out communication to these contacts, which will include the

project's Connectivity requirements, and a Connectivity form. This form will need to be completed and returned to

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GEHC prior to delivery of the system to ensure the system is tested and connectivity is enabled prior to the

1. TLS over TCP Port 443 (Preferred method for new products) via:

digital support:

delivery of the system(s).

a. DNS resolution

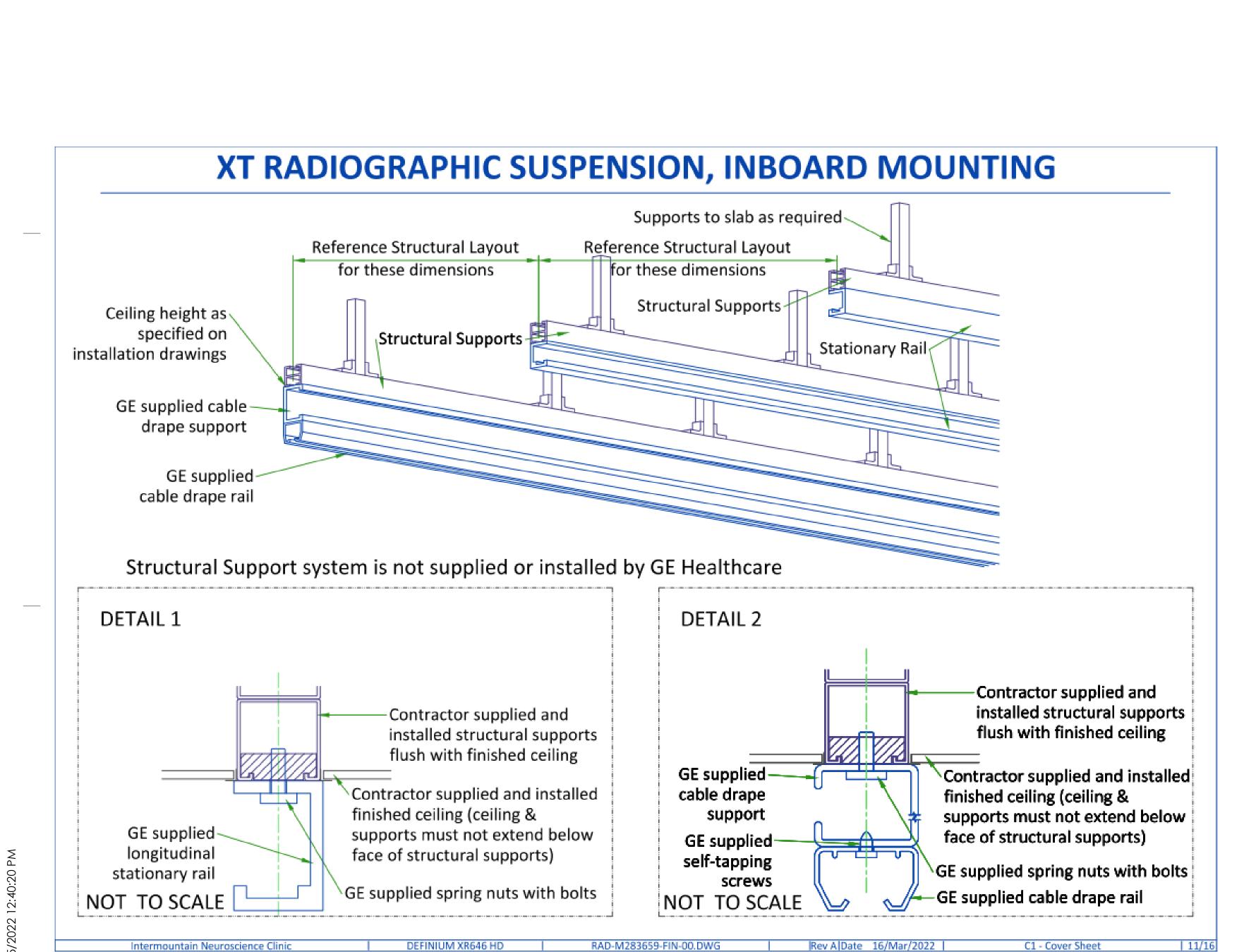
2. Site-to-Site IPsec VPN tunnel

completion of the installation.

b. Customer-provided Proxy or

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c. GE Proxy (Available in some regions)



