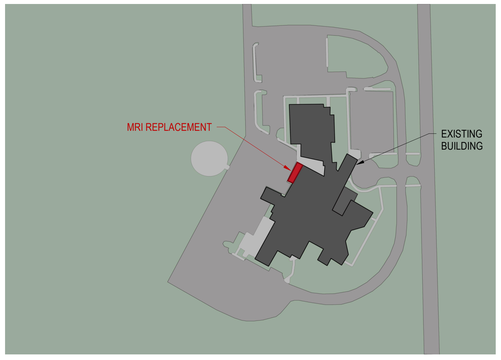
Bear River Valley Hospital - MRI Replacement

CONSTRUCTION DOCUMENTS

SITE MAP



VICINITY MAP

PROJECT TEAM

PROJECT ARCHITECT
FFKR ARCHITECTS
730 PACIFIC AVE S
SALT LAKE CITY, UT 84104
801-521-6186

STATE OF UTAH
CHRISTINA LOUISE HAAS
No. 8364715-0301
06/06/2025
LICENSED ARCHITECT

STRUCTURAL ENGINEER
STRUCTURAL DESIGN STUDIO
2225 E. MURRAY HOLLADAY RD., SUITE 110
SALT LAKE CITY, UT 84117
801-274-3950

PROFESSIONAL STRUCTURAL ENGINEER
JESSICA J SHARP
No. 7102977
STATE OF UTAH
06/06/2025

MECHANICAL ENGINEER
RESOLUT
181 EAST 5600 SOUTH
MURRAY, UT 84107
801-530-3148

PROFESSIONAL ENGINEER
SCOT E. MUIR
8055925-2202
STATE OF UTAH

ELECTRICAL ENGINEER
SPECTRUM ENGINEERS
324 S STATE ST, SUITE 400
SALT LAKE CITY, UT 84111
801-328-5151

PROFESSIONAL ENGINEER
No. 11783731-2202
JASON R. WORTHEN
STATE OF UTAH
06/06/2025

BIDDING ALTERNATES

ALTERNATE	DESCRIPTION	BASE BID	ALTERNATE BID	SELECTION
ALTERNATE 1	REMOVE AND REPLACE CEILING. ALTERNATE LAYOUT INCLUDES GYPSUM SOFFIT IN ADDITION TO CEILING TILE.	REMOVE AND REPLACE CEILING. NEW LAYOUT INCLUDES CEILING TILE ONLY; SEE C1/A101.	REMOVE AND REPLACE CEILING. NEW LAYOUT INCLUDES GYPSUM SOFFIT IN ADDITION TO CEILING TILE; SEE C4/A101.	*TBD*

DRAWING INDEX

SHEET NO.	SHEET NAME
GENERAL	
G000	COVER SHEET
G001	SYMBOLS AND ABBREVIATIONS
G100	LIFE SAFETY PLAN
STRUCTURAL	
S001	GENERAL STRUCTURAL NOTES + SPECIAL INSPECTION
S101	STRUCTURAL PLAN + DETAILS
ARCHITECTURAL	
AD101	DEMO PLANS & RCP
AD102	DEMO ELEVATIONS - MRI
AD103	DEMO ELEVATIONS- EQUIPMENT ROOM
A101	FLOOR PLAN & CEILING PLAN
A301	SECTIONS
A401	INTERIOR ELEVATIONS - MRI
A402	INTERIOR ELEVATIONS EQUIPMENT ROOM
A501	DETAILS
A502	DETAILS
A800	MILLWORK DETAILS
AF101	FINISH PLAN & SCHEDULES
MECHANICAL	
M001	MECH SYMBOLS NOTES
M090	MECHANICAL ZONING PLAN
M101	MECHANICAL PLANS
M201	MECHANICAL PIPING PLAN
M501	MECHANICAL DETAILS
M502	MECHANICAL DETAILS
M601	MECHANICAL SCHEDULES
PLUMBING	
P101	PLUMBING PLANS
P201	MED GAS PLANS
F101	FIRE PROTECTION PLAN
ELECTRICAL	
EP601	ONE-LINE DIAGRAM
EE001	ELECTRICAL COVER SHEET
EE002	SYMBOLS LEGEND
EE003	TELECOM SCHEDULES AND NOTES
EE501	ELECTRICAL DETAILS
EE701	TYPICAL MOUNTING DETAILS
ED101	ELECTRICAL DEMOLITION PLAN
EP100	LEVEL 1 OVERALL POWER PLAN
EP101	LEVEL 1 POWER PLAN
EP552	TELECOM DETAILS
EP651	TELECOM RISER DIAGRAMS
EP700	VENDOR DRAWINGS
EP701	VENDOR DRAWINGS
EL601	LIGHTING FIXTURE SCHEDULES
EY101	LEVEL 1 AUXILIARY PLAN

FFKR ARCHITECTS
730 Pacific Avenue • Salt Lake City, Utah 84104
O 801.521.6186 • FFKR.COM

Intermountain Health

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337

PROJECT NUMBER:
25018

ABBREVIATIONS

A	MEDICAL AIR OUTLET
A/C	AIR CONDITIONING UNIT
ADA	AMERICANS WITH DISABILITIES ACT
ADAAG	ADA ACCESSIBILITY GUIDELINES
ACH	AIR CHANGES PER HOUR
AFF	ABOVE FINISH FLOOR
AHA	AMERICAN HOSPITAL ASSOCIATION
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
ALG	ALIGN
ALT	ALTERNATE
AII	AIRBORNE INFECTION ISOLATION
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH	ARCHITECT
ASHE	AMERICAN SOCIETY OF HEALLTHCARE ENGINEERING
BD	BOARD
BLDG	BUILDING
B.O.	BOTTOM OF
BSL	BIOSAFETY LEVEL
CDC	CENTERS FOR DISEASE CONTROL AND PREVENTION
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CFR	CODE OF FEDERAL REGULATIONS
CG	CORNER GUARD
CI	CONTINUOUS INSULATION
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR
CMGC	CONSTRUCTION MANAGER GENERAL CONTRACTOR
CMS	CENTERS FOR MEDICARE AND MEDICAID SERVICES
CMU	CONCRETE MASONRY UNIT
CNTRL	CONTROL
C.O.	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CORR	CORRIDOR
CT	COMPUTERIZED TOMOGRAPHY
CT	CERAMIC TILE
DEMO	DEMOLISH / DEMOLITION
DF	DRINKING FOUNTIAN
DHHS	DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DWG	DRAWING
EA	EACH
EC	ENVIRONMENT OF CARE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EOC	ENVIRONMENT OF CARE
EOS	EDGE OF SLAB
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPS	EXPANDED POLYSTYRENE
EQ	EQUAL
EQUIP	EQUIPMENT
ESR	ENVIRONMENTAL SERVICES ROOM
EVS	ENVIRONMENTAL SERVICES
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FGI	FACILITY GUIDELINES INSTITUTE
FIN	FINISH
FLR	FLOOR
FND	FOUNDATION
FO	FIBER OPTICS
FOW	FACE OF WALL
FT	FEET
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GYP	GYPSUM
HEIC	HOSPITAL EPIDEMIOLOGY / INFECTION CONTROL
HEPA	HIGH EFFICIENCY PARTICULATE AIR
HIPPA	HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT
HM	HOLLOW METAL
H.P.	HIGH POINT
HT	HEIGHT
HOR	HORIZONTAL
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
HWS	HAND WASHING STATION
IBC	INTERNATIONAL BUILDING CODE
ICRA	INFECTION CONTROL RISK ASSESMENT
ICU	INTENSIVE CARE UNIT
ID	INSIDE DIAMETER
INFO	INFORMATION
INT	INTERIOR
LAV	LAVATORY
LBS	POUNDS
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MRI	MAGNETIC RESONANCE IMAGING
MSDS	MATERIAL SAFETY DATA SHEET
N/A	NOT APPLICABLE
NCID	NATIONAL CENTER FOR INFECTIOUS DISEASES
NEC	NATIONAL ELECTRICAL CODE
NEG.	NEGATIVE
NIC	NOT IN CONTRACT
NICU	NEONATAL INTENSIVE CARE UNIT
NIH	NATIONAL INSTITUTE OF HEALTH
NIOSH	NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
NOM	NOMINAL
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
O, O2	OXYGEN
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFD	OVERFLOW DRAIN
OFOI	OWNER FURNISHED OWNER INSTALLED
OFVI	OWNER FURNISHED VENDOR INSTALLED
OPP	OPPOSITE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PE	PROTECTIVE ENVIRONMENT
PLAM	PLASTIC LAMINATE
PLUMB	PLUMBING
PPE	PERSONAL PROTECTIVE EQUIPMENT
PR	PAIR
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
PSRA	PERSONAL SAFETY RISK ASSESSMENT
PT	PATIENT
PVC	POLYVINYL CHLORIDE
RAD	RADIUS
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFRIGERATOR
REV	REVISION
RF	RADIO FREQUENCY
RO	REVERSE OSMOSIS
R.O.	ROUGH OPENING
RM	ROOM
RTU	ROOF TOP UNIT
S	SMOKE DETECTOR
SD	STORM DRAIN
SCH'D	SCHEDULED
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FEET
SFRM	SPRAY APPLIED FIRE RESISTIVE MATERIAL
SIM	SIMILAR
SMS	SHEET METAL SCREW
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STRUCT	STRUCTURAL
T	TREAD
TDR	TECHNOLOGY DISTRIBUTION ROOM
TEC	TECHNOLOGY EQUIPMENT CENTER
TEL	TELEPHONE
TEMP	TEMPORARY
TLT	TOILET
T.O.	TOP OF
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY
U.N.O.	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTABLE POWER SUPPLY
UV	ULTRAVIOLET
UVGI	ULTRAVIOLET GERMICIDAL IRRADIATION
V	VACUUM
VAV	VARIABLE AIR VENTILATION
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
WD	WOOD
W/O	WITH OUT
WR	WATER RESISTANT
WRB	WEATHER RESISTANT BARRIER
XPS	EXTRUDED POLYSTYRENE

MATERIAL LEGEND

- GYPSUM BOARD SURFACE
- CONCRETE
- METAL STUD WALL
- DRAINAGE FILL
- COMPACTED FILL AND/OR EARTH
- CMU
- BATT INSULATION
- RIGID INSULATION
- PLYWOOD

SYMBOLS LEGEND

ROOM IDENTIFICATION NUMBER — ROOM NAME / NUM

DOOR TAG — XXX

REFERENCE NOTE — XX.XX

EQUIPMENT TAG — XXX#####

WINDOW TAG — X

GLAZING TAG — X

PARTITION /WALL TAG — XX

FLOOR TAG — F-#

ROOF TAG — R-#

INTERIOR ELEVATION — A1 / A4 XXX A2 / A3

BUILDING SECTION

WALL SECTION

EXTERIOR ELEVATION

DETAIL

DETAIL TITLE — A1 DETAIL, SCALE:

REVISION DELTA — 2

FINISH TAG — PNT-1

REFERENCE NOTES

GENERAL NOTES

1. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH ALL PORTIONS OF THE DRAWINGS, SPECIFICATIONS, ADDENDA AND CHANGE ORDERS THAT PERTAIN TO THEIR WORK. THEY SHALL BE HELD RESPONSIBLE FOR ADHERING TO THOSE REQUIREMENTS AND SHALL NOT PREPARE ANY BIDS FROM PARTIAL SETS.
2. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND SITE CONDITIONS AND SHALL REPORT ANY INCONSISTENCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
3. CODES GOVERNING THIS WORK ARE INDICATED ON THE CODE COMPLIANCE PLAN DRAWINGS. WHERE THE CONTRACT DOCUMENTS EXCEED (WITHOUT VIOLATING) CODE AND REGULATION REQUIREMENTS, CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE. WHERE CODES CONFLICT, THE MORE STRINGENT SHALL APPLY.
4. ALL WORK SHALL COMPLY STRICTLY WITH THE INTERNATIONAL BUILDING CODE, LATEST ADOPTED EDITION, AND ALL LOCAL CODES AND ORDINANCES.
5. ALL WORK SHALL COMPLY WITH THE LATEST "AMERICAN WITH DISABILITIES ACT GUIDELINES"
6. ALL NUTS, BOLTS & MISCELLANEOUS METAL EXPOSED TO WEATHER SHALL BE GALVANIZED UNLESS NOTED OTHERWISE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER LOCATION AND SIZE OF OPENINGS FOR ALL TRADES AND SHALL COORDINATE ALL CONSTRUCTION AS INDICATED BY THE CONSTRUCTION DOCUMENTS, INCLUDING SHOP DRAWINGS REVIEWED BY THE ARCHITECT.
8. ALL DIMENSIONS ARE SHOWN TO FACE OF FINISH OF EXISTING CONSTRUCTION & FACE OF FINISH OF WALL FOR NEW CONSTRUCTION, UNLESS NOTED OTHERWISE.
9. ALL DRAWINGS, THOUGH NOTED TO SCALE ARE FOR ILLUSTRATION ONLY. THE CONTRACTOR SHALL NOT SCALE DRAWINGS, UNLESS APPROVED BY ARCHITECT.
10. WHEN A DETAIL IS IDENTIFIED AS TYPICAL, THE CONTRACTOR IS TO APPLY THIS DETAIL IN ESTIMATING AND CONSTRUCTION TO EVERY LIKE CONDITION WHETHER OR NOT THE REFERENCE IS REPEATED IN EVERY INSTANCE.
11. ALL PENETRATIONS INTO SOUND OR FIRE RATED PARTITIONS, FLOORS OR CEILING ASSEMBLIES SHALL BE SEALED WITH APPROVED PERMANENT RESILIENT SEALANT. FOR OPENINGS, LESS THAN 16 SQUARE INCHES, THE SPACE BETWEEN THE WALL AND THE ALLOWED PENETRATION MUST BE SEALED TO PREVENT THE MOVEMENT OF HOT FLAME OR GASSES. ELECTRICAL DEVICES, RECESSED CABINETS, ETC. SHALL BE SEALED, LINED, INSULATED OR OTHERWISE TREATED TO MAINTAIN THE INTEGRITY OF THE ASSEMBLY.
12. DRAWINGS HAVE BEEN DETAILED IN COMPLIANCE WITH U.L. LISTING REQUIREMENTS AND ICBO REPORTS FOR THE MATERIALS SPECIFIED. IF ANY ALTERNATE OR SUBSTITUTED MATERIAL IS ACCEPTED AS AN EQUAL BY THE GENERAL CONTRACTOR, THE CONTRACTOR WILL ASSUME THE RESPONSIBILITY FOR WHATEVER CONSTRUCTION MODIFICATION AND/OR ADDITIONAL COSTS ARE REQUIRED BY REASON OF THIS ACCEPTANCE.
13. ALL TRASH SHALL BE REMOVED DAILY. BUILDING MATERIALS MAY NOT BE STORED IN THE CORRIDORS AT ANY TIME.
14. THE CONTRACTOR SHALL VERIFY SIZES AND LOCATIONS OF WATER AND DRAIN INSTALLATIONS AND OTHER REQUIRED SERVICES WITH EQUIPMENT MANUFACTURERS.
15. ABBREVIATIONS THROUGHOUT THE PLAN ARE THOSE IN COMMON USE. THE ARCHITECT SHALL DEFINE THE INTENT OF ANY IN QUESTION.
16. INTERIOR FINISH SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
17. INSTALL METAL CORNER BEADS AT ALL EXPOSED WALLBOARD EDGES. INSTALL CASING BEADS WHEREVER WALLBOARD, PLASTER, ETC. ABUTS A DISSIMILAR FINISH MATERIAL. PROVIDE SEALANT AS REQUIRED. ALL DOOR SIZES SHOWN ON DOOR SYMBOLS ARE OPENING SIZES. ALLOWANCE FOR THRESHOLDS, ETC. SHOULD BE CONSIDERED. ALL DOORS AND FRAMES SHALL BE REINFORCED WHERE REQUIRED FOR CLOSERS, STOPS AND HARDWARE.
18. ALL WOOD TRIMS, SPACERS, FILLER, ETC. THROUGHOUT THE JOB SHALL BE FIRE RETARDANT PRESSURE-TREATED, AS PER I.B.C.
19. ELEVATIONS ARE WITH RESPECT TO FINISH FLOOR ELEVATION. VERIFY FINISH FLOOR HEIGHT.
20. CONTRACTOR SHALL REVIEW ALL DRAWINGS BEFORE COMMENCEMENT OF WORK. IF THERE IS ANY DISCREPANCY BETWEEN TWO DRAWINGS CONTRACTOR SHALL CONTACT THE ARCHITECT IMMEDIATELY.
21. FINISH GRADE SHALL SLOPE AWAY FROM THE BUILDING AT ¼" PER FOOT FOR A MINIMUM DISTANCE OF 3'-0".
22. CONTRACTOR SHALL TAKE WHATEVER PROCEDURES ARE NECESSARY TO PREVENT EROSION DAMAGE ON OR OFF THE SITE AND SHALL REPAIR ANY DAMAGE RESULTING FROM THIS WORK AT NO COST TO THE OWNER.

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · FFKR.COM

Intermountain Health

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents

STATE OF UTAH
CHRISTINA LOUISE HAAS
No. 8364715-0301
06/06/2025
LICENSED ARCHITECT

△	DATE	REVISION

PROJECT NUMBER 24023

SYMBOLS AND ABBREVIATIONS

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BASIC IBC 2021 CODE ANALYSIS

APPLICABLE CODES			
International Building Code (IBC)	2021	International Energy Conservation Code (IECC)	2021
International Mechanical Code (IMC)	2021	National Electrical Code (NEC)	2020
International Plumbing Code (IPC)	2021	International Existing Building Code	2021
International Fire Code (IFC)	2021	ADA Accessibility Guidelines (ADAAG)	2010
NFPA 101 Life Safety Code (Federal)	2012	ICC / ANSI A117.1	2017
NFPA 101 Life Safety Code (State)	2018	Utah Administrative Code	2018
NFPA 99 Health Care Facilities Code	2018	FGI Health Care Guidelines	2010

PROJECT DESCRIPTION	
EXPANSION SCOPE OF WORK: This project will include the installation of new equipment in the MRI Scan Room and adjacent Equipment Room. New millwork and finishes will be installed. Selective demolition will be required for these changes.	EXISTING BUILDING: The original building was designed in 2007, and has both B occupancy and I-2 occupancy. The MRI suite was added to the existing building, and was constructed in 2012. The existing MRI is located in the I-2 occupancy. Elements pertaining to the existing I-2 code requirements shall be maintained and not altered.

This project is for an equipment addition and relocation.
There will be no change to the Building Area, Building Height, Occupancy Classification or Function.

BUILDING OCCUPANCY		*IBC Section 508*
Occupancy Group	I-2 (existing)	
Change in Use	No	

CONSTRUCTION TYPE		*IBC Section 602 & Table 601*
Construction Type	I-B (existing)	

BUILDING AREA & BUILDING HEIGHT		*IBC Section 506/Table 506.2 and IBC Section 504/Tables 504.3*
Existing Building Area	65,498 SF	
Area of Scope	*655 SF*	
Existing Building Height (Ft)	35 Ft 9 In	

INTERIOR FINISHES		*IBC Table 803.13*
GROUP I-2, SPRINKLERED	Corridors & Enclosure for Exit Access Stairways	Class B
	Rooms & Enclosed Spaces	Class C

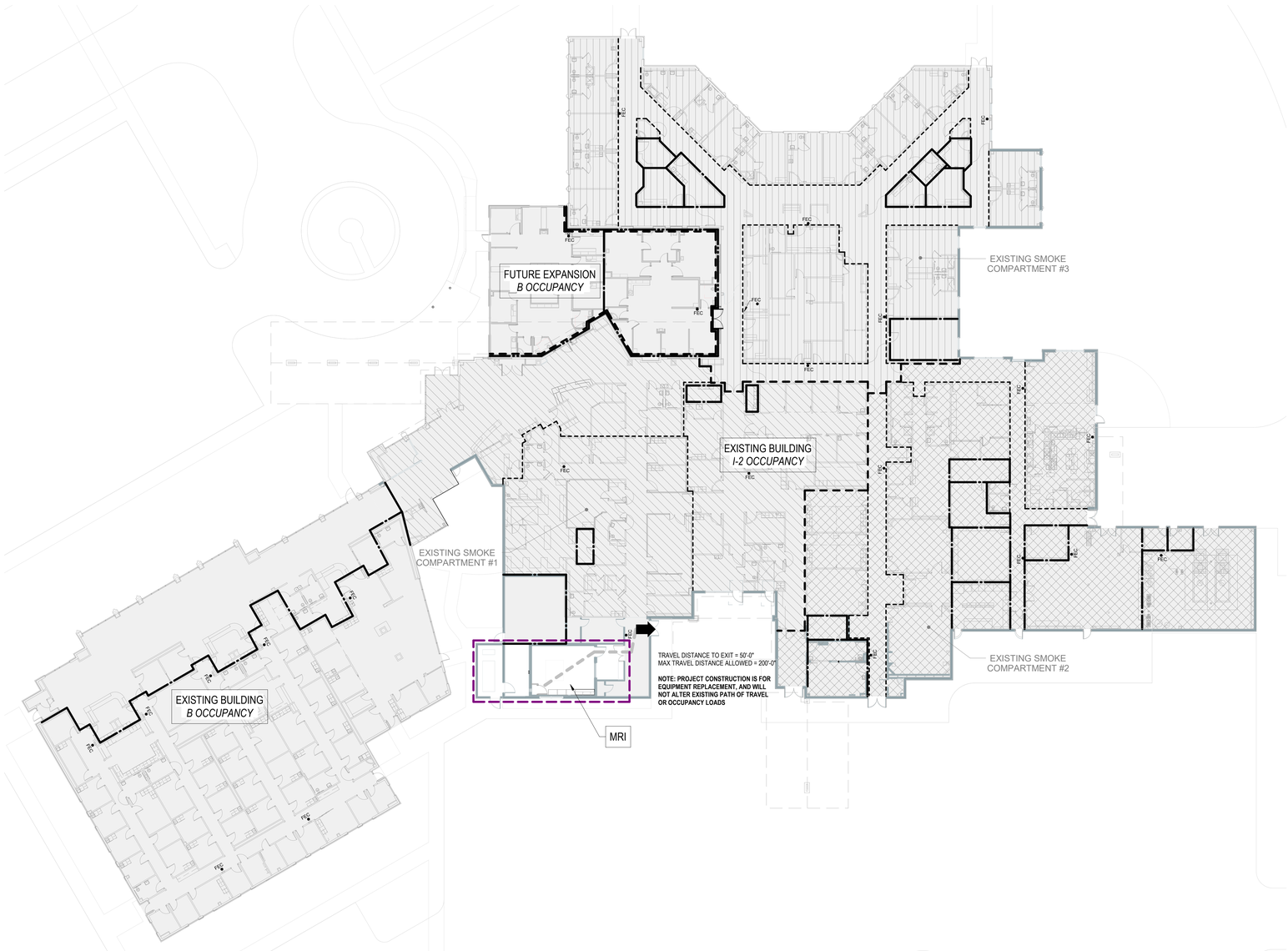
MEANS OF EGRESS	*IBC Chapter 10*
See Life Safety Plan below for Egress Pathways	

Fire resistance ratings will be maintained for new elements.

FIRE RESISTANCE RATINGS FOR BUILDING ELEMENTS		*IBC Table 601*
Sprinklers Required?	Yes	
	Existing building is equipped with automatic sprinkler system	
BUILDING ELEMENT	REQUIRED RATING	
Primary Structural Frame (See Section 202)	1 Hour *(exception a)*	
Bearing Walls - Exterior	2 Hours	
Bearing Walls - Interior	1 Hour *(exception a)*	
Nonbearing Walls & Partitions - Exterior	0 Hours	
Nonbearing Walls & Partitions - Interior	0 Hours	
Floor Construction (See Section 202)	2 Hours	
Roof Construction (See Section 202)	1 Hour	

Allowable combustible material in Types I and II Construction (partial list from IBC Section 603)
Fire-retardant-treated wood shall be permitted in
- Nonbearing partitions where the required fire-resistance rating is 2 hours or less.
- Nonbearing exterior walls where fire-resistance-rated construction is not required
- Roof construction

Other combustible materials include:
- Millwork
- Interior wall and ceiling finishes in accordance with Sections 801 and 803
- Trim installed in accordance with Section 806
- Blocking such as for millwork, cabinets, and window and door frames
- Nailing and furring strip



A1 LIFE SAFETY PLAN - CPU Copy 1
SCALE: 1" = 20'-0"

PROJECT NORTH TRUE NORTH

LIFE SAFETY PLANS SHOULD BE VIEWED IN COLOR

OCCUPANCY TYPES
EXISTING OCCUPANCY: I-2

LEGEND
- SMOKE PARTITION
  - DOOR SMOKE CONTROL
  - NEW
  - EXISTING
- SMOKE BARRIER (1 HOUR MIN)
  - 1/3 HOUR FIRE-RESISTANCE-RATED DOOR
  - NEW
  - EXISTING
- FIRE BARRIER - 1 HOUR
  - 3/4 HOUR FIRE-RESISTANCE-RATED DOOR
  - NEW
  - EXISTING
- FIRE BARRIER - 2 HOUR
  - 1 1/2 HOUR FIRE-RESISTANCE-RATED DOOR
  - NEW
  - EXISTING
- EXISTING SMOKE COMPARTMENT #1
- EXISTING SMOKE COMPARTMENT #2
- EXISTING SMOKE COMPARTMENT #3
- OUT OF SCOPE / EXISTING
- CONTRACT LIMIT LINE
- PATH OF EGRESS
- LIFE SAFETY ARROW
  - 00 NUMBER OF OCCUPANTS
- FIRE EXTINGUISHER
  - FEC

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LIFE SAFETY PLAN

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STRUCTURAL DRAWING LEGEND

CONCRETE CONSTRUCTION

- CONCRETE SPOT FOOTING
- CONCRETE CONTINUOUS FOOTING
- CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE PIER (CAST INTEGRAL WITH WALL)
- CONCRETE BEAM / JOIST FRAMING MEMBER
- CONCRETE LINTEL / BEAM (INTEGRAL WITH WALL)
- C.J. CONCRETE SLAB CONTROL/CONSTRUCTION JOINT (SEE GENERAL STRUCTURAL NOTES)
- REINFORCED CAST IN PLACE CONCRETE SUSPENDED SLAB
- CONCRETE SLAB ON GRADE (SEE CONCRETE SLAB ON GRADE SCHEDULE)
- SLAB ON GRADE BLOCKOUT AROUND ALL COLUMNS
- FOOTING STEP
- HELICAL PILE (DESIGNED BY MANUFACTURER) SEE PLAN FOR REQUIRED LOADING
- LATERAL LOAD HELICAL PILE (DESIGNED BY MANUFACTURER) SEE PLAN FOR REQUIRED LOADING

MASONRY CONSTRUCTION

- MASONRY WALL
- MASONRY LINTEL (INTEGRAL)
- MASONRY JAMB COLUMN (INTEGRAL)
- MASONRY COLUMN (FREE-STANDING)
- MASONRY COLUMN (INTEGRAL)

STEEL CONSTRUCTION

- STEEL COLUMN (WIDE FLANGE SHAPE)
- STEEL COLUMN (HSS)
- STEEL COLUMN (HSS ROUND)
- STEEL BASE PLATE
- STEEL BEAM / JOIST FRAMING MEMBER
- DRAG STRUT CONNECTION (SEE STEEL CONNECTION SCHEDULE)
- MOMENT FRAME CONNECTION (SEE STRUCTURAL ELEVATIONS)
- BRACED FRAME CONNECTION (SEE STRUCTURAL ELEVATIONS)
- DOUBLE SHEAR CONNECTION (SEE STEEL CONNECTION SCHEDULE)
- CANTILEVER MOMENT CONNECTION (SEE STRUCTURAL DETAILS)
- BEAM SIZE (X) C=Y"
- BEAM SIZE = BEAM DESIGNATION
  X = # OF HEADED STUDS (SPACED UNIFORMLY ACROSS BEAM)
  Y = BEAM CAMBER (CROWN UPWARD @ MIDSPAN)
  Z = SPECIAL REACTIONS OR OTHER NOTES
- ALL BEAM ENDS UNLESS NOTED WITH SPECIAL SYMBOL OR DETAILED OTHERWISE ARE TO BE SIMPLE SHEAR TAB CONNECTIONS (SEE SCHEDULE)
- STEEL ROOF DECK (SEE PLANS AND GENERAL NOTES FOR SPECIFIC INFORMATION)
- CONCRETE SLAB ON STEEL DECK (SEE PLANS AND GENERAL NOTES FOR SPECIFIC INFORMATION)

WOOD CONSTRUCTION

- PLYWOOD / OSB WOOD DECK (SEE WOOD DECK SCHEDULE)
- WOOD BEARING WALL
- WOOD SHEARWALL
- WOOD HEADER (INTEGRAL WITH WALL)
- WOOD COLUMN (INTEGRAL WITH WALL)
- WOOD COLUMN (FREE-STANDING)
- H# HOLDOWN AS DESIGNATED (SEE SCHEDULE)
- A WOOD SHEAR WALL (SEE SCHEDULE)

GENERAL ANNOTATIONS

- STACKED STRUCTURAL TAGS REPRESENT STRUCTURAL RELATIONSHIPS BETWEEN VARIOUS ELEMENTS
- COLUMN W/ BASE PLATE SUPPORTED ON PIER / WALL SUPPORTED ON FOOTING (SEE STRUCTURAL SCHEDULES FOR ALL DIMENSIONS AND INFORMATION)
- FSX.X CONCRETE FOOTING TAG
- XC# COLUMN TAG (X=MATERIAL, #=DESIGNATION) C=CONCRETE, M=MASONRY, S=STEEL, W=WOOD
- XW# WALL TAG (X=MATERIAL, #=DESIGNATION) C=CONCRETE, M=MASONRY, W=WOOD
- XB# BEAM TAG (X=MATERIAL, #=DESIGNATION) C=CONCRETE, M=MASONRY, W=WOOD
- XL# LINTEL TAG (X=MATERIAL, #=DESIGNATION) C=CONCRETE, M=MASONRY
- 98'-0" ELEVATION AT TOP OF FOOTING
- STEP CHANGE IN ELEVATION
- SLOPED 1/4 ROOF SLOPE DESIGNATION (SEE ARCH FOR ACTUAL SLOPES)
- SPECIAL DECK OR FLOOR AREA
- 1 / A101 TYP DETAIL OR PLAN REFERENCE
- TYPICAL (TYP) OR SIMILAR (SIM) DETAIL
- SHEET REFERENCE
- 1 / A101 TYP SECTION REFERENCE
- TYPICAL (TYP) OR SIMILAR (SIM) DETAIL
- SHEET REFERENCE
- S1 / S101 ELEVATION REFERENCE
- SHEET REFERENCE
- N DESIGNATES PLAN NORTH

GREY TONE OR LIGHTER DRAWING ELEMENTS DESIGNATE EXISTING STRUCTURAL COMPONENTS AND/OR ELEMENTS

STRUCTURAL ABBREVIATIONS

ABV	ABOVE
ADDL	ADDITIONAL
ALT	ALTERNATE
ARCH	ARCHITECT(URAL)
BLDG	BUILDING
BLW	BELOW
BTM	BOTTOM
BTWN	BETWEEN
CJ	CONTROL OR CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CRW#	CONCRETE RETAINING WALL
CTR	CENTER(ED)
CW#	CONCRETE WALL
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
EF	EACH FACE
EJ	SEISMIC ISOLATION JOINT
EA	EACH
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
EXT	EXTERIOR
FF	FINISH FLOOR
FC#	CONTINUOUS FOOTING
FS#	SPOT FOOTING
FT	FOOT
FTG	FOOTING
FDTN	FOUNDATION
GA	GAUGE
GALV	GALVANIZED
GLB	GLUE-LAMINATED BEAM
GR	GRADE
GSN	GENERAL STRUCTURAL NOTES
HK	HOOK
HSA	HEADED STUD ANCHOR
HORIZ	HORIZONTAL
HT	HEIGHT
INT	INTERIOR
IF	INSIDE FACE
IBC	INTERNATIONAL BUILDING CODE
IEBC	INTERNATIONAL EXISTING BUILDING CODE
ICC	INTERNATIONAL CODES COUNCIL
IN	INCH
K	KIP(S) = 1000 POUNDS
KLF	KIPS PER LINEAL FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LBS	POUNDS
LG	LIGHT GAUGE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSH	LONG SIDE HORIZONTAL
LW	LIGHT-WEIGHT
MANUF	MANUFACTURER
MAX	MAXIMUM
MC#	MASONRY COLUMN
MECH	MECHANICAL
MEP	MECH/ELEC/PLUMB
MIN	MINIMUM
MISC	MISCELLANEOUS
ML#	MASONRY LINTEL
MW#	MASONRY WALL
NS	NON-SHRINK
NTS	NOT TO SCALE
NW	NORMAL WEIGHT
OC	ON CENTER
OF	OUTSIDE FACE
OPP	OPPOSITE
OWSJ	OPEN WEB STEEL JOIST
PCF	POUNDS PER CUBIC FOOT
PL	PLATE
PLF	POUNDS PER LINEAL FOOT
PSF	POUND PER SQUARE FOOT
PSI	POUND PER SQUARE INCH
REINF	REINFORCING
REQD	REQUIRED
SC#	STEEL COLUMN
SIM	SIMILAR
SOG	SLAB ON GRADE
SOMD	SLAB ON METAL DECK
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
T+B	TOP AND BOTTOM
TOF	TOP OF FOOTING
TOS	TOP OF SLAB
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
W/C	WATER / CEMENT RATIO
WC#	WOOD COLUMN
WWF	WELDED WIRE FABRIC

GENERAL PROJECT INSTRUCTIONS

1. GENERAL NOTES: THESE GENERAL STRUCTURAL NOTES DO NOT SUPERSEDE THE PROJECT SPECIFICATIONS, BUT ARE INTENDED TO BE COMPLIMENTARY TO THEM. CONSULT THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS IN EACH SECTION. NOTATION AND SPECIFIC DETAILS ON THE DRAWINGS TAKE PRECEDENCE OVER THESE NOTES AND TYPICAL DETAILS.

2. CONTRACT DRAWINGS: THE PRIME CONTRACT DRAWINGS ARE THE ARCHITECTURAL DRAWINGS. THESE STRUCTURAL DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. ALL OMISSIONS OR CONFLICTS, INCLUDING DIMENSIONS, BETWEEN THE VARIOUS ELEMENTS OF THE STRUCTURAL DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH ANY WORK INVOLVED. IN CASE THERE IS A CONFLICT BETWEEN DRAWINGS, FOLLOW THE MOST STRINGENT REQUIREMENT, SUBMIT A REQUEST FOR INFORMATION, AND/OR PROCEED AS DIRECTED BY THE ARCHITECT WITHOUT ANY ADDITIONAL COST TO THE OWNER. ANY WORK DONE BY THE CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S RISK.

3. STRUCTURAL DRAWINGS: THESE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL AND OTHER CONSULTANT DRAWINGS. ONLY THE PRIMARY STRUCTURAL ELEMENTS AND SYSTEMS ARE INDICATED WITHIN THESE STRUCTURAL DRAWINGS. ALL STRUCTURAL DETAILS ARE REPRESENTATIVE IN NATURE AND ARE NOT TO BE SCALED FOR ANY REASON. MANY OTHER ELEMENTS SUCH AS, ARCHITECTURAL LAYOUTS, ELEVATIONS, SLOPES, DEPRESSIONS, CURBS, MECHANICAL/ELECTRICAL EQUIPMENT, EXTERIOR LIGHT GAUGE FRAMING, STAIRS, ETC. ARE GENERALLY NOT SHOWN IN THESE STRUCTURAL DRAWINGS. IT IS INTENDED THAT ALL SHOP DRAWINGS AND DETAILING OF STRUCTURAL ELEMENTS WILL REQUIRE INFORMATION FROM ALL CONTRACT DOCUMENTS, NOT JUST THESE STRUCTURAL DRAWINGS.

4. PROJECT COORDINATION: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE ALL ITEMS WITH ALL TRADES TO INSURE THERE ARE NO CONFLICTS BETWEEN OTHER TRADES AND THE STRUCTURAL ELEMENTS. ANY OPENINGS, PENETRATIONS, OR ATTACHMENTS TO ANY STRUCTURAL ELEMENT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND SHALL BE COORDINATED WITH THE ARCHITECT/ENGINEER.

5. SUBMITTALS: STRUCTURAL SUBMITTALS SHALL ONLY BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AFTER THE GENERAL CONTRACTOR HAS REVIEWED AND APPROVED THE SUBMITTAL. CONTRACTOR SHALL ALLOW AT LEAST 10 BUSINESS DAYS (2 WEEKS) FOR EACH SUBMITTAL TO BE REVIEWED. IF AN ITEM IS SUBMITTED WHILE ANOTHER SUBMITTAL IS UNDER REVIEW, THE 10 DAY REVIEW PERIOD FOR THAT NEWLY SUBMITTED ITEM DOES NOT BEGIN UNTIL THE PREVIOUS SUBMITTAL IS COMPLETE. THE SHOP DRAWING REVIEW PROCESS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY OF COMPLETING THE PROJECT ACCORDING TO THE CONTRACT DOCUMENTS, REGARDLESS OF INFORMATION SHOWN IN THE REVIEW COMMENTS. SHOP DRAWINGS MADE FROM REPRODUCTIONS OF THESE STRUCTURAL DRAWINGS WILL BE REJECTED.

6. SHORING AND BRACING REQUIREMENTS: THE STRUCTURAL SYSTEMS SHOWN IN THESE DRAWINGS SHALL NOT BE CONSIDERED STABLE UNTIL ALL STRUCTURAL ELEMENTS ARE IN PLACE AND COMPLETED. IT IS THEREFORE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO DETERMINE THE METHOD OF CONSTRUCTION SEQUENCE, AS WELL AS PROVIDE ANY SHORING, BRACING, ETC. TO INSURE THE STRUCTURE IS STABLE UNTIL ALL ELEMENTS ARE COMPLETED.

7. FIELD VERIFICATION: THE GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, AND CONDITIONS. IF THE CONTRACT DRAWINGS DO NOT REPRESENT ACTUAL CONDITIONS, CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER PRIOR TO FABRICATION OR CONSTRUCTION WITHIN THAT AREA. IF CONTRACTOR PROCEEDS WITH ANY WORK WITHOUT PROPERLY FIELD VERIFYING DIMENSIONS, CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION AND DESIGN COSTS ASSOCIATED WITH FIXING THE SITUATION.

8. PERMIT PLAN CHECK: PRIOR TO OBTAINING FINAL BUILDING PERMITS FROM THE BUILDING OFFICIAL AND OTHER AUTHORITIES HAVING JURISDICTION, ALL PRICING, BIDDING, OR CONSTRUCTION PROGRESS IS DONE AT THE CONTRACTOR'S OWN RISK. CHANGES TO THESE DRAWINGS MAY BE REQUIRED AS PART OF THE PLAN CHECK AND PERMITTING PROCESS AND THUS STRUCTURAL DESIGN STUDIO, INC. WILL NOT BE HELD LIABLE (FINANCIAL OR OTHERWISE) FOR ANY CHANGES MADE TO THESE DRAWINGS.

9. NOTICE OF COPYRIGHT: ALL DRAWINGS, DETAILS, NOTES, ELEMENTS, ETC. CONTAINED WITHIN THESE DRAWINGS ARE COPYRIGHTED BY STRUCTURAL DESIGN STUDIO, INC. SUBMISSION OR DISTRIBUTION OF DOCUMENTS TO MEET OFFICIAL REGULATORY REQUIREMENTS OR FOR SIMILAR PURPOSES IN CONNECTION WITH THE PROJECT IS NOT TO BE CONSTRUED AS PUBLICATION IN DEROGATION OF STRUCTURAL DESIGN STUDIO, INC.'S RIGHTS. THE DOCUMENTS DEFINING THE STRUCTURE ARE INSTRUMENTS OF SERVICE PREPARED BY STRUCTURAL DESIGN STUDIO, INC. FOR ONE USE ONLY. FURTHERMORE, THESE DOCUMENTS SHALL NOT BE REPRODUCED, OR COPIED, IN WHOLE OR IN PART BY THE CONTRACTOR OR HIS SUBCONTRACTORS FOR PREPARATION OF SHOP DRAWINGS OR ANY OTHER SUBMITTALS.

CRITERIA FOR STRUCTURAL DESIGN

1. **GOVERNING BUILDING CODES AND GENERAL DESIGN STANDARDS**
   A. 2021 INTERNATIONAL BUILDING CODE (IBC)
   B. ASCE/SEI 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
   C. 2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC)

2. **SEISMIC DESIGN CRITERIA AND PARAMETERS:**
   A. RISK CATEGORY IV (ESSENTIAL) - BUILDING TYPE
   B. SEISMIC DESIGN CATEGORY = D
   C. SPECTRAL RESPONSE ACCELERATIONS:
   Ss = 0.88 g Sds = 0.68 g
   S1 = 0.30 g Sd1 = 0.40 g
   D. SOIL SITE CLASS = SITE CLASS-D (STIFF SOIL)
   Fa = 1.15 Fv = 2.00
   E. IMPORTANCE FACTOR, Ie = 1.50

STEEL MATERIAL & DESIGN PROPERTIES

1. **CODES AND STANDARDS:** GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH THE FOLLOWING STANDARDS:
   A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360-16, "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS."
   B. AISC 303-16, "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" EXCLUDING SECTIONS 3.3 AND 4.4.
   C. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE INFORMATION (INCLUDING DIMENSIONS) CONTAINED IN ARCHITECTURAL, STRUCTURAL, AND/OR OTHER CONSULTANTS' DRAWINGS.
   D. AMERICAN WELDING SOCIETY (AWS) D1.4/D1.4M, "STRUCTURAL WELDING CODE – STEEL"

2. **STEEL MATERIALS AND PROPERTIES:**
   A. WIDE FLANGE (W) SHAPES: ASTM A992, (F_Y = 50 KSI), EXCEPT AS NOTED OTHERWISE.
   B. RECTANGULAR AND SQUARE HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A500, GRADE C (F_Y = 50 KSI).
   C. ALL OTHER SHAPES AND PLATES: ASTM A36 (F_Y = 36 KSI), EXCEPT AS NOTED OTHERWISE.

CONCRETE MATERIAL & DESIGN PROPERTIES

1. **CONCRETE MATERIALS:**
   A. ALL MATERIALS SHALL COMPLY WITH THOSE SPECIFIED IN AMERICAN CONCRETE INSTITUTE (ACI) 318-19, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."

