

# Intermountain Healthcare Intermountain Medical Center Gamma Knife Scan Room Remodel

5121 Cottonwood St  
Murray, UT 84107

## Construction Documents



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DESIGN TEAM	
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NOTE: ELEKTA DRAWINGS ARE SHOWN HERE FOR REFERENCE ONLY

**PROJECT DESCRIPTION**

HUNTSMAN CANCER CENTER (BUILDING 3) IS LOCATED IN THE INTERMOUNTAIN MEDICAL CENTER CAMPUS IN MURRAY. THE CENTER HAS A SCAN ROOM IN THE FACILITY DEDICATED FOR GAMMA KNIFE SCANNING. AS PART OF THIS PROJECT, THE PLAN IS TO UPGRADE THE EXISTING GAMMA KNIFE SCANNER. THE UPGRADE PART OF THE WORK SHALL BE PERFORMED BY EQUIPMENT MANUFACTURER ELEKTA. FOR REFERENCE, CLARIFICATION AND COORDINATION PURPOSES, ELEKTA DRAWINGS HAVE BEEN INCLUDED AS PART OF THE CONSTRUCTION DOCUMENTS. OWNER, INTERMOUNTAIN HEALTHCARE, SHALL COORDINATE RIGGING WORK WITH THE RIGGING CONTRACTOR.

SCOPE OF WORK FOR THIS PROJECT INCLUDES THE FOLLOWING ITEMS LISTED BELOW. ONLY THE MAJOR CONSTRUCTION TASK REQUIREMENTS ARE LISTED HERE. GENERAL CONTRACTORS AND THEIR SUB CONTRACTORS SHALL REVIEW THE ENTIRE SET OF CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING BIDS FOR THIS PROJECT.

- RUN POWER FROM THE MAIN ELECTRICAL ROOM TO THE ROOM ADJACENT TO THE SCANNER ROOM.
- INSTALL NEW MAIN DISCONNECT PANEL INSIDE THE SCAN ROOM.
- CUT EXISTING CONCRETE FLOOR AND PATCH AS INDICATED TO INSTALL NEW POWER LINES FOR THE SCANNER CAMERA.
- PAINT THE SCAN ROOM.
- REPLACE FLOOR COVERING IN THE SCAN ROOM AFTER ALL THE SCANNER REPLACEMENT WORK IS COMPLETED.
- DELETE THE LIGHT ALCOVE IN THE CEILING.

**CODE ANALYSIS**

AS INDICATED IN THE PROJECT DESCRIPTION, THERE IS NO MAJOR REMODEL WORK IN THE EXISTING BUILDING. THE EQUIPMENT SWAP MAINLY OCCURS INSIDE THE STRUCTURAL FRAME OF THE GAMMA KNIFE SCANNER.

EXISTING BUILDING OCCUPANCY: B  
EXISTING BUILDING CONSTRUCTION TYPE: II-B  
OCCUPANT LOAD: NO CHANGE  
EXIT: NO CHANGE

WALLS: A NEW FURRING WALL IS BEING ADDED TO ACCOMMODATE THE MAIN DISCONNECT PANEL INSIDE THE SCAN ROOM.

**DEFINITIONS**

- GENERAL: BASIC CONTRACT DEFINITIONS ARE INCLUDED IN THE CONDITIONS OF THE CONTRACT.
- "APPROVED": WHEN USED TO CONVEY ARCHITECTS ACTION ON CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, "APPROVED" IS LIMITED TO ARCHITECTS DUTIES AND RESPONSIBILITIES AS STATED IN THE CONDITIONS OF THE CONTRACT.
- "DIRECTED": A COMMAND OR INSTRUCTION BY ARCHITECT, OTHER TERMS INCLUDING "REQUESTED," "AUTHORIZED," "SELECTED," "REQUIRED," AND "PERMITTED" HAVE THE SAME MEANING AS "DIRECTED."
- "INDICATED": REQUIREMENTS EXPRESSED BY GRAPHIC REPRESENTATIONS OR IN WRITTEN FORM ON DRAWINGS, IN SPECIFICATIONS, AND IN OTHER CONTRACT DOCUMENTS, OTHER TERMS INCLUDING "SHOWN," "NOTED," "SCHEDULED," AND "SPECIFIED" HAVE THE SAME MEANING AS "INDICATED."
- "REGULATIONS": LAWS, ORDINANCES, STATUTES, AND LAWFUL ORDERS ISSUED BY AUTHORITIES HAVING JURISDICTION, AND RULES, CONVENTIONS, AND AGREEMENTS WITHIN THE CONSTRUCTION INDUSTRY THAT CONTROL PERFORMANCE OF THE WORK.
- "FURNISH": SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS.
- "INSTALL": UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN, AND SIMILAR OPERATIONS AT PROJECT SITE.
- "PROVIDE": FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
- "PROJECT SITE": SPACE AVAILABLE FOR PERFORMING CONSTRUCTION ACTIVITIES. THE EXTENT OF PROJECT SITE IS SHOWN ON DRAWINGS AND MAY OR MAY NOT BE IDENTICAL WITH THE DESCRIPTION OF THE LAND ON WHICH PROJECT IS TO BE BUILT.



**ABBREVIATIONS**

& AND	DISP. DISPENSER	INSUL. INSULATION	P.S.F. POUNDS PER SQUARE FOOT	V.C.T. VINYL COMPOSITION TILE
@ AT	DWL. DOWEL	INT. INTERIOR		V.C.P. VITREOUS CLAY PIPE
Ø DIAMETER	DN. DOWN	INV. INVERT	<b>R</b> RAD. RADIUS	<b>W</b> W.C. WATER CLOSET
(E), EXIST. EXISTING	D.S. DOWN SPOUT		REC. RECOMMENDATION	W.H. WATER HEATER
(N) NEW	D.W.V. DRAINAGE WASTE VENT	J JAN. JANITOR	REG. REGISTER	W.P. WATER PROOF
d PENNY	DWG. DRAWING	JL. JOINT	REQ'D REQUIRED	W.R. WATER RESISTANT
# POUND OR NUMBER		JST. JOIST	R.A. RETURN AIR	W.W.F. WELDED WIRE FABRIC
	<b>E</b> EACH		REV. REVISION	W.F. WIDE FLANGE
<b>A</b> AC. ACOUSTIC	E.W.C. ELEC. WATER COOLER	<b>L</b> LAM. LAMINATED	R.D. ROOF DRAIN	WDW. WINDOW
ADD ADDENDUM	EL. ELECTRIC	LDG. LANDING	RFS. ROOM	W/ WITH
A/C AIR CONDITIONING	ELEV. ELEVATION	LAV. LAVATORY	RGH. ROUGH	W/O WITHOUT
ALT. ALTERNATE	E.Q. EQUAL	LT. LIGHT	RND. ROUND	WD. WOOD
AL ALUMINUM	EQUIP. EQUIPMENT	L.W.C. LIGHT WEIGHT CONCRETE		
A.B. ANCHOR BOLT	EXH. EXHAUST	LVR. LOUVER	<b>\$</b> SCR. SCREW	
ARCH ARCHITECT[URAL]	EXIST. EXISTING		SECT. SECTION	
ASP. ASPHALT	E.J. EXPANSION JOINT	<b>M</b> M.B. MACHINE BOLT	SEL. SELECT	
	EXT. EXTERIOR	MFR. MANUFACTURER	SHT. SHEET	
<b>B</b> BSMT. BASEMENT	<b>F</b> FT. FEET	M.O. MASONRY OPENING	SIM. SIMILAR	
B.M. BENCHMARK	FIN. FINISH[ED]	MATL. MATERIAL	SLDG. SLIDING	
BLKG. BLOCKING	F.E. FIRE EXTINGUISHER	MECH. MECHANICAL	SM. SMOOTH	
BD. BOARD	F.E.C. FIRE EXTINGUISHER CABINET	MIL. METAL	SPEC. SPECIFICATION	
B.O. BOTTOM OF	FIXT. FIXTURE	MIN. MINIMUM	SPL. SPLASH	
BLDG. BUILDING	FL. FLASHING	MLDG. MOLDING	SQ. SQUARE	
		MULL. MULLION	STD. STANDARD	
<b>C</b> CABT. CABINET	<b>G</b> GALV. GALVANIZED	<b>N</b> N.G. NATURAL GRADE	STRUC. STRUCTURE	
C.I.P. CAST IN PLACE	GA. GAUGE	NOM. NOMINAL	S.A. SUPPLY AIR	
C.B. CATCH BASIN	G.C. GENERAL CONTRACTOR	N/A. NOT APPLICABLE	SUSP. SUSPENDED	
CLS. CEILING	G.S.N. GENERAL STRUCTURAL NOTES	N.I.C. NOT IN CONTRACT	SW.BD. SWITCHBOARD	
CL. CENTER LINE	GL. GLASS	N.T.S. NOT TO SCALE		
C.T. CERAMIC TILE	GD. GRADE	<b>O</b> O.C. ON CENTER		
CH CHANNEL	GRL. GRILLE	O.D. OUTSIDE DIAMETER		
C.O. CLEAN OUT	GRD. GROUND	O.F.S. OVERFLOW SCUPPER		
CLR. CLEAR	GYP. GYPSUM	O.F.C.I. OWNER FURNISHED, CONTRACTOR INSTALLED		
CL. CLOSET		<b>P</b> PT. PAINTED		
COL. COLUMN	<b>H</b> HDW. HARDWARE	PR. PAIR		
CONC. CONCRETE	HDWD. HARDWOOD	PNL. PANEL		
CMU CONCRETE MASONRY UNIT	HTR. HEATER	PENNY PENNY		
COND. CONDITION	HT. HEIGHT	PL. PLASTIC LAMINATE		
CONN. CONNECTION	H.P. HIGH POINT	PLBG. PLUMBING		
CONST. CONSTRUCTION	H.M. HOLLOW METAL	P.S.I. POUND PER SQUARE INCH		
CONT. CONTINUOUS	HORIZ. HORIZONTAL			
CJ CONTROL JOINT	H.B. HOSE BIB			
	H.W. HOT WATER			
	H.R. HOUR			
D.P. DAMP PROOFING	<b>I</b> IN. INCH			
D.B. DECK BEARING	I.D. INSIDE DIAMETER			
DIAG. DIAGONAL				
DIA. DIAMETER				
DIM. DIMENSION				

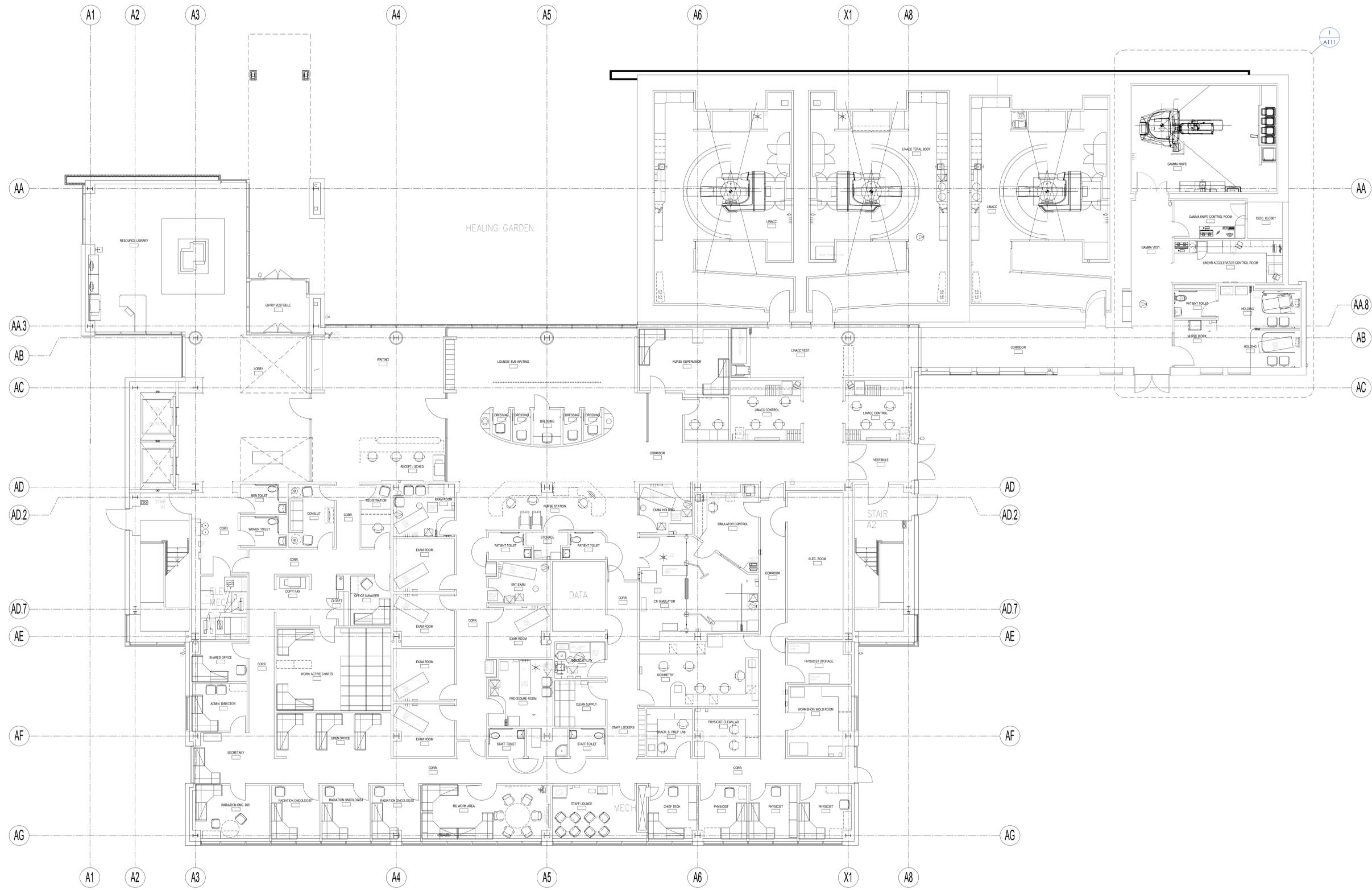
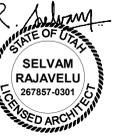
Intermountain Healthcare  
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Gamma Knife Scan Room Remodel

NJRA Project # 19213.00  
Construction Documents May 21, 2019

Cover Sheet

G001

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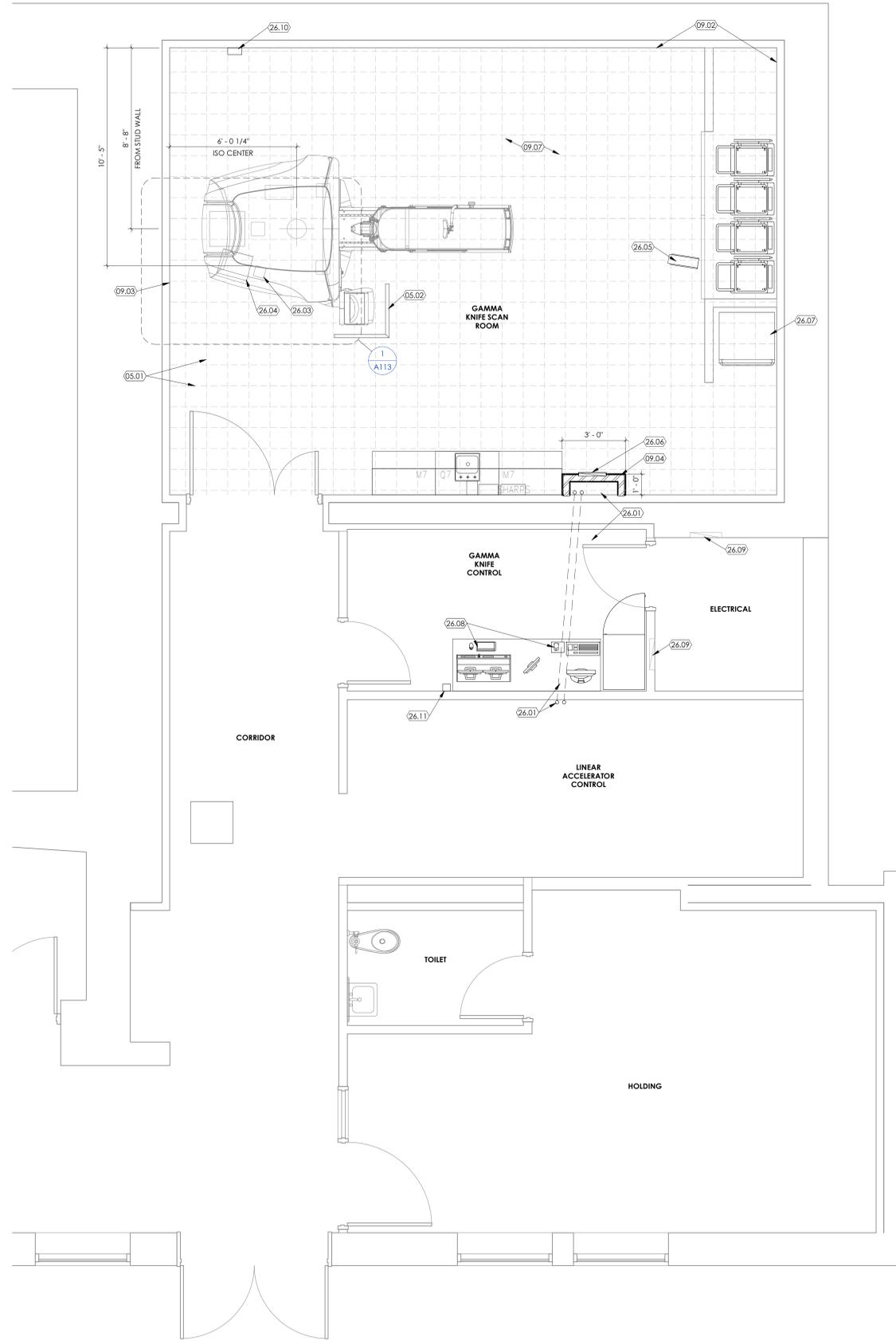
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Floor Plan  
Level 1 -  
Overall

