



ADDENDUM TO THE CONTRACT

for the

**Bartlett Regional Hospital
MRI & CT Replacement
Contract No. BE23-042**

ADDENDUM NO.: TWO

**CURRENT DEADLINE FOR BIDS:
August 16, 2022**

**PREVIOUS DEADLINE FOR BIDS:
August 11, 2022**

PREVIOUS ADDENDA: ONE

ISSUED BY: City and Borough of Juneau
ENGINEERING DEPARTMENT
155 South Seward Street
Juneau, Alaska 99801

DATE ADDENDUM ISSUED: August 3, 2022

The following items of the contract are modified as herein indicated. All other items remain the same. This addendum has been issued and is posted online. Please refer to the CBJ Engineering Public Purchase webpage at: <https://www.publicpurchase.com/gems/juneau.ak/buyer/public/home>

PROJECT MANUAL:

Item No. 1 SECTION 00005 – TABLE OF CONTENTS. DRAWINGS.

Remove Sheet A501.

Item No. 2 SECTION 00030 – NOTICE INVITING BIDS. DEADLINE FOR BIDDER QUESTIONS.

Change the date of the Deadline for Bidder Questions **from** August 4, 2022, **to** August 8, 2022. The time remains the same.

Item No. 3 SECTION 00030 – NOTICE INVITING BIDS. DEADLINE FOR BIDS.

Change the date of the Deadline for Bids **from** August 11, 2022, **to** August 16, 2022. The time remains the same.

CLARIFICATIONS:

Question: *“Please confirm that Siemens will be the Owner’s subcontractor and will not be a subcontractor to Contractor, or clarify.”*

Response: Correct, Siemens is contracted under the Bartlett Regional Hospital.

Question: *"Please confirm no work will be required outside of 7:00AM to 5:00PM, or clarify."*

Response: The only time CBJ and BRH believes may require outside hours work is during equipment delivery and installation performed by Siemens. Contractor will need to coordinate their scope of work with BRH/Owner for these times.

Question: *"Please confirm all permits other than Hot Works permits and ICRA Work permits are to be paid for and obtained by either Owner or Owner's designers and that Contractor will only be responsible to retrieve and post permits upon issuance, or clarify."*

Response: Correct, CBJ will furnish all required permits to contractor and contractor will post in the appropriate location.

Question: *"Please confirm all required permits and permissions for demolition and construction have been issued, or provide anticipated date the project will be fully permitted by all regulatory agencies and approved by any interested parties."*

Response: Permits are under review and are expected to be issued in 4-6 weeks from 7/27/2022.

Question: *"Please provide anticipated number of days after bids are submitted until issuance of Notice to Proceed."*

Response: You can expect it to take 23 to 40 calendar days, but it can be done in as few as 17 with each party rushing every step.

Question: *"Please confirm area suitable for storing items removed and salvaged by Contractor and retained by Owner or for reuse is available inside building where work is taking place, or clarify."*

Response: In the same area used for on-site contractor staging, space is available for temporary used casework and fixture storage if needed. Any high value medical equipment storage not addressed needs to be coordinated with owner.

Question: *"Please confirm parking plan west of temporary MRI Trailer can be used to safely maintain 2-way traffic, or provide preferred routing of 2-way traffic. (G102)."*

Response: Contractor shall provide a traffic control plan prior to work that affects safe 2-way traffic and minimizes loss of parking spaces.

Question: *"Please confirm existing sidewalk without modification is acceptable for access to temporary MRI Trailer, or provide description of any required modifications on sheet G102. (G102)"*

Response: There is no expected modification to sidewalk for access to temporary MRI Trailer.

Question: *"Please confirm existing shielding weights are as listed in Radiation Shielding Design by Olympic Health Physics, dated November 2021, or provide existing weights to be used. (General Note 1/D102)"*

Response: Olympic Health Physics: There is not call for new shielding in the CT rooms. The existing RF shielding is adequate per the "as-built" provided by CBJ from Jan 2011 from which the report is based on.

Question: *"Please confirm floor mount laser will require removal by Contractor to facilitate flooring work. (Demolition Sheet Flag Note 8/D102)."*

Response: Correction to drawings; floor mounted laser shall be removed and stored by owner.

Question: *“Please confirm Floor MTD Laser will be reinstalled by Owner or Owner’s subcontractors after installation of new floor finishes, or clarify. (Demolition Sheet Flag Note 8/D102)”*

Response: Confirmed, floor mounted laser shall be reinstalled by owner’s subcontractor after the installation of new floor finishes.

Question: *“Please confirm holes left from fasteners being removed as part of demolition scope does not constitute “Damage incurred” and will not require repair to existing shielding, or clarify. (General Note 2/D102)”*

Response: Holes left from fasteners being removed is acceptable. Those would not constitute “damage incurred”.

Question: *“Please confirm “remove 2x4 suspended acoustical ceiling” as shown shall be carried in Alternate 1 pricing and not in Base Bid pricing, or clarify. (C1/D102)”*

Response: Base bid includes removing existing grid and acoustical ceiling tiles only as required for new work. Alternate 1 pricing includes complete demo of existing grid and acoustical ceiling tiles in preparation for new work and new ceiling grid and acoustical ceiling tiles.

Question: *“Please confirm ceiling mounted injector to be removed and retained as necessary by Owner per Demolition Sheet Flag Note 2 on D102 and not by Contractor per Demolition Reflected Ceiling Plan Sheet Flag Note 4 on D102, or clarify.”*

Response: Drawing Correction; ceiling mounted injectors to be removed and retained by Owner. Sheet flag note 4 on C1/D102 incorrect.

Question: *“Please confirm removal of abandoned rooftop chiller is not in Contractor’s scope of work, or add to Mechanical drawings as noted in General Note 2/D104. (General Note 2/D104)”*

Response: Confirmed. Removal of abandoned rooftop chiller is not in this projects scope of work.

Question: *“If removal of abandoned rooftop chiller is in Contractor’s scope of work, please confirm no roof curb demolition of roof patching is required after removal of abandoned rooftop chiller, or clarify. (General Note 2/D104)”*

Response: Not applicable, abandoned rooftop chiller removal is not in this projects scope of work.

Question: *“Please confirm the Siemens drawings referenced are wholly contained in Appendix A, dated April 4 2022, or clarify. (Sheet Flag Note 2/A104)”*

Response: The appendix drawings contained shielding requirements only. Please see attached supplemental site specific drawings from Siemens for the MRI and CT modalities and equipment.

Question: *“Builders Risk is a property coverage and assuming there is no property interest for the Architect, necessary architect fees will be included in the B.R. coverage, but it is an Owner protection (Owner will have to pay those fees). Please confirm Architect will not need protection by Contractor’s Builders Risk Insurance as there is no property interest held by Architect, or clarify. (Section 0700 5.2.C.5)”*

Response: The Architect does not need coverage under the Contractor's BR policy

Question: *"Please confirm Temporary MRI Trailer will be sourced, delivered, staged, and installed by Owner or Owner's subcontractors and that Contractor is only responsible for connecting to source, routing to point of connection, and connecting to temporary distribution point above ground temporary utilities, or clarify. (G102)"*

Response: Temporary MRI Trailer will be sourced, delivered, staged and installed by Owner. Contractor is responsible for supplying the electrical hook-up ready equipment per the electrical drawing, final connections to be by MRI trailer provider.

Question: *"Please confirm injector to be removed and retained as necessary by Owner per Demolition Sheet Flag Note 2 on D102 and not by Contractor per Demolition Reflected Ceiling Plan Sheet Flag Note 3 on D103, or clarify."*

Response: Drawing Correction; ceiling mounted injectors to be removed and retained by Owner. Sheet flag note 2 on A1/D103 incorrect.

Question: *"Please confirm ceiling mounted injector to be removed and retained as necessary by Owner per Demolition Sheet Flag Note 2 on D102 and not by Contractor per Demolition Sheet Flag Note 2 on D103, or clarify."*

Response: Drawing Correction; ceiling mounted injectors to be removed and retained by Owner. Sheet flag note 2 on A1/D103 incorrect.

Question: *"Please confirm flooring and base demolition will not require removal and replacement of casework not identified for removal, or clarify."*

Response: Contractor responsible for removal of casework, furniture and equipment identified in the drawings to perform the demo and replacement of flooring and base. Should there be casework, furniture or equipment erroneously omitted from the drawings, contractor shall coordinate with owner's representative for the removal of such items to perform the flooring and base work.

Question: *"Please indicate where Demolition Sheet Flag Note 5/D104 occurs."*

Response: Drawing Correction; this sheet flag note should have read "not used" on D104. This sheet flag note can be found on A1/D103, sheet flag note 3.

Question: *"Please confirm all ceiling mounted injectors to be reinstalled by Owner or Owners subcontractors in coordination with Owner removal and retention per Demolition Sheet Flag Note 2 on D102, or clarify."*

Response: Ceiling mounted injectors to be removed, retained and reinstalled by Owner.

Question: *"Please confirm new wall assembly between Room 1364 and 1314B consists of 3-5/8" x 20 ga. metal stud framing with 1 layer GWB Type X each side, or clarify. (A1/C102)"*

Response: Yes, this proposed wall assembly is fine.

Question: *"Please confirm new wall assembly between Room 1364 and 1314B is constructed to 6" above ceiling, or clarify. (A1/C102)"*

Response: Construct wall full-height to underside of structure above.

Question: "Please confirm there is no conflict between Ceiling mount injector and 2'x2' Supply Air at room 1314A, or provide alternate ceiling layout. (C1/A102)"

Response: Drawing Correction; supply air incorrectly placed. AAI shall update ceiling plan in an ASI post bid award.

Question: "Please confirm Shielding Contractor shall be subcontractor to Owner, or clarify. (Sheet Flag Note 1/A104, General Note 1/A104)"

Response: Shielding contractor shall be subcontractor to the contractor as delegated design.

Question: "Please identify locations of Sheet Flag Note 3/A104."

Response: Drawing Correction; this sheet flag note should have read "not used" on A104. This sheet flag note can be found on A1/A103, sheet flag note 2.

Question: "RF Shielding modifications not shown in Siemens drawings, please provide. (Sheet Flag Note 7, A104)"

Response: Please reference Siemens Detail 2/S101. There are 2 options for installing the base plate, one involves modifications to the floor directly above the RF shielding. Alternatively, all-thread may be installed through the shielding by the RF Shielding Subcontractor.

Question: "Please confirm 3-5/8" metal stud framing is acceptable in lieu of 3-1/2" metal stud framing, or clarify. (Sheet Flag Note 9 & 12/A104)"

Response: 3-5/8" metal stud acceptable.

Question: "Please confirm new wall terminates 6" above ceiling elevation, or clarify. (Sheet Flag Note 9/A104)"

Response: Construct wall full-height to underside of structure above.

Question: "Please confirm CG not needed at new door 1353-1, or clarify. (A1/A105)"

Response: Drawing Correction; no corner guards required at new door 1353-1

Question: "Please confirm electrical trench shown outside of Room 1314A is existing, or show associated work on sheets D102 & A102. (B2/A105)"

Response: Drawing Correction; electrical trench outside of room 1314A on B2/A105 does not exist. Please disregard.

Question: "Please confirm 4' high impact resistant wall protection is to abut casework only at casework not identified for removal and will not be required behind the same, or clarify. (A105)"

Response: 4' impact resistant wall protection to abut casework not intended for removal.

Question: "Please confirm RB-1 is to be applied to existing toe kicks for casework not identified for removal and will not be required behind the same, or clarify. (A105)"

Response: Existing casework appears to have existing rubber base applied to toe kick. Intention is to replace existing rubber base with new base where this occurs.

Question: *“Please confirm flooring type at electrical trench is RSF-1, or clarify. (B2/A105)”*

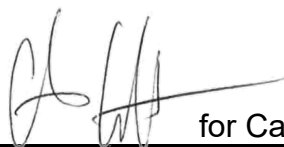
Response: Flooring type is RSF-1 at electrical trench.

Question: *“Please confirm new flooring and base not required below or behind casework not identified to be removed, or clarify. (A105)”*

Response: Existing casework appears to have existing rubber base applied to toe kick. Intention is to replace existing rubber base with new base where this occurs. Flooring is not intended to extend below (underneath) casework intended to remain as-is.

Question: *“Please confirm door frame 1353-1 is HM, or clarify. (A601)”*

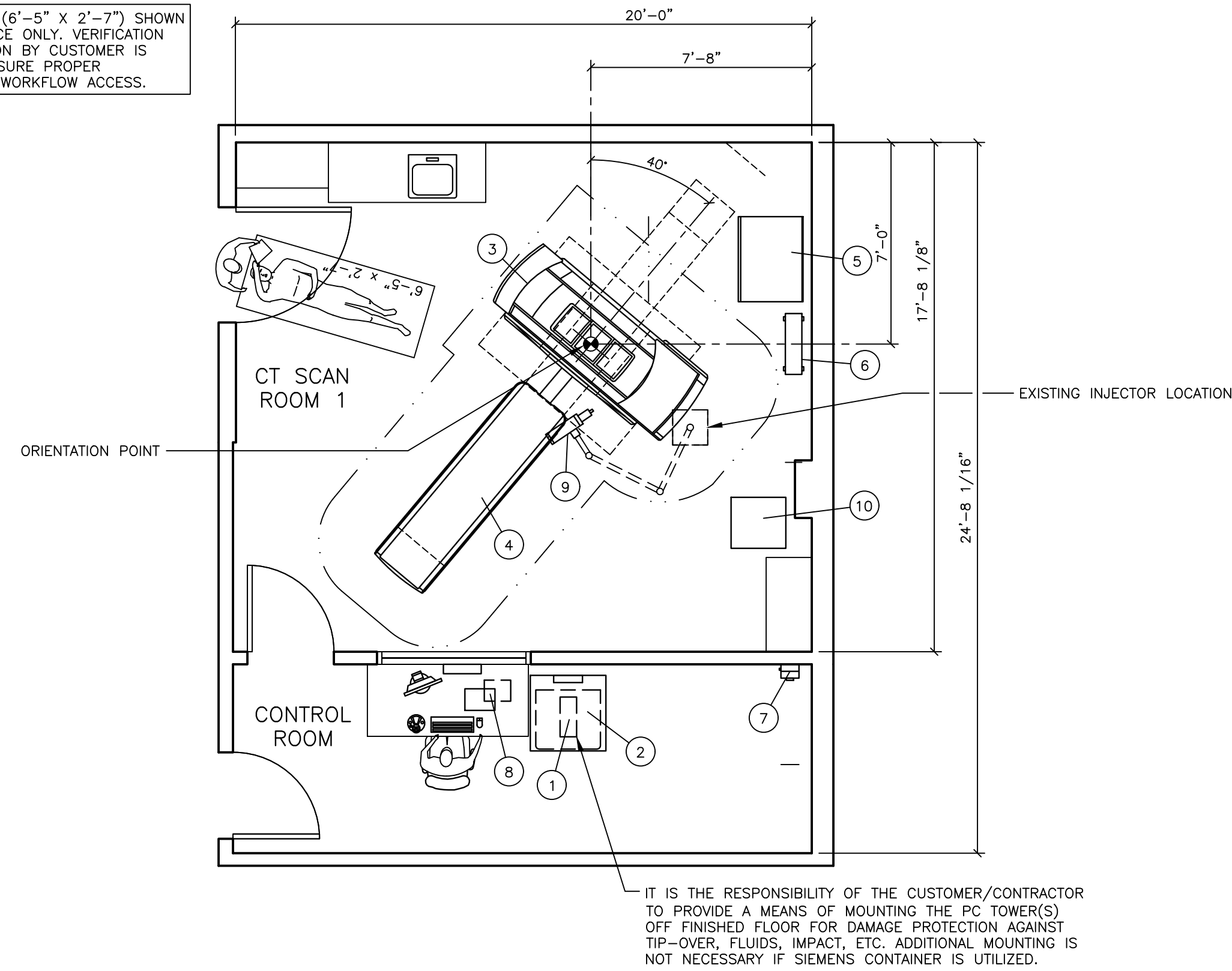
Response: Door frame is HM (hollow metal).

By:  for Caleb Comas
Caleb Comas,
Contract Administrator

Total number of pages contained within this Addendum: 31

THIS SET OF FINAL DRAWINGS IS REFLECTIVE OF THE LATEST SALES CONFIGURATION. ANY CHANGES TO THIS SALES CONFIGURATION MAY REQUIRE A REVISION TO THIS PROJECT PLAN. IF REQUESTED, SIEMENS WILL PRODUCE A REVISED SET OF FINAL DRAWINGS TO REFLECT THE CHANGES, HOWEVER SIEMENS IS NOT RESPONSIBLE FOR ANY CONSTRUCTION COSTS ASSOCIATED WITH THE CHANGES THAT OCCUR FROM THIS PLAN MODIFICATION.

STRETCHER SIZE (6'-5" X 2'-7") SHOWN IS FOR REFERENCE ONLY. VERIFICATION AND COORDINATION BY CUSTOMER IS REQUIRED TO ENSURE PROPER TRANSPORT AND WORKFLOW ACCESS.



IT IS THE RESPONSIBILITY OF THE CUSTOMER/CONTRACTOR TO PROVIDE A MEANS OF MOUNTING THE FC TOWER(S) OFF FINISHED FLOOR FOR DAMAGE PROTECTION AGAINST TIP-OVER, FLUIDS, IMPACT, ETC. ADDITIONAL MOUNTING IS NOT NECESSARY IF SIEMENS CONTAINER IS UTILIZED.

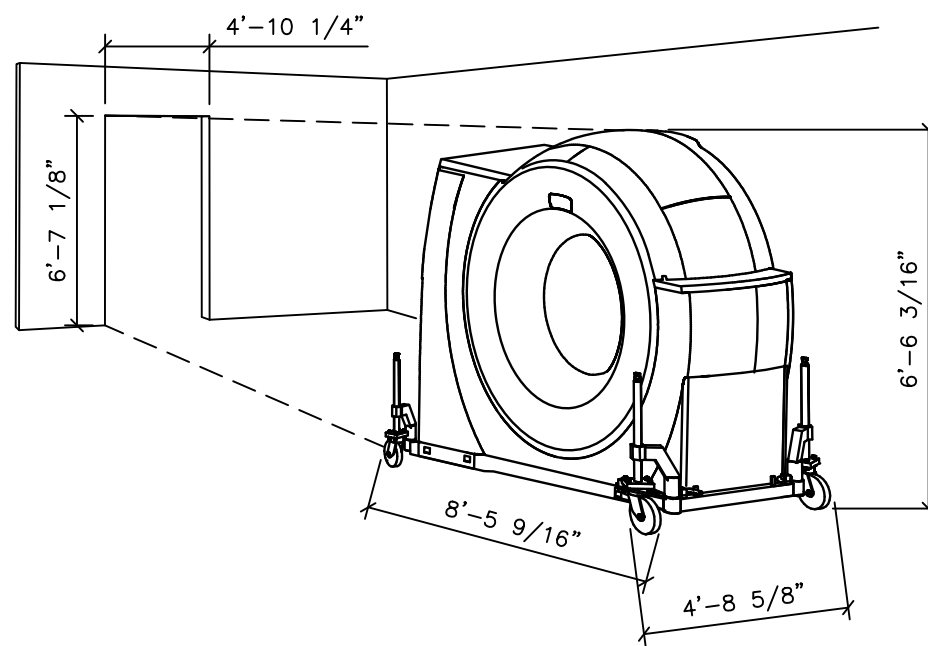
ARCHITECTURAL EQUIPMENT PLAN

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

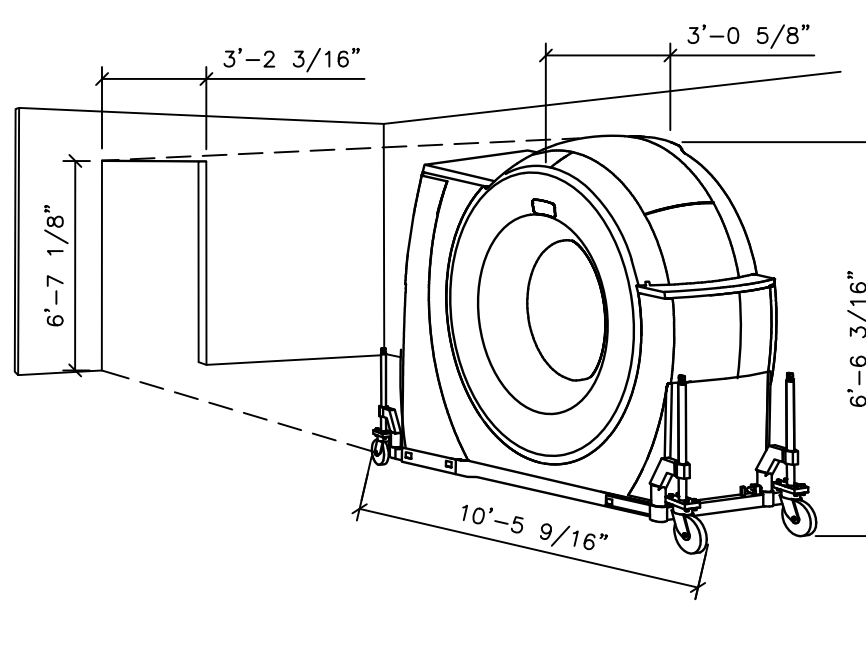
TRANSPORT AND DELIVERY NOTES

TOTAL GANTRY TRANSPORT WEIGHT: 5,268 LBS.
 GANTRY WITHOUT TRANSPORT DEVICE: 4,851 LBS.
 TRANSPORT DEVICE: 417 LBS.

NORMAL TRANSPORT REQUIREMENTS:
 DURING THE MOVEMENT OF THE GANTRY THROUGH CORRIDORS THE TRANSPORT CASTERS ARE SWIVELED OUT FOR STABILITY AS SHOWN BELOW. THE MAXIMUM WIDTH IS 4'-8 5/8" AND THE MAX. LENGTH IS 8'-5 9/16" WHEN CASTERS ARE SWIVELED OUT.



NARROW SPACE TRANSPORT REQUIREMENTS:
 WHEN TRANSPORTING THE GANTRY THROUGH A NARROW SPACE OR DOORWAY, THE TRANSPORT CASTERS ARE SWIVELED IN AS SHOWN BELOW. THE MAXIMUM WIDTH IS 3'-0 5/8" AND MAXIMUM LENGTH 10'-5 9/16".



ATTENTION:

- THIS DRAWING IS DESIGNED TO CONFORM TO FEATURES AND EQUIPMENT REQUIREMENTS PRESENTED AT THE TIME OF THEIR PREPARATION. SINCE BOTH THESE FACTORS ARE SUBJECT TO DESIGN MODIFICATION, THEY ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.
 - THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.

- IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.

FINISHED ROOM HEIGHT

FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

- ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES.
 - THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

EQUIPMENT LEGEND

NO	DESCRIPTION	SMS SYM	WEIGHT (LBS)	BTU/HR TO AIR	DIMENSIONS (INCHES)			REMARKS
					W	D	H	
1	SYNGO ACQUISITION WORKPLACE AND STANDARD COMPONENTS	CS	<55	1,706	6 7/8	16 9/16	15 9/16	OFF FLOOR/IN CONTAINER
2	CONTAINER FOR ICS/IES	CS	77	---	31 1/2	31 1/2	29 1/4	HOUSING FOR ICS/IES
3	SOMATOM DEFINITION EDGE GANTRY	B	4,851	44,357*	93 11/16	36 5/8	78	* AIR COOLED GANTRY
4	PATIENT TABLE - MULTI PURPOSE TABLE	CS	1,433	1,024	29 1/2	95 11/16	33 7/16	
5	POWER DISTRIBUTION CABINET	CS	1,373	6,824	35 7/16	26 15/16	76 3/4	UPS LOCATED INSIDE OF PDC
6	IMAGE RECONSTRUCTION SYSTEM	CS	58	2,388	8	25 3/8	17 11/16	
7	EATON SURGE PROTECTIVE DEVICE PANEL	CS	13.5	---	7 1/2	6 11/16	12	WALL MOUNTED
8	MEDRAD DISPLAY CONTROL UNIT/BASE UNIT (OPTION)	CS	---	---	---	---	---	BASE UNIT CAN BE PLACED UNDER COUNTER
9	CEILING MOUNTED MEDRAD INJECTOR (OPTION)	CS	106	---	---	---	---	SEE MFG SPECIFICATIONS
10	RESPIRATORY GATING	CS	---	---	21 1/4	22 13/16	44 1/2	MOBILE CART

CASEWORK & ACCESSORY NOTES

- ALL CASEWORK IS EITHER EXISTING OR IS TO BE DESIGNED, DETAILED, FURNISHED AND INSTALLED BY THE CUSTOMER AND/OR CONTRACTOR. FOLLOW DESIGN RECOMMENDATIONS INCLUDED HEREWITH, AS THEY ARE ESSENTIAL FOR THE SUCCESSFUL INSTALLATION & OPERATION OF THE SIEMENS EQUIPMENT.
- ALL FURNITURE (CHAIRS, ETC.) FOR THE CONTROL ROOM ARE TO BE PROVIDED BY THE CUSTOMER.

PLANNING REQUIREMENTS

EMERGENCY POWER OFF (EPO) BUTTONS REQUIRED IN CONTROL AREA, EXAMINATION ROOM AND EQUIPMENT AREA.

DOOR (SAFETY) SWITCH REQUIRED ON ALL DOORS ACCESSING THE EXAMINATION ROOM IN ACCORDANCE WITH LOCAL CODES.

	Project Milestones To Be Completed Before Equipment Delivery	Reference Sheet
<input type="checkbox"/>	Lead shielding (walls, doors, windows) complete	A-102
<input type="checkbox"/>	Climate control functioning 24 hours a day, 7 days a week	A-101
<input type="checkbox"/>	Delivery path verified	A-101
<input type="checkbox"/>	Casework complete in exam and control rooms	A-101
<input type="checkbox"/>	Floor levelness verified and within specifications	S-501
<input type="checkbox"/>	Floor thickness verified and within specifications	S-501
<input type="checkbox"/>	All conduits, troughs, and core drills are outside of the No Core Drill areas	E-102
<input type="checkbox"/>	Carevision anchor plate installed (if applicable)	S-102
<input type="checkbox"/>	Overhead injector support structure and plate installed (if applicable)	S-102
<input type="checkbox"/>	Ceiling height verified (check min. height with options)	S-102
<input type="checkbox"/>	Cables runs checked to ensure maximum length is not exceeded	E-101
<input type="checkbox"/>	Cables inlets installed at locations per plans	E-102
<input type="checkbox"/>	Main panel and breakers installed	E-102
<input type="checkbox"/>	Contractor supplied electrical cabling and pigtails installed	E-102
<input type="checkbox"/>	Contractor supplied EPO's installed and functioning	E-102
<input type="checkbox"/>	Contractor supplied X-Ray warning light and wiring installed	E-501
<input type="checkbox"/>	Outdoor chiller unit and service switch installed (water/air option) (if applicable)	M-101
<input type="checkbox"/>	Indoor chiller unit installed (water/air option) (if applicable)	M-101
<input type="checkbox"/>	Water lines flushed and pressure tested (for hard-piping only) (if applicable)	M-101
<input type="checkbox"/>	Additional fittings/adapters ordered for hard piping (water/air option) (if applicable)	M-101
<input type="checkbox"/>	Vertical distance between indoor and outdoor unit verified (water/air option) (if applicable)	A-101
<input type="checkbox"/>	Extension cables installed for chiller if standard distance exceeded between indoor and outdoor units (water/air option) (if applicable)	M-101
<input type="checkbox"/>	Facility water verified to meet equipment requirements (Facility supplied water option) (if applicable)	M-101
<input type="checkbox"/>	Room lighting complete and functioning	A-101
<input type="checkbox"/>	All rooms containing Siemens equipment are clean and dust free	A-101
<input type="checkbox"/>	Network addresses obtained for Siemens Remote Services (SRS)	A-102

STATE AGENCY REVIEW

PRIOR TO SIEMENS EQUIPMENT INSTALLATION, APPROVAL OF CONSTRUCTION OR STRUCTURAL MODIFICATIONS UTILIZING X-RAY FOR DIAGNOSTIC OR THERAPEUTIC PURPOSES, MUST BE OBTAINED BY THE CUSTOMER FROM THE APPROPRIATE STATE AGENCY, IF APPLICABLE.