2. **CONCRETE UNIT WEIGHTS** (MAXIMUM AIR DRY WEIGHT):
   A. NORMAL WEIGHT CONCRETE SHALL BE BETWEEN 145 TO 150 POUNDS PER CUBIC FOOT.

3. **CONCRETE CEMENT TYPES:**
   A. PROJECT SHALL UTILIZE CEMENT TYPE (I/II) FOR ALL CONCRETE IN CONTACT WITH SOIL, AND TYPE I/II AT ALL OTHER LOCATIONS.

4. **ADMIXTURES:**
   A. AIR-ENTRAINING ADMIXTURES, COMPLY WITH ASTM C260 / C260M: WHEN AIR CONTENT OF A TROWEL FINISHED FLOOR SLAB IS IN EXCESS OF 3%, THERE IS AN INCREASED RISK FOR BLISTERING AND DELAMINATIONS TO OCCUR. WHEN THIS SITUATION EXISTS, THE CONTRACTOR MUST PAY SPECIAL ATTENTION TO THE FINISHING PROCEDURES TO HELP MINIMIZE SUCH RISKS.
   B. NO ADMIXTURE CONTAINING ANY CALCIUM CHLORIDE, OR OTHER CORROSIVE SUBSTANCE MAY BE ADDED TO THE MIX.

5. **CONCRETE MIX DESIGNS**
   A. SUBMITTALS SHALL BE SUBMITTED FOR EACH DIFFERENT MIX DESIGN, SHOWING SUCCESSFUL DATA FOR AT LEAST 5 YEARS FOR REVIEW PRIOR TO IT BEING USED ON THE PROJECT. CONCRETE MIX DESIGNS SHALL INCORPORATE THE FOLLOWING PROPERTIES AS FOLLOWS:

CONCRETE MIX PROPERTIES

ELEMENT	PROPERTIES		EXPOSURE CLASS			
	$F'_{C(28)}$	W/C	FREEZE	SULFATE	WATER	CORR
INT-SOG	4000	0.45	F0	S0	W0	C0

CONCRETE REINFORCING & CONSTRUCTION

1. **REINFORCING STEEL MATERIALS:**
   A. ASTM A615 GRADE 60, F_Y = 60,000 PSI MIN. UNLESS NOTED OTHERWISE.
   B. ALL REINFORCING STEEL SHALL BE BENT COLD, AND SHALL ONLY BE BENT ONCE UNLESS APPROVAL HAS BEEN GIVEN BY THE ENGINEER OF RECORD.
   C. REINFORCING STEEL SHALL NOT BE WELDED UNLESS NOTED OTHERWISE.

2. **MINIMUM REINFORCING STEEL:**
   A. CONCRETE CLEAR COVER OVER REINFORCING STEEL SHALL COMPLY WITH ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" OR AS OUTLINED BELOW.
   a. CAST-IN-PLACE CONCRETE:
   • CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
   b. CONCRETE FORMED AND EXPOSED TO EARTH OR WEATHER:
   • #6 THRU #18 BARS = 2"
   • #5 AND SMALLER BARS = 1.1/2"

3. **REINFORCING STEEL DETAILING:**
   A. ALL REINFORCING, INCLUDING WWF, SHALL BE DETAILED, AND SUPPORTED TO COMPLY WITH REQUIREMENTS AND RECOMMENDATIONS FROM THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
   B. PRIOR TO PLACING CONCRETE ALL EMBEDDED ITEMS INCLUDING DOWELS, ANCHOR BOLTS, EMBED, ETC. SHALL BE SECURELY TIED TO FORMWORK.
   C. PROVIDE (2) - #5 X 4'-0" DIAGONAL BARS AT THE CORNERS OF ALL OPENINGS. DIAGONAL BARS SHALL BE CENTERED ON THE CORNER OF THE OPENING.

4. **CONSTRUCTION REQUIREMENTS:**
   A. TIE WIRES AND CHAIRS SHALL BE USED TO SUPPORT REINFORCING BARS, WELDED WIRE FABRIC, TIE BARS AND POST-TENSION TENDONS.
   B. NO ALUMINUM CONDUIT OR PRODUCT CONTAINING ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO CONCRETE SHALL BE EMBEDDED IN CONCRETE.
   C. ONLY A SINGLE TYPE OF CONCRETE MIX DESIGN SHALL BE PLACED ON THE SITE AT ANY GIVEN TIME.
   D. FORMWORK SHALL COMPLY WITH CURRENT VERSION OF ACI STANDARDS PUBLICATION 347 AND PROJECT SPECIFICATIONS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL FORMWORK DESIGN, DETAILING, PLACEMENT, AND SHORING.

5. **CONSTRUCTION JOINTS AND CONTROL JOINTS:**
   A. ALL SLABS ON GRADE SHALL HAVE CONSTRUCTION OR CONTROL JOINTS SPACED A DISTANCE NO GREATER THAN 30 TIMES THE SLAB THICKNESS IN ANY DIRECTION WITH A PATTERN SO THE LENGTH TO WIDTH RATIO OF THE SLAB IS NO MORE THAN 1.1/4 TO 1.

STATEMENT OF SPECIAL INSPECTIONS (STRUCTURAL)

1. IN ADDITION TO STANDARD INSPECTIONS BY THE BUILDING OFFICIAL REQUIRED IN IBC SECTION 110, THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS AS REQUIRED IN IBC SECTION 1704 AND 1705. THESE SECTIONS REFER TO THE SPECIAL INSPECTIONS PERTAINING TO THE STRUCTURAL SYSTEM ONLY AND DOES NOT ENCOMPASS INSPECTIONS REQUIRED BY OTHER DISCIPLINES.

2. UNLESS WAIVED BY THE BUILDING OFFICIAL, THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE REQUIRED INSPECTIONS.

3. TYPES OF WORK REQUIRING SPECIAL INSPECTION AND TESTING ON THIS PROJECT ARE LISTED IN THE FOLLOWING MATERIAL SPECIFIC TABLES. THESE TABLES ARE NOT MEANT TO ENCOMPASS ALL SPECIAL INSPECTIONS ON THE PROJECT, JUST THOSE DIRECTLY RELATED TO ELEMENTS AND MATERIALS USED FOR STRUCTURAL SUPPORT.

4. IN ADDITION TO THE SUBMITTAL REPORTS OF SPECIAL INSPECTIONS AND TESTS, REPORTS AND CERTIFICATIONS SHALL BE SUBMITTED BY THE OWNER (OR OWNER'S AGENT) TO THE BUILDING OFFICIAL FOR EACH OF THE FOLLOWING:
   A. CERTIFICATES OF COMPLIANCE FOR THE FABRICATION OF STRUCTURAL LOAD BEARING OR LATERAL LOAD RESISTING MEMBERS OR ASSEMBLIES ON THE PREMISES OF A REGISTERED AND APPROVED FABRICATOR.
   B. CERTIFICATES OF COMPLIANCE FOR SEISMIC QUALIFICATION OF NONSTRUCTURAL COMPONENTS, SUPPORTS AND ATTACHMENTS.
   C. CERTIFICATES OF COMPLIANCE FOR DESIGNATED SEISMIC SYSTEMS

5. STRUCTURAL OBSERVATIONS (WHEN REQUIRED BY BUILDING OFFICIAL)
   A. STRUCTURAL OBSERVATIONS MAY BE PERFORMED AS DEEMED NECESSARY BY THE STRUCTURAL ENGINEER OF RECORD.
   B. OBSERVATION VISITS TO THE SITE BY THE ENGINEER'S FIELD REPRESENTATIVES SHALL NOT BE CONSTRUED AS AN INSPECTION OR APPROVAL OF CONSTRUCTION.
   C. IN AN EFFORT TO KEEP THE STRUCTURAL ENGINEER OF RECORD CURRENT AS TO THE STATE OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER VIA TELEPHONE OR EMAIL TWENTY-FOUR HOURS PRIOR TO:
      a. PLACING OF ANY CONCRETE IN STRUCTURAL MEMBERS DESIGNATED IN THESE DRAWINGS.
      b. COMPLETING OF WELDING OF ANY MAJOR PORTIONS OF STEEL DECKING DESIGNATED IN THESE DRAWINGS.
      C. COMPLETING THE MAIN ERECTION OF STRUCTURAL STEEL ELEMENTS DESIGNATED IN THESE DRAWINGS.

CONCRETE CONSTRUCTION INSPECTION AND TESTING TABLE

VERIFICATION + INSPECTION	PO	CO
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS:		
- ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	-	X
-MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED	X	-

NOTES:
PO = REPRESENTS PERIODIC INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
CO = REPRESENTS CONTINUOUS INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
1. TABLE IS SPECIFICALLY BASED UPON SECTION 1705.3 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THIS SECTION OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND BUILDING OFFICIAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.

STRUCTURAL STEEL WELDING INSPECTION AND TESTING TABLE

VERIFICATION + INSPECTION	QC	QA
INSPECTION TASKS PRIOR TO WELDING		
WELDING QUALIFICATION RECORDS AND CONTINUITY RECORDS	P	O
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P	P
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLE AVAILABLE.	P	P
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O
WELDER IDENTIFICATION SYSTEM	O	O
FIT-UP OF FILLET WELDS -- DIMENSIONS (ALIGNMENT, GAPS AT ROOT) -- CLEANLINESS (CONDITION OF STEEL SURFACES) -- TACKING (TACK WELD QUALITY AND LOCATION)	O	O
CHECK WELDING EQUIPMENT	O	-
INSPECTION TASKS DURING WELDING		
CONTROL AND HANDLING OF WELDING CONSUMABLES -- PACKAGING -- EXPOSURE CONTROL	O	O
NO WELDING OVER CRACKED TACK WELDS	O	O
ENVIRONMENTAL CONDITIONS -- WIND SPEED WITHIN LIMITS -- PRECIPITATION AND TEMPERATURE	O	O
WPS FOLLOWED -- SETTINGS ON WELDING EQUIPMENT -- TRAVEL SPEED -- SELECTED WELDING MATERIALS -- SHIELDING GAS TYPE/FLOW RATE -- PREHEAT APPLIED -- INTERPASS TEMPERATURE MAINTAINED (MIN/MAX) -- PROPER POSITION (F, V, H, OH)	O	O
WELDING TECHNIQUES -- INTERPASS AND FINAL CLEANING -- EACH PASS WITHIN PROFILE LIMITATIONS -- EACH PASS MEETS QUALITY REQUIREMENTS	O	O
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P	P
INSPECTION TASKS AFTER WELDING		
WELDS CLEANED	O	O
SIZE, LENGTH AND LOCATION OF WELDS	P	P
WELDS MEET VISUAL ACCEPTANCE CRITERIA -- CRACK PROHIBITION -- WELD/BASE-METAL FUSION -- CRATER CROSS SECTION -- WELD PROFILES -- WELD SIZE -- UNDERCUT -- POROSITY	P	P
ARC STRIKES	P	P
K-AREA	P	P
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P
REPAIR ACTIVITIES	P	P
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF EOR	O	O

NOTES:
QC = REPRESENTS QUALITY CONTROL PERSONNEL PROVIDED BY THE FABRICATOR AND THE ERECTOR WHO ARE QUALIFIED TO PERFORM REQUIRED TASKS
QA = REPRESENTS QUALITY ASSURANCE PERSONNEL PROVIDED BY OTHERS (OWNER ENGAGED) AS REQUIRED BY JURISDICTION AND/OR OWNER.
O = REPRESENTS PERIODIC INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
P = REPRESENTS CONTINUOUS INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
1. TABLE IS SPECIFICALLY BASED UPON SECTION 1705.2 AND 1705.12.1 OF THE INTERNATIONAL BUILDING CODE AS WELL AS AISC 360, CHAPTER N. FABRICATOR/ERECTOR AND SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THESE SECTIONS OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND JURISDICTIONAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · FFKR.COM

structural DESIGN STUDIO
2225 E. Murray Holladay Rd. #110
Salt Lake City, Utah 84117
801.274.3950 :: structurals.com

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
CONSTRUCTION DOCUMENTS - 6/6/2025

PROFESSIONAL STRUCTURAL ENGINEER
JESSICA SHARP CAMPBELL
7102977
STATE OF UTAH
06/06/2025

△ DATE REVISION

PROJECT NUMBER 24023

GENERAL STRUCTURAL NOTES + SPECIAL INSPECTION

S001

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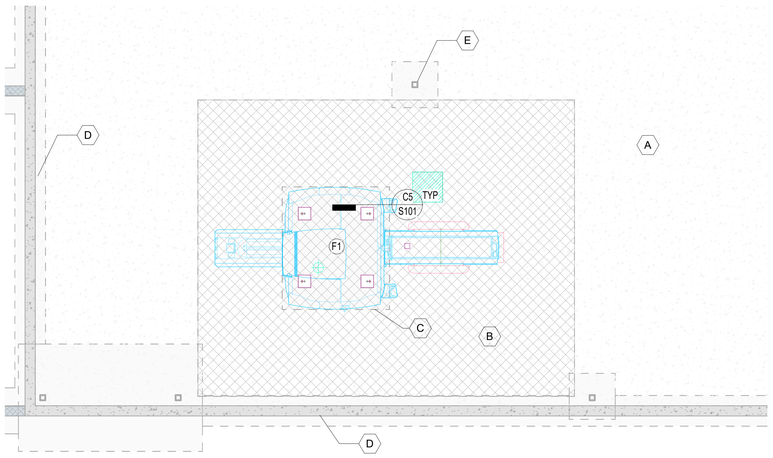
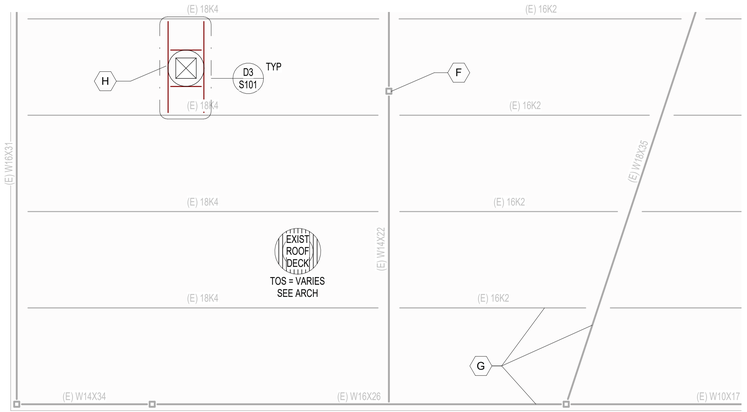


D1 S101 PARTIAL FOOTING + FOUNDATION PLAN AT MRI
Scale: 1/4" = 1'-0"



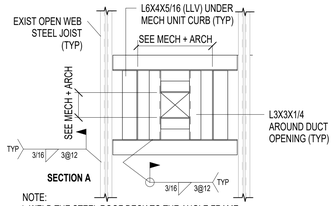
B1 S101 PARTIAL ROOF FRAMING PLAN AT MRI
Scale: 1/4" = 1'-0"

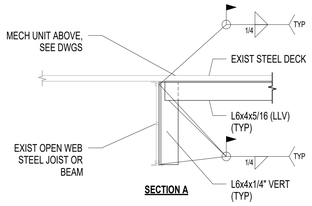
FLOOR MOUNTED MEDICAL EQUIPMENT SCHEDULE

MARK	EQ TYPE	NAME	WEIGHT	MOUNTING DETAIL	BOLT TYPE	ANCHOR PLATE	COMMENTS
F1	MRI	GE SIGNA ARTIST	11,539 #	D3/SS01	BY OTHERS MIN (4) 5/8" HILTI HDI TZ OR EQUIVALENT	BY MANUFACTURER	COORDINATE W/ RF SHIELDING CONTRACTOR

NOTES:
1. COORDINATE ALL MEDICAL EQUIPMENT, DIMENSIONS, CRITERIA, ETC WITH ARCHITECT AND EQUIPMENT SUPPLIER.
2. MEDICAL EQUIPMENT SUPPLIER MAY REQUIRE SPECIAL REQUIREMENTS NOT SHOWN IN THE STRUCTURAL DRAWINGS. COORDINATE ALL SPECIAL REQUIREMENTS WITH EQUIPMENT SUPPLIER.

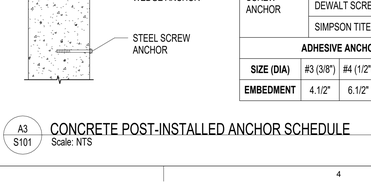
E3 S101 FLOOR MOUNTED MEDICAL EQUIPMENT SCHEDULE
Scale: NTS

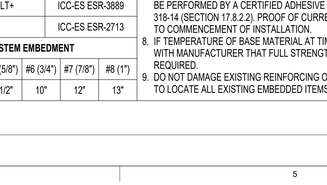




NOTE:
1. WELD THE STEEL ROOF DECK TO THE ANGLE FRAME.
2. IF MECHANICAL UNIT WEIGHS LESS THAN 600#, L5X3X1/4 (LLV) MAY BE USED IN LIEU OF THE L6X4X5/16 SUPPORT ANGLES .
3. SOLID BLOCK THE FLUTES OF THE STEEL DECK BENEATH THE CURB OF THE MECHANICAL UNIT USING AN HSS1.1/2X1.1/2X3/16 BY 6" LONG. TACK WELD THE BLOCKING TO THE STEEL DECK.

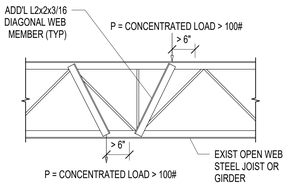
D3 S101 TYPICAL MECH UNIT/OPENING SUPPORT IN EXISTING ROOF
Scale: NTS





NOTE:
1. WELD THE EXISTING STEEL ROOF DECK TO THE ANGLE FRAME.
2. REFER TO TYPICAL ROOF TOP MECHANICAL UNIT SUPPORT FRAME DETAIL FOR FRAMES BENEATH MECHANICAL UNITS.

C3 S101 TYPICAL ROOF OPENING SUPPORT IN EXISTING ROOF
Scale: NTS

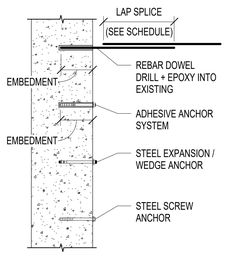


NOTE:
1. CONCENTRATED POINT LOADS TOTALING 100# OR LESS CAN BE LOCATED AT ANY POINT ALONG THE TOP OR BOTTOM CHORD OF AN OPEN WEB JOIST OR GIRDER BETWEEN ADJACENT PANEL POINTS WITHOUT MEETING THESE REQUIREMENTS.

2. WHEN CONCENTRATED LOADS GREATER THAN 100# ON OPEN WEB JOISTS OR GIRDERS ARE LOCATED MORE THAN 6 INCHES FROM THE PANEL WORKPOINTS AT EITHER THE TOP OR BOTTOM CHORD, ADDITIONAL DIAGONAL WEB MEMBERS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AS SHOWN BELOW.

3. A LIMIT OF (4) CONCENTRATED 100# POINT LOADS PER JOIST OR GIRDER WILL BE PERMITTED ON SPANS OF 12'-0" AND GREATER. JOIST BRIDGING SHALL NEVER BE USED TO SUPPORT HANGING LOADS.

B3 S101 TYPICAL ROOF JOIST POINT LOAD DETAIL
Scale: NTS



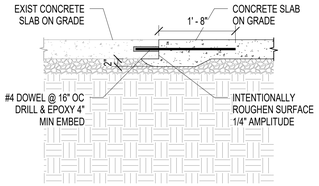
TYPICAL POST-INSTALLED ANCHOR SCHEDULE

ANCHOR TYPE	ANCHOR	EVAL REPORT
ADHESIVE ANCHOR SYSTEM	HIT-RE 500 V3	ICC-ES ESR-3814
	DEWALT PURE 110+	ICC-ES ESR-3298
	SIMPSON SET-3G	ICC-ES ESR-4057
STEEL EXPANSION / WEDGE ANCHOR	HILTI KWIK BOLT TZ	ICC-ES ESR-1917
	DEWALT POWER-STUD+ SD2	ICC-ES ESR-2502
	SIMPSON STRONG-BOLT 2	ICC-ES ESR-3037
STEEL SCREW ANCHOR	HILTI KWIK HUS-EZ	ICC-ES ESR-3027
	DEWALT SCREW-BOLT+	ICC-ES ESR-3889
	SIMPSON TITEN HD	ICC-ES ESR-2713

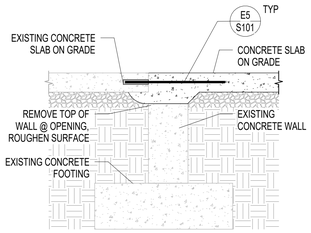
ADHESIVE ANCHOR SYSTEM EMBEDMENT						
SIZE (DIA)	#3 (3/8")	#4 (1/2")	#5 (5/8")	#6 (3/4")	#7 (7/8")	#8 (1")
EMBEDMENT	4.1/2"	6.1/2"	7.1/2"	10"	12"	13"

NOTES:
1. CAST-IN-PLACE ANCHORS CALLED OUT IN PLANS **SHALL NOT** BE REPLACED WITH POST-INSTALLED ANCHORS UNLESS SPECIFICALLY DIRECTED BY THE ENGINEER OF RECORD.
2. ALL POST-INSTALLED ANCHORS INTO HARDENED CONCRETE SHALL BE SELECTED FROM THE PRE-APPROVED PRODUCTS (SHOWN IN THE TABLE) OR ENGINEER APPROVED EQUAL UNLESS NOTED OTHERWISE.
3. ANCHORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S PUBLISHED INSTRUCTIONS AND APPLICABLE CODE EVALUATION REPORTS
4. ALL POST-INSTALLED ANCHOR INSTALLATIONS ARE SUBJECT TO CONTINUOUS SPECIAL INSPECTION (SEE EVALUATION REPORTS AND SPECIAL INSPECTION TABLES).
5. SCHEDULED EMBEDMENT ABOVE ARE MINIMUM VALUES, HOWEVER ANY EMBEDMENT LENGTHS SHOWN IN PLANS GOVERN OVER THESE VALUES.
6. ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS. FOR INSTALLATIONS SOONER THAN 21 DAYS, CONSULT MANUFACTURER.
7. INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLED (AAI) AS CERTIFIED THROUGH ACI AND IN ACCORDANCE WITH ACI 318-14 (SECTION 17.8.2.2). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.
8. IF TEMPERATURE OF BASE MATERIAL AT TIME OF ADHESIVE INSTALLATION IS AT 40 DEGREES (FAHRENHEIT) OR LESS, VERIFY WITH MANUFACTURER THAT FULL STRENGTH OF ADHESIVE CAN BE OBTAINED, OTHERWISE AN "ACRYLIC" ADHESIVE IS REQUIRED.
9. DO NOT DAMAGE EXISTING REINFORCING OR EMBEDS DURING THE INSTALLATION OF POST-INSTALLED ANCHORS. CONTRACTOR TO LOCATE ALL EXISTING EMBEDDED ITEMS AND REINFORCING PRIOR TO THE INSTALLATION OF POST-INSTALLED ANCHORS.

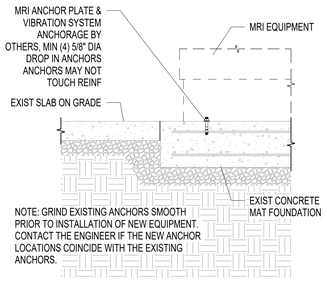
A3 S101 CONCRETE POST-INSTALLED ANCHOR SCHEDULE
Scale: NTS



E5 S101 TYPICAL NEW TO EXISTING SLAB ON GRADE DETAIL
Scale: NTS



D5 S101 TYPICAL CONCRETE SLAB @ OPENING IN WALL
Scale: NTS



NOTE: GRIND EXISTING ANCHORS SMOOTH PRIOR TO INSTALLATION OF NEW EQUIPMENT. CONTACT THE ENGINEER IF THE NEW ANCHOR LOCATIONS COINCIDE WITH THE EXISTING ANCHORS.

C5 S101 TYPICAL MRI ANCHORAGE DETAIL
Scale: NTS

STRUCTURAL PLAN NOTES

1. ALL DIMENSIONS SHOWN ON THIS PLAN ARE FOR GENERAL INFORMATION ONLY. CONTRACTOR TO COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2. CONTRACTOR TO COORDINATE SIZE, LOCATIONS AND SUPPORT OF ALL EQUIPMENT WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
3. CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION SEQUENCE FOR ALL STRUCTURAL ELEMENTS IN THE PROJECT. CONTRACTOR IS RESPONSIBLE TO PROVIDE ANY SHORING OR BRACING AS NEEDED UNTIL STRUCTURE IS COMPLETE.
4. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING STRUCTURAL ELEMENTS, SIZES, DIMENSIONS, LOCATIONS, ETC. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
5. CONTRACTOR SHALL FIELD VERIFY THE CONDITION OF EXISTING ELEMENTS. ANY VISIBLE DETERIORATION OR DAMAGE SHALL BE REPORTED TO THE ARCHITECT AND/OR ENGINEER.
6. CONTRACTOR SHALL TAKE SPECIAL CARE DURING DEMOLITION NOT TO DAMAGE ANY STRUCTURAL ELEMENT THAT IS TO REMAIN. ANY DAMAGED ELEMENTS MUST BE REPAIRED/REPLACED AT NO ADDITIONAL COST TO OWNER.
7. VERIFY, SIZE, WEIGHT, LOCATION, AND CONFIGURATION OF ALL ROOF TOP EQUIPMENT AND ROOF OPENINGS WITH ARCHITECT AND MECHANICAL ENGINEER. PROVIDE STEEL FRAMES AS OUTLINED ON SHEET D3/S101.
8. LOCATION OF STRUCTURAL SUPPORTS MUST BE EXACT TO PROPERLY ACCEPT EQUIPMENT. CONTRACTOR MUST COORDINATE LOCATION OF ALL SUPPORT ELEMENTS WITH ARCHITECTURAL AND EQUIPMENT SUPPLIER DRAWINGS, CUT SHEETS AND SPECIFICATIONS.
9. DETAILS E5+D5/S101 SHALL APPLY WHERE SLAB MUST BE REMOVED AND REPLACED FOR BELOW GRADE SYSTEMS. SEE ARCH/MECH DRAWINGS.

KEYNOTES

A	EXISTING CONCRETE SLAB ON GRADE, TOS = 100'-0" (SEE ARCH + FIELD VERIFY)
B	RECESSED EXISTING CONCRETE SLAB ON GRADE, TOS = 99'-10.1/2" (SEE ARCH + FIELD VERIFY)
C	EXISTING CONCRETE MAT FOOTING, TOS = 99'-10.1/2" (SEE ARCH + FIELD VERIFY)
D	EXISTING CONCRETE FOUNDATION WALL ON CONCRETE FOOTING, TYP
E	EXISTING STEEL COLUMN ON CONCRETE SPREAD FOOTING, TYP
F	EXISTING STEEL COLUMN
G	EXISTING STEEL BEAMS AND JOISTS
H	NEW RTU SUPPORT FRAME

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · FFKR.COM

structural DESIGN STUDIO
2225 E. Murray Holladay Rd. #110
Salt Lake City, Utah 84117
801.274.3950 :: structuralds.com

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
CONSTRUCTION DOCUMENTS - 6/6/2025

PROFESSIONAL STRUCTURAL ENGINEER
JESSICA SHARP
CHAPPELL
7102977
STATE OF UTAH
06/06/2025

△ DATE REVISION

PROJECT NUMBER 24023

STRUCTURAL PLAN + DETAILS

S101

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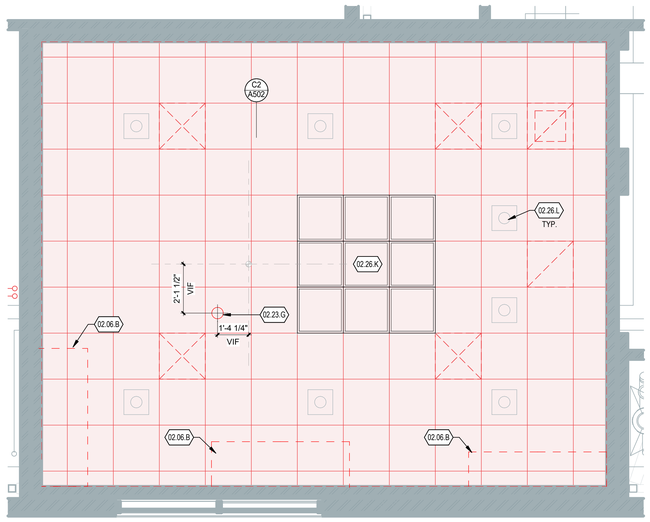
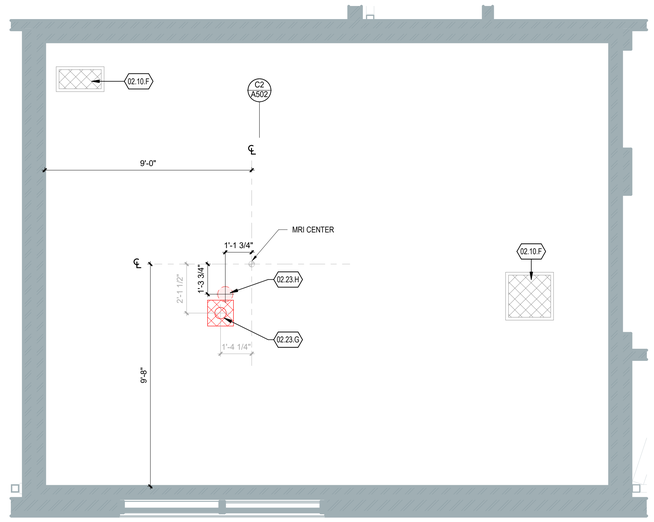


C1 MRI RCP - DEMO

SCALE: 3/8" = 1'-0"



C4 MRI RCP - SHIELDING CEILING - DEMO

SCALE: 3/8" = 1'-0"

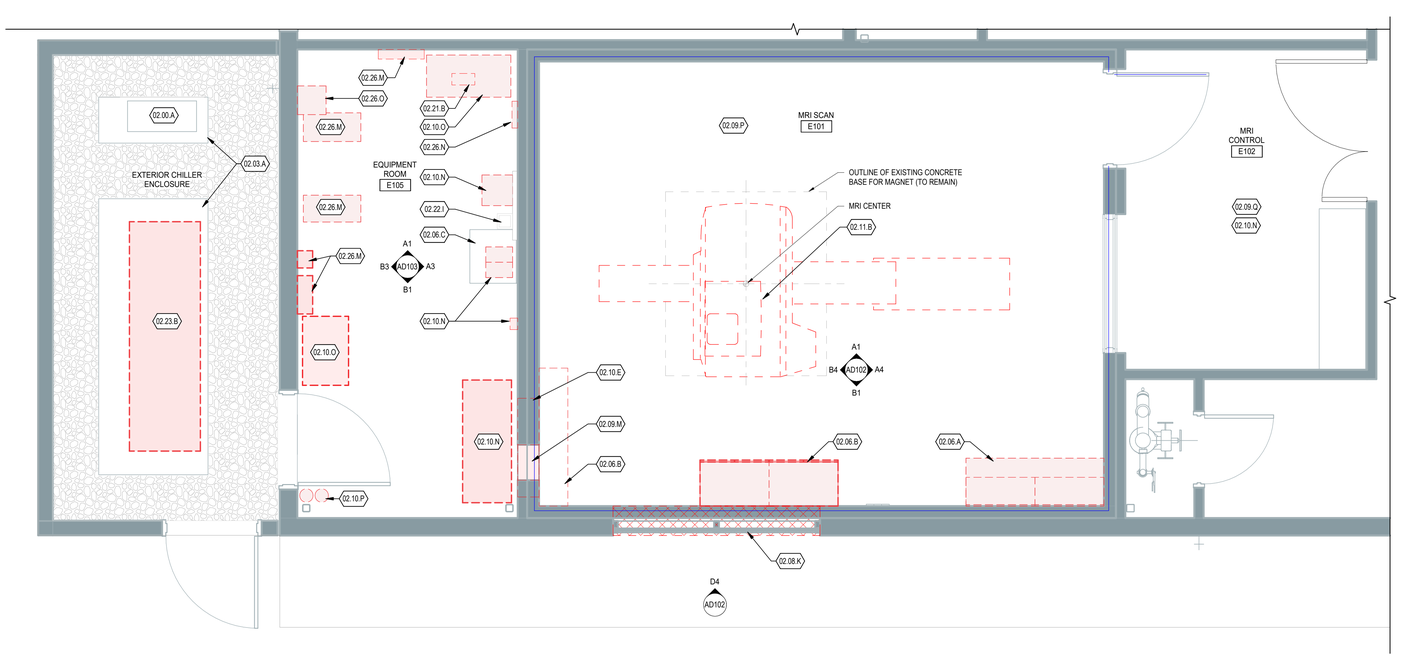
REFERENCE NOTES

02.00.A	EXISTING TO REMAIN
02.03.A	EXISTING CONCRETE PAD TO REMAIN
02.03.F	EXISTING 12" THICK CONCRETE BASE FOR MAGNET, TO REMAIN. VERIFY LOCATION IN FIELD
02.03.G	GRIND EXISTING ANCHORS SMOOTH PRIOR TO INSTALLATION OF NEW EQUIPMENT; RE: STRUCTURAL
02.03.H	EXISTING CONCRETE SLAB TO REMAIN
02.06.A	DEMOLISH EXISTING MILLWORK AND COUNTERTOP
02.06.B	DEMOLISH EXISTING MILLWORK
02.06.C	EXISTING COUNTER TO REMAIN
02.08.K	AREA OF RED CROSSHATCH SHOWS OUTLINE OF KNOCK-OUT PANEL (BEHIND STOREFRONT). STOREFRONT AND PANEL TO BE REMOVED FOR EQUIPMENT INSTALLATION, AND THEN REINSTALLED. SHIELDING TO BE PATCHED AS REQUIRED AND COORDINATED WITH SHIELDING VENDOR. ANY ADJACENT FINISHES AFFECTED BY THE REMOVAL OF THE PANEL ARE TO BE REPAIRED AND REFINISHED.
02.09.M	DEMOLISH PORTION OF EXISTING WALL FOR NEW PENETRATION PANEL; RE: GE DRAWINGS. PENETRATIONS IN SHIELDING TO BE COORDINATED WITH SHIELDING VENDOR.
02.09.P	EXISTING FLOORING AND BASE TO BE REMOVED. EXISTING SLAB AND ASSOCIATED SHIELDING ASSEMBLY (CEMENT BOARD, COPPER SHIELDING, MDF BOARD) IS TO REMAIN: TAKE CARE TO ENSURE THE SHIELDING IS NOT DAMAGED DURING CONSTRUCTION. ANY PATCH AND REPAIR WORK IS TO BE COORDINATED WITH THE SHIELDING VENDOR.
02.09.Q	EXISTING FLOORING AND BASE TO BE REMOVED AND REPLACED; RE: FINISH PLANS.
02.10.E	EXISTING MOUNTING PLATE FOR SIEMENS FILTER PANEL TO BE REMOVED. EXISTING OPENING FOR SIEMENS PENETRATION PANEL TO BE INFILLED TO MATCH EXISTING WALL ASSEMBLY. SHIELDING IS TO BE PATCHED AND REPAIRED PER SHIELDING VENDOR GUIDELINES.
02.10.F	EXISTING HVAC HONEYCOMB WAVEGUIDE TO REMAIN
02.10.N	EXISTING SIEMENS EQUIPMENT TO BE REMOVED
02.10.O	EXISTING STORAGE CABINET/SHELF TO BE REMOVED
02.10.P	EXISTING TANKS TO BE RELOCATED TO SHOP; COORDINATE WITH BRVH FACILITIES MANAGER.
02.11.B	EXISTING MAGNET AND CORRESPONDING SIEMENS EQUIPMENT TO BE REMOVED
02.13.A	EXISTING SHIELDING TO REMAIN. ANY PENETRATIONS ARE TO BE PATCHED AND REPAIRED; COORDINATE WITH SHIELDING VENDOR.
02.21.B	EXISTING AIR COMPRESSOR (SERVING PRE-ACTION SYSTEM) TO BE RELOCATED; RE: MECHANICAL & FLOOR PLAN
02.22.I	EXISTING FLOOR SINK TO REMAIN
02.23.B	DEMOLISH EXISTING AIR CHILLER; RE: MECHANICAL
02.23.G	EXISTING CRYOGEN VENT & WAVEGUIDE TO BE REMOVED. CEILING AND ROOF TO BE PATCHED AND REPAIRED. SHIELDING TO BE PATCHED AND REPAIRED; COORDINATE WITH SHIELDING VENDOR.
02.23.H	DEMOLISH PORTION OF EXISTING CEILING AND ROOF AS NEEDED FOR NEW CRYOGEN VENT; RE: MECHANICAL AND GE DRAWINGS. PENETRATION THROUGH SHIELDING AND INSTALLATION OF NEW WAVEGUIDE TO BE COORDINATED WITH SHIELDING VENDOR
02.26.K	EXISTING LIGHT PANELS TO BE SALVAGED AND REUSED; RE: RCP
02.26.L	EXISTING CAN LIGHTS TO BE SALVAGED AND REUSED
02.26.M	EXISTING UPS AND UPS BYPASS PANEL/EQUIPMENT TO BE RELOCATED TO THE TEC; RE: ELECTRICAL
02.26.N	EXISTING VESDA PANEL TO BE RELOCATED INSIDE THE MRI EQUIPMENT ROOM; RE: ELECTRICAL
02.26.O	EXISTING DISH NETWORK RACK TO BE RELOCATED TO OTHER END OF EQUIPMENT ROOM; RE: ELECTRICAL

GENERAL NOTES

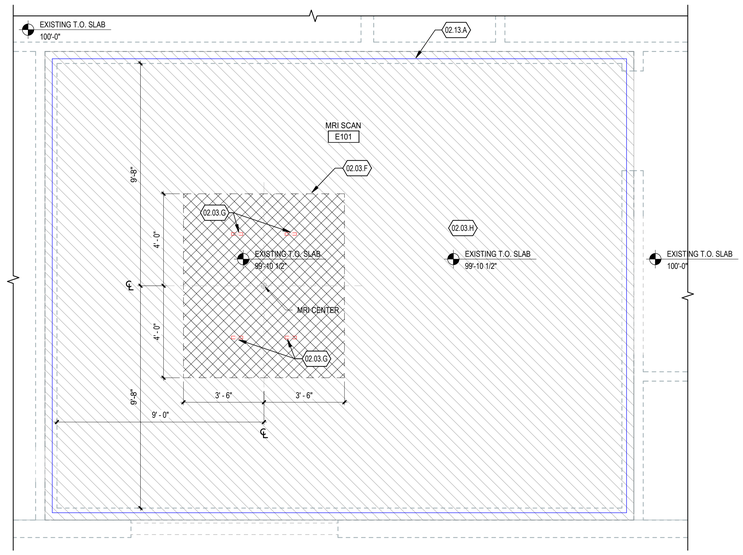
1. PRIOR TO STARTING ANY DEMOLITION WORK, REVIEW ENTIRE SET OF DRAWINGS PERTAINING TO THIS SCOPE OF WORK TO UNDERSTAND ENTIRE SCOPE OF DEMOLITION WORK AND ELEMENTS THAT ARE TO REMAIN IN THE COMPLETED PROJECT.
2. DASHED RED LINES INDICATE EXISTING CONSTRUCTION TO BE REMOVED, TYPICAL.
3. CONTRACTOR IS TO LIMIT WORK TO AREAS INDICATED WITHIN THE CONTRACT LIMIT LINE, UNLESS SPECIFICALLY NOTED OTHERWISE
4. ALL WORK IMPACTING SPACE THAT IS CURRENTLY OCCUPIED IS TO BE COORDINATED AND SCHEDULED WITH THE HOSPITAL PRIOR TO PERFORMING ANY WORK.
5. WHERE WALL DEMOLITION INTERRUPTS POWER/DATA CONDUIT, REROUTE AS NECESSARY.
6. ADDITIONAL DEMOLITION REQUIRED TO COMPLETE WORK IS SHOWN ON DRAWINGS OTHER THAN THE DEMOLITION PLANS. MISCELLANEOUS CUTTING, PATCHING, ETC. REQUIRED FOR THE NEW OR REMODEL WORK SHALL BE PERFORMED EVEN THOUGH NOT CALLED OUT OR DETAILED ON PLANS.
7. WHERE MECHANICAL, ELECTRICAL AND PLUMBING WORK REQUIRES CEILING DEMOLITION, REPLACE CEILING GRID, TILES AND LIGHTING FIXTURES WHERE SUCH WORK IS PERFORMED. RE: MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. COORDINATE WITH REFLECTED CEILING PLAN.
8. CONTRACTOR TO PROTECT ALL EXISTING ITEMS TO REMAIN THROUGHOUT DEMOLITION AND CONSTRUCTION ACTIVITIES.
9. REPAIR / REPLACE ANY DAMAGE TO SPRAY APPLIED FIRE-PROOFING MATERIAL.
10. ALL ITEMS TO BE SALVAGED TO BE REUSED OR DELIVERED TO THE OWNER ARE TO BE PROTECTED AND REMOVED AND/OR RE-INSTALLED WITHOUT DAMAGE.
11. DO NOT REMOVE ANY SECTIONS OF EXISTING CABLE TRAY ABOVE CEILING. COORDINATE WITH ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR REUSE AND COORDINATE WITH NEW WORK.
12. UNLESS OTHERWISE INDICATED, REMOVE ALL FLOORING AND BASE IN AREAS OF DEMOLITION. SEE CEILING PLAN FOR EXISTING CEILING ELEMENTS TO REMAIN.
13. THE CONTRACTOR IS TO BE RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL WALLS, EQUIPMENT, WIRING, DUCTWORK, PIPING AND OTHER EXISTING CONDITIONS THAT ARE NOT INCLUDED IN THE FINAL PROJECT. THIS INCLUDES, BUT IS NOT LIMITED TO, EXISTING CONDITIONS THAT HAVE NOT BEEN INDICATED ON THE DRAWINGS IN ALL TRADES OF THE PROJECT.
14. CONTRACTOR SHALL BE RESPONSIBLE TO KEEP ALL EXISTING ENTRANCES, ELEVATORS, LOBBIES, CORRIDORS, AND EGRESS STAIRS OPEN AND AVAILABLE FOR SAFE PUBLIC ACCESS AT ALL TIMES WHEN THE BUILDING EXISTING TENANT SPACES ARE OCCUPIED. PROVIDE 7 DAYS NOTICE TO THE HOSPITAL WHEN ANY OF THESE AREAS REQUIRE INACCESSIBILITY TO COMPLETE THIS SCOPE OF WORK.