A110

1 Floor Plan Level 1 - Overall  
SCALE: 1/8" = 1'-0"

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1 Floor Plan Level 1  
SCALE: 3/8" = 1'-0"



**KEYED NOTES**

- 05.01 DASHED LINE INDICATES EXISTING #5 REBARS AT 12" ON CENTER EACH WAY. THE EXISTING FLOOR SLAB IS 24 INCHES THICK WITH REBAR MESH AT BOTH TOP AND BOTTOM OF THE CONCRETE SLAB.
- 05.02 STAINLESS STEEL GUARDRAIL (1-1/2" DIAMETER PIPE) TO PROTECT GAMMA KNIFE SCANNER EQUIPMENT. POSTS OF THE GUARDRAIL SHALL BE CORE DRILLED 8" DEEP AND INSTALLED IN EXISTING CONCRETE SLAB WITH EPOXY CEMENT. VERIFY REQUIRED GUARDRAIL SIZE AND CLEARANCE FROM THE SCANNER CAMERA WITH ELEKTA REPRESENTATIVES.
- 09.02 ALL WALLS (EXISTING AND NEW) AND GYPSUM BOARD CEILING AND SOFFIT IN THIS ROOM SHALL BE PAINTED.
- 09.03 REMOVE EXISTING WOOD PANEL AND GYPSUM BOARD AS REQUIRED FOR INSTALLATION OF NEW CONDUITS. AFTER CONDUIT INSTALLATION, PATCH OPENING WITH NEW MATCHING GYPSUM BOARD. REINSTALL THE WOOD PANEL.
- 09.04 NEW CHASE. SEE WALL TYPE A3, SHEET A501A FOR CHASE WALL CONSTRUCTION. THIS WALL IS TO CONCEAL THE CONDUITS AND ALSO FOR MOUNTING THE MAIN DISCONNECT PANEL. SEE ELECTRICAL DRAWINGS AND ELEKTA DRAWINGS FOR PANEL SIZE.
- 09.07 REMOVE EXISTING SHEET VINYL FLOOR COVERING IN THE ENTIRE ROOM AND REPLACE WITH NEW SHEET VINYL FLOOR COVERING. ACCENT PATTERNS SHALL MATCH EXISTING. FLOOR COVERING SHALL BE SELF COVERED TO ACT AS WALL BASE. FIELD FLOOR COVERING SHALL BE: BIOSPEC SR, COLOR - SANDRIFT 67203, MANUFACTURED BY MANNINGTON. ACCENT COLOR SHALL BE: BIOSPEC SR, COLOR - FLAX 67361, MANUFACTURED BY MANNINGTON.
- 26.01 THERE ARE TWO EXISTING CONDUITS BELOW THE SLAB ON GRADE RUNNING BETWEEN THE LINEAR ACCELERATOR CONTROL ROOM AND THE GAMMA KNIFE SCAN ROOM. THESE CONDUITS ARE STUBBED UP THROUGH THE SLAB ON GRADE. THESE CONDUITS SHALL BE UTILIZED FOR RUNNING POWER LINES FROM THE EXISTING PANEL TO THE NEW MAIN DISCONNECT PANEL IN THE GAMMA KNIFE SCAN ROOM. SEE ELECTRICAL AND ELEKTA DRAWINGS.
- 26.03 FLOOR BOX #2, SUPPLIED AND INSTALLED BY ELEKTA. SEE ELECTRICAL AND ELEKTA DRAWINGS. CONTRACTOR SHALL CUT AND PATCH EXISTING CONCRETE SLAB AS INDICATED IN DETAIL 1/A113 FOR THE NEW FLOOR BOX AND CONDUITS.
- 26.04 XVI GENERATOR, SUPPLIED AND INSTALLED BY ELEKTA. SEE ELECTRICAL AND ELEKTA DRAWINGS.
- 26.05 MOVE CCTV CAMERA AND ASSOCIATED JUNCTION BOX, CONDUIT, CONDUCTOR, ETC. FROM THE CURRENTLY LOCATION TO THE NEW LOCATION AS INDICATED IN THE ELEKTA DRAWINGS.
- 26.06 MAIN DISCONNECT PANEL, SUPPLIED BY ELEKTA AND INSTALLED BY ELECTRICAL CONTRACTOR.
- 26.07 KLARITY AIRFLOW MASK OVEN, WITH STAINLESS STEEL CART SUPPLIED BY INTERMOUNTAIN HEALTHCARE. ELECTRICAL CONTRACTOR SHALL PROVIDE REQUIRED POWER OUTLET FOR THE OVEN.
- 26.08 PROVIDE POWER OUTLETS AND DATA OUTLETS AS REQUIRED FOR ALL THE COMPUTER STATIONS IN THE CONTROL ROOM AS INDICATED IN ELEKTA DRAWINGS.
- 26.09 EXISTING ELECTRICAL PANEL TO REMAIN. SEE ELECTRICAL DRAWINGS FOR REQUIRED WORK.
- 26.10 PROVIDE SINGLE GANG BOX FLUSH MOUNTED FOR REMOTE MONITORING. SYSTEM SECURITY BOX. SEE ELEKTA DRAWINGS AND ELECTRICAL DRAWINGS.
- 26.11 MOUNT PUSH BUTTON FOR SHUNT TRIP CIRCUIT AT THIS LOCATION AND 4'-0" FROM FINISHED FLOOR.



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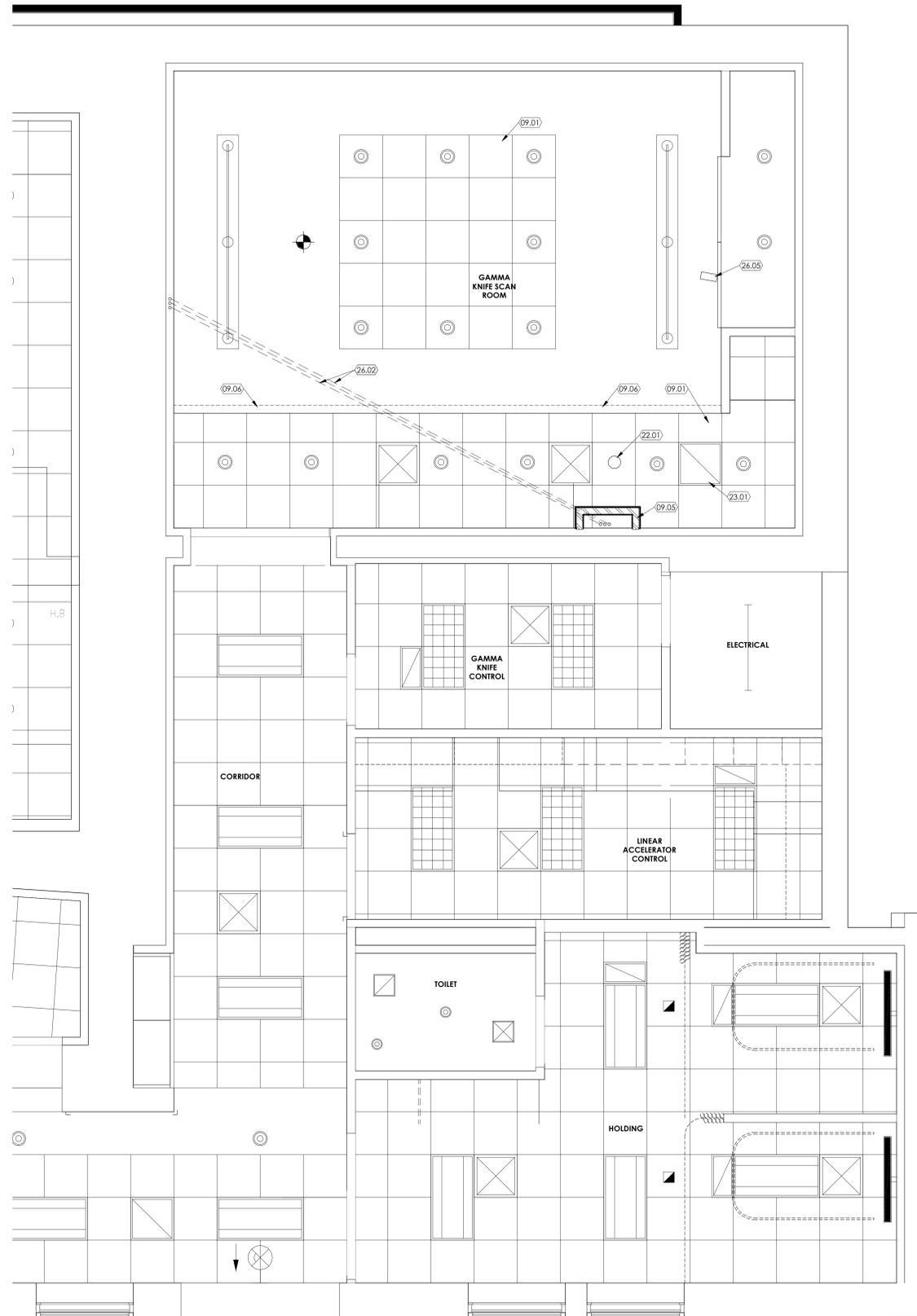
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NJRA Project # 19213.00  
Construction Documents May 21, 2019

Floor Plan  
Level 1

A111

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**KEYED NOTES**

- 09.01 ALL EXISTING 24" X 24" CEILING TILES IN THIS ROOM SHALL BE REMOVED AND REPLACED WITH NEW CEILING TILES. CEILING TILES SHALL BE MANUFACTURED BY ARMSTRONG - MODEL: ULTIMA HEALTH ZONE (ITEM #1938) 24" X 24" X 1/2" WITH EDGE DETAIL. SQUARE LAY-IN. WHERE CEILING GRIDS ARE DAMAGED DUE TO NEW CONSTRUCTION, REPLACE CEILING GRIDS. GRIDS SHALL MATCH EXISTING AND SHALL BE 15/16" PRELUDE XL EXPOSED TEE HEAVY DUTY. ANGLE MOLDING SHALL BE 7/8" WITH BERC 2 CLIPS.
- 09.05 PATCH CEILING GRID AS REQUIRED AROUND THE NEW WALL.
- 09.06 REMOVE COVE LIGHT FIXTURES. PROVIDE NEW PANEL ATTACHED TO THE COVE TO PREVENT DUST COLLECTION AT THE COVE. SEE DETAIL 3/A/1.3.
- 22.01 AS THE NEW CHASE WALL WILL BE BUILT ADJACENT TO THE EXISTING CONCEALED SPRINKLER HEAD, MOVE SPRINKLER HEAD 2'-0" TO WEST TO THIS NEW INDICATED LOCATION.
- 23.01 REPLACE EXISTING RETURN AIR GRILLE WITH NEW.
- 26.02 THERE ARE TWO CONDUITS REQUIRED TO BE RUN FROM THE MAIN DISCONNECT PANEL TO FLOOR BOX 2 AND ONE CONDUIT FROM MAIN DISCONNECT PANEL TO FLOOR BOX 1. RUN THE THREE CONDUITS INSIDE THE NEW CHASE VERTICALLY UP, THEN TRANSITION HORIZONTALLY IN THE CEILING SPACE OF THE GAMMA KNIFE SCAN ROOM AND THEN DROP VERTICALLY DOWN INSIDE THE METAL STUD FRAMING ON THE SOUTH WALL OF THE GAMMA KNIFE SCAN ROOM.
- 26.05 MOVE CCTV CAMERA AND ASSOCIATED JUNCTION BOX, CONDUIT, CONDUCTION, ETC. FROM THE CURRENT LOCATION TO THE NEW LOCATION AS INDICATED IN THE ELEC'D DRAWINGS.



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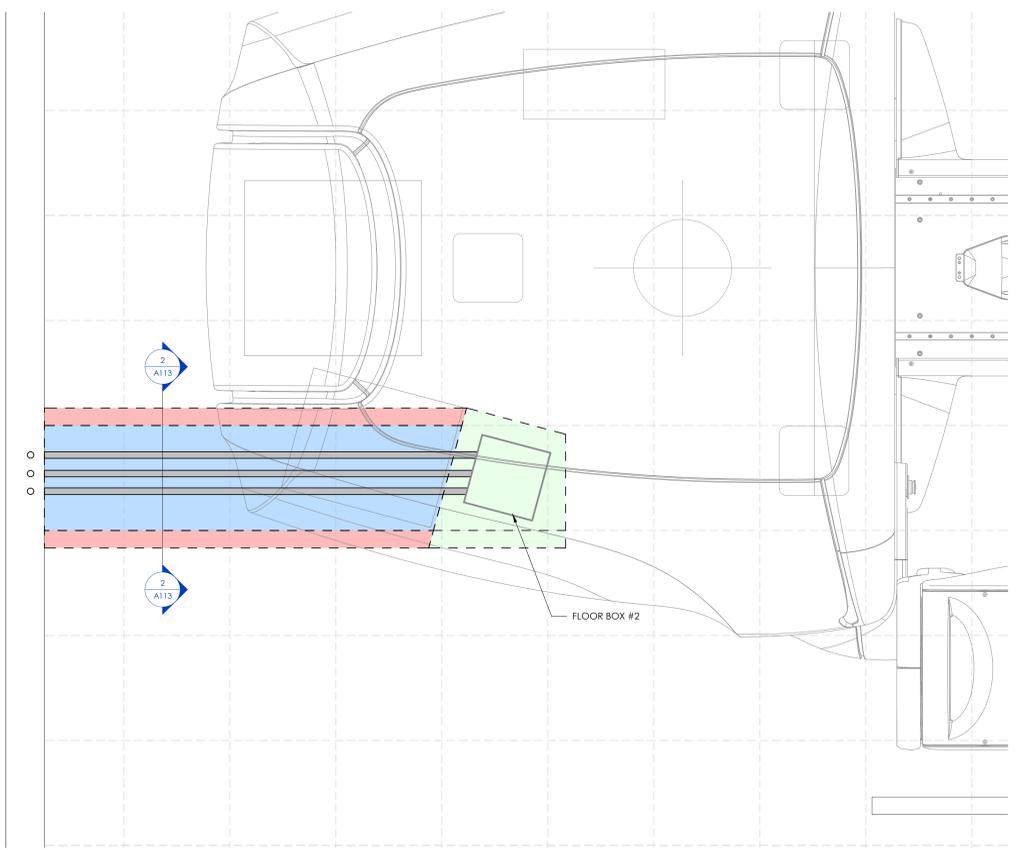
Reflected  
Ceiling Plan  
Level 1

A112

1 Reflected Ceiling Plan Level 1  
SCALE: 3/8" = 1'-0"



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1 Junction Box  
SCALE: 1 1/2" = 1'-0"

**LEGEND**

- FIRST STEP: CUT EXISTING CONCRETE FLOOR SLAB 9" DEEP, AND REMOVE CONCRETE AS REQUIRED FOR INSTALLING THE NEW FLOOR BOX 2.
- SECOND STEP: CUT EXISTING CONCRETE FLOOR SLAB 9" DEEP, AND REMOVE CONCRETE AS REQUIRED FOR INSTALLING THE NEW (3) CONDUITS IN THE TRENCH.
- THIRD STEP: CUT EXISTING CONCRETE FLOOR SLAB APPROXIMATELY 1-1/2" DEEP, AND REMOVE CONCRETE BY CHISELLING WITH HAND TOOLS AS REQUIRED FOR WELDING THE NEW REBARS TO EXISTING REBARS.

**STRUCTURAL NOTES**

**Concrete**  
Concrete Mix Design: Materials shall comply with the Standards specified in American Concrete Institute (ACI) 318.14, "Building Code Requirements for Structural Concrete."  
1. Concrete compressive strength, f<sub>c</sub>: 3000 psi at 3 days (high early strength)  
2. Maximum water/cementitious ratio: 0.45  
3. Air content: 0%  
4. Maximum aggregate size: 3/4" normal weight  
5. Portland Cement (ASTM C150)  
6. Slump limit: 4 inches prior to adding water reducing admixtures

**Steel Reinforcement and Splices**  
1. Reinforcement: ASTM A706 Grade 60  
2. Welded Splices: Provide full thickness end-to-end welded splices conforming to AWS D1.4 except chemical analysis of existing reinforcement is not required. Minimum preheat shall be 300 degrees Fahrenheit for #6 and smaller bars. Submit WPS and welder qualifications to architect for review. Protect the concrete from damage caused by preheating reinforcement.  
3. Mechanical splices: Welded splices may be replaced by mechanical splices at the contractor's option. All mechanical splices shall have the capacity to develop at least 1.25f<sub>y</sub> of the bar in tension or compression. Submit mechanical splice to architect for review.

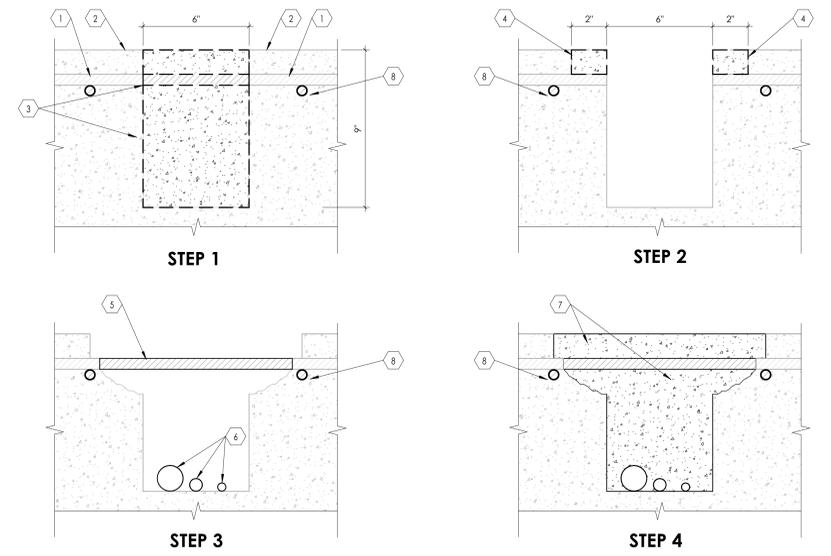
**Statement of Special Inspections**  
The following materials, systems and components require special inspection or testing per Chapter 17 of the International Building Code (IBC).  
  