ARCHITECTURAL NOTES

- ALL PRELIMINARY EQUIPMENT LAYOUTS SUBMITTED BY SIEMENS HEALTHCARE ARE BASED ON THE RECOMMENDED SPACE NECESSARY FOR THE OPERATION AND SERVICEABILITY OF THE EQUIPMENT BEING PROPOSED. SIEMENS WILL NOT SUBMIT AN EQUIPMENT LAYOUT THAT IS NOT IN THE BEST INTEREST OF BOTH THE CUSTOMER AND SIEMENS. ALL EQUIPMENT LAYOUTS ARE BASED EITHER ON AN ACTUAL SITE SURVEY OR ARCHITECTURAL DRAWINGS SUPPLIED TO SIEMENS. SIEMENS WILL NOT BE RESPONSIBLE FOR ANY ALTERATIONS THAT ENDOURCH WITHIN DESIGNATED SAFETY AND SERVICE CLEARANCE ZONES AS INDICATED ON DRAWINGS (I.E. PIPE CHASES, VENTILATION DUCTS, CASEWORK, AND SOFFITS, ETC.) MADE BY THE CUSTOMER OR REQUIRED BY A CUSTOMER'S ARCHITECTURAL FIRM ONCE PRELIMINARY DRAWINGS HAVE BEEN SUBMITTED AND APPROVED. DO NOT ALTER ANY SPECIFICATIONS AND/OR DIMENSIONS WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SIEMENS PROJECT MANAGER.
- SIEMENS HEALTHCARE IS NOT AN ARCHITECTURAL OR ENGINEERING FIRM. DRAWINGS SUPPLIED BY SIEMENS ARE NOT CONSTRUCTION DRAWINGS. THEREFORE, THESE DRAWINGS ARE TO BE USED ONLY FOR INFORMATION TO COMPLEMENT ACTUAL CONSTRUCTION DRAWINGS AVAILABLE FROM A CUSTOMER APPOINTED ARCHITECTURAL REPRESENTATIVE OR A CUSTOMER'S ENGINEERING DESIGN GROUP. THE CUSTOMER'S ARCHITECT AND GENERAL CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE CODES AND PROFESSIONAL DESIGN REQUIREMENTS INCLUDING OSHA/NEC SAFETY CLEARANCE REQUIREMENTS IN ADDITION TO SIEMENS-REQUIRED SAFETY/SERVICE CLEARANCES SHOWN.
- THE CUSTOMER IS RESPONSIBLE FOR ALL ROOM AND AREA PREPARATION COSTS, PROFESSIONAL FEES, PERMITS, REPORTS, AND INSPECTION FEES.
- EQUIPMENT WARRANTIES, EXPRESSED OR IMPLIED ON THE PART OF SIEMENS SHALL BE CONTINGENT UPON STRICT COMPLIANCE WITH THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL AND RECOMMENDATIONS AND REQUIREMENTS CONTAINED IN THESE DRAWINGS, UNLESS SPECIFIED OTHERWISE.
- ALL DIMENSIONS SHOWN ARE FROM FINISHED SURFACES UNLESS SPECIFIED OTHERWISE.
- THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST. ACTUAL PROTECTION REQUIREMENTS SHALL BE SPECIFIED BY A REGISTERED RADIATION PHYSICIST AT CUSTOMER'S ENGAGEMENT AND EXPENSE. RESPONSIBILITY FOR ALL INFORMATION AS TO THE ROOM LOCATION, USE, AND NUMBER OF ANTICIPATED EXAMINATIONS TO BE PERFORMED PER TIME PERIOD SHALL BE PROVIDED TO THE PHYSICIST BY THE CUSTOMER. THE CUSTOMER SHALL FURTHER TAKE ALL RESPONSIBILITY IN THE COMMUNICATION AND COORDINATION OF ACTIVITIES OF THE RADIATION PHYSICIST AND THE ARCHITECTURAL REPRESENTATIVE.
- SIEMENS HEALTHCARE SHALL BE RESPONSIBLE FOR SIEMENS EQUIPMENT INSTALLATION, CALIBRATION, CONNECTION AND INSTALLATION OF SIEMENS PROVIDED CABLES. THE CUSTOMER/ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR TERMINATIONS OF CUSTOMER/ELECTRICAL CONTRACTOR-SUPPLIED CABLES TO SIEMENS EQUIPMENT. IN THE EVENT THAT SPECIFIC TRADE RULES OR LICENSE REQUIREMENTS PROHIBIT THIS, THE CUSTOMER SHALL INITIATE THE SERVICES OF APPROVED OTHER CONTRACTORS AND PAY FOR SELECTED, APPROVED PARTIES TO PERFORM THIS WORK WITH SUPERVISION PROVIDED BY SIEMENS. CALIBRATION WHEN ACCOMPLISHED OUTSIDE OF NORMAL INSTALLATION SEQUENCES DUE TO CONTRACTOR OR TRADE RULE ACTIONS OR REQUIREMENTS SHALL BE SUPPORTED BY, CHARGED TO, AND ACCEPTED BY THE CUSTOMER AS AN ADDITIONAL INSTALLATION EXPENSE.
- THE CUSTOMER SHALL COORDINATE WITH SIEMENS PROJECT MANAGER THE LOCATIONS AND TRAVEL OF ALL ANCILLARY EQUIPMENT TO BE CEILING OR WALL MOUNTED (I.E.: O.R. LIGHTS, MEDICAL GAS COLUMNS, PHYSIOLOGICAL MONITORING INJECTORS, CRT PLATFORMS, SPRINKLER HEADS, SMOKE DETECTORS, ELECTRICAL OUTLETS, HVAC GRILLES, SPEAKERS, AND GENERAL ROOM LIGHTING, ETC.).
- THE GENERAL CONTRACTOR/CUSTOMER SHALL BE RESPONSIBLE FOR ALL FINAL PAINT, TOUCH-UP AND ANY COSMETIC OR TRIM WORK WHICH NEEDS TO BE OR IS REQUIRED TO BE COMPLETED AFTER THE INSTALLATION OF THE SIEMENS EQUIPMENT AND ANY ASSOCIATED SUPPORT APPARATUS.
- CUSTOMER/CONTRACTOR MUST ASSIST SIEMENS INSTALLERS WITH INSTALLATION OF EQUIPMENT ABOVE 14'-0". REFER TO THE ELECTRICAL NOTES ON SIEMENS SHEET E-101 FOR MORE DETAILS.

NOISE LEVEL

SYSTEM COMPONENT	DECIBEL LEVEL (AT 3'-3" DISTANCE)
GANTRY	<70
PATIENT TABLE	<60
PDC CABINET	<55
IRS TOWER	<55
HEAT EXCHANGER - WATER/AIR SPLIT	<60

1) NOISE DEPENDS ON THE ROOM TEMPERATURE AND THE PROCESSOR LOAD.

RESOURCE LIST (SMS USE ONLY)

DESIGNATION	PG NUMBER	DATE
SOMATOM DEFINITION EDGE	C2-031.891.01.24.02	11.19
COMMON CT	CT00-000.891.04.20.02	10.19
COMMON CT OPTIONS	CT00-000.891.03.45.02	03.20

DEFINITION EDGE REV 22

PROJECT MANAGER: JESSE HULSEY
 TEL: (602) 300-2149 EXT:
 FAX:
 EMAIL: jesse.hulsey@siemens-healthineers.com

SIEMENS

BARTLETT REGIONAL HOSPITAL

3260 HOSPITAL DR, JUNEAU, AK 99801
 CT SCAN ROOM 1 - (RO) SOMATOM DEFINITION EDGE

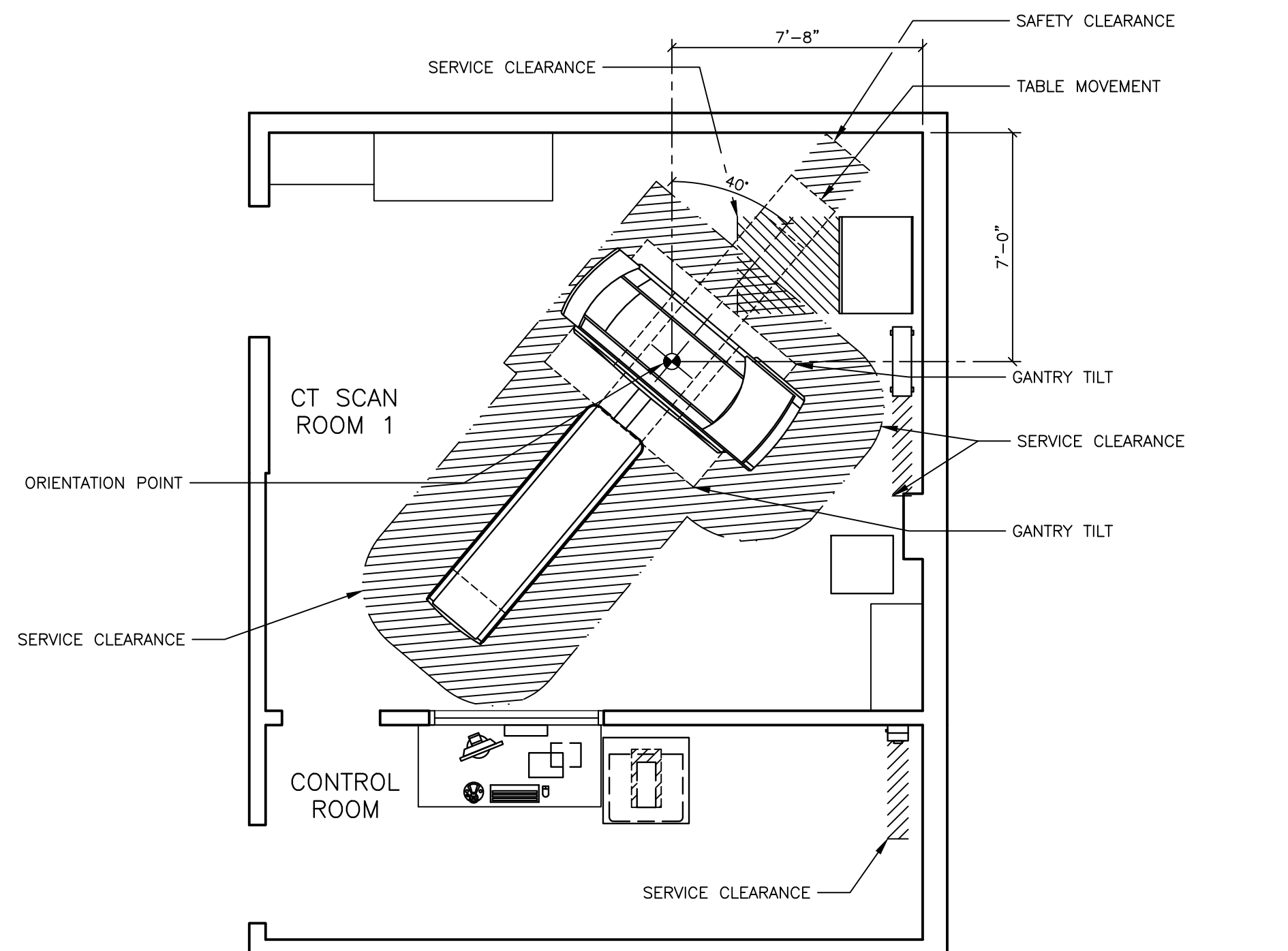
THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.
 ALL RIGHTS ARE RESERVED.

PROJECT #: **2100554**
 SHEET: **A-101**

SHEET 1 OF 8
 DRAWN BY: J. DRAMIS
 DATE: 03/12/21

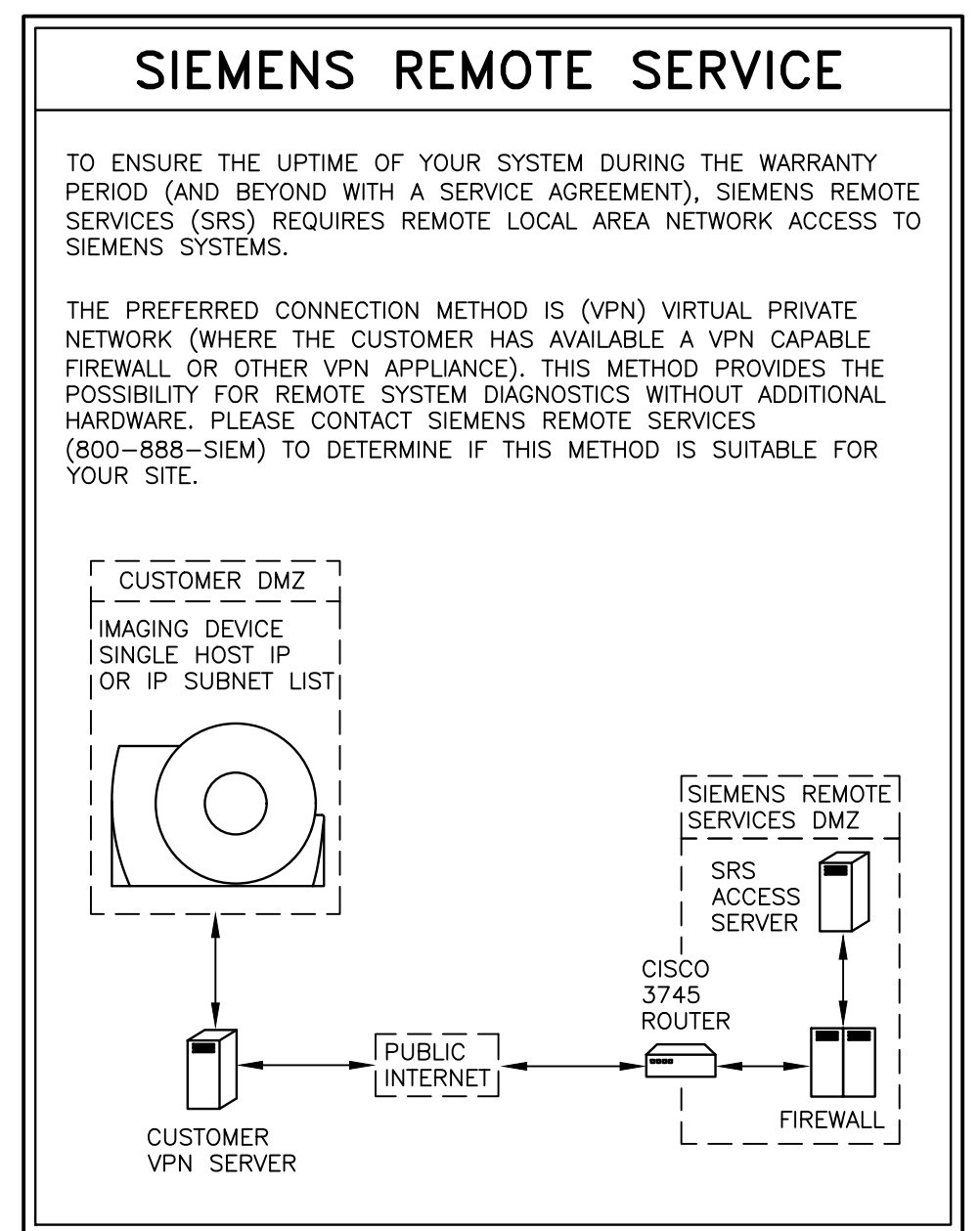
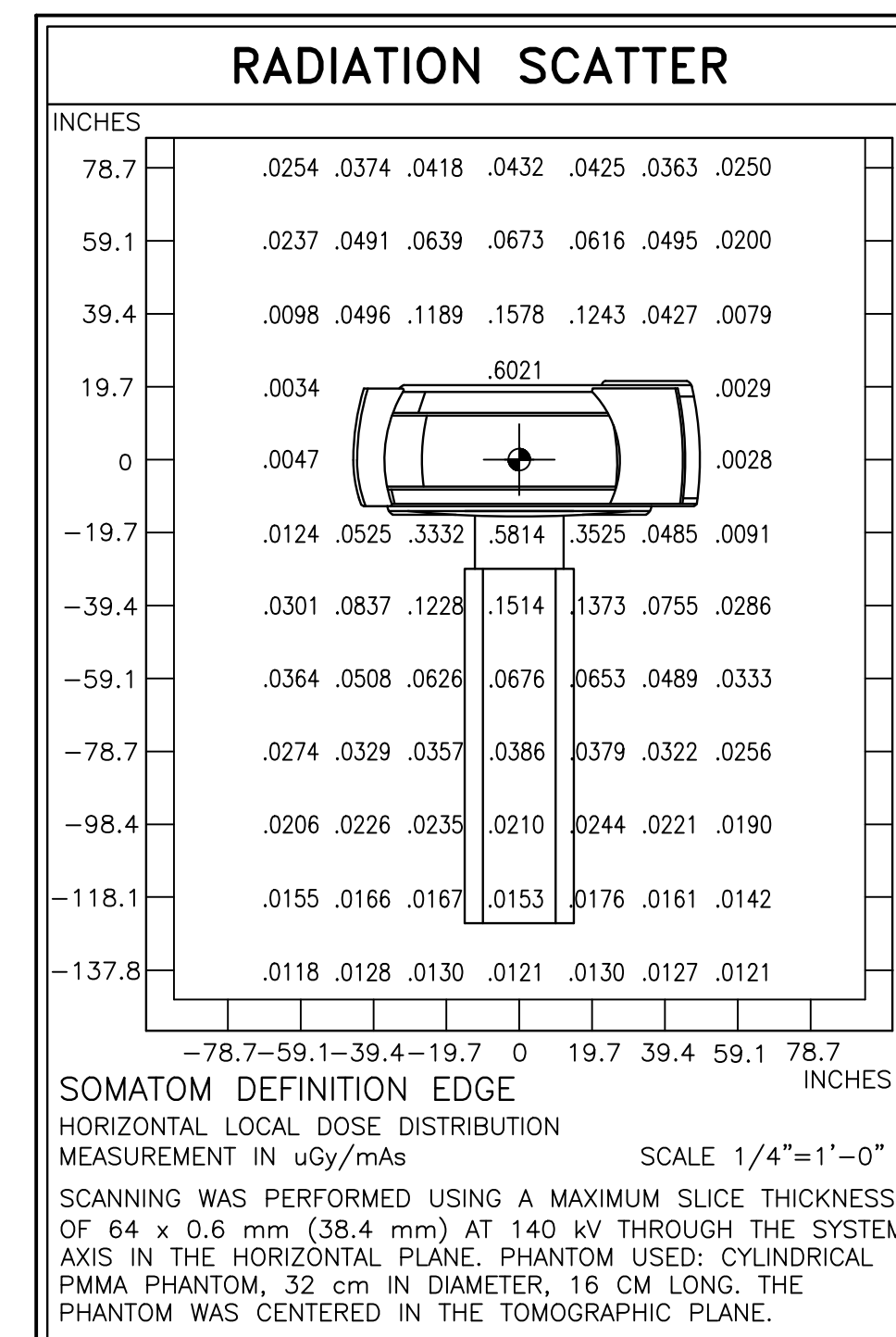
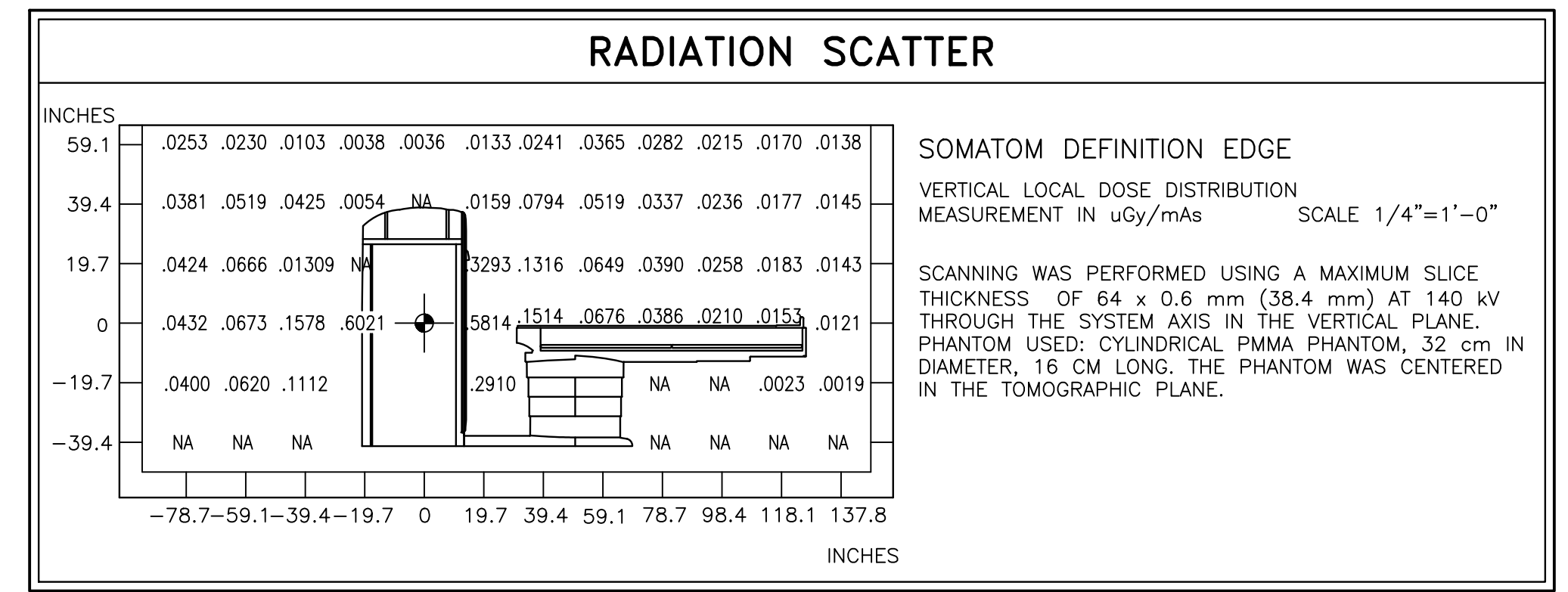
SCALE: AS NOTED
 REC: CPD-287453

SYM	DATE	DESCRIPTION
	03/12/21	R-101RA VERSION DATED 02/05/21 APPROVED BY CUSTOMER FOR FINALS
-ISSUE BLOCK-		



SAFETY/SERVICE CLEARANCE PLAN

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



SAFETY CLEARANCE NOTE
 IF THE SAFETY DISTANCES ARE NOT OBSERVED, SAFETY MEASURES IN ACCORDANCE WITH LOCAL CODES SHOULD BE UTILIZED (FOR EXAMPLE BARRIERS, WARNING SIGNS, AND SAFETY MATS).

FINISHED ROOM HEIGHT	
FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

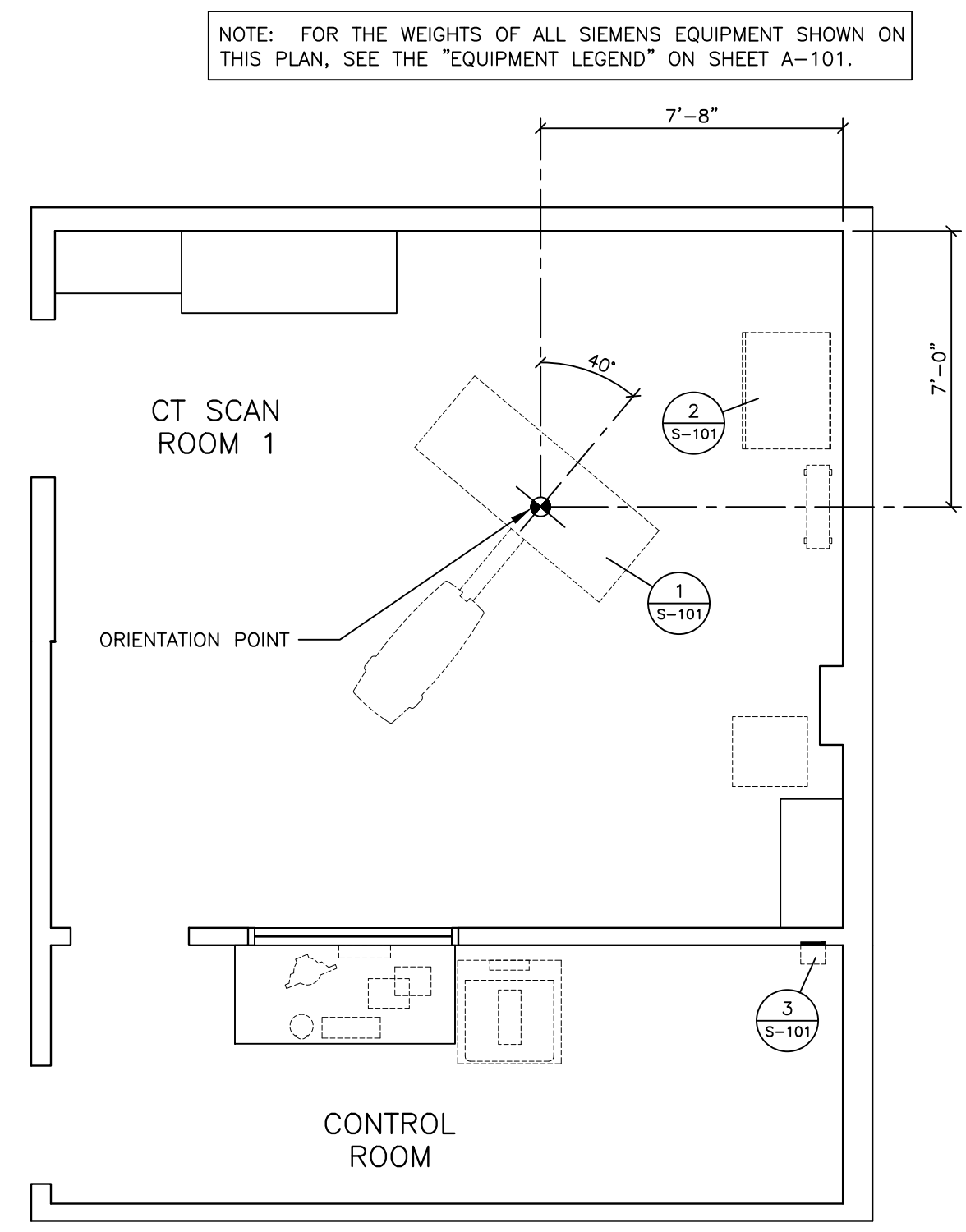
ATTENTION:

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 - THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.
 - IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.
 - ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES.
 - THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 EXT: FAX: EMAIL: jesse.hulsey@siemens-healthineers.com		SIEMENS	
BARTLETT REGIONAL HOSPITAL			
3260 HOSPITAL DR, JUNEAU, AK 99801 CT SCAN ROOM 1 - (RO) SOMATOM DEFINITION EDGE			
PROJECT #: 2100554		SHEET #: A-102	
THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.		SHEET 2 OF 8 DRAWN BY: J. DRAMIS	
ALL RIGHTS ARE RESERVED.		DATE: 03/12/21	
SCALE: AS NOTED		REF: CPQ-287453	