THIS SHEET TO BE VIEWED IN COLOR



A1 MRI DEMO PLAN

SCALE: 3/8" = 1'-0"



SLAB LEGEND

- EXISTING CONCRETE SLAB ON GRADE
- EXISTING 1 1/2" RECESSED CONCRETE SLAB
- EXISTING 12" THICK CONCRETE BASE

A5 MRI SLAB PLAN

SCALE: 3/8" = 1'-0"

PROJECT NORTH TRUE NORTH

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · FFKR.COM

Intermountain Health

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents

STATE OF UTAH
CHRISTINA LOUISE HAAS
No. 8364715-0301
LICENSED ARCHITECT
06/06/2025

△ DATE REVISION

PROJECT NUMBER 24023

DEMO PLANS & RCP

AD101

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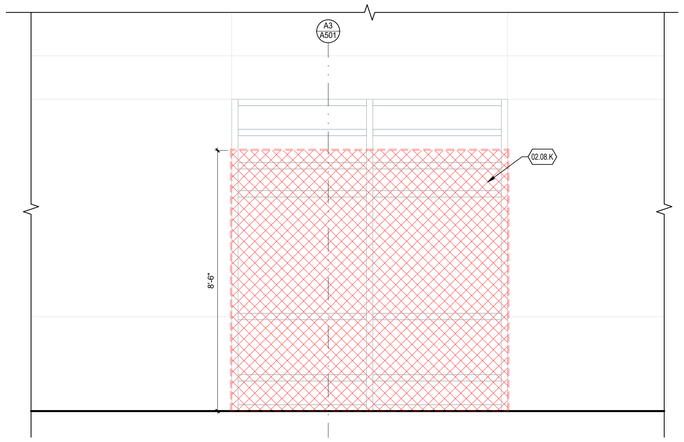
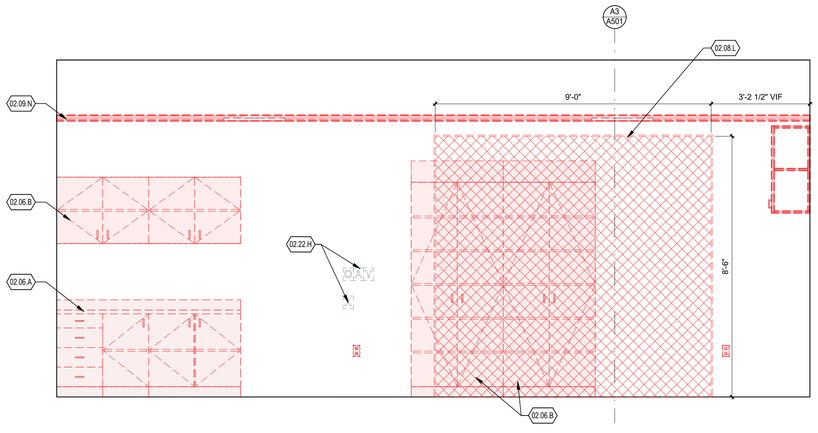


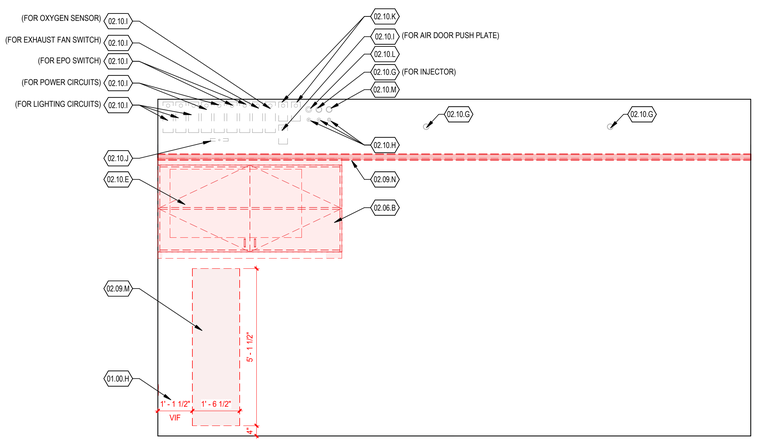
D4 DEMO ELEVATION - EXTERIOR KNOCK OUT PANEL

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



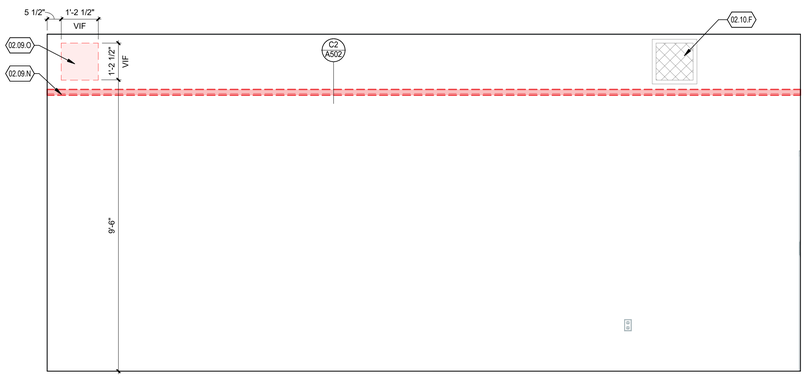
B1 DEMO ELEVATION - MRI 3

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



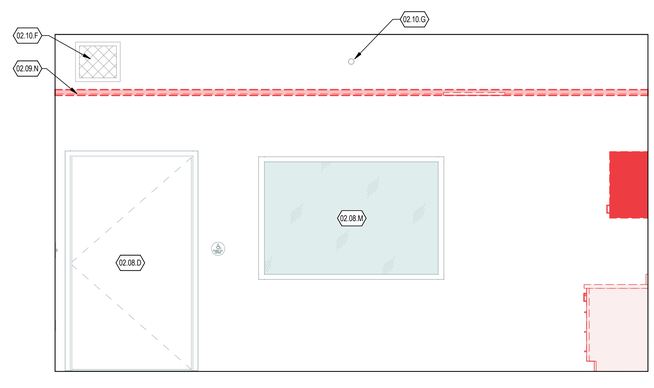
B4 DEMO ELEVATION - MRI 4

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



A1 DEMO ELEVATION - MRI 1

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



A4 DEMO ELEVATION - MRI 2

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

REFERENCE NOTES

01.00.H	OPENING FOR PENETRATION PANEL TO ALIGN WITH OPENING ON EQUIPMENT ROOM SIDE.
02.06.A	DEMOLISH EXISTING MILLWORK AND COUNTERTOP
02.06.B	DEMOLISH EXISTING MILLWORK
02.08.D	EXISTING DOOR TO REMAIN
02.08.K	AREA OF RED CROSSHATCH SHOWS OUTLINE OF KNOCK-OUT PANEL (BEHIND STOREFRONT). STOREFRONT AND PANEL TO BE REMOVED FOR EQUIPMENT INSTALLATION, AND THEN REINSTALLED. SHIELDING TO BE PATCHED AS REQUIRED AND COORDINATED WITH SHIELDING VENDOR. ANY ADJACENT FINISHES AFFECTED BY THE REMOVAL OF THE PANEL ARE TO BE REPAIRED AND REFINISHED.
02.08.L	AREA OF RED CROSSHATCH SHOWS OUTLINE OF KNOCK-OUT PANEL. PANEL TO BE REMOVED FOR EQUIPMENT INSTALLATION AND THEN REINSTALLED. COORDINATE WORK WITH SHIELDING VENDOR.
02.08.M	EXISTING WINDOW TO REMAIN
02.09.M	DEMOLISH PORTION OF EXISTING WALL FOR NEW PENETRATION PANEL; RE: GE DRAWINGS. PENETRATIONS IN SHIELDING TO BE COORDINATED WITH SHIELDING VENDOR.
02.09.N	EXISTING CEILING TO BE REMOVED; RE: DEMO RCP
02.09.O	DEMOLISH PORTION OF WALL FOR NEW EXHAUST DUCT AND HVAC WAVEGUIDE; RE: MECHANICAL. COORDINATE ALL SHIELDING PENETRATIONS WITH SHIELDING VENDOR.
02.10.E	EXISTING MOUNTING PLATE FOR SIEMENS FILTER PANEL TO BE REMOVED. EXISTING OPENING FOR SIEMENS PENETRATION PANEL TO BE INFILLED TO MATCH EXISTING WALL ASSEMBLY. SHIELDING IS TO BE PATCHED AND REPAIRED PER SHIELDING VENDOR GUIDELINES.
02.10.F	EXISTING HVAC HONEYCOMB WAVEGUIDE TO REMAIN
02.10.G	EXISTING FIBER-OPTIC CABLE PASS THROUGH TO REMAIN
02.10.H	EXISTING MEDICAL GAS LINE PENETRATIONS, TO REMAIN
02.10.I	EXISTING POWER LINE FILTERS TO REMAIN
02.10.J	EXISTING GROUND STUD & BUS BAR TO REMAIN
02.10.K	EXISTING DUAL SPEAKER LINE FILTERS (FOR NURSE CALL DEVICE), TO REMAIN
02.10.L	EXISTING SPRINKLER LINE PENETRATION TO REMAIN
02.10.M	EXISTING WAVEGUIDE (FOR PLASTIC AIR SAMPLING LINES FOR VESDA FIRE ALARM SYSTEM), TO REMAIN
02.22.H	EXISTING MED GAS OUTLETS TO REMAIN

GENERAL NOTES

1. PRIOR TO STARTING ANY DEMOLITION WORK, REVIEW ENTIRE SET OF DRAWINGS PERTAINING TO THIS SCOPE OF WORK TO UNDERSTAND ENTIRE SCOPE OF DEMOLITION WORK AND ELEMENTS THAT ARE TO REMAIN IN THE COMPLETED PROJECT.
2. DASHED RED LINES INDICATE EXISTING CONSTRUCTION TO BE REMOVED, TYPICAL.
3. CONTRACTOR IS TO LIMIT WORK TO AREAS INDICATED WITHIN THE CONTRACT LIMIT LINE, UNLESS SPECIFICALLY NOTED OTHERWISE.
4. ALL WORK IMPACTING SPACE THAT IS CURRENTLY OCCUPIED IS TO BE COORDINATED AND SCHEDULED WITH THE HOSPITAL PRIOR TO PERFORMING ANY WORK.
5. WHERE WALL DEMOLITION INTERRUPTS POWER/DATA CONDUIT, REROUTE AS NECESSARY.
6. ADDITIONAL DEMOLITION REQUIRED TO COMPLETE WORK IS SHOWN ON DRAWINGS OTHER THAN THE DEMOLITION PLANS. MISCELLANEOUS CUTTING, PATCHING, ETC. REQUIRED FOR THE NEW OR REMODEL WORK SHALL BE PERFORMED EVEN THOUGH NOT CALLED OUT OR DETAILED ON PLANS.
7. WHERE MECHANICAL, ELECTRICAL AND PLUMBING WORK REQUIRES CEILING DEMOLITION, REPLACE CEILING GRID, TILES AND LIGHTING FIXTURES WHERE SUCH WORK IS PERFORMED. RE: MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. COORDINATE WITH REFLECTED CEILING PLAN.
8. CONTRACTOR TO PROTECT ALL EXISTING ITEMS TO REMAIN THROUGHOUT DEMOLITION AND CONSTRUCTION ACTIVITIES.
9. REPAIR / REPLACE ANY DAMAGE TO SPRAY APPLIED FIRE-PROOFING MATERIAL.
10. ALL ITEMS TO BE SALVAGED TO BE REUSED OR DELIVERED TO THE OWNER ARE TO BE PROTECTED AND REMOVED AND/OR RE-INSTALLED WITHOUT DAMAGE.
11. DO NOT REMOVE ANY SECTIONS OF EXISTING CABLE TRAY ABOVE CEILING. COORDINATE WITH ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR REUSE AND COORDINATE WITH NEW WORK.
12. UNLESS OTHERWISE INDICATED, REMOVE ALL FLOORING AND BASE IN AREAS OF DEMOLITION. SEE CEILING PLAN FOR EXISTING CEILING ELEMENTS TO REMAIN.
13. THE CONTRACTOR IS TO BE RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL WALLS, EQUIPMENT, WIRING, DUCTWORK, PIPING AND OTHER EXISTING CONDITIONS THAT ARE NOT INCLUDED IN THE FINAL PROJECT. THIS INCLUDES, BUT IS NOT LIMITED TO, EXISTING CONDITIONS THAT HAVE NOT BEEN INDICATED ON THE DRAWINGS IN ALL TRADES OF THE PROJECT.
14. CONTRACTOR SHALL BE RESPONSIBLE TO KEEP ALL EXISTING ENTRANCES, ELEVATORS, LOBBIES, CORRIDORS, AND EGRESS STAIRS OPEN AND AVAILABLE FOR SAFE PUBLIC ACCESS AT ALL TIMES WHEN THE BUILDING EXISTING TENANT SPACES ARE OCCUPIED. PROVIDE 7 DAYS NOTICE TO THE HOSPITAL WHEN ANY OF THESE AREAS REQUIRE INACCESSIBILITY TO COMPLETE THIS SCOPE OF WORK.

THIS SHEET TO BE VIEWED IN COLOR

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730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · **FFKR.COM**

Intermountain Health

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents

STATE OF UTAH
CHRISTINA LOUISE HAAS
No. 8364715-0301
06/06/2025
LICENSED ARCHITECT

△	DATE	REVISION

PROJECT NUMBER 24023

DEMO ELEVATIONS - MRI

AD102

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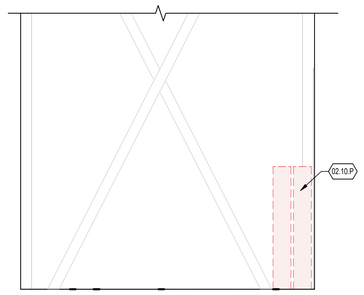
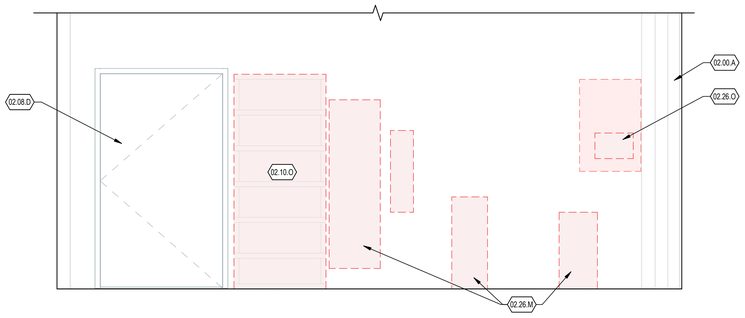


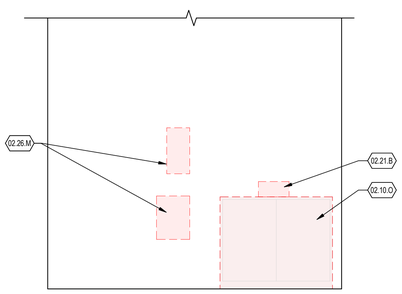
B1 EQUIPMENT ROOM - EXISTING 3

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



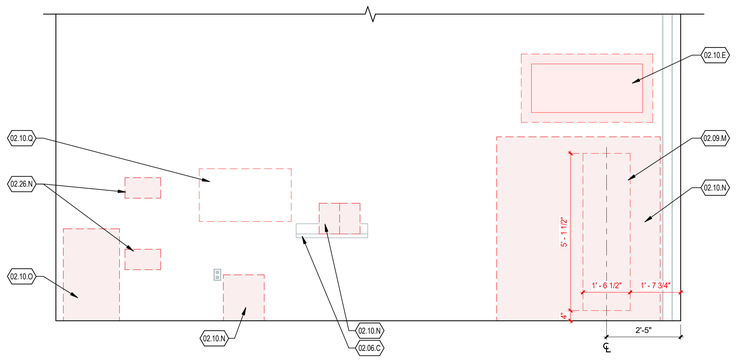
B3 EQUIPMENT ROOM - EXISTING 4

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



A1 EQUIPMENT ROOM - EXISTING 1

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



A3 DEMO ELEVATION - EQUIPMENT ROOM 2

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

REFERENCE NOTES

02.00.A	EXISTING TO REMAIN
02.06.C	EXISTING COUNTER TO REMAIN
02.08.D	EXISTING DOOR TO REMAIN
02.09.M	DEMOLISH PORTION OF EXISTING WALL FOR NEW PENETRATION PANEL; RE: GE DRAWINGS. PENETRATIONS IN SHIELDING TO BE COORDINATED WITH SHIELDING VENDOR.
02.10.E	EXISTING MOUNTING PLATE FOR SIEMENS FILTER PANEL TO BE REMOVED. EXISTING OPENING FOR SIEMENS PENETRATION PANEL TO BE INFILLED TO MATCH EXISTING WALL ASSEMBLY. SHIELDING IS TO BE PATCHED AND REPAIRED PER SHIELDING VENDOR GUIDELINES.
02.10.N	EXISTING SIEMENS EQUIPMENT TO BE REMOVED
02.10.O	EXISTING STORAGE CABINET/SHELF TO BE REMOVED
02.10.P	EXISTING TANKS TO BE RELOCATED TO SHOP; COORDINATE WITH BRVH FACILITIES MANAGER.
02.10.Q	EXISTING SIEMENS INTERFACE PANEL; REMOVE ALL SIEMENS EQUIPMENT.
02.21.B	EXISTING AIR COMPRESSOR (SERVING PRE-ACTION SYSTEM) TO BE RELOCATED; RE: MECHANICAL & FLOOR PLAN
02.26.M	EXISTING UPS AND UPS BYPASS PANEL/EQUIPMENT TO BE RELOCATED TO THE TEC; RE: ELECTRICAL
02.26.N	EXISTING VESDA PANEL TO BE RELOCATED INSIDE THE MRI EQUIPMENT ROOM; RE: ELECTRICAL
02.26.O	EXISTING DISH NETWORK RACK TO BE RELOCATED TO OTHER END OF EQUIPMENT ROOM; RE: ELECTRICAL

GENERAL NOTES

1. PRIOR TO STARTING ANY DEMOLITION WORK, REVIEW ENTIRE SET OF DRAWINGS PERTAINING TO THIS SCOPE OF WORK TO UNDERSTAND ENTIRE SCOPE OF DEMOLITION WORK AND ELEMENTS THAT ARE TO REMAIN IN THE COMPLETED PROJECT.
2. DASHED RED LINES INDICATE EXISTING CONSTRUCTION TO BE REMOVED, TYPICAL.
3. CONTRACTOR IS TO LIMIT WORK TO AREAS INDICATED WITHIN THE CONTRACT LIMIT LINE, UNLESS SPECIFICALLY NOTED OTHERWISE.
4. ALL WORK IMPACTING SPACE THAT IS CURRENTLY OCCUPIED IS TO BE COORDINATED AND SCHEDULED WITH THE HOSPITAL PRIOR TO PERFORMING ANY WORK.
5. WHERE WALL DEMOLITION INTERRUPTS POWER/DATA CONDUIT, REROUTE AS NECESSARY.
6. ADDITIONAL DEMOLITION REQUIRED TO COMPLETE WORK IS SHOWN ON DRAWINGS OTHER THAN THE DEMOLITION PLANS. MISCELLANEOUS CUTTING, PATCHING, ETC. REQUIRED FOR THE NEW OR REMODEL WORK SHALL BE PERFORMED EVEN THOUGH NOT CALLED OUT OR DETAILED ON PLANS.
7. WHERE MECHANICAL, ELECTRICAL AND PLUMBING WORK REQUIRES CEILING DEMOLITION, REPLACE CEILING GRID, TILES AND LIGHTING FIXTURES WHERE SUCH WORK IS PERFORMED. RE: MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. COORDINATE WITH REFLECTED CEILING PLAN.
8. CONTRACTOR TO PROTECT ALL EXISTING ITEMS TO REMAIN THROUGHOUT DEMOLITION AND CONSTRUCTION ACTIVITIES.
9. REPAIR / REPLACE ANY DAMAGE TO SPRAY APPLIED FIRE-PROOFING MATERIAL.
10. ALL ITEMS TO BE SALVAGED TO BE REUSED OR DELIVERED TO THE OWNER ARE TO BE PROTECTED AND REMOVED AND/OR RE-INSTALLED WITHOUT DAMAGE.
11. DO NOT REMOVE ANY SECTIONS OF EXISTING CABLE TRAY ABOVE CEILING. COORDINATE WITH ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR REUSE AND COORDINATE WITH NEW WORK.
12. UNLESS OTHERWISE INDICATED, REMOVE ALL FLOORING AND BASE IN AREAS OF DEMOLITION. SEE CEILING PLAN FOR EXISTING CEILING ELEMENTS TO REMAIN.
13. THE CONTRACTOR IS TO BE RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL WALLS, EQUIPMENT, WIRING, DUCTWORK, PIPING AND OTHER EXISTING CONDITIONS THAT ARE NOT INCLUDED IN THE FINAL PROJECT. THIS INCLUDES, BUT IS NOT LIMITED TO, EXISTING CONDITIONS THAT HAVE NOT BEEN INDICATED ON THE DRAWINGS IN ALL TRADES OF THE PROJECT.
14. CONTRACTOR SHALL BE RESPONSIBLE TO KEEP ALL EXISTING ENTRANCES, ELEVATORS, LOBBIES, CORRIDORS, AND EGRESS STAIRS OPEN AND AVAILABLE FOR SAFE PUBLIC ACCESS AT ALL TIMES WHEN THE BUILDING EXISTING TENANT SPACES ARE OCCUPIED. PROVIDE 7 DAYS NOTICE TO THE HOSPITAL WHEN ANY OF THESE AREAS REQUIRE INACCESSIBILITY TO COMPLETE THIS SCOPE OF WORK.

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CHRISTINA LOUISE HAAS
No. 8364715-0301
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LICENSED ARCHITECT

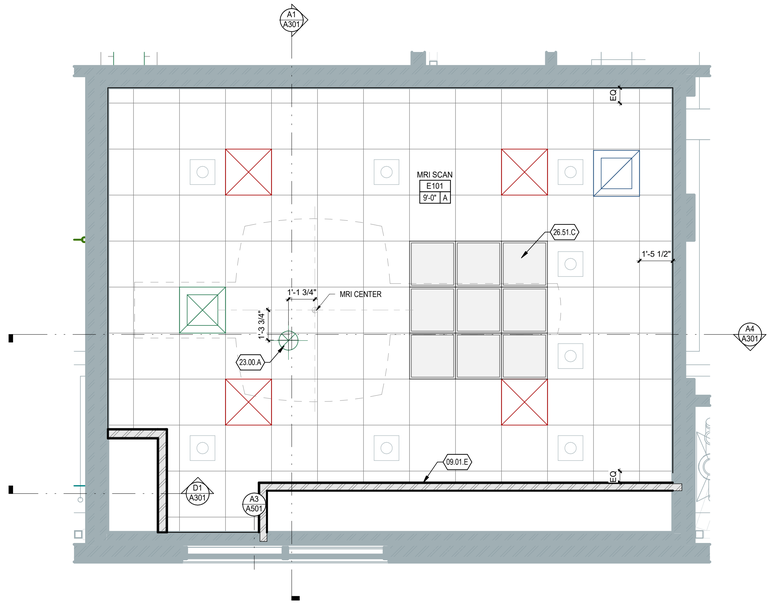
△	DATE	REVISION

PROJECT NUMBER 24023

DEMO ELEVATIONS-EQUIPMENT ROOM

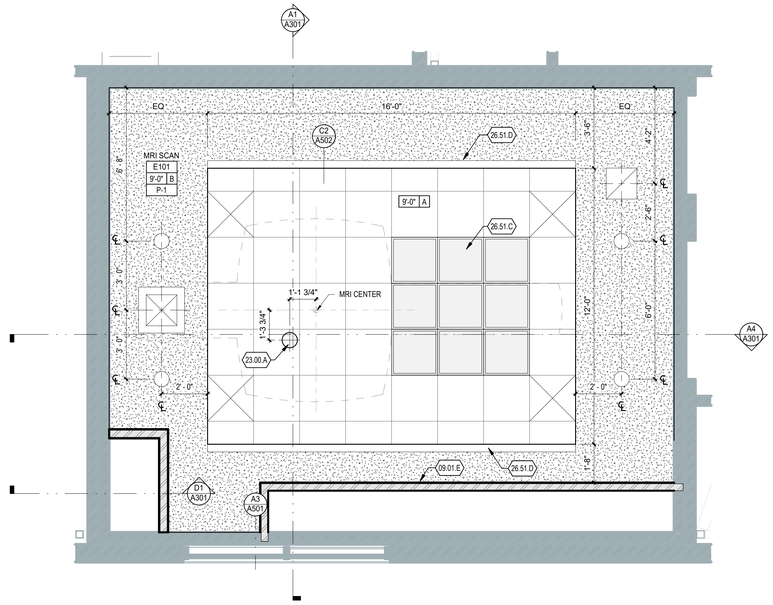
AD103

6/6/2025 3:28:31 PM



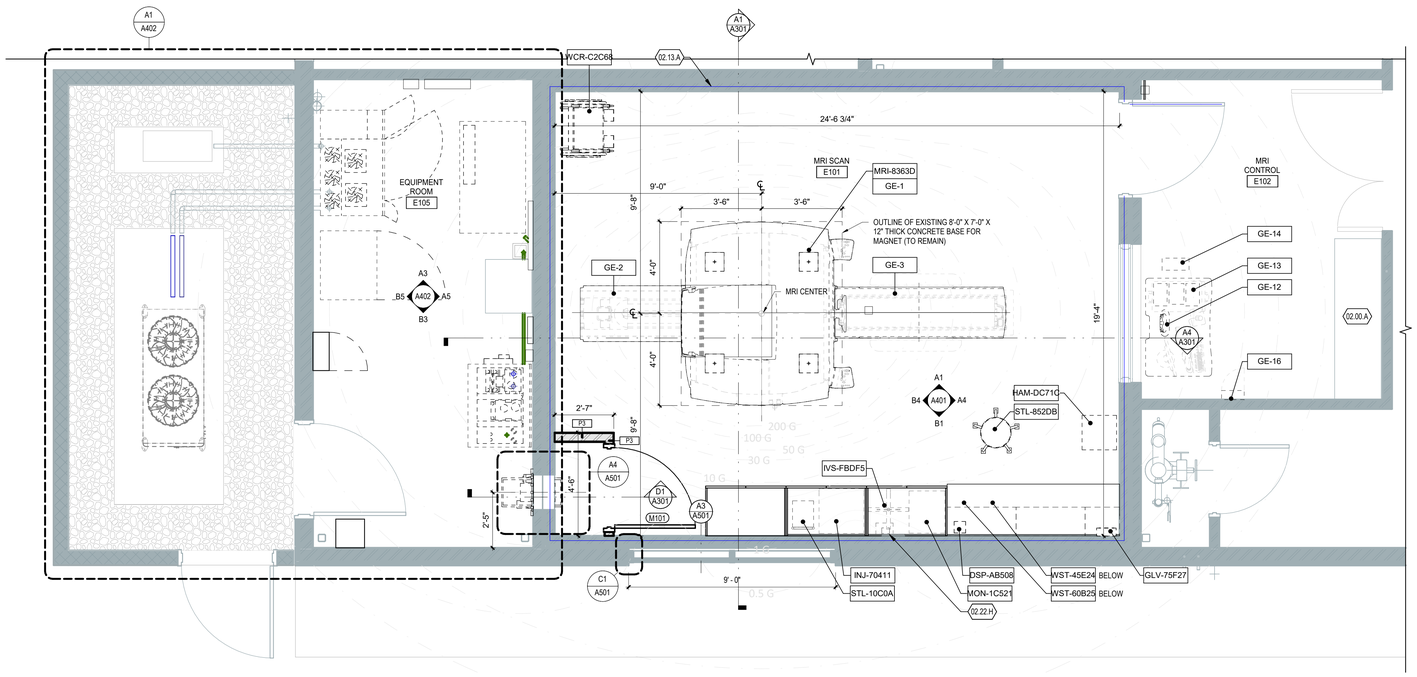
C1 MRI RCP - MATCH EXISTING

SCALE: 3/8" = 1'-0"



C4 MRI RCP - ALTERNATE

SCALE: 3/8" = 1'-0"



A1 MRI ENLARGED PLAN

SCALE: 3/8" = 1'-0"

PROJECT NORTH TRUE NORTH

EQUIPMENT LEGEND

DSP-AB508	DISPENSER: EMESIS BAG, WALL MOUNT
GE-1	MAGNET (MAG)(IPM), GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-2	REAR PEDESTAL (PED), GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-3	PATIENT TABLE (PT), GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-12	WIRELESS GATING CHARGING STATION, GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-13	MUSIC SYSTEM, GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-14	700VA UPS, GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-16	REMOTE CONTROL PANEL, GE SUPPLIED/CONTRACTOR INSTALLED. RE: GE EQUIPMENT DRAWINGS
GLV-75F27	DISPENSER, GLOVE: TRIPLE BOX
HAM-DC71C	HAMPER: LINEN, MRI
INJ-70411	INJECTOR, CONTRAST MEDIA: MRI COMPATIBLE
IVS-FBDF5	STAND, IV: MRI
MON-1C521	MONITOR, PHYSIOLOGIC: MRI
MRI-8363D	MRI UNIT: 1.5T
STL-10C0A	STOOL: STEP, W/HANDRAIL, MRI
STL-852DB	STOOL: EXAM, MRI
WCR-C2C68	WHEELCHAIR: ADULT, MRI
WST-45E24	WASTE CAN: BIO-HAZARDOUS
WST-60B25	WASTE CAN: OPEN TOP

REFERENCE NOTES

02.00.A	EXISTING TO REMAIN
02.13.A	EXISTING SHIELDING TO REMAIN. ANY PENETRATIONS ARE TO BE PATCHED AND REPAIRED; COORDINATE WITH SHIELDING VENDOR.
02.22.H	EXISTING MED GAS OUTLETS TO REMAIN
09.01.E	SOFFIT ABOVE MILLWORK; RE: D1/A800
23.00.A	NEW 8" O.D. CRYOGEN VENT; RE: MECHANICAL AND GE DRAWINGS. NEW SHIELDING PENETRATION AND INSTALLATION OF NEW WAVEGUIDE TO BE COORDINATED WITH SHIELDING VENDOR; RE: DEMO RCP.
26.51.C	EXISTING LIGHT PANELS, TO BE REINSTALLED IN NEW CEILING.
26.51.D	LINEAR LIGHT FIXTURE; RE: ELECTRICAL

THIS SHEET TO BE VIEWED IN COLOR

GENERAL NOTES

1. CONTRACTOR IS TO LIMIT WORK TO AREAS INDICATED WITHIN THE CONTRACT LIMIT LINE, UNLESS SPECIFCALLY NOTED OTHERWISE.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. NOTIFY ARCHITECT IF THERE ARE ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS, DIMENSIONS OR OTHER WORK SHOWN IN THE CONTRACT DOCUMENTS.
3. AFTER DEMOLITION HAS BEEN COMPLETED AND PRIOR TO ALL CONSTRUCTION ACTIVITIES, THE CONTRACTOR IS TO LAYOUT ALL INTERIOR WALLS USING CHALK OR OTHER NON-PERMANENT MARKING DEVICE. LAYOUT IS TO BE VERIFIED BY THE PROJECT ARCHITECT.
4. PATCH, REPAIR, PREP AND PAINT ALL EXISTING GYPSUM BOARD WALLS INSIDE THE CONTRACT AREA THAT ARE TO REMAIN. WALLS TO APPEAR AS LIKE NEW CONDITION. THIS INCLUDES HOLES FROM SCREWS, NAILS, AND OTHER OBVIOUSLY DAMAGED SECTIONS OF WALL.
5. PATCH / REPAIR ALL FLOORS, WALLS, CEILINGS, AND OTHER CASEWORK DISTURBED BY INSTALLATION OF PLUMBING, MECHANICAL, ELECTRICAL, OR OTHER WORK.
6. EXCEPT FOR AREAS "NOT IN CONTRACT" ON THIS PLAN, PAINT ALL INTERIOR WALLS AND DOOR FRAMES. REFER TO PAINT SPECIFICATIONS FOR NUMBER OF COATS REQUIRED ON NEW AND EXISTING SURFACES.
7. INTERIOR DIMENSIONS ARE TO FACE OF GYPSUM BOARD, U.N.O. ALL DIMENSIONS FOLLOWED BY 'CLR' INDICATE CLEAR FINISHED FACE DIMENSION
8. PROVIDE BLOCKING / BACKING IN WALLS FOR ALL WALL MOUNTED ITEMS. RE: EQUIPMENT PLANS AND INTERIOR ELEVATIONS. SEE DETAIL A1/A502 FOR TYPICAL WALL BACKING PLATE SCHEDULE.
9. ALL DOOR JAMBS IN STUD WALLS ARE TO BE 4" CLEAR FROM ADJACENT WALL, U.N.O.
10. REFER TO SHEET A502 FOR PARTITION TYPES.
11. REFER TO SHEET AF101 FOR DOOR SCHEDULE, FRAME TYPES, DOOR TYPES AND DOOR DETAILS.
12. ALL WORK IMPACTING ADJACENT SPACES CURRENTLY OCCUPIED BY THE HOSPITAL OR OTHER TENANT IS TO BE COORDINATED AND SCHEDULED WITH THE TENANT AND HOSPITAL.
13. FURNITURE PROVIDED BY OWNER, SHOWN DASHED FOR INFORMATION PURPOSES ONLY.

GENERAL NOTES - CEILING

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK
2. CONTRACTOR IS RESPONSIBLE TO VERIFY THAT THE DESIGNED HEIGHT OF CEILING CAN BE ACHIEVED DURING INSTALLATION OF ABOVE CEILING WORK SUCH AS PLUMBING, FIRE SPRINKLER, CABLE TRAY, DUCTWORK, ELECTRICAL, ETC., NOTIFY ARCHITECT OF ANY CONFLICTS PRIOR TO COMPLETING THE INSTALLATION OF CONFLICTING SYSTEM.
3. ALL PIPING, PLUMBING, DUCTWORK, ASSOCIATED SYSTEMS AND INSTALLATION HARDWARE WITHIN THE CEILING PLENUM IS TO BE INSTALLED A MINIMUM OF 6" ABOVE FINISHED CEILING HEIGHT.
4. PATCH / REPAIR ALL CEILINGS DISTURBED BY INSTALLATION OF PLUMBING, MECHANICAL, ELECTRICAL, OR OTHER WORK.
5. CENTER CEILING TILE PATTERN IN ROOM AND SUCH THAT NO TILE DIMENSION IS LESS THAN 4", U.N.O.
6. CENTER LIGHT WITHIN ROOMS WITH NON-GRID CEILINGS, U.N.O.
7. CENTER ALL SPRINKLER HEADS IN CEILING TILES
8. CENTER OBJECTS IN BOTH DIRECTIONS WITHIN RECTANGLE THEY OCCUR, U.N.O.
9. ROOMS WITH NO CEILING PATTERN ARE EXPOSED TO STRUCTURE, RE: FINISH SCHEDULE FOR PAINT REQUIREMENTS
10. REFER TO ELECTRICAL FOR SPECIFIC LIGHT FIXTURE TYPE AND MOUNTING HEIGHT
11. REFER TO MECHANICAL FOR SPECIFIC FIXTURE AND DEVICE TYPES
12. ALL GYPSUM BOARD CEILINGS TO BE PAINTED P-1, U.N.O. AT SOFFITS, RE: INTERIOR ELEVATIONS
13. SEE SHEET A502 FOR TYPICAL CEILING DETAILS
14. COORDINATE SOFFIT WITH WALL HUNG MILLWORK. REFER TO DETAIL D1/A800.
15. SEE A502 FOR TYPICAL CEILING GRID SEISMIC BRACING DETAILS.

CEILING LEGEND

ROOM NAME
RM NO.
HT C
PNT

HEIGHT ABOVE FINISHED FLOOR

C = CEILING TYPE
PNT = CEILING FINISH

LIGHT FIXTURES

ELECTRICAL FIXTURES

MECHANICAL FIXTURES

FIRE SPRINKLERS

ACCESS PANELS

CEILING TYPES:

A ACOUSTIC PANEL, **ACP-1**

B GYPSUM BOARD

E EXISTING. PATCH, REPAIR, AND REFINISH AS NOTED

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FLOOR PLAN & CEILING PLAN

A101

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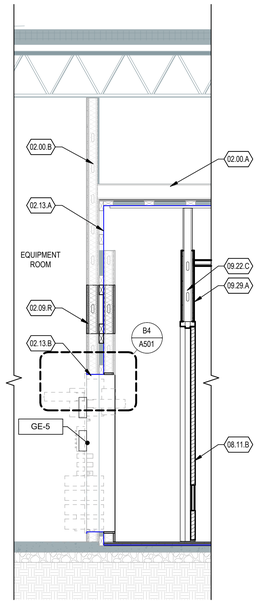
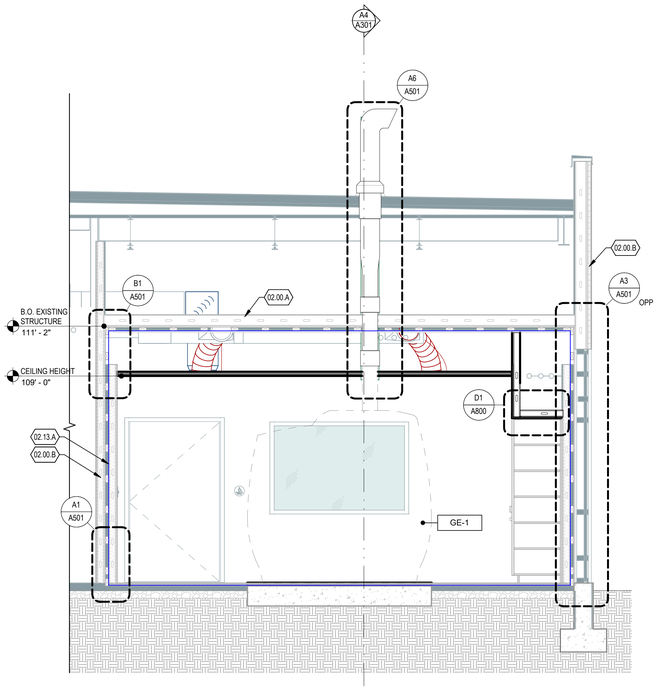


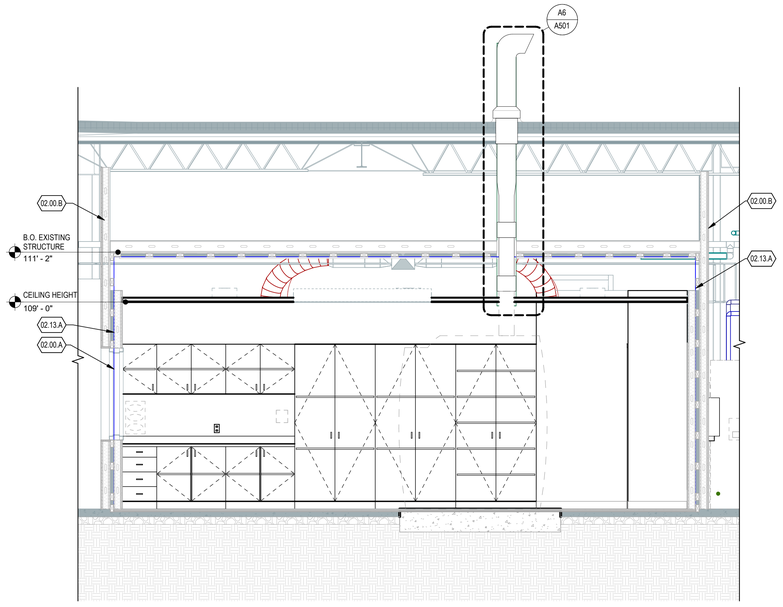
D1 MRI SECTION 3

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



A1 MRI SECTION 1

SCALE: 3/8" = 1'-0"



A4 MRI SECTION 2

SCALE: 3/8" = 1'-0"

REFERENCE NOTES

02.00.A	EXISTING TO REMAIN
02.00.B	EXISTING WALL TO REMAIN
02.09.R	INFILL WALL TO MATCH EXISTING WALL ASSEMBLY. COORDINATE PATCH AND REPAIR OF SHIELDING WITH SHIELDING VENDOR.
02.13.A	EXISTING SHIELDING TO REMAIN. ANY PENETRATIONS ARE TO BE PATCHED AND REPAIRED. COORDINATE WITH SHIELDING VENDOR.
02.13.B	NEW OPENING IN WALL FOR PENETRATION PANEL, RE: DEMO PLANS. SHIELDING TO BE COORDINATED WITH SHIELDING VENDOR.
08.11.B	SCHEDULED DOOR AND FRAME; RE: DOOR SCHEDULE
09.22.C	3 5/8" METAL STUD
09.29.A	5/8" TYPE 'X' GYPSUM BOARD

EQUIPMENT LEGEND

GE-1	MAGNET (MAG)(IPM). GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-5	PENETRATION PANEL (PP). GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS

THIS SHEET TO BE VIEWED IN COLOR

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SECTIONS

A301

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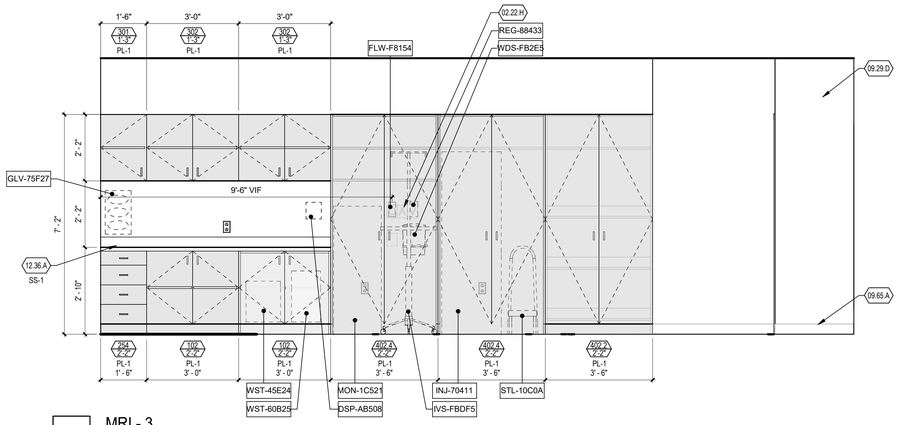
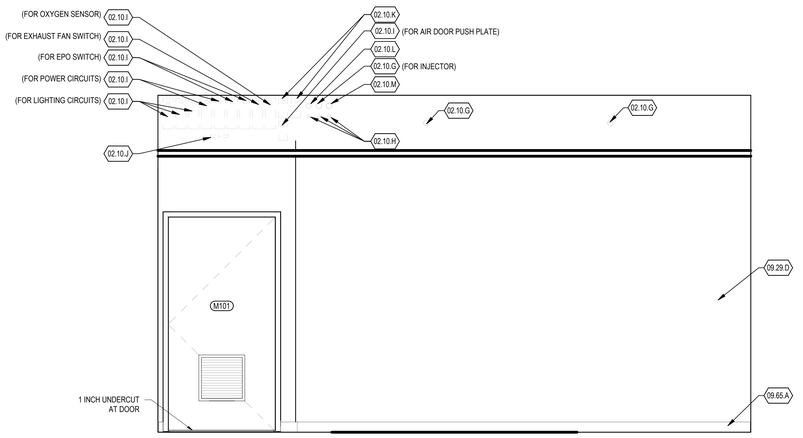


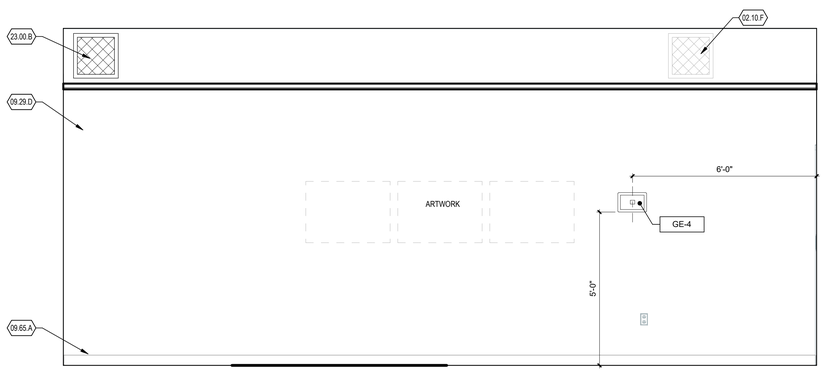
B1 MRI - 3

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



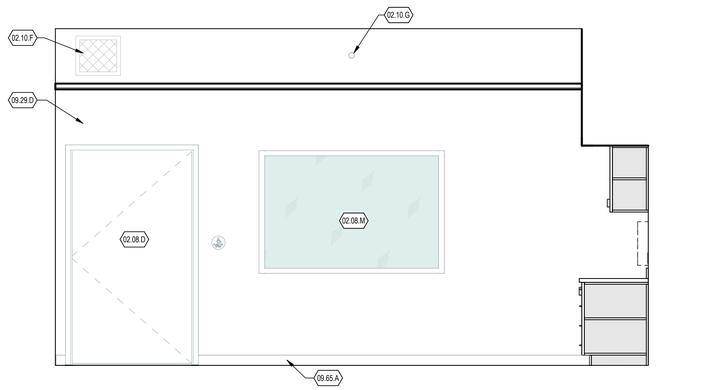
B4 MRI - 4

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



A1 MRI - 1

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



A4 MRI - 2

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

REFERENCE NOTES

02.00.A	EXISTING TO REMAIN
02.08.D	EXISTING DOOR TO REMAIN
02.08.M	EXISTING WINDOW TO REMAIN
02.10.F	EXISTING HVAC HONEYCOMB WAVEGUIDE TO REMAIN
02.10.G	EXISTING FIBER-OPTIC CABLE PASS THROUGH TO REMAIN
02.10.H	EXISTING MEDICAL GAS LINE PENETRATIONS, TO REMAIN
02.10.I	EXISTING POWER LINE FILTERS TO REMAIN
02.10.J	EXISTING GROUND STUD & BUS BAR TO REMAIN
02.10.K	EXISTING DUAL SPEAKER LINE FILTERS (FOR NURSE CALL DEVICE), TO REMAIN
02.10.L	EXISTING SPRINKLER LINE PENETRATION TO REMAIN
02.10.M	EXISTING WAVEGUIDE (FOR PLASTIC AIR SAMPLING LINES FOR VESDA FIRE ALARM SYSTEM), TO REMAIN
02.22.H	EXISTING MED GAS OUTLETS TO REMAIN
09.29.D	PAINTED GYPSUM BOARD; RE: FINISH PLANS
09.65.A	WALL BASE; RE: FINISH PLANS AND FINISH SCHEDULE
12.36.A	COUNTERTOP; RE: INTERIOR ELEVATIONS AND FINISH SCHEDULE
23.00.B	NEW HVAC HONEYCOMB WAVEGUIDE FOR EXHAUST DUCT; RE: MECHANICAL, COORDINATE WITH SHIELDING VENDOR.