For items requiring continuous inspection, a special inspector must be present onsite during the performance of that task. In most cases, periodic inspections/tests must be performed prior to commencing the task, intermittently during the task, and at the completion of the task. Frequency marked with (E) designates periodic inspections that must be performed prior to or upon completion of every task.

**Welding Reinforcement**

Item	Frequency	Detailed Instructions
<i>Prior to Welding:</i>		
Verify welding procedures (WPS) and consumable certificates	Periodic (E)	Follow AWS D1.4
Material identification	Periodic (E)	Verify type and grade of material
Welder identification	Periodic (E)	A system shall be maintained by which a welder who has welded a joint or member can be identified.
Fit-up	Periodic (E)	Verify joint preparation, dimensions, cleanliness, tacking, and backing.
<i>During Welding:</i>		
Use of qualified welders	Periodic (E)	Verify that welders are appropriately qualified.
Control and handling of welding consumables	Periodic (E)	Verify packaging and exposure control.
WPS followed	Continuous	Verify items such as settings on welding equipment, travel speed, welding materials, shielding gas type/flow rate, preheat applied, interpass temperature maintained, and proper position.

**Concrete Construction**

Item	Frequency	Detailed Instructions
Reinforcing steel	Periodic	Verify prior to placing concrete that reinforcing is of specified type, grade and size, that it is free of oil, dirt and rust, that it is located and spaced properly, and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
Use of required mix design	Periodic	Verify that all mixes used comply with the approved construction documents: ACI 318: Ch. 19, 26.4.3-26.4.4, and IBC 1904.1, 1908.2, 1908.3
Concrete sampling for strength tests and slump	Continuous	Samples for strength tests shall be taken in accordance with ASTM C172, cured per ASTM C31 and tested in accordance with ASTM C39 by a testing agency complying with ASTM C1077. Acceptance criteria for strength tests shall be per ACI 318 Section 26.12.3. For each mix placed, samples shall be taken not less than once a day.
Concrete placement	Continuous	
Curing temperature and techniques	Periodic	Verify that high-early-strength concrete is maintained at a temperature of at least 50°F and in a moist condition for at least 3 days after placement. Accelerated curing methods may be used (see ACI 318: 26.5.3.2(c)).



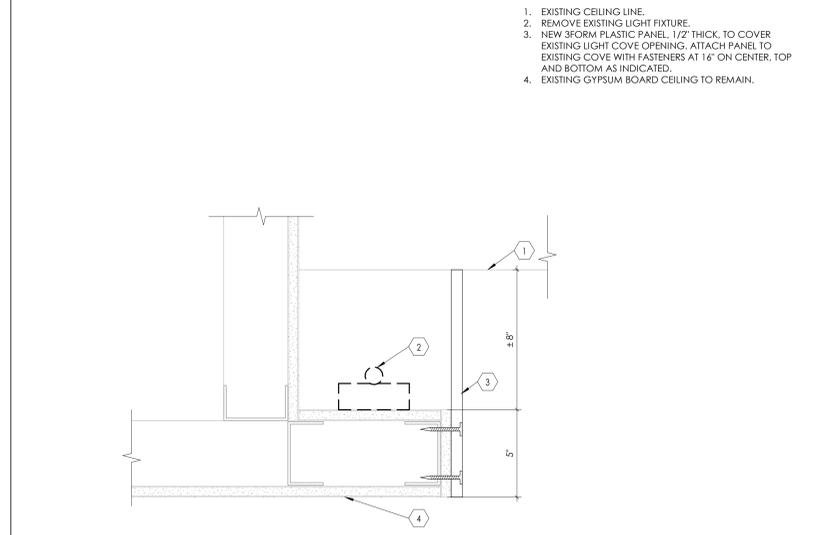
**KEYED NOTES**

- EXISTING #5 REBAR TO REMAIN.
- SAW CUT EXISTING CONCRETE 9" DEEP AS INDICATED ALONG THIS DASHED LINE.
- REMOVE CONCRETE AND REBAR IN THIS AREA TO ACCOMMODATE THE TRENCH FOR CONDUITS AND JUNCTION BOX.
- SAW CUT CONCRETE AS REQUIRED (+/- 1-1/2") FROM THE TOP TO THE TOP OF STEEL REBAR. DO NOT CUT THE REBAR. MANUALLY CHISEL AND REMOVE THE EXISTING CONCRETE AROUND THE REBAR.
- WELD NEW #5 REBAR, 10" LONG, TO EXISTING REBARS RUNNING EAST WEST ON BOTH SIDES. THIS IS FOR REBAR CONTINUITY TO MAINTAIN THE STRUCTURAL INTEGRITY. PROVIDE SIMILAR #5 BAR IF EXISTING REBAR IS CUT RUNNING NORTH-SOUTH. SPECIAL INSPECTION WILL BE REQUIRED FOR WELDING.
- ATTACH NEW CONDUITS TO THE BOTTOM OF THE TRENCH.
- AFTER CONDUITS AND JUNCTION BOX ARE IN PLACE, POUR NEW CONCRETE TO FILL THE TRENCH. GRIND THE TOP AS REQUIRED FOR AN EVEN SMOOTH FINISH BETWEEN EXISTING AND NEW CONCRETE.
- EXISTING CONCRETE SLAB 24" DEEP WITH #5 REBARS EACH WAY AT 12" ON CENTER AT TOP AND BOTTOM OF SLAB.

NOTE: SEE STRUCTURAL NOTES FOR CONCRETE AND STEEL REBARS. SEE SHEET A113

2 Trench Detail  
SCALE: 3" = 1'-0"

**KEYED NOTES**

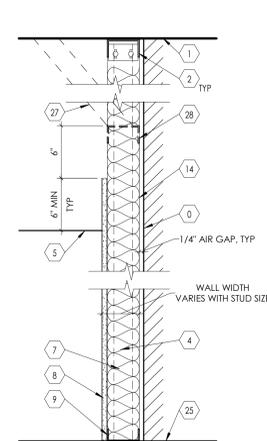


3 Light Cove Cover  
SCALE: 3" = 1'-0"



**KEYED NOTE**

- LINE OF FLOOR OR ROOF DECK AS OCCURS.
- TO ACCOMMODATE FOR STRUCTURE DEFLECTION, PROVIDE SLIP CONNECTION BETWEEN TOP RUNNER TRACK AND METAL STUD FRAMING SEE DETAIL 11 / A502A
- STUD FRAMING AROUND DUCT OPENINGS. SEE DETAIL 11 / A502A
- METAL STUDS, 20 GA STRUCTURAL (33 MIL) AT 16" O.C. U.N.O. BASED ON WALL TYPES INDICATED IN FLOOR PLAN. PROVIDE STUDS AS INDICATED IN WALL TYPES WITH TRACK RUNNERS AT TOP AND BOTTOM. FOR STUD FRAMING AROUND DOOR AND WINDOW OPENINGS. SEE DETAIL 11 / A502A
- LINE OF CEILING AS OCCURS SEE REFLECTED CEILING PLAN.
- STEEL STUDS: C-H SHAPED, 20 GA STRUCTURAL AT 24" O.C.
- PROVIDE ACOUSTIC INSULATION BLANKET FOR FULL DEPTH OF THE STUD CAVITY THROUGHOUT. U.N.O. FOR 4" & 3 5/8" STUDS PROVIDE R-13 UNFACED BATT INSULATION AND FOR 6" STUDS PROVIDE R-19 UNFACED BATT INSULATION. PROVIDE KRAFT FACED INSULATION FOR ALL APPLICATIONS AT EXTERIOR WALLS.
- GYPSUM BOARD, 5/8" THICK, TYPE 'X'. U.N.O. ATTACHED TO METAL STUD FRAMING. SEE GENERAL NOTE 'B'.
- ANCHOR BASE TRACK TO CONCRETE FLOOR BELOW. SEE DETAIL 8 / A502A
- FILL GAP BETWEEN DECK AND METAL TRACK TOP RUNNER WITH FIRESTOP SEALANT, SEAL TIGHTLY AROUND ALL PIPES, CONDUITS, DUCTS, ETC. ON EACH SIDE OF THE FIRE BARRIER WALL (CONTINUOUS) WITH APPROVED FIRESTOP SEALANT INSTALLED AROUND ALL PENETRATIONS TO MAINTAIN THE INTEGRITY OF THE FIRE BARRIER.
- FILL GAP BETWEEN DECK AND METAL TRACK TOP RUNNER WITH ACOUSTIC SEALANT, SEAL TIGHTLY AROUND ALL PIPES, CONDUITS, DUCTS, ETC. ON EACH SIDE OF THE WALL (CONTINUOUS) AND AROUND ALL PENETRATIONS TO MAINTAIN THE INTEGRITY OF THE WALL.
- STOP GYPSUM BOARD 1/4" ABOVE THE FLOOR TYP. ON EACH SIDE OF WALL. PROVIDE ACOUSTIC SEALANT AT SOUND WALLS AND FIRESTOP SEALANT AT RATED WALLS ON EACH SIDE OF THE WALL (CONTINUOUS).
- OUTLET BOX AS OCCURS. PROVIDE FIRE BARRIER MOLDABLE PUTTY PADS AND FIRESTOP SEALANT AROUND ELECTRICAL BOXES AT ALL RATED WALLS AND SOUND BARRIER WALLS AND AT BACK TO BACK ELECTRICAL BOXES AT SMOKE PARTITION WALLS. TYP.
- PROVIDE STRAPPING AND BLOCKING AT FURRING WALL. SEE DETAIL 12 / A502A
- LINE INDICATES EXISTING WALL OR STRUCTURE. PROVIDE 1/4" AIR GAP.
- GYPSUM BOARD SHAFT LINER PANEL, 1" THICK, TYPE 'X'. ATTACHED TO C-H STUDS.
- STEEL RUNNER, I SHAPED WITH UNEQUAL LEGS OF 1" AND 2". 20 GA. ATTACHED TO FLOOR AND STRUCTURE ABOVE WITH FASTENERS LOCATED NO GREATER THAN 2" FROM ENDS AND NO MORE THAN 24" O.C. RUNNERS SHOULD BE POSITIONED WITH SHORT LEG TO FINISHED SIDE OF WALL.
- STOP STUD RUNNER AT BASE PLATES.
- 3/8" THICK STEEL PLATE WITH 4-1/2" DIA. HULTI-HY200 EPOXY ANCHORS WITH 2-3/8" HULTI-HIT-2 ANCHORS, EMBED INTO CONCRETE 2-3/8"
- TUBE STEEL 3" x 3" x 3/16" AT 6'-0" O.C.
- WALL CAP: SOLID SURFACE MATERIAL ATTACHED TO WALL BELOW.
- PLYWOOD, 3/4" THICK, CONTINUOUS FIRE TREATED. ATTACH PLYWOOD TO VERTICAL STEEL TUBE POST WITH L SHAPED METAL CLIPS AND FASTENERS.
- PROVIDE 1/4" RADIUS ROUNDED EDGE. CONTINUOUS.
- METAL STUDS 16GA STRUCTURAL (35 MIL) AT 16" O.C. PROVIDE RUNNERS AT TOP AND BOTTOM. ATTACH TOP RUNNER TO PLYWOOD AND VERTICAL STEEL POST.
- LINE OF FLOOR.
- 2" x 1/2" RESILIENT CHANNEL INSTALLED HORIZONTALLY AND SPACED AT 24" O.C.
- WHERE CONDITIONS PROHIBIT EXTENDING STUDS TO DECK, PROVIDE CROSS BRACING FROM TOP RUNNER OF WALL TO STRUCTURE ABOVE WITH 3-5/8" 20 GA STUDS AT 4'-0" O.C. ALTERNATE DIRECTION OF BRACING TO STRUCTURE EVERY 48" AS CONDITIONS ALLOW.
- TOP TRACK, 18 GA. REQUIRED AT CROSS-BRACED WALLS.

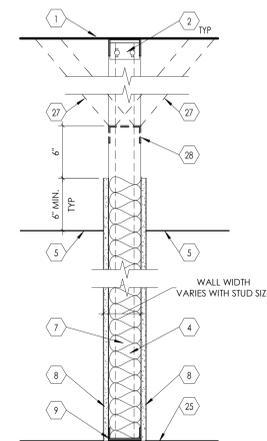


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
A1	1 1/2"	2 1/8"
A2	2 1/2"	3 1/8"
A3	3 5/8"	4 1/4"
A4	6"	6 5/8"

**Type - A**  
Metal Stud Furring Wall

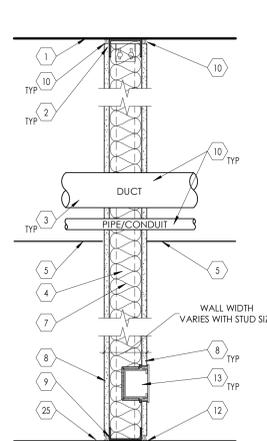


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
B2	2 1/2"	3 3/4"
B3	3 5/8"	4 7/8"
B6	6"	7 1/4"

**Type - B**  
Typical Metal Stud Wall

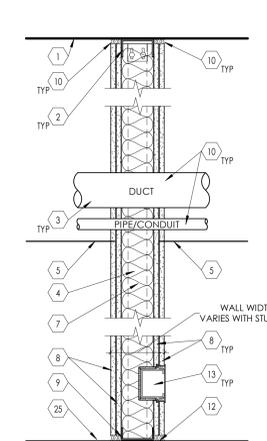


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
C3	3 5/8"	4 7/8"
C4	4"	5 1/4"
C6	6"	7 1/4"

**Type - C**  
1 Hour Fire Rated  
UL DESIGN #: U465

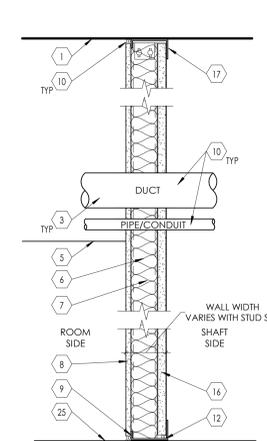


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
D3	3 5/8"	6 1/8"
D4	4"	6 1/2"
D6	6"	8 1/2"

**Type - D**  
2 Hour Fire Rated  
UL DESIGN #: U411

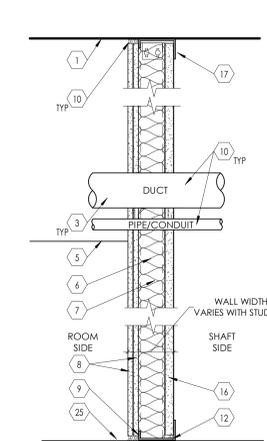


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
E2	2 1/2"	3 1/8"
E4	4"	4 5/8"
E6	6"	6 5/8"

**Type - E**  
1 Hour Fire Rated Shaft Wall  
UL DESIGN #: U415 SYS. A

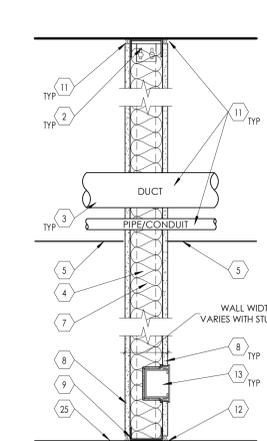


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
F4	4"	5 1/4"
F6	6"	7 1/4"

**Type - F**  
2 Hour Fire Rated Shaft Wall  
UL DESIGN #: U415 SYS. A

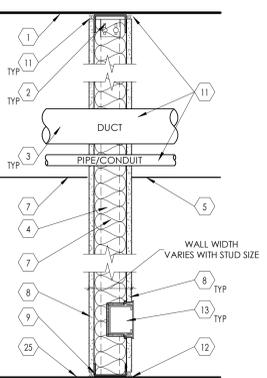


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
G2	2 1/2"	3 3/4"
G3	3 5/8"	4 7/8"
G4	4"	5 1/4"
G6	6"	7 1/4"

**Type - G**  
Smoke Partition

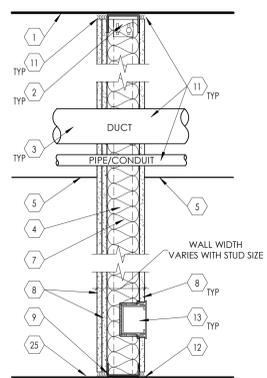


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
H3	3 5/8"	4 7/8"
H4	4"	5 1/4"
H6	6"	7 1/4"

**Type - H**  
Sound Barrier 40 STC  
Sound Attenuation (STC) Test: NGC 25116

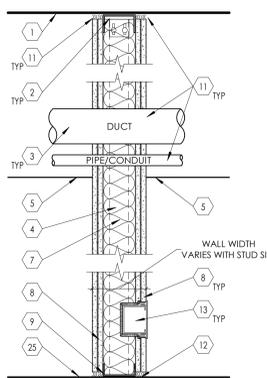


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
J3	3 5/8"	5 1/2"
J4	4"	5 7/8"
J6	6"	7 7/8"

**Type - J**  
Sound Barrier 45 STC  
Sound Attenuation (STC) Test: NGC 25116

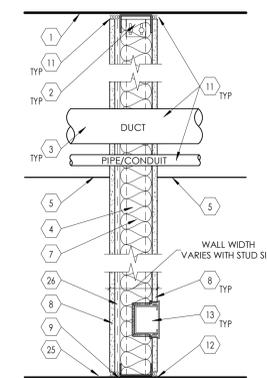


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
K3	3 5/8"	6 1/8"
K4	4"	6 1/2"
K6	6"	8 1/2"