DEFINITION EDGE
REV 22

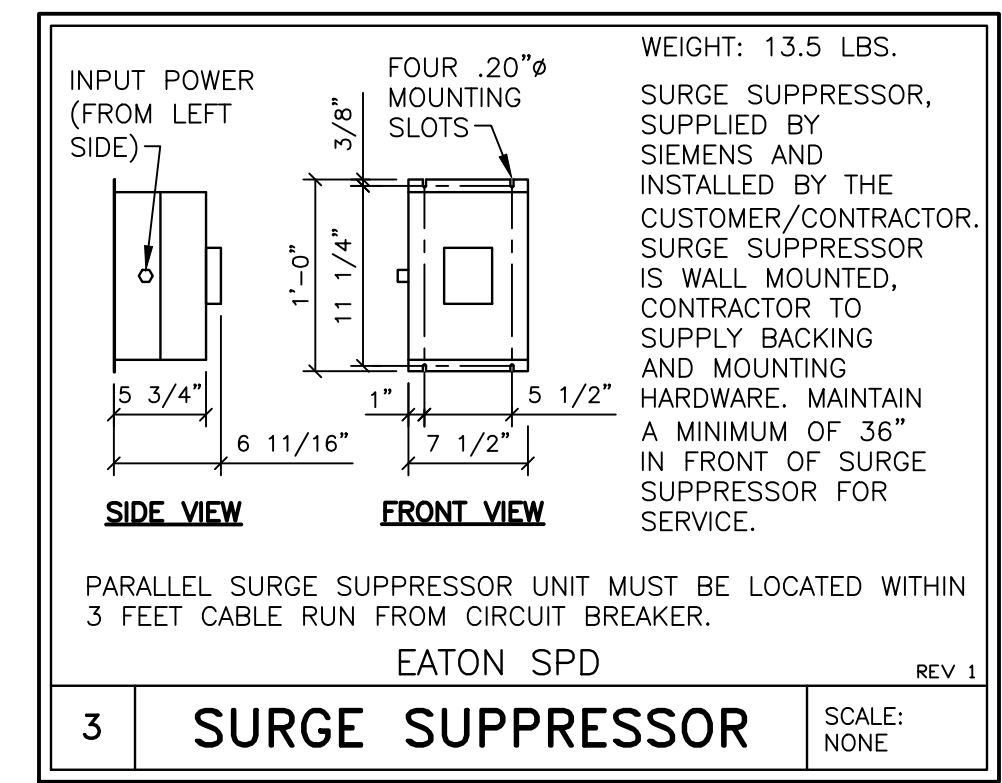
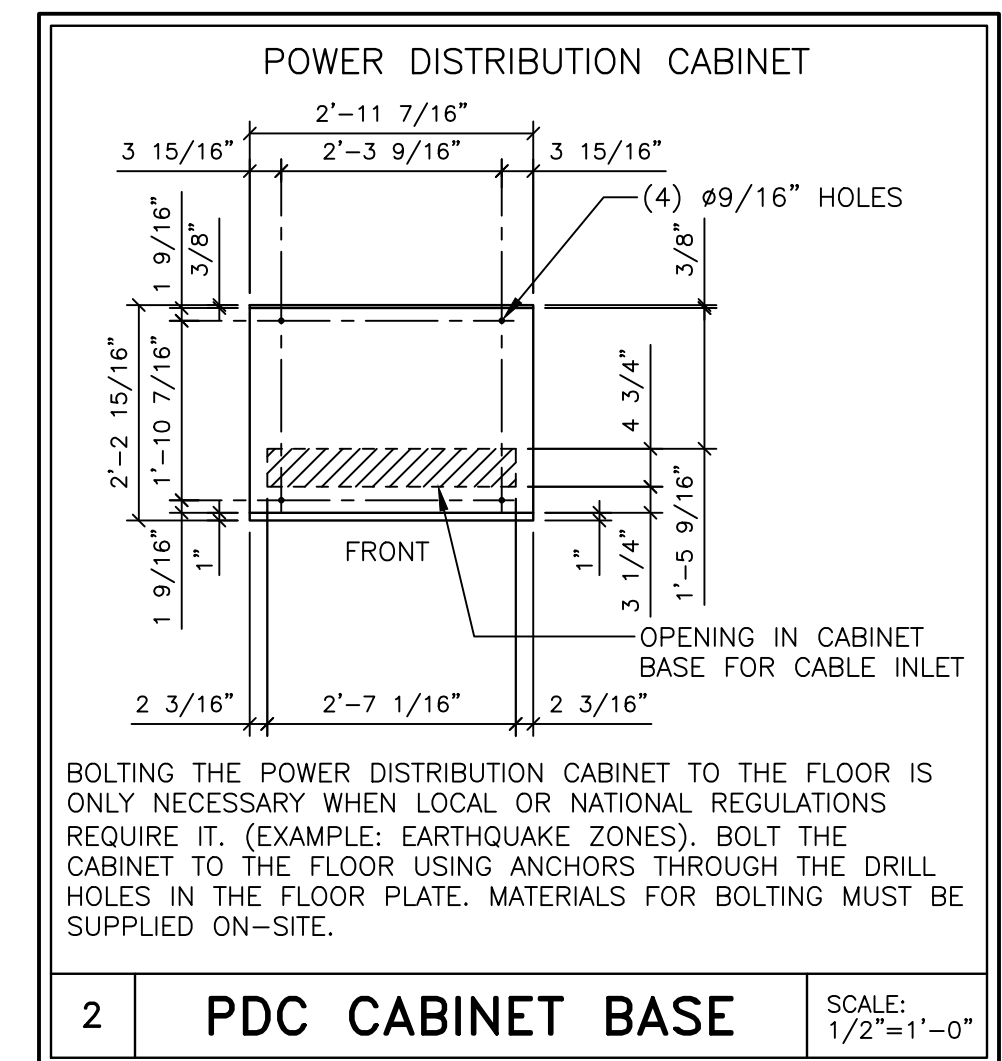
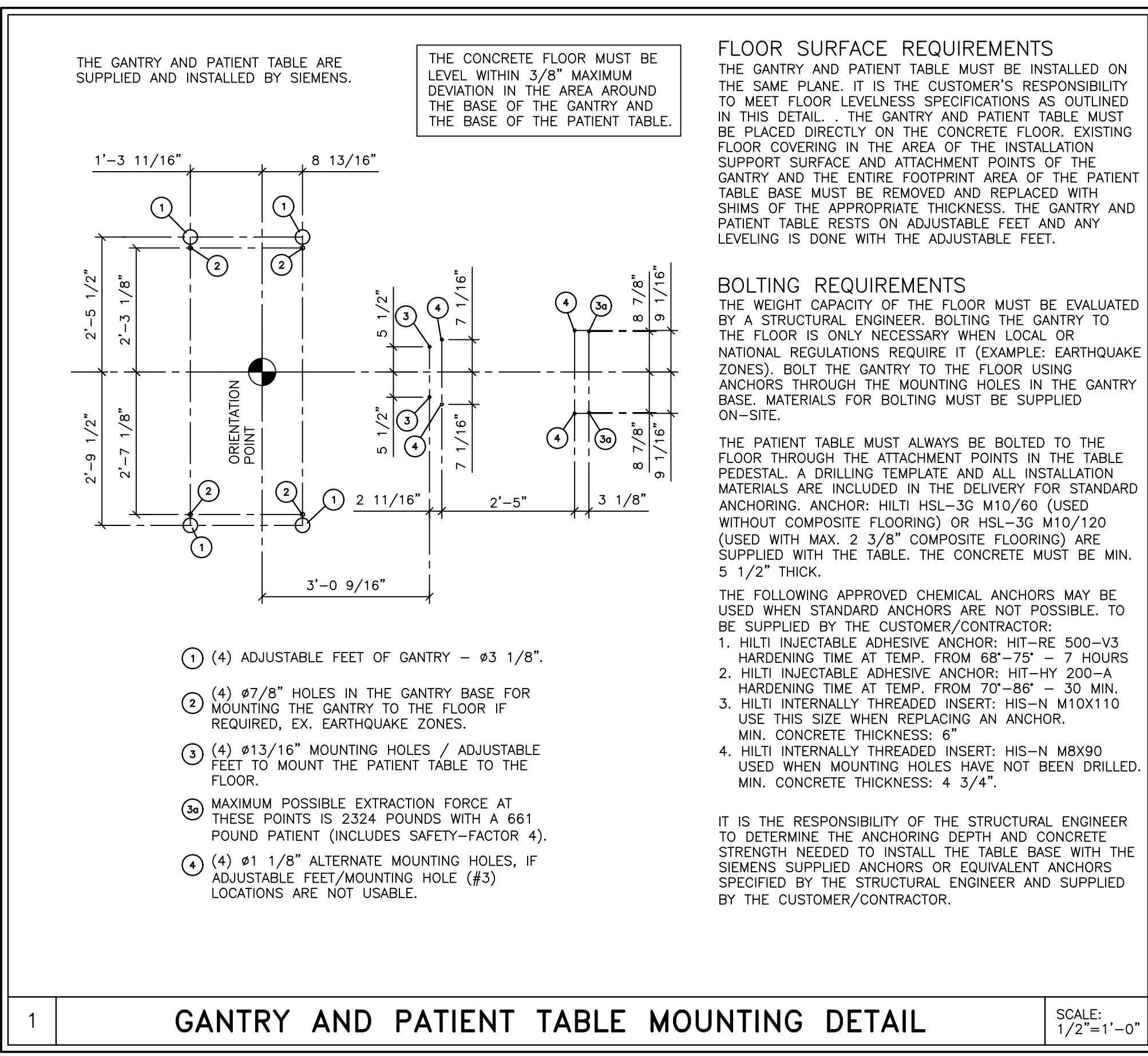
REFERENCE DOCUMENT - NOT FOR CONSTRUCTION



NOTE: FOR THE WEIGHTS OF ALL SIEMENS EQUIPMENT SHOWN ON THIS PLAN, SEE THE "EQUIPMENT LEGEND" ON SHEET A-101.

STRUCTURAL FLOOR PLAN

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



STRUCTURAL NOTES

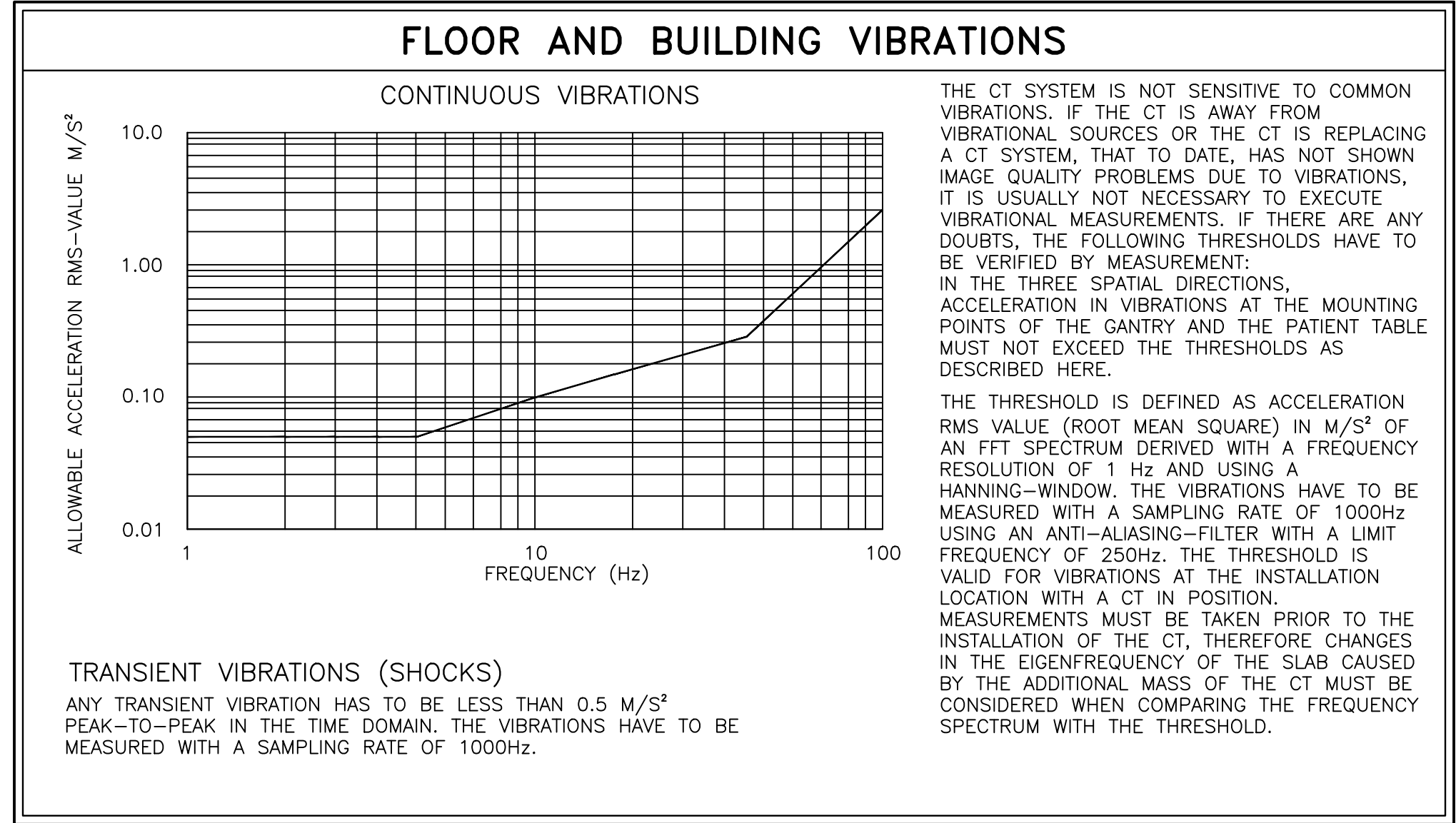
- 1) THE CUSTOMER/CONTRACTOR SHALL FURNISH AND INSTALL ALL STRUCTURAL SUPPORT MEMBERS AND NEEDED HARDWARE FOR THE INSTALLATION OF THE SIEMENS EQUIPMENT.
- 2) THE OVERHEAD STRUCTURAL SUPPORT SYSTEM SHALL BE FIXED, RIGID AND BRACED FOR SWAY.
- 3) ALL STRUCTURAL SUPPORT MEMBERS SHALL BE TRUE, SQUARE, LEVEL, PARALLEL AND COPLANAR WITH RESPECT TO EACH OTHER, WITH A HORIZONTAL STRUCTURAL SUPPORT MEMBER TO BE LOCATED AND SET WITH A TRANSIT.
- 4) ALL STRUCTURAL SUPPORT DETAILS SHOWN ARE SAMPLE DETAILS BASED UPON TYPICAL AND STANDARD BUILDING PRACTICES AND ARE NOT INTENDED AS ACTUAL CONSTRUCTION DETAILS. ALL CONSTRUCTION DETAILS AND SUPPORT CALCULATIONS SHALL BE PREPARED BY A PROFESSIONAL STRUCTURAL ENGINEER AT THE CUSTOMER'S EXPENSE. IN THE EVENT AN EXISTING SUPPORT SYSTEM IS TO BE USED, IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO VERIFY THE INTEGRITY OF THAT SYSTEM.
- 5) MOUNTING PLATES, FRAMES, AND HARDWARE SUPPLIED BY SIEMENS AS DETAILED IN THIS DRAWING SET ARE INSTALLED BY SIEMENS UNLESS OTHERWISE REQUIRED. ANY DEVIATION FROM THE PROVIDED MATERIALS OR MOUNTING METHODS MUST BE DESIGNED AND DOCUMENTED BY THE STRUCTURAL ENGINEER OF RECORD. ALTERNATE MOUNTING MATERIALS (I.E. ANCHORS, THREADED ROD, BACKING PLATES, ETC.) MUST BE SUPPLIED BY THE CUSTOMER/CONTRACTOR. SIEMENS MAY REQUIRE ASSISTANCE FROM THE CUSTOMER/CONTRACTOR WITH INSTALLATION WHEN UTILIZING ALTERNATE MOUNTING MATERIALS.
- 6) ALL CEILING FIXTURES (I.E. AIR SUPPLY GRILLES, AIR RETURN GRILLES, EXHAUST GRILLES, SPRINKLER HEADS, INCANDESCENT AND FLUORESCENT LIGHT FIXTURES, INTERCOM SPEAKERS, MEDICAL GAS COLUMNS, ETC.) SHALL BE INSTALLED FLUSH MOUNTED WITH THE FINISHED CEILING TO PROVIDE FREE AND UNRESTRICTED TRAVEL OF THE SMS CEILING MOUNTED EQUIPMENT.
- 7) THE BOTTOM SIDE OF THE UNISTRUT CEILING GRID AND ANY CEILING MOUNTED SUPPORT PLATES ARE TO BE INSTALLED FLUSH WITH THE FINISHED CEILING. THE CUSTOMER/CONTRACTOR SHALL ALSO PROVIDE COVERSTRIPS FOR THE UNISTRUT.
- 8) THE STRUCTURAL PLANNING AS SHOWN ON THE 1/4" STRUCTURAL PLAN HAS BEEN COORDINATED WITH THE EQUIPMENT LOCATION AS SHOWN ON THE 1/4" EQUIPMENT LAYOUT PLAN. FOR THIS REASON, ANY DEVIATIONS FROM THE STRUCTURAL PLANNING AS SHOWN MUST BE APPROVED BY SMS PLANNING DEPARTMENT.
- 9) THE STRUCTURAL ENGINEER OF RECORD SHALL BE RESPONSIBLE FOR THE DESIGN AND DETAIL OF FLOOR, WALL, AND CEILING STRUCTURES IN ACCORDANCE WITH THE STRUCTURAL INFORMATION SHOWN, AND LOCAL GOVERNING BUILDING CODES.
- 10) ALL ANCHORS, SUPPORTS AND BRACES FOR SECURING THE SIEMENS EQUIPMENT ON THE UNDERSIDE OF THE CONCRETE SLAB (WHETHER SUPPLIED BY SIEMENS OR CONTRACTOR) SHALL BE SECURED IN A MANNER TO PREVENT THEM FROM FALLING DURING A DE-INSTALLATION. ALL WORK FOR SECURING THESE MOUNTS SHALL BE BY THE CONTRACTOR.

FLOOR LOADING

DESCRIPTION	AMPLITUDE	MEASUREMENT POINTS	BEARING AREA PER ADJUSTABLE FOOT
F STAT MAX	STATIC FLOOR LOADING DUE TO GANTRY'S OWN WEIGHT		
AMPLITUDE	DIFFERENCE BETWEEN MINIMUM AND MAXIMUM FLOOR LOADING DURING GANTRY ROTATION		
ADJUSTABLE FOOT	F STAT MAX (POUNDS)	AMPLITUDE FOR F DYN (POUNDS)	BEARING AREA PER ADJUSTABLE FOOT
(A)	1034	±135	7 3/4 IN ²
(B)	1540	±112	
(C)	1248	±112	
(D)	1034	±135	

NOTE:

- 1) THE VALUES PROVIDED FOR FLOOR LOADING APPLY ONLY IF THE GANTRY IS SATISFACTORILY LEVELED.
- 2) THE FLOOR STRUCTURE MUST BE CAPABLE OF WITHSTANDING THE OCCUPIED WEIGHT OF THE GANTRY AND THE INDIVIDUAL CONTACT AREA LOADING.



FINISHED ROOM HEIGHT

FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 EXT: FAX: EMAIL: jesse.hulsey@siemens-healthineers.com		SIEMENS	
THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW. ALL RIGHTS ARE RESERVED.		BARTLETT REGIONAL HOSPITAL	
		3260 HOSPITAL DR, JUNEAU, AK 99801 CT SCAN ROOM 1 - (RO) SOMATOM DEFINITION EDGE	
PROJECT #: 2100554	SHEET #: 3 OF 8	DRAWN BY: J. DRAMS	S-101
DATE: 03/12/21	SCALE: AS NOTED	REV #: CP4-287453	

ATTENTION:

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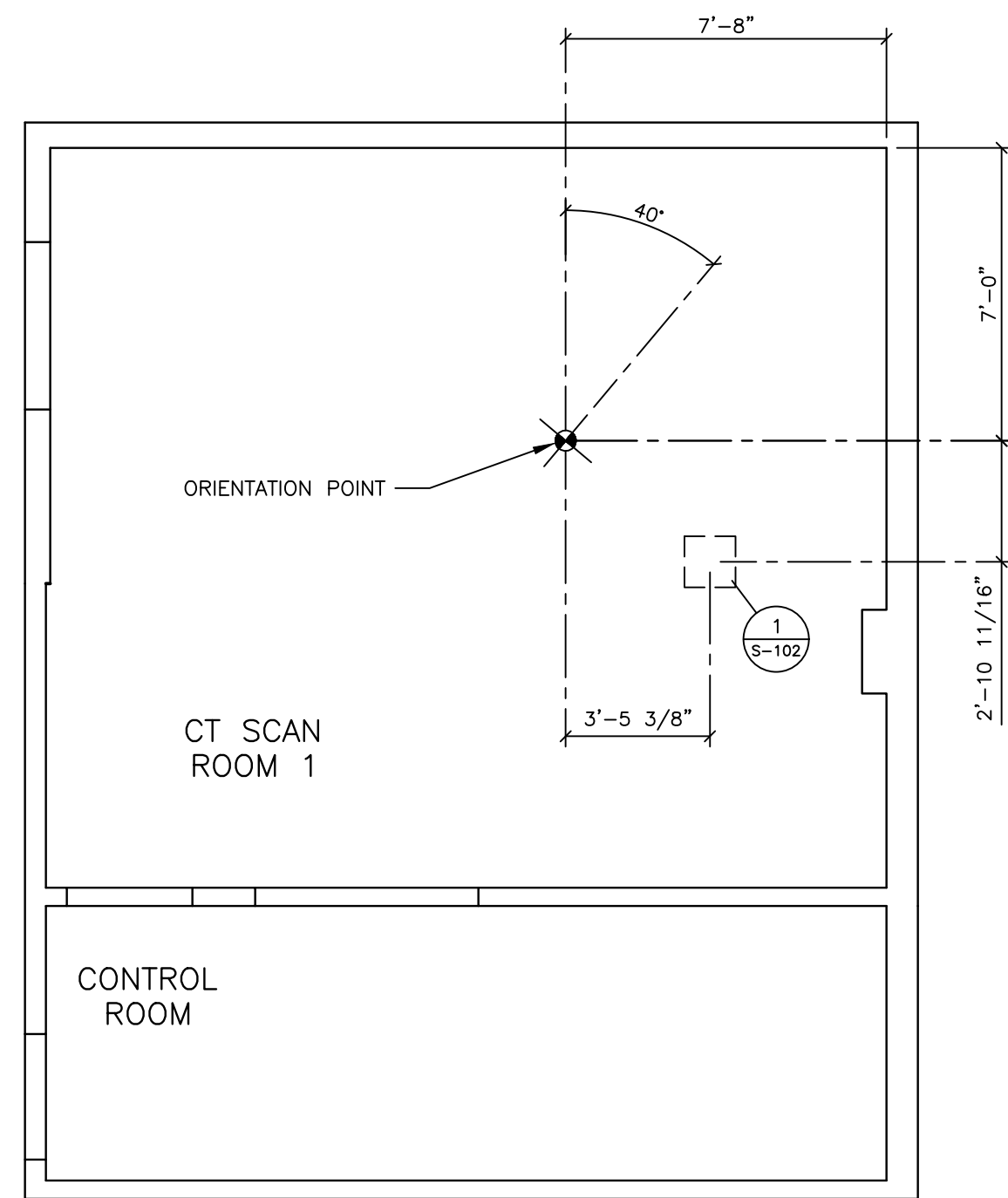
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SYM	DATE	DESCRIPTION
△	03/12/21	R-101RA VERSION DATED 02/05/21 APPROVED BY CUSTOMER FOR FINALS
-ISSUE BLOCK-		

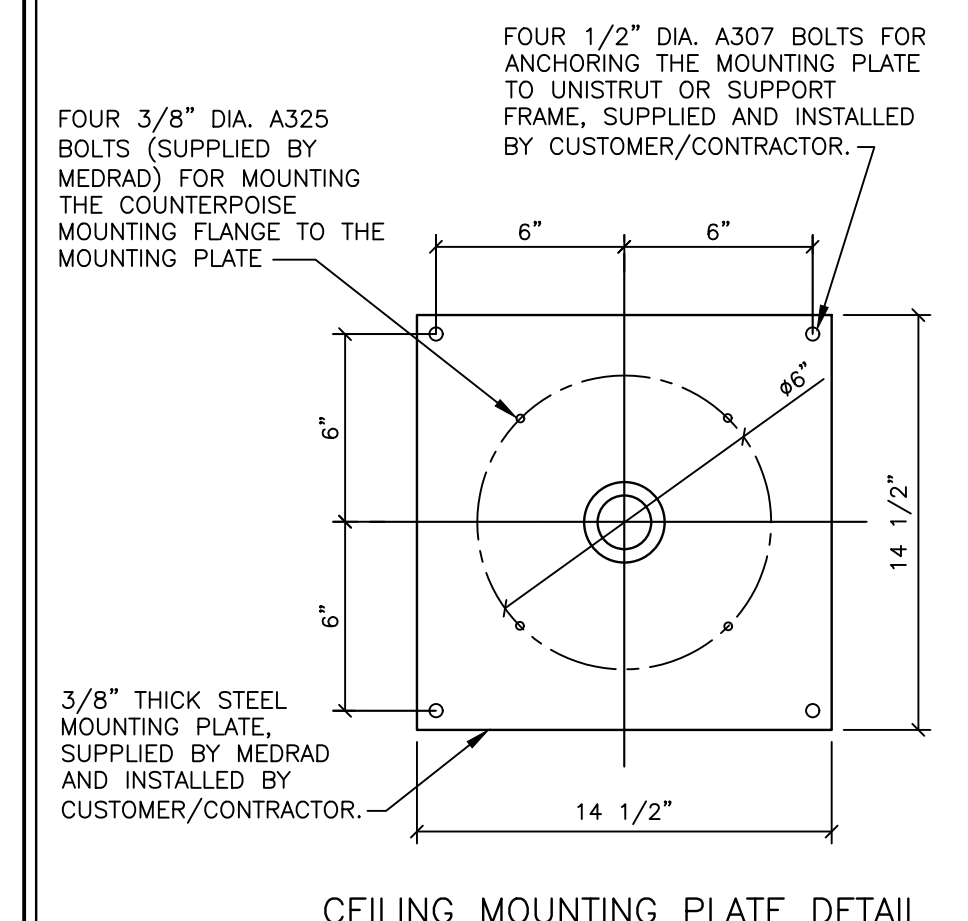
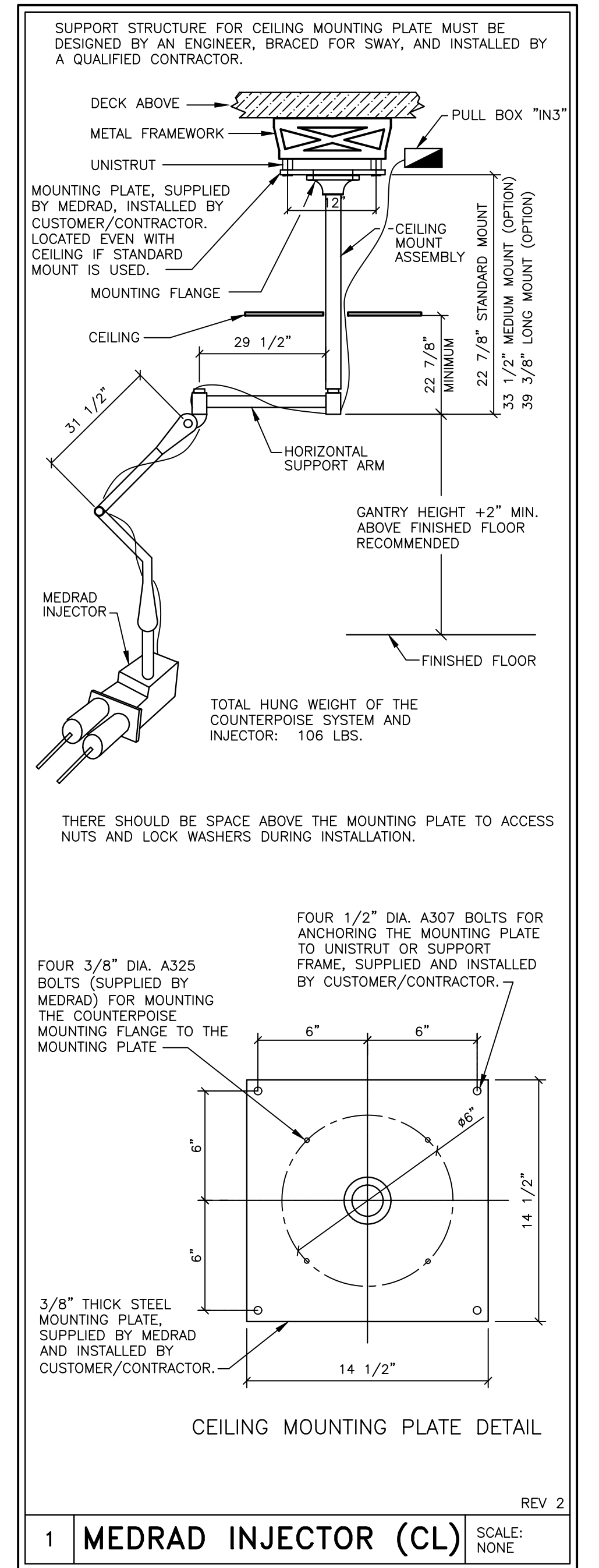
DEFINITION EDGE
REV 22

NOTE: FOR THE WEIGHTS OF ALL SIEMENS EQUIPMENT SHOWN ON THIS PLAN, SEE THE "EQUIPMENT LEGEND" ON SHEET A-101.



STRUCTURAL CEILING PLAN

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



1 MEDRAD INJECTOR (CL) SCALE: NONE REV 2

FINISHED ROOM HEIGHT	
FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

PROJECT MANAGER: JESSE HULSEY
 TEL: (602) 300-2149 EXT:
 FAX:
 EMAIL: jesse.hulsey@siemens-healthineers.com

SIEMENS

BARTLETT REGIONAL HOSPITAL
 3260 HOSPITAL DR, JUNEAU, AK 99801
 CT SCAN ROOM 1 - (RO) SOMATOM DEFINITION EDGE

△	03/12/21	R-101RA VERSION DATED 02/05/21 APPROVED BY CUSTOMER FOR FINALS
SYM	DATE	DESCRIPTION
-ISSUE BLOCK-		

THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.

PROJECT #: **2100554**

SHEET: **4** OF **8** DRAWN BY: J. DRAMIS

ALL RIGHTS ARE RESERVED.

SCALE: AS NOTED REC # CP4-287453 DATE: 03/12/21

S-102

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REFERENCE DOCUMENT - NOT FOR CONSTRUCTION

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ELECTRICAL NOTES

1) COMPLIANCE: ELECTRICAL WORK SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA-70), O.S.H.A. REGULATIONS, AS WELL AS APPLICABLE REGULATIONS OF CITY, COUNTY, STATE AND FEDERAL AGENCIES. PROVIDE MATERIALS AND EQUIPMENT THAT COMPLY WITH ANSI, IEEE AND NEMA STANDARDS AND ARE U.L. LISTED AND LABELED. THE CUSTOMER'S/CONTRACTOR'S WORK AND ALL EQUIPMENT INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE ADOPTED/ENFORCED BY THE AUTHORITY HAVING JURISDICTION.