EQUIPMENT LEGEND

DSP-AB508	DISPENSER: EMESIS BAG, WALL MOUNT
FLW-F8154	FLOWMETER: OXYGEN
GE-4	MAGNET RUNDOWN UNIT (MRU), GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GLV-75F27	DISPENSER, GLOVE: TRIPLE BOX
INJ-70411	INJECTOR, CONTRAST MEDIA: MRI COMPATIBLE
IVS-FBDF5	STAND, IV: MRI
MON-1C521	MONITOR, PHYSIOLOGIC: MRI
REG-88433	REGULATOR: SUCTION, INTERMITTENT/CONTINUOUS
STL-10C0A	STOOL: STEP, W/HANDRAIL, MRI
WDS-FB2E5	WASTE DISPOSAL: SUCTION CANISTER, WALL
WST-45E24	WASTE CAN: BIO-HAZARDOUS
WST-60B25	WASTE CAN: OPEN TOP

GENERAL NOTES

1. REFERENCE PLAN NOTES SHOWN ON A100 SERIES SHEETS.
2. PROVIDE BLOCKING / BACKING IN WALLS FOR ALL WALL MOUNTED ITEMS. RE: EQUIPMENT PLANS AND INTERIOR ELEVATIONS. SEE DETAIL A1/A502 FOR TYPICAL WALL BACKING PLATE SCHEDULE.
3. FURNITURE AND EQUIPMENT PROVIDED AND INSTALLED BY OWNER IS SHOWN DASHED FOR COORDINATION PURPOSES ONLY.
4. REFER TO A800 SERIES SHEETS FOR MILLWORK SCHEDULE, DETAILS, AND TYPICALS.
5. CENTER FLOORING TRANSITIONS AT CENTER LINE OF DOOR.
6. REFER TO AF SERIES SHEETS FOR FLOORING TRANSITION DETAILS AND FLOOR FINISH PLANS AND LOCATIONS.
7. SEE FINISH PLANS AND INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
8. PROVIDE FILLER PANELS AT ENDS OF CABINETS WHERE THEY ABUT WALLS, TYP.
9. PROVIDE FINISHED PANELS AT ALL EXPOSED SIDES AND RETURNS OF CASEWORK, FINISH TO MATCH FRONT FACE OF MATERIAL.
10. PROVIDE BLOCKING / BACKING BEHIND ALL MILLWORK, TYP.
11. REFER TO INTERIOR ELEVATIONS AND AF SHEETS FOR MILLWORK FINISHES.
12. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS.
13. ALL COUNTERTOPS SHALL HAVE AN 1/8" EASED EDGE.
14. CAULK JOINT BETWEEN MILLWORK AND WALL OR SOFFIT.
15. CAULK ALL BACKSPLASHES TO WALL. CAULK ALL COUNTERTOPS WITHOUT BACKSPLASHES TO WALL.
16. COUNTERTOP BRACKET SUPPORTS SHALL BE CONCEALED IN WALL.
17. WOOD GRAIN PLASTIC LAMINATE TO BE VERTICAL U.N.O.
18. PROVIDE END SPLASH WHERE COUNTERTOP WITH BACKSPLASH ABUTS ADJACENT WALL, TYP., U.N.O.
19. REFER TO EQUIPMENT SCHEDULE AND EQUIPMENT CUT SHEETS PROVIDED BY THE OWNER FOR DETAILED INFORMATION ON ALL OWNER PROVIDED EQUIPMENT. NOTIFY OWNER AND ARCHITECT OF ANY DESCREPANCIES BETWEEN EQUIPMENT PLANS AND EQUIPMENT SCHEDULES AND EQUIPMENT CUT SHEETS IN ADVANCE OF ANY EQUIPMENT UTILITY ROUGH-INS OR INSTALLATION.

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Intermountain Health

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents

STATE OF UTAH
CHRISTINA LOUISE HAAS
No. 8364715-0301
06/06/2025
LICENSED ARCHITECT

△ DATE REVISION

PROJECT NUMBER 24023

INTERIOR ELEVATIONS - MRI

A401

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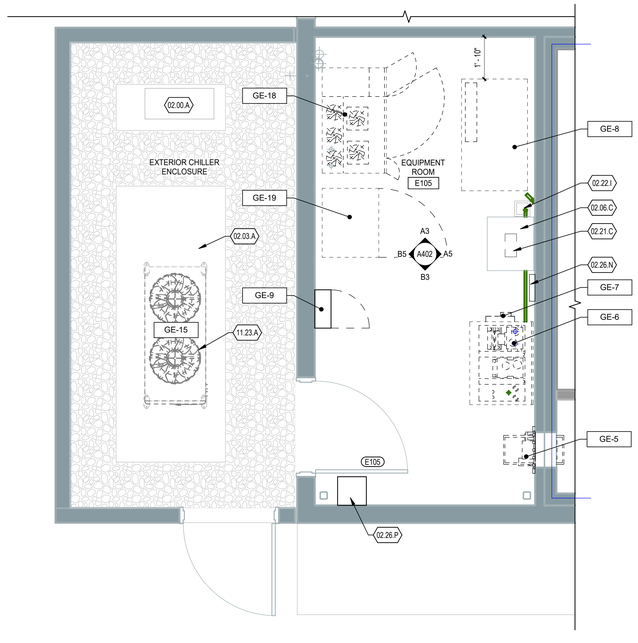
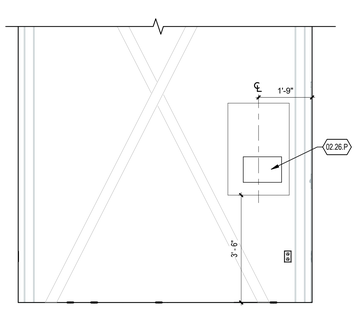


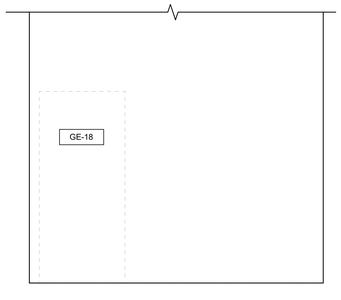
A1 MRI EQUIPMENT ROOM PLAN

SCALE: 3/8" = 1'-0"



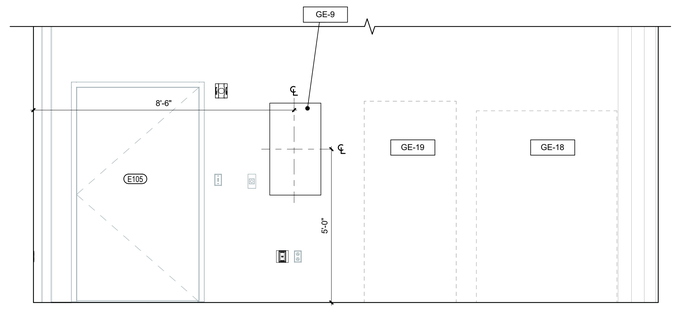
B3 EQUIPMENT ROOM - 3

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



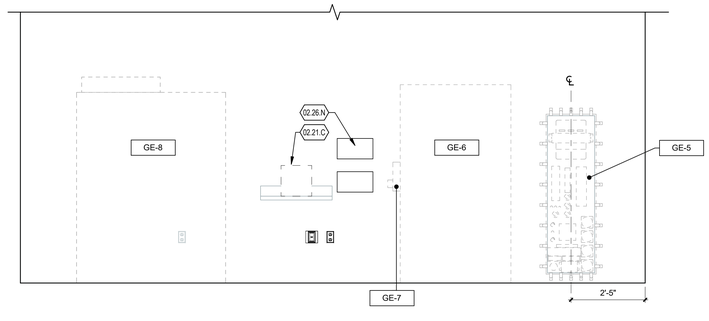
A3 EQUIPMENT ROOM - 1

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



B5 EQUIPMENT ROOM - 4

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



A5 EQUIPMENT ROOM - 2

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

REFERENCE NOTES

02.00.A	EXISTING TO REMAIN
02.03.A	EXISTING CONCRETE PAD TO REMAIN
02.06.C	EXISTING COUNTER TO REMAIN
02.21.C	EXISTING AIR COMPRESSOR (SERVING PRE-ACTION SYSTEM); RE: MECHANICAL
02.22.I	EXISTING FLOOR SINK TO REMAIN
02.26.N	EXISTING VESDA PANEL TO BE RELOCATED INSIDE THE MRI EQUIPMENT ROOM; RE: ELECTRICAL
02.26.P	EXISTING DISH NETWORK RACK, RELOCATED. RE: ELECTRICAL
11.23.A	NEW CHILLER, OFCI. MAINTAIN AT LEAST 40" CLEAR ON ALL SIDES PER MANUFACTURER GUIDELINES. RE; MECHANICAL AND GE EQUIPMENT DRAWINGS.

EQUIPMENT LEGEND

GE-5	PENETRATION PANEL (PP), GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-6	INTEGRATED COOLING CABINET, GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-7	MAGNET MONITOR (MON), GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-8	POWER, GRADIENT, RF CABINET (PGR); GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-9	MAIN DISCONNECT PANEL (MDP), GE SUPPLIED/CONTRACTOR INSTALLED. RE: GE EQUIPMENT DRAWINGS
GE-15	CBOXX 100 CHILLER, GE SUPPLIED/CONTRACTOR INSTALLED. RE: GE EQUIPMENT DRAWINGS
GE-18	RIELLO UL UPS MHT 160 KVA, GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS
GE-19	BATTERY CABINET FOR RIELLO UL UPS, GE SUPPLIED. RE: GE EQUIPMENT DRAWINGS

GENERAL NOTES

1. REFERENCE PLAN NOTES SHOWN ON A100 SERIES SHEETS.
2. PROVIDE BLOCKING / BACKING IN WALLS FOR ALL WALL MOUNTED ITEMS. RE: EQUIPMENT PLANS AND INTERIOR ELEVATIONS. SEE DETAIL A1/A502 FOR TYPICAL WALL BACKING PLATE SCHEDULE.
3. FURNITURE AND EQUIPMENT PROVIDED AND INSTALLED BY OWNER IS SHOWN DASHED FOR COORDINATION PURPOSES ONLY
4. REFER TO A800 SERIES SHEETS FOR MILLWORK SCHEDULE, DETAILS, AND TYPICALS.
5. CENTER FLOORING TRANSITIONS AT CENTER LINE OF DOOR.
6. REFER TO AF SERIES SHEETS FOR FLOORING TRANSITION DETAILS AND FLOOR FINISH PLANS AND LOCATIONS.
7. SEE FINISH PLANS AND INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
8. PROVIDE FILLER PANELS AT ENDS OF CABINETS WHERE THEY ABUT WALLS, TYP.
9. PROVIDE FINISHED PANELS AT ALL EXPOSED SIDES AND RETURNS OF CASEWORK, FINISH TO MATCH FRONT FACE OF MATERIAL.
10. PROVIDE BLOCKING / BACKING BEHIND ALL MILLWORK, TYP.
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INTERIOR ELEVATIONS EQUIPMENT ROOM

A402

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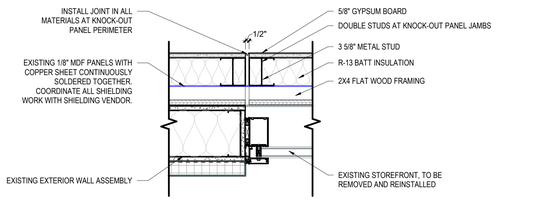
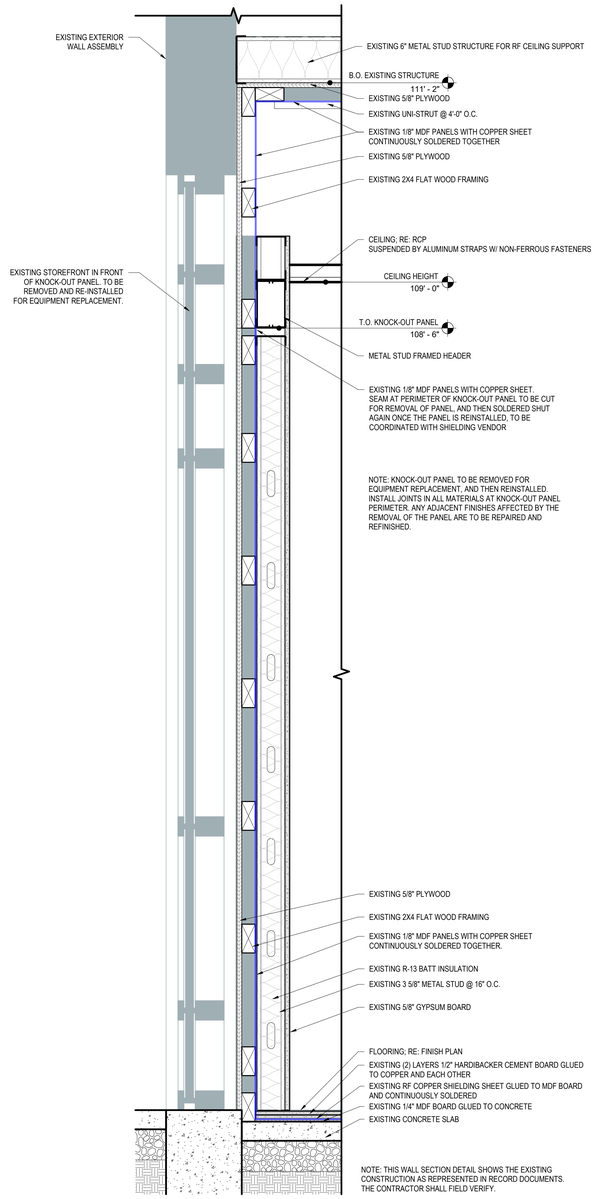
THIS SHEET TO BE VIEWED IN COLOR



NOTE: KNOCK-OUT PANEL TO BE REMOVED FOR EQUIPMENT REPLACEMENT, AND THEN REINSTALLED. INSTALL JOINTS IN ALL MATERIALS AT KNOCK-OUT PANEL PERIMETER. ANY ADJACENT FINISHES AFFECTED BY THE REMOVAL OF THE PANEL ARE TO BE REPAIRED AND REFINISHED.

C1 MRI KNOCK-OUT PANEL JOINT

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

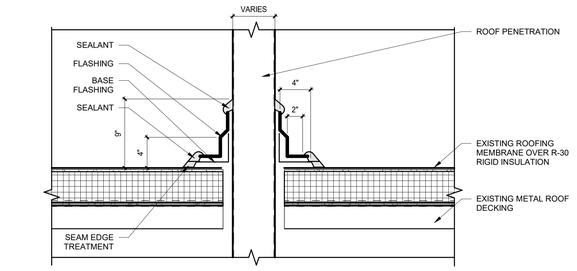


NOTE: KNOCK-OUT PANEL TO BE REMOVED FOR EQUIPMENT REPLACEMENT, AND THEN REINSTALLED. INSTALL JOINTS IN ALL MATERIALS AT KNOCK-OUT PANEL PERIMETER. ANY ADJACENT FINISHES AFFECTED BY THE REMOVAL OF THE PANEL ARE TO BE REPAIRED AND REFINISHED.

NOTE: THIS WALL SECTION DETAIL SHOWS THE EXISTING CONSTRUCTION AS REPRESENTED IN RECORD DOCUMENTS. THE CONTRACTOR SHALL FIELD VERIFY.

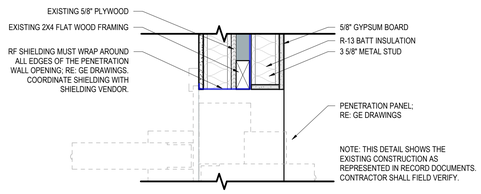
A3 EXISTING MRI KNOCK-OUT PANEL

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



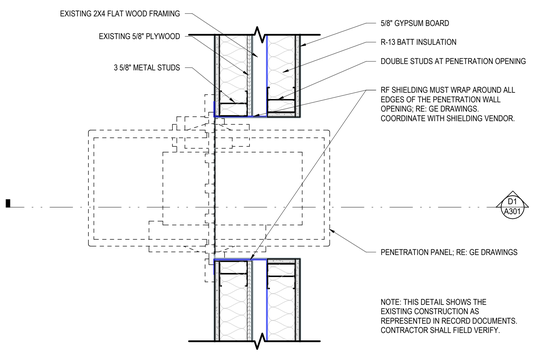
C4 ROOF PENETRATION DETAIL

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



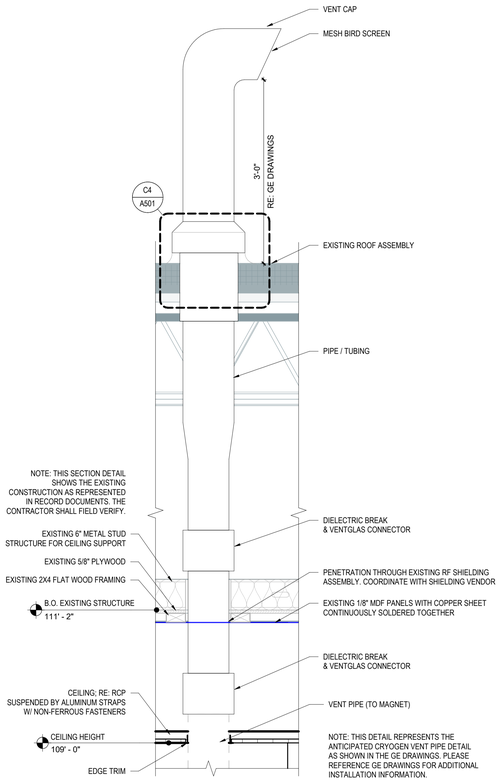
B4 MRI PENETRATION PANEL - SECTION DETAIL

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



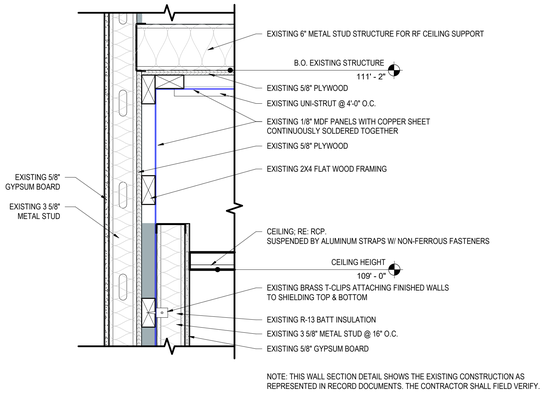
A4 MRI PENETRATION PANEL - PLAN DETAIL

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



A6 MRI CRYOGEN VENT PIPE DETAIL

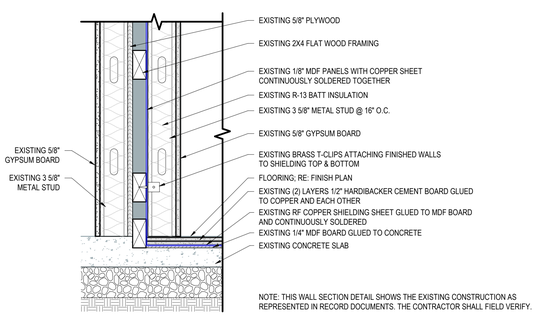
SCALE: 1" = 1'-0"



NOTE: THIS WALL SECTION DETAIL SHOWS THE EXISTING CONSTRUCTION AS REPRESENTED IN RECORD DOCUMENTS. THE CONTRACTOR SHALL FIELD VERIFY.

B1 EXISTING MRI WALL - T.O. WALL

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



NOTE: THIS WALL SECTION DETAIL SHOWS THE EXISTING CONSTRUCTION AS REPRESENTED IN RECORD DOCUMENTS. THE CONTRACTOR SHALL FIELD VERIFY.

A1 EXISTING MRI WALL - B.O. WALL

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

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DETAILS

A501

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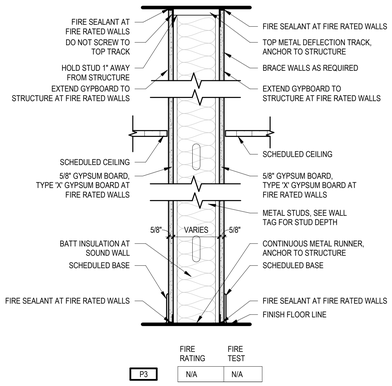
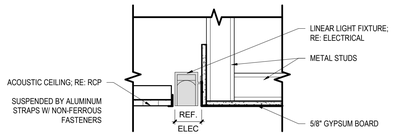


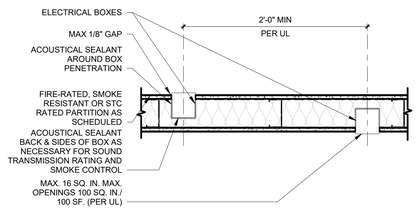
C1 WALL TYPES

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



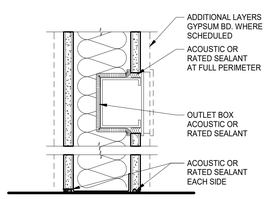
C2 MRI CEILING DETAIL @ LINEAR LIGHT

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



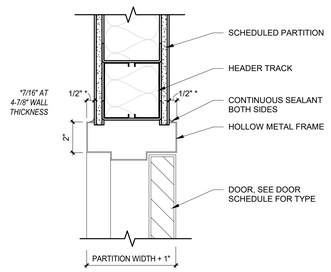
B1 ADJACENT ELECTRICAL BOXES

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



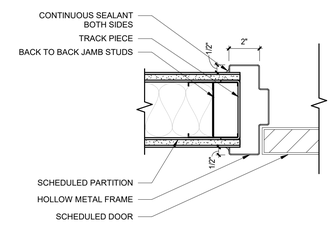
B2 ELECTRICAL BOX

SCALE: 3" = 1'-0"



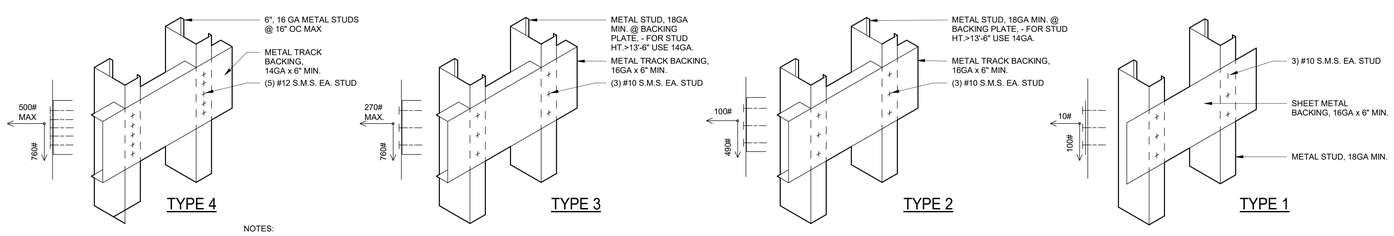
B3 TYPICAL HM DOOR HEAD DETAIL

SCALE: 3" = 1'-0"



B4 TYPICAL HM DOOR JAMB DETAIL

SCALE: 3" = 1'-0"



NOTES:

1. EXTEND BACKING PLATE TO NEXT STUD BEYOND SIDE OF FIXTURE OR ACCESSORY.
2. PROVIDE METAL SLEEVES THROUGH WALL FINISH AT FIXTURE AND EQUIPMENT FASTENING.
3. MAX. LOADS SHOWN ARE MAX. ALLOWABLE LOADS FOR THE DIRECTION SHOWN. VERTICAL AND HORIZONTAL LOADS ARE NOT CUMULATIVE. i.e.; MAX. ALLOWABLE LOADS ARE FOR SHEAR-TENSION INTERACTION CALCULATION.
4. AS INDICATED, STUD GAUGES SHOWN ARE MINIMUM. METAL STUDS AND THEIR CONNECTIONS ARE TO BE DESIGNED PER THE PERFORMANCE REQUIREMENTS IN SPECIFICATION SECTION 09100.
5. MAXIMUM SPACING OF METAL STUDS SUPPORTING BACKING IS 16".

A1 BACKING DETAILS

SCALE: 3" = 1'-0"

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A502

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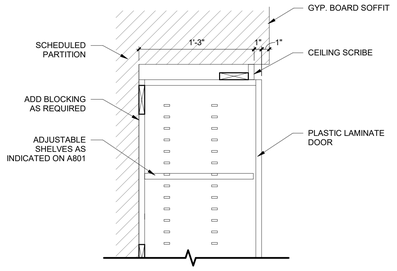
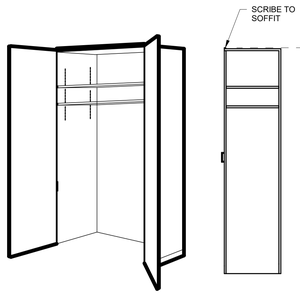


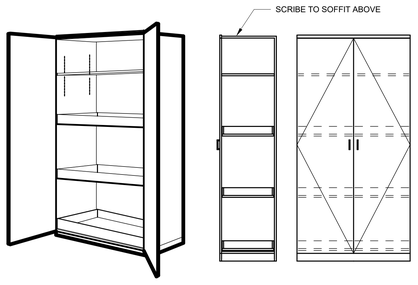
D1 CABINET SECTION - TYP. SOFFIT SCRIBE

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



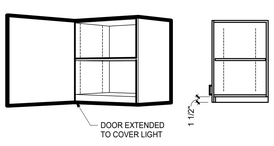
402.4

TALL CABINET, DOUBLE DOOR, 2 ADJUSTABLE SHELVES (COORDINATE FLOORING AND BASE)



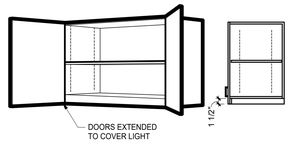
402.2

TALL CABINET, DOUBLE DOOR, PULL-OUT SHELVES



301

WALL HUNG CABINET - 1 DOOR 1 ADJUSTABLE SHELF

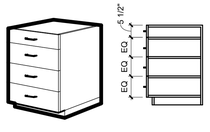


302

WALL HUNG CABINET - 2 DOORS 1 ADJUSTABLE SHELF

102

BASE CABINET - DOUBLE DOOR, 1 ADJUSTABLE SHELF

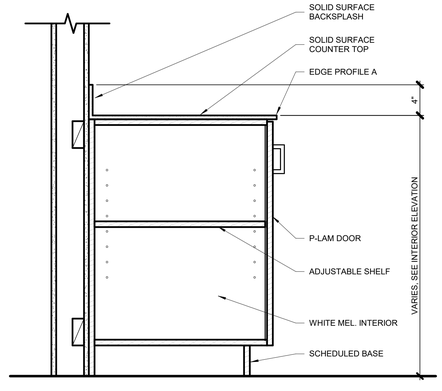


254

BASE CABINET - 4 DRAWERS

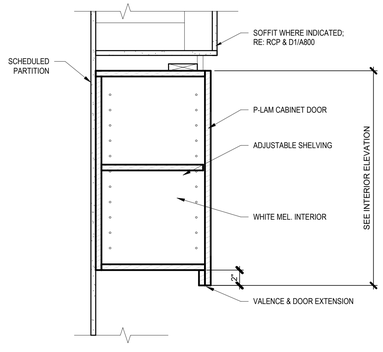
A1 CASEWORK TYPICALS

SCALE: 6" = 1'-0"



A4 CASEWORK SECTION - TYP. BASE CABINET

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



A5 CABINET SECTION - TYP. UPPER CABINET

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

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MILLWORK DETAILS

A800

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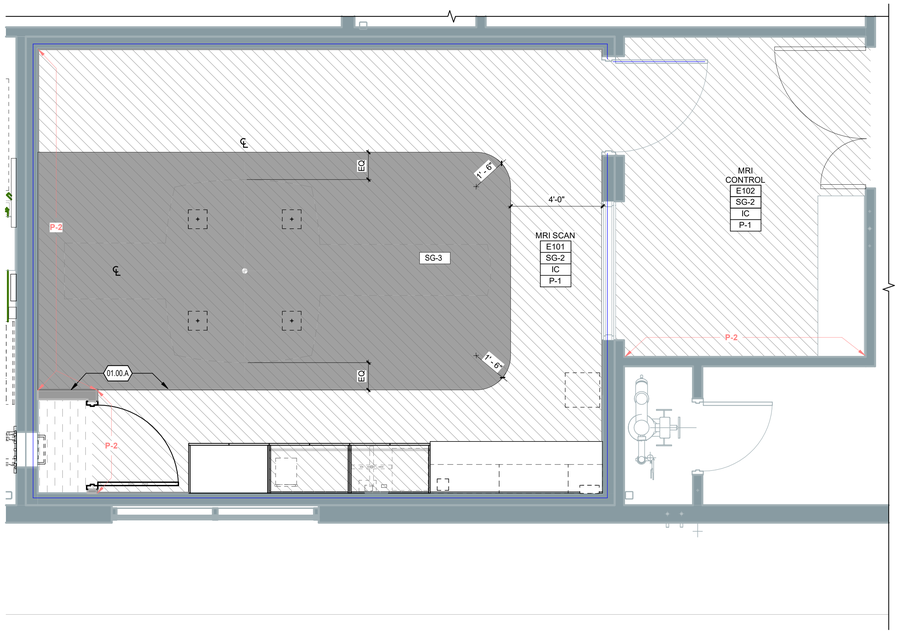
EQUIPMENT SCHEDULE

Room Name	Atta 3 ID	Item Description	Manufacturer	Catalog #	Model Name	Status	Furnish Responsibility	Install Responsibility	Architectural Code	Item Qty
MRI Room	INJ-70411	Injector, Contrast Media: MRI Compatible	Bayer HealthCare Radiology	MRXP200	Medrad MRXperion	**New**	Owner	Vendor	02-Movable Electrical	**1**
MRI Room	UTC-3CD68	Cart, Utility: Stainless	Jamco Products Inc.	ZE248-T4-AS	ZE248-T4-AS Stainless Steel Cart	Existing	Owner	Owner	03-Movable Non-Electrical	1
MRI Room	WST-24D87	Waste Can: 20-33 Gallon	Rubbermaid Commercial Products	FG354060BEIG	Slim Jim Vented 23 Gal/Beige	Existing	Owner	Owner	03-Movable Non-Electrical	1
MRI Room	**WCR-C2C68**	**Wheelchair: Adult, MRI**	**Neonatal Medical**	**WC26**	**WC26 Bariatric**	**New**	**Owner**	**Owner**	**03-Movable Non-Electrical**	**1**
MRI Room	MON-1C521	Monitor, Physiologic: MRI	Philips Healthcare - Monitoring Systems	866185	Expression MR400 w/ Cart	Existing	Owner	Owner	02-Movable Electrical	1
MRI Room	STL-10C0A	Stool: Step, w/Handrail, MRI	AliMed, Inc.	2970011972	MRI Step Stool 2970011972	Existing	Owner	Owner	03-Movable Non-Electrical	1
MRI Room	GLV-75F27	Dispenser, Glove: Triple Box	Medline Industries Inc.	MDS193096BH	MDS193096BH	Existing	Owner	Contractor	01-Fixed Equipment	1
MRI Room	HAM-DC71C	Hamper: Linen, MRI	Biodex Medical Systems, Inc.	240-772	240-772 MRI Hamper	Existing	Owner	Owner	03-Movable Non-Electrical	1
MRI Room	WDS-FB2E5	Waste Disposal: Suction Canister, Wall	Cardinal Health - Medical	65651-515	Liner 1500cc	Existing	Owner	Contractor	01-Fixed Equipment	1
MRI Room	WST-45E24	Waste Can: Bio-Hazardous	MarketLab, Inc	ML1335	ML1335 Lightweight 6 Gallon	Existing	Owner	Owner	03-Movable Non-Electrical	1
MRI Room	DSP-A8508	Dispenser: Emesis Bag, Wall Mount	Medline Industries Inc.	NONEMBGDISP	NONEMBGDISP	Existing	Owner	Contractor	01-Fixed Equipment	1
MRI Room	STL-852DB	Stool: Exam, MRI	Magmedix	03-CHM8030	03-CHM8030	Existing	Owner	Owner	03-Movable Non-Electrical	1
MRI Room	FLW-F8154	Flowmeter: Oxygen	Ohio Medical Corp	FM-15UO-CH	FM15OCH	Existing	Owner	Owner	03-Movable Non-Electrical	1
MRI Room	**MRI-8363D**	**MRI Unit: 1.5T**	**GE Healthcare - MRI**	**S4500WP**	**Signa Artist 1.5T (64-Channel)**	**New**	**Owner**	**Vendor**	**01-Fixed Equipment**	**1**
MRI Room	IVS-FBDF5	Stand, IV: MRI	Pryor Products, Inc.	326MRI	326 MRI	Existing	Owner	Owner	03-Movable Non-Electrical	1
MRI Room	REG-88433	Regulator, Suction, Intermittent/Continuous	Ohio Medical Corp	8701-L271-901	8701-L271-901	Existing	Owner	Owner	03-Movable Non-Electrical	1
MRI Room	WST-60B2S	Waste Can: Open Top	Rubbermaid Commercial Products	FG295700BEIG	Large Deskside 41 Qt./Beige	Existing	Owner	Owner	03-Movable Non-Electrical	1

FINISH SCHEDULE

TAG	PRODUCT TYPE	SPECIFICATIONS	NOTES
09 - BASE			
IC	INTEGRAL COVE BASE	MANF: Match Adjacent SG Flooring COLOR/STYLE: Match Adjacent SG Flooring DIMENSIONS: 4" with metal cap; caulk from metal cap to wall	LOCATION: See Finish Plan REP INFORMATION: See SG Flooring
09 - FLOORING			
SG-1	NOT USED		
SG-2	SHEET GOODS (MEDIUM)	MANF: Tarkett COLOR/STYLE: iQ Optima COLOR: 807 Dark Sand	LOCATION: MRI, See Finish Plan REP: Nick Theilemann REP PHONE: 831.461.5704 REP EMAIL: Nick.Theilemann@tarkett.com
SG-3	SHEET GOODS (DARK)	MANF: Tarkett COLOR/STYLE: iQ Optima COLOR: 977 Soft Brown	LOCATION: MRI Accent, See Finish Plan REP: Nick Theilemann REP PHONE: 831.461.5704 REP EMAIL: Nick.Theilemann@tarkett.com
09 - PAINT			
P-1	PAINT	MANF: Sherwin Williams COLOR: Pure White COLOR CODE: SW7005 FINISH: Eggshell	LOCATION: See Finish Plan and RCP REP: Zak R Galla REP PHONE: 281.904.5292 REP EMAIL: zakary.r.galla@sherwin.com
P-2	PAINT	MANF: Sherwin Williams COLOR: Tradewind COLOR CODE: SW 6218 FINISH: Eggshell	LOCATION: See Finish Plan and RCP REP: Zak R Galla REP PHONE: 281.904.5292 REP EMAIL: zakary.r.galla@sherwin.com
06 - ARCHITECTURAL CABINETRY			
PL-1	PLASTIC LAMINATE	MANF: Wilsonart STYLE/COLOR: Phantom Cocoa 8213K-28	LOCATION: Typical Cabinets REP: Gaby Bollman REP PHONE: 801.755.0599 REP EMAIL: gaby@midwest1938.com
SS-1	SOLID SURFACE	MANF: Corian PROFILE/EDGE: 1/8" Beveled Edge COLOR: Neutral Concrete	LOCATION: Typical Countertops REP: Kristin Girard REP PHONE: 262.408.4200 REP EMAIL: kgirard@hlmark.com
09 - CEILINGS			
ACP-1	ACOUSTICAL CEILING PANEL	MANF: Armstrong TYPE: Ultima PROFILE/EDGE: Square Lay-In GRID: 15/16" COLOR: White SIZE: 2 x 4 or as indicated in drawings	LOCATION: General Ceiling, RE Reflected Ceiling Plans REP: Travis Hansen REP PHONE: 385.223.4914 REP EMAIL: TMHansen@armstrongceilings.com

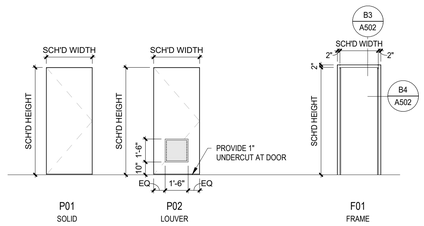


A1 MRI FINISH PLAN

SCALE: 3/8" = 1'-0"

DOOR AND FRAME SCHEDULE - MRI

DOOR NUMBER	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR THICK	DOOR LEAF TYPE	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	FIRE RATING	HW Set	NOTES	REVISIONS
LEVEL 1											
E105	4' - 0"	7' - 0"	1 3/4"	P01	-	F01	-			EXISTING DOOR; DOOR HINGE TO BE UPDATED TO 90 SET HINGE	
M101	3' - 6"	7' - 0"	1 3/4"	P02	WD	F01	HM	-	13.0		



P01 SOLID | P02 LOUVER | F01 FRAME

DOOR PANEL & FRAME TYPES

SCALE: N.T.S.