**Type - K**  
Sound Barrier 50 STC  
Sound Attenuation (STC) Test: NGC 25116

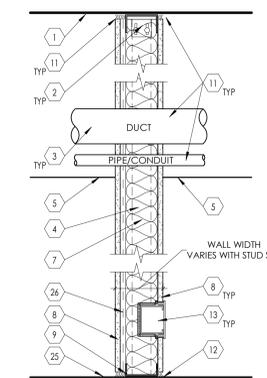


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
L3	3 5/8"	5 3/8"
L4	4"	5 3/4"
L6	6"	7 3/4"

**Type - L**  
Sound Barrier 50 STC  
Sound Attenuation (STC) Test: NGC 25116

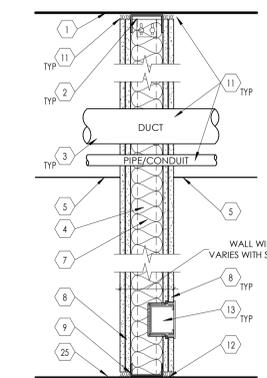


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
M3	3 5/8"	5 3/8"
M4	4"	5 3/4"
M6	6"	7 3/4"

**Type - M**  
1 Hour Fire Rated Sound Barrier 50 STC  
Sound Attenuation (STC) Test: NGC 25116

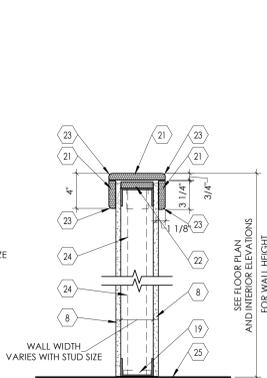


SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
N3	3 5/8"	6 1/8"
N4	4"	6 1/2"
N6	6"	8 1/2"

**Type - N**  
2 Hour Fire Rated Sound Barrier 50 STC  
Sound Attenuation (STC) Test: NGC 25116



SECTION VIEW

PLAN VIEW

WALL TYPE	STUD SIZE	WALL WIDTH
P3	3 5/8"	4 7/8"
P4	4"	5 1/4"
P6	6"	7 1/4"

**Type - P**  
Partial Height Wall

**GENERAL NOTES**

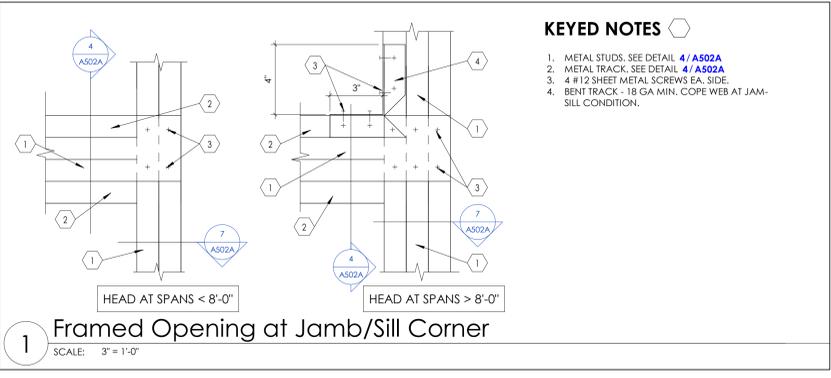
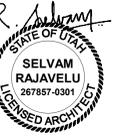
- CONTRACTOR SHALL VERIFY ITEMS LIKE SEMI OR FULLY RECESSED MISCELLANEOUS BOXES, PANELS, PLUMBING LINES, CONDUITS, PIPES, ETC. THAT ARE CONCEALED IN THE WALL IF 3/8" METAL STUDS ARE INADEQUATE. CONTRACTOR SHALL NOTIFY THE ARCHITECT AND USE 6" STUDS. COORDINATE WITH ALL THE CONSULTANT DRAWINGS PRIOR TO WALL CONSTRUCTION AND USE 6" OR 8" 20 GAUGE METAL STUDS FOR FRAMING IN LIEU OF 3/8" METAL STUDS.
- USE 5/8" CEMENTITIOUS BOARD IF CERAMIC OR PORCELAIN WALL TILES ARE INDICATED IN THE FINISH SCHEDULE AS WALL FINISH. CEMENTITIOUS BOARD SHALL EXTEND FROM FINISHED FLOOR TO HEIGHT OF TILE. 5/8" WATER RESISTANT GYPSUM BOARD TO BE USED ABOVE TILE HEIGHT IN RESTROOMS. SEE FLOOR PLANS FOR CERTAIN UNIQUE LOCATIONS THAT REQUIRE LEAD LINED GYPSUM BOARD, IMPACT RESISTANT GYPSUM BOARD, SOUND ATTENUATION GYPSUM BOARD, ETC.
- PROVIDE CONTROL JOINT AS PER DETAIL 14 / A502A WHEN LENGTH OF GYPSUM BOARD EXCEEDS 50' IN ONE DIRECTION OR AS DIRECTED BY ARCHITECT. COORDINATE WITH ARCHITECT FOR CONTROL JOINT LOCATIONS. WHEN GYPSUM BOARD OR CEMENTITIOUS BOARD IS ATTACHED VERTICALLY, USE 1" LONG #6 DRYWALL SCREWS TO EACH STUD. SCREWS ARE 8" O.C. AT PERIMETER AND 12" AT INTERMEDIATE STUD. WHEN GYPSUM BOARD IS ATTACHED HORIZONTALLY TO STUDS, HORIZONTAL JOINTS SHALL BE STAGGERED WITH THOSE ON THE OPPOSITE SIDE. SCREWS FOR HORIZONTAL APPLICATION SHALL BE 8" O.C. AT VERTICAL EDGES AND 12" O.C. AT INTERMEDIATE STUDS.
- FOR LOCATION OF FIRE RATED WALLS AND SMOKE PARTITION WALLS SEE CODE COMPLIANCE PLAN.
- SEE DIMENSION FLOOR PLANS FOR WALL TYPES USED IN THIS PROJECT. SOME WALL TYPES MAY NOT BE USED IN THIS PROJECT.
- WHERE LEAD LINED WALLS ARE INDICATED ON THE DRAWINGS, USE 1/2" GYPSUM BOARD IN LIEU OF THE GAUGE OF STUDS CALLED OUT IN THE WALL TYPES.

Intermountain Healthcare  
 Intermountain Medical Center  
 Gamma Knife Scan Room Remodel  
 5121 Cottonwood St  
 Murray, UT 84107

NJRA Project # 19213.00  
Construction Documents May 21, 2019

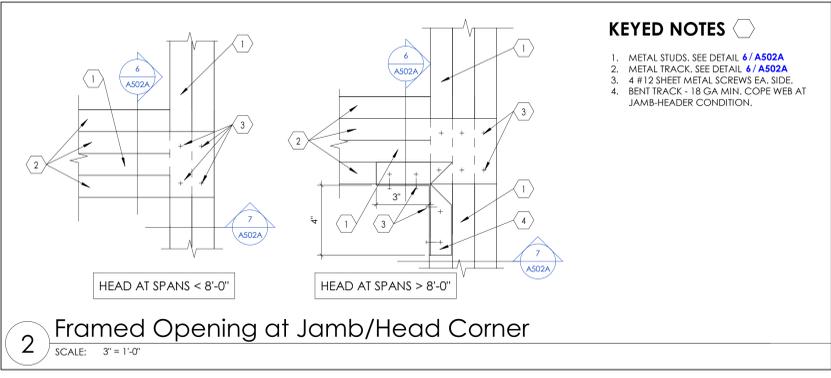
Wall Types

**A501A**



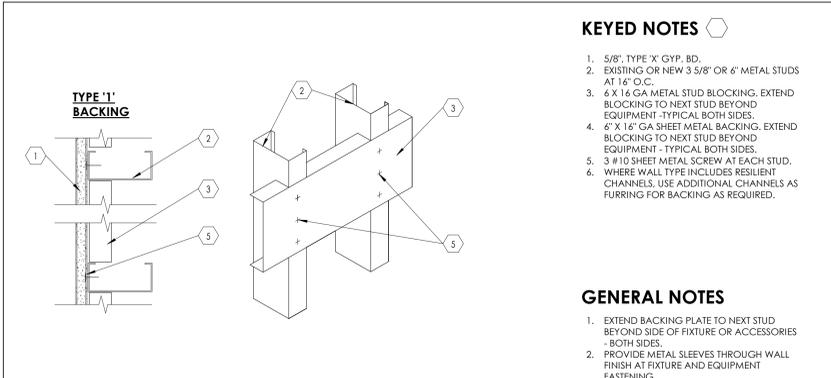
- KEYED NOTES**
- METAL STUDS, SEE DETAIL 4 / A502A
  - METAL TRACK, SEE DETAIL 4 / A502A
  - #12 SHEET METAL SCREWS EA. SIDE
  - BENT TRACK - 18 GA MIN. COPE WEB AT JAMB-SILL CONDITION.

1 Framed Opening at Jamb/Sill Corner  
SCALE: 3" = 1'-0"



- KEYED NOTES**
- METAL STUDS, SEE DETAIL 4 / A502A
  - METAL TRACK, SEE DETAIL 6 / A502A
  - #12 SHEET METAL SCREWS EA. SIDE
  - BENT TRACK - 18 GA MIN. COPE WEB AT JAMB-HEADER CONDITION.

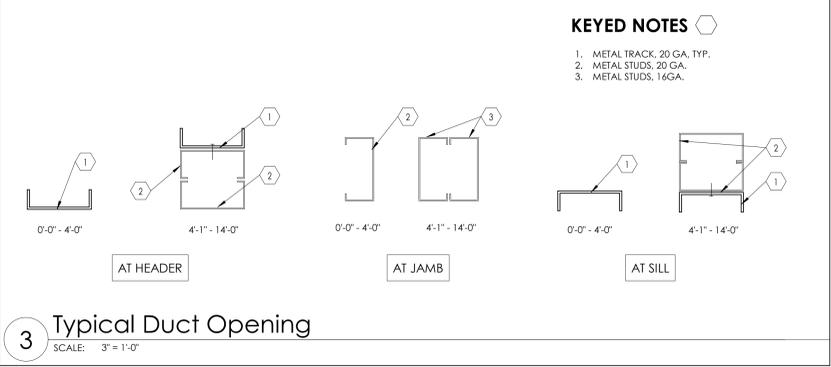
2 Framed Opening at Jamb/Head Corner  
SCALE: 3" = 1'-0"



- KEYED NOTES**
- 5/8" TYPE 'X' GYP. BD.
  - EXISTING OR NEW 3 5/8" OR 6" METAL STUDS AT 16" O.C.
  - 6 X 16 GA METAL STUD BLOCKING, EXTEND BLOCKING TO NEXT STUD BEYOND EQUIPMENT - TYPICAL BOTH SIDES.
  - 2" X 1/2" GYP. BOARD METAL BACKING, EXTEND BLOCKING TO NEXT STUD BEYOND EQUIPMENT - TYPICAL BOTH SIDES.
  - #10 SHEET METAL SCREW AT EACH STUD.
  - WHERE WALL TYPE INCLUDES RESILIENT CHANNELS, USE ADDITIONAL CHANNELS AS FURRING FOR BACKING AS REQUIRED.

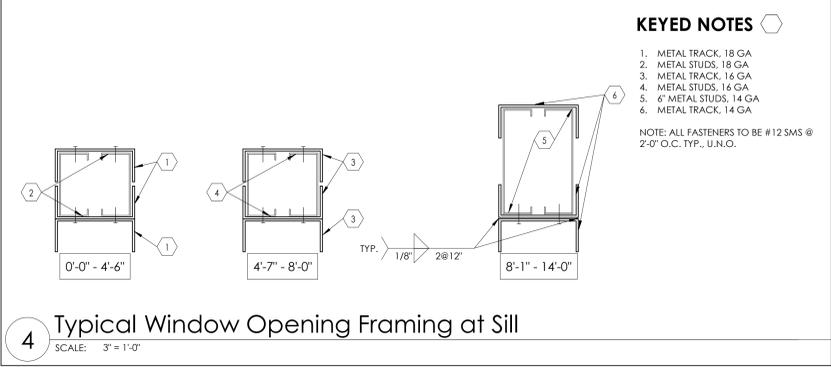
- GENERAL NOTES**
- EXTEND BACKING PLATE TO NEXT STUD BEYOND SIDE OF FIXTURE OR ACCESSORIES - BOTH SIDES.
  - PROVIDE METAL SLEEVES THROUGH WALL FINISH AT FIXTURE AND EQUIPMENT FASTENING.
  - FOR MECHANICAL WORK, ANCHORAGE SEE MECHANICAL DRAWINGS.

5 Backing Plate Schedule  
SCALE: 3" = 1'-0"



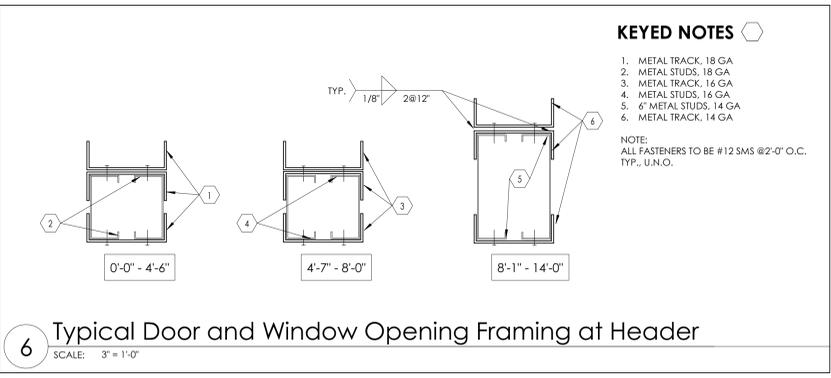
- KEYED NOTES**
- METAL TRACK, 20 GA. TYP.
  - METAL STUDS, 20 GA.
  - METAL STUDS, 16GA.

3 Typical Duct Opening  
SCALE: 3" = 1'-0"



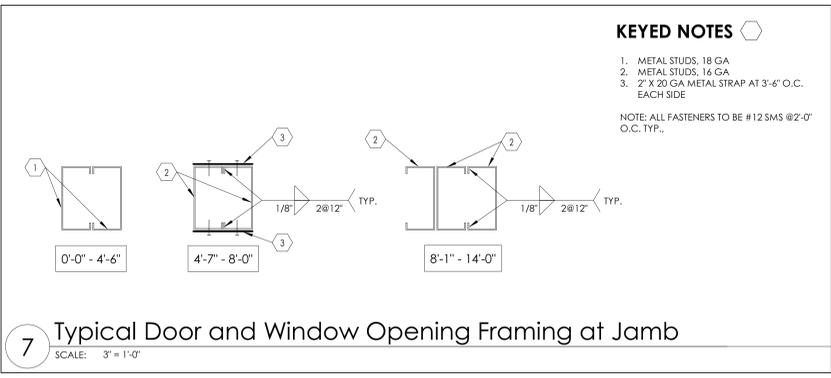
- KEYED NOTES**
- METAL TRACK, 18 GA
  - METAL STUDS, 18 GA
  - METAL TRACK, 16 GA
  - METAL STUDS, 16 GA
  - 6" METAL STUDS, 14 GA
  - METAL TRACK, 14 GA
- NOTE: ALL FASTENERS TO BE #12 SMS @ 2'-0" O.C. TYP., U.N.O.

4 Typical Window Opening Framing at Sill  
SCALE: 3" = 1'-0"



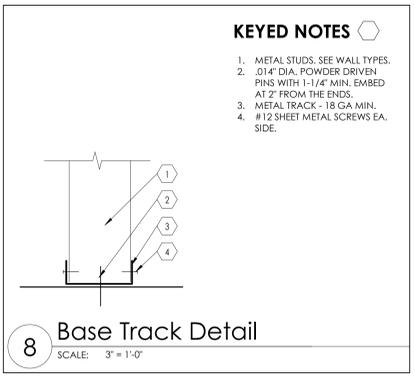
- KEYED NOTES**
- METAL TRACK, 18 GA
  - METAL STUDS, 18 GA
  - METAL TRACK, 16 GA
  - METAL STUDS, 16 GA
  - 6" METAL STUDS, 14 GA
  - METAL TRACK, 14 GA
- NOTE: ALL FASTENERS TO BE #12 SMS @ 2'-0" O.C. TYP., U.N.O.

6 Typical Door and Window Opening Framing at Header  
SCALE: 3" = 1'-0"



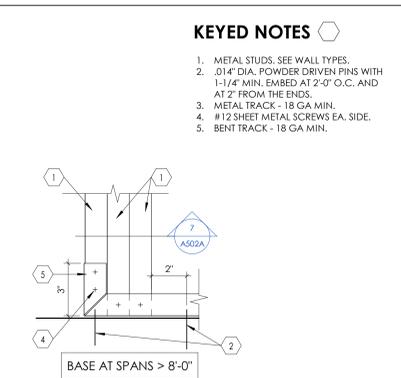
- KEYED NOTES**
- METAL STUDS, 18 GA
  - METAL STUDS, 16 GA
  - 2" X 20 GA METAL STRAP AT 3'-6" O.C. EACH SIDE
- NOTE: ALL FASTENERS TO BE #12 SMS @ 2'-0" O.C. TYP., U.N.O.