2) QUALITY ASSURANCE: THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD TO INSURE THAT THE NEW WORK WILL FIT INTO THE EXISTING STRUCTURE AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST OR BE DISCOVERED THAT PREVENT THE INSTALLATION OF WORK AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OF EQUIPMENT, OR THE OCCURRENCE OF ANY WORK THAT MAY BE AFFECTED. DO NOT ALTER DRAWINGS, DIMENSIONS, OR SPECIFICATIONS IN ANY WAY WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SIEMENS PROJECT MANAGER. ALL DIMENSIONS ARE FROM FINISHED SURFACES. CONDUIT AND PULL BOXES TO BE INSTALLED BY THE CUSTOMER/CONTRACTOR WITH LOCATIONS BEING FIELD VERIFIED BY THE SIEMENS PROJECT MANAGER.

3) POWER SUPPLY SOURCE: POWER SUPPLIES FOR SIEMENS HEALTHCARE EQUIPMENT SHALL BE FROM A MEDICAL IMAGING PANEL OR BUILDING SERVICE EQUIPMENT THAT IS A GROUNDING 3 OR 4-WIRE "WYE" SOURCE PER THE SPECIFIC EQUIPMENT OPERATION REQUIREMENTS. A DEDICATED CIRCUIT SHALL BE PROVIDED THAT IS KEPT ENTIRELY FREE AND INDEPENDENT OF ALL OTHER BUILDING WIRING. NO ELEVATORS, GENERATORS, PUMPS, HVAC OR SIMILAR EQUIPMENT SHALL BE CONNECTED TO THE SAME CIRCUIT OR MEDICAL IMAGING PANEL THAT SERVES THE SIEMENS HEALTHCARE EQUIPMENT. IF THE POWER SUPPLY SOURCE DOES NOT MEET THE SPECIFIC SIEMENS EQUIPMENT POWER REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT TO ESTABLISH THE POWER SUPPLY IN ACCORDANCE WITH THE REQUIRED POWER SUPPLY PARAMETERS OF THE SIEMENS EQUIPMENT. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE CUSTOMER AND/OR UTILITY COMPANY FIELD REPRESENTATIVE.

4) WORK FURNISHED BY CUSTOMER/CONTRACTOR: WORK NOT PROVIDED BY SIEMENS HEALTHCARE BUT SHOWN ON DRAWINGS TO BE FURNISHED AND INSTALLED BY CUSTOMER/CONTRACTOR INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING, UNLESS NOTED OTHERWISE: ELECTRICAL RACEWAYS AND DUCTS; WIRING TROUGH; PULL BOXES; CONDUITS; CIRCUIT BREAKERS; ACCESS PANELS, EMERGENCY OFF BUTTONS, DOOR SWITCHES, WARNING LIGHTS, WIRING DEVICES, CONNECTORS, LIGHTING EQUIPMENT AND GROUNDING.

5) RACEWAY AND CONDUIT NOTES: ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT ENFORCED EDITION OF THE NATIONAL ELECTRICAL CODE.

CONDUIT BODIES SHALL NOT BE USED. WHERE A CONDUIT ENTERS A BOX, FITTING, OR OTHER ENCLOSURE, AN INSULATED THROAT CONNECTOR SHALL BE PROVIDED TO PROTECT THE WIRE FROM ABRASION. ALL CONNECTORS FOR EMT SHALL BE COMPRESSION OR DOUBLE SET SCREW TYPE.

KEEP RACEWAYS AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF FLUES OR STEAM AND HOT WATER PIPES. INSTALL RACEWAYS RUNS ABOVE WATER AND STEAM PIPES PROVIDED THAT CABLE RUN DISTANCES ARE MAINTAINED. USE TEMPORARY CLOSURES TO PREVENT FOREIGN MATTER FROM ENTERING RACEWAY.

CONDUIT RUNS ARE SHOWN SCHEMATICALLY. INSTALL CONDUIT WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED. THE CONTRACTOR SHALL MAKE CERTAIN THAT ANY CONDUIT/RACEWAY RUNS CONTAINING SIEMENS HEALTHCARE CABLES DO NOT EXCEED THE SPECIFIED MAXIMUM DISTANCES AS SHOWN ON THE ELECTRICAL DETAILS. LISTED CONDUIT SIZES FOR SIEMENS-SUPPLIED CABLES MUST BE MAINTAINED IN ORDER TO ENABLE THE TOTAL CABLE BUNDLE INCLUDING CONNECTORS TO BE PULLED THROUGH WITHOUT DAMAGE.

PROVIDE ENCLOSED METAL WIRE DUCT RACEWAY SYSTEM WHERE SHOWN ON DRAWINGS WITH DIVIDERS TO SEPARATE THE DUCT INTO TWO OR THREE SEPARATE COMPARTMENTS AS SHOWN ON THE SIEMENS PLANS (FOR POWER AND SIEMENS HEALTHCARE CABLING). DIVIDERS AND CROSSOVER PIECES TO BE PROVIDED AS NECESSARY. THE CABLE TO CABLE AS WELL AS THE CIRCUIT TO CIRCUIT SEPARATION REQUIREMENT WAS EVALUATED DURING THE UL SYSTEM CERTIFICATION OF THE EQUIPMENT. ADDITIONAL SEPARATION OF THE SYSTEM CABLE ASSEMBLIES INTO SEPARATE OR PARTITIONED RACEWAYS, UNLESS OTHERWISE NOTED, IS NOT NECESSARY TO INSURE SEPARATION OF CIRCUITS.

PROVIDE WIRE DUCT/RACEWAY WITH ACCESSIBLE REMOVABLE COVERS. LOCATIONS OF BUILDING MATERIAL OPENINGS (I.E. ACCESS PANELS) TO BE CUT IN FIELD ARE TO BE COORDINATED WITH THE DRAWING REQUIREMENTS AND BUILDING STRUCTURE. THOSE THAT ARE NOT INDICATED OR INTERFERE WITH BUILDING ELEMENTS SHALL BE COORDINATED WITH SIEMENS PROJECT MANAGER. ELECTRICAL PULL BOXES AND RACEWAY COVERS SHALL BE INSTALLED IN A MANNER TO ALLOW ACCESSIBILITY FOR INSTALLATION AND MAINTENANCE. CONTRACTORS MUST PROVIDE PULL STRINGS FOR ALL CONDUIT AND WIRE DUCT/RACEWAY. IN-FLOOR TRENCH DUCT AND FLUSH FLOOR BOXES SHALL BE PROVIDED WITH FULLY GASKETED REMOVABLE COVERS.

WHEN JUNCTION BOXES AND WIRE DUCT/RACEWAY ARE MOUNTED HIGHER THAN 14 FEET ABOVE FINISHED FLOOR, THE ELECTRICAL CONTRACTOR SHALL PROVIDE TWO ELECTRICIANS TO HELP THE SIEMENS INSTALLERS PULL SIEMENS SUPPLIED CABLES AT CUSTOMER'S EXPENSE. WHEN JUNCTION BOXES AND WIRE DUCT/RACEWAY ARE MOUNTED ABOVE A HARD CEILING (I.E. SHEET ROCK), A 24" x 24" ACCESS PANEL IS REQUIRED AT EACH JUNCTION BOX AND WITHIN 2 FEET OF EACH RACEWAY TRANSITION (SUCH AS A 90 DEGREE ELBOW OR TEE) IN DUCT/RACEWAY. THERE MUST BE FREE AND CLEAR ACCESS TO JUNCTION BOXES AND WIRE DUCT/RACEWAY. WHEN ACCESS PANELS ARE LOCATED MORE THAN 3 FEET FROM JUNCTION BOXES AND WIRE DUCT/RACEWAY THE ELECTRICAL CONTRACTOR SHALL PROVIDE TWO ELECTRICIANS TO HELP SIEMENS INSTALLERS PULL SIEMENS SUPPLIED CABLES AT CUSTOMER'S EXPENSE.

6) WIRING: ALL WIRING INSTALLED SHALL BE 600 VOLT CLASS, STRANDED TYPE THHN/THWN-2, SINGLE CONDUCTOR ANNEALED COPPER FOR A MAXIMUM OPERATING TEMPERATURE OF 90° C (194° F), SIZED AS INDICATED, INSTALLED IN METAL RACEWAYS. THE CUSTOMER/CONTRACTOR SHALL LEAVE A MINIMUM 10 FEET OF WIRE TAILS AT ALL OUTLET POINTS WITH WIRE IDENTIFICATION TAGGED AT BOTH ENDS FOR FINAL CONNECTION BY THE CUSTOMER/ELECTRICAL CONTRACTOR.

7) SHORT CIRCUIT REQUIREMENTS: ALL CIRCUIT BREAKERS SUPPLIED FOR THE SIEMENS EQUIPMENT REQUIREMENTS SHALL BE RATED HIGHER THAN THE SHORT CIRCUIT AVAILABLE AT THE TERMINALS OF THE ELECTRICAL EQUIPMENT AS DETERMINED BY THE ENGINEER OF RECORD, BUT NOT LESS THAN 35,000A RMS SYMMETRICAL AT 480V, 3-PHASE, 60 HERTZ. THE CONTRACTOR SHALL OBTAIN THE CORRECT SHORT CIRCUIT CURRENT RATING OF ALL THE NEW EQUIPMENT FOR INSTALLATION FROM THE ENGINEER OF RECORD.

POWER QUALITY

POOR POWER WILL ALTER EQUIPMENT PERFORMANCE

IT IS IN THE CUSTOMER'S INTEREST THAT THE ELECTRICAL CONTRACTOR BE RESPONSIBLE FOR TESTING AND VERIFYING THAT THE EQUIPMENT POWER SUPPLY COMPLIES WITH THE SIEMENS SPECIFICATIONS.

ELECTRICAL LEGEND

SYM	SIZE	DESCRIPTION	REMARKS
(B)	12" x 8"	OPENING IN TOP OF FLUSH MOUNTED RACEWAY IN SHOWN LOCATION.	GANTRY CABLE ACCESS
(E)	---	EMERGENCY POWER OFF BUTTON. EXACT LOCATIONS TO BE DETERMINED BY CUSTOMER/CONTRACTOR.	SEE POWER SCHEDULE
(C)	12" x 4"	OPENING IN RACEWAY IN SHOWN LOCATION.	IMAGE CONSTRUCTION SYS.
(N)	AS REQUIRED	PULL BOX MOUNTED FLUSH WITH FINISHED WALL AT FLOORLINE. THERE SHOULD ALSO BE AN ETHERNET CONNECTION AND (2) OUTLETS LOCATED NEAR THE PULL BOX TO SUPPLY 110/220 VAC.	INJECTOR ELECTRONICS
(M)	AS REQUIRED	PULL BOX MOUNTED ABOVE FINISHED CEILING IN SHOWN LOCATION.	CEILING MTD. INJECTOR
(S)	---	FIXED POINT DESIGNATION, SAME PULL BOX/OPENING AS PDC.	
(MP)	---	MAIN PANEL WITH MAIN BREAKER, EXACT LOCATION DETERMINED BY CUSTOMER/CONTRACTOR.	SEE POWER SCHEDULE.
(P)	12" x 5"	OPENING IN RACEWAY IN SHOWN LOCATION.	POWER DISTRIBUTION CAB.
(R)	---	MAIN SOCKET INTEGRATED INTO REAR SIDE OF TROLLEY.	RESPIRATORY GATING
(E)	AS REQUIRED	PULL BOX MOUNTED FLUSH WITH FINISHED WALL PROVIDED WITH 2"Ø OPENING IN FINISHED COVER. THE SURGE PROTECTIVE DEVICE MUST BE LOCATED WITHIN 3 FEET CABLE RUN FROM CIRCUIT BREAKER, AT HEIGHT DETERMINED BY CUSTOMER/ CONTRACTOR.	SEE DETAIL S-101
(H)	EXISTING	HORIZONTAL ELECTRICAL DUCT THAT IS CUSTOMER'S EXISTING IN THE ROOM, WHICH THEY WISH TO REUSE.	RACEWAY
(R)	12" x 2 1/2"	ELECTRICAL DUCT MOUNTED FLUSH WITH FINISHED FLOOR (TRENCH DUCT) AND PARALLEL WITH THE FLOOR SLAB IN SHOWN LOCATION. PROVIDED WITH WATERPROOF, REMOVABLE COVERS FINISHED TO MATCH FLOORING. DUCT TO BE DIVIDED INTO TWO SECTIONS WITH METAL DIVIDERS.	RACEWAY
(M)	10" x 3 1/2"	ELECTRICAL DUCT RUN HORIZONTALLY ON THE WALL AT THE FLOOR LINE AND SURFACE MOUNTED ON FINISHED WALL AS SHOWN FOR EXCESS CABLE STORAGE.	RACEWAY
(M)	10" x 3 1/2"	ELECTRICAL DUCT MOUNTED FLUSH WITH FINISHED WALL IN SHOWN LOCATION PROVIDED WITH FINISHED, REMOVABLE COVERS. TO EXTEND FROM FLOOR LINE TO END ABOVE FINISHED CEILING. DUCT TO BE DIVIDED INTO TWO SECTIONS WITH METAL DIVIDERS.	RACEWAY
(1)	AS REQUIRED	CONDUIT FROM POWER SOURCE TO "MP" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(2)	AS REQUIRED	CONDUIT FROM "MP" TO "EPO" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(3)	AS REQUIRED	CONDUIT FROM "EPO" TO "EPO" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(4)	AS REQUIRED	CONDUIT FROM "EPO" TO "VD1" (PDC), SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(5)	AS REQUIRED	CONDUIT FROM "MP" TO "SPD" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(6)	AS REQUIRED	CONDUIT FROM "MP" TO "VD1" (PDC), SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(7)	AS REQUIRED	CONDUIT FROM "VD1" (PDC) TO "WARNING LIGHT".	
(8)	AS REQUIRED	CONDUIT FROM "VD1" (PDC) TO "DS".	
(9)	2-1/2"Ø	CONDUIT FROM "IN2" TO "IN3".	MAX. CONDUIT LENGTH 75'-0"

CONTRACTOR SUPPLIED CABLES

FROM	VIA	TO	DESCRIPTION	REMARKS
POWER SOURCE	1	MP	3-PHASE CONDUCTORS, 1 NEUTRAL, 1 GROUND. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	2	EPO	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
EPO	3	EPO	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
EPO	4,VD1,FD1	PDC	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	5	SPD	3-PHASE CONDUCTORS, 1 NEUTRAL AND 1 GROUND. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	6,VD1,FD1	PDC	3 PHASE CONDUCTORS, 1 NEUTRAL AND 1 GROUND. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
PDC	FD1,VD1,7	WARNING LIGHT	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	
PDC	FD1,VD1,8	DS	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	

SIEMENS SUPPLIED CABLES

FROM	VIA	TO	DESCRIPTION	REMARKS
PDC	FD1,ED1	ICS	POWER CABLE; W8:300V, W12:300V, W34:GND DATA CABLE; W61:30V, W63:30V	MAXIMUM LENGTH 82'-0"
PDC	UNDER CABINET	IRS	POWER CABLE; W7:300V, W33:GND DATA CABLE; W57:30V, W65:30V	MAXIMUM LENGTH 82'-0"
PDC	FD1	B	POWER CABLE; W1:600V, W2:600V, W3:600V, W4:HIGH VOLTAGE, W9:300V, W30:GND DATA CABLE; W53:30V, W54:30V, W59:30V, W74:FIBER	MAXIMUM LENGTH 82'-0"
B	FD1,ED1	ICS	CONTROL CABLE; W51:300V	MAXIMUM LENGTH 82'-0"
B	FD1	IRS	DATA CABLE; W70:FIBER, W98:30V	MAXIMUM LENGTH 82'-0"
IN2	9	IN3	INJECTOR CABLE	MAXIMUM LENGTH 75'-0"
B	FD1,ED1,ICS	IN2	MEDRAD IS1900 INTERFACE	VERIFY LENGTH WITH MANUFACTURER

SYMBOLS

ALL MAY NOT APPLY

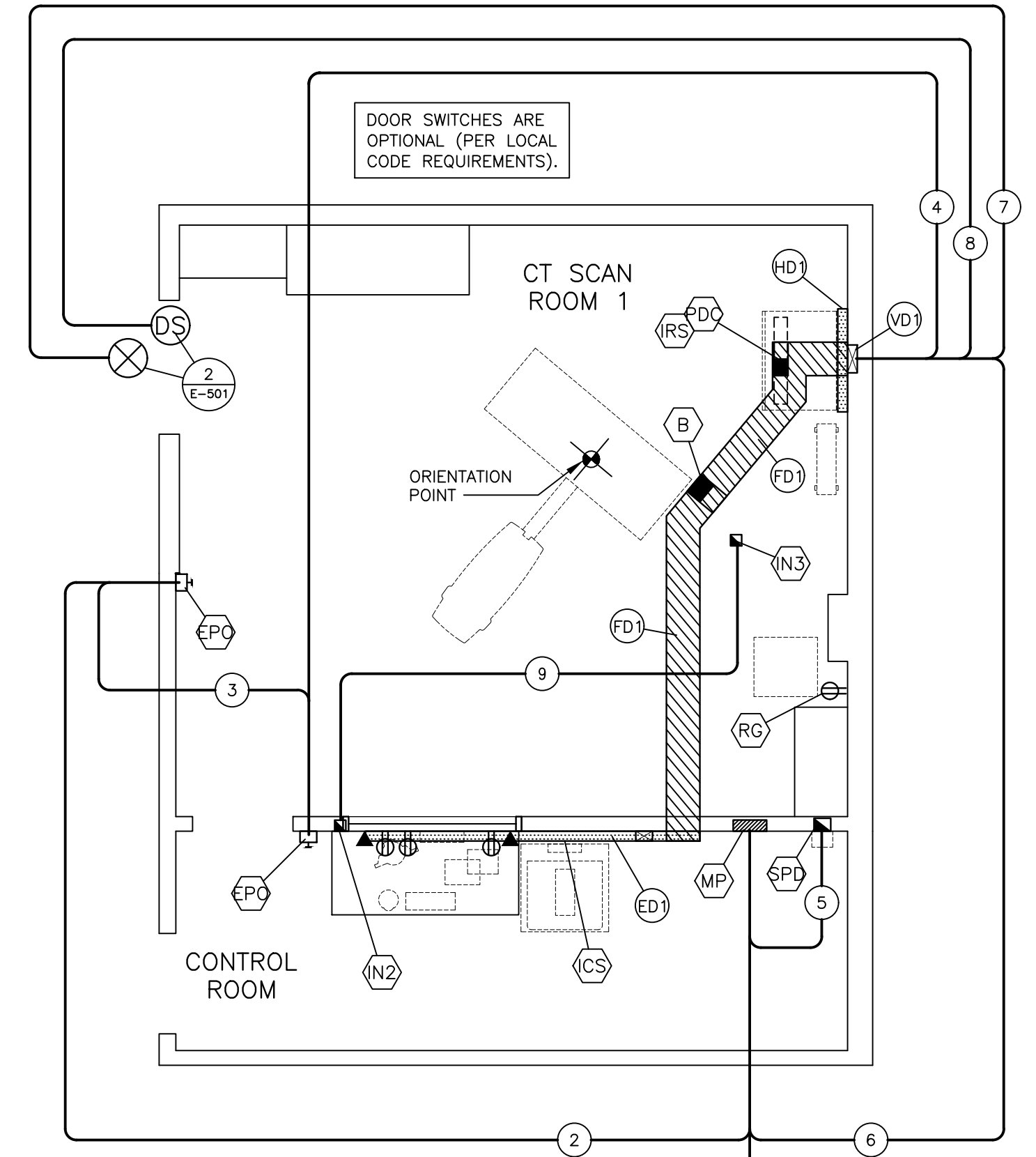
[Symbol]	MAIN PANEL OR ENCLOSURE BY CUSTOMER/CONTRACTOR
[Symbol]	OPENING IN RACEWAY OR TRENCH/DUCT
[Symbol]	PULLBOX IN (FLOOR/WALL/CEILING)
[Symbol]	OPENING IN ACCESS FLOORING
[Symbol]	WARNING LIGHT (X-RAY ON)
[Symbol]	DOOR SAFETY SWITCH
[Symbol]	(EPO) EMERGENCY POWER OFF BUTTON
[Symbol]	TRENCH/DUCT
[Symbol]	CEILING DUCT
[Symbol]	UNDER FLOOR DUCT
[Symbol]	SURFACE DUCT
[Symbol]	VERTICAL DUCT
[Symbol]	ETHERNET CONNECTION TO CUSTOMER'S INFORMATION SYSTEMS NETWORK (VERIFY WITH SMS PROJECT MANAGER).
[Symbol]	110 VOLT, 20 AMP, HOSPITAL GRADE DUPLEX OUTLET UNLESS OTHERWISE STATED.
[Symbol]	110 VOLT, 20 AMP, HOSPITAL GRADE QUAD OUTLET
[Symbol]	SPECIAL PURPOSE RECEPTACLE

CONDUIT LENGTH CALCULATIONS

IF SITE SPECIFIC CONDITIONS EXCEED THE FOLLOWING ASSUMED VALUES THEN ADDITIONAL LENGTH MUST BE SUBTRACTED BY THE ELECTRICAL CONTRACTOR FROM THE MAXIMUM CONDUIT LENGTHS LISTED.

IF DUCT LOCATIONS ARE ALTERED FROM THE SHOWN LAYOUT IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO RECALCULATE THE MAXIMUM CONDUIT LENGTHS.

ASSUMED VALUES USED IN CALCULATING STATED MAXIMUM CONDUIT LENGTHS:
 VERTICAL DUCTS - 10'-0"
 FLOOR PENETRATIONS - 3'-0"



CABLE/HOSE SET USED PER QUOTE/ORDER; SYSTEM CABLING : 25M
 CABLING FOR CT WORKPLACE (IES) : NO CTWP
 HOSE PIPE FOR WATER COOLING: N/A
 REFER TO THE SIEMENS SUPPLIED CABLE LEGEND FOR THE ACTUAL LENGTH OF EACH CABLE/HOSE CONNECTION.

DEDICATED POWER SOURCE, SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR. SEE "POWER SCHEDULE".

ELECTRICAL RACEWAY PLAN

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

FINISHED ROOM HEIGHT

FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

ATTENTION:

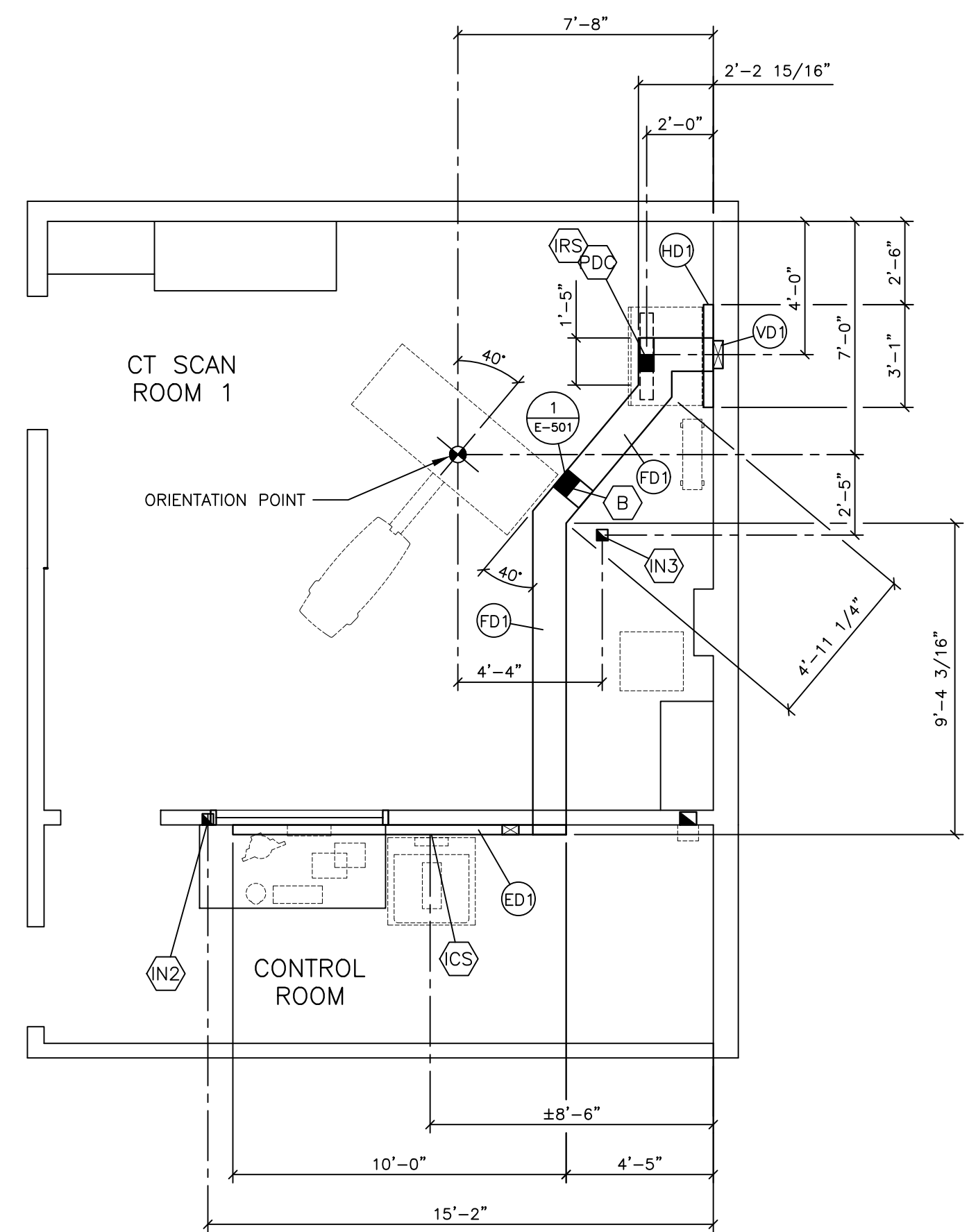
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 - THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 EXT: FAX: EMAIL: jesse.hulsey@siemens-healthineers.com		<p>SIEMENS</p> <p>BARTLETT REGIONAL HOSPITAL</p> <p>3260 HOSPITAL DR, JUNEAU, AK 99801 CT SCAN ROOM 1 - (RO) SOMATOM DEFINITION EDGE</p>
PROJECT #: 2100554		
THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.	PROJECT #:	SHEET:
ALL RIGHTS ARE RESERVED.	2100554	E-101
SCALE: AS NOTED REC: CPD-287453	SHEET 5 OF 8	DRAWN BY: J. DRAMIS
	DATE: 03/12/21	

DEFINITION EDGE REV 22



ELECTRICAL DIMENSION PLAN

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

FINISHED ROOM HEIGHT	
FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

ATTENTION:

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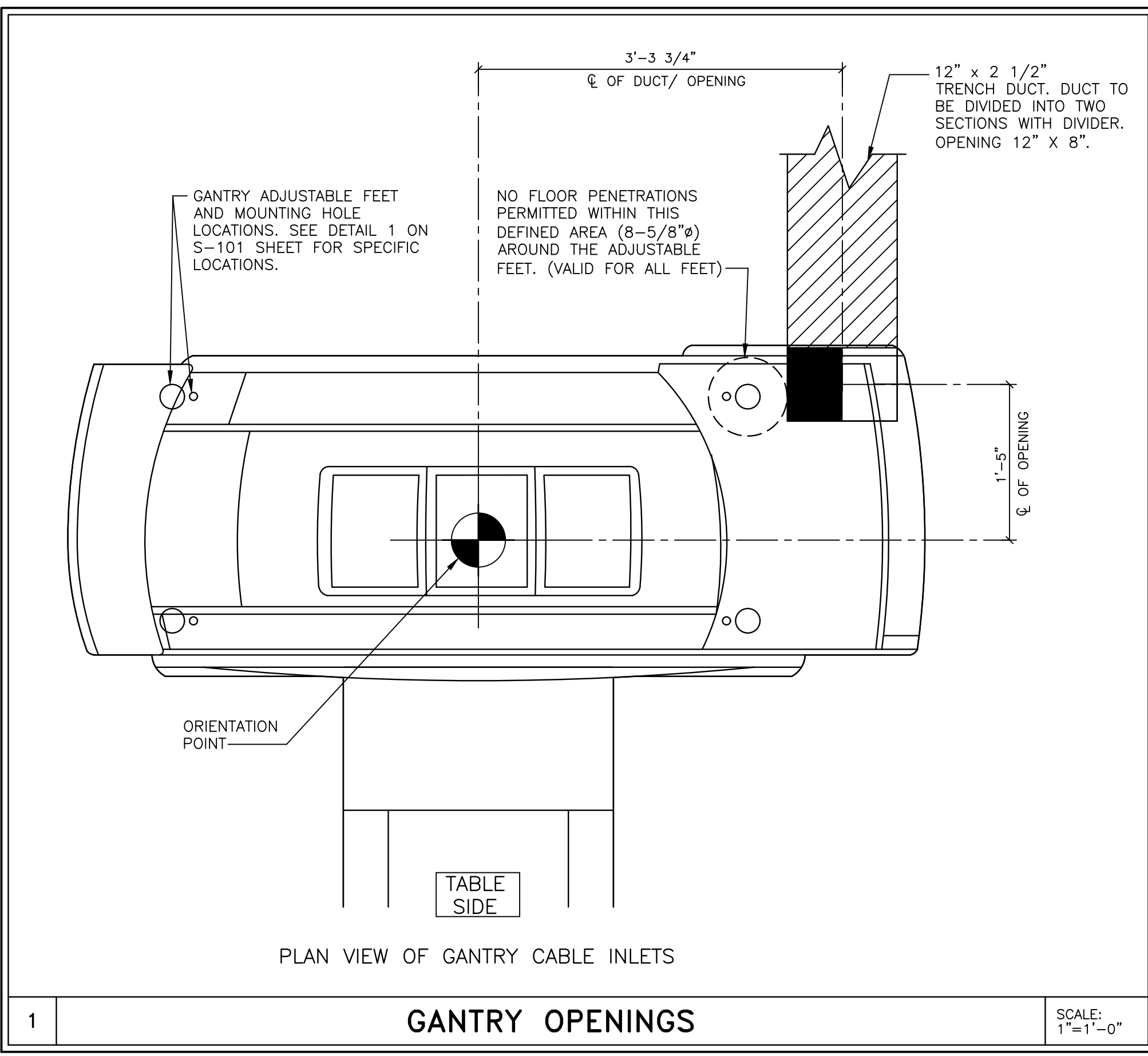
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SHEET 6 OF 8 DRAWN BY: J. DRAMIS			SHEET: E-102	
SCALE: AS NOTED REC # CP4-287453			DATE: 03/12/21	

SYM	DATE	DESCRIPTION
△	03/12/21	R-101RA VERSION DATED 02/05/21 APPROVED BY CUSTOMER FOR FINALS
-ISSUE BLOCK-		

DEFINITION EDGE
REV 22

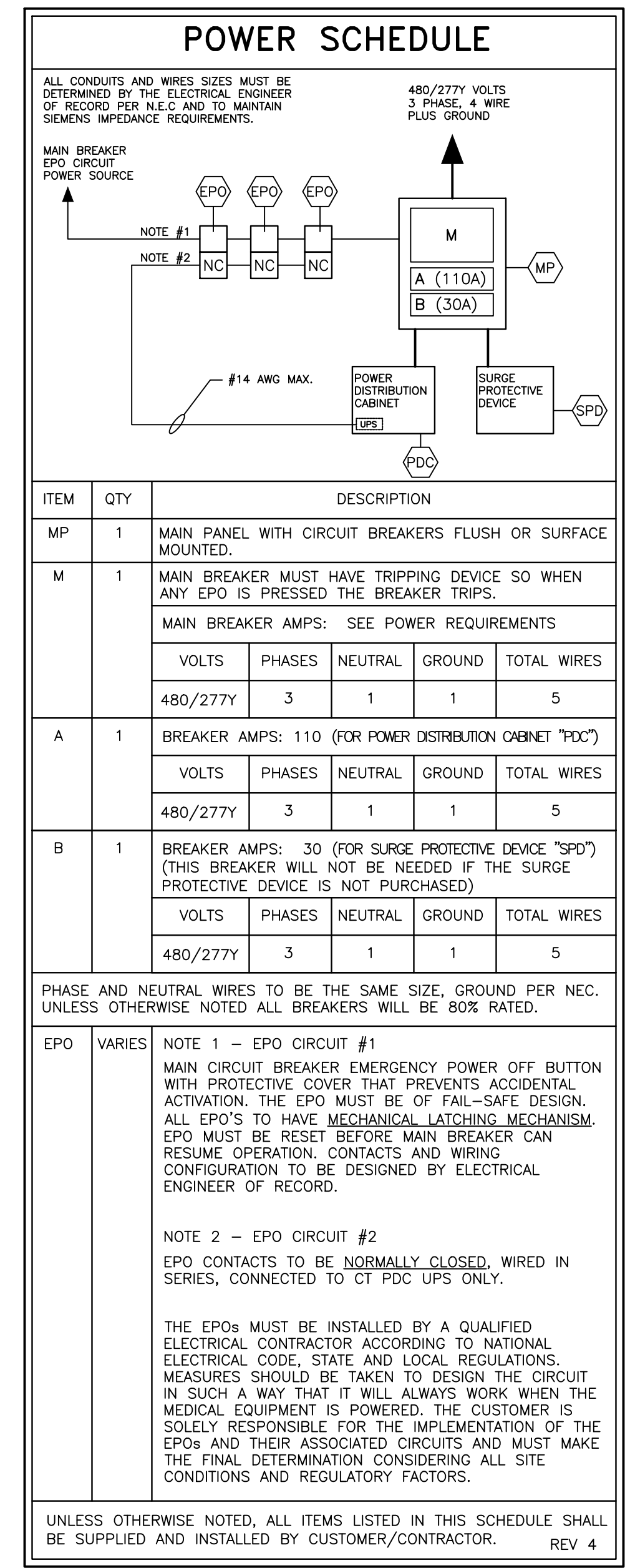


1 GANTRY OPENINGS SCALE: 1"=1'-0"

GROUNDING NOTES

EQUIPMENT GROUNDING CONDUCTOR TO COMPLY WITH THE FOLLOWING:

- 1) SIZE GROUNDING WIRE TO SIEMENS EQUIPMENT PER POWER SCHEDULE REQUIREMENTS.
- 2) DERIVED FROM THE ELECTRICAL SERVICE, TRANSFORMER OR MAIN DISTRIBUTION PANEL FEEDING THE SIEMENS EQUIPMENT.
- 3) RUN IN THE SAME CONDUIT, TROUGH OR RACEWAY AS THE PHASE CONDUCTORS.
- 4) CONTINUOUS, WITH NO BREAKS OR USE OF CONDUIT, CHASSIS OR EARTH AS THE SOLE GROUNDING PATH.
- 5) BONDED TO CHASSIS AND/OR CONDUIT IN ACCORDANCE WITH THE NEC REQUIREMENTS.
- 6) MINIMIZE CONNECTIONS OR TERMINALS TO ENSURE CONTINUITY OVER THE LIFE OF THE INSTALLATION.
- 7) AS A NORM, THERE SHOULD NOT BE ANY CURRENT PRESENCE ON THE GROUND CONDUCTOR, BUT IT IS ACCEPTABLE TO HAVE $\leq 500mA$ DURING OPERATION OF THE IMAGING EQUIPMENT.



POWER REQUIREMENTS

SYSTEM	SUPPLY VOLTAGE (VOLTS)	POWER CONSUMPTION (kVA)	SUPPLY IMPEDANCE (mΩ)	MAIN CIRCUIT BREAKER (AMPS)
SOMATOM DEFINITION EDGE	480±10%	SEE BELOW	≤ 200	125

POWER CONSUMPTION (WITH STANDARD HOSPITAL CHILLED WATER OR AIR COOLED SYSTEM)
 CT OPERATING FOR 3 SEC - 140 kVA
 CT OPERATING AT 35 SEC - 93 kVA
 CT OPERATING AT 100 SEC - 43 kVA
 CT SYSTEM ON (STAND-BY) - 4 kVA
 CT SYSTEM ON (COMP ON) - 2.5 kVA
 CT GANTRY OFF (EVA ON) - 1.7 kVA

POWER CONSUMPTION (WITH OPTIONAL WATER/AIR SPLIT COOLING SYSTEM)
 CT OPERATING FOR 3 SEC - 140 kVA
 CT OPERATING AT 35 SEC - 93 kVA
 CT OPERATING AT 100 SEC - 43 kVA
 CT SYSTEM ON (STAND-BY) - 4 kVA
 CT SYSTEM ON (COMP ON) - 2.5 kVA
 CT GANTRY OFF (EVA ON) - 1.7 kVA
 COOLING SYSTEM - 16kVA
 COOLING SYSTEM FLOW HEATER (OPTIONAL) - 12kVA

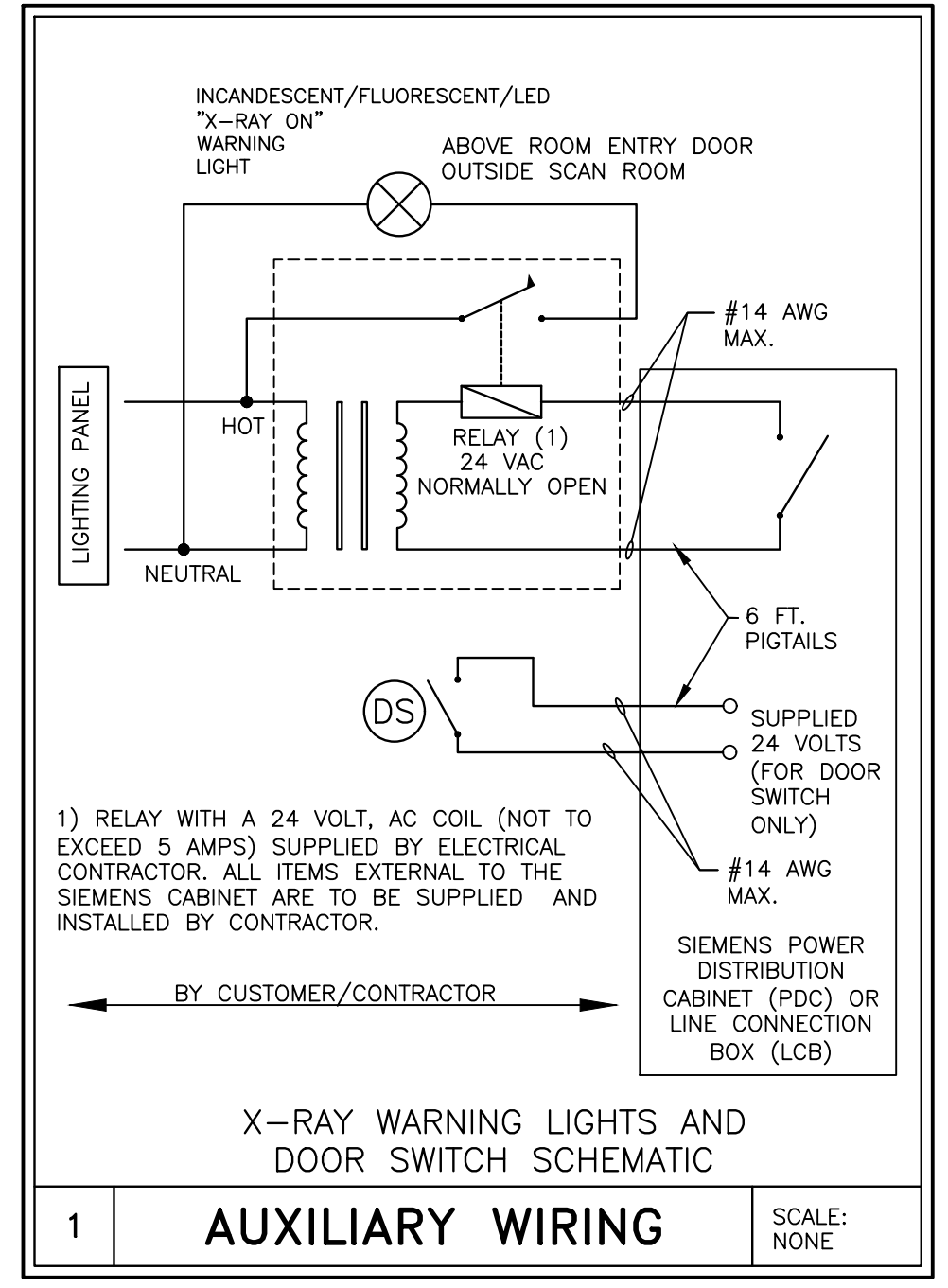
IF AN ON-SITE TRANSFORMER IS REQUIRED TO OBTAIN CT OPERATING VOLTAGE, IT MUST BE OF SUFFICIENT CAPACITY AND CHARACTERISTICS TO MAINTAIN SUPPLY VOLTAGE AND IMPEDANCE REQUIREMENTS (TRANSFORMER AND CONDUCTORS).

ALL STANDARD COMPONENTS AND ADD-ONS ARE SUPPLIED VIA THE POWER DISTRIBUTION SYSTEM.

DO NOT CONNECT NON-SIEMENS COMPONENTS SUCH AS LASER CAMERAS OR FILM PROCESSORS TO THE SIEMENS POWER DISTRIBUTION SYSTEM (PDS).

THE EXAMINATION ROOM SHOULD BE EQUIPPED WITH AT LEAST ONE EMERGENCY POWER OFF (PANIC) BUTTON.

TO ENSURE SATISFACTORY SYSTEM OPERATION THE PDS MUST HAVE A DEDICATED PROTECTIVE GROUND CONDUCTOR.



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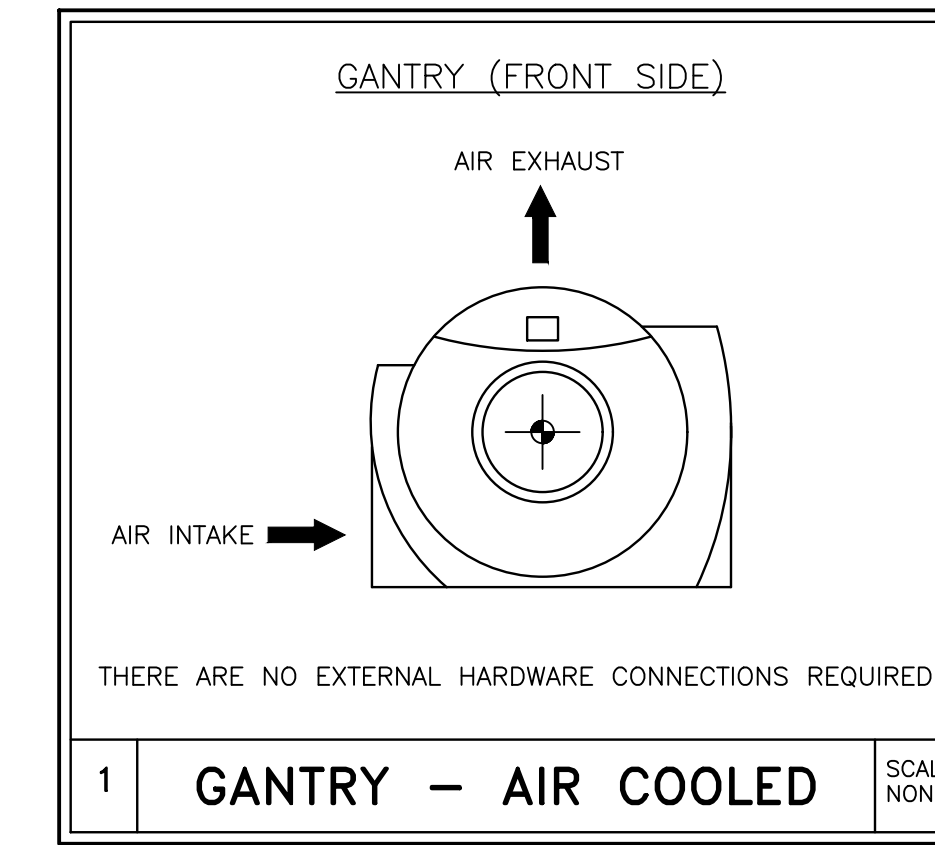
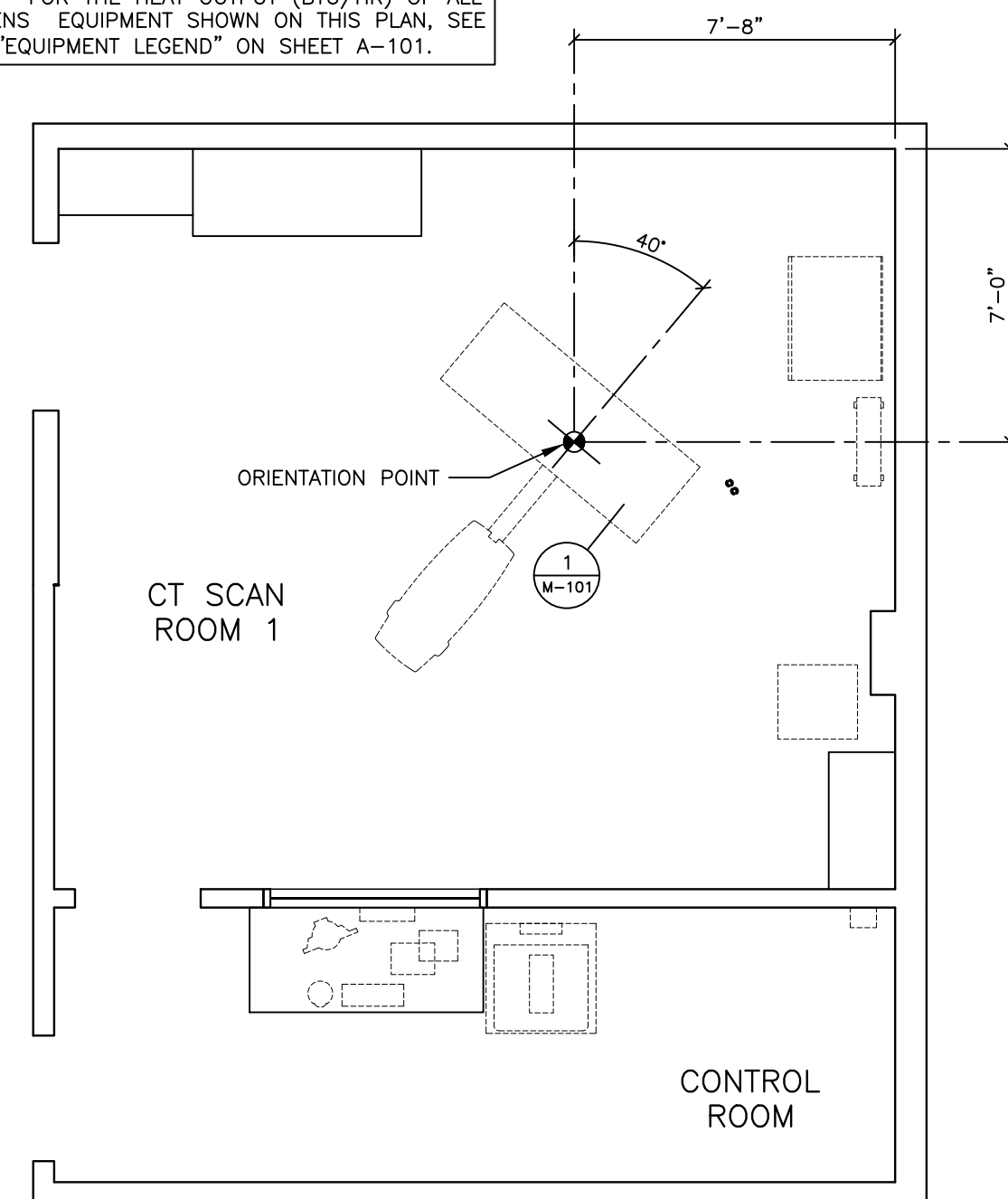
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BARTLETT REGIONAL HOSPITAL		3260 HOSPITAL DR, JUNEAU, AK 99801 CT SCAN ROOM 1 - (RO) SOMATOM DEFINITION EDGE	
THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.		PROJECT #: 2100554	SHEET: E-501
ALL RIGHTS ARE RESERVED.		SHEET 7 OF 8 DRAWN BY: J. DRAMIS	
SCALE: AS NOTED REV: CP4-287453		DATE: 03/12/21	

SYM	DATE	DESCRIPTION
△	03/12/21	R-101RA VERSION DATED 02/05/21 APPROVED BY CUSTOMER FOR FINALS
-ISSUE BLOCK-		

DEFINITION EDGE REV 22

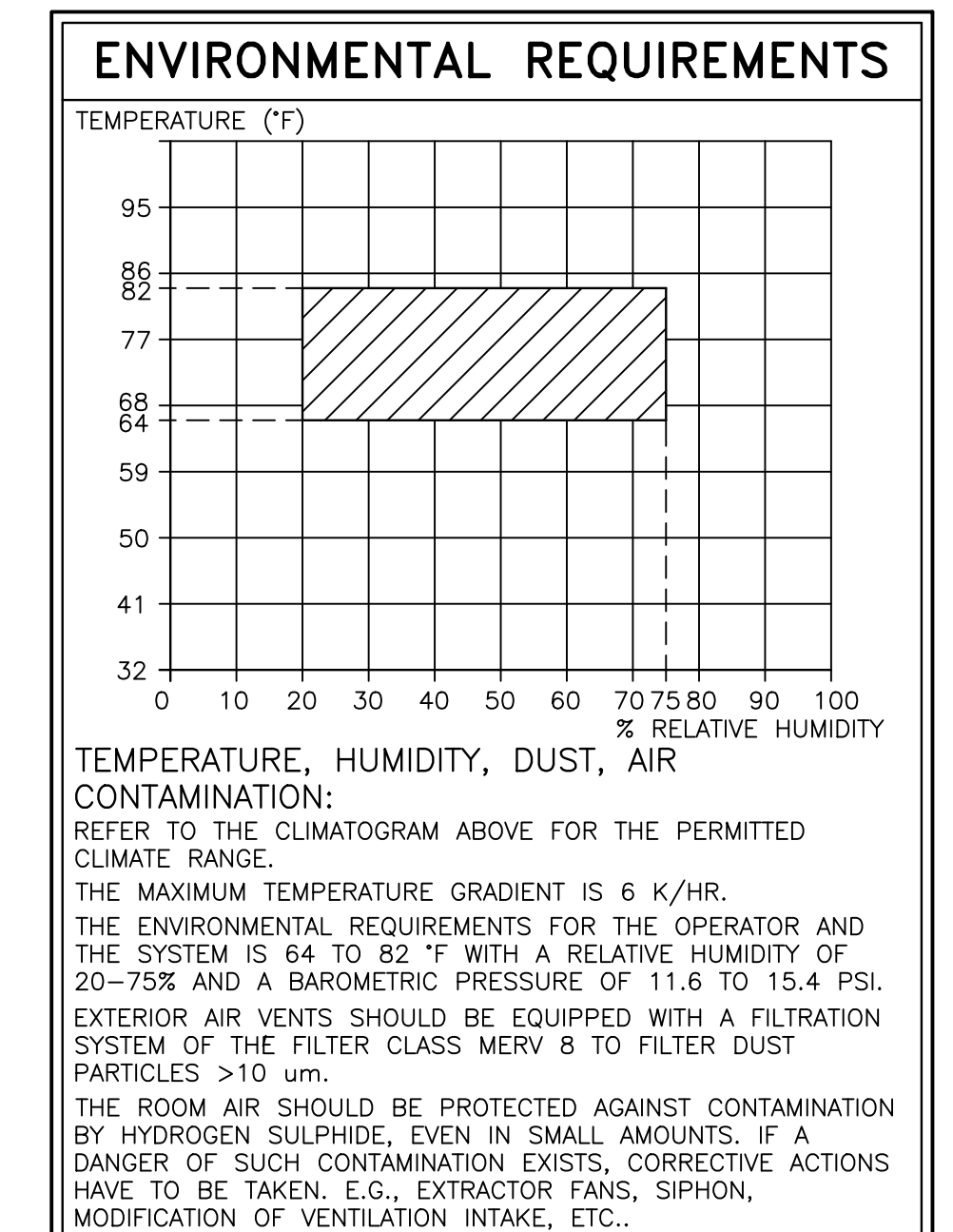
NOTE: FOR THE HEAT OUTPUT (BTU/HR) OF ALL SIEMENS EQUIPMENT SHOWN ON THIS PLAN, SEE THE "EQUIPMENT LEGEND" ON SHEET A-101.



TECHNICAL DATA	
TEMPERATURE RANGE OF AIR (AIR INTAKE)	MINIMUM 64.4°F TO 82.4°F MAXIMUM
TEMPERATURE GRADIENT (AIR INTAKE)	MAXIMUM 6 K/MINUTE MAXIMUM 6 K/HOUR MAXIMUM 4 K/WITHIN 24 HR (1)
BTU DISCHARGE TO THE AIR: UTILIZATION OF THE SYSTEM	100%: 44,357 BTU/HR 75%: 34,144 BTU/HR 50%: 27,315 BTU/HR 25%: 20,487 BTU/HR STAND-BY: 10,236 BTU/HR
AIR FLOW RATE (THROUGH THE GANTRY)	81,224 CU FT/HR
HUMIDITY (AIR INTAKE)	20-75 %

1) FROM "CHECK-UP" TO "CHECK UP" WHEN SWITCHING ON/OFF THE CT SYSTEM.

AIR CONDITIONER UNIT
THE RATING CAPACITY OF THE ROOM AIR CONDITIONER HAS TO TAKE INTO ACCOUNT THE STRUCTURAL CONDITIONS (EX. WINDOWS, BUILDING & ROOM THERMAL INSULATION, ROOM SIZE, ROOM VOLUME, ETC.) OF THE SCAN ROOM TO ENSURE THAT THE TEMPERATURE RANGE OF AIR NEEDED FOR THE SYSTEM IS MAINTAINED.



MECHANICAL PLAN

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

FINISHED ROOM HEIGHT	
FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 EXT: EMAIL: jesse.hulsey@siemens-healthineers.com		SIEMENS	
BARTLETT REGIONAL HOSPITAL			
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ALL RIGHTS ARE RESERVED.		SHEET 8 OF 8	DRAWN BY: J. DRAMIS
SCALE: AS NOTED		DATE: 03/12/21	
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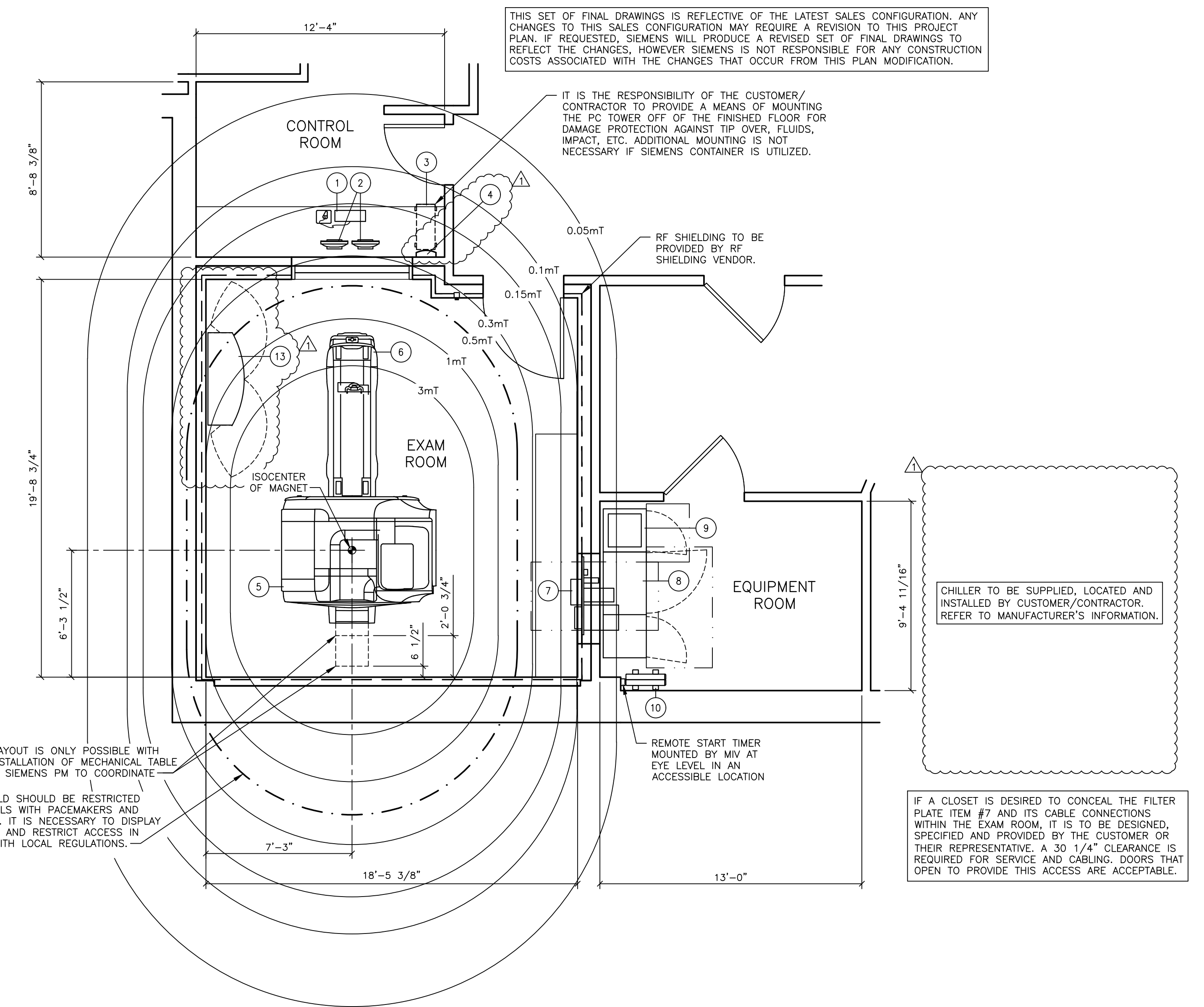
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DEFINITION EDGE
REV 22

REFERENCE DOCUMENT - NOT FOR CONSTRUCTION



ARCHITECTURAL EQUIPMENT PLAN

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

EQUIPMENT LEGEND								
NO	DESCRIPTION	SMS SYM	WEIGHT (LBS)	BTU/HR TO AIR	DIMENSIONS (INCHES)			REMARKS
					W	D	H	
1	MRC KEYBOARD	⊖	5	---	27 1/4	10 1/8	1 3/4	ON CUSTOMER'S COUNTER
2	COLOR MONITOR FOR MRC	⊖	22	239	18 5/16	4 3/4	16 15/16	ON CUSTOMER'S COUNTER
3	HOST PC MRC	⊖	49	2,389	11	27	18 1/8	BELOW COUNTER TOP
4	ALARM BOX	⊖	2	---	9	4	9	WALL MOUNTED
5	SOLA MAGNET IN OPERATION	⊖	8,779	7,506	91	170	86	
6	PATIENT TABLE (MOBILE)	⊖	529	---	29 1/2	97 1/4	21-41	
7	RF-FILTER PLATE (HORIZONTAL)	⊖	287	853	46 1/2	35 1/8	21 5/8	WALL MOUNTED
8	GPA/EPC ELECTRONICS CABINET (XJ GRADIENT)	⊖	3,307	<3,412	61 1/2	26	77 1/2	
9	SEP CABINET	⊖	750	<3,412	25 5/8	25 5/8	73 5/8	
10	LIEBERT GXT4 UPS WITH BATTERY	⊖	164	1,121	17	23 5/8	6 3/4	
11	OMITTED				0	0	0	
12	OMITTED				0	0	0	
13	SURFACE COIL CART	⊖	110	---	55 1/8	21 1/8	47 5/8	WEIGHT WITHOUT COILS

PROTECTING THE MAGNETIC FIELD

THE SIEMENS MR SYSTEM UTILIZES A SUPERCONDUCTIVE MAGNET WITH AN EXTREMELY HOMOGENEOUS FIELD WITHIN THE MAGNET TO PROVIDE DISTORTION FREE IMAGING. THE PRESENCE OF FERROMAGNETIC MATERIAL WITHIN THE VICINITY OF THE MAGNET CAN ADVERSELY AFFECT THE UNIFORMITY OF THE USEFUL MAGNETIC FIELD. THIS APPLIES TO STATIONARY FERROUS MATERIAL (STRUCTURAL STEEL) WHICH IS TO BE MINIMIZED. STATIONARY STEEL COMPENSATION MAY BE ACHIEVED BY MAGNET POSITIONING AND SELECTIVE USE OF SHIMS. DISTORTION CAUSED BY MOVING FERROMAGNETIC OBJECTS (MOTOR VEHICLES, ELEVATORS) IS MORE DIFFICULT TO COMPENSATE AND MAY REQUIRE THE USE OF MAGNETIC SHIELDING. REV 0

PROTECTING THE ENVIRONMENT

PROTECTING THE IMMEDIATE ENVIRONMENT FROM THE EFFECT OF THE MAGNETIC FIELD REQUIRES CONSIDERATION. INFORMATION STORED ON MAGNETIC DATA CARRIERS SUCH AS DISCS, TAPES AND CARDS MAY BE ERASED IF NEAR THE MAGNET. CAUTION WITH REGARD TO HEART PACEMAKERS MUST BE EXERCISED. MOST PACEMAKER UNITS EMPLOY A REED RELAY WHICH MAY CHANGE OPERATING MODE WHEN EXPOSED TO AN EXTERNAL MAGNETIC FIELD. PACEMAKER USERS MUST BE KEPT AT A SPECIFIED DISTANCE FROM THE MAGNET WHICH IS DETERMINED BY THE MAGNET FIELD STRENGTH. REV 0

MAGNETIC FRINGE FIELDS

MAGNETIC FIELDS MAY AFFECT THE FUNCTION OF DEVICES IN THE VICINITY OF THE MAGNET. THESE DEVICES MUST BE OUTSIDE CERTAIN MAGNETIC FIELDS. THE DISTANCES LISTED ARE FROM THE MAGNET ISOCENTER AND DO NOT CONSIDER ANY MAGNETIC ROOM SHIELDING.

FIELD	X & Y	Z AXIS	DEVICES
3.0mT	6'-1"	9'-2"	SMALL MOTORS, WATCHES, CAMERAS, CREDIT CARDS, MAGNETIC DATA CARRIERS.
1.0mT	7'-3"	11'-7"	COMPUTERS, MAGNETIC DISK DRIVES, OSCILLOSCOPES, PROCESSORS
0.5mT	8'-3"	13'-2"	CARDIAC PACEMAKERS, X-RAY TUBES, INSULIN PUMPS, B/W MONITORS, MAGNETIC DATA CARRIERS (LONG-TERM STORAGE)
0.15mT	10'-4"	17'-4"	SIEMENS CT SCANNERS
0.1mT	11'-2"	19'-1"	CRT MONITORS, SIEMENS LINEAR ACCELERATORS
0.05mT	13'-6"	22'-8"	X-RAY IMAGE INTENSIFIERS, GAMMA CAMERAS, PET/CYCLOTRON, ELECTRON MICROSCOPES, LINEAR ACCELERATORS

THE OWNER/USER IS TO VERIFY THE LOCATION OF THE 0.5mT FIELD AND ENSURE THAT IT IS MAINTAINED AS A RESTRICTED AREA.

MAGNET SITING REQUIREMENTS

IT MUST BE ENSURED THAT THE MAGNET IS LOCATED SO THAT THE STABILITY AND HOMOGENEITY OF THE MAGNETIC FIELD ARE NOT ADVERSELY AFFECTED BY EXTRANEOUS FIELDS AND STATIC OR DYNAMIC FERROMAGNETIC OBJECTS.

X & Y AXES	Z AXIS	SOURCE OF INTERFERENCE
4'-2"		FLOOR STEEL REINFORCEMENT <20 LBS./ FT ² IRON BEAMS < 66 LBS./FT.
16'-1"	19'-1"	MOVING METAL UP TO 110 LBS.
13'-1"		WATER COOLING UNIT (CHILLER)
17'-5"	21'-4"	MOVING METAL UP TO 440 LBS.
18'-1"	24'-8"	MOVING METAL UP TO 2,000 LBS.
20'-5"	29'-7"	ELEVATORS, TRUCKS UP TO 10,000 LBS.
13'-1"	13'-1"	AC TRANSFORMERS LESS THAN 650 KVA
16'-5"	16'-5"	AC TRANSFORMERS LESS THAN 1600 KVA
5'-0"	5'-0"	AC CABLES, MOTORS LESS THAN 250 AMPS
8'-3"	8'-3"	AC CABLES, MOTORS LESS THAN 1000 AMPS

FOR IRON OBJECTS LOCATED UP TO 45' FROM THE Z AXIS, THE DISTANCES FOR THE Z AXIS MUST BE USED. REDUCTION IS POSSIBLE WITH STEEL SHIELDING.

ARCHITECTURAL NOTES

1) ALL PRELIMINARY EQUIPMENT LAYOUTS SUBMITTED BY SIEMENS HEALTHCARE ARE BASED ON THE RECOMMENDED SPACE NECESSARY FOR THE OPERATION AND SERVICEABILITY OF THE EQUIPMENT BEING PROPOSED. SIEMENS WILL NOT SUBMIT AN EQUIPMENT LAYOUT THAT IS NOT IN THE BEST INTEREST OF BOTH THE CUSTOMER AND SIEMENS. ALL EQUIPMENT LAYOUTS ARE BASED EITHER ON AN ACTUAL SITE SURVEY OR ARCHITECTURAL DRAWINGS SUPPLIED TO SIEMENS. SIEMENS WILL NOT BE RESPONSIBLE FOR ANY ALTERATIONS THAT ENCROACH WITHIN DESIGNATED SAFETY AND SERVICE CLEARANCE ZONES AS INDICATED ON DRAWINGS (I.E., PIPE CHASES, VENTILATION DUCTS, CASEWORK, AND SOFFITS, ETC.) MADE BY THE CUSTOMER OR REQUIRED BY A CUSTOMER'S ARCHITECTURAL FIRM ONCE PRELIMINARY DRAWINGS HAVE BEEN SUBMITTED AND APPROVED. DO NOT ALTER ANY SPECIFICATIONS AND/OR DIMENSIONS WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SIEMENS PROJECT MANAGER.

2) SIEMENS HEALTHCARE IS NOT AN ARCHITECTURAL OR ENGINEERING FIRM. DRAWINGS SUPPLIED BY SIEMENS ARE NOT CONSTRUCTION DRAWINGS. THEREFORE, THESE DRAWINGS ARE TO BE USED ONLY FOR INFORMATION TO COMPLEMENT ACTUAL CONSTRUCTION DRAWINGS AVAILABLE FROM A CUSTOMER APPOINTED ARCHITECTURAL REPRESENTATIVE OR A CUSTOMER'S ENGINEERING DESIGN GROUP. THE CUSTOMER'S ARCHITECT AND GENERAL CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE CODES AND PROFESSIONAL DESIGN REQUIREMENTS INCLUDING OSHA/NEC SAFETY CLEARANCE REQUIREMENTS IN ADDITION TO SIEMENS-REQUIRED SAFETY/SERVICE CLEARANCES SHOWN.

3) THE CUSTOMER IS RESPONSIBLE FOR ALL ROOM AND AREA PREPARATION COSTS, PROFESSIONAL FEES, PERMITS, REPORTS, AND INSPECTION FEES.

4) EQUIPMENT WARRANTIES, EXPRESSED OR IMPLIED ON THE PART OF SIEMENS SHALL BE CONTINGENT UPON STRICT COMPLIANCE WITH THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL AND RECOMMENDATIONS AND REQUIREMENTS CONTAINED IN THESE DRAWINGS, UNLESS SPECIFIED OTHERWISE.

5) ALL DIMENSIONS SHOWN ARE FROM FINISHED SURFACES UNLESS SPECIFIED OTHERWISE.

6) SIEMENS HEALTHCARE SHALL BE RESPONSIBLE FOR SIEMENS EQUIPMENT INSTALLATION, CALIBRATION, CONNECTION AND INSTALLATION OF SIEMENS PROVIDED CABLES. THE CUSTOMER/ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR TERMINATIONS OF CUSTOMER/ELECTRICAL CONTRACTOR-SUPPLIED CABLES TO SIEMENS EQUIPMENT. IN THE EVENT THAT SPECIFIC TRADE RULES OR LICENSE REQUIREMENTS PROHIBIT THIS, THE CUSTOMER SHALL INITIATE THE SERVICES OF APPROVED OTHER CONTRACTORS AND PAY FOR SELECTED, APPROVED PARTS TO PERFORM THIS WORK WITH SUPERVISION PROVIDED BY SIEMENS. CALIBRATION WHEN ACCOMPLISHED OUTSIDE OF NORMAL INSTALLATION SEQUENCES DUE TO CONTRACTOR OR TRADE RULE ACTIONS OR REQUIREMENTS SHALL BE SUPPORTED BY CHARGED TO, AND ACCEPTED BY THE CUSTOMER AS AN ADDITIONAL INSTALLATION EXPENSE.

7) THE CUSTOMER SHALL COORDINATE WITH SIEMENS PROJECT MANAGER THE LOCATIONS AND TRAVEL OF ALL ANCILLARY EQUIPMENT TO BE CEILING OR WALL MOUNTED (I.E., O.R. LIGHTS, MEDICAL GAS COLUMNS, PHYSIOLOGICAL MONITORING INJECTORS, CRT PLATFORMS, SPRINKLER HEADS, SMOKE DETECTORS, ELECTRICAL OUTLETS, HVAC GRILLES, SPEAKERS, AND GENERAL ROOM LIGHTING, ETC.).

8) THE GENERAL CONTRACTOR/CUSTOMER SHALL BE RESPONSIBLE FOR ALL FINAL PAINT, TOUCH-UP AND ANY COSMETIC OR TRIM WORK WHICH NEEDS TO BE OR IS REQUIRED TO BE COMPLETED AFTER THE INSTALLATION OF THE SIEMENS EQUIPMENT AND ANY ASSOCIATED SUPPORT APPARATUS.

9) CUSTOMER/CONTRACTOR MUST ASSIST SIEMENS INSTALLERS WITH INSTALLATION OF EQUIPMENT ABOVE 14'-0". REFER TO THE ELECTRICAL NOTES ON SIEMENS SHEET E-101 FOR MORE DETAILS.

CASEWORK & ACCESSORY NOTES

1) ALL CASEWORK IS EITHER EXISTING OR IS TO BE DESIGNED, DETAILED, FURNISHED AND INSTALLED BY THE CUSTOMER AND/OR CONTRACTOR. FOLLOW DESIGN RECOMMENDATIONS INCLUDED HEREWITH, AS THEY ARE ESSENTIAL FOR THE SUCCESSFUL INSTALLATION & OPERATION OF THE SIEMENS EQUIPMENT.

2) ALL FURNITURE (CHAIRS, ETC.) FOR THE CONTROL ROOM ARE TO BE PROVIDED BY THE CUSTOMER. REV 0

MAGNET CO-SITING

MINIMUM MAGNET TO MAGNET DISTANCE (SIEMENS)

	7.0T	3.0T	1.5T	1.0T	0.35T	0.2T
DISTANCE	32'-9"	19'-9"	19'-9"	19'-9"	32'-9"	32'-9"

TWO MAGNETS WITH THE SAME FREQUENCY ALIGNED IN THE Z AXIS WILL REQUIRE MORE SEPARATION DUE TO INCREASED RF COUPLING BETWEEN THE TWO SYSTEMS. THIS IS EVALUATED INDIVIDUALLY.

DO NOT RAMP ONE MAGNET WHILE THE OTHER IS RUNNING APPLICATIONS. SHIM IS ONLY OPTIMIZED WHEN BOTH MAGNETS ARE RAMPED UP DURING THE SHIMMING PROCEDURE.

WHEN CO-SITING AN MR SYSTEM WITH A MAGNETIC NAVIGATION SYSTEM THE MINIMUM DISTANCE FOR CLINICAL IMAGING IS 98'-6". FOR SPECTROSCOPY THE MINIMUM SEPARATION IS 121'-5". REV 0

OEM ACCESSORY ITEMS

FOR OEM (OUTSIDE EQUIPMENT MANUFACTURER) ITEMS THAT ARE SOLD AS ACCESSORIES TO THE SIEMENS MR SYSTEM (INJECTORS, LASER LIGHTS, ELASTOGRAPHY, CHILLERS, UPS, ETC.), PLEASE REFER TO THE SIEMENS PROJECT MANAGER AND THE ACTUAL EQUIPMENT VENDOR FOR TECHNICAL INFORMATION AND INSTALLATION REQUIREMENTS. REV 1

EXAM ROOM LIGHTING

THE MAGNETIC FIELD ADVERSELY AFFECTS THE OPERATING LIFE OF LIGHT BULBS LOCATED IN THE IMMEDIATE VICINITY OF THE MAGNET. THE FILAMENT IN THE BULBS OSCILLATES WITH THE FREQUENCY OF THE POWER SUPPLY. LIGHTS IN THE VICINITY OF THE MAGNET CONNECTED TO A DC POWER SUPPLY CAN REDUCE THIS EFFECT. RESIDUAL DC RIPPLE SHOULD BE LESS THAN 5%. REV 2

CONSTRUCTION REQUIREMENTS

THE CUSTOMER/CONTRACTOR IS RESPONSIBLE FOR SUPPLYING AND INSTALLING ALL CONSTRUCTION MATERIALS INCLUDING ELECTRICAL AND MECHANICAL DEVICES REQUIRED BY SIEMENS SPECIFICATIONS AND TO ENSURE THAT THE MATERIAL USED INSIDE THE RF-SHIELDING IS AS FREE OF FERROMAGNETIC PROPERTIES AS POSSIBLE. STEEL WALL STUDS ARE PERMITTED BUT MUST BE SECURED PROPERLY. ANY FERROUS MATERIAL INSIDE THE EXAM ROOM MAY BECOME A PROJECTILE AND CAUSE INJURY TO PEOPLE AND DAMAGE TO EQUIPMENT. FERROUS ITEMS INSIDE THE EXAM ROOM ARE THE LIABILITY OF THE CONTRACTOR AND/OR INSTALLER. REV 3

MAGNETIC FIELD WARNING

PLEASE BE AWARE THAT DURING THE CALIBRATION PHASE OF THE MRI INSTALLATION, THE MAGNET WILL BE AT FULL FIELD STRENGTH AND ALL NECESSARY PRECAUTIONS WHEN WORKING IN THE VICINITY OF STRONG MAGNETIC FIELDS MUST BE TAKEN. WHEN THE CALIBRATION OF THE MAGNET OVERLAPS WITH FINAL CONSTRUCTION ACTIVITIES, THERE IS THE POSSIBILITY OF THE INTRODUCTION OF FERROUS MAGNETIC OBJECTS BY WORKERS INTO THE MRI ROOM. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO ENSURE THAT ALL PRECAUTIONS ARE TAKEN TO ENSURE THAT THIS DOES NOT HAPPEN, AS EQUIPMENT DAMAGE AND SERIOUS BODILY INJURY COULD OCCUR. REV 0

RESOURCE LIST (SMS USE ONLY)

DESIGNATION	PG NUMBER	DATE
PLANNING GUIDE	M11-010.891.01.03.02	11.19

ATTENTION:

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SYM	DATE	DESCRIPTION
⊖	04/04/22	REMOVED SMS SUPPLIED CHILLER USING FACILITY CHILLED WATER
⊖	03/09/21	2100552RA DATED 02/08/21 APPROVED BY CUSTOMER FOR FINALS

PROJECT MANAGER: JESSE HULSEY
 TEL: (602) 300-2149 EXT:
 FAX:
 EMAIL: jesse.hulsey@siemens-healthineers.com

SCALE: AS NOTED REF. # 30257551

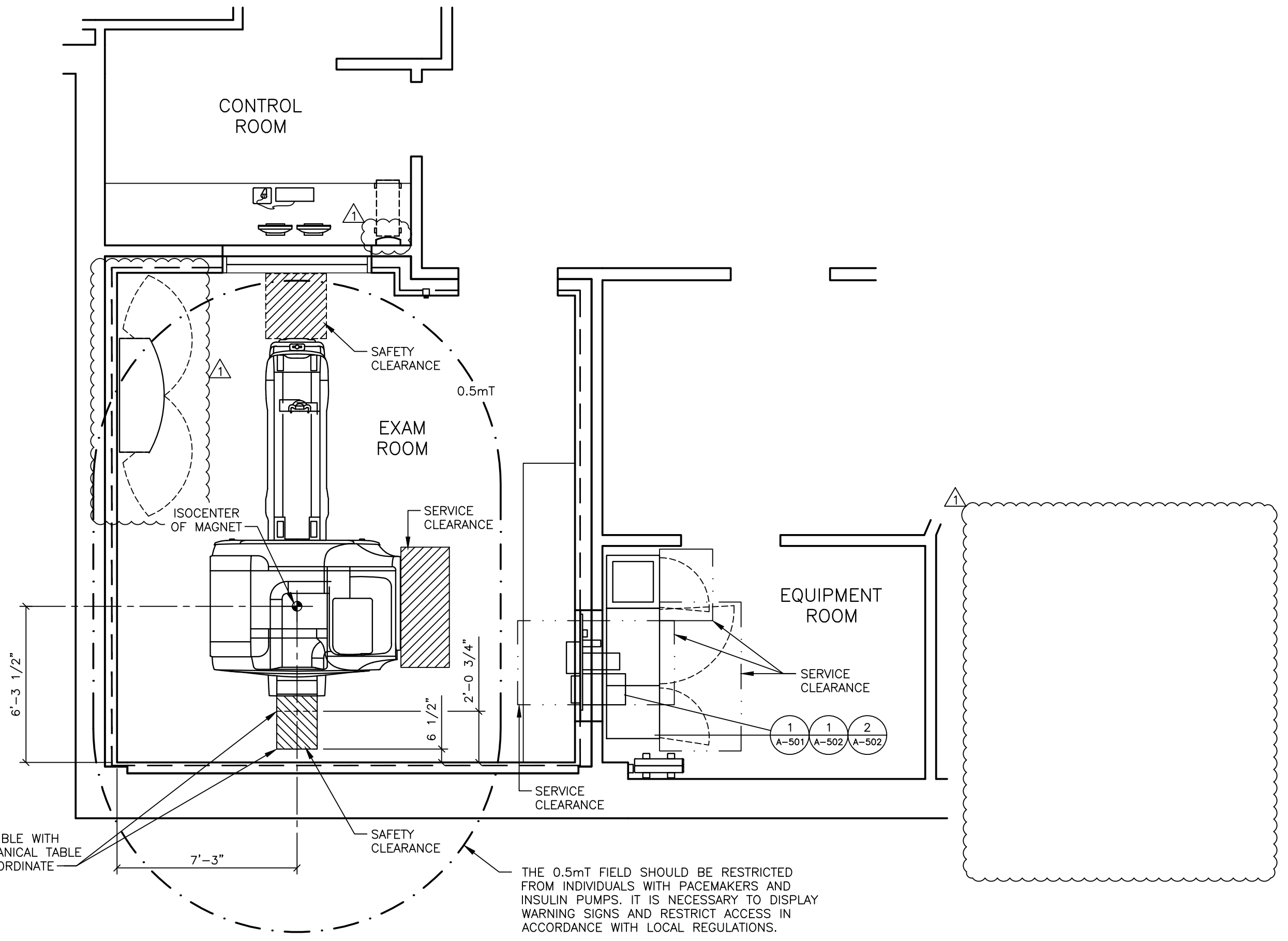
SIEMENS

BARTLETT REGIONAL HOSPITAL

3260 HOSPITAL DR, JUNEAU, AK 99801-7808
 MRI SUITE - MRI - MAGNETOM SOLA XJ GRADIENTS

PROJECT #: **2100552** SHEET: **A-101**

DATE: 03/09/21 DRAWN BY: D. BRISTOE

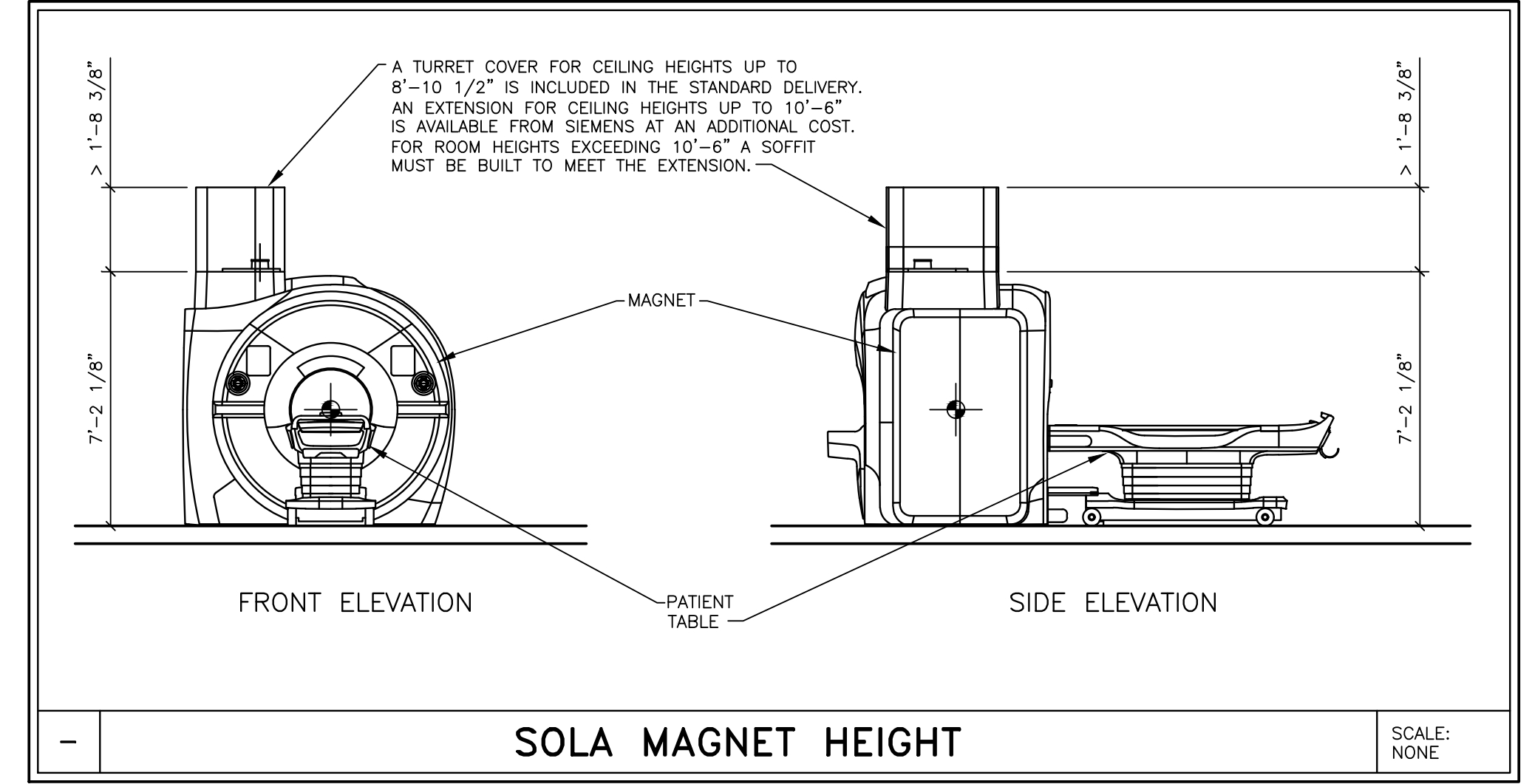


THIS LAYOUT IS ONLY POSSIBLE WITH THE INSTALLATION OF MECHANICAL TABLE STOPS. SIEMENS PM TO COORDINATE.

THE 0.5mT FIELD SHOULD BE RESTRICTED FROM INDIVIDUALS WITH PACEMAKERS AND INSULIN PUMPS. IT IS NECESSARY TO DISPLAY WARNING SIGNS AND RESTRICT ACCESS IN ACCORDANCE WITH LOCAL REGULATIONS.

SAFETY/SERVICE CLEARANCE PLAN

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

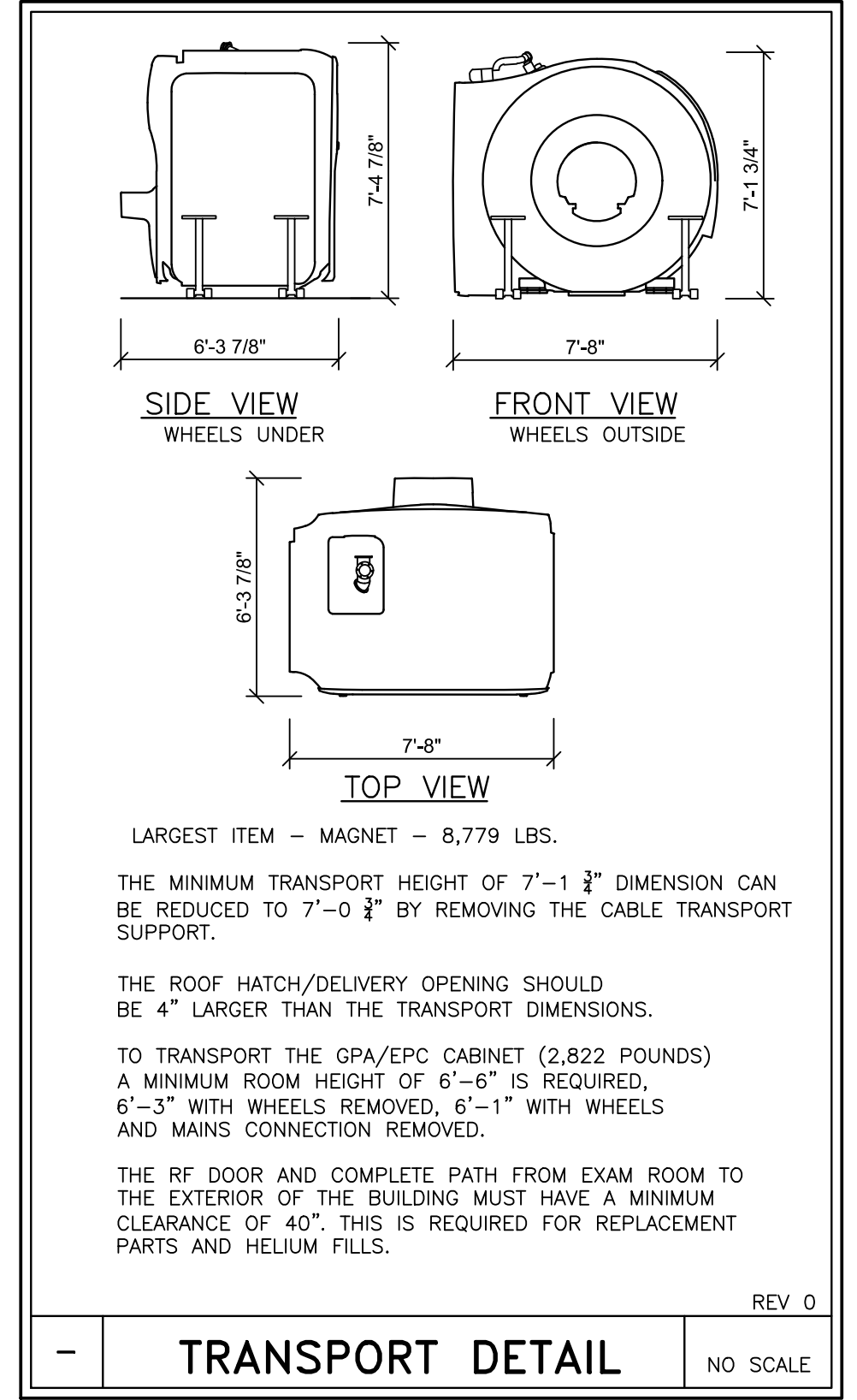


NOISE LEVELS X J GRADIENTS

SYSTEM ROOM	NOISE LEVEL / dB(A)
CONTROL ROOM	<55
EXAMINATION ROOM	80.3 dB(A) - 8 HOUR AVERAGE 98.7 dB(A) MAXIMUM, MEASURED INSIDE THE EXAM ROOM.
EQUIPMENT ROOM	<65

NOISE LEVELS ARE BASED ON AN AVERAGE MEASUREMENT OVER 8 HOURS OF CLINICAL SCANNING. PEAK LEVELS MAY BE HIGHER FOR CERTAIN SEQUENCES.

IT IS THE CUSTOMER'S RESPONSIBILITY TO ENSURE THAT ALL LOCAL/STATE/OSHA NOISE REGULATIONS ARE ADHERED TO. ADDITIONAL NOISE DATA MAY BE PROVIDED BY SIEMENS PROJECT MANAGER UPON REQUEST.
03/19/18



SURFACE COIL STORAGE

SURFACE COILS ARE COMPONENTS OF THE MRI SYSTEM THAT ARE ATTACHED TO THE PATIENT TABLE DURING EXAMS. WHEN NOT IN USE COILS SHOULD BE STORED SO THAT THEY ARE FREE FROM DAMAGE. THE DESIGN OF THE MR EXAM ROOM MUST HAVE AMPLE STORAGE SPACE TO ACCOMMODATE ANY COILS THAT THE OWNER WILL HAVE. COILS MAY BE SELECTED FROM THE LIST BELOW. STORAGE PROVIDED BY CUSTOMER/CONTRACTOR.

COIL NAME	POUND WEIGHT	INCHES		
		LENGTH	WIDTH	HEIGHT
BIOMATRIX HEAD/NECK 20	13	16 3/4	14 5/8	15 1/8
BIOMATRIX SPINE 32	23	47 1/4	19 1/4	3
BODY 18	4	15 1/8	23 1/4	3
FLEX LARGE 4	1.2	20 3/8	8 7/8	-
FLEX SMALL 4	1	14 3/8	8 7/8	-

CEILING HEIGHTS

EXAM ROOM 7'-11" MINIMUM
CONTROL ROOM 6'-11" MINIMUM
EQUIPMENT ROOM 7'-3" MINIMUM

PROJECT MANAGER: JESSE HULSEY
TEL: (602) 300-2149 EXT:
VMAIL:
FAX:
EMAIL: jesse.hulsey@siemens-healthineers.com

SIEMENS

BARTLETT REGIONAL HOSPITAL
3260 HOSPITAL DR, JUNEAU, AK 99801-7808
MRI SUITE - MRI - MAGNETOM SOLA XJ GRADIENTS

PROJECT #: **2100552** SHEET: **A-102**

THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.

ALL RIGHTS ARE RESERVED.

DATE: 03/09/21 DRAWN BY: D. BRISTOE

SCALE: AS NOTED REF. # 30257551

SYMBOLS:
04/04/22 REMOVED SMS SUPPLIED CHILLER USING FACILITY CHILLED WATER 2100552RA DATED 02/08/21 APPROVED BY CUSTOMER FOR FINALS
03/09/21

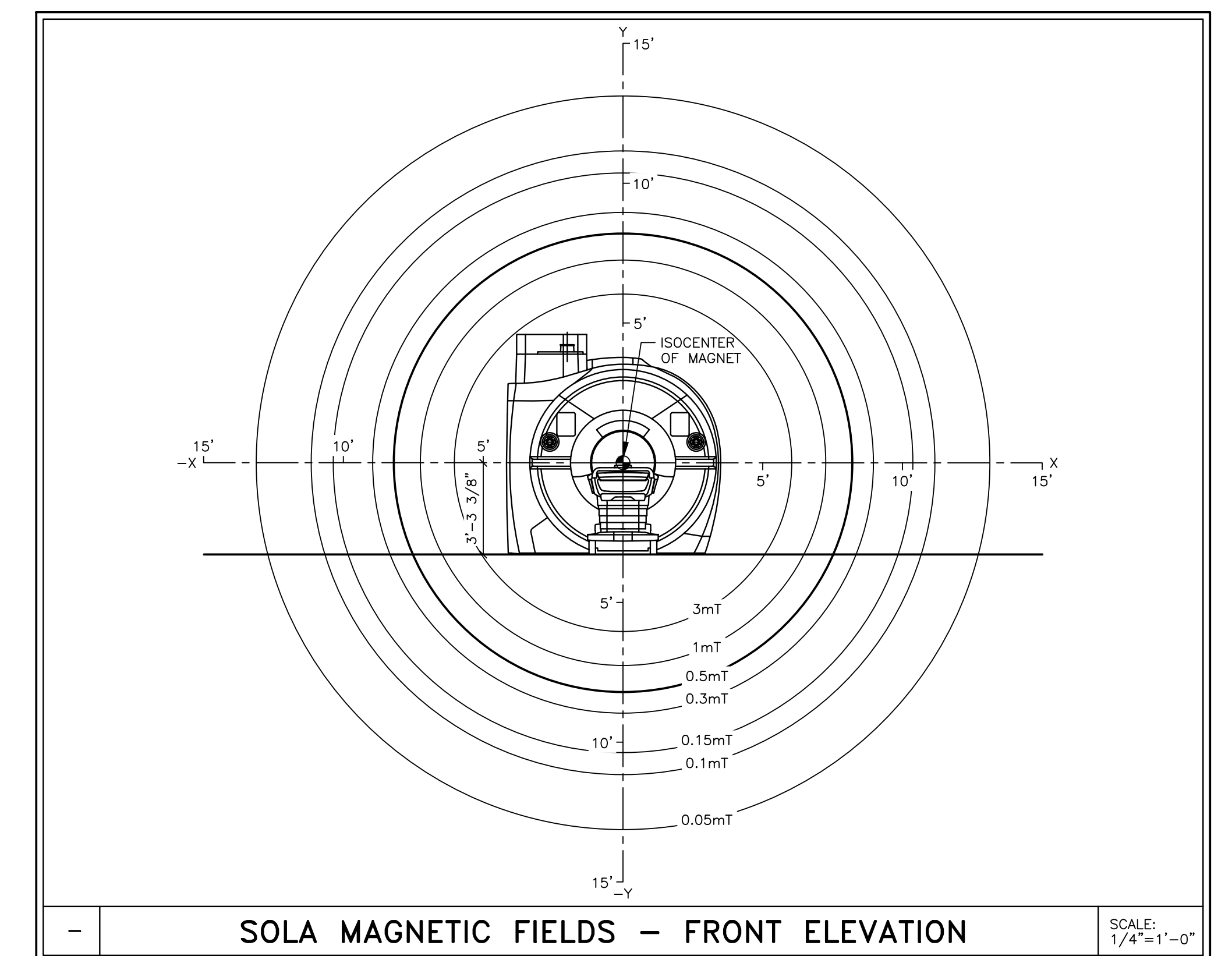
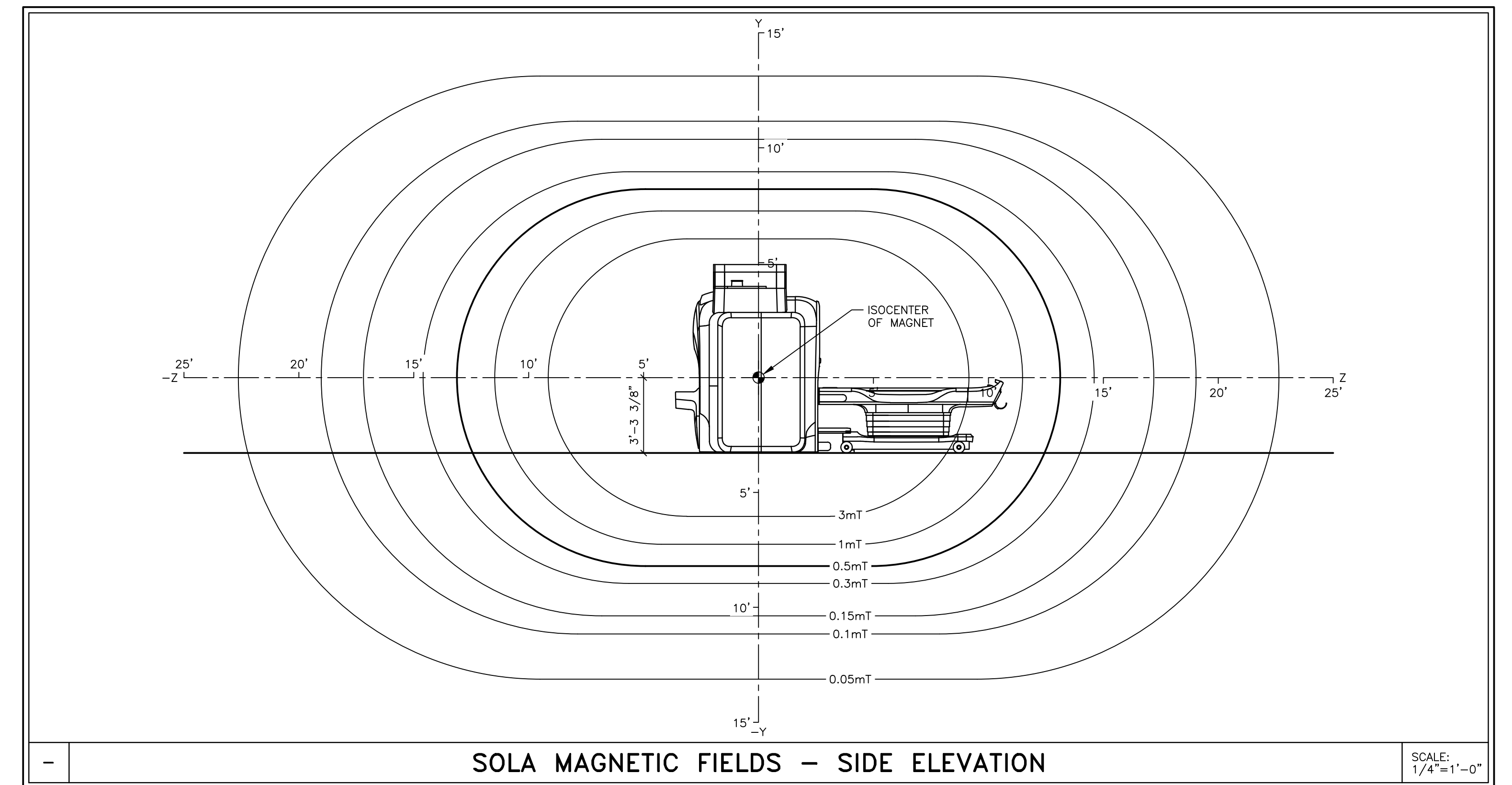
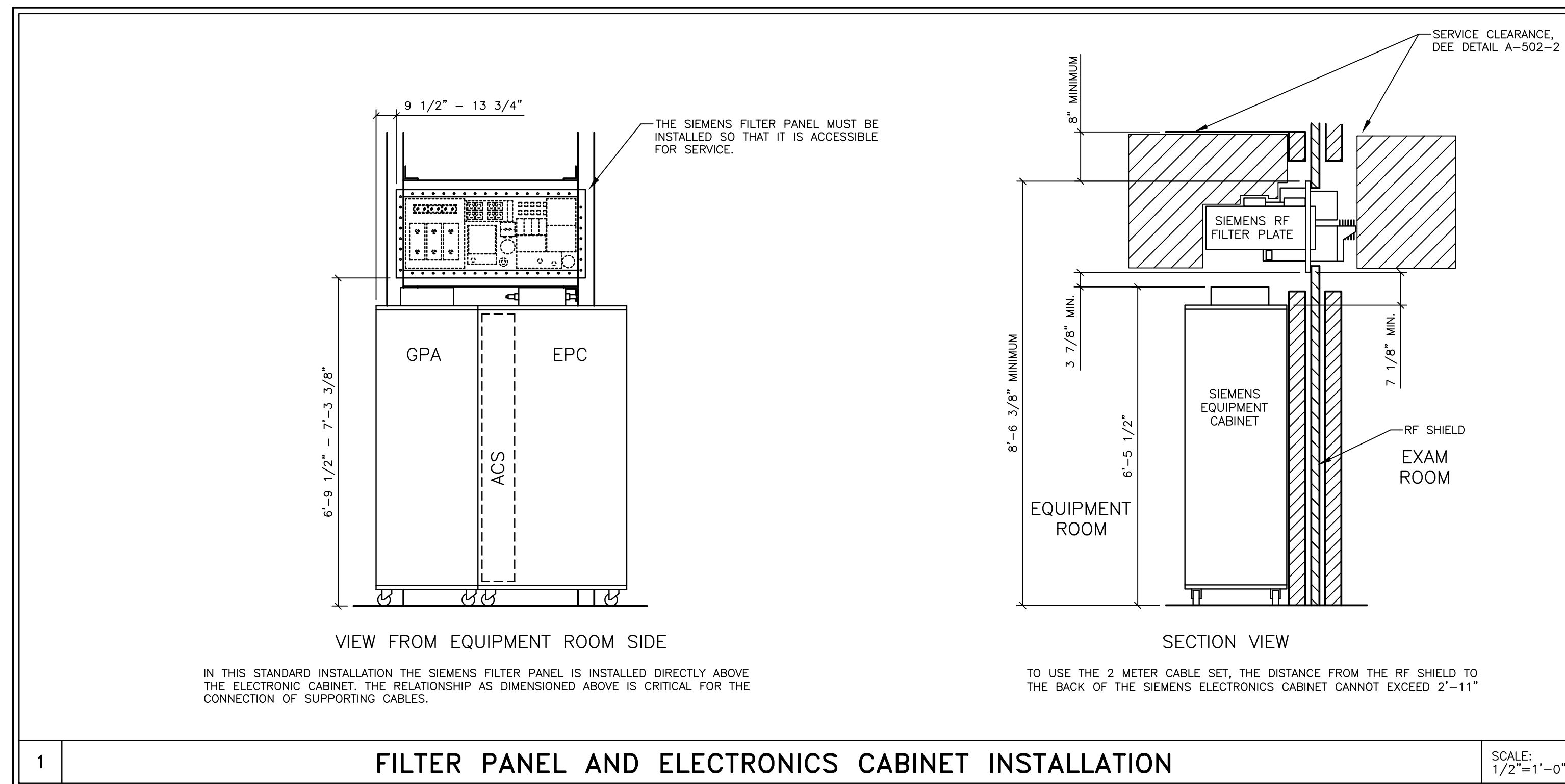
DATE DESCRIPTION
-ISSUE BLOCK-

ATTENTION:

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SOLA
REV 14

PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 VMAIL: FAX: EMAIL: jesse.hulsey@siemens-healthineers.com		SIEMENS	
REMOVED SMS SUPPLIED CHILLER USING FACILITY CHILLED WATER 2100552RA DATED 02/08/21 APPROVED BY CUSTOMER FOR FINALS		THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.	
04/04/22		PROJECT #: 2100552	
03/09/21		SHEET: A-501	
SYMBOL		DATE	
DESCRIPTION		DRAWN BY: D. BRISTOE	
-ISSUE BLOCK-		DATE: 03/09/21	
SCALE: AS NOTED		REF. # 30257551	

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REFERENCE DOCUMENT - NOT FOR CONSTRUCTION

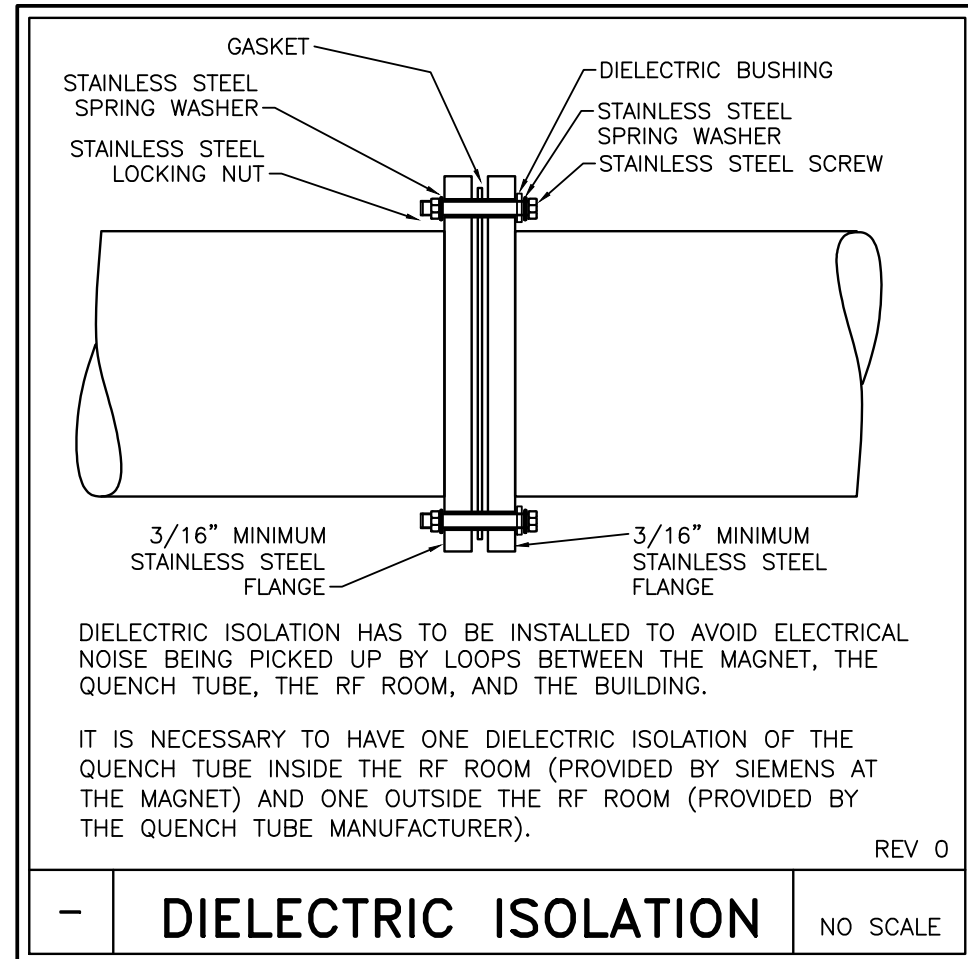
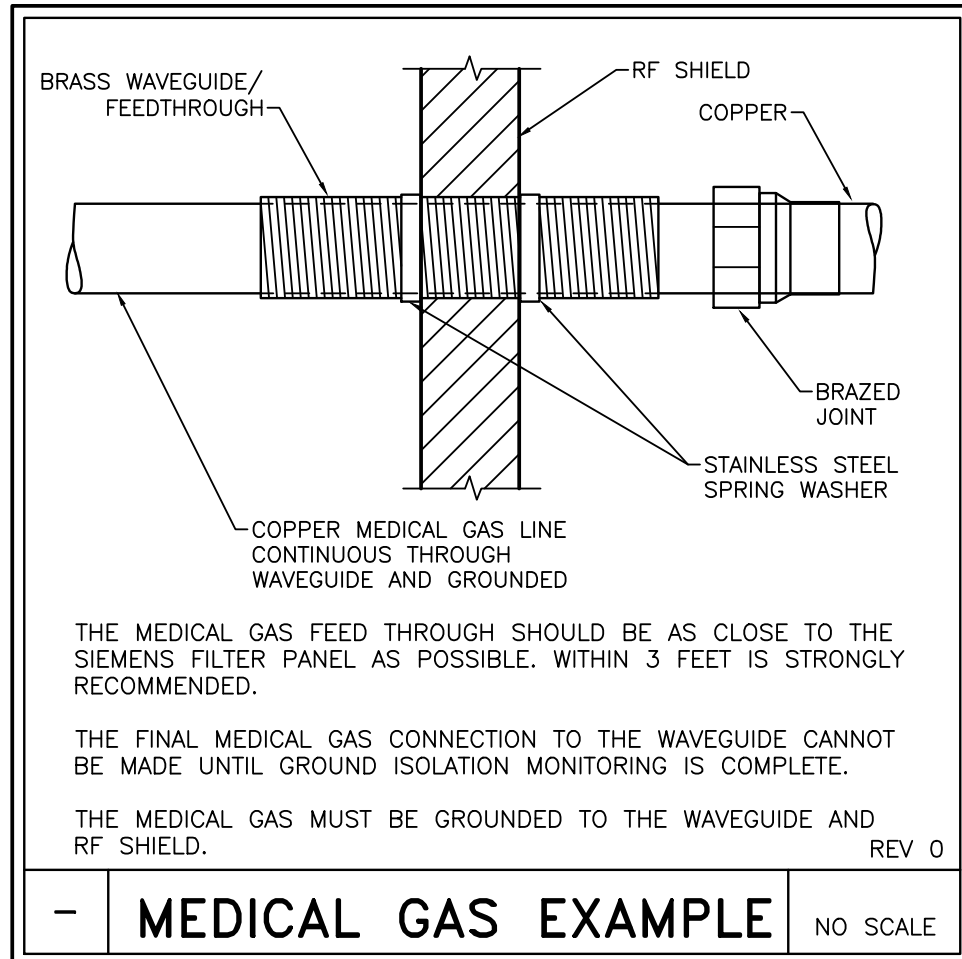
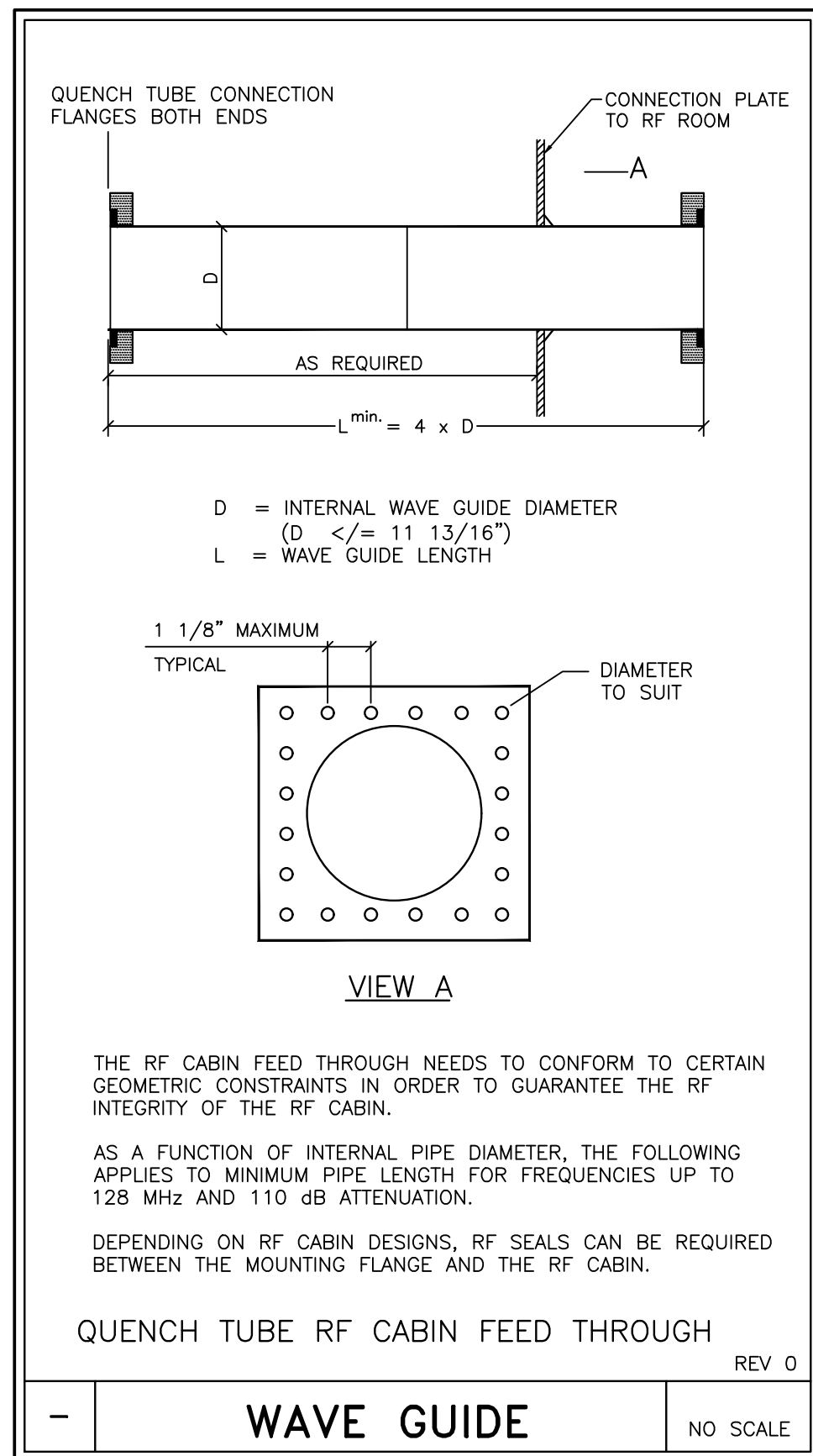


IMAGE QUALITY CONCERNS

BROADBAND RF NOISE IS A SINGLE TRANSIENT OR CONTINUOUS SERIES OF TRANSIENT DISTURBANCES CAUSED BY AN ELECTRICAL DISCHARGE. LOW HUMIDITY ENVIRONMENTAL CONDITIONS WILL HAVE HIGHER PROBABILITY OF ELECTRICAL DISCHARGE. THE ELECTRICAL DISCHARGE CAN OCCUR DUE TO ELECTRICAL ARCING OR MERELY STATIC DISCHARGE. SOME POTENTIAL SOURCES CAPABLE OF PRODUCING ELECTRICAL DISCHARGE INCLUDE:

- LOOSE HARDWARE/FASTENERS-VIBRATION OR MOVEMENT (ELECTRICAL CONTINUITY MUST ALWAYS BE MAINTAINED).
- FLOORING MATERIAL INCLUDING RAISED ACCESS FLOORING (PANELS AND SUPPORT HARDWARE) AND CARPETING.
- ELECTRICAL FIXTURES (LIGHTING FIXTURES, TRACK LIGHTING, EMERGENCY LIGHTING, BATTERY CHARGERS, OUTLETS).
- DUCTING FOR HVAC AND CABLE ROUTING.
- RF SHIELD SEALS (WALLS, DOORS, WINDOWS, ETC.).

REV 0



RF DOOR OPENING

IN THE EVENT OF A CATASTROPHIC FAILURE OF THE QUENCH VENT DURING A QUENCH, PRESSURE BUILT UP MAY PREVENT OPENING A DOOR THAT OPENS INTO THE RF ROOM, PREVENTING EVACUATION FROM LIFE THREATENING CONDITIONS.

FOR THIS REASON THE RF DOOR SHOULD OPEN TO THE OUTSIDE OF THE RF ROOM. IF THE DOOR CANNOT OPEN OUT FROM THE RF ROOM, OTHER APPROPRIATE MEANS HAVE TO BE PROVIDED SO THAT THE RF ROOM DOOR IS NOT PREVENTED FROM OPENING DUE TO PRESSURE.

IF THE DOOR OPENS INTO THE RF ROOM, A 24"x24" OPENING FOR PRESSURE EQUALIZATION INTO THE RF ROOM MUST BE INSTALLED. THIS IS MANDATORY. THIS IS NOT AN ESCAPE HATCH. THE PURPOSE OF THE OPENING IS TO RELIEVE PRESSURE AND ALLOW THE MAIN DOOR TO BE OPENED SO THAT OCCUPANTS CAN BE EVACUATED.

THE OPENINGS WILL HAVE PANELS INSTALLED IN THE RF ROOM OR THE DOOR THAT CAN BE UNLOCKED AND OPENED TO THE OUTSIDE IN CASE OF EMERGENCY. THESE PANELS REQUIRE AN RF SEALED INSTALLATION. AFTER OPENING THE PANEL, THE OUTLET SHOULD MEASURE AT LEAST 24"x24". WHEN USING RECTANGULAR PANELS, THE SHORTER SIDE SHOULD MEASURE OF MINIMUM OF 24".

TO ENSURE UNOBSTRUCTED VENTING, THIS OPENING CANNOT BE SUBDIVIDED. THIS MEANS THAT, FOR EXAMPLE, RF SEALED HONEYCOMB GRIDS ARE NOT PERMITTED.

EASY REMOVAL OF THE PANEL BY A PERSON HAS TO BE ENSURED AND A MINIMUM DISTANCE OF 40" TO A FIXED OBJECT MUST BE MAINTAINED. THE PANEL SHOULD BE INSTALLED IN AN ACCESSIBLE LOCATION AND ALLOW ESCAPE OF THE LOW DENSITY HELIUM.

AS AN ALTERNATIVE TO AN OUT SWING DOOR, THE STATIONARY OBSERVATION WINDOW IS REPLACED BY A WINDOW OPENING INTO THE CONTROL AREA OR THE DOOR IS REPLACED WITH AN RF SEALED SLIDING DOOR. IT SHOULD BE ENSURED THAT THE DOOR CLOSES IN A WAY THAT ALLOWS IT TO MOVE AWAY FROM THE FRAME IN CASE OF OVERPRESSURE.

IF THE DOOR OPENS TO THE OUTSIDE, THE OPENING IN THE RF ROOM IS STILL RECOMMENDED.

THE RF ROOM MANUFACTURER CAN PROVIDE YOU WITH ADDITIONAL RF SEALED ROOM OPENINGS THAT LEAD DIRECTLY TO THE OUTSIDE. HOWEVER, THESE OPENINGS ARE ALSO CONDUITS FOR NOISE GENERATED OUTSIDE THE RF ROOM. UNOBSTRUCTED FLOW THROUGH THIS PIPE MUST BE GUARANTEED.

SAFETY ASPECTS FOR THE RF ROOM:
IT MUST BE POSSIBLE TO LOCK THE RF ROOM (EXAMINATION ROOM) DOOR FROM THE OUTSIDE. IT MUST ALSO BE POSSIBLE TO OPEN THE DOOR FROM THE INSIDE WITHOUT A KEY OR ADDITIONAL DEVICE.

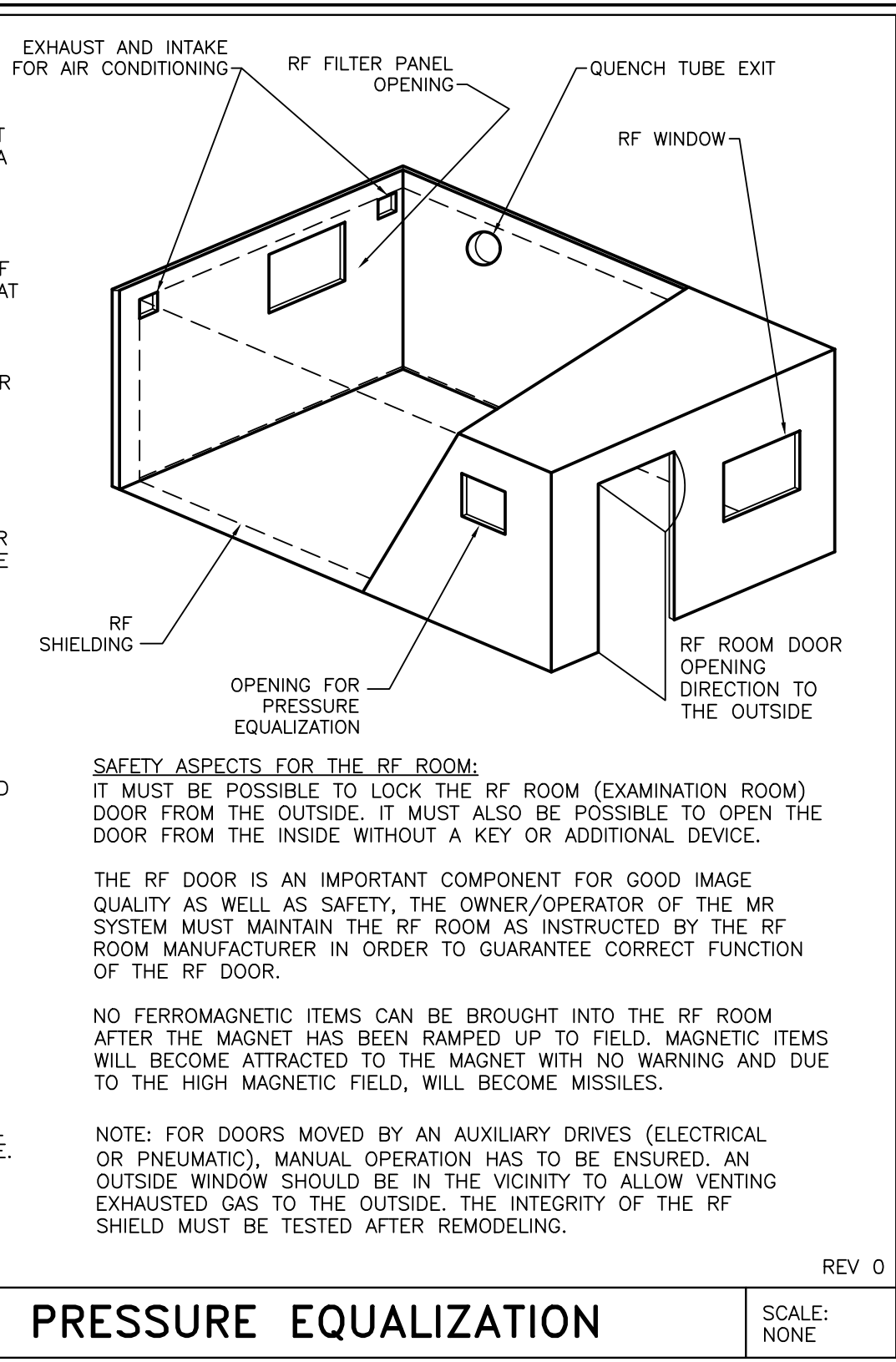
THE RF DOOR IS AN IMPORTANT COMPONENT FOR GOOD IMAGE QUALITY AS WELL AS SAFETY. THE OWNER/OPERATOR OF THE MR SYSTEM MUST MAINTAIN THE RF ROOM AS INSTRUCTED BY THE RF ROOM MANUFACTURER IN ORDER TO GUARANTEE CORRECT FUNCTION OF THE RF DOOR.

NO FERROMAGNETIC ITEMS CAN BE BROUGHT INTO THE RF ROOM AFTER THE MAGNET HAS BEEN RAMPED UP TO FIELD. MAGNETIC ITEMS WILL BECOME ATTRACTED TO THE MAGNET WITH NO WARNING AND DUE TO THE HIGH MAGNETIC FIELD, WILL BECOME MISSILES.

NOTE: FOR DOORS MOVED BY AN AUXILIARY DRIVES (ELECTRICAL OR PNEUMATIC), MANUAL OPERATION HAS TO BE ENSURED. AN OUTSIDE WINDOW SHOULD BE IN THE VICINITY TO ALLOW VENTING EXHAUSTED GAS TO THE OUTSIDE. THE INTEGRITY OF THE RF SHIELD MUST BE TESTED AFTER REMODELING.

REV 0

SAFETY INFORMATION - PRESSURE EQUALIZATION SCALE: NONE



RF SHIELDING

- 1) THE EXAMINATION AREA MUST BE SHIELDED TO PROVIDE A REDUCTION OF RADIO FREQUENCY WAVES EMANATING FROM EXTERNAL TRANSMITTERS. THE REQUIRED ATTENUATION IS 90dB IN THE FREQUENCY RANGE OF 15-128 MHz. IF CO-SITING TWO SYSTEMS EACH ROOM SHOULD BE 100 dB.
- 2) THE RF SHIELD MUST BE TESTED BEFORE AND AFTER MAGNET PLACEMENT IN THE RF ROOM AND AFTER THE SIEMENS RF FILTER PANEL IS INSTALLED. THE RF-SHIELDING MUST BE INSULATED FROM ALL GROUNDS SUCH THAT THE ONLY GROUND IS THE SINGLE POINT GROUND ON THE OUTSIDE OF THE RF-ROOM WALL. RESISTANCE ≥ 100 OHMS.
- 3) ALL ELECTRICAL LINES INTO THE RF ROOM MUST BE ROUTED THROUGH RF FILTERS (PROVIDED BY RF SHIELDING SUPPLIER). ALL ELECTRICALLY NON-CONDUCTIVE SUPPLY LINES (E.G. FIBER OPTIC CABLES, OR HOSES) INTO THE RF ROOM MUST BE ROUTED THROUGH RF SEALED WAVE GUIDES (PROVIDED BY RF SHIELDING SUPPLIER).
- 4) FOR PRESSURE EQUALIZATION PURPOSES THE RF DOOR SHOULD OPEN TO THE OUTSIDE OF THE RF ROOM. AS AN ALTERNATIVE A 24"x24" OPENING IN THE RF ROOM FOR PRESSURE EQUALIZATION IS REQUIRED.

REV 1

SHIELDING GENERAL NOTES

- 1) SIEMENS REQUESTS THAT THE SHIELDING MANUFACTURER(S) SUBMIT FINAL SHOP DRAWINGS TO SIEMENS FOR REVIEW PRIOR TO THEIR INCLUSION IN CONSTRUCTION DOCUMENTS. SIEMENS SHALL BE COPIED ON ALL FIELD ORDER CHANGES CONCERNING CHANGES IN RF AND MAGNETIC SHIELDING CONDITIONS, CONFIGURATION AND SPECIFICATION. THE RF AND MAGNETIC SHIELDING CONTRACTOR(S) SHALL FURNISH "AS BUILT" SCALED AND DIMENSIONED PLANS REFLECTING ANY AND ALL FIELD ORDER CHANGES PRIOR TO THE COMPLETION OF THE CONSTRUCTION DOCUMENTS.
- 2) ALL CHANGES TO SIEMENS RECOMMENDED OPENINGS AND PENETRATIONS SHALL BE APPROVED BY THE SIEMENS PROJECT MANAGER PRIOR TO THE COMPLETION OF THE CONSTRUCTION DOCUMENTS.
- 3) THE SIZE, LOCATION, AND DIMENSIONS OF ANY MAGNETIC SHIELDING REQUIRED HAS BEEN DETERMINED BY SIEMENS. THIS INFORMATION HAS BEEN SUPPLIED TO THE MAGNETIC SHIELDING FABRICATOR TO DESIGN THE STRUCTURAL SUPPORT SYSTEM REQUIRED FOR THE MAGNETIC SHIELDING MATERIAL.

REV 0

EXAM ROOM INTERIOR NOTES

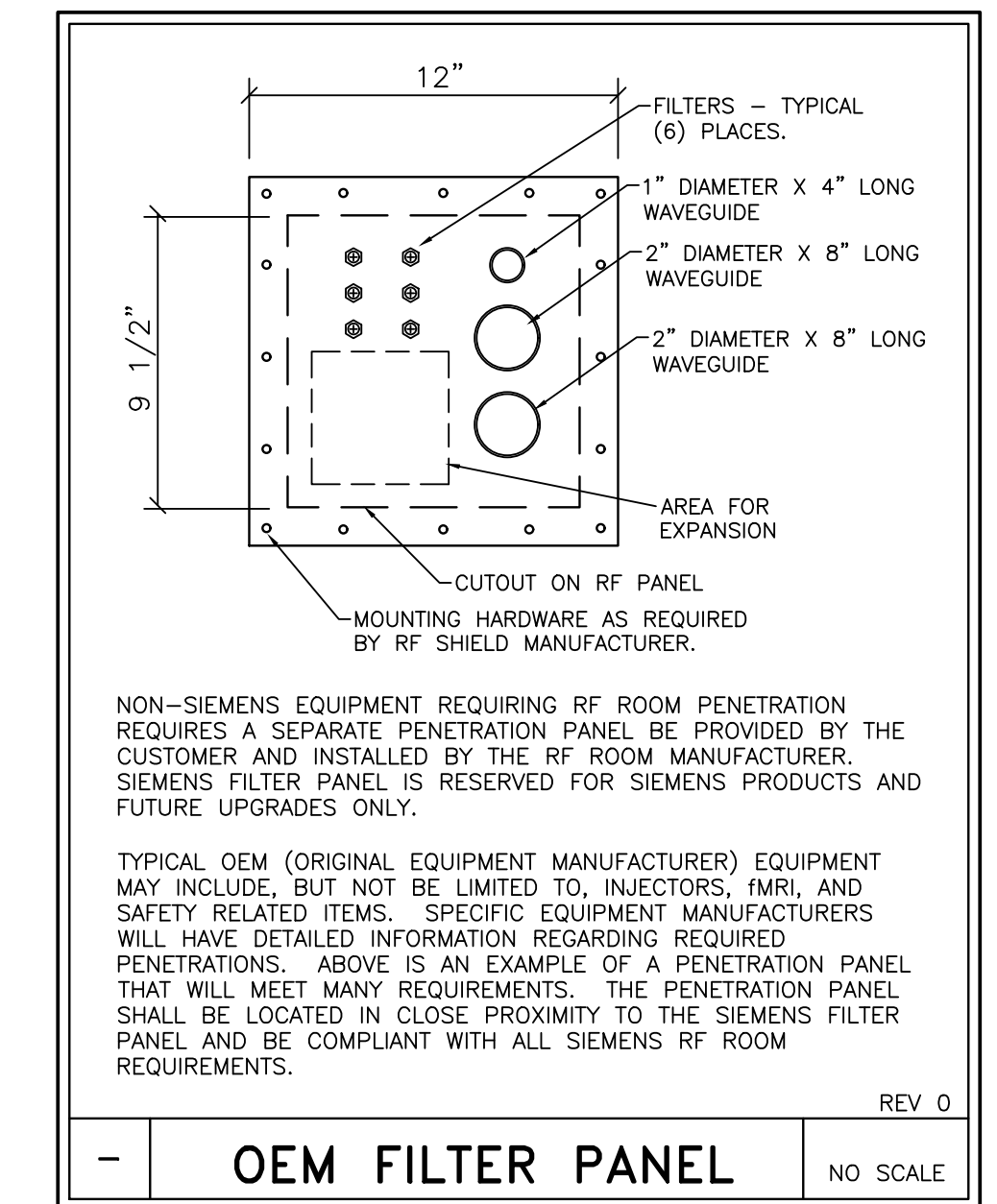
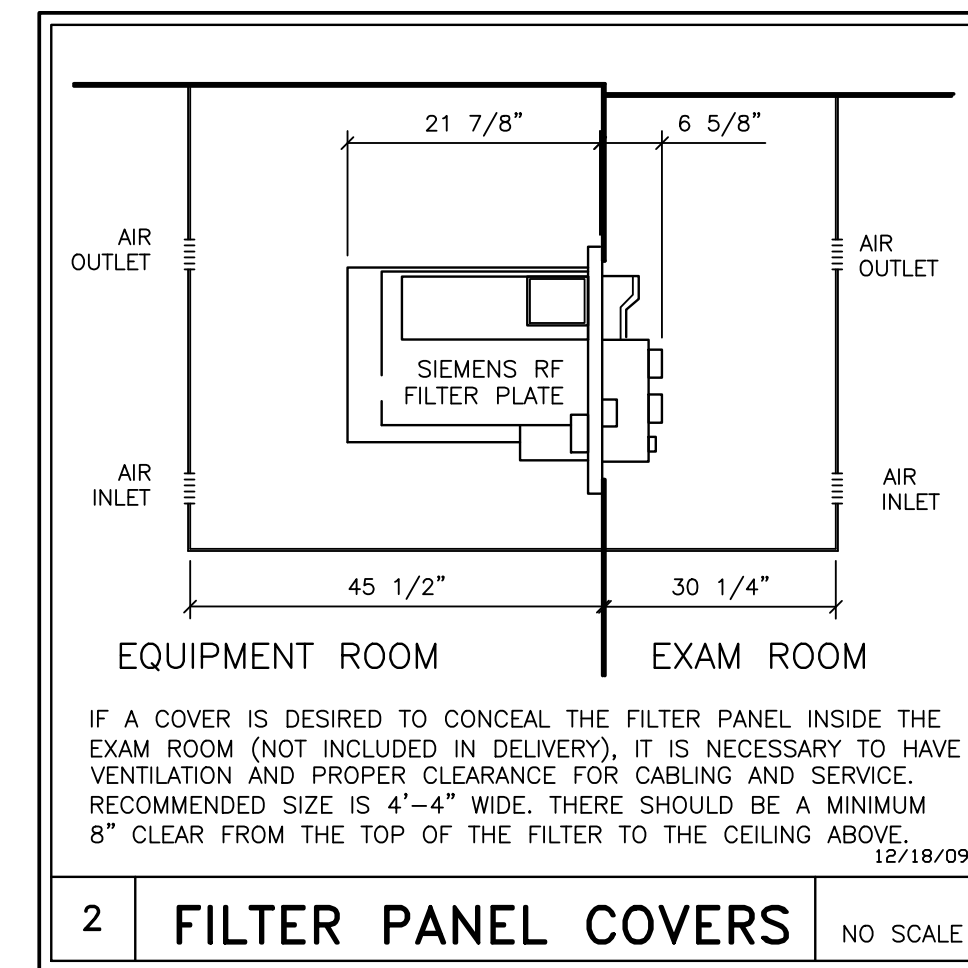
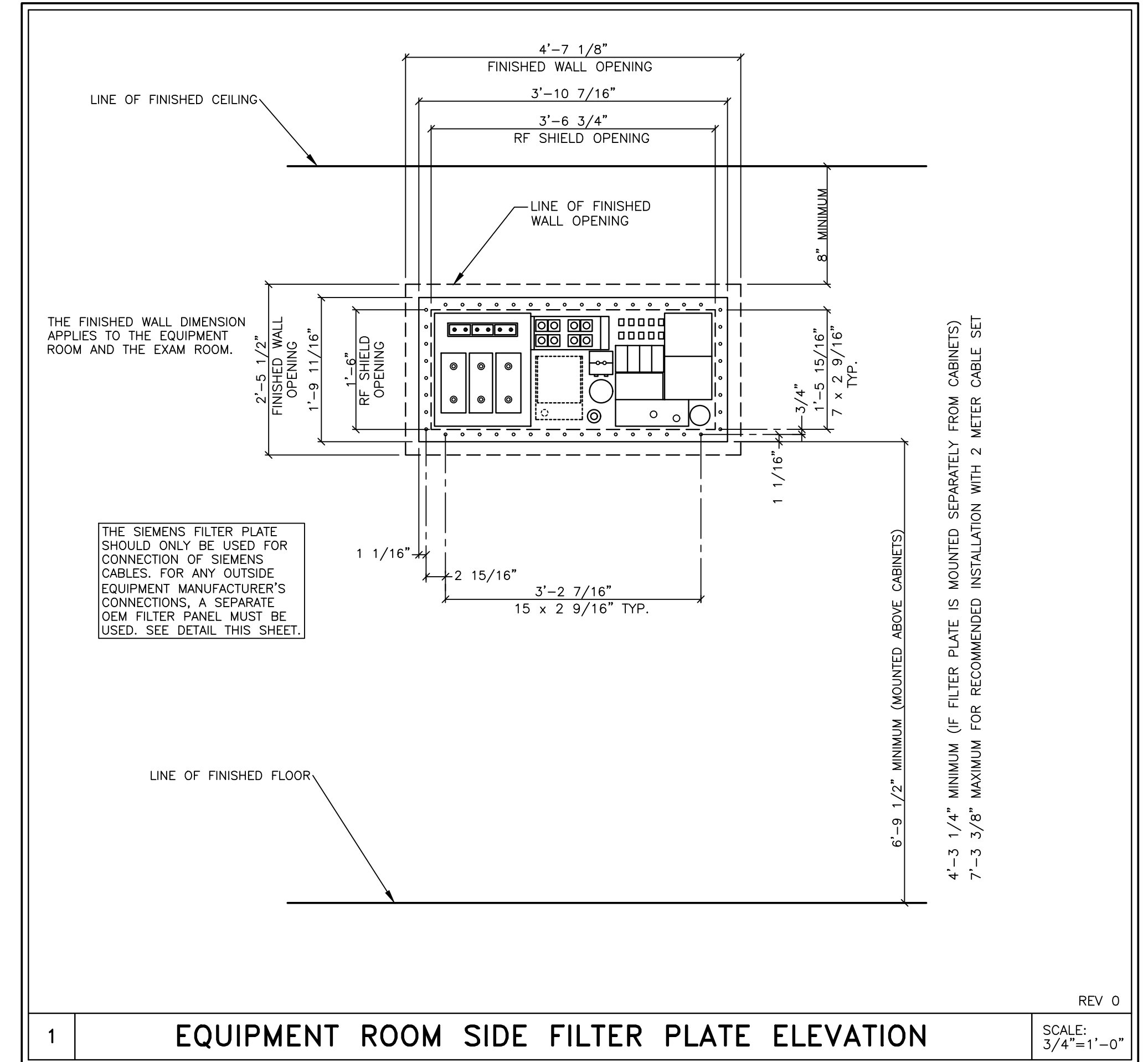
- 1) ONLY NON-MAGNETIC MATERIALS ARE TO BE USED AND INSTALLED IN THE RF ROOM. SEE CONSTRUCTION REQUIREMENTS.
- 2) A SUSPENDED CEILING MUST BE STATICALLY SUSPENDED, NOT SUSPENDED WITH MOVABLE CLAMPS, SPRINGS, ETC.
- 3) RODS IN SUSPENDED CEILINGS MUST BE INSTALLED SECURELY. GALVANIC CONTACT BETWEEN THE RODS MUST BE GUARANTEED. THEY MUST NOT JUST LIE ON TOP OF ONE ANOTHER. A WIRE JUMPER BETWEEN RODS MAY BE USEFUL.
- 4) ELECTRICAL WIRING, FOR AMBIENT LIGHTS FOR EXAMPLE, MUST NOT SIMPLY REST ON THE SUSPENDED CEILING. THEY MUST BE FASTENED OR INSIDE A CONDUIT TO PREVENT MOTION.

REV 1

FILTER PLATE GENERAL NOTES

- 1) STRUCTURAL SUPPORT AND INTEGRATION OF THE SIEMENS SUPPLIED AND INSTALLED FILTER PLATE WITH MAGNETIC AND RF SHIELDING SHALL BE SPECIFIED, DETAILED AND NOTED BY THE RF AND MAGNETIC SHIELDING MANUFACTURER(S) WITH OVERALL COORDINATION WITH SIEMENS SITE SPECIFIC RECOMMENDATIONS TO BE THE RESPONSIBILITY OF THE ARCHITECT OF RECORD.
- 2) THE FILTER PLATE FRAME, RF FILTER PLATE BLANK, RF GASKET AND MOUNTING HARDWARE FOR THE PURPOSES OF TESTING THE INTEGRITY OF THE RF ENCLOSURE PRIOR TO THE INSTALLATION OF THE SIEMENS SUPPLIED AND INSTALLED RF FILTER PLATE SHALL BE PROVIDED AND INSTALLED BY THE SHIELDING CONTRACTOR(S) UNLESS SPECIFIED OTHERWISE.

REV 0



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PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 FAX: EMAIL: jesse.hulsey@siemens-healthineers.com		SIEMENS	
PROJECT #: 2100552		SHEET: A-502	
DATE: 03/09/21		DRAWN BY: D. BRISTOE	
SCALE: AS NOTED		REF. # 30257551	
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THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.			
SYM		DESCRIPTION	
04/04/22	△	REMOVED SMS SUPPLIED CHILLER USING FACILITY CHILLED WATER	
03/09/21	△	2100552RA DATED 02/08/21 APPROVED BY CUSTOMER FOR FINALS	
-ISSUE BLOCK-			

PROJECT #:
2100552

SHEET:
A-502

DATE: 03/09/21

DRAWN BY:
D. BRISTOE

SCALE: AS NOTED

REF. # 30257551

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SYM DESCRIPTION

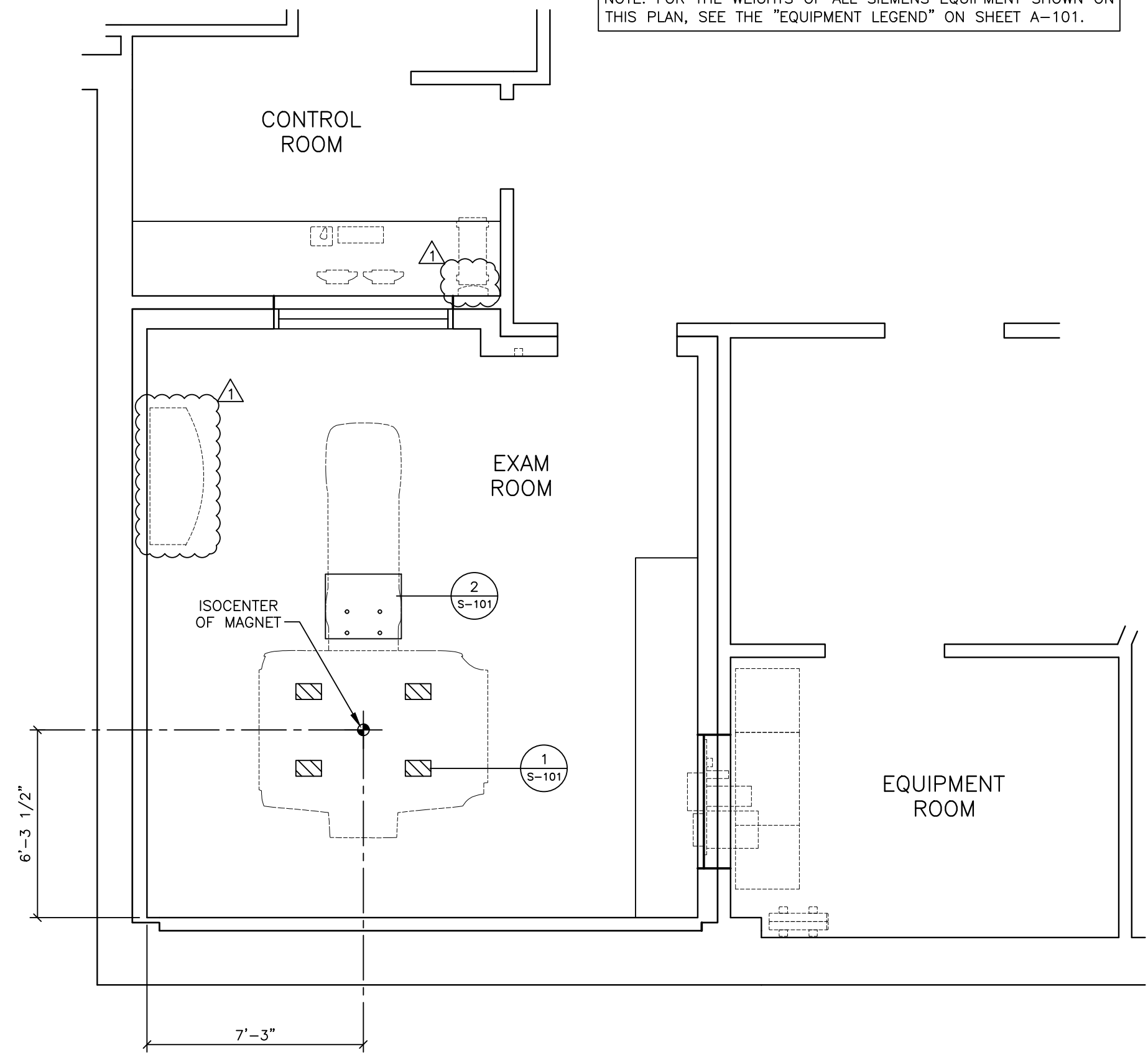
04/04/22 △ REMOVED SMS SUPPLIED CHILLER USING FACILITY CHILLED WATER

03/09/21 △ 2100552RA DATED 02/08/21 APPROVED BY CUSTOMER FOR FINALS

-ISSUE BLOCK-