GENERAL NOTES

1. REFERENCE PLAN NOTES SHOWN ON SHEET A100 SERIES.
2. ALL CHANGES IN FLOOR MATERIAL OCCUR AT CENTER OF DOORS IN THE CLOSED POSITION.
3. REFER TO FINISH SCHEDULE IN AF SERIES FOR ALL FINISHES.
4. EPOXY PAINT AND EPOXY GROUT AT ALL WET AREAS, TYP. WET AREAS.
5. GENERAL WALL PAINT COLOR TO BE P-1 U.N.O. ON FINISH PLANS AND INTERIOR ELEVATIONS.
6. GENERAL CEILING PAINT COLOR TO BE P-1 U.N.O. ON REFLECTED CEILING PLAN.
7. SEE FINISH PLANS AND INTERIOR ELEVATIONS FOR ACCENT PAINT LOCATIONS.
8. REFER TO AF SERIES DRAWINGS FOR FLOORING TRANSITION DETAILS AND FLOOR FINISH PLANS FOR LOCATIONS.
9. MATCHING HEAT WELD AT ALL SHEET VINYL LOCATIONS.
10. FINISHED TILE SURFACE TO BE FLUSH WITH FINISHED SURFACE OF ADJACENT FLOOR FINISH PRODUCTS.
11. AT ALL LOCATIONS WHERE RESILIENT BASE IS USED, PROVIDE SILICON SEALANT AT BASE/FLOOR JOINT TO CREATE CONTINTUOUS, CLEANABLE SURFACE.
12. ALL SEALANT LINES SHALL BE TAPED OFF WHEN FINISHING WALL PROTECTION.
13. PROVIDE FLOORING TRANSITIONS BETWEEN ALL CHANGES IN MATERIAL
14. FLOORING SEAMS SHALL BE NO LESS THAN 6" AND SHALL NOT OCCUR IN MIDDLE OF CORRIDOR.
15. PROVIDE QUARTZ SOLID SURFACE THRESHOLD AT ALL RESTROOM LOCATIONS
16. SUBMIT APPROPRIATE FLOOR TRANSITIONS WHERE CHANGE IN FLOORING OCCURS, TYP.
17. H.M. DOOR FRAME COLOR TO MATCH ADJACENT WALL, TYP., U.N.O.
18. PAINT ALL WALLS AND GYPSUM BOARD CEILINGS (NEW AND EXISTING) WITHIN AREA OF PROJECT SCOPE.

FINISH LEGEND

Room name
101
F-1
B
W

F = FLOOR FINISH
B = BASE FINISH
W = WALL FINISH

* = SEE ELEVATIONS FOR CLARIFICATIONS

SEE FINISH SCHEDULE IN AF SERIES FOR FINISHES

P-X

ANNOTATES ACCENT PAINT EXTENTS

SG-1 - LIGHT ***(NOT USED)***

SG-2 - MEDIUM

SG-3 - DARK

THIS SHEET TO BE VIEWED IN COLOR

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · **FFKR.COM**

Intermountain Health

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents

STATE OF UTAH
CHRISTINA LOUISE HAAS
No. 8364715-0301
06/06/2025
LICENSED ARCHITECT

△ DATE REVISION

PROJECT NUMBER 24023

FINISH PLAN & SCHEDULES

AF101

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LEGEND OF MECHANICAL SYMBOLS AND ABBREVIATIONS

DUCTWORK/GRILLES

- POSITIVE PRESSURE DUCT - RISE
- POSITIVE PRESSURE DUCT - DROP
- NEGATIVE PRESSURE DUCT - RISE
- NEGATIVE PRESSURE DUCT - DROP
- ROUND DUCT - RISE
- ROUND DUCT - DROP
- UNDER FLOOR DUCT
- TURNING VANES
- FRESH AIR LOUVER
- RELIEF AIR OR EXHAUST AIR LOUVER
- 12X12 200 — CEILING SUPPLY DIFFUSER
- 22X22 200 — CEILING RETURN REGISTER
- 12X12 200 — CEILING EXHAUST REGISTER, (BALANCE TO MATCH SUPPLY IF RETURN CFM IS NOT SHOWN)
- 24X10 200 — SIDEWALL SUPPLY REGISTER
- 24X10 200 — SIDEWALL EXHAUST OR RETURN REGISTER
- 12X12 200 — CEILING SUPPLY DIFFUSER WITH FLEXIBLE DUCT
- 12X12 200 — CEILING AIR GRILLE WITH FLEXIBLE DUCT

  TOP FIGURES INDICATE NECK SIZE. BOTTOM FIGURE INDICATES CFM.
- CEILING RETURN AIR GRILE W/ SOUND BOOT
- 3-1" SLOTS @ 48" 400 — LINEAR DIFFUSER WITH PLENUM AND FLEXIBLE DUCT CONNECTION. NO. OF SLOTS & SIZE OF SLOT ON TOP, ACTIVE LENGTH AND CFM ON BOTTOM
- FLEXIBLE DUCT CONNECTION
- FLEXIBLE DUCT
- 12/8 FO — FLAT OVAL DUCT WITH FREE AREA DIMENSIONS SHOWN IN INCHES.
- 12/8 — RECTANGULAR DUCT WITH FREE AREA DIMENSIONS SHOWN IN INCHES.
- 12ø — ROUND DUCT WITH FREE AREA DIMENSIONS SHOWN IN INCHES.
- UP — INCLINED RISE
- DN — INCLINED DROP

  WITH RESPECT TO AIR FLOW 15° NOMINAL INCLINE WITH RADIUS TURNS=DEPTH OF DUCT.
- W R — R/W=1. ROUND DUCT SIMILAR TO RECTANGULAR
- 12/12 8/8 — RECTANGULAR TO RECTANGULAR OR ROUND TO ROUND DUCT TRANSFORMATION MAXIMUM 15° INCLUDED ANGLE EXCEPT WHERE SHOWN OTHERWISE.
- 12/12 12ø — RECTANGULAR TO ROUND DUCT TRANSFORMATION
- R 6 — BRANCH DUCT SPLIT WITH 6" WIDTH AND MIN. R=WIDTH OF BRANCH DUCT DOWNSTREAM. ELBOW TURNING VANE OPTIONAL.
- 1.5D 1.25D 45° D D — TAP ENTRY AREA EQUALS 150% OF BRANCH AREA
- 12 12/12 — HIGH EFFICIENCY FITTING
- MANUAL VOLUME DAMPER
- FD — FIRE DAMPER IN DUCT, W/ ACCESS PANEL REQD.
- FSD — COMBINATION FIRE/SMOKE DAMPER W/ ACCESS PANEL
- SD — SMOKE DAMPER W/ ACCESS PANEL
- BDD — BACK DRAFT DAMPER
- ATC OR — ATC DAMPER
- AD — ACCESS PANEL IN DUCT OR PLENUM
- HEATING OR COOLING COIL IN DUCT
- SINGLE DUCT AIR TERMINAL BOX VARIABLE OR CONSTANT VOLUME. MIN. 1-1/2 TERMINAL INLET SIZE STRAIGHT DUCT AT TERMINAL INLET.
- 4-WAY BLOW PATTERN
- 3-WAY BLOW PATTERN
- 2-WAY BLOW PATTERN
- 2-WAY BLOW PATTERN
- 1-WAY BLOW PATTERN
- SD — DUCT SMOKE DETECTOR

PIPING

- SHUT OFF VALVE
- BALL VALVE
- BUTTERFLY VALVE
- MOTOR OPERATED BUTTERFLY VALVE
- GATE VALVE
- GATE VALVE - NON RISING STEM
- ANGLE VALVE
- GLOBE VALVE
- PLUG VALVE
- SHUT OFF PLUG VALVE FOR FOR USE WITH PRESSURE GAUGE
- CHECK VALVE
- LATERAL STRAINER WITH BLOW-OFF VALVE, PROVIDE HOSE END WITH CAP WHERE DISCHARGE IS NOT PIPED TO DRAIN
- F&T — F&T=FLOAT & THERMOSTATIC
- RPBP — REDUCED PRESSURE BACKFLOW PREVENTOR W/ DRAIN PAN
- PRESSURE REDUCING VALVE EXTERNAL PRESSURE
- PRESSURE REDUCING VALVE SELF CONTAINED
- ATC - 2 WAY VALVE
- ATC - 3 WAY VALVE
- SOLENOID VALVE
- 0.0 GPM — CALIBRATED BALANCING VALVE WITH GPM INDICATED
- VENTURI FLOW METER
- GPM_H LB/HR. — FLOW METER ORIFICE
- RELIEF VALVE
- AIR VENT-MANUAL
- AIR VENT-AUTO
- FLOW SWITCH
- PRESSURE SWITCH
- TEMPERATURE AND PRESSURE TEST PORT
- THERMOMETER WELL
- THERMOMETER - TEMP RANGE AS INDICATED
- PRESSURE GAUGE WITH SHUT OFF PLUG VALVE
- PRESSURE GAUGE WITH PIGTAIL
- UNION
- FLANGE
- FLEXIBLE EXPANSION JOINT
- REDUCER
- ECCENTRIC REDUCER
- BRANCH - BOTTOM CONNECTION
- BRANCH - TOP CONNECTION
- BRANCH - SIDE CONNECTION
- RISE OR DROP
- RISER - DOWN (ELBOW)
- RISER - UP (ELBOW)
- PIPE CAP
- ARROW INDICATES DIRECTION OF FLOW IN PIPE
- DN — LEADER INDICATES DOWNWORD SLOPE
- VALVE IN RISE
- 90° ELBOW
- 45° ELBOW
- ALIGNMENT GUIDE
- ANCHOR

PLUMBING

- THERMOSTATIC MIXING VALVE
- HOSE BIBB
- FLOOR SINK
- FLOOR DRAIN
- FCO COTG — FLOOR CLEAN-OUT OR CLEAN-OUT TO GRADE
- ROOF DRAIN
- DOWNSPOUT NOZZLE
- VTR — VENT THRU ROOF
- WATER HAMMER ARRESTOR
- CLEAN-OUT
- FILL PORT
- DRAIN PAN AND P-TRAP
- (NAME) — FIXTURE FROM LEVEL ABOVE
- DEMOLITION

EQUIPMENT

- UNIT HEATER
- INLINE PUMP
- INLINE PUMP
- FAN

FIRE

- HOSE VALVE
- NRS GATE VALVE WITH SUPERVISION
- FLOW SWITCH
- FIRE RISER
- SPRINKLER HEAD
- F — FIRE SPRINKLER WATER

ANNOTATIONS

- P-1 — PLUMBING FIXTURES
- POINT OF CONNECTION
- A / M-101 — SECTION TAG - TOP FIGURE IS SECTION NO. BOTTOM FIGURE IS SHEET NO.
- A / M101 — DETAIL TAG - TOP FIGURE IS DETAIL NO. BOTTOM FIGURE IS SHEET NO.
- EF 1 — EQUIPMENT IDENTIFICATION
- 1 — KEYED NOTE IDENTIFICATION
- S — SWITCH
- S — SENSOR
- T — THERMOSTAT
- TN — NIGHT THERMOSTAT

LINETYPES

- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- DOMESTIC COLD WATER (DCW)
- DOMESTIC HOT WATER (DHW)
- DOMESTIC HOT WATER RETURN (DHWR)
- E(NAME) — EXISTING PIPING
- (NAME) — EXISTING PIPING TO BE REMOVED
- G(NAME) — GLYCOL PIPING SOLUTION
- HWR — HEATING HOT WATER RETURN
- HWS — HEATING HOT WATER SUPPLY
- IA — INSTRUMENT AIR
- MA — MEDICAL AIR
- MUW — MAKE UP WATER
- MV — MEDICAL VACUUM
- OX — MEDICAL OXYGEN
- RD — ROOF DRAIN
- RDO — ROOF DRAIN OVERFLOW
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- SEWER (BELOW GRADE)
- SEWER (ABOVE GRADE)
- VENT (SEWER)

MECHANICAL GENERAL NOTES

1. PROVIDE CD-1 TYPE DIFFUSER, AS SCHEDULED, FOR ALL CEILING SUPPLY DIFFUSERS UNLESS NOTED OTHERWISE. SEE DETAIL 1/M501 AND 2/M501.
2. PROVIDE RG-1 TYPE GRILLE, AS SCHEDULED, FOR ALL CEILING RETURN GRILLES SHOWN AS SUCH. PROVIDE SIZE 24x24, 24x12, OR 12x12. SEE DETAIL 1/M501 AND 2/M501.
3. PROVIDE EG-1 TYPE GRILLE, AS SCHEDULED, FOR ALL CEILING EXHAUST GRILLES, SHOWN AS SUCH.
4. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.
5. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.
6. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE.
7. INSTALL HARD ELBOWS AS SHOWN. HARD ELBOWS ARE REQUIRED FOR SOUND ATTENUATION.
8. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.
9. INSTALL TURNING VANES IN ALL SQUARE AND RECTANGULAR LOW PRESSURE DUCTWORK.
10. DETAILS REFERENCE ALL SHEETS.
11. DO NOT ROUTE DUCTS OR PIPES ABOVE ELECTRICAL PANELS. DO NOT ROUTE DUCTS OR PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.
12. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
13. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC, ARE LOCATED ABOVE INACCESSIBLE CEILINGS.
14. ALL DUCT DIMENSIONS ARE INSIDE FREE AREA DIMENSIONS. ADJUST SHEET METAL DIMENSION FOR LINED DUCT.

MECHANICAL PIPING GENERAL NOTES

1. PIPING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY ALL ROUTING AND COORDINATE WITH ALL OTHER TRADES.
2. NO PIPING TO RUN DIRECTLY OVER ELECTRICAL PANELS, MCC'S, VFD'S. ROUTE AROUND AS REQUIRED.
3. INSTALL MANUAL AIR VENTS AT ALL HYDRONIC SYSTEM HIGH POINTS.
4. INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE PER MANUFACTURER'S RECOMMENDATION. PROVIDE A 24"X24" ACCESS DOOR BELOW EQUIPMENT BOX AND CONTROL VALVES WHERE INSTALL OVER HARD CEILING AREAS.
5. COORDINATE EXACT LOCATION OF T-STATS WITH ARCHITECTURAL FURNISHINGS.
6. INSTALL A 24"x24" ACCESS PANEL BELOW ALL VALVES, CIRCUIT SETTERS, AND CONTROL VALVES OVER HARD CEILINGS.
7. MECHANICAL PIPING TO BE INSTALLED ABOVE DUCTWORK AND EQUIPMENT EXCEPT WHERE SHOWN.
8. FIELD VERIFY ALL EQUIPMENT LOCATIONS.
9. DETAILS REFERENCE ALL SHEETS.

PLUMBING GENERAL NOTES

1. SLOPE PIPING AS FOLLOWS, UNLESS OTHERWISE NOTED. WASTE BRANCHES 1/4" PER FOOT WASTE MAINS: 1/8" PER FOOT.
2. SLEEVE PIPING THRU WALLS/FOUNDATIONS WHERE REQUIRED.
3. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT ROUTING AND COORDINATE WITH ALL OTHER TRADES.
4. ALL PIPING IN PLUMBING CHASES TO BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
5. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S, OR MCC'S.
6. NO FIRE PROTECTION LINE IS TO BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES. DUCTWORK, MECHANICAL PIPING, AND PLUMBING TAKE PRECEDENCE OVER FIRE PROTECTION PIPING. FAILURE TO COMPLY WILL RESULT IN FIRE PROTECTION REMOVAL AND REINSTALLATION AT THE CONTRACTOR'S EXPENSE.
7. SLEEVE/CONFIGURE CMU WALLS FOR EMBEDDED PIPING AND PIPE PENETRATIONS AS REQUIRED.
8. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS, AND OTHER REQUIREMENTS.
9. LOCATE ALL VENTS MINIMUM 25 FT AWAY FROM AIR INTAKES.
10. INSTALL DOMESTIC WATER LINES BELOW DUCTWORK.
11. INSTALL A 24"x24" ACCESS DOOR BELOW ALL ISOLATION VALVES AND CIRCUIT SETTERS WHERE MOUNTED ABOVE HARD CEILINGS.
12. MOUNT ALL CEILING TYPE ISOLATION VALVES, CONTROL VALVES, CIRCUIT SETTERS, ETC. NEAR CEILING FOR ACCESSIBILITY.
13. DETAILS REFERENCE ALL SHEETS.
14. EXISTING PIPING SHOWN HAS BEEN TAKEN FROM INFORMATION PROVIDED BY OTHERS. FIELD VERIFY ALL SYSTEMS, SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO STARTING ANY NEW WORK.

SECTION 230993 - SEQUENCES OF OPERATION

1. POWER FAILURE

Items noted below have been connected to the emergency generator system and shall remain functional during a power outage.

- All VAV boxes
- Exhaust Fan EF-1

2. SCHEDULE

Although specific set points, time periods and reset values are listed in the sequence of operation, all values shall be changeable through the Building Management System. The initial occupied/unoccupied schedules shall be as designated by the owners representative.

3. GRAPHICS PAGES

Controls graphics page layouts shall be included in the ATC submittal. Graphics pages shall be reviewed and approved by the owner.

4. EXHAUST FAN EF-1 (EMERGENCY MRI EXAM ROOM PURGE EXHAUST)

Exhaust fan shall normally be off but will operate in an emergency mode at a fixed airflow rate when either of the emergency exhaust buttons are pressed. The operator shall be able to override the exhaust fan control at the operator workstation in case of maintenance or emergency. The motorized dampers for the exhaust fan and return air duct shall include an endswitch which shall be monitored by the DDC and generate an alarm if the status deviates from the damper open/close control.

The MRI Scan room is controlled in normal & emergency modes as follows:

Normal:
The exhaust fan is off, its associated motorized backdraft damper is closed, the ATC damper in the return air ductwork for the building air handling system is fully open, and existing VAV supply system operates in its occupied mode.

Emergency:
The DDC system opens the motorized backdraft damper for the exhaust fan, turns on the exhaust fan, fully closes the ATC damper in the return air ductwork for the building air handler. Any time the emergency mode is activated, the DDC system is to generate an alarm and send notification to maintenance personnel. This exhaust fan is to continue to operate in emergency mode until both emergency exhaust buttons are no longer activated.

The DDC system uses a current switch to monitor the exhaust fan status and generates an alarm if status deviates from DDC start/stop control.

5. OWNER-PROVIDED AIR-COOLED CHILLER & PUMPING PACKAGES

The owner-provided air-cooled chiller & pumping package shall operate per the manufacturer's written instructions and as outlined by the MRI manufacturer. The air-cooled chiller & pumping package is to be connected to the existing building management system to monitor its status, chilled water flow rate, and chilled water supply temperature. Alarms are to be provided if any of these points deviate from the MRI manufacturer's written required values.

Chiller is provided with remote display which shall be mounted and wired in the MRI control room by this division.

6. SPLIT AC UNIT – MRI EQUIPMENT ROOM (AC/CU-1)

The MRI Equipment room is served with two sources of cooling. An existing Liebert DX fan coil and a new DX split AC (AC/CU-1). The existing fan coil shall act as the primary source of cooling with the new split AC acting as the secondary cooling source.

Primary and secondary cooling sources shall be staged by setting the primary system cooling setpoint to 72 deg F (adj.) and the secondary system to 75 deg F (adj.).

Alarms
The BMS, through the wall thermostat, shall monitor space temperature and humidity. An alarm shall be generated if room temperature exceeds 78 deg F (adj.).

END OF SECTION

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · FFKR.COM
Intermountain Health

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents - 6/6/2025

PROFESSIONAL ENGINEER — SCOT E. MUIR — 8055925-2202 — STATE OF UTAH

△ DATE REVISION

PROJECT NUMBER 25018

MECH SYMBOLS NOTES

M001

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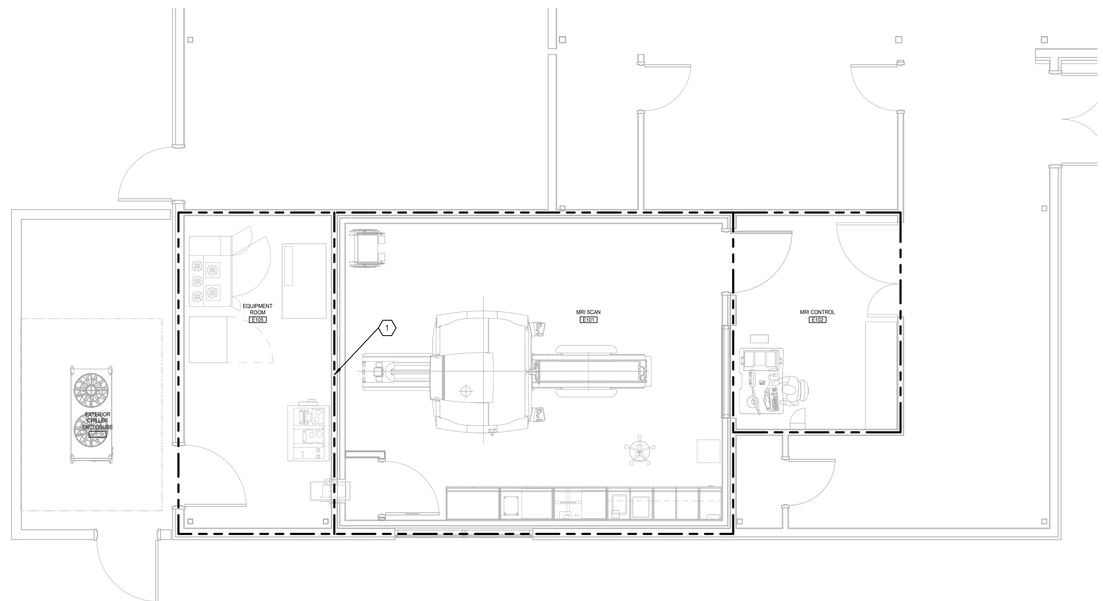
KEYED NOTES

1. DASHED LINES INDICATE OUTLINE OF EXISTING THERMAL ZONES.



1 MRI MECHANICAL ZONING PLAN

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

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · FFKR.COM

Intermountain Health

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents - 6/6/2025

PROFESSIONAL ENGINEER
SCOT E MUIR
8055925-2202
STATE OF UTAH

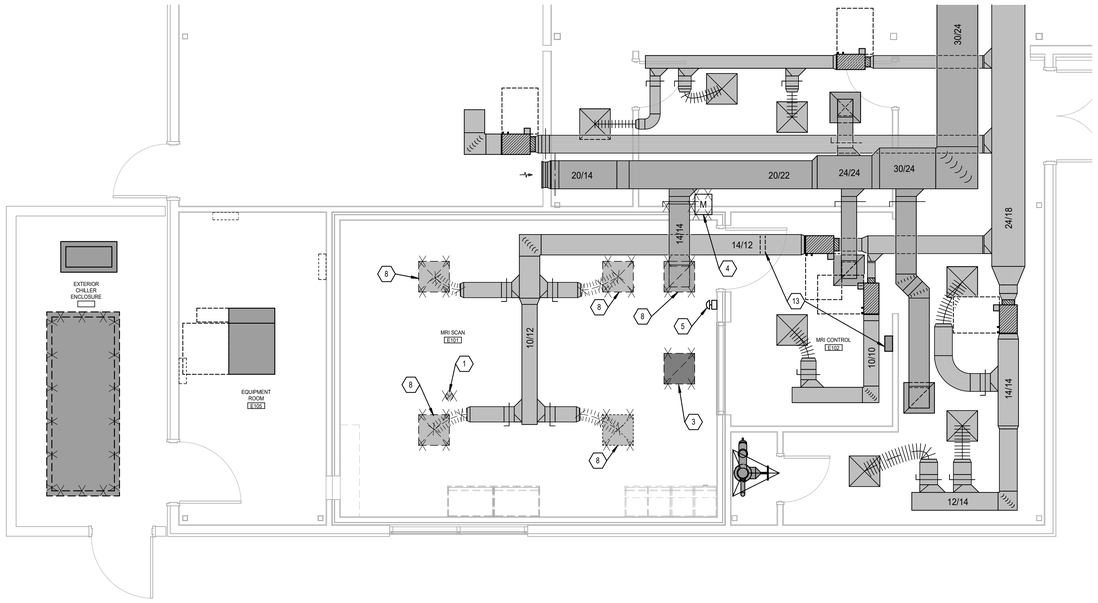
△	DATE	REVISION

PROJECT NUMBER 25018

MECHANICAL ZONING PLAN

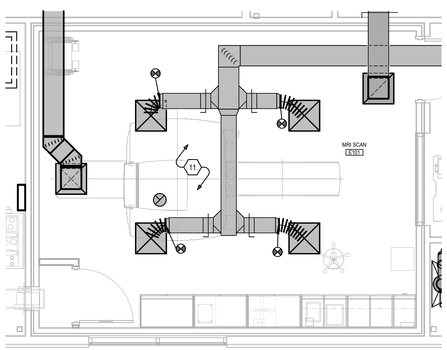
M090

6/6/2025 2:11:39 PM



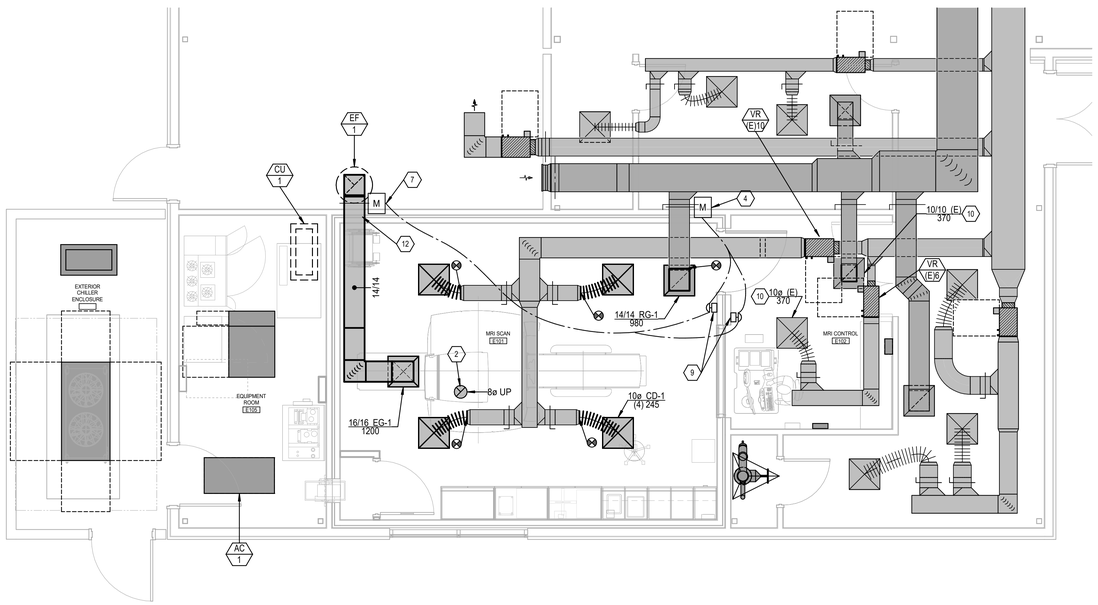
1 MRI MECHANICAL DEMOLITION PLAN

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



3 MRI ALTERNATE CEILING MECHANICAL PLAN

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



2 MRI MECHANICAL PLAN

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

KEYED NOTES

1. DEMOLISH & REMOVE EXISTING 4" DIA MRI QUENCH VENT. INFILL, PATCH, AND REPAIR PENETRATIONS AT MRI SHIELDING AND ROOF. COORDINATE WITH SHIELDING VENDOR AND ARCHITECTURAL.
2. NEW 8" DIA STAINLESS STEEL MRI CRYOGEN QUENCH VENT UP THROUGH ROOF. DISCHARGE SHALL BE MINIMUM 3 FT ABOVE ROOF WITH 20 FT MINIMUM CLEARANCE FROM ROOFTOP EQUIPMENT. INSTALL IN ACCORDANCE WITH MRI MANUFACTURER (GE) REQUIREMENTS - SEE SHEET M502. COORDINATE INSTALLATION OF NEW WAVEGUIDE WITH SHIELDING VENDOR.
3. DEMOLISH EXISTING CEILING RETURN AIR GRILL WITH PRESSURE EQUALIZING GRID. REPAIR SHIELDING PENETRATION.
4. REPLACE EXISTING MOTORIZED DAMPER IN RETURN DUCT. DAMPER IS NORMALLY OPEN AND SHALL CLOSE UPON ACTIVATION OF MRI EMERGENCY VENT EXHAUST SWITCH.
5. REPLACE EXISTING WALL PLUNGER SWITCH FOR ACTIVATION OF EMERGENCY PURGE EXHAUST SYSTEM.
6. MOUNT NEW EXHAUST GRILL FOR EMERGENCY PURGE EXHAUST SYSTEM. INSTALL WAVE GUIDE VENT IN RF SHIELDING ENCLOSURE. EXHAUST GRILL, DUCT, AND ALL MATERIAL BELOW RF SHIELD SHALL BE ALUMINUM (NON-FERROUS).
7. INSTALL MOTORIZED DAMPER FOR EXHAUST DUCT. DAMPER SHALL BE MOUNTED IN ACCESSIBLE LOCATION AND LABELED. DAMPER IS NORMALLY CLOSED AND SHALL OPEN AND ENERGIZE ROOF EXHAUST FAN ON ACTIVATION OF EMERGENCY VENT WALL SWITCH.
8. DEMOLISH AND REPLACE EXISTING CEILING DIFFUSER/GRILL. SEE NEW MECHANICAL PLAN.
9. INSTALL (QTY.2) WALL PLUNGER SWITCH FOR ACTIVATION OF EMERGENCY VENT EXHAUST FAN. WIRE SWITCHES IN PARALLEL SO THAT ACTIVATION OF EITHER SWITCH WILL OPERATE THE FAN. COORDINATE WIRING PENETRATION WITH RF SHIELDING. SEE MANUFACTURER WIRING DETAIL ON SHEET M502 AND CONTROL SEQUENCE OF OPERATION.
10. BALANCE EXISTING DIFFUSER/GRILL TO AIRFLOW NOTED.
11. ALTERNATE LAYOUT OF CEILING DIFFUSERS/GRILLES IN MRI SCAN ROOM IF ALTERNATE ARCHITECTURAL REFLECTED CEILING PLAN IS ACCEPTED.
12. COORDINATE NEW WAVEGUIDE FOR DUCT PENETRATION WITH SHIELDING VENDOR.
13. EXISTING STEAM GENERATOR AND DUCT DISPERSION PANEL TO REMAIN.

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PROFESSIONAL ENGINEER
SCOT E. MUIR
8055925-2202
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MECHANICAL PLANS

M101

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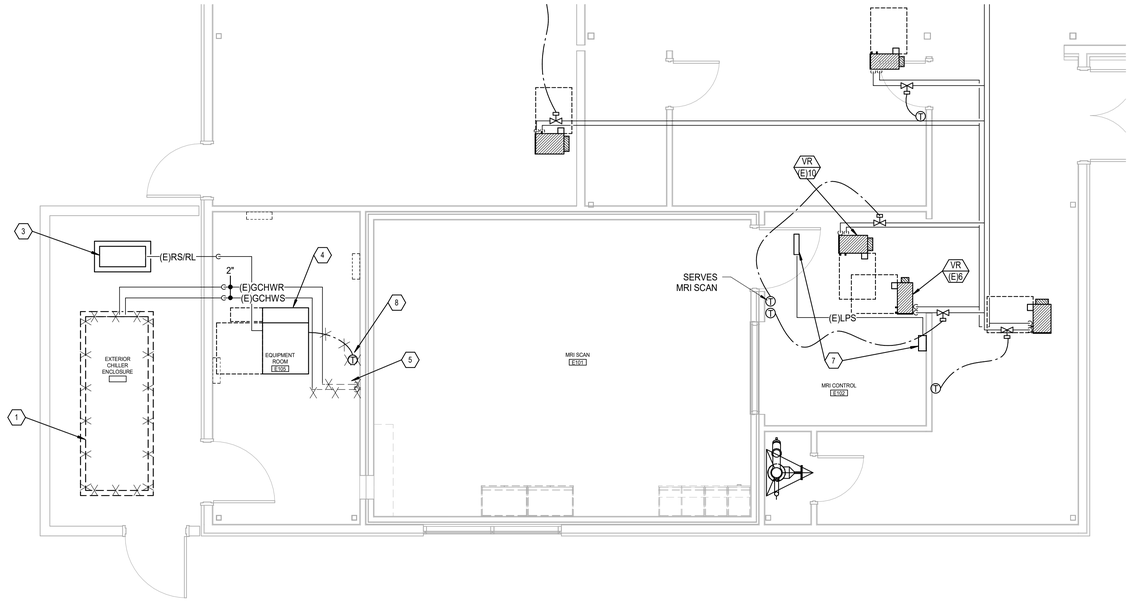
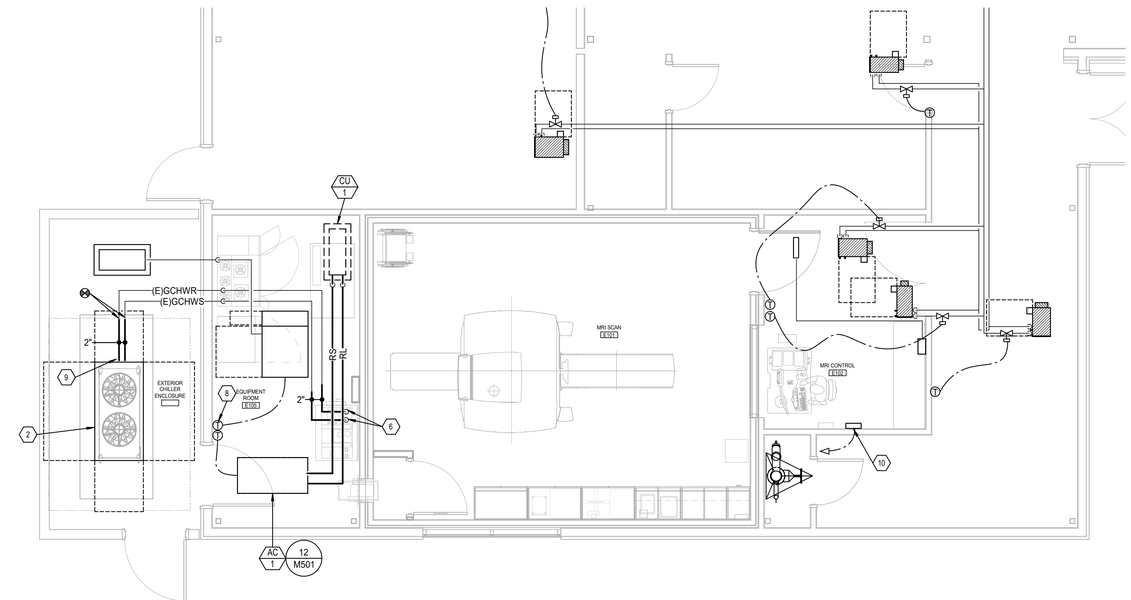


1 MRI MECHANICAL PIPING DEMOLITION PLAN

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



2 MRI MECHANICAL PIPING PLAN

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

KEYED NOTES

1. DEMOLISH AND REPLACE EXISTING MRI AIR COOLED CHILLER. EXISTING CHILLER INFORMATION AS FOLLOWS: KKT KRAUS MODEL KSC 215-L-U/S; SERIAL S215.4001.02.614.0811; R134A REFRIGERANT; 480V/3PH/60HZ; 47 MCA; 62 OPD.
2. INSTALL NEW MRI AIR COOLED CHILLER ON EXISTING CONCRETE HOUSEKEEPING PAD (OWNER FURNISHED / CONTRACTOR INSTALLED). UNIT INFORMATION AS FOLLOWS: KKT cBoxx 100 63 kW (GE CAT#E8914KY); 32 GPM; 50% PPG; 460V/3PH/60HZ; 46 KW; 66 FLA; 100 MOCP; 77"x38"x89" (LxWxH); 2,822 LBS.
3. EXISTING AIR COOLED CONDENSER TO REMAIN. UNIT INFORMATION AS FOLLOWS: LIEBERT MODEL PFH037A-P, 37.6 MBH COOLING CAPACITY; 208V/1PH; 19.3 FLA; 23.8 WSA; 48"x18"X31" (LxWxH).
4. EXISTING DX FAN COIL UNIT TO REMAIN. UNIT INFORMATION AS FOLLOWS: LIEBERT MM036EPH0DA; 27.2 MBH SENSIBLE COOLING; 1250 CFM; 4.3 LB/HR STEAM HUMIDIFIER; 208V/1PH; 9.2 FLA.
5. DEMOLISH AND REMOVE CHILLED WATER PIPING CONNECTIONS TO EXISTING SIEMENS MRI COOLING SYSTEM.
6. CONNECT EXISTING COPPER CHW PIPING TO NEW GE MRI INTEGRATED COOLING CABINET (ICC). PROVIDE AND INSTALL NEW ISOLATION VALVES, BYPASS VALVE, FILTER W/ BYPASS, AND FLUSH VALVES IN ACCORDANCE WITH GE PIPING DIAGRAM INCLUDED ON SHEET M502.
7. EXISTING STEAM GENERATOR AND DUCT DISPERSION PANEL TO REMAIN.
8. RELOCATE EXISTING THERMOSTAT TO COORDINATE WITH NEW EQUIPMENT LAYOUT.
9. EXTEND EXISTING CHW PIPING AND CONNECT TO NEW CHILLER IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS.
10. REMOTE DISPLAY FOR CHILLER CONTROL. MOUNT IN MRI CONTROL ROOM AND WIRE TO CHILLER.

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PROFESSIONAL ENGINEER
SCOT E. MUIR
8055925-2202
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MECHANICAL PIPING PLANS

M201

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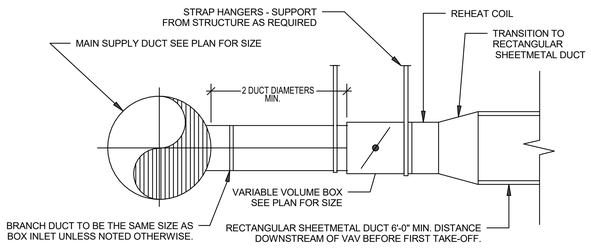
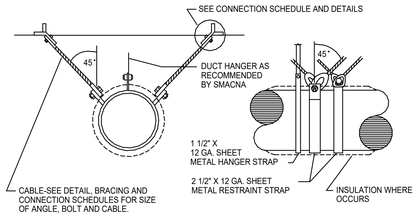
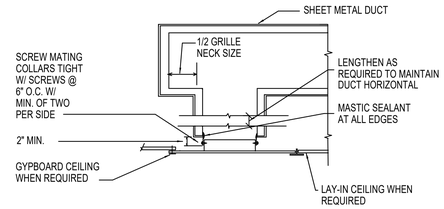


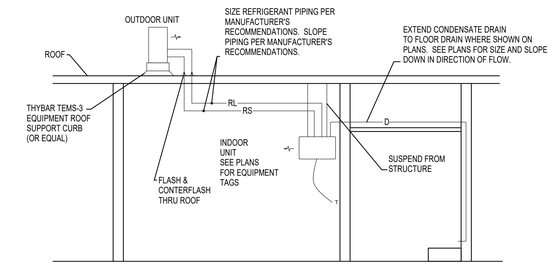
9 M501 VARIABLE VOLUME BOX DETAIL
NO SCALE



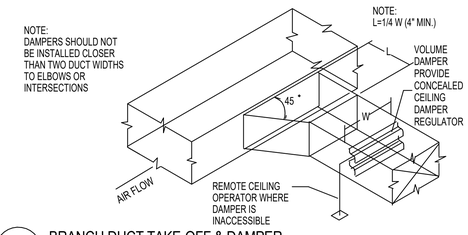
10 M501 CABLE BRACING FOR ROUND AND OVAL DUCTS
NO SCALE



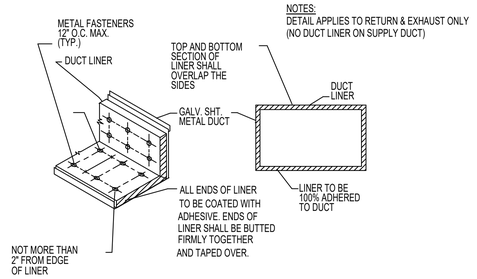
11 M501 EXHAUST GRILL DETAIL
NO SCALE



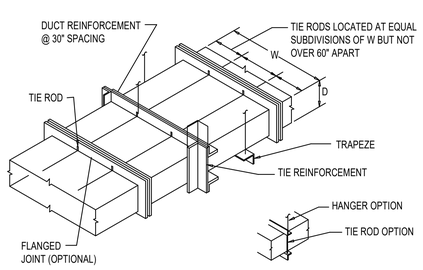
12 M501 SPLIT SYSTEM CONDITIONING UNIT DETAIL
NO SCALE



5 M501 BRANCH DUCT TAKE-OFF & DAMPER
NO SCALE



6 M501 DUCT LINER DETAIL
NO SCALE



7 M501 DUCT REINFORCEMENT DETAIL
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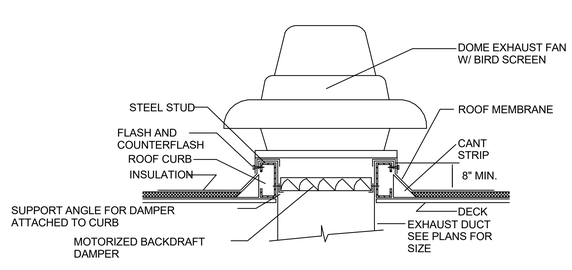
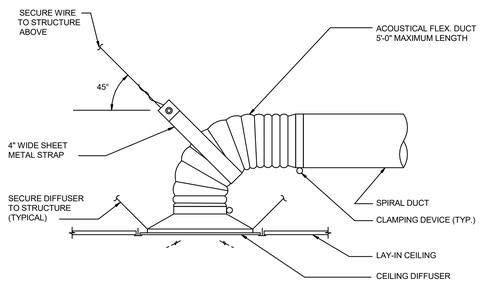
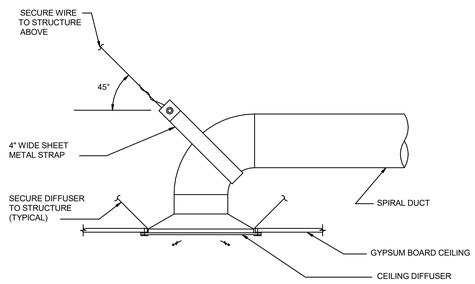


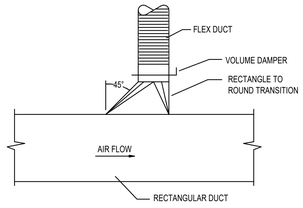
8 M501 EXHAUST FAN DETAIL
NO SCALE



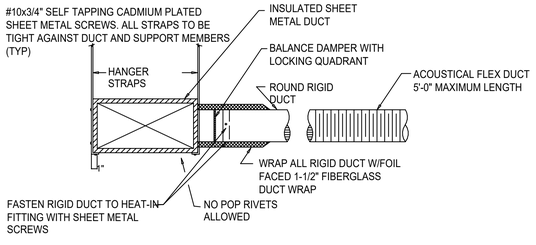
1 M501 DIFFUSER/GRILLE (LAY-IN CEILING) CONNECTION DETAIL
NO SCALE



2 M501 DIFFUSER/GRILLE (GYPSUM BOARD CEILING) CONNECTION DETAIL
NO SCALE



3 M501 HIGH EFFICIENCY TAKE-OFF DETAIL
NO SCALE



4 M501 FLEX DUCT / HIGH EFFICIENCY TAKEOFF FITTING
NO SCALE

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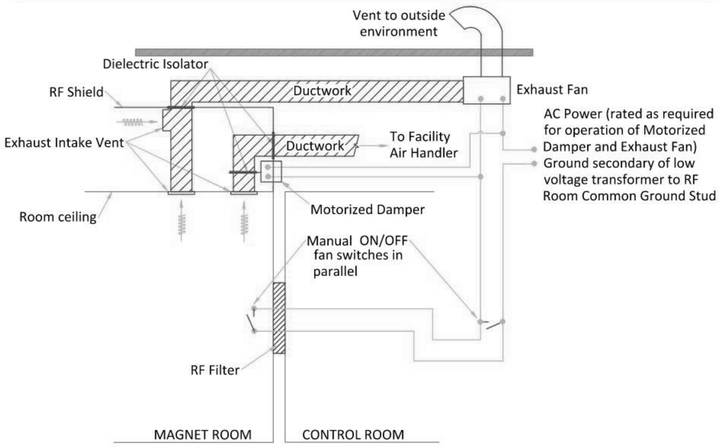
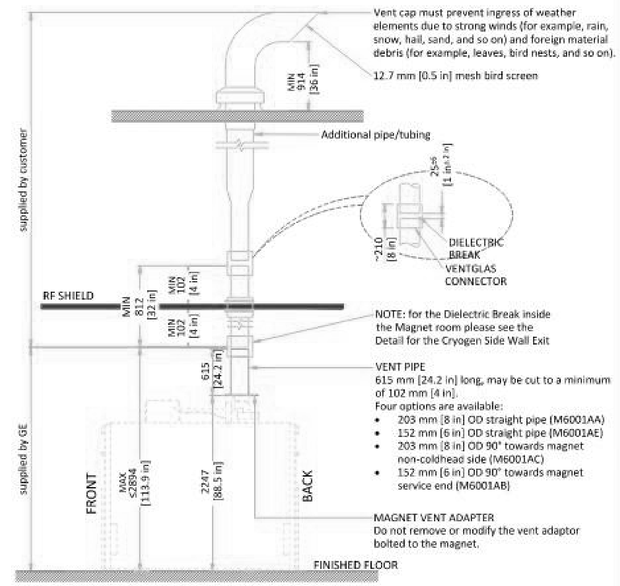
MAGNET ROOM EXHAUST FAN SCHEMATIC



LIQUID COOLANT SPECIFICATIONS

PARAMETER	REQUIREMENTS
Availability	Continuous
Antifreeze	No more than 50% propylene glycol water or ethylene glycol water
Minimum Flow	114 L/min [30 gpm]
Maximum Flow	132 L/min [35 gpm]
Maximum Pressure Drop in ICC at Minimum Flow	2.2 bar (32.0 psi) with 50% propylene glycol-water; 1060 kg/m³ density 1.4 bar (20.3 psi) with pure water; 994 kg/m³ density
Maximum Pressure Drop in ICC at Maximum Flow	2.9 bar (42 psi) with 50% propylene glycol-water; 1060 kg/m³ density 1.9 bar (27.6 psi) with pure water; 994 kg/m³ density
Temperature rise at Minimum Flow	7.3°C (13°F) with 50% propylene glycol-water; 3346 J/(kg K) specific heat; 1060 kg/m³ density; 49 kW heat
Temperature rise at Maximum Flow	6.3°C (11.3°F) with 50% propylene glycol-water; 3346 J/(kg K) specific heat; 1060 kg/m³ density; 49 kW heat
Maximum inlet pressure to ICC	6 bar [87 psi]
Chiller size	Minimum 49 kW
Condensation protection	Facility plumbing to the ICC must be properly routed and insulated to prevent equipment damage or safety hazards
Minimum continuous heat load	7.5 kW
Inlet temperature to ICC	5 to 15°C [41 to 59° F]
Customer supplied feeder hose (from main water supply to ICC)	38.1 mm [1.5 in] minimum hose inside diameter
Water quality	Refer to pre-installation manual for detailed specifications

TYPICAL CRYOGENIC VENT PIPE DETAIL



Waveguide is contractor supplied. Minimum 812 mm [32 in]. Must extend at least 102 mm [4 in] on magnet room side of the wall/ceiling and 25±6 mm [1±0.25 in] from the GEHC supplied pipe below isolation joint.