7 Typical Door and Window Opening Framing at Jamb  
SCALE: 3" = 1'-0"



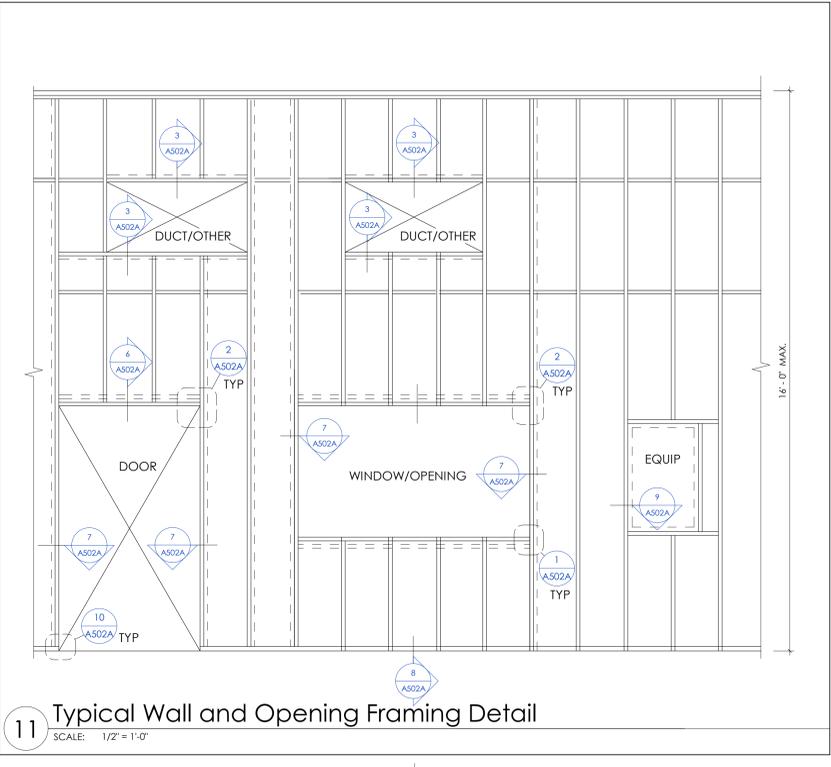
- KEYED NOTES**
- METAL STUDS, SEE WALL TYPES.
  - .014" DIA. POWDER DRIVEN PINS WITH 1-1/4" MIN. EMBED AT 2" FROM THE ENDS.
  - METAL TRACK - 18 GA MIN.
  - #12 SHEET METAL SCREWS EA. SIDE.

8 Base Track Detail  
SCALE: 3" = 1'-0"

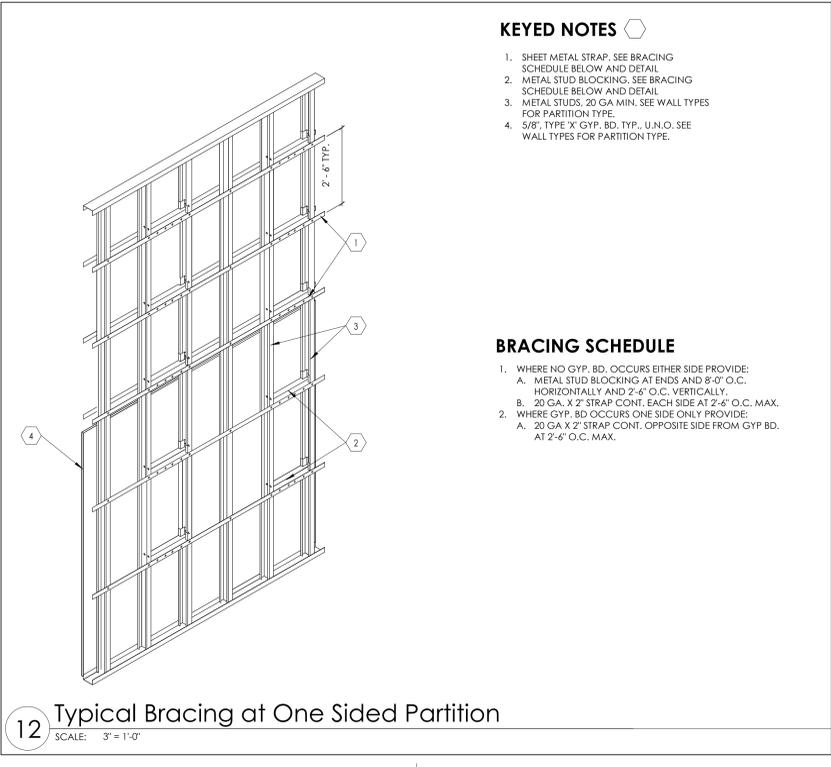


- KEYED NOTES**
- METAL STUDS, SEE WALL TYPES.
  - .014" DIA. POWDER DRIVEN PINS WITH 1-1/4" MIN. EMBED AT 2'-0" O.C. AND AT 2" FROM THE ENDS.
  - METAL TRACK - 18 GA MIN.
  - #12 SHEET METAL SCREWS EA. SIDE.
  - BENT TRACK - 18 GA MIN.

10 Framed Opening at Jamb  
SCALE: 3" = 1'-0"



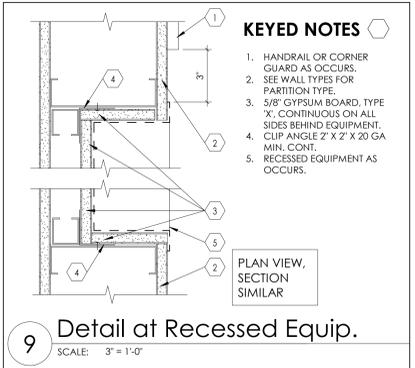
11 Typical Wall and Opening Framing Detail  
SCALE: 1/2" = 1'-0"



- KEYED NOTES**
- SHEET METAL STRAP, SEE BRACING SCHEDULE BELOW AND DETAIL
  - METAL STUD BLOCKING, SEE BRACING SCHEDULE BELOW AND DETAIL
  - METAL STUDS, 20 GA MIN. SEE WALL TYPES FOR PARTITION TYPE.
  - 5/8" TYPE 'X' GYP. BD. TYP., U.N.O. SEE WALL TYPES FOR PARTITION TYPE.

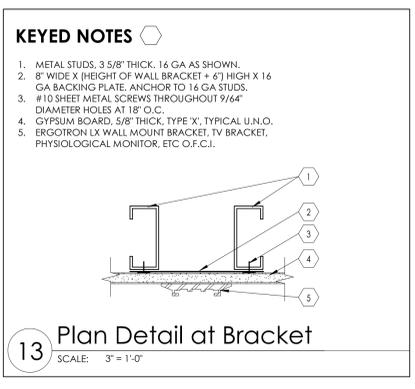
- BRACING SCHEDULE**
- WHERE NO GYP. BD. OCCURS EITHER SIDE PROVIDE:
    - METAL STUD BLOCKING AT ENDS AND 8'-0" O.C. HORIZONALLY AND 2'-6" O.C. VERTICALLY.
    - 20 GA. X 2" STRAP CONT. EACH SIDE AT 2'-6" O.C. MAX.
  - WHERE GYP. BD. OCCURS ONE SIDE ONLY PROVIDE:
    - 20 GA X 2" STRAP CONT. OPPOSITE SIDE FROM GYP BD. AT 2'-6" O.C. MAX.

12 Typical Bracing at One Sided Partition  
SCALE: 3" = 1'-0"



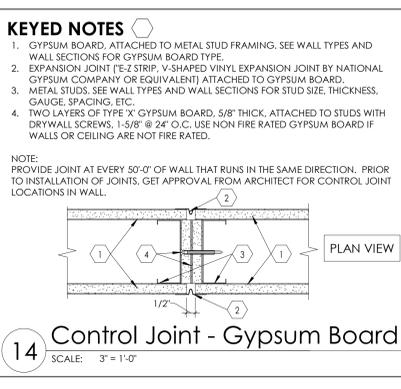
- KEYED NOTES**
- HANDRAIL OR CORNER GUARD AS OCCURS.
  - SEE WALL TYPES FOR PARTITION TYPE.
  - 5/8" GYPSUM BOARD, TYPE 'X', CONTINUOUS ON ALL SIDES BEHIND EQUIPMENT, CLIP ANGLE 2" X 2" X 20 GA MIN. CONT.
  - RECESSED EQUIPMENT AS OCCURS.
- PLAN VIEW, SECTION SIMILAR

9 Detail at Recessed Equip.  
SCALE: 3" = 1'-0"



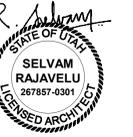
- KEYED NOTES**
- METAL STUDS, 3 5/8" THICK, 16 GA AS SHOWN.
  - 8" WIDE X (HEIGHT OF WALL BRACKET + 6") HIGH X 16 GA BACKING PLATE, ANCHOR TO 16 GA STUDS.
  - #10 SHEET METAL SCREWS THROUGHOUT 9/64" DIAMETER HOLES AT 18" O.C.
  - GYPSUM BOARD, 5/8" THICK, TYPE 'X', TYPICAL U.N.O.
  - ERGOTRON LX WALL MOUNT BRACKET, TV BRACKET, PHYSIOLOGICAL MONITOR, ETC O.F.C.I.

13 Plan Detail at Bracket  
SCALE: 3" = 1'-0"



- KEYED NOTES**
- GYPSUM BOARD, ATTACHED TO METAL STUD FRAMING, SEE WALL TYPES AND WALL SECTIONS FOR GYPSUM BOARD TYPE.
  - EXPANSION JOINT (E-Z STRIP, V-SHAPED VINYL EXPANSION JOINT BY NATIONAL GYPSUM COMPANY OR EQUIVALENT) ATTACHED TO GYPSUM BOARD.
  - METAL STUDS, SEE WALL TYPES AND WALL SECTIONS FOR STUD SIZE, THICKNESS, GAUGE, SPACING, ETC.
  - TWO LAYERS OF TYPE 'X' GYPSUM BOARD, 5/8" THICK, ATTACHED TO STUDS WITH DRYWALL SCREWS, 1-5/8" @ 24" O.C. USE NON FIRE RATED GYPSUM BOARD IF WALLS OR CEILING ARE NOT FIRE RATED.
- NOTE: PROVIDE JOINT AT EVERY 50'-0" OF WALL THAT RUNS IN THE SAME DIRECTION. PRIOR TO INSTALLATION OF JOINTS, GET APPROVAL FROM ARCHITECT FOR CONTROL JOINT LOCATIONS IN WALL.

14 Control Joint - Gypsum Board  
SCALE: 3" = 1'-0"



**KEYED NOTES**

1. EXPOSED CROSS GRID MEMBER @ 2'-0" O.C.
2. EXPOSED MAIN GRID MEMBER @ 4'-0" O.C.
3. HANGER WIRE 12 GA. @ 4'-0" O.C. MAX EACH WAY.
4. SEISMIC RESTRAINT. SEE DETAIL 7 / A503A
5. SLOTTED ANGLE SPACER.

NOTE:  
EXCEPT WHERE RIGID BRACES ARE USED TO LIMIT LATERAL DEFLECTIONS, SPRINKLER HEADS AND OTHER PENETRATIONS SHALL HAVE A 2" OVERSIZE RING, SLEEVE, OR ADAPTER THROUGH THE CEILING TO ALLOW FOR FREE MOVEMENT OF AT LEAST 1" IN ALL HORIZONTAL DIRECTIONS.

**1 Typical Acoustical Ceiling Suspension**  
SCALE: 1/8" = 1'-0"

**KEYED NOTES**

1. MAIN RUNNER 1 1/2" @ 4'-0" O.C.
2. FURRING CHANNEL @ 1'-4" O.C.
3. HANGER WIRE 8 GA. @ 4'-0" O.C. MAX EACH WAY
4. SEISMIC RESTRAINT. SEE DETAIL 8 / A503A

**2 Typical Gypsum Bd Ceiling Suspension**  
SCALE: 1/8" = 1'-0"

**KEYED NOTES**

1. CONCRETE OVER METAL DECK OR CONCRETE PAN & JOIST SYSTEM.
2. CONTINUOUS METAL PLATE 10 GA X 1'-4" WIDE WITH (2) 1/4" EXPANSION BOLTS.
3. LONG LEG TRACK 16 GA WITH (2) #12 S.M.S. @ 16" O.C.
4. METAL STUD 18 GA MIN. 3-5/8" @ 4'-0" O.C.
5. PL WASHER 1/8" X 3" X 3"

CONTRACTORS OPTION IN LIEU OF E.B. 1/8"

CONTRACTORS OPTION IN LIEU OF E.B. WHEN STUD IS BELOW DECK PLATE 1/8"

CONTRACTORS OPTION IN LIEU OF E.B. WHEN STUD IS BELOW DECK PLATE

**3 Typical Suspended Stud Attachment To Concrete Deck**  
SCALE: 3" = 1'-0"

**KEYED NOTES**

1. CLASS 1 ZINC COATED, SOFT TEMPERED WIRES, 12 GAUGE MIN.
2. PROVIDE 3/4" GAP BETWEEN CEILING GRID AND ANGLE ON TWO ADJACENT SIDES OF THE ROOM. DO NOT ATTACH CEILING GRID TO WALL ANGLE.
3. ATTACH CEILING GRID TO WALL ANGLE ON TWO ADJACENT SIDES OF THE ROOM (FIXED SIDES).
4. EXPOSED CROSS RUNNER ATTACHED TO MAIN RUNNERS.
5. ACOUSTICAL CEILING TILES. SEE CEILING PLANS.
6. 7/8" SUPPORTING CLOSURE ANGLE AT CEILING PERIMETER ATTACHED TO WALL.
7. EXPOSED MAIN RUNNER SHALL BE HEAVY DUTY T-BAR GRID SYSTEM SUSPENDED FROM STRUCTURE ABOVE. THIS END OF THE GRID SHALL REST UPON AND BE FREE TO SLIDE ON THE CLOSURE ANGLE.
8. LINE OF WALL.
9. SEISMIC CLIPS, BASIS OF DESIGN ARMSTRONG BERC 2 CLIPS IN LIEU OF 2" WALL ANGLE PER ICC-ESR 1308.

NOTE:  
EXCEPT WHERE RIGID BRACES ARE USED TO LIMIT LATERAL DEFLECTIONS, SPRINKLER HEADS AND OTHER PENETRATIONS SHALL HAVE A 2" OVERSIZE RING, SLEEVE, OR ADAPTER THROUGH THE CEILING TO ALLOW FOR FREE MOVEMENT OF AT LEAST 1" IN ALL HORIZONTAL DIRECTIONS.

**4 Ceiling Grid Detail**  
SCALE: 3" = 1'-0"

**KEYED NOTES**

1. LINE OF STRUCTURE ABOVE.
2. LINE OF WALL.
3. METAL STUD FRAMING (3-5/8" THICK, 18 GAUGE, METAL STUDS AT 16" O.C.) SUSPENDED FROM STRUCTURE ABOVE (OR WALL WHERE OCCURS). CROSS BRACE FRAMING AS REQUIRED FOR STRUCTURAL RIGIDITY.
4. ATTACH 5/8" THICK, TYPE 'X', GYPSUM BOARD TO METAL STUD FRAMING.

FIELD VERIFY

SEE CEILING PLAN

**5 Ceiling Detail**  
SCALE: 1 1/2" = 1'-0"

**KEYED NOTES**

1. METAL STUD FRAMING 3 5/8" X 18 GA STUDS, SUSPENDED FROM STRUCTURE ABOVE @ 16" O.C. SEE DETAIL 3 / A503A
- 3-5/8" X 18 GA MIL. STUD LATERAL (45 DEGREE) BRACING AT 4'-0" O.C. CONNECT TO STRUCTURE ABOVE.
3. SHEET METAL SCREWS (4) #10.
4. ACOUSTICAL CEILING PANEL. SEE REFLECTED CEILING PLANS.
5. PERIMETER ANGLE MOLDING. SEE DETAIL 4 / A503A
6. 5/8" TYPE 'X' GYPSUM BOARD, TYP.
7. 12 GA. HANGER WIRES, TYP.

**6 Gypsum Board Header**  
SCALE: 1 1/2" = 1'-0"

**KEYED NOTES**

1. RIGID HORIZONTAL RESTRAINT FROM CEILING GRID TO STRUCTURE ABOVE.
2. CLASS 1 ZINC COATED, SOFT TEMPERED WIRES, 12 GAUGE MIN.

NOTE:  
A. CEILING GRIDS IN ROOMS OR AREAS GREATER THAN 1,000 SQ. FT. SHALL HAVE A RIGID HORIZONTAL RESTRAINT FROM CEILING TO STRUCTURE ABOVE AT EVERY 144 SQ. FT.  
B. ALL SPLAYED WIRES SHALL BE AT 45 DEGREE ANGLES, 12 GAUGE AND GALVANIZED.  
C. WHEN CEILING AREA EXCEEDS 2,500 SQ. FT. PROVIDE SEISMIC SEPARATION JOINT APPROVED BY CEILING GRID MANUFACTURER AND ARCHITECT.

NOTE: EXCEPT WHERE RIGID BRACES ARE USED TO LIMIT LATERAL DEFLECTIONS, SPRINKLER HEADS AND OTHER PENETRATIONS SHALL HAVE A 2" OVERSIZE RING, SLEEVE, OR ADAPTER THROUGH THE CEILING TO ALLOW FOR FREE MOVEMENT OF AT LEAST 1" IN ALL HORIZONTAL DIRECTIONS.

**7 Ceiling Detail**  
SCALE: 1 1/2" = 1'-0"

**KEYED NOTES**

1. #12 SHEET METAL SCREWS
2. METAL CLIP 12 GA MIN X 3/4" W.
3. MACHINE BOLT 1/2" DIA. MIN.
4. ANGLE STRUT OR CHANNEL
5. METAL CLIP 1" W X 2" X 1/2 GA. MIN.
6. DIAGONAL HANGER WIRES 12 GA MIN. - 4 SIDES.
7. FURRING CHANNEL, 7/8" THICK, @ 1'-4" O.C. MAXIMUM.
8. METAL RUNNER CHANNELS, 1 1/2" THICK AT 48" O.C.
9. GYPSUM BOARD 5/8" THICK ATTACHED TO METAL FURRING CHANNEL.

2" MAX

2" MAX

1 1/8"

**8 Gypsum Board Ceiling Seismic Restraint Detail**  
SCALE: 1 1/2" = 1'-0"

**KEYED NOTES**

1. GYPSUM BOARD, 5/8" THICK (USE TYPE 'X' IF WALLS ARE FIRE RATED) ATTACHED TO METAL STUD FRAMING.
2. LINE OF WALL.
3. LINE OF CEILING AS OCCURS. SEE REFLECTED CEILING PLAN FOR CEILING TYPE.
4. METAL STUD FRAMING 3 5/8" THICK, 20 GAUGE STUDS, SUSPENDED FROM STRUCTURE ABOVE. STUDS SHALL BE AT 16" O.C.
5. LINE OF STRUCTURE ABOVE.