# **ELECTRICAL NOTES**

- 1. All wires specified shall be copper stranded, flexible, thermo-plastic, color coded, cut 10 foot long at outlet boxes, duct termination points or stubbed conduit ends. All conductors, power, signal and ground, must be run in a conduit or duct system. Electrical contractor shall ring out and tag all wires at both ends. Wire runs must be continuous copper stranded and free from splices.
- 1.1. Aluminum or solid wires are not allowed. Wire sizes given are for use of equipment. Larger sizes may be required by local codes.
- It is recommended that all wires be color coded, as required in accordance with national and local electrical
- 4. Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or national codes.
- Convenience outlets are not illustrated. Their number and location are to be specified by others. Locate at least one convenience outlet close to the system control, the power distribution unit and one on each wall of the procedure room. Use hospital approved outlet or equivalent General room illumination is not illustrated. Caution should be taken to avoid excessive heat from overhead
- spotlights. Damage can occur to ceiling mounting components and wiring if high wattage bulbs are used. Recommend low wattage bulbs no higher than 75 watts and use dimmer controls (except MR). Do not mount lights directly above areas where ceiling mounted accessories will be parked.
- Routing of cable ductwork, conduits, etc., must run direct as possible otherwise may result in the need for greater than standard cable lengths (refer to the interconnection diagram for maximum usable lengths point
- 8. Conduit turns to have large, sweeping bends with minimum radius in accordance with national and local
- A special grounding system is required in all procedure rooms by some national and local codes. It is recommended in areas where patients might be examined or treated under present, future, or emergency conditions. Consult the governing electrical code and confer with appropriate customer administrative personnel to determine the areas requiring this type of grounding system.
- 10. The maximum point to point distances illustrated on this drawing must not be exceeded.
- 11. Physical connection of primary power to GE equipment is to be made by customers electrical contractor with the supervision of a GE representative. The GE representative would be required to identify the physical connection location, and insure proper handling of GE equipment.
- GEHC conducts power audits to verify quality of power being delivered to the system. The customer's electrical contractor is required to be available to support this activity.
- All junction boxes, conduit, duct, duct dividers, switches, circuit breakers, cable tray, 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

- 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.
- Ductwork shall be certified/rated for electrical power purposes.
- 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.

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- All openings in raceway and access flooring are to be cut out and finished off with grommet material by the
- 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.

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 Grounding is critical to equipment function and patient safety. Site must conform to wiring specifications shown on this plan.