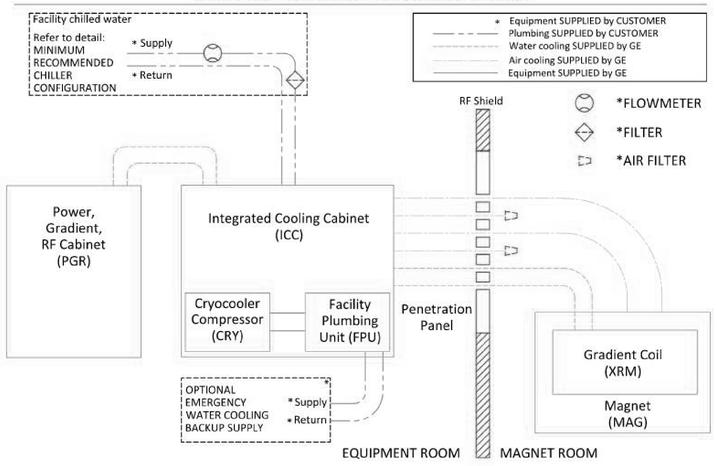
1. The 203 mm [8 in] or 152 mm [6 in] OD vent material must be one of the following materials with the wall thickness indicated:
   a. SS 304: Minimum 0.89 mm [0.035 in]; Maximum 3.18 mm [0.125 in]
   b. AL 6061-T6: Minimum 2.11 mm [0.083 in]; Maximum 3.18 mm [0.125 in]
   c. CU DWV, M or L: Minimum 2.11 mm [0.083 in]; Maximum 3.56 mm [0.140 in]
2. Either tubes or pipes may be used and must be seamless or have welded seams

NOTE

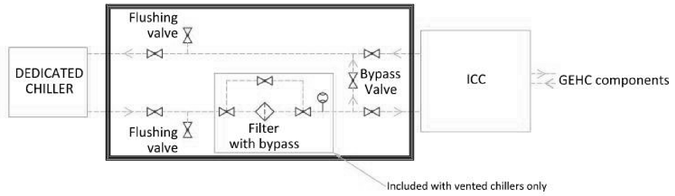
All welds on the pipe must be ground down to a smooth 203 mm [8 in] or 152 mm [6 in] diameter so that it can be clamped to the Ventglas with enough force.

3. Corrugated pipe or spiral duct must not be used
4. If required, bellows pipe less than 300 mm [12 in] in length may be used as a thermal expansion joint
5. The vent pipe must withstand the maximum pressure listed in the Pre-Installation Manual
6. Waveguide vent material must match the outside diameter of the magnet flanged vent adapter

CHILLED WATER BLOCK DIAGRAM



MINIMUM RECOMMENDED CHILLER CONFIGURATION



FLOW METER (Included with Chiller Interface Panel option)

VALVE

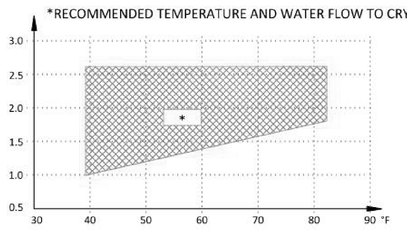
FILTER

Equipment supplied by GEHC

Customer/contractor supplied and installed

CITY WATER BACKUP SPECIFICATIONS FOR COMPRESSOR

INLET WATER FLOW/TEMPERATURE FOR CRYOCOOLER COMPRESSOR

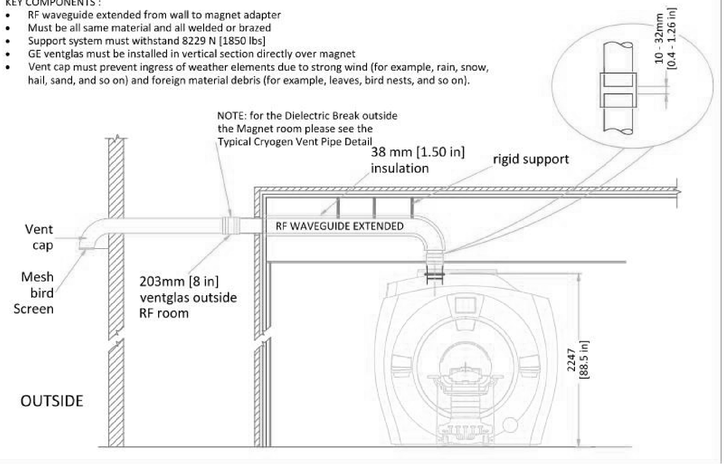


	MIN	MAX
INLET TEMP	39.2°F (4°C)	82.4°F (28°C)
INLET FLOW	1.0 gpm (4 l/min)	2.6 gpm (10 l/min)
TEMP RISE	89.6°F at 1.0 gpm (32°C at 4 l/min flow)	53.6°F at 2.6 gpm (12°C at 10 l/min flow)
HEAT DISSIPATION (kW)	7.2 kW	
PRESSURE DROP	8.7 psi at 2.1 gpm flow (60 kPa at 8 l/min flow)	

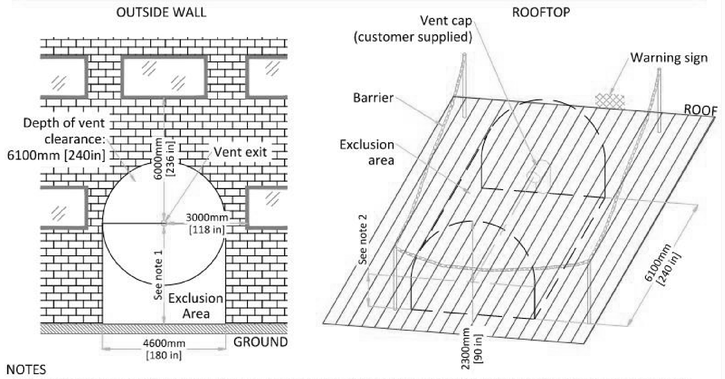
TYPICAL CRYOGEN SIDE WALL EXIT WITH LONG SWEEP ELBOW

KEY COMPONENTS :

- RF waveguide extended from wall to magnet adapter
- Must be all same material and all welded or brazed
- Support system must withstand 8229 N [1850 lbs]
- GE ventglas must be installed in vertical section directly over magnet
- Vent cap must prevent ingress of weather elements due to strong wind (for example, rain, snow, hail, sand, and so on) and foreign material debris (for example, leaves, bird nests, and so on).



CRYOGENIC VENTING (EXTERIOR)



NOTES

(1) Restricted area: minimum distance between vent pipe and ground is 3660mm [144 in]. Barriers are required. Public area: barriers are not required if height is > 5000mm [197 in].
(2) The bottom of the 90° elbow must be at least 914mm [36 in] above the roof deck (or higher if at risk of being blocked by drifting snow, sand, or other potential obstructions.)

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MECHANICAL DETAILS

M502

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SPLIT AIR CONDITIONING UNIT SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	AREA SERVED	TYPE	COOLING CAPACITY RANGE (MBH)	HEATING CAPACITY RANGE (MBH)	INDOOR UNIT				OUTDOOR UNIT							EFFICIENCY SEER	REFRIGERANT	NOTES
						MODEL	AIRFLOW (CFM)	DIMENSIONS WxDxH (IN)	WEIGHT (LBS)	MODEL	DIMENSIONS WxDxH (IN)	WEIGHT (LBS)	MAX CURRENT (AMPS)	MAX POWER(1) (KW)	MOCP (AMPS)	VOLT/PH/HZ			
AC-1/CU-1	FUJITSU 48RGLXD	EQUIPMENT ROOM E105	CEILING DUCTED	50.0-17.1	55.0-18.0	ARU48RGLX	1501-842	55x28x12	121	AOU48RGLX	35x13x51	209	22.2	5.01	30	208/1/60	16.6	R-410A	(1)(2)(3)

(1) SINGLE POINT POWER CONNECTION AT OUTDOOR UNIT FOR BOTH INDOOR AND OUTDOOR UNITS. DISCONNECT BY DIVISION 26 (QTY 2; 1 EACH FOR INDOOR AND OUTDOOR UNIT).
(2) SYSTEM COMPLETE WITH FACTORY SUPPLIED FIELD INSTALLED WALL MOUNTED (WIRED) CONTROLLER AND LOW AMBIENT KIT TO 0 DEG F.
(3) REFRIGERANT LINES SIZED IN ACCORDANCE WITH MANUFACTURER'S SUGGESTED LINE SIZE.

FAN SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	AREA SERVED	TYPE	AIR		FAN		ELECTRICAL				PHYSICAL		NOTES
				MAXIMUM AIRFLOW RATE (CFM)	STATIC PRESSURE (IN. WATER)	OUTLET VELOCITY (FPM)	FAN SPEED (RPM)	MOTOR SIZE (HP)	MOTOR BHP (HP)	MOTOR SPEED (RPM)	VOLT/PH/HZ	LENGTH/ WIDTH/ HEIGHT (IN)	WEIGHT (LBS)	
EF-1	GREENHECK CUE-140-VG	MRI SCAN E101	UPBLAST	1,200	0.5	698	1048	1/2	0.18	1300	115/1/60	29 DIA / 41	125	(1)(2)

(1) ALL CAPACITIES AT 4,500 FEET ELEVATION.
(2) ROOF MOUNTED DIRECT DRIVE EXHAUST FAN. COMPLETE WITH DC BRUSHLESS MOTOR, INTEGRAL THERMAL OVERLOAD PROTECTION, 14" PRE-FAB ROOF CURB, SPEED CONTROL DIAL, ELECTRICAL DISCONNECT, AND MOTORIZED BACKDRAFT DAMPER W/ ENDSWITCH.

GRILLES, REGISTERS, DIFFUSERS, LOUVERS

ID	MANUFACTURER	MODEL	SIZE	MAX CFM	MAX NC	DESCRIPTION
CD-1	EH PRICE	ASPD	6" DIA 8" DIA 10" DIA 12" DIA 14" DIA 15" DIA	110 235 420 600 800 850	30	SQUARE PLAQUE CEILING DIFFUSER. ALL ALUMINUM (NON-FERROUS) CONSTRUCTION (MRI COMPATIBLE). FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24"x24" WITH ROUND NECK DUCT CONNECTION. COLOR TO BE SELECTED BY ARCHITECT.
RG-1 / EG-1	EH PRICE	PDR-MRI	14"x14" 16"x16"	1000 1200	30	PERFORATED FACE RETURN AIR GRILLE. ALL ALUMINUM (NON-FERROUS) CONSTRUCTION (MRI COMPATIBLE). FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24"x24", 24"x12" OR 12"x12" AS SHOWN ON PLANS TO FIT CEILING TILE SPACE AVAILABLE. PROVIDE ROUND NECK ADAPTER. COLOR TO BE SELECTED BY ARCHITECT.

VAV BOX SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	AREA SERVED	INLET SIZE (IN)	AIR						FLUID (3)				REMARKS
				COOLING MAXIMUM AIR (CFM)	HEATING MAXIMUM AIR (CFM)	MINIMUM AIR (CFM)	LEAVING AIR TEMP. DB (DEG. F)	NC LEVEL @ 2" S.P.		HEAT LOAD (MBH)	TOTAL FLUID FLOW (GPM)	WORKING FLUID		
								AIR	RAD					
(E)VR-6	EXISTING	MRI CONTROL	6	370	225	140	90	23	21	7.9	0.5	WATER		(1)(2)(3)(4)
(E)VR-10	EXISTING	MRI EXAM	10	980	980	980	90	27	25	34.3	2.3	WATER		(1)(2)(3)(4)

(1) EXISTING VAV BOX TO REMAIN. PERFORMANCE CRITERIA INCLUDED FOR BALANCING PURPOSES.
(2) ENTERING AIR AT 52 DEG. F. @ 4,500 FEET ELEVATION.
(3) GPM BASED ON 180 DEG. F. ENTERING WATER TEMPERATURE; 150 DEG. F. LEAVING WATER TEMPERATURE.
(4) COIL MAXIMUM WATER P.D. AT 5.0 FT HD; MAXIMUM TOTAL AIR P.D. FOR THE BOX & COIL IS 0.75 IN. W.G.

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Construction Documents - 6/6/2025

PROFESSIONAL ENGINEER
SCOT E. MUIR
8055925-2202
STATE OF UTAH

△ DATE REVISION

PROJECT NUMBER 25018

MECHANICAL SCHEDULES

M601

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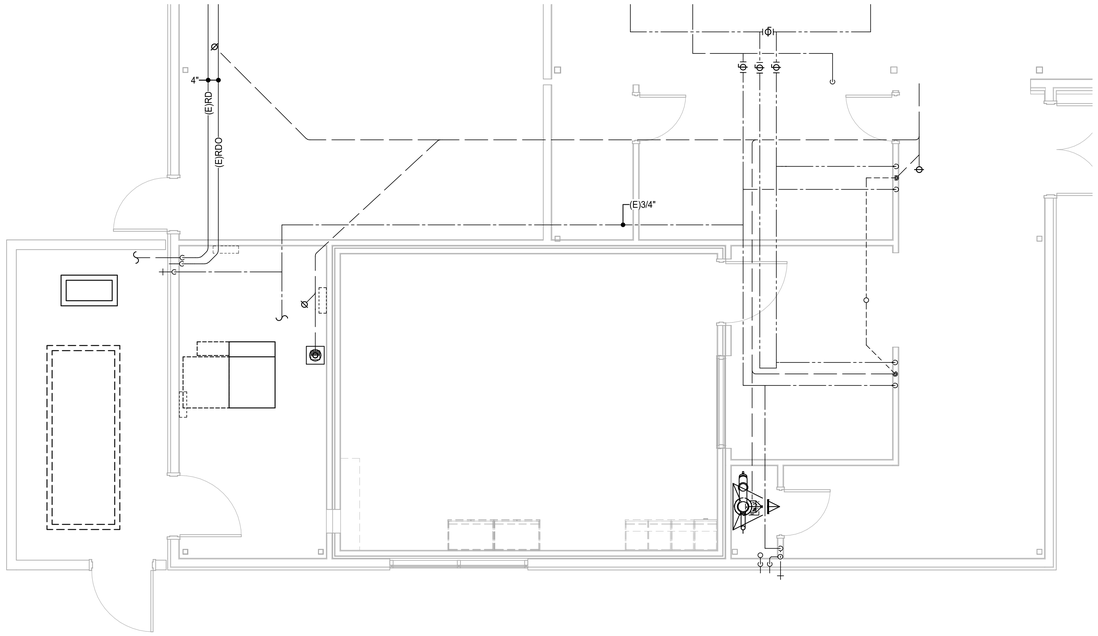
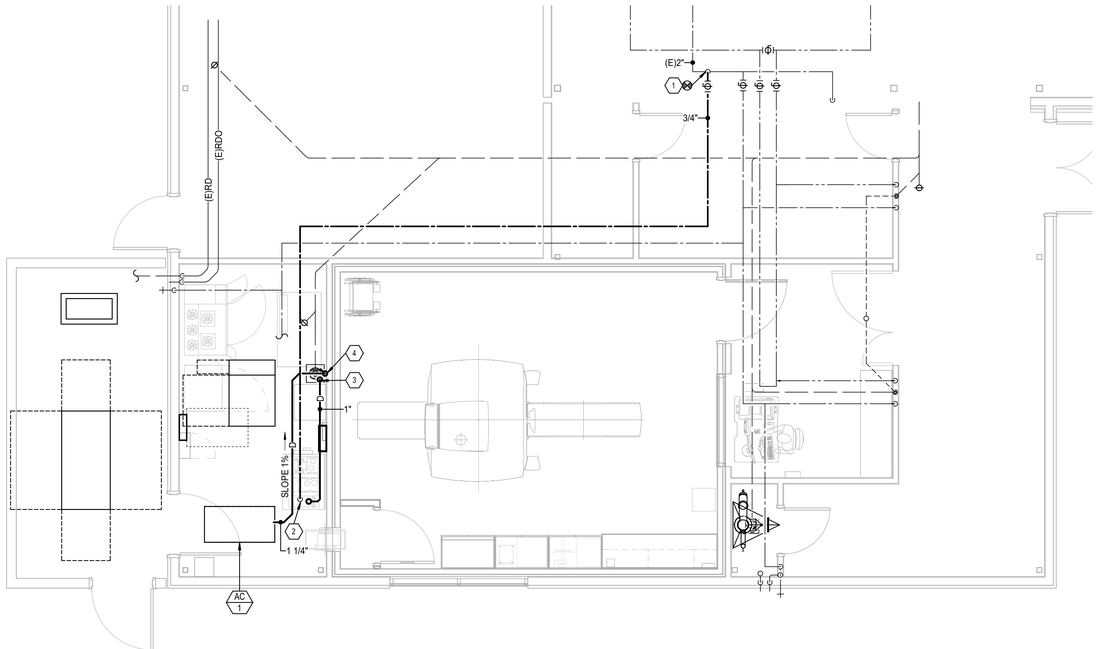


MRI PLUMBING DEMOLITION PLAN

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



2 MRI PLUMBING PLAN

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

KEYED NOTES

1. TIE INTO EXISTING 2" COLD WATER LINE.
2. DROP DOWN AND CONNECT TO INTEGRATED COOLING CABINET CITY WATER CONNECTION.
3. EXTEND DRAIN FROM INTEGRATED COOLING CABINET TO DISCHARGE WITH AIR GAP INTO EXISTING FLOOR SINK.
4. SPLIT SYSTEM CONDENSATE DRAIN. DROP DOWN EXPOSED ON WALL AND DISCHARGE WITH AIR GAP INTO EXISTING FLOOR SINK.

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PROFESSIONAL ENGINEER
SCOT E. MUIR
8055925-2202
STATE OF UTAH

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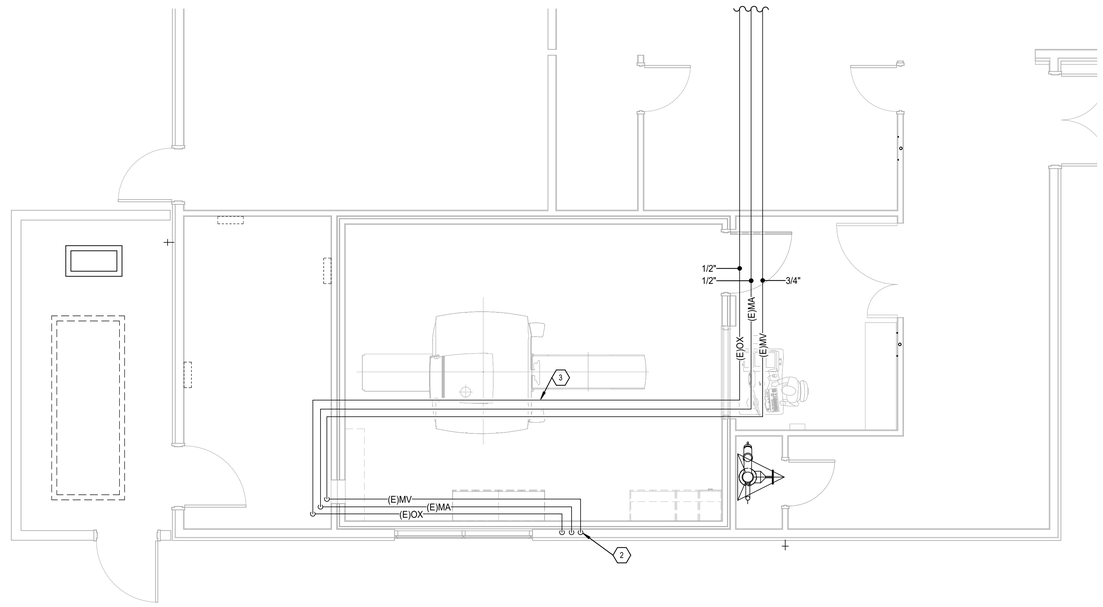
PLUMBING PLANS

P101

6/6/2025 2:11:45 PM

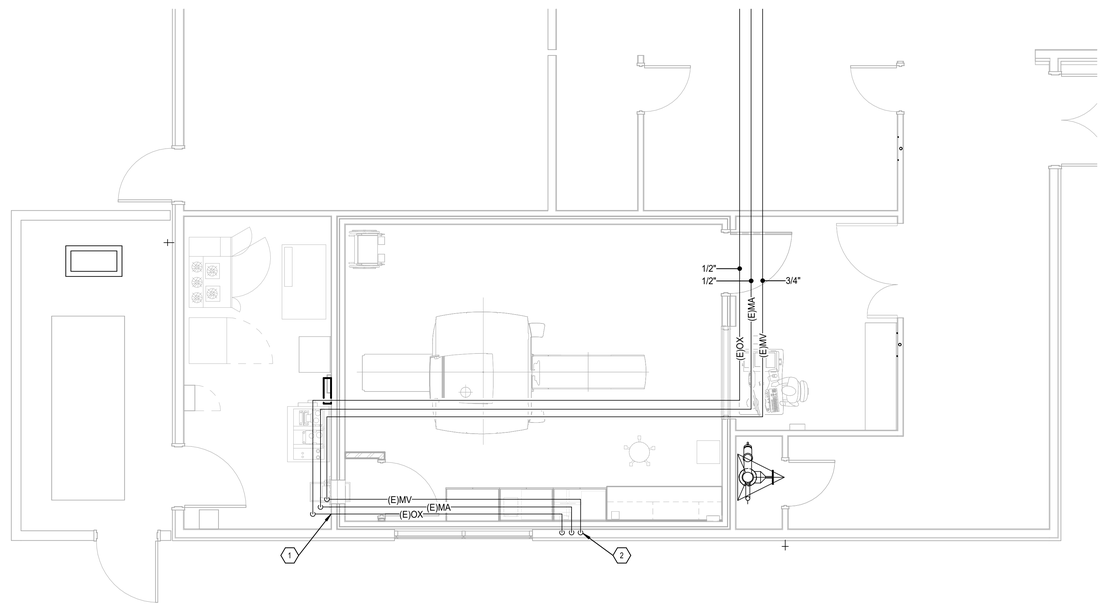
KEYED NOTES

1. EXISTING MED GAS PIPING TO REMAIN. MAINTAIN EXISTING PENETRATION IN SHIELDING.
2. EXISTING NON-FERROUS MEDICAL GAS OUTLETS TO REMAIN. (1) OXYGEN, (1) AIR, (1) VACUUM. PROTECT DURING CONSTRUCTION.
3. EXISTING PIPING ABOVE MRI SHIELDING. PROTECT DURING CONSTRUCTION.



1 MRI MED GAS DEMOLITION PLAN

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



2 MRI MED GAS PLAN

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

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SCOT E. MUIR
8055925-2202
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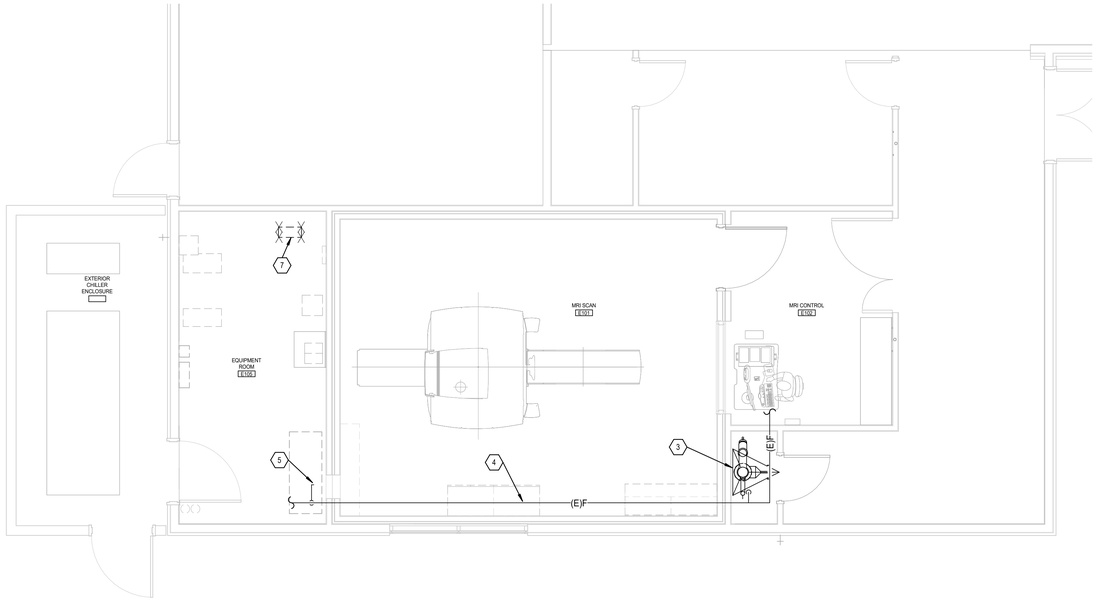
MED GAS PLANS

P201

6/6/2025 2:11:47 PM

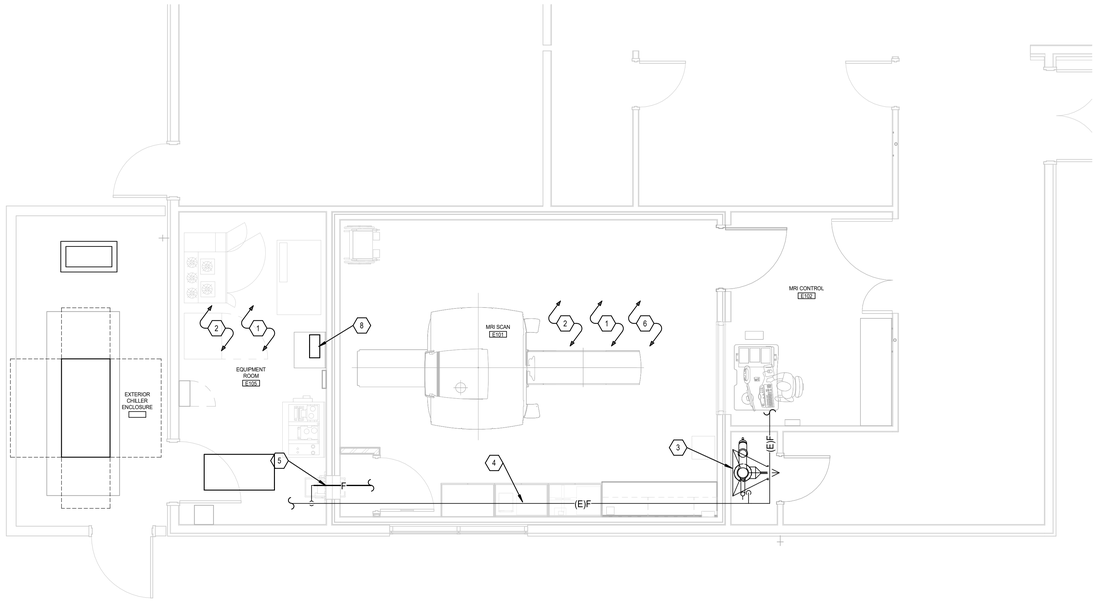
KEYED NOTES

1. FIRE SPRINKLER BRANCH PIPING AND SPRINKLER HEADS IN AREAS OF REMODEL TO BE REMOVED AND REPLACED TO COORDINATE WITH NEW CEILING & DUCT LAYOUT. ALL SPRINKLERS TO BE QUICK RESPONSE TYPE. PROVIDE FLAT PLATE CONCEALED HEADS IN AREAS WITH CEILINGS. SEE ARCHITECTURAL PLANS FOR CEILING HEIGHT AND TYPE.
2. FIRE SPRINKLERS SHALL BE INSTALLED TO MEET UTAH FIRE SPRINKLER CODE (NFPA 13-2019) REQUIREMENTS.
3. EXISTING PRE-ACTION RISER SERVING MRI SPACE TO REMAIN.
4. EXISTING FIRE SPRINKLER PIPING INSTALLED ABOVE MRI SHIELDING.
5. EXISTING SPRINKLER PIPING PENETRATION OF MRI SHIELDING. REVISE PIPE ROUTING TO CONNECT TO NEW SHIELDING PENETRATION PANEL FURNISHED WITH MRI.
6. FIRE SPRINKLING SYSTEM WITHIN MRI SHIELDING SHALL BE NON-FERROUS INCLUDING PIPING, HANGARS, CONCEALED HEADS, ETC.
7. RELOCATE EXISTING AIR COMPRESSOR SERVING PRE-ACTION SYSTEM.
8. NEW LOCATION OF EXISTING PRE-ACTION AIR COMPRESSOR ON EXISTING COUNTERTOP. REVISE COMPRESSED AIR TUBING AND ELECTRICAL CONNECTION.



2 MRI FIRE PROTECTION PLAN DEMOLITION PLAN

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



1 MRI FIRE PROTECTION PLAN

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

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FIRE PROTECTION PLAN

F101

6/6/2025 2:11:47 PM

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
REFERENCE AND LINE SYMBOLS	
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 100	ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.
1	KEYNOTE INDICATOR.
1	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
	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.
X-X / 1LA-3	EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "1LA-3" IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
XXXET / #	IN-GRADE PULLBOX INDICATOR. "XXXET" INDICATES LABEL SHOWN ON SCHEDULE. "#" IDENTIFIES SEQUENCE NUMBER SHOWN ON SITE AND RISER DIAGRAM. REFER TO PLANS AND EXTERIOR PULLBOX SCHEDULE FOR ADDITIONAL INFORMATION.
WIRING METHODS	
	WIRING.
	WIRING TURNED UP OR TOWARDS OBSERVER.
	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.
1 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
	JUNCTION BOX.
C	JUNCTION BOX, CEILING.
SC	JUNCTION BOX, SYSTEMS FURNITURE COMMUNICATION CONNECTION.
SP	JUNCTION BOX, SYSTEMS FURNITURE POWER CONNECTION.
PB	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.
	CABLE J-HOOKS ABOVE ACCESSIBLE CEILING.
	MECHANICAL EQUIPMENT CONNECTION. REFER TO EQUIPMENT SCHEDULE FOR REQUIREMENTS.
EV	ELECTRIC VEHICLE CHARGING STATION.
	GROUND BUSBAR. REFER TO GROUNDING RISER DIAGRAM FOR ADDITIONAL INFORMATION.

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
WIRING DEVICES	
	RECEPTACLE, SINGLE: NEMA 5-20R.
	RECEPTACLE, DUPLEX: NEMA 5-20R.
A	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
C	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
D	RECEPTACLE, DUPLEX, DEDICATED CIRCUIT: NEMA 5-20R.
DF	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, DRINKING FOUNTAIN: CONCEAL WATER COOLER RECEPTACLE BEHIND WATER COOLER. SEE MECHANICAL/PLUMBING SHOP DRAWINGS FOR INSTALLATION REQUIREMENTS.
IG	RECEPTACLE, DUPLEX, ISOLATED GROUND: NEMA 5-20R.
S	RECEPTACLE, DUPLEX, SWITCHED: NEMA 5-20R.
W	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WET LABEL, "WEATHERPROOF IN USE": NEMA 5-20R.
	RECEPTACLE, DUPLEX, HOSPITAL GRADE: NEMA 5-20R.
	RECEPTACLE, DUPLEX ON EMERGENCY POWER: NEMA 5-20R.
	RECEPTACLE, DUPLEX, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.
	RECEPTACLE, DUPLEX, CONNECTED TO UPS: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, HOSPITAL GRADE ON EMERGENCY POWER: NEMA 5-20R.
WP	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WEATHERPROOF: NEMA 5-20R.
	RECEPTACLE, DUPLEX, RECESSED: NEMA 5-20R.
S	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.
	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.
D	RECEPTACLE, DRYER: NEMA 14-30R.
R	RECEPTACLE, RANGE: NEMA 14-50R.
	MULTI-OUTLET ASSEMBLY: NEMA 5-20R.
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 CONFIGURATION AND DEVICES.
PT#	FLUSH FIRE RATED POKE THRU. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
	SWITCH, DIMMER.
$	SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED).
$2	SWITCH, DOUBLE POLE ("x" INDICATES FIXTURES CONTROLLED).
$3	SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED).
$4	SWITCH, FOUR-WAY ("x" INDICATES FIXTURES CONTROLLED).
$DS	SWITCH, DOOR.
$K	SWITCH, KEY OPERATED.
$P	SWITCH, PILOT LIGHT.
$T	SWITCH, TIMER OPERATED.
$WP	SWITCH, WEATHERPROOF.
T	RECEPTACLE, DUPLEX, TAMPER RESISTANT: NEMA 5-20R.
	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.
	RECEPTACLE, DUPLEX, WITH USB OUTLET
	RECEPTACLE, DUPLEX, RECESSED, NEMA 5-20R, AUTOMATICALLY 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)

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
SITE ELECTRICAL AND COMMUNICATIONS UTILITIES	
3ØUP	ELECTRIC LINE: THIN LINE. 1Ø = SINGLE PHASE, 2Ø = 2-PHASE, 3Ø = 3-PHASE, O = OVERHEAD, U = UNDERGROUND, P = PRIMARY, S = SECONDARY
	LIGHTNING ARRESTOR.
	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.
C	PRECAST CONCRETE, COMMUNICATION VAULT.
E	PRECAST CONCRETE, ELECTRICAL VAULT.
T	PRECAST CONCRETE, TELEPHONE VAULT.
TM	PRECAST CONCRETE, MANHOLE, TRANSFORMER VAULT.
TP	PRECAST CONCRETE, TRANSFORMER PAD.
	IN-GRADE PULLBOX, HAND HOLE. OPTIONS WITH SQUARE OR ROUND CORNERS. REFER TO PLANS AND EXTERIOR PULLBOX SCHEDULE FOR ADDITIONAL INFORMATION.
S	SUBSTATION.
T	TRANSFORMER.
ELECTRICAL POWER AND DISTRIBUTION	
	FUSE WITH RATING (ONE-LINE DIAGRAM).
	DISCONNECT, FUSED (ONE-LINE DIAGRAM).
	DISCONNECT, NONFUSED (ONE-LINE DIAGRAM).
	DISCONNECT WITH FUSE AND MOTOR STARTER COMBINATION (ONE-LINE DIAGRAM).
	OVERLOAD RELAY (ONE-LINE DIAGRAM).
	STARTER (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE WITH SHUNT TRIP (ONE-LINE DIAGRAM).
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).
GFP	CIRCUIT BREAKER, SOLID STATE WITH GROUND FAULT PROTECTION (ONE-LINE DIAGRAM).
	MOTOR.
	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 PANELBOARD, MOTOR CONTROL CENTER, PLUG-IN BUSWAY, MEDIUM VOLTAGE SWITCHBOARD (ONE-LINE DIAGRAM).
"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" 60/3	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM).