SEE REFLECTED CEILING PLAN FOR CEILING HEIGHT

SEE REFLECTED CEILING PLAN FOR SOFFIT HEIGHT

**9 Gypsum Board Soffit**  
SCALE: 1 1/2" = 1'-0"

**KEYED NOTES**

1. 4x15/16" EXPANSION SLEEVE, BASIS OF DESIGN: ARMSTRONG E54, COLOR: WHITE.
2. MAIN BEAM, BASIS OF DESIGN: ARMSTRONG PRELUDE 15/16" XL EXPOSED TEE SYSTEM.
3. SEISMIC SEPARATION JOINT CLIP, BASIS OF DESIGN: ARMSTRONG SJMR-4317.
4. SEISMIC SEPARATION JOINT CLIP, BASIS OF DESIGN: ARMSTRONG SJCG-521-1/2.
5. CROSS TEES, BASIS OF DESIGN: ARMSTRONG PRELUDE 15/16" XL EXPOSED TEE SYSTEM.

AT CROSS TEE

AT MAIN BEAM

**10 Seismic Separation Joint Clip Detail**  
SCALE: 1 1/2" = 1'-0"

**KEYED NOTES**

1. STEEL BEAM AS OCCURS.
2. STEEL JOIST AS OCCURS.
3. MECHANICAL DUCTS. SEE MECHANICAL DRAWINGS
4. LINE OF WALL
5. UNISTRUT P1000, 4" LONG SUSPENDED FROM STRUCTURE ABOVE
6. THREADED ROD, 5/8" THICK, PROVIDE NUTS, WASHERS, CLAMPS, ETC. AS REQUIRED FOR COMPLETE INSTALLATION.
7. UNISTRUT, P1000, CROSS BRACE TO STRUCTURE. PROVIDE NUTS WASHERS CLAMPS ETC. AS REQUIRED FOR COMPLETE INSTALLATION.
8. UNISTRUT, P1001 @ 2'-0" O.C. SUSPENDED FROM STRUCTURE ABOVE
9. LIGHT FIXTURE SUSPENDED FROM UNISTRUT ONLY. DO NOT HANG FIXTURES FROM DUCTS.
10. CEILING SEE ROP FOR HEIGHT. SUSPEND CEILING GRID FROM UNISTRUT ONLY. CONTRACTOR SHALL NOT SUSPEND LIGHTS, GRIDS, ETC. FROM DUCTS.

NOTE:  
CONTRACTOR SHALL PROVIDE UNISTRUTS AS INDICATED IN THIS DETAIL WHEREVER DUCT INTERFERES WITH CEILING SUSPENSION SYSTEM.

**11 Suspended Ceiling Trapeze Detail**  
SCALE: 1/2" = 1'-0"

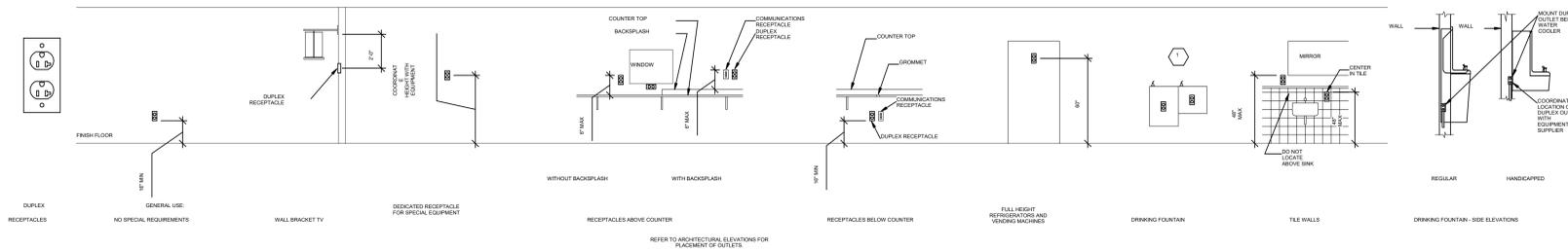
**KEYED NOTES**

1. CLASS 1 ZINC COATED, SOFT TEMPERED WIRES, 12 GAUGE MIN.
2. EXPOSED CROSS RUNNER ATTACHED TO MAIN RUNNERS.
3. ACOUSTICAL CEILING TILES. SEE CEILING PLANS.
4. EXPOSED MAIN RUNNER. SUSPENDED FROM STRUCTURE ABOVE.
5. 4" FINISHED SUSPENSION TRIM, BY CEILING SUPPLIER.
6. INTERSECTION TEE ATTACHMENT CLIP.
7. TRIM COLOR SHALL MATCH GRID COLOR.

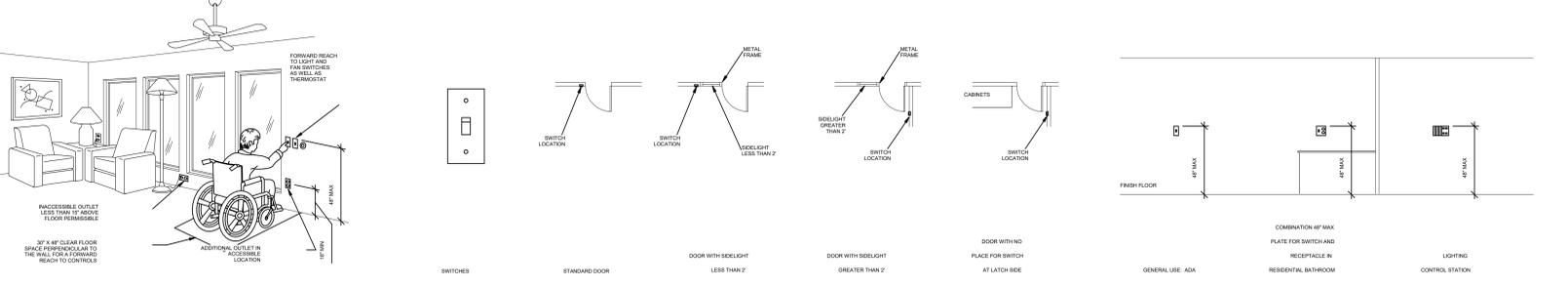
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**12 Ceiling Trim Detail**  
SCALE: N.T.S.



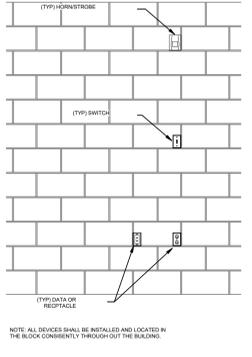


**E1 RECEPTACLE MOUNTING DETAILS**  
SCALE: NTS



**E2 ADA DETAIL**  
SCALE: NTS

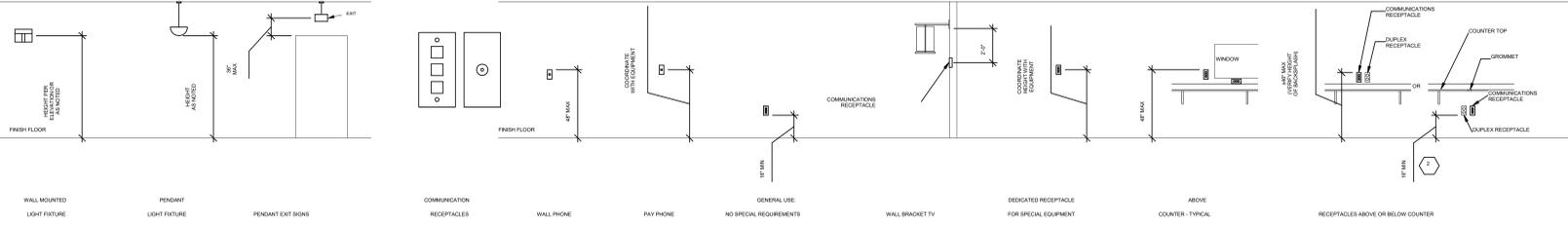
**D3 SWITCH MOUNTING DETAILS**  
SCALE: NTS



**C1 CMU DEVICE MOUNTING ALIGNMENT DETAIL**  
SCALE: NTS

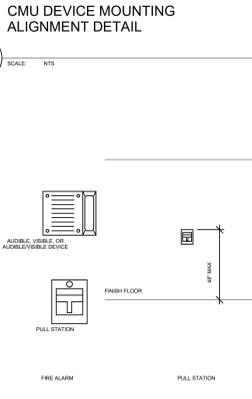
**C2 LIGHTING MOUNTING DETAILS**  
SCALE: NTS

**C3 COMMUNICATIONS MOUNTING DETAILS**  
SCALE: NTS



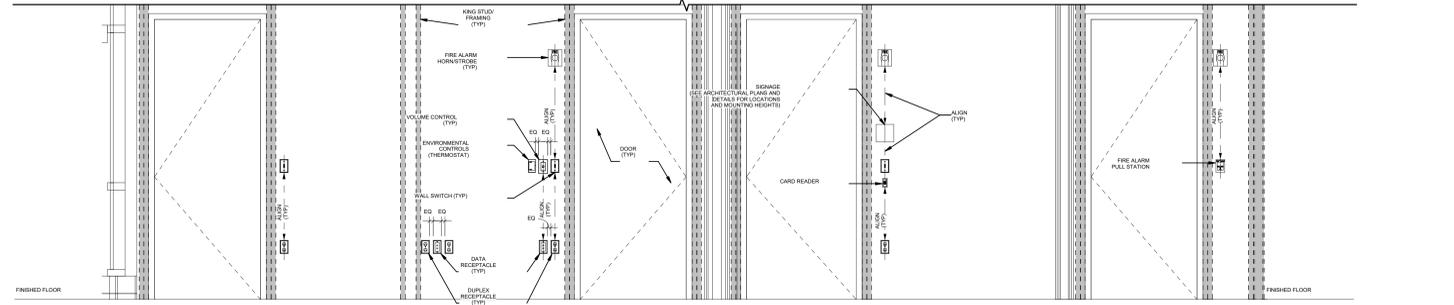
**C2 LIGHTING MOUNTING DETAILS**  
SCALE: NTS

**C3 COMMUNICATIONS MOUNTING DETAILS**  
SCALE: NTS



**B1 FIRE ALARM MOUNTING DETAILS**  
SCALE: NTS

**A2 TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL**  
SCALE: NTS



**A1 BOX MOUNTING DETAILS**  
SCALE: NTS

**GENERAL SHEET NOTES**

1. 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.
2. LOCATE RECEPTABLES 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 RECEPTABLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTABLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.
4. MOUNT RECEPTABLE BOXES FOR SWITCHES AND RECEPTABLES 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.
7. 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**

1. LOCATE RECEPTABLES BEHIND DRINKING FOUNTAINS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
3. 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.
5. 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.



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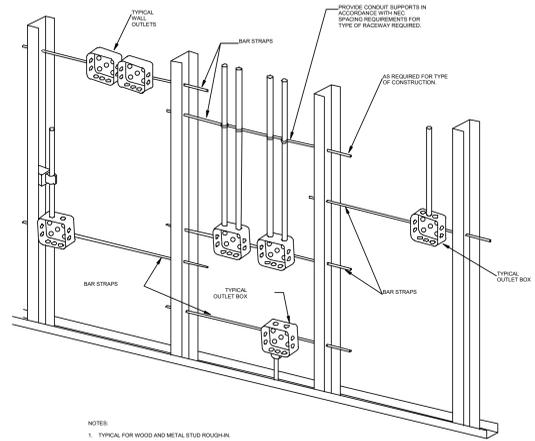
Intermountain Healthcare  
Intermountain Medical Center  
Gamma Knife Scan Room Remodel

NJRA Project # 192130  
Construction Documents May 10, 2019

TYPICAL MOUNTING HEIGHT DETAILS

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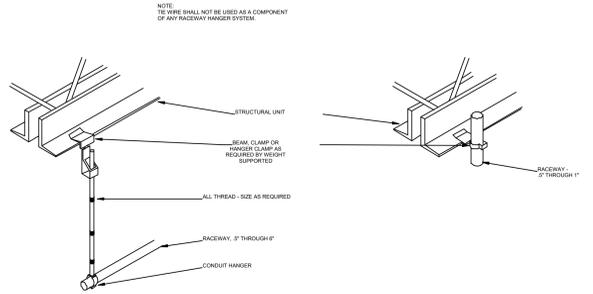


- NOTES:
1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
  2. PLASTER FINISH NOT SHOWN.
  3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.
  4. IN ACCORDANCE WITH NEC 74.3.2 EXCEPTION 1, OUTLETS ON OPPOSITE SIDES OF WALL OR PARTITIONS IN THE SAME STUD SPACE SHALL BE SEPARATED BY A MINIMUM OF 6" HORIZONTAL DISTANCE. FOR LISTED BOXES AND THE RATED PUTTY SHALL BE USED ON THE OUTLET BOXES.
  5. IN UNRATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 12" FOR SOUND ATTENUATION.

**TYPICAL ROUGH-IN REQUIREMENTS DETAIL**

B1

SCALE: NTS



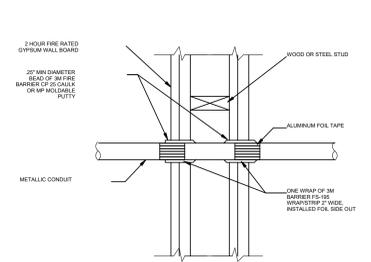
NOTE: THE WIRE SHALL NOT BE USED AS A COMPONENT OF ANY RACEWAY HANGER SYSTEM.



**TYPICAL RACEWAY SUPPORT METHODS DETAIL**

B2

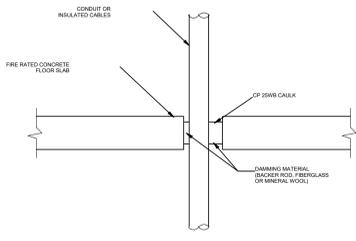
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**FIRE STOP FOR METAL CONDUIT THROUGH GYPSUM WALL BOARD**

A1

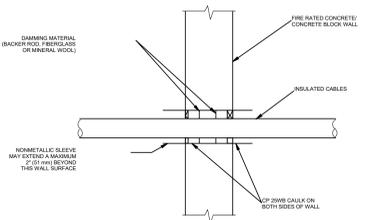
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**TYPICAL FIRE STOP FOR CABLES/CONDUIT THROUGH CONCRETE FLOORING**

A2

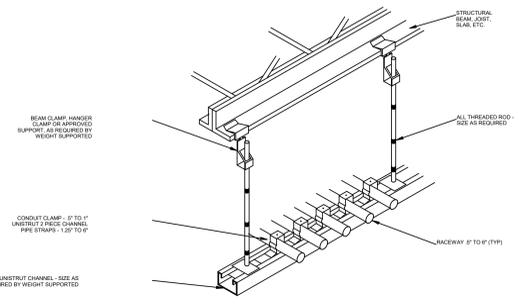
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**TYPICAL FIRE STOP FOR CABLES/CONDUIT THROUGH CONCRETE WALLS**

A3

SCALE: NTS



**TYPICAL CONDUIT RACK DETAIL**

A4

SCALE: NTS

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www.elekta.com

PROJECT NAME AND ADDRESS  
INTERMOUNTAIN MEDICAL CENTER  
5121 COTTONWOOD ST  
MURRAY, UT 84107

No.	Revision/Issue	Date
2	Revised with new CAD background, relocated MDR, CCTV camera & exit-stair light, & updated floor box location. (CDW)	04/24/19
1	Updated location, vault dimensions, & control room location. (JAB)	03/22/19

DRAWN BY: J. Blackwell  
CHECKED BY:  
PRELIMINARY COMPLETE

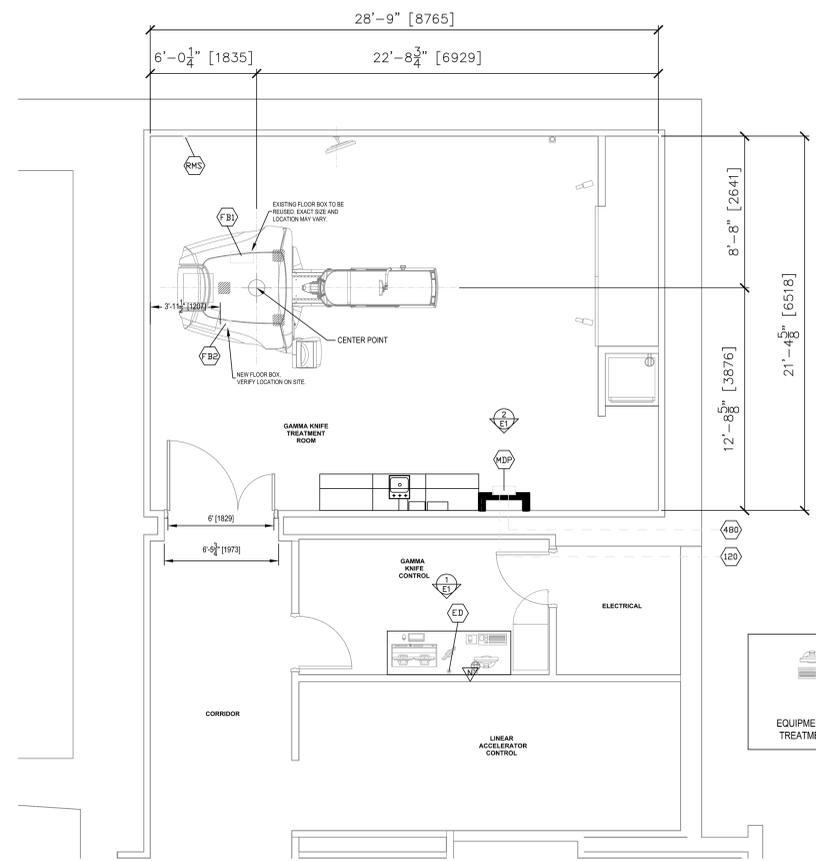
PROJECT NUMBER: LGK18015  
QUOTATION NUMBER: Icon Upgrade  
QUOTATION DATE: Icon Upgrade