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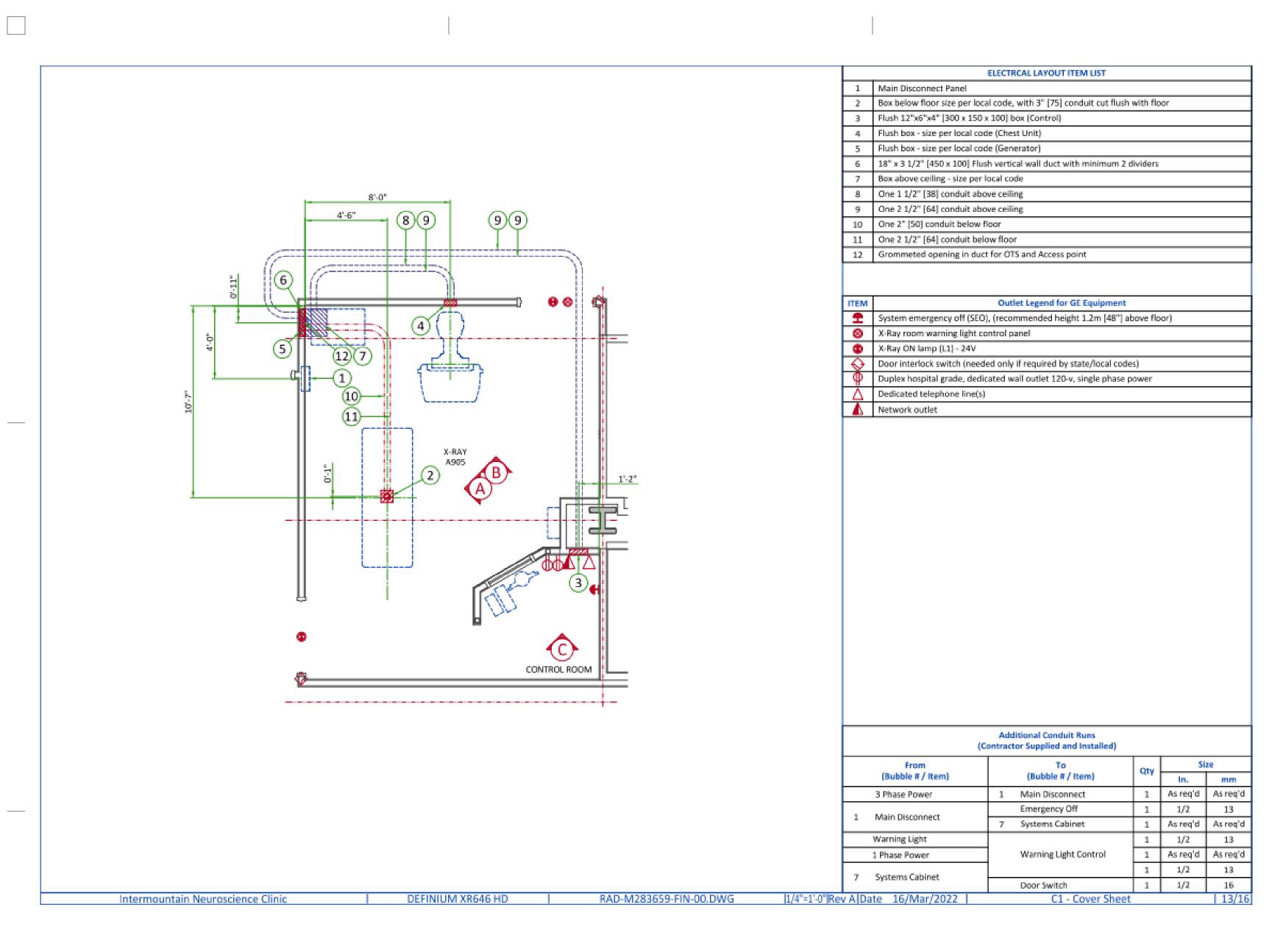
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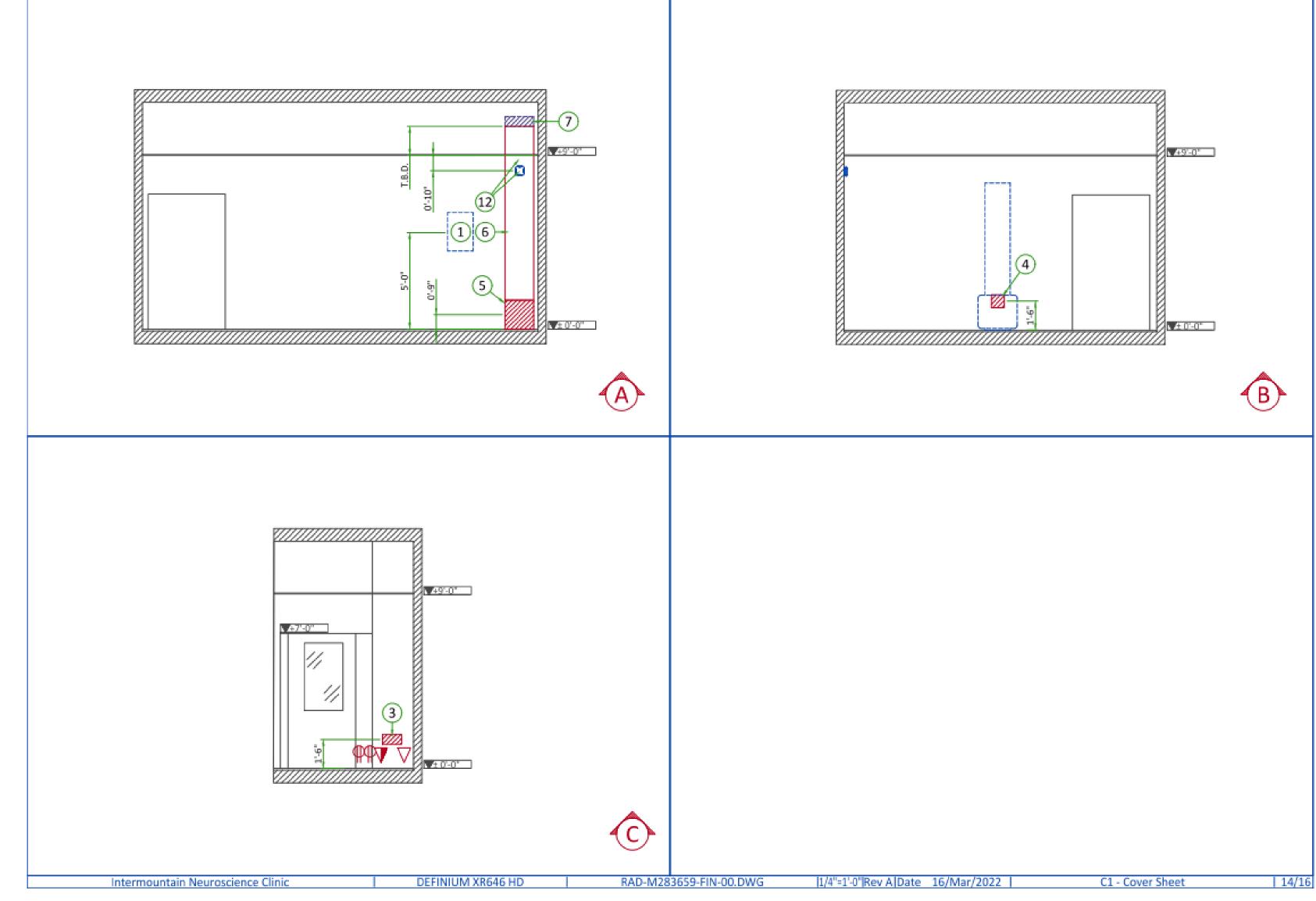
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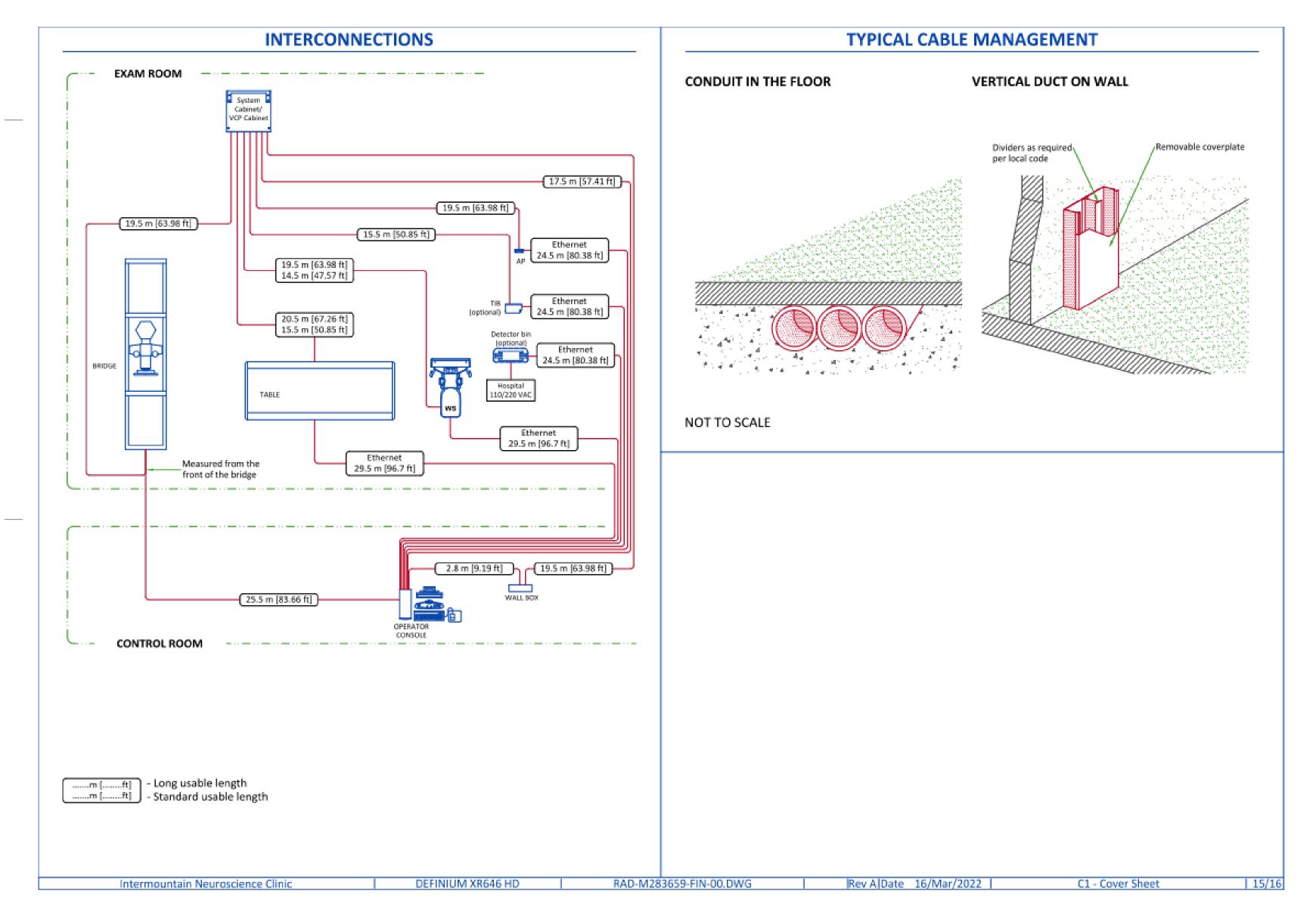
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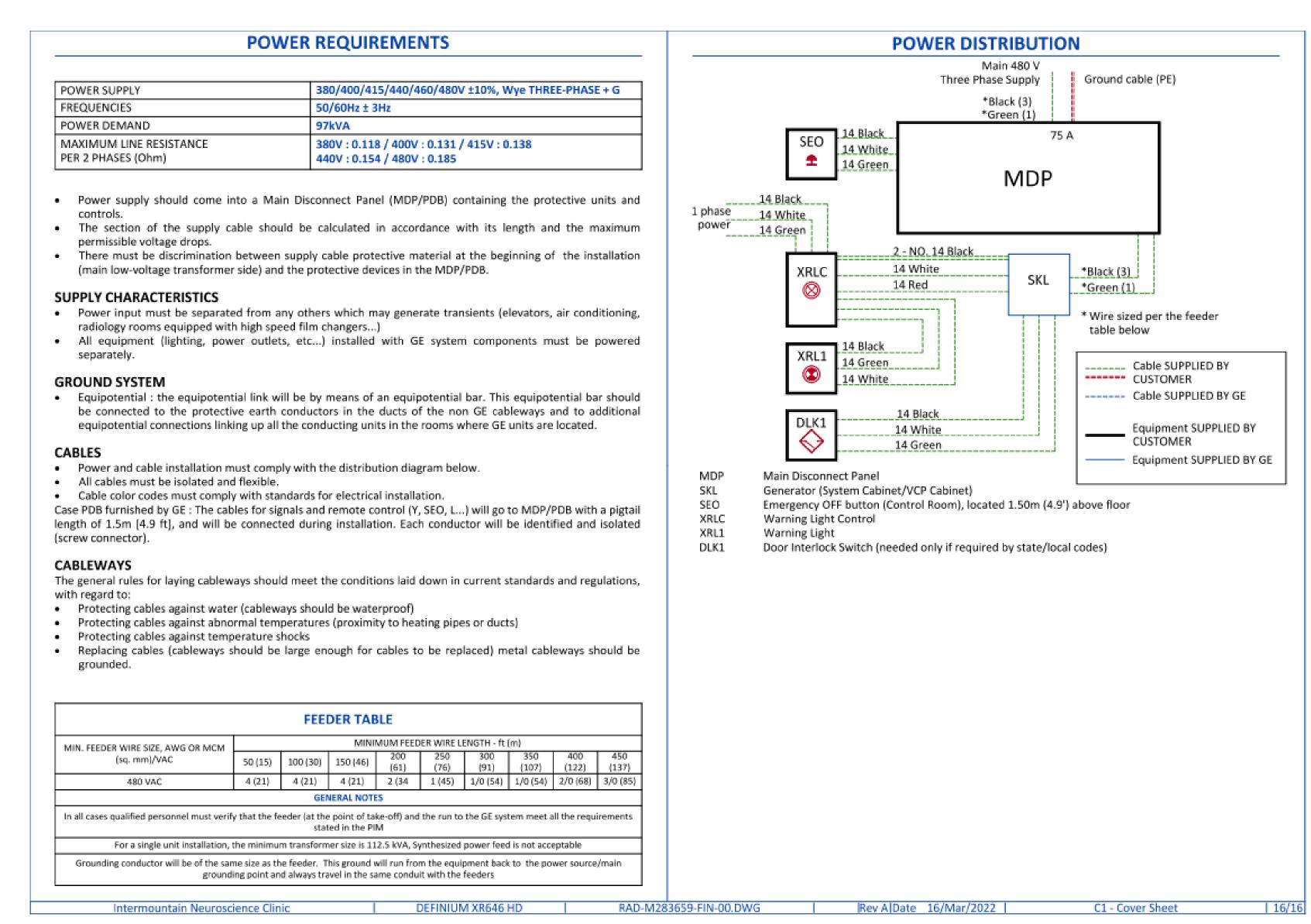
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