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
ELECTRICAL POWER AND DISTRIBUTION	
225/3 "1H" 225/3	PANELBOARD WITH MAIN LUGS ONLY AND SURGE PROTECTION WITH CIRCUIT BREAKER (ONE-LINE DIAGRAM).
225/3 "1H" 225/3 "1H"	PANELBOARD WITH SUB FEED LUGS (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).
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM).
	TRANSFER SWITCH (ONE-LINE DIAGRAM).
DMM	DIGITAL MULTIMETER (ONE-LINE DIAGRAM).
	EARTH GROUND (ONE-LINE DIAGRAM).
	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM).
ANN	GENERATOR, ANNUNCIATOR (ONE-LINE DIAGRAM).
EPO	PUSH BUTTON, REMOTE EMERGENCY STOP.
G	GENERATOR, POWER (ONE-LINE DIAGRAM).
K	KIRK-KEY MECHANICAL INTERLOCK (ONE-LINE DIAGRAM)
M	METER.
BBF	BROAD BAND FILTER (ONE-LINE DIAGRAM).
VFC VFD	VARIABLE FREQUENCY MOTOR CONTROLLER (ONE-LINE DIAGRAM).
	DIODE (ONE-LINE DIAGRAM).
	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, UNFUSED.
	STARTER, COMBINATION WITH DISCONNECT SWITCH.
	STARTER OR MOTOR CONTROLLER.
	PUSHBUTTON.
	PUSHBUTTONS, MOTOR CONTROL.
	PANELBOARD CABINET, FLUSH MOUNTED.
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
DP#	DISTRIBUTION PANEL OR SWITCHBOARD.
LP	LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.
$ST	SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.
	TRANSFORMER (SEE ONE-LINE FOR SIZE)
B B	BUSWAY.
	RELAY CONTACT, NORMALLY CLOSED (ONE-LINE DIAGRAM).
	RELAY CONTACT, NORMALLY OPEN (ONE-LINE DIAGRAM).
	PUSHBUTTON, NORMALLY CLOSED (ONE-LINE DIAGRAM).
	PUSHBUTTON, NORMALLY OPEN (ONE-LINE DIAGRAM).
	PRESSURE SWITCH, CLOSE ON INCREASE (ONE-LINE DIAGRAM).
	PRESSURE SWITCH, OPEN ON INCREASE (ONE-LINE DIAGRAM).
	SWITCH, NORMALLY CLOSED FLOAT (ONE-LINE DIAGRAM).
	SWITCH, NORMALLY OPEN FLOAT (ONE-LINE DIAGRAM).
	SWITCH, NORMALLY CLOSED LIMIT (ONE-LINE DIAGRAM).
	SWITCH, NORMALLY OPEN LIMIT (ONE-LINE DIAGRAM).
	SWITCH, NORMALLY CLOSED TEMPERATURE ACTIVATED (ONE-LINE DIAGRAM).
	SWITCH, NORMALLY OPEN TEMPERATURE ACTIVATED (ONE-LINE DIAGRAM).
	SWITCH, NORMALLY CLOSED TIME DELAY (ONE-LINE DIAGRAM).
	SWITCH, NORMALLY OPEN TIME DELAY (ONE-LINE DIAGRAM).
	SWITCH, NORMALLY CLOSED FOOT OPERATED (ONE-LINE DIAGRAM).
	SWITCH, MULTIPOSITION (ONE-LINE DIAGRAM).
	SWITCH, SINGLE BREAK (ONE-LINE DIAGRAM).
	SPECIALIZED TRANSFER SWITCH (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, DRAW OUT (ONE-LINE DIAGRAM).
GESM	GENERATOR ENGINE START MONITORING SYSTEM GENERATOR MODULE (ONE-LINE DIAGRAM).
ESM	GENERATOR ENGINE START MONITORING SYSTEM ATS MODULE (ONE-LINE DIAGRAM).
PRM	PHASE ROTATION MONITOR (ONE-LINE DIAGRAM).
	ARC ENERGY REDUCTION

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

1P	SINGLE POLE
1PH	SINGLE-PHASE
1WAY	ONE-WAY
2/C	TWO-CONDUCTOR
2WAY	TWO-WAY
3/C	THREE-CONDUCTOR
3WAY	THREE-WAY
4OUT	QUADRUPLE RECEPTACLE OUTLET
4PDT	FOUR-POLE DOUBLE THROW
4PST	FOUR-POLE SINGLE THROW
4W	FOUR-WIRE
4WAY	FOUR-WAY
A	ABOVE COUNTER
AC	ARMORED CABLE
ACS	ACCESS CONTROL SYSTEM
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ALUM	ALUMINUM
AMP	AMPERE
ANN	ANNUNCIATOR
AP	ACCESS POINT (WIRELESS DATA)
AR	AS REQUIRED
ASC	AMPS SHORT CIRCUIT
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAGE
BB	BUCK-BOOST TRANSFORMER
XFMR	
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
C	CEILING MOUNTED
CAT	CATEGORY
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCBA	CUSTOM COLOR AS SELECTED BY ARCHITECT
CCTV	CLOSED CIRCUIT TELEVISION
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/ OWNER INSTALLED
CFBA	CUSTOM FINISH AS SELECTED BY ARCHITECT
CI	CONTACT INDICATOR
CKT	CIRCUIT
CM	CONSTRUCTION MANAGER
CND	CONDUIT
CO	CONVENIENCE OUTLET
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CP	CONTROL PANEL
CR	CARD READER
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
dBA	UNIT OF SOUND LEVEL
DPDT	DOUBLE POLE, DOUBLE THROW
DS	DISCONNECT SWITCH
E	ENHANCED
EA	EACH
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRIC NONMETALLIC TUBING
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
ER	EQUIPMENT ROOM
EX	EXISTING
F	FURNITURE MOUNTED
FA	FIRE ALARM
FCP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FMC	FLEXIBLE METAL CONDUIT
FOB	FREIGHT ON BOARD
FPP	FIBER PATCH PANEL
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
GEN	GENERATOR
GFCI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GIG	GIGA HERTZ
GND	GROUND
HD	HEAVY DUTY
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSE POWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HWM	HORIZONTAL WIRE MANAGEMENT
HZ	HERTZ
I/O	INPUT/ OUTPUT
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IN/IS	INSULATED/ ISOLATED
IR	INFRARED
J-BOX	JUNCTION BOX
kV	KILOVOLT
kVA	KILOVOLT AMPERE
kVAR	KILOVOLT AMPERE REACTIVE
kW	KILOWATT
kWh	KILOWATT HOUR
LED	LIGHT EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
LPS	LOW PRESSURE SODIUM
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LV	LOW VOLTAGE
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MC	METAL CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTION
MDP	MAIN DISTRIBUTION PANEL
MG	MOTOR GENERATOR
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MTS	MANUAL TRANSFER SWITCH
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OCP	OVER CURRENT PROTECTION
OE	OWNER ELECTRONICS
OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/ OWNER INSTALLED
OFP	OBTAIN FROM PLANS
OH DR	OVERHEAD (COILING) DOOR
OL	OVERLOAD
PB	PUSHBUTTON
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PNM	PLENUM
PR	PAIR
PS	POWER SUPPLY
PT	POTENTIAL TRANSFORMER
PTZ	PAN/TILT/ZOOM
PV	PHOTO VOLTAIC
QTY	QUANTITY
R	REMOVE
RCP	REFLECTED CEILING PLAN
RMC	RIGID METAL CONDUIT
RNC	RIGID NONMETAL CONDUIT
RO	REMOTE DOOR OPEN
RPM	REVOLUTIONS PER MINUTE
RPP	RISER PATCH PANEL
RR	REMOVE AND RELOCATE
S/S	START/STOP
SCA	SHORT CIRCUIT AMPS
SCBA	STANDARD COLOR AS SELECTED BY ARCHITECT
SF	SQUARE FOOT (FEET)
SFBA	STANDARD FINISH AS SELECTED BY ARCHITECT
SPD	SURGE PROTECTIVE DEVICE
SPDT	SINGLE POLE, DOUBLE THROW
SPEC	SPECIFICATION
SPP	STATION PATCH PANEL
SPST	SINGLE POLE, SINGLE THROW
ST	SINGLE THROW
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TL	TWIST LOCK
TP	TELEPHONE POLE
TP	TWISTED PAIR
TR	TELECOMMMUNICATIONS ROOM
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
UF	UNDERFLOOR
UGND	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPERE
VFC/VFD	VARIABLE FREQUENCY MOTOR CONTROLLER
VIC	VIDEO INTERCOM SYSTEM
VSS	VIDEO SURVEILLANCE SYSTEM
VWM	VERTICAL WIRE MANAGEMENT
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
WPP	WIRELESS PATCH PANEL
XFMR	TRANSFORMER

GENERAL ELECTRICAL NOTES

1. 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.

2. 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.
   C. 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.

3. 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.

4. 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.

5. REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.

6. 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.

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.

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.

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 "T

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
LIGHTING	
(W-3)	FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
(W-3E)	FIXTURE IDENTIFICATION: EMERGENCY LIGHTING FIXTURE WITH BATTERY PACK AND/ OR GENERATOR AND/ OR CENTRALIZED INVERTER AND/ OR CENTRALIZED UPS CONNECTION AS INDICATED IN PLANS. (W-3E) INDICATES FIXTURE TYPE AS SCHEDULED.
EM	EMERGENCY.
NL	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.
P	PHOTOCELL.
P	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.
a,b	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)
RC	DIGITAL LIGHTING ROOM CONTROLLER
DC	DIGITAL LIGHTING DIMMING CONTROLLER
LC	DIGITAL PLUG LOAD CONTROLLER
LS	LIGHTING NETWORK SWITCH.
NR	LIGHTING NETWORK ROUTER.
SM	LIGHTING NETWORK SEGMENT MANAGER
NB	LIGHTING NETWORK BRIDGE
ET	LIGHTING EMERGENCY TRANSFER DEVICE
L X	LIGHTING SPACE CONTROL TYPE. X INDICATES TYPE. SEE SCHEDULE / DIAGRAM.
TWO-WAY COMMUNICATIONS	
2WA	TWO-WAY COMMUNICATIONS MAIN CONTROL STATION (ANNUNCIATOR)
RCS	TWO-WAY COMMUNICATIONS REMOTE CALL STATION
	DATA CONNECTION: TWO-WAY EMERGENCY COMMUNICATION SYSTEM.

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
FIRE ALARM	
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.
C	AUTOMATIC DOOR CLOSERS: DOOR CLOSERS SHALL BE FURNISHED WITH DOOR HARDWARE AND CONNECTED BY FIRE ALARM INSTALLER.
CM	CONTROL MODULE.
MM	MONITOR MODULE.
F	FIRE ALARM MANUAL PULL STATION.
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 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 SPRINKLER SHOP DRAWINGS..
	MAGNETIC DOOR HOLDER.
	DETECTOR, SMOKE.
	DETECTOR, SMOKE, WALL MOUNTED.
A	DETECTOR, SMOKE WITH AUXILIARY CONTACT.
BR	DETECTOR, SMOKE, BEAM RECEIVER.
BT	DETECTOR, SMOKE, BEAM TRANSMITTER.
E	DETECTOR, SMOKE, ELEVATOR RECALL DESIGNATION.
G	DETECTOR, SMOKE WITH GUARD.
R	DETECTOR, SMOKE, RESIDENTIAL.
S	DETECTOR, SMOKE WITH STROBE.
RS	DETECTOR, SMOKE, RESIDENTIAL WITH SOUNDER BASE.
AS	DETECTOR, SMOKE, AIR SAMPLING SYSTEM PORT LOCATION.
	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
SD	SMOKE DAMPER. 120V POWER FROM ELECTRICAL SYSTEM.
FSD	COMBINATION F/RE/SMOKE DAMPER. 120V POWER FROM ELECTRICAL SYSTEM.
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.
C	ALARM, CHIME/STROBE, WALL MOUNTED, ONE ASSEMBLY.
G	ALARM, HORN/STROBE WITH GUARD, WALL MOUNTED, ONE ASSEMBLY.
M	ALARM, MINI HORN/STROBE, WALL MOUNTED, ONE ASSEMBLY.
	SPEAKER, WALL MOUNTED, EVACUATION.
	SPEAKER, WALL MOUNTED, EVACUATION, COMBINATION STROBE.
75	SPEAKER, WALL MOUNTED, EVACUATION, COMBINATION STROBE. SUBSCRIPT INDICATES CANDELLA RATING.
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.
75	ALARM, STROBE, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
	BELL, ELECTRIC, 120V FROM ELECTRICAL SYSTEM OR 24V FROM FIRE ALARM SYSTEM

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
CLOCK	
C	CLOCK.
C G	CLOCK, SURFACE WITH WIRE GUARD.
NURSE CALL	
	JUNCTION BOX.
	CORRIDOR LIGHT.
B	BATHROOM PULL CORD STATION.
D	DUTY STATION.
E	EMERGENCY ASSISTANCE CALL STATION.
E CB	EMERGENCY ASSISTANCE CODE BLUE CALL STATION.
P	PATIENT STATION.
S	STAFF STATION.
NCM	TOUCH SCREEN NURSE CALL MASTER STATION.
ZLC	ZONE LIGHT CONTROLLER.
CU	NURSE CALL AREA CONTROL UNIT & POWER SUPPLIES.
CCTV	
P	CCTV CABLE, POWER.
V	CCTV CABLE, VIDEO SIGNAL.
CCTV	CCTV HEADEND EQUIPMENT.
M	CCTV MONITOR.
	CCTV CAMERA/ENCLOSURE WITH LENS, TYPICAL. SEE SCHEDULE.
PTZ	CCTV CAMERA WITH PAN, TILT AND ZOOM.
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.
ER	EXIT REQUEST.
RL	REMOTE DOOR RELEASE BUTTON.
	BELL.
	BUZZER.
	BUZZER, COMBINATION BELL.
	SENSOR, BURIED VEHICULAR.
	SENSOR, GLASS BREAK.
	SENSOR, VOLUMETRIC.
CA	CONTROLLED ACCESS POINT.
IC	INTERCOM STATION.
IRU	DUAL TECHNOLOGY PASSIVE INFRARED SENSOR AND ULTRASONIC MOTION DETECTOR.
IR	PASSIVE INFRARED SENSOR.
P	PANIC DURESS SWITCH.
U	ULTRASONIC MOTION DETECTOR.
AP	ANNUNCIATOR PANEL.
MSI	MASTER STATION, INTERCOM.
TV DISTRIBUTION	
T	TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.
TR	TV DISTRIBUTION CABLE, TRUNK.
CMB	COMBINER.
DC	DIRECTIONAL COUPLER.
DA	DISTRIBUTION AMPLIFIER (ONE-LINE DIAGRAM).
SPL	SPLITTER (ONE-LINE DIAGRAM).
	TV OUTLET.
	SATELLITE ANTENNA.
	TV ANTENNA (ONE-LINE DIAGRAM).
	TERMINATOR, 75 OHM (TV DISTRIBUTION).
X	HDMI RECEPTACLE WITH SINGLE GANG BACKBOX AND 1.25" CONDUIT STUBBED TO ACCESSIBLE CEILING. PROVIDE 2.1 HDMI CABLE BETWEEN HDMI RECEPTACLES. "X" INDICATES QUANTITY OF HDMI PORTS WHEN GREATER THAN 1.

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · FFKR.COM

Intermountain Health

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents

PROFESSIONAL ENGINEER
No. 11783731-2202
JASON B. WORTHEN
STATE OF UTAH
06/06/2025

△ DATE REVISION

PROJECT NUMBER 24023

SYMBOLS LEGEND

EE002

Autodesk Docs://24023 IHBearRvr/240128 - IH BRVH Outpatient Expansion - Elec.rvt
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CLINIC/HOSPITAL - CABLE/OUTLET COLOR SCHEDULE

COLOR	TYPE
BLACK	TV COAX
BLUE	ANALOG PHONE
BLUE	DATA
BLUE	IP SECURITY CAMERAS
GRAY	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

(CATEGORY 6A F/UTP CABLES W/RJ-45 CONNECTORS)

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	-

CLINIC/HOSPITAL - EQUIPMENT/CABLE LIST

THE ITEMS INDICATED BELOW SHALL NOT BE CONSTRUED AS A "BILL OF MATERIALS". THIS LIST IDENTIFIES ITEMS OF SIGNIFICANCE USED DURING THE DESIGN OF THE CABLING INSTALLATION. WHERE THE ITEMS INDICATED ARE ONE PORTION OF AN ASSEMBLY, THE ENTIRE ASSEMBLY SHALL BE PROVIDED UNLESS OTHERWISE SPECIFIED. PROVIDE ALL MISCELLANEOUS HARDWARE AND SUPPORTS, WHICH MAY NOT BE LISTED HERE, FOR A COMPLETE INSTALLATION. COMPARE CATALOG NUMBERS WITH DESCRIPTIONS AND NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO BID. IF CATALOG NUMBERS DO NOT MATCH DESCRIPTIONS, THE DESCRIPTIONS TAKE PRECEDENCE. PROVIDE COMPLETE SUBMITTAL FOR APPROVAL PRIOR TO PURCHASING ANY EQUIPMENT OR CABLE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

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

SYMBOL	ITEM DESCRIPTION	ACCEPTABLE TYPES
	STATION CABLE, DATA - CATEGORY 6A F/UTP PLENUM RATED, BLUE, DATA	SIEMON 9AEP4-A5-06-R1A
▽	VOICE OUTLET, SINGLE GANG FACEPLATE, WHITE W/WALL HUNG PHONE MOUNTING STUDS, ONE POSITION W/ CATEGORY 6A INSERT	SIEMON MX-WP-Z6AS-SS
▽ A ▽	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION	SIEMON 10GMX-FPS04-02
	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
	BLANK INSERT, WHITE	SIEMON MX-BL-02
▼	DATA OUTLET, SINGLE GANG FACEPLATE, WHITE, 4 POSITION	SIEMON 10GMX-FPS04-02
	CATEGORY 6A JACK - DATA, BLUE	SIEMON Z6A-S06
	BLANK INSERT, WHITE	SIEMON MX-BL-02
C	DATA OUTLET, SURFACE MOUNT BOX, WHITE, 2 POSITION (C=CEILING MOUNTED BOX)	SIEMON MX-SMZ2-02
	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
	BLANK FILLER PANEL, 1RU ANGLED	SIEMON PNL-BLNKA-1
SPP1	48 PORT, 1RU ANGLED PATCH PANEL, WITH OUTLETS - DETACHABLE REAR MNG	SIEMON Z6AS-PA-48
J J J	J-HOOKS, TRIPLE-TREE (SPACING TO BE MAXIMUM 30" ON-CENTER)	CADDY CAT64HPSWM3

CLINIC/HOSPITAL - GENERAL PROJECT NOTES

1. 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.
2. 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 LENGTH.
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.
7. FOR EVERY PULL SPECIFIED, COIL 15 FEET OF EXCESS CABLE AT THE STATION END FOR FUTURE USE. NEATLY COIL 15 FEET ABOVE THE CEILING OR BELOW THE FLOOR, WHERE APPLICABLE.
8. PROVIDE THE QUANTITY OF PATCH PANELS REQUIRED +20% FOR THE TOTAL DATA OUTLETS SHOWN ON FLOOR PLANS FOR THE PARTICULAR LEVEL.
9. RACK SPACE ALLOCATION SHOULD BE FOLLOWED PER DRAWINGS. IF THERE IS A SYSTEM THAT HAS NO RACK SPACE AVAILABLE, PLEASE CALL BOE SAUSEDO AT 801-707-3805.
10. COORDINATE WITH ALL SUB-CONTRACTORS TO ENSURE THAT ALL CABLES ARE PROTECTED FROM ANY DIRECT PAINT OR INCIDENTAL OVERSPRAY.
11. CONTRACTOR TO PROVIDE FIRE-RATED SLEEVES THROUGH 1-HOUR RATED WALLS AND HIGHER. NUMBER OF SLEEVES TO BE DETERMINED AND CALCULATED BY MAXIMUM CABLE TRAY CAPACITY AT WALL PENETRATION. FINAL QUANTITY OF SLEEVES TO BE DETERMINED BY CONTRACTOR.
12. CONTRACTOR TO PROVIDE SMOKE AND ACOUSTICAL-RATED SLEEVES THROUGH SMOKE WALLS AND ALL OTHER NON-RATED PENETRATIONS. (2) 4" SLEEVES PER ROOM FOR CABLE CAPACITY AND SERVICE SEPARATION. FINAL QUANTITY OF SLEEVES TO BE DETERMINED BY CONTRACTOR.
13. CONTRACTOR TO PROVIDE FIRE-RATED SLEEVES THROUGH 1-HOUR RATED WALLS AND HIGHER. (1) SLEEVE PER J-HOOK PATHWAY FOR CABLE CAPACITY AND SERVICE SEPARATION.
14. CONTRACTOR TO PROVIDE SMOKE AND ACOUSTICAL-RATED SLEEVES THROUGH SMOKE WALLS AND ALL OTHER NON-RATED PENETRATIONS. (1) SLEEVE PER J-HOOK PATHWAY FOR CABLE CAPACITY AND SERVICE SEPARATION.

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TELECOM SCHEDULES AND NOTES

EE003

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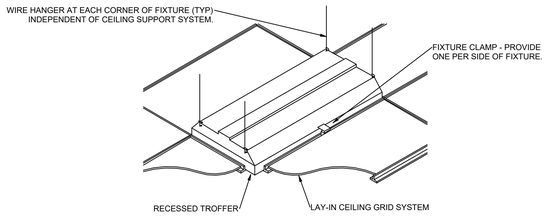
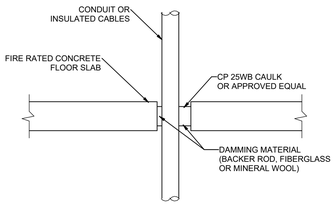


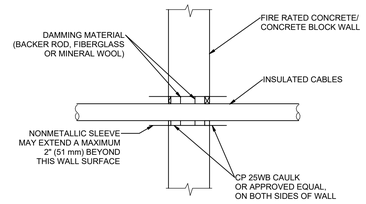
D1 RECESSED FIXTURE MOUNTING DETAIL

SCALE: NTS



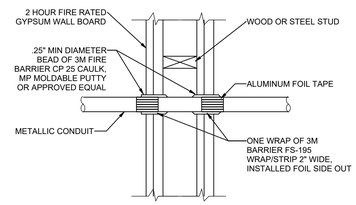
C1 TYPICAL FIRE STOP FOR CABLES/CONDUIT THROUGH CONCRETE FLOORING

SCALE: NTS



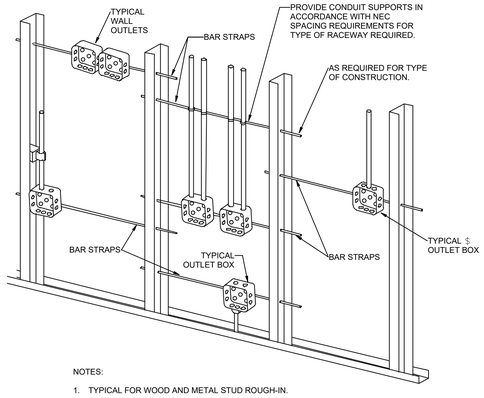
C3 TYPICAL FIRE STOP FOR CABLES/CONDUIT THROUGH CONCRETE WALLS

SCALE: NTS



C5 FIRE STOP FOR METAL CONDUIT THROUGH GYPSUM WALL BOARD

SCALE: NTS

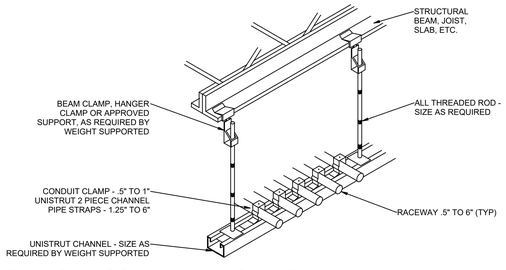


NOTES:

1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.
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.

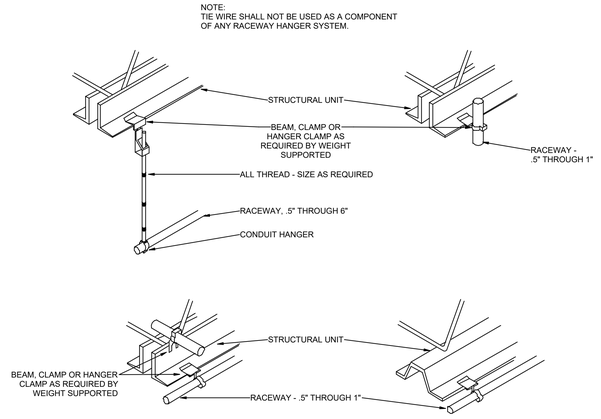
A1 TYPICAL ROUGH-IN REQUIREMENTS DETAIL

SCALE: NTS



A3 TYPICAL CONDUIT RACK DETAIL

SCALE: NTS



A5 TYPICAL RACEWAY SUPPORT METHODS DETAIL

SCALE: NTS

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No. 11783731-2202
JASON W. WORTHEN
STATE OF UTAH
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ELECTRICAL DETAILS

EE501

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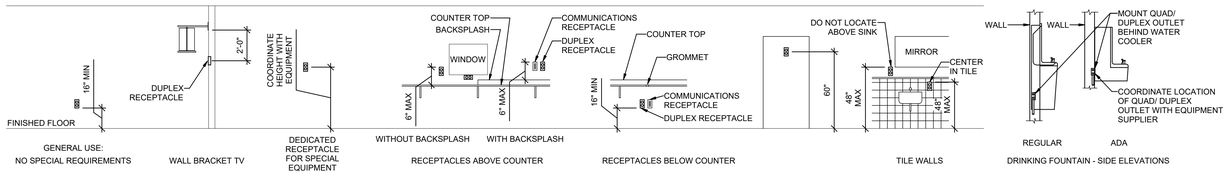
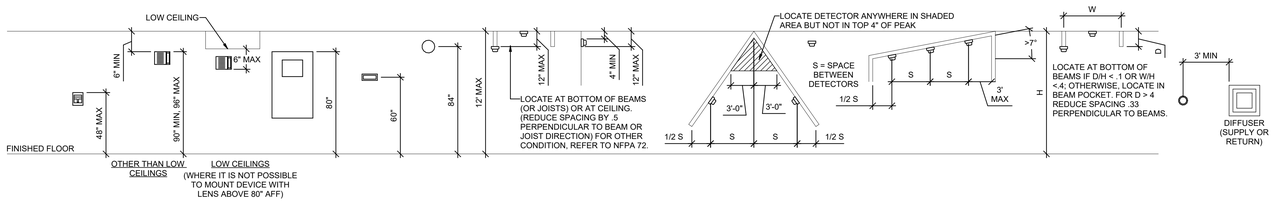


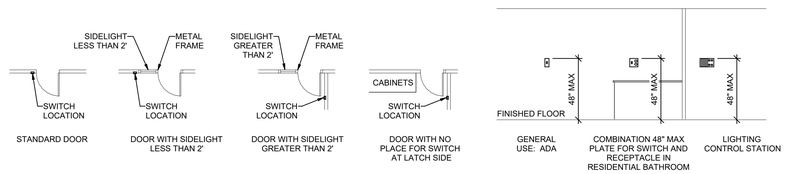
E2 RECEPTACLE MOUNTING DETAILS

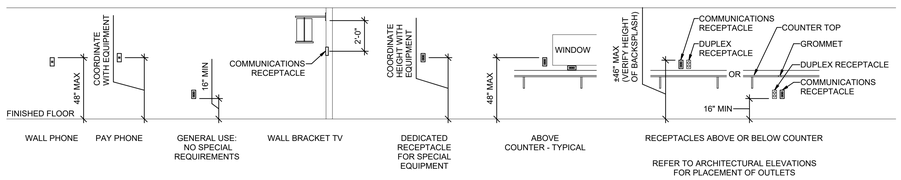
SCALE: NTS



D2 FIRE ALARM MOUNTING DETAILS

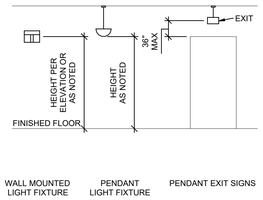
SCALE: NTS

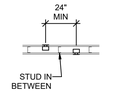




C2 SWITCH MOUNTING DETAILS

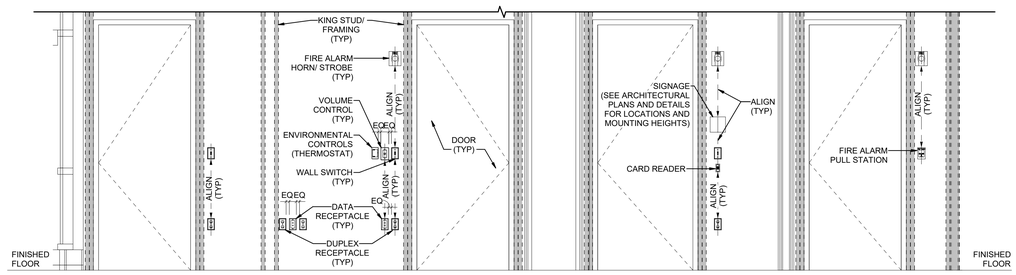
SCALE: NTS





C4 COMMUNICATIONS MOUNTING DETAILS

SCALE: NTS



B2 LIGHTING MOUNTING DETAILS

SCALE: NTS

B3 BOX MOUNTING DETAILS

SCALE: NTS

B4 TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAILS

SCALE: NTS

GENERAL SHEET NOTES

1 MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:

A - ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).

B - EQUIPMENT SHOP DRAWINGS.

C - FIELD INSTRUCTIONS.

2 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.

4 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.

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.

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TYPICAL MOUNTING DETAILS

EE701

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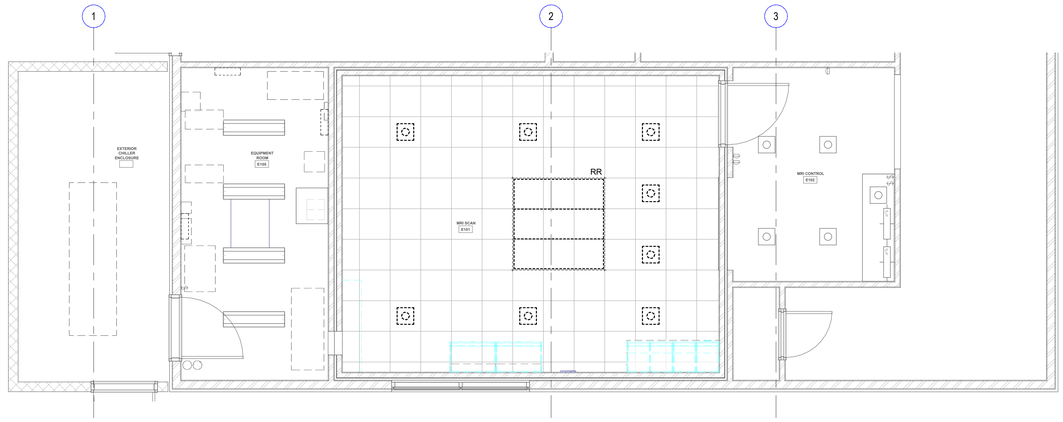
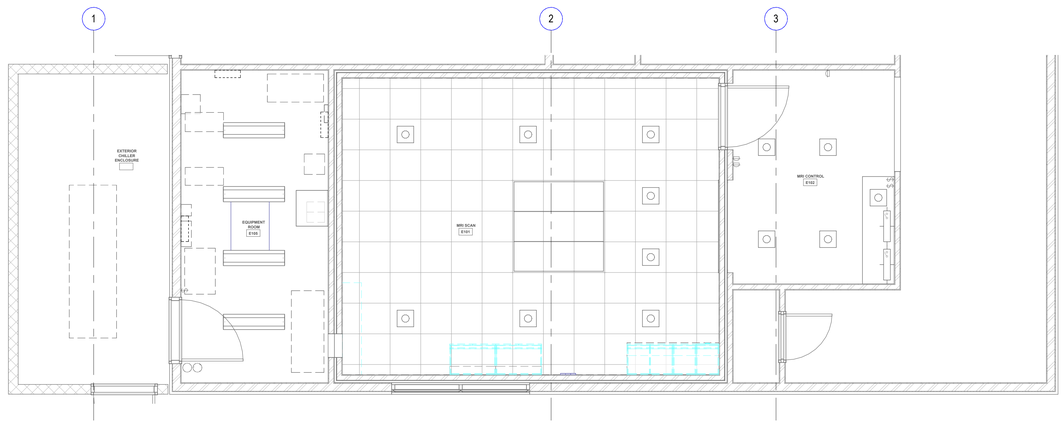
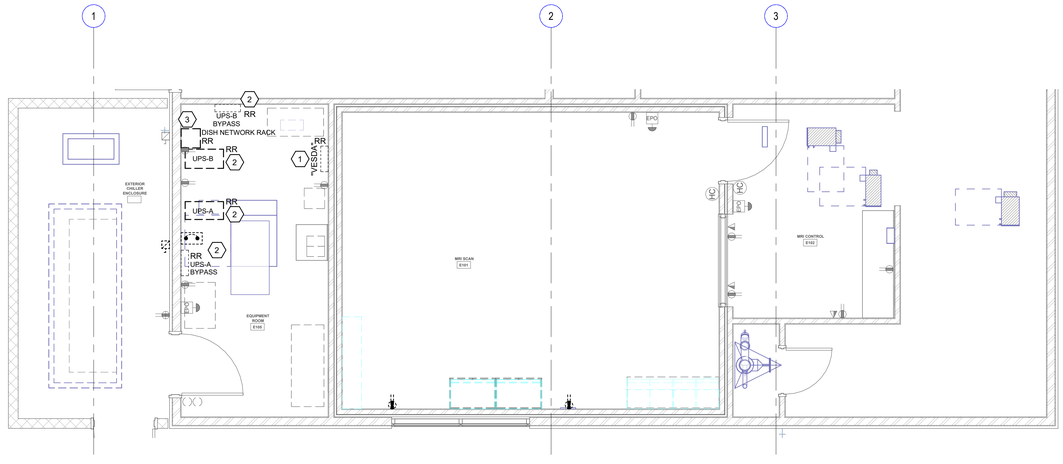


3 LEVEL 1 ALTERNATE CEILING DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



2 LEVEL 1 CEILING DEMOLITION PLAN - MRI
SCALE: 1/4" = 1'-0"



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

GENERAL SHEET NOTES

1 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.

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

3 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.

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

5 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.

6 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.

7 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.

8 DEVICES MARKED "RR" ARE TO BE REMOVED AND RELOCATED PER NEW PLANS. EXTEND CIRCUITING AS REQUIRED FOR RELOCATION.

9 REFER TO ARCHITECTURAL DRAWINGS FOR REMOVAL OF MOTORS, CONDUIT, CONDUCTOR AND CONTROL WIRING ASSOCIATED WITH EXISTING MOTORIZED DOORS, PARTITIONS AND LIGHTING.

10 REMOVE FEEDERS FOR ALL DEMOLISHED PANELS, DISCONNETS, ETC. BACK TO SOURCE

11 ALL ITEMS INDICATED TO REMAIN SHALL BE PROTECTED DURING ALL PHASES OF CONSTRUCTION.

12 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.

SHEET KEYNOTES

1 EXISTING VESDA PANEL TO BE RELOCATED INSIDE THE MRI EQUIPMENT ROOM. REFER TO NEW PLANS, EXTEND CIRCUITING AS REQUIRED.

2 UPS AND UPS BYPASS PANEL/EQUIPMENT TO BE RELOCATED TO THE TEC. REFER TO NEW PLANS AND ONE-LINE DIAGRAM. ONLY ONE UPSA SYSTEM CAN BE RELOCATED AT A TIME. UPS-A AND ALL REQUIRED COMPONENTS AND CIRCUITING SHALL BE RELOCATED, TESTED AND FUNCTIONAL PRIOR THE UPS-B SYSTEM BEING TAKEN OFFLINE. TIMING FOR RELOCATIONS AND DOWN TIME WILL NEED TO BE COORDINATED WITH INTERMOUNTAIN.

3 EXISTING DISH NETWORK RACK TO BE RELOCATED TO OTHER END OF EQUIPMENT ROOM. REFER TO NEW PLANS. EXTEND/RE-PULL CABLING AS REQUIRED.

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PROFESSIONAL ENGINEER
No. 11783731-2202
JASON B. WORTHEN
STATE OF UTAH
06/06/2025

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ELECTRICAL DEMOLITION PLAN

ED101

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

GENERAL SHEET NOTES

1 PROVIDE DEDICATED NETURALS FOR ALL BRANCH CIRCUITS.

2 ALL WIRING IN PATIENT CARE AREAS SHALL MEET THE REQUIRMENTS OF NEC 517.13.

3 RECETPACLES INSTALLED WITHIN 6' OF THE EDGE OF A SINK SHALL BE GFCI PROTECTED.

4 CONTRACTOR TO PROVIDE NEW TYPED PANEL SCHEDULES FOR ALL PANELS AFFECTED BY THE PROJECT.

5 CONTRACTOR TO REFER TO GE DRAWINGS FOR ADDITIONAL CONTRACTOR RESPONSIBILITIES.

SHEET KEYNOTES

1 UPS AND UPS BYPASS PANEL/EQUIPMENT TO BE RELOCATED TO COMM ROOM 1002. REFER TO DEMO PLANS AND ONE-LINE DIAGRAM. ONLY ONE UPS SYSTEM CAN BE RELOCATED AT A TIME. UPS-A AND ALL REQUIRED COMPONENTS AND CIRCUITING SHALL BE RELOCATED, TESTED AND FUNCTIONAL PRIOR THE UPS-B SYSTEM BEING TAKEN OFFLINE. TIMING FOR RELOCATIONS AND DOWN TIME WILL NEED TO BE COORDINATED WITH INTERMOUNTAIN.

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LEVEL 1
OVERALL
POWER
PLAN

EP100

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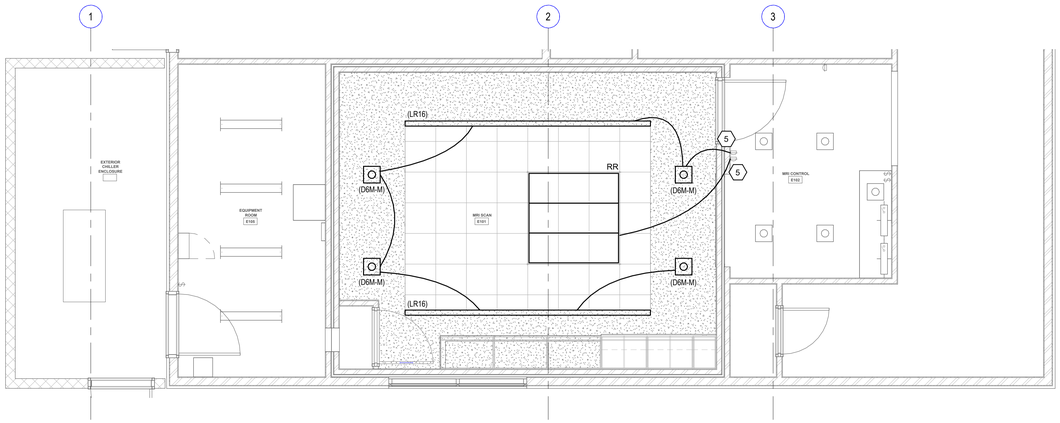
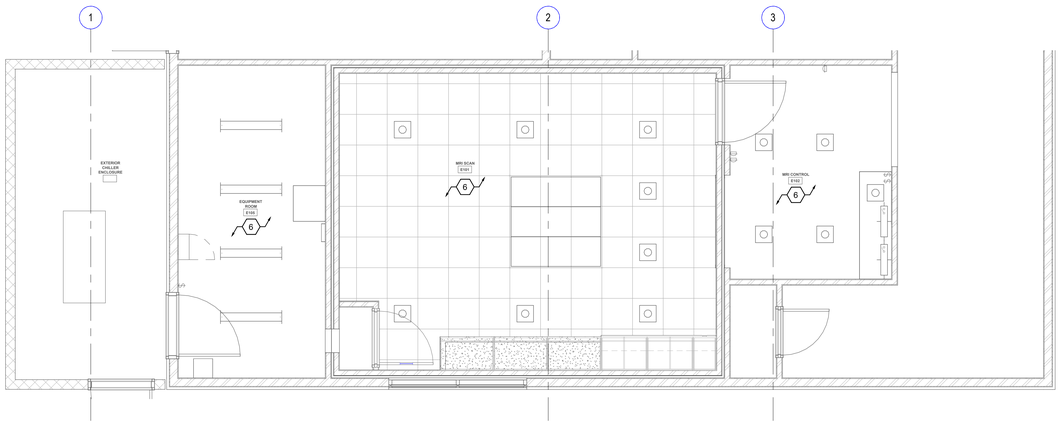


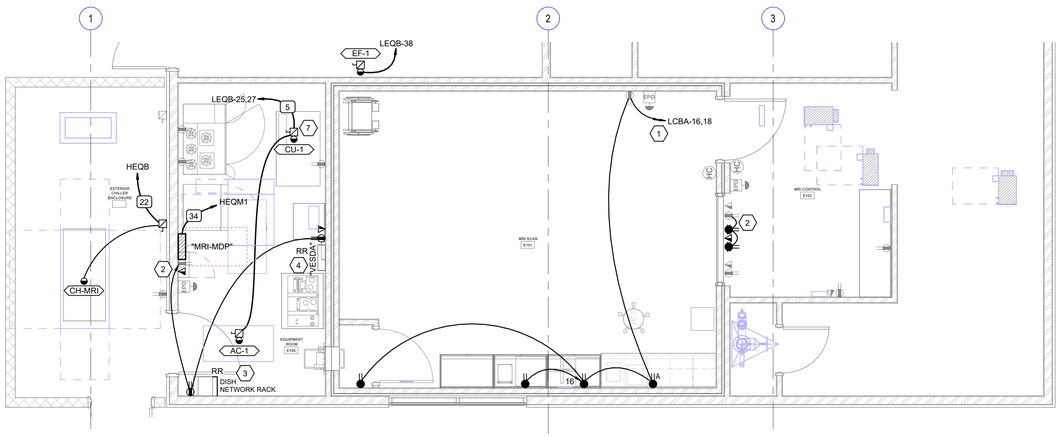
3 LEVEL 1 ALTERNATE LIGHTING PLAN

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



2 LEVEL 1 LIGHTING PLAN - MRI

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



1 LEVEL 1 POWER PLAN - MRI

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

GENERAL SHEET NOTES

1. PROVIDE DEDICATED NETURALS FOR ALL BRANCH CIRCUITS.
2. ALL WIRING IN PATIENT CARE AREAS SHALL MEET THE REQUIRMENTS OF NEC 517.13.
3. RECETPACLES INSTALLED WITHIN 6' OF THE EDGE OF A SINK SHALL BE GFCI PROTECTED.
4. CONTRACTOR TO PROVIDE NEW TYPED PANEL SCHEDULES FOR ALL PANELS AFFECTED BY THE PROJECT.
5. CONTRACTOR TO REFER TO GE DRAWINGS FOR ADDITIONAL CONTRACTOR RESPONSIBILITIES.

SHEET KEYNOTES

1. ROUTE CIRCUITS IN MRI SUITE THROUGH RF FILTER.
2. CONNECT TO EXISTING RECEPTACLE CIRCUIT.
3. EXISTING DISH NETWORK RACK TO BE RELOCATED TO OTHER END OF EQUIPMENT ROOM. EXTEND/RE-PULL CABLING AS REQUIRED.
4. EXISTING VESDA PANEL TO BE RELOCATED INSIDE THE MRI EQUIPMENT ROOM. EXTEND CIRCUITING AS REQUIRED.
5. CONNECT TO EXISTING LIGHTING CIRCUIT AND CONTROLS THAT PREVIOUSLY FED THIS SPACE.
6. EXISTING LIGHTING TO REMAIN.
7. UNIT IS LOCATED ON THE ROOF.