CUSTOMER APPROVAL:  
ELEKTA APPROVAL:  
DATE:

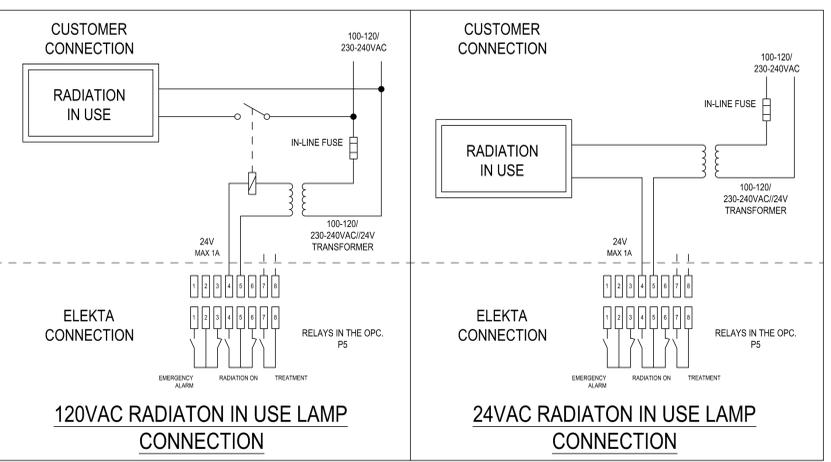
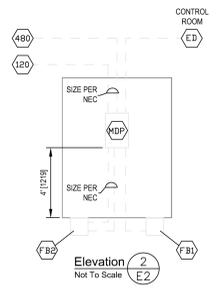
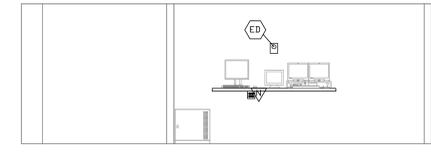
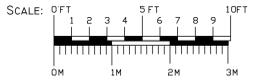
PROJECT: Intermountain MC  
FINALS COMPLETE: January 28, 2019  
SCALE: 1/4" = 1' - 0"  
SHEET: E2  
Electrical Plan  
(Sheet 4 of 4)

ROW NO.	CONDUIT FROM	CONDUIT TO	CONDUIT QUANTITY	CONDUIT SIZE	CONDUIT LENGTH	SPECIAL REQUIREMENTS
C 1	MDP	ED	1	3/4"	N/A	SHUNT TRIP CIRCUIT
C 2	MDP	ED	1	PER NEC	PER NEC	120VAC SINGLE PHASE POWER, 20A MAX. SEE SHEET E1 FOR DETAILS.
C 3	MDP	FB2	1	PER NEC	PER NEC	120VAC POWER FOR MAIN ELECTRONICS CABINET
C 4	MDP	4B0	1	PER NEC	PER NEC	480VAC 3 PH + G POWER, 30A MAX. SEE SHEET E1 FOR DETAILS.
C 5	MDP	FB2	1	PER NEC	PER NEC	480VAC POWER FOR IMAGING SYSTEM USE SHIELDED CABLE.
C 6	MDP	FB1	1	1/2"	N/A	CABLE CHASE FOR HELPER RELAY. SEE SHEET E1 FOR DETAILS.
A 7	FB1	RMS	1	3/4"	-	CONDUIT FOR SYSTEM SECURITY MONITOR

ITEM SYMBOL	DESCRIPTION
ED	EXISTING 12"W x 12"L x 12"D FLOOR JUNCTION BOX, FLUSH MOUNTED WITH FINISH FLOOR. EXACT SIZE AND LOCATION MAY VARY.
FB2	8"W x 8"L x 8"D FLOOR JUNCTION BOX, FLUSH MOUNTED WITH FINISH FLOOR.
1B0	120VAC SINGLE PHASE POWER, 20A MAX. USED FOR MAIN ELECTRONICS CABINET. SEE SHEET E1 FOR DETAILS.
4B0	480VAC 3 PH + G POWER, 30A MAX. USED FOR IMAGING SYSTEM. SEE SHEET E1 FOR DETAILS.
MDP	NOVA AUTOMATION MAIN DISCONNECT PANEL, CONTAINS 30A CIRCUIT BREAKER, 50A CONTACTOR, & RELAY, FLUSH OR SEMI-FLUSH MOUNTED.
ED	PUSH BUTTON FOR SHUNT TRIP CIRCUIT BREAKER OF 120VAC & 480VAC POWER. LOCATED IN CONTROL ROOM.
RMS	SINGLE GANG BOX FLUSH MOUNTED FOR CUSTOMER'S REMOTE MONITORING SYSTEM SECURITY BOX. LOCATED ON WALL 60" A.F.F.
TV	NETWORK, FULLY FUNCTIONAL RJ45B OUTLET 10/100/1000 BASE T SYSTEM
B	120VAC QUADPLEX CONVENIENCE OUTLET. LOCATE 48" A.F.F. UNLESS NOTED OTHERWISE.
B	120VAC DUPLEX CONVENIENCE OUTLET.



Electrical Plan - Icon Upgrade  
Intermountain Medical Center  
Salt Lake City, UT - Rev. 04.24.2019  
MINIMUM FINISH CEILING HEIGHT: 8'-9"



PROJECT: LGK18015

Intermountain Healthcare  
Intermountain Medical Center  
Gamma Knife Scan Room Remodel

ELEKTA DRAWINGS

EE702



LINACC TOTAL BODY

LINACC

GAMMA KNIFE

GAMMA VEST.

GAMMA CONTROL

ELEC. CLOSET

LINACC CONTROL

PATIENT TOILET

HOLDING

NURSE WORK

HOLDING

CORRIDOR

GENERAL SHEET NOTES

- 1 ALL RECEPTACLES LOCATED WITHIN 6" OF THE EDGE OF A SINK SHALL BE GFCI PROTECTED.
- 2 PROVIDE DEDICATED NEUTRALS FOR ALL BRANCH CIRCUITS.
- 3 PROVIDE NEW TYPED PANEL SCHEDULES FOR ALL PANELS AFFECTED BY CONSTRUCTION.
- 4 REFER TO ELEKTA DRAWINGS ON EE700 SERIES SHEETS FOR ADDITIONAL CONTRACTOR RESPONSIBILITIES.
- 5 ALL CIRCUITING TO BE INSTALLED IN EMT CONDUIT. MINIMUM SIZE 3/4".

SHEET KEYNOTES

- 1 NEW MAIN DISCONNECT PANEL FOR GAMMA KNIFE EQUIPMENT. PROVIDE NOVA AUTOMATION FLUSH MOUNTED DISCONNECT PANEL WITH 30A/3P CIRCUIT BREAKER, 50A CONTACTOR AND RELAY. RUN 480V AND 120V FEEDER CIRCUITS ABOVE CEILING AND DROP DOWN THE NEW CHASE TO MDP.
- 2 PROVIDE 20 AMP 120V/1P CIRCUIT FOR NEW GAMMA KNIFE EQUIPMENT. USE #12 AWG CONDUCTORS, #12 AWG INSULATED GROUND AND .75" CONDUIT. ALSO RUN POWER CONDUIT AND WIRING FROM MDP TO FLOOR BOX #2.
- 3 PROVIDE NEW EMERGENCY POWER OFF BUTTON IN GAMMA KNIFE CONTROL ROOM. RUN .75" CONDUIT FROM EPO SWITCH ABOVE THE CEILING TO MDP. CONNECT WIRING TO SHUNT TRIP BREAKERS IN MDP.
- 4 RELOCATE EXISTING CAMERA ALONG WITH ALL REQUIRED BOXES AND CABLING TO THE NEW LOCATION SHOWN ON THE ELEKTA DRAWINGS. EXTENT CABLING AS REQUIRED.
- 5 PROVIDE .5" FLEX CONDUIT FROM NEW FLOOR BOX #2 TO EXISTING FLOOR BOX #1 ABOVE GROUND, BUT CONCEALED WITHIN EQUIPMENT. THIS WILL BE USED FOR CONTROL CABLING.
- 6 PROVIDE NEW 8" X 8" X 8" FLOOR BOX MOUNTED FLUSH WITH THE FLOOR. PROVIDE TWO BARRIERS IN THE BOX TO SEPARATE THE THREE DIFFERENT VOLTAGES. RUN ONE 1.5" CONDUIT, ONE .75" CONDUIT AND ONE .5" CONDUIT FROM FLOOR BOX #2 TO THE NEAREST WALL, UP TO THE CEILING, OVER TO NEW MDP CHASE AND BACK DOWN TO MDP.



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Intermountain Healthcare  
Intermountain Medical Center  
Gamma Knife Scan Room Remodel

5107 Coltonwood Dr  
Murphy, NJ 08848

NJRA Project # 1901500  
Construction Documents May 16, 2019

LEVEL 1  
POWER PLAN

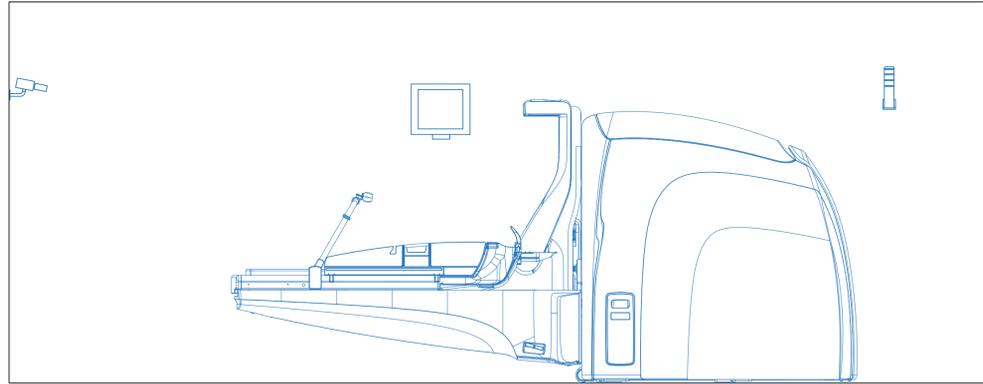
EP101

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A1 LEVEL 1 POWER PLAN  
SCALE: 3/8" = 1'-0"

# ELEKTA, INC.

## LEKSELL GAMMA KNIFE<sup>®</sup> PERFEXION<sup>™</sup> ICON UPGRADE



Prepared For:

### INTERMOUNTAIN MEDICAL CENTER MURRAY, UTAH

INDEX OF DRAWINGS	
Sheet	Description
C1(1)	Cover Sheet / Contents
A1(2)	Equipment Plan
E1(3)	Electrical System Diagram
E2(4)	Electrical Plan / Conduit Schedule



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PROJECT NAME AND ADDRESS  
INTERMOUNTAIN MEDICAL CENTER  
5121 COTTONWOOD ST  
MURRAY, UT 84107

No.	Revision/Issue	Date
2	Revised architectural sheets A1 & E2. (CDW)	04/24/19
1	Revised architectural sheets A1 & E2. Added sheets A1a & E2a. (JAB)	03/22/19

DRAWN BY  
J. Blackwell

CHECKED BY

PRELIMINARY COMPLETE

PROJECT NUMBER  
LGK18015

QUOTATION NUMBER  
Icon Upgrade

QUOTATION DATE  
Icon Upgrade

CUSTOMER APPROVAL

ELEKTA APPROVAL

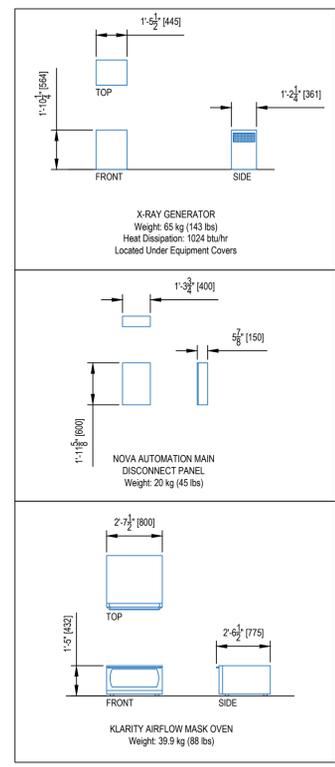
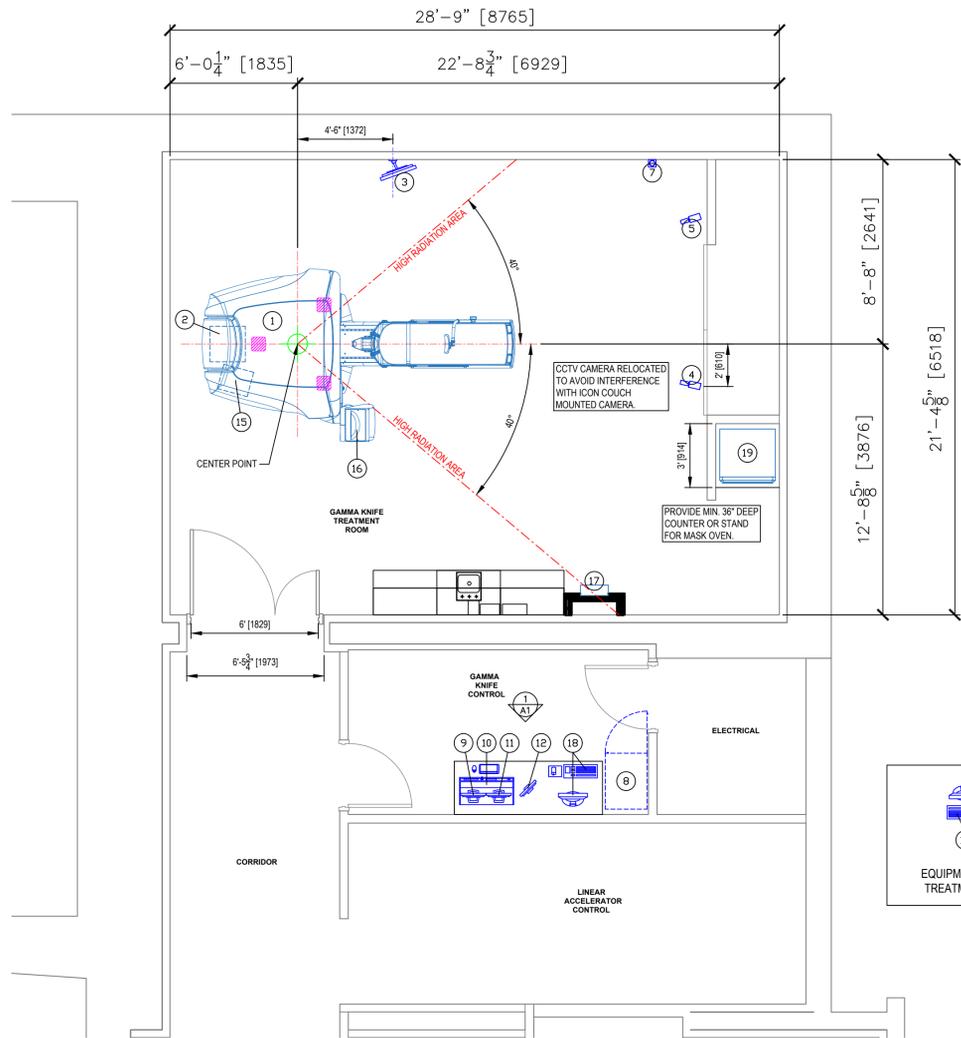
DATE

PROJECT  
Intermountain MC

FINALS COMPLETE  
January 28, 2019

SCALE  
NONE

SHEET  
**C1**  
Cover Sheet  
(Sheet 1 of 4)



EQUIPMENT LEGEND			
ITEM NUMBER	DESCRIPTION	WEIGHT (LBS)	HEAT LOAD (BTU/Hr)
E 1	GAMMA KNIFE (INCLUDES IMAGING UNIT, PATIENT POSITIONING SYSTEM, MEDICAL CABINET, & COVERS)	42300	-
E 2	MEDICAL CABINET (see above)	N/A	-
E 3	TREATMENT ROOM MONITOR	12	-
E 4	CCTV CAMERA	2	-
E 5	CCTV CAMERA	N/A	N/A
E 6	RADIATION MONITOR	N/A	N/A
E 7	UNIT STATUS INDICATOR LAMP	2	-
E 8	OFFICE CABINET (MAIN SYSTEM CABINET)	154	-
E 9	CCTV MONITOR	8	-
E 10	OPERATOR CONSOLE	19	-
E 11	CPU MONITOR	18	-
E 12	CCTV MONITOR	N/A	N/A
E 13	GAMMA PLAN WORKSTATION	64	500
E 14	PRINTER	19	-
<b>ICON UPGRADE COMPONENTS</b>			
A 15	XVI GENERATOR	143	1024 AI
A 16	GANTRY ARM	-	-
D 17	MAIN DISCONNECT PANEL	45	- AI
A 18	ADDITIONAL GAMMA PLAN WORKSTATION	64	500
F 19	KLARITY AIRFLOW MASK OVEN	88	-

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No.	Revision/Issue	Date
2	Revised with new CAD background & relocated IMPR CCTV cameras & unit status light (COW)	04/24/19
1	Updated scanner location, vault dimensions & control room location. (JAB)	03/22/19

**GENERAL SPECIFICATIONS**

**1- RESPONSIBILITY**  
 THE CUSTOMER SHALL BE SOLELY RESPONSIBLE, AT ITS EXPENSE FOR PREPARATION OF SITE, INCLUDING ANY REQUIRED STRUCTURAL ALTERATIONS. THE SITE PREPARATION SHALL BE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS APPROVED BY ELEKTA AS BEING SUITABLE FOR THE EQUIPMENT AND IN COMPLIANCE WITH ALL SAFETY ELECTRICAL AND BUILDING CODES RELEVANT TO THE EQUIPMENT AND ITS INSTALLATION. SUFFICIENCY OF SUCH PLANS AND SPECIFICATIONS, SPECIFICALLY INCLUDING, BUT NOT LIMITED TO THE ACCURACY OF THE DIMENSIONS DESCRIBED THEREIN, SHALL BE THE SOLE RESPONSIBILITY OF CUSTOMER. THE CUSTOMER SHALL ADVISE ELEKTA OF CONDITIONS AT OR NEAR THE SITE WHICH COULD ADVERSELY AFFECT THE CARRYING OUT OF THE INSTALLATION WORK AND SHALL ENSURE THAT SUCH CONDITIONS ARE CORRECTED AND THAT THE SITE IS FULLY PREPARED AND AVAILABLE TO ELEKTA BEFORE THE INSTALLATION WORK IS DUE TO BEGIN. THE CUSTOMER SHALL PROVIDE ALL NECESSARY PLUMBING, CARPENTRY WORK, OR CONDUIT WIRING REQUIRED TO ATTACH AND INSTALL PRODUCTS READY FOR USE.