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JASON R. NORTHEN
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LEVEL 1 POWER PLAN

EP101

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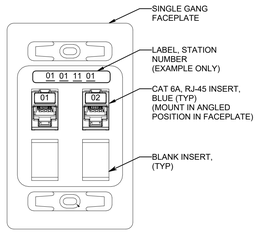
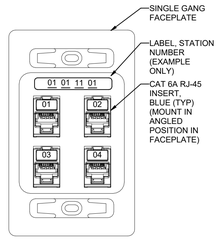


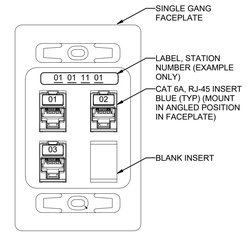
TYPICAL 2-PORT WALL DATA OUTLET

C2 SCALE: NTS



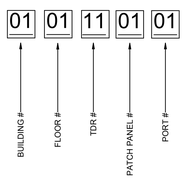
TYPICAL 4-PORT WALL DATA OUTLET

C4 SCALE: NTS



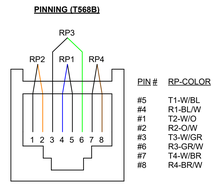
TYPICAL 3-PORT WALL DATA OUTLET

C6 SCALE: NTS



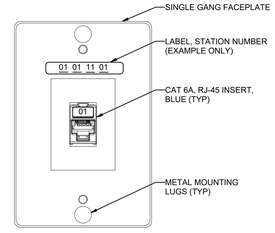
TYPICAL CABLE ID EXAMPLE DETAIL

A2 SCALE: NTS



TYPICAL VOICE/DATA OUTLET PINNING DETAIL

A4 SCALE: NTS



TYPICAL 1-PORT WALL PHONE OUTLET

A6 SCALE: NTS

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SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents

PROFESSIONAL ENGINEER
No. 11787731-2202
JASON T. NORTHEN
STATE OF UTAH
06/06/2025

△ DATE REVISION

PROJECT NUMBER 24023

TELECOM DETAILS

EP552

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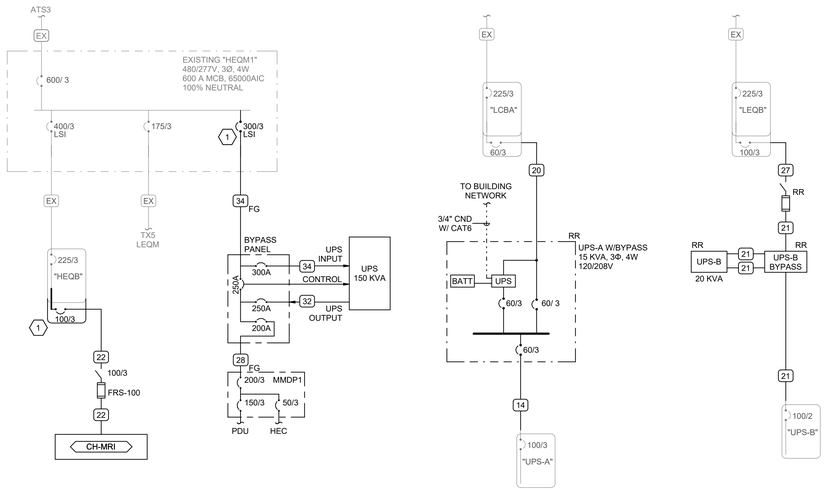
EQUIPMENT SCHEDULE

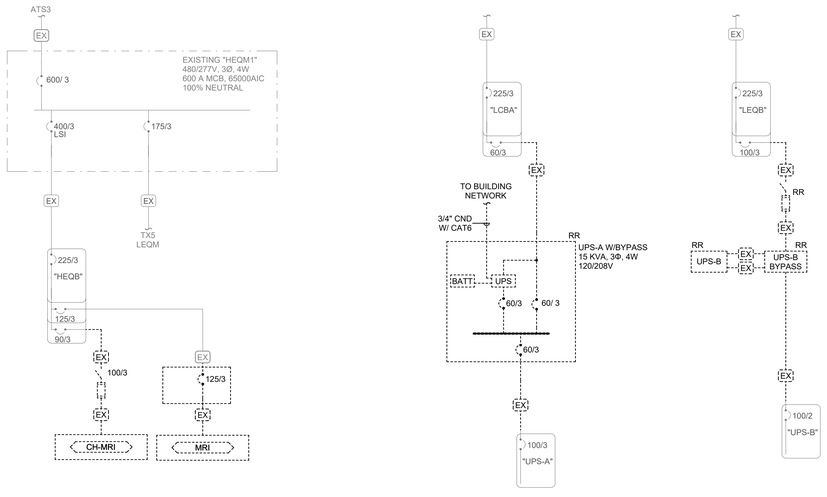
EQUIPMENT SCHEDULE KEY	NOTES:	GENERAL NOTES:
E - DIVISION 26 Q - FURNISHED WITH EQUIPMENT, INSTALLED BY DIV.26	1. PROVIDE MANUAL STARTER WITH THERMAL OVERLOAD AND RELAY FOR ATC/BAS CONTROL. 2. PROVIDE FUSED DISCONNECT ELEVATOR POWER MODULE WITH SHUNT TRIP. 3. INDOOR UNITS FED FROM OUTDOOR UNIT. PROVIDE DISCONNECTS FOR BOTH.	1. LOCATE ELECTRICAL EQUIPMENT IN ACCESSIBLE LOCATION, SUCH THAT IT IS WITHIN SIGHT OF THE EQUIPMENT IT IS SERVING, AND COMPLIES WITH N.E.C. REQUIRED CLEARANCES. 2. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND SIZE FEEDER, STARTER, DISCONNECT AND OVERCURRENT PROTECTION IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OF ACTUAL EQUIPMENT SUPPLIED. 3. ELECTRICAL CONTRACTOR SHALL REVIEW OTHER DIVISION DRAWINGS FOR ANY ADDITIONAL REQUIREMENTS PRIOR TO BID. 4. ELECTRICAL CONTRACTOR SHALL REVIEW OTHER DIVISION SUBMITTALS FOR ANY EQUIPMENT REQUIRING CONNECTION BY ELECTRICAL CONTRACTOR AND COORDINATE ALL REQUIREMENTS PRIOR TO ROUGH-IN.

			LOAD DATA													
LABEL	QTY	DESCRIPTION	HP	kW	MCA	FLA	V	PH	WIRE AND CONDUIT SIZE	OCPD DEVICE	OCPD FED FROM	DISCONNECT PROVIDED BY	DISCONNECT DEVICE	MOTOR CONTROLLER PROVIDED BY	MOTOR CONTROLLER DEVICE	MOTOR CONTROLLER SIZES	NEMA ENCLOSURE RATING	NOTES
AC-1	1	SPLIT AIR CONDITIONING UNIT	-	-	-	1	208	1	3 #10, #10 GR 0.75" CND	30/2 CB	LEQB	E	30A/2P FRN-30	Q	-	-	1	
CU-1	1	SPLIT AIR CONDITIONING UNIT	-	-	30	22.2	208	1	3 #10, #10 GR 0.75" CND	30/2 CB	LEQB	E	30A/2P FRN-30	Q	-	-	3R	
EF-1	1	EXHAUST FAN	1/2	-	-	9.8	120	1	#12, #12 GR 0.75" CND	20/1 CB	LEQB	Q	30A/1P FRN-20	Q	-	-	3R	



2 NEW ONE-LINE DIAGRAM

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



1 DEMOLITION ONE-LINE DIAGRAM

SCALE: NTS

BRANCH CIRCUIT CONDUCTOR AND CONDUIT SIZING TABLE

CIRCUIT AMPACITY/VOLTAGE	CIRCUIT LENGTH	CONDUCTOR SIZE (PHASE, NEUTRAL AND GR)	CONDUIT SIZE
20A/120V	0' - 60'	#12 AWG	0.75" Ø
20A/120V	60' - 95'	#10 AWG	0.75" Ø
20A/120V	95' - 150'	#8 AWG	1" Ø
20A/120V	150' - 240'	#6 AWG	1.25" Ø
20A/277V	0' - 140'	#12 AWG	0.75" Ø
20A/277V	140' - 220'	#10 AWG	0.75" Ø
20A/277V	220' - 350'	#8 AWG	1" Ø
20A/277V	350' - 550'	#6 AWG	1.25" Ø

NOTES:

1. WIRE SIZING IS BASED ON COPPER CONDUCTORS SUPPLYING A 20A, 120V CIRCUIT AT THE INDICATED VOLTAGE, ASSUMED TO BE 80% LOADED (16A), WITH MAXIMUM VOLTAGE DROP OF 3% AT THE LOAD.
2. DOWN-SIZED WIRE AT DEVICE/LOAD AS REQUIRED AND TERMINATE CONDUCTORS IN A SAFE AND CODE COMPLIANT MANNER.
3. CONDUIT SIZE IS BASED ON A MAXIMUM OF 3 CIRCUITS PER CONDUIT, EACH WITH A SEPARATE NEUTRAL CONDUCTOR.

ALUMINUM CONDUCTOR AND CONDUIT SCHEDULE

SCHEDULE NUMBER
SUBSCRIPT (NOTE 5)
(E.G.: 5 IG)

SYM	AMP	CONDUIT SIZE	CONDUCTOR (NOTE 1) QTY	SIZE	G	IG	SE	NOTES
1A								
2A								
3A								
4A								
5A								
6A								
7A								
8A								
9A								
10A								
11A								
12A								
13A								
14A								
15A								
16A								
17A								
18A								
19A								
20A								
21A	130	2	3	2/0	4	1/0	4	2,7
22A	130	2	4	2/0	4	1/0	4	2,7
23A	150	2	3	3/0	4	1/0	4	2,7
24A	150	2	4	3/0	4	1/0	4	2,7
25A	175	2	3	4/0	4	1/0	2	2,7
26A	175	2.50	4	4/0	4	1/0	2	2,7
27A	200	2.50	3	250	4	1/0	2	2,7
28A	200	3	4	250	4	1/0	2	2,7
29A	230	2.50	3	300	2	1/0	1/0	2,7
30A	230	3	4	300	2	1/0	1/0	2,7
31A	250	3	3	350	2	2/0	1/0	2,7
32A	250	3	4	350	2	2/0	1/0	2,7
33A	310	3	3	500	1	3/0	1/0	2,7
34A	310	4	4	500	1	3/0	1/0	2,7
35A	380	2 EA 2.50	3	250	1	4/0	3/0	2,7
36A	380	2 EA 3	4	250	1	4/0	3/0	2,7
37A	400	2 EA 2.50	3	250	1/0	4/0	3/0	2,7
38A	400	2 EA 2.50	4	250	1/0	4/0	3/0	2,7
39A	500	2 EA 3	3	350	1/0	300	3/0	2,4,7
40A	500	2 EA 3	4	350	1/0	300	3/0	2,4,7
41A	620	2 EA 3	3	500	3/0	300	3/0	2,4,7
42A	620	2 EA 4	4	500	3/0	300	3/0	2,4,7
43A	750	3 EA 3	3	350	3/0	300	4/0	2,4,7
44A	750	3 EA 3	4	350	3/0	300	4/0	2,4,7
45A	810	3 EA 3	3	400	4/0	300	250	2,4,7
46A	810	3 EA 4	4	400	4/0	300	250	2,4,7
47A	1000	4 EA 3	3	350	4/0	300	250	4,7
48A	1000	4 EA 3	4	350	4/0	300	250	4,7
49A	-	-	-	-	-	-	-	-
50A	1140	4 EA 4	4	500	250	300	250	4,7
51A	1240	4 EA 4	3	500	350	300	250	4,7
52A	1240	4 EA 4	4	500	350	300	250	4,7
53A	1620	6 EA 4	4	400	400	350	250	4,7
54A	2170	7 EA 4	4	500	400	400	500	4,7
55A	2695	7 EA 4	4	750	600	750	750	4,7
56A	3080	8 EA 4	4	750	600	750	750	4,7
57A	4235	11 EA 4	4	750	800	750	750	4,7
58A	1200	5 EA 4	-	-	-	-	-	6
59A	3000	10 EA 6	-	-	-	-	-	6
60A	-	10 EA 4	-	-	-	-	-	6

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1 CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2 PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3 PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4 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 CONDUCTOR WHERE THE CONDUCTOR IS BELOW #1/0 IN SIZE.
"CI": PROVIDE CIRCUIT INTEGRITY CABLE; TYPE TWO-HOUR FIRE RESISTIVE CABLES IN CONDUIT OR PROVIDE FEEDER ENCASED IN CONCRETE.
"FG" FULL SIZE GROUND, SIZE EQUIPMENT GROUNDING CONDUCTOR TO BE SAME SIZE AS THE PHASE CONDUCTORS.
"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.
"MC": PROVIDE FEEDER IN METAL-CLAD CABLE; TYPE MC IN PLACE OF SINGLE CONDUCTORS IN CONDUIT.
"SE": SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN, WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEM.
"SER": PROVIDE SERVICE-ENTRANCE CABLE; TYPE SE OR SER IN PLACE OF SINGLE CONDUCTORS IN CONDUIT.
6 RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.
7 ALUMINUM CONDUCTORS NOT TO BE USED FOR CONNECTION TO MOTORS OR MOTOR DRIVEN EQUIPMENT.

GENERAL SHEET NOTES

1 PROVIDE NEMA 3R ENCLOSURES FOR EQUIPMENT LOCATED OUTDOORS. REFER TO PLANS FOR EQUIPMENT LOCATIONS.
2 REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
3 ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO ELECTRICAL SPECIFICATIONS FOR REQUIREMENTS.
4 PROVIDE PERFORMANCE TESTING FOR GROUND-FAULT PROTECTION SYSTEMS ON SITE WITH A WRITTEN RECORD OF THIS TEST SUBMITTED TO THE AUTHORITY HAVING JURISDICTION PER NEC 230.95(C).

SHEET KEYNOTES

1 PROVIDE NEW CIRCUIT BREAKER IN EXISTING GE PANELBOARD.

COPPER CONDUCTOR AND CONDUIT SCHEDULE

SCHEDULE NUMBER
SUBSCRIPT (NOTE 5)
(E.G.: 5 IG)

SYM	AMP	HH AMPS	CONDUIT SIZE	CONDUCTOR (NOTE 1) QTY	SIZE	G	IG/HH	SE	NOTES
1	20	-	.75	2	12	12	8	2	
2	20	-	.75	3	12	12	8	2	3
3	20	24	.75	4	12	12	8	2	3
4	30	-	.75	2	10	10	8	2	
5	30	-	.75	3	10	10	8	2	
6	30	32	.75	4	10	10	8	2	
7	40	-	1	2	8	10	6	2	
8	40	-	1	3	8	10	6	2	
9	40	44	1	4	8	10	6	2	
10	55	-	1	2	6	10	4	2	
11	55	-	1	3	6	10	4	2	
12	55	60	1.25	4	6	10	4	2	
13	70	-	1	2	4	8	4	2	
14	70	-	1.25	3	4	8	4	2	
15	70	76	1.25	4	4	8	4	2	
16	85	-	1.25	2	3	8	3	2	
17	85	-	1.25	3	3	8	3	2	
18	85	92	1.25	4	3	8	3	2	
19	95	-	1.25	3	2	8	2	2	
20	95	104	1.50	4	2	8	2	2	
21	130	-	1.50	3	1	6	2	2	
22	130	116	1.50	4	1	6	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	200	-	2	3	3/0	6	2	2/0	2
28	200	180	2.50	4	3/0	6	2	2/0	2
29	230	-	2.50	3	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
38	400	360	2 EA 2.50	4	3/0	3	3/0	3/0	2
39	510	-	2 EA 2.50	3	250	1	4/0	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
48	1000	912	3 EA 3.50	4	400	2/0	4/0	3/0	4
49	1140	-	3 EA 4	3	500	3/0	4/0	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
56	3040	2752	8 EA 4	4	500	500	500	500	4
57	4180	3784	11 EA 4	4	500	500	500	500	4
58	1200	-	5 EA 4	-	-	-	-	-	6
59	3000	-	10 EA 6	-	-	-	-	-	6
60	-	-	10 EA 4	-	-	-	-	-	6

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5. SYMBOL SUBSCRIPTS:
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"SER": PROVIDE SERVICE-ENTRANCE CABLE; TYPE SE OR SER IN PLACE OF SINGLE CONDUCTORS IN CONDUIT.
6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · FFKR.COM

Intermountain Health

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
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Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents

PROFESSIONAL ENGINEER
No. 11783731-2202
JASON G. WORTHEN
STATE OF UTAH
06/06/2025

△ DATE REVISION

PROJECT NUMBER 24023

ONE-LINE DIAGRAM

EP601

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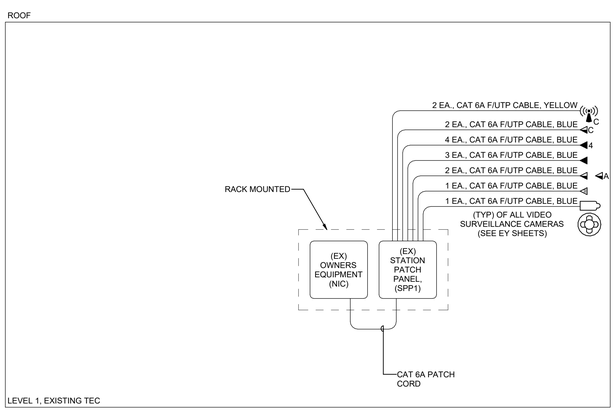
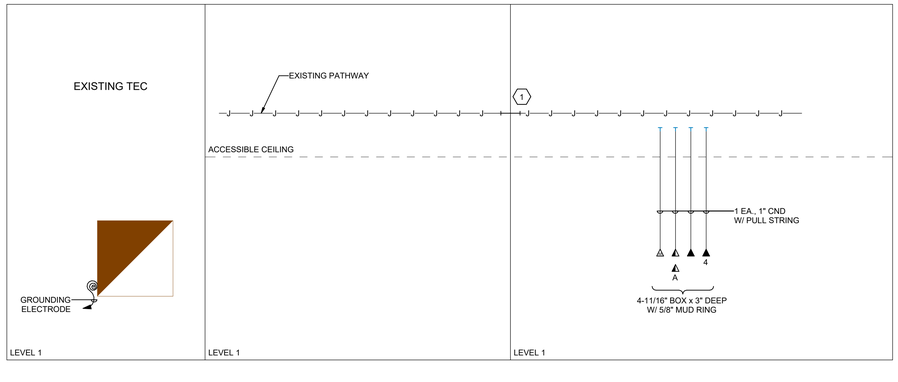
SHEET KEYNOTES

1 CONTRACTOR TO PROVIDE SLEEVES THROUGH ALL WALLS FOR CABLE PATHWAYS. ALL FIRE-RATED WALLS REQUIRE A FIRE-RATED SLEEVE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. ALL SMOKE/ NON-RATED WALLS REQUIRE A CONDUIT SLEEVE WITH BUSHINGS AND ARE REQUIRED TO BE SEALED WITH FIRE-RATED CAULK AND PUTTY. CONTRACTOR TO DETERMINE FINAL NUMBER OF SLEEVES FOR PENETRATIONS THROUGH WALLS.



A1 TELECOM CABLE RISER DIAGRAM
SCALE: NTS



A4 TELECOM CONDUIT RISER DIAGRAM
SCALE: NTS

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730 Pacific Avenue · Salt Lake City, Utah 84104
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Intermountain Health

SPECTRUM ENGINEERS
324 S. State St., Suite 400
Salt Lake City, UT 84111
800-678-7077
801-328-5151
fax: 801-328-5155
www.spectrum-engineers.com

Bear River Valley Hospital - MRI Replacement
905 N 1000 W, Tremonton, UT 84337
INTERMOUNTAIN HEALTHCARE
Construction Documents

LICENSED PROFESSIONAL ENGINEER
No. 11783731-2202
JASON E. WORTHEN
STATE OF UTAH
06/06/2025

△ DATE REVISION

PROJECT NUMBER 24023

TELECOM RISER DIAGRAMS

EP651

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LIGHTING REQUIREMENTS

- All lighting fixtures and associated components must meet all RF shielded room and RF grounding requirements (e.g., track lighting is not recommended due to possible RF noise).
- All removable lighting fixtures and associated components must be non-magnetic.
- All lighting must use direct current (the DC must have less than 5% ripple).
- 300 lux must be provided at the front of the magnet for patient access and above the magnet for servicing.
- Fluorescent lighting must not be used in the magnet room.
- Lighting must be adjusted using a discrete switch or a variable DC lighting controller.
- SCR dimmers or rheostats must not be used.
- DC LED lighting may be used if the DC power converter and RF sources are all located outside the magnet room RF shield.

  NOTE: LED lighting could cause image quality issues due to RF interference. Make sure a MR-compatible LED lighting solution is chosen.
- Battery chargers (e.g., used for emergency lighting) must be located outside the magnet room.
- LED Lighting or short filament length incandescent bulbs are recommended.
- Linear lamps are not recommended due to the high burnout rate.

CONNECTIVITY REQUIREMENTS

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

- 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 delivery of the system(s).
- 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 expert.

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

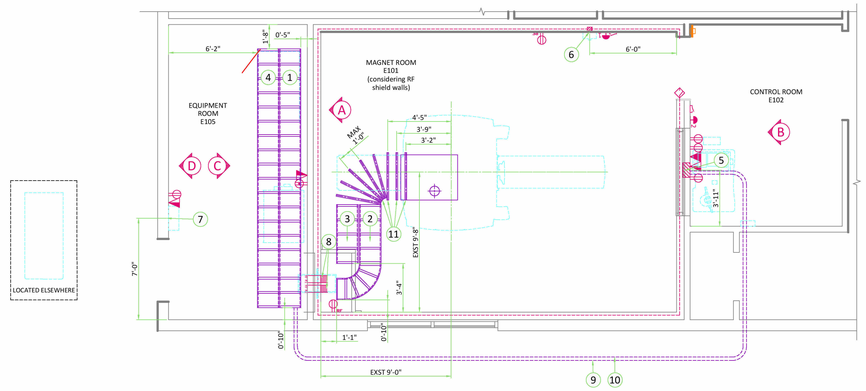
1. TLS over TCP Port 443 (Preferred method for new products) via:
   a. DNS resolution
   b. Customer-provided Proxy or
   c. GE Proxy (Available in some regions)
2. Site-to-Site IPsec VPN tunnel

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

ELECTRICAL NOTES

1. Aluminum or solid wires are not allowed.
2. Wire sizes given are for use of equipment. Larger sizes may be required by local codes.
3. It is recommended that all wires be color coded, as required in accordance with national and local electrical codes.
4. Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or national codes.
5. 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.
6. 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.
7. 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 to point).
8. Conduit turns to have large, sweeping bends with minimum radius in accordance with national and local electrical codes.
9. In some cases GEHC will specify ground wires to be size larger than code. In these situations, the GEHC specification must be followed.
10. 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.
11. The maximum point to point distances illustrated on this drawing must not be exceeded.
12. Physical connection of primary power to GEHC equipment is to be made by customers electrical contractor with the supervision of a GEHC representative. The GEHC representative would be required to identify the physical connection location, and insure proper handling of GEHC equipment.
13. 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.
14. Every installation is unique. The electrical contractor will be required to support the installation of the GEHC equipment by providing knockouts, grommeted openings, bushings, etc. as required. All power connections to be performed by the electrician.

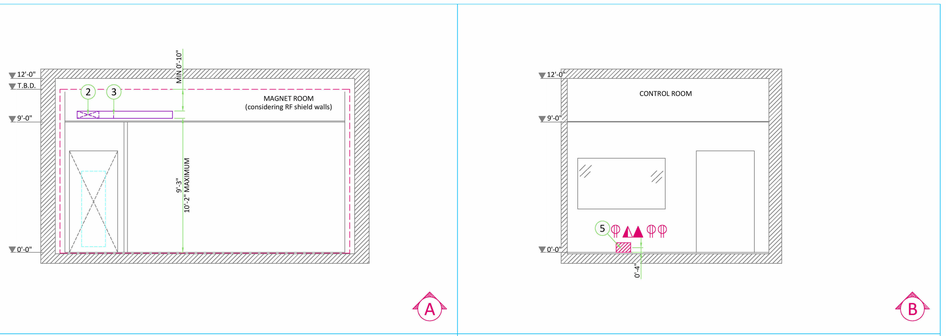
- All junction boxes, conduit, duct, duct dividers, switches, circuit breakers, cable tray, etc., are to be supplied and installed by customers electrical contractor. All junction boxes shall be provided with covers.
- Conduit and duct runs shall have gradual sweep radius bends.
- Conduits and duct above ceiling or below finished floor must be installed as near to ceiling or floor as possible to reduce run length.
- Ceiling mounted junction boxes illustrated on this plan must be installed flush with finished ceiling.
- All ductwork must meet the following requirements:
  1.Ductwork shall be metal with dividers and have removable, accessible covers.
  2. Ductwork shall be certified/rated for electrical power purposes.
  3. Ductwork shall be electrically and mechanically bonded together in an approved manner.
  4. PVC as a substitute must be used in accordance with all local and national codes.
- All openings in raceway and access flooring are to be cut out and finished off with grommet material by the customers contractor.
- Electrical contractor to provide measured pull strings in all conduit and raceway runs.
- Provide 10 foot pigtails at all junction points.
- Grounding is critical to equipment function and patient safety. Site must conform to wiring specifications shown on this plan.



ITEM	Electrical Layout Item List
1	Cable ladder 18" x 6" [450 x 150]
2	Non-ferrous cable ladder 18" x 6" [450 x 150]
3	Non-ferrous cable ladder for gradient cables 18" x 6" [450 x 150]
4	Cable ladder for gradient cables 18" x 6" [450 x 150]
5	Box in wall 12" x 8" x 6" [300 x 200 x 150] (Operators console)
6	MRU Box in wall 4" x 4" x 2" [100 x 100 x 50] @5'-4"
7	Main disconnect panel (MDP)
8	RF Filters - grounded to RF shield at Common Ground Stud
9	Conduit above RF screen 2" [50]
10	Conduit above RF screen 3" [75]
11	Non-ferrous unistrut cable support

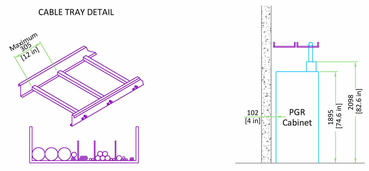
ITEM	QTY	Electrical Outlet Legend Customer/contractor supplied and installed items unless otherwise specified. height above floor determined by local codes unless otherwise specified.
		System emergency off (EO1-2), (recommended height 1.2m [48"] above floor)
		Door interlock switch
		Emergency exhaust fan switch 1.2m [48"] height recommended)
		Duplex hospital grade, dedicated wall outlet 120-v, single phase power
		Network outlet
		Dedicated telephone lines/network connection
		Duplex hospital grade, dedicated outlet 120-v emergency, single phase power, 15a
		Duplex hospital grade, dedicated outlet 120-v, single phase outlet routed through RF filter

Additional Conduit Runs (Contractor Supplied and Installed)					
From (Bubble # / Item)		To (Bubble # / Item)	Qty	Size In.	Size mm
7	Main Disconnect Panel	Power, Gradient, RF cabinet	1	As req'd	As req'd
		Integrated Cooling Cabinet	1	As req'd	As req'd
		System emergency off 2	1	1/2	16
System emergency off 2		Penetration Panel	1	1/2	16
Door switch		Power, Gradient, RF cabinet	1	3/4	20
System emergency off 1		Penetration Panel	1	3/4	20
6	Magnet Rundown Unit	Magnet	1	1	25
		RF filter #1	1	As req'd	As req'd
RF filter #1		120-V 1Φ Power	1	As req'd	As req'd
Room Light		RF filter #2	1	As req'd	As req'd
RF filter #2		Facility emergency power	1	As req'd	As req'd
CBoxX Chiller		4 Remote Control Panel	1	1	25
		Facility Power	1	as Req'd	



CABLE TRAYS IN EQUIPMENT ROOM

CABLE TRAY DETAIL



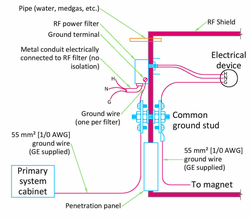
Minimum Cable Tray Width					
	PGR		ICC		OW
	Electrical	Air/Water	Electrical	Air/Water	Electrical
Pen Panel	300 [12 in]	N/A	N/A	450 [18 in]	76 [3 in]
PGR	N/A	N/A	76 [3 in]	150 [6 in]	76 [3 in]
ICC	76 [3 in]	150 [6 in]	N/A	N/A	N/A
OW	76 [3 in]	N/A	N/A	N/A	N/A

NOT TO SCALE

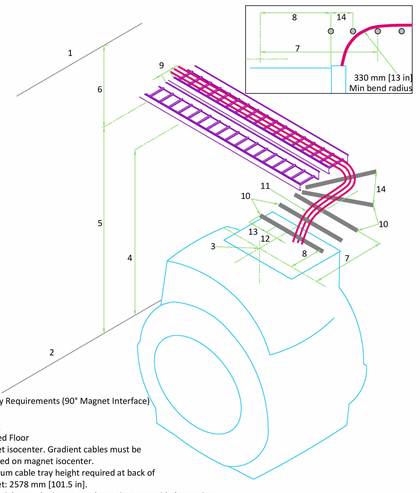
TYPICAL MAGNET ROOM GROUNDING

GROUNDING REQUIREMENTS

- All power lines into the RF shielded room require an RF filter.
- All electrical devices (for example, outlets, light fixtures, and so on) must have a ground wire from device power source and be grounded to the RF Shield at the RF Common Ground Stud.
- Resistance between any two grounded devices must not exceed 0.1 ohm to ensure equal potential ground system within the Magnet Room.
- Do not ground non-MR equipment to the MR ground system.
- The common ground stud must be installed near the penetration point(s) of the GE equipment, into the RF shield between the Equipment Room and Magnet Room.
- For additional information refer to RF Shielded Room manual 5850260-1EN



CABLE TRAYS REQUIREMENTS IN MAGNET ROOM



Cable Tray Requirements (90° Magnet Interface)

1 - Ceiling
2 - Finished Floor
3 - Magnet isocenter. Gradient cables must be centered on magnet isocenter.
4 - Minimum cable tray height required at back of Magnet: 2578 mm [101.5 in].
Tray height may be lower at other points to avoid obstructions.
5 - Maximum height from floor to top of tray (anywhere in Magnet room): 3251 mm [128 in].
6 - Minimum distance from top of cable tray to ceiling or other obstruction: 254 mm [10 in].
7 - Tray end to isocenter: 1336 ±12 mm [52.60 ±0.5 in].
8 - Other cable termination to isocenter: 955 ±12 mm [37.60 ±0.5 in].
9 - Minimum distance between trays: 12 mm [0.5 in].
10 - Non-ferrous cable support.
11 - Minimum gradient cable bend radius 330 mm [13 in].
12 - The center of the gradient cable group is 89 mm [3.5 in] from magnet center.
13 - Outer gradient cable is 450 mm [18 in] from edge of non-ferrous cable support.
14 - Distance between non-ferrous cable support: ≤ 305 mm [12 in].

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VENDOR DRAWINGS

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POWER REQUIREMENTS

SPECIFICATIONS OF MAIN POWER INPUT

POWER SUPPLY	380/400/415/480V ±10%, 3 PHASE + GND
FREQUENCIES	380/400/415V at 50Hz ± 3Hz, 480V at 60Hz ± 3Hz
TOTAL SYSTEM 50ms PEAK POWER	129 kVA
TOTAL SYSTEM CONTINUOUS POWER	88 kVA

- Governing electrical codes may require a neutral wire. If present, neutral must be terminated in MDP.
- Power input must be separated from any others which may generate transients (elevators, air conditioning, radiology rooms equipped with high speed film changers...).
- Total voltage harmonic distortion less than 2.5%. Phase imbalance must not exceed 2%.
- Lock-out/Tag-out: The Main Disconnect Panel (MDP) shall provide an external single point lock-out/tag-out feature for the entire system and a means to externally lock-out/tag-out each output breaker independently. Each lock-out/tag-out feature shall accommodate a standard sized lock hasp.

SPECIFICATIONS OF OPTIONAL BACK-UP POWER SUPPLY

MAGNET MONITOR REQUIRES A 100-240 VAC, 50/60 HZ, 3.0 A FACILITY SUPPLIED OUTLET. POWER AT THE OUTLET MUST BE CONTINUOUSLY AVAILABLE.

FOR CRYOCOOLER COMPRESSOR	
POWER INPUT	380/400/415/480V, THREE-PHASE + G
POWER REQUIREMENT	MIN 9kVA
POWER CONSUMPTION	MAX 7.2kW / STEADY STATE 6.5kW at 50Hz MAX 8.3kW / STEADY STATE 7.5kW at 60Hz
FREQUENCY	380/400/415V at 50Hz ± 3Hz, 480V at 60Hz ± 3Hz
Power to Cryocooler Compressor must be removed when emergency off circuit is actuated.	

CABLES

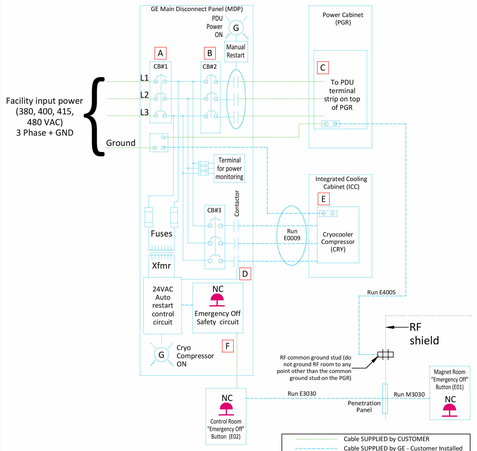
- Power and cable installation must comply with the distribution diagram.
- Size of the Main power input cable is determined by the customer, taking its length and admissible voltage drops into consideration.
- All cables must be isolated and flexible, cable color codes must comply with standards for electrical installation.
- The cables from signaling and remote control (Y,Emergency Off Buttons,...) will go to Main Panel with a pigtail length of 1.5m [60in], and will be connected during installation.
- Each conductor will be identified and isolated (screw connector).

GROUND SYSTEM

- The equipotential link will be by means of an equipotential bar.
- The grounding point of MDP is directly connected to the building's ground by an isolated copper cable.
- The impedance of the earth bar should be less than or equal to 2 ohms.

GUIDANCE ON SLECTION OF FEEDER AND TRANSFORMER FOR MR SYSTEM			
	Direct feed from facility to MR system	MR system fed by dedicated facility distribution transformer	
Prerequisite Conditions			
MR System Incoming Voltage	480V 3-phase		
Minimum Source short-circuit kVA	7,900 kVA (at source of feeder to MDP)	8,325 kVA (at input to distribution transformer)	
Minimum No-Load Voltage	460V	475V (transformer secondary tapped accordingly)	
Feeder and Transformer Recommendations			
Dedicated Distribution Transformer Recommendations	N/A	Size: 225 kVA Impedance (Z): ≤5% K-Factor: ≥ K-20 200A overcurrent protection on secondary*	Size: 225 kVA Impedance (Z): ≤4% K-Factor: ≥ K-20 200A overcurrent protection on secondary*
Maximum Feeder Length*	280 ft	150 ft	240 ft
Feeder Size - 3-phase power conductors*	3/0 AWG Cu	3/0 AWG Cu	
Feeder Size - Ground (USA)*	6 AWG Cu (equipment grounding conductor)	4 AWG Cu (supply side bonding jumper) 6 AWG Cu (equipment grounding conductor)	
Feeder Size - Ground (Canada)*	6 AWG Cu (bonding conductor)	6 AWG Cu (bonding conductor)	
* NOTE: Recommendations shown apply only to cases defined exactly as shown in this table and when not in conflict with local electrical codes . For all other cases, refer to the local codes and the System Voltage Regulation Calculator located on the GE Healthcare Site Planning Website			

POWER DISTRIBUTION



NOTES:
1) Cryocooler Compressor (CRY) must operate 24 hours per day, 7 days per week.
2) Runs E0009, E3030 and M3030 are GE supplied cables. All other wiring is customer supplied and installed.
3) Two remote Emergency Off Maintained Buttons are supplied with the MDP . Emergency Off removes power from all outputs when activated.
4) All MDP output circuits drop out on loss of power. the Cryocooler (CRY) circuit will automatically restart upon restoration of power.
5) MDP Short circuit current rating is 25,000 amperes at 480 VAC.
6) MDP is NRTL labeled.
7) All feeder circuits require dedicated ground wires.

CB	MDP
1	200 A
2	150 A
3	25 A

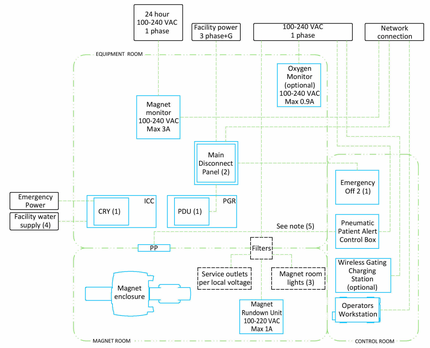
Cable SUPPLIED by CUSTOMER
Cable SUPPLIED by GE - Customer Installed
Equipment SUPPLIED by CUSTOMER
Equipment SUPPLIED by GE

Accepts following range of standard stranded conductors. All wire types, color and sizing to be selected in accordance with governing electrical code(s).

GE MDP M71002ZA 380V-480V

Item	Phase		Ground	
	sq mm	AWG/kcmil	sq mm	AWG/kcmil
A	6-120	10-250	16-120	6-250
B	10-120	8-250	35-120	2-250
C	2.5-70	14-2/0	2.5-70	14-2/0
D	2.5-4	14-10	2.5-16	14-10
E	2.5-6	14-10	2.5-6	14-10
F	0.5-10	22-10	-	-

FACILITY SUPPLIED WIRING



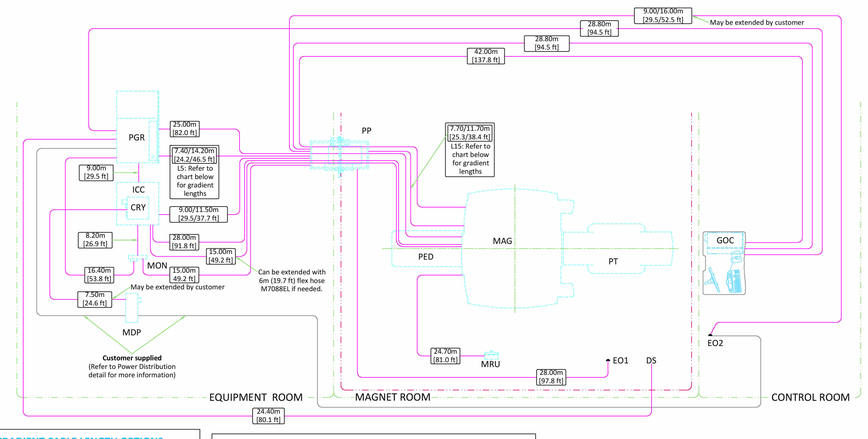
This diagram displays minimum power requirements for GE equipment and should be used as a guide to determine appropriate wire sizes per local regulatory requirements.

CRY Cryocooler Compressor (Inside ICC)
ICC Integrated Cooling Cabinet
PDU Power Distribution Unit (inside PGR)
PGR Power, Gradient, RF Cabinet
PP Penetration Panel

Notes :
(1) Refer to Power Distribution detail for more information
(2) Size incoming wires from GE equipment according to conductor sizes listed on Power Distribution detail.
A network connection must be provided near the MDP to support power quality monitoring.
(3) Refer to Lighting Requirements detail
(4) This group contains water lines which shall be routed separate from electrical lines (I.E. power and signal)
(5) A cable is supplied by GE but may be extended if needed.

Cable SUPPLIED BY CUSTOMER
Equipment SUPPLIED BY GE
Equipment SUPPLIED BY CUSTOMER

INTERCONNECTIONS



GRADIENT CABLE LENGTH OPTIONS

Length Identifier	Available lengths m (ft)	Proposed
L5 (Equipment Room)	3.7 (12.9)	-
	5.7 (18.7)	-
	7.7 (25.3)	-
	9.7 (31.8)	-
	11.7 (38.4)	-
	13.7 (45.0)	-
	15.7 (51.5)	-
L15 (Magnet Room)	4.6 (15.1)	-
	6.6 (21.6)	-
	8.6 (28.2)	-
	10.6 (34.7)	-
	12.6 (41.3)	-

CABLE ROUTING FOR ACCESSORIES

OPTION	FROM	TO	CABLE LENGTH m (ft)
Magnetic Resonance Elastography (MRE)	MRE	Magnet (Isocenter)	Nominal: 7.31 (24) Maximum: 10.06 (33)
	MRE	PP	15.24 (50)
	MRE	Ethernet Hub in PGR	15.24 (50)
	MRE	Customer Supplied Outlet	60Hz: 6.10 (20) 50Hz: 7.62 (25)
Multi-Nuclear Spectroscopy (MNS)	MNS	PGR	9.85 (32.3)
	MNS	PGR	7.85 (25.7)/14 (45.9)
	PP	PGR	8.2 (26.9)/14.35 (47)
Brainwave (BW)	BW	PP	18.3 (60)

GENERAL NOTE: PMI must validate proposed selectables and send confirmation to OTR. Refer to MyProjects if Proposed field is blank.
GOLDSEAL/SILVER PREFERRED NOTE: Cable lengths listed may differ from what is shipped with the system. Contact the Goldseal group for actual lengths to be delivered.
ROOM MOVE NOTE: Cable lengths listed may differ from what is included with reinstalled system. Contact the local field engineer for actual lengths to be delivered.

Order Configuration Options

Configuration	Equipment Room - site option	Magnet Room - site option	Proposed
A	Short	Short	-
B	Long	Short	-
C	Short	Long	-

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VENDOR DRAWINGS

EP701

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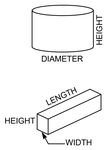
INTERIOR LIGHTING FIXTURE SCHEDULE

GENERAL NOTES



1. SUBSTITUTIONS AND/OR EQUAL FIXTURES MUST RECEIVE APPROVAL PRIOR TO BIDDING, THEY MUST BE SUBMITTED TO THE ENGINEER NO LESS THAN 2 WEEKS PRIOR TO BID OPENING.
2. SAMPLES MUST BE PROVIDED FOR ANY AND ALL FIXTURES UPON A/E REQUEST PRIOR TO RELEASING FIXTURES.
3. ALL FIXTURES SHALL BE LISTED AND APPROVED FOR THEIR INTENDED USE AND LOCATION.
4. VERIFY THE PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS.
5. COMPLY WITH THE "INTERIOR LIGHTING" SECTION OF THE SPECIFICATIONS.
6. ALL LIGHT FIXTURES TO BE EITHER "DLC" OR "LIGHTING FACTS" LISTED OR TO BE APPROVED BY ARCHITECT/ENGINEER AND OWNER.
7. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES.

			LUMINAIRE			DRIVER			
ID	DESCRIPTION	SIZE (NOMINAL)	DELIVERED DIRECT LUMENS	COLOR TEMP	CRI	TYPE	VOLTAGE	WATTS	MANUFACTURER (CATALOG SERIES)
(D6M-M)	DESCRIPTION: 6" ROUND, RECESSED LED LENSED DOWNLIGHT, MEDIUM OUTPUT, MRI RATED MOUNTING: CEILING, RECESSED FINISH: WHITE TRIM FINISH OPTICS: - OPTIONS: - EM: -	LENGTH: - WIDTH: - DEPTH: - DIAMETER: 0' - 6"	2,000	3500K	90	0-10V DIMMING (1%)	120/277	32	FAIL-SAFE (MRI-R6DNLT/RPS) KIRLIN (MRR-06420) VHEALTH (V60VHMRI)
(LR16)	DESCRIPTION: 4" X 16' LINEAR RECESSED SLOT, FLANGE MOUNT, MRI SAFE MOUNTING: CEILING, RECESSED FINISH: SCBA OPTIONS: FLANGE KIT, NON-FERROUS EM: -	LENGTH: 16' - 0" WIDTH: 0' - 4" DEPTH: -	8,000	3500K	90	0-10V DIMMING (1%)	120/277	96	FAIL-SAFE (MRI-4ASR) KIRLIN (MRL-02SWM)

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LIGHTING FIXTURE SCHEDULES

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

GENERAL SHEET NOTES

1 ALL PATHWAYS FOR LOW VOLTAGE CABLING NOT TO BE IN CONDUITS SHALL BE ROUTED IN J-HOOK PATHWAYS. CONCEAL ALL PATHWAYS ABOVE ACCESSIBLE CEILING SPACES. DO NOT RUN CABLES IN EXPOSED AREAS. WHERE CONCEALMENT IS NOT POSSIBLE IN EXPOSED AREAS, CONTRACTOR SHALL PROVIDE CONDUIT TO ROUTE CABLING WHERE VISIBLE. ALL CONDUIT SHALL BE PAINTED TO MATCH CEILING AND PROVIDED WITH PROTECTIVE BUSHINGS.

SHEET KEYNOTES

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LEVEL 1 AUXILIARY PLAN

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