**2- PERMITS**  
 CUSTOMER SHALL OBTAIN ALL PERMITS AND LICENSES REQUIRED BY FEDERAL, STATE OR LOCAL AUTHORITIES IN CONNECTION WITH THE CONSTRUCTION, INSTALLATION AND OPERATION OF THE PRODUCTS AND SHALL BEAR ANY EXPENSE IN OBTAINING SAME OR IN COMPLYING WITH ANY RELATED RULES, REGULATIONS, ORDINANCES AND STATUTES.

**3- RADIATION PROTECTION**  
 THE CUSTOMER OR HIS CONTRACTOR, AT HIS OWN EXPENSE, SHALL OBTAIN THE SERVICE OF A LICENSED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

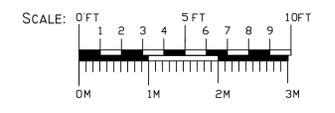
**4- ASBESTOS AND OTHER TOXIC SUBSTANCES**  
 ELEKTA ASSUMES NO HAZARDOUS WASTE (I.E., PCB'S IN EXISTING TRANSFORMERS) EXISTS AT THE SITE. IF ANY HAZARDOUS MATERIAL IS FOUND, IT SHALL BE THE SOLE RESPONSIBILITY OF THE CUSTOMER TO PROPERLY REMOVE AND DISPOSE OF THIS MATERIAL AT ITS EXPENSE. ANY DELAYS CAUSED IN THE PROJECT FOR THIS SPECIAL HANDLING SHALL RESULT IN ELEKTA'S TIME PERIOD FOR COMPLETION BEING EXTENDED BY LIKE PERIOD OF TIME. ELEKTA ASSUMES THAT NO ASBESTOS MATERIAL IS INVOLVED IN THIS PROJECT IN ANY CEILINGS, WALLS OR FLOORS. IF ANY ASBESTOS MATERIAL IS FOUND ANYWHERE ON THE SITE, IT SHALL BE THE CUSTOMER'S SOLE RESPONSIBILITY TO PROPERLY REMOVE AND/OR MAKE SAFE THIS CONDITION, AT THE CUSTOMER'S SOLE EXPENSE.

**5- LABOR**  
 IN THE EVENT LOCAL LABOR CONDITIONS MAKE IT IMPOSSIBLE OR UNDESIRABLE TO USE ELEKTA'S REGULAR EMPLOYEES FOR SUCH INSTALLATION AND CONNECTION, SUCH WORK SHALL BE PERFORMED BY LABORERS SUPPLIED BY THE CUSTOMER, OR BY AN INDEPENDENT CONTRACTOR CHOSEN BY THE CUSTOMER AT THE CUSTOMER'S EXPENSE, AND IN SUCH CASE, ELEKTA AGREES TO FURNISH ADEQUATE ENGINEERING SUPERVISION FOR PROPER COMPLETION OF THE INSTALLATION.

**6- SCHEDULE**  
 THE GENERAL CONTRACTOR SHOULD PROVIDE ELEKTA WITH A SCHEDULE OF WORK TO ASSIST IN THE COORDINATION OF DELIVERY OF ELEKTA'S SUPPLIED PRODUCTS WHICH ARE TO BE INSTALLED BY THE CONTRACTOR AND DELIVERY OF THE PRIMARY EQUIPMENT.

**7- EXTENDED INSTALLATION OR TURNKEY WORK BY ELEKTA**  
 ANY ROOM PREPARATION REQUIREMENTS FOR ELEKTA EQUIPMENT INDICATED ON THESE DRAWINGS IS THE RESPONSIBILITY OF THE CUSTOMER. IF AN EXTENDED INSTALLATION OR TURNKEY CONTRACT EXISTS BETWEEN ELEKTA AND THE CUSTOMER FOR ROOM PREPARATION WORK REQUIRED BY THE EQUIPMENT REPRESENTED ON THESE DRAWINGS, SOME OF THE RESPONSIBILITIES OF THE CUSTOMER AS DEPICTED IN THESE DRAWINGS MAY BE ASSUMED BY ELEKTA IN THE EVENT OF A CONFLICT BETWEEN THE WORK DESCRIBED IN THE TURNKEY CONTRACT WORKSCOPE AND THESE DRAWINGS. THE TURNKEY CONTRACT WORKSCOPE SHALL GOVERN.

**Equipment Layout - Icon Upgrade**  
 Intermountain Medical Center  
 Salt Lake City, UT - Rev. 04.24.2019  
 MINIMUM FINISH CEILING HEIGHT: 8'-9"

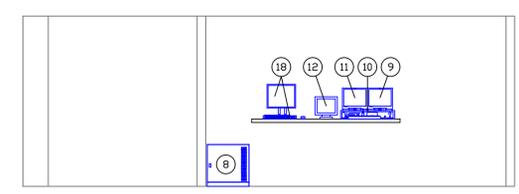


	SPECIFICATIONS OF THE REQUIRED AIR CONDITIONING		
	TREATMENT ROOM	CONTROL ROOM	PLANNING ROOM
TEMPERATURE RANGE	50° - 104°F See (1) Below	50° - 104°F See (1) Below	50° - 104°F See (1) Below
HUMIDITY RANGE	30 - 55%	30 - 55%	30 - 55%
HEAT OUTPUT OF EQUIPMENT IN TREATMENT ROOM	3412 Btu/hr 1kW	3412 Btu/hr 1kW	3412 Btu/hr 1kW

(1) ElektA recommends a temperature range of 72°F to 79°F for operator/patient comfort.

The temperature and humidity in the treatment room should be kept as close as possible to the recommended ranges above, even when not in use. The HVAC system must be capable of maintaining environmental specifications in the event of a power failure.

ELECTRICAL DATA	
GAMMA KNIFE UNIT POWER REQUIREMENTS:	900VA 100 - 120VAC +/-10%, 50/60Hz, T12A250V
SUPPLY CONFIGURATION:	120VAC MAINS WITH 20A CIRCUIT BREAKER. A SEPARATE MECHANICAL DISCONNECT SWITCH MUST ALSO BE INSTALLED.
OUTPUT:	24VDC AND 49VDC
IMAGING SYSTEM UNIT POWER REQUIREMENTS:	480VAC 3PH +G, 30A THERMOMAGNETIC CIRCUIT BREAKER, 50A RELAY WITH A 24VDC CONTACTOR



Elevation 1  
 Not To Scale A1

DRAWN BY: J. Blackwell

CHECKED BY:

PRELIMINARY COMPLETE

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QUOTATION NUMBER: Icon Upgrade

QUOTATION DATE: Icon Upgrade

CUSTOMER APPROVAL:

ELEKTA APPROVAL:

DATE:

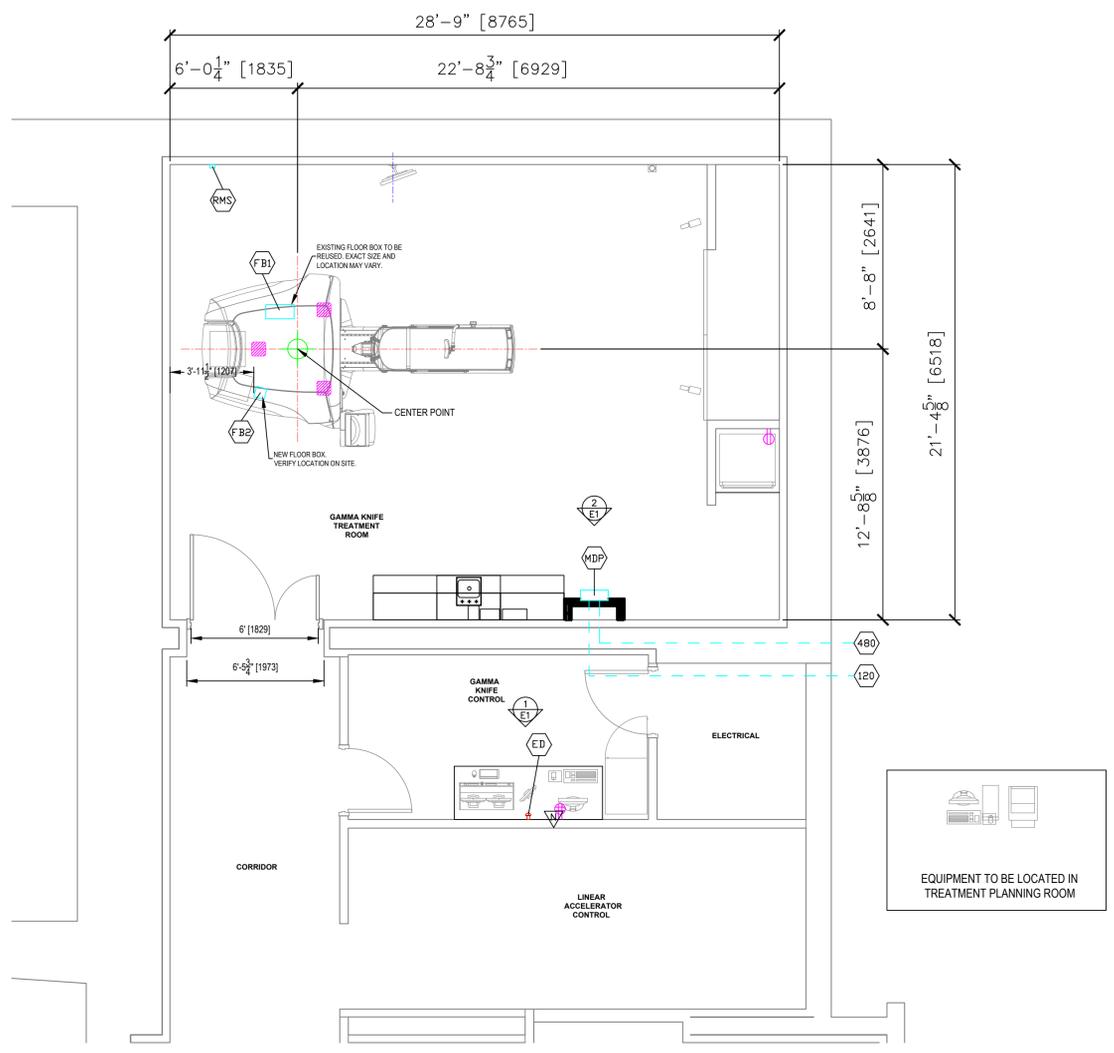
PROJECT: Intermountain MC  
 FINALS COMPLETE: January 28, 2019

SHEET: A1  
 Equipment Plan (Sheet 2 of 4)

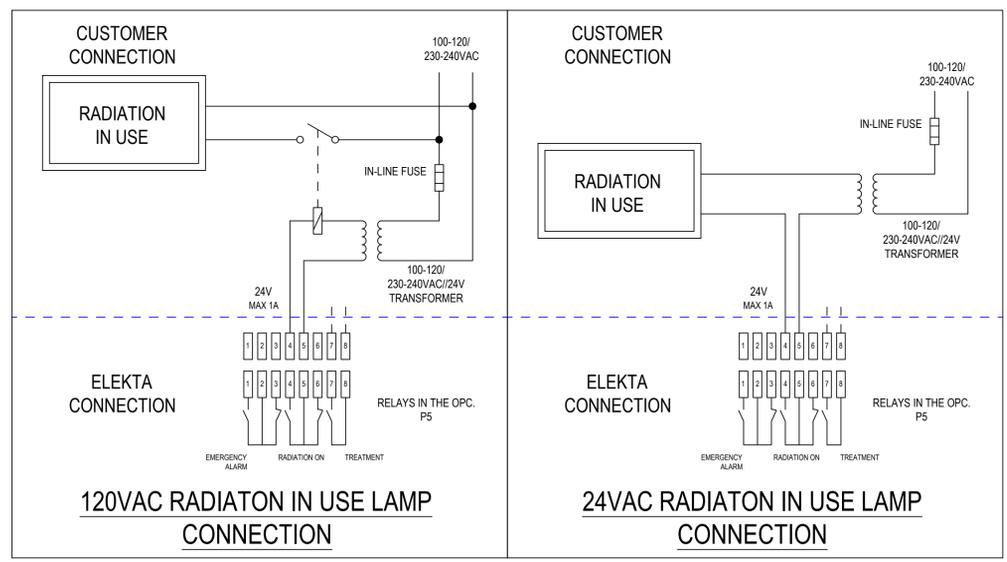
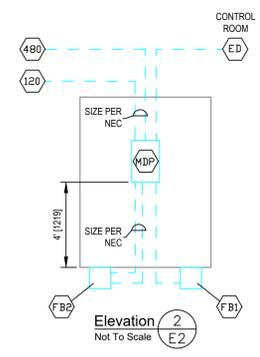
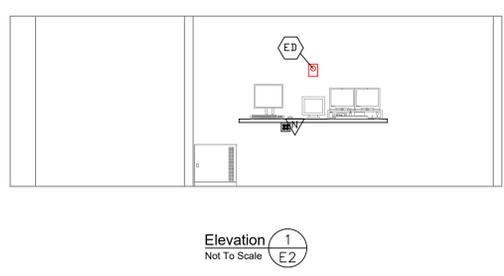
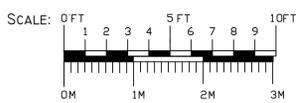
PROJECT: LGK18015

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**Electrical Plan - Icon Upgrade**  
 Intermountain Medical Center  
 Salt Lake City, UT - Rev. 04.24.2019  
 MINIMUM FINISH CEILING HEIGHT: 8'-9"



**CONDUITS REQUIRED**

GENERAL NOTES  
 1. ALL CONDUIT RUNS MUST TAKE MOST DIRECT ROUTE, POINT TO POINT  
 2. ALL CONDUIT RUNS MUST HAVE A PULL STRING

CONDUIT RUN NO.	FROM	TO	CONDUIT QUANTITY	CONDUIT SIZE	MAXIMUM CONDUIT LENGTH	SPECIAL REQUIREMENTS
C 1	MDP	ED	1	3/4"	N/A	SHUNT TRIP CIRCUIT
C 2	MDP	120	1	PER NEC	PER NEC	120VAC SINGLE PHASE POWER, 20A MAX. SEE SHEET E1 FOR DETAILS.
C 3	MDP	F B2	1	PER NEC	PER NEC	120VAC POWER FOR MAIN ELECTRONICS CABINET
C 4	MDP	480	1	PER NEC	PER NEC	480VAC 3 PH + G POWER, 30A MAX. SEE SHEET E1 FOR DETAILS.
C 5	MDP	F B2	1	PER NEC	PER NEC	480VAC POWER FOR IMAGING SYSTEM. USE SHIELDED CABLES.
C 6	MDP	F B1	1	1/2"	N/A	CABLE CHAP FOR HELPER RELAY. SEE SHEET E1 FOR DETAILS.
A 7	F B1	RMS	1	3/4"	-	CONDUIT FOR SYSTEM SECURITY MONITOR

**ELECTRICAL LEGEND**

GENERAL NOTES  
 BOX SIZES AND TYPE ARE TO BE DETERMINED BY CUSTOMER'S ELECTRICAL CONTRACTOR USING LOCAL & NEC CODES AS REQUIRED

ITEM SYMBOL	DESCRIPTION
(F B1)	EXISTING 12"W x 12"L x 12"D FLOOR JUNCTION BOX, FLUSH MOUNTED WITH FINISH FLOOR. EXACT SIZE AND LOCATION MAY VARY.
(F B2)	8"W x 8"L x 8"D FLOOR JUNCTION BOX, FLUSH MOUNTED WITH FINISH FLOOR.
(120)	120VAC SINGLE PHASE POWER, 20A MAX. USED FOR MAIN ELECTRONICS CABINET. SEE SHEET E1 FOR DETAILS.
(480)	480VAC 3 PH + G POWER, 30A MAX. USED FOR IMAGING SYSTEM. SEE SHEET E1 FOR DETAILS.
(MDP)	NOVA AUTOMATION MAIN DISCONNECT PANEL. CONTAINS 30A CIRCUIT BREAKER, 50A CONTACTOR, & RELAY. FLUSH OR SEMI-FLUSH MOUNTED.
(ED)	PUSH BUTTON FOR SHUNT TRIP CIRCUIT BREAKER OF 120VAC & 480VAC POWER. LOCATED IN CONTROL ROOM.
(RMS)	SINGLE GANG BOX FLUSH MOUNTED FOR CUSTOMER'S REMOTE MONITORING SYSTEM SECURITY BOX. LOCATED ON WALL 60" A.F.F.
(V)	NETWORK, FULLY FUNCTIONAL RJ45B OUTLET 10/100/1000 BASE T SYSTEM
(B)	120VAC QUADPLEX CONVENIENCE OUTLET. LOCATE 48" A.F.F. UNLESS NOTED OTHERWISE
(B)	120VAC DUPLEX CONVENIENCE OUTLET.

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1	Updated isocenter location, vault dimensions, & control room location. (JAB)	03/22/19

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 ELEKTA APPROVAL  
 DATE

PROJECT  
 Intermountain MC  
 FINALS COMPLETE  
 January 28, 2019  
 SCALE  
 1/4" = 1' - 0"

SHEET  
**E2**  
 Electrical Plan  
 (Sheet 4 of 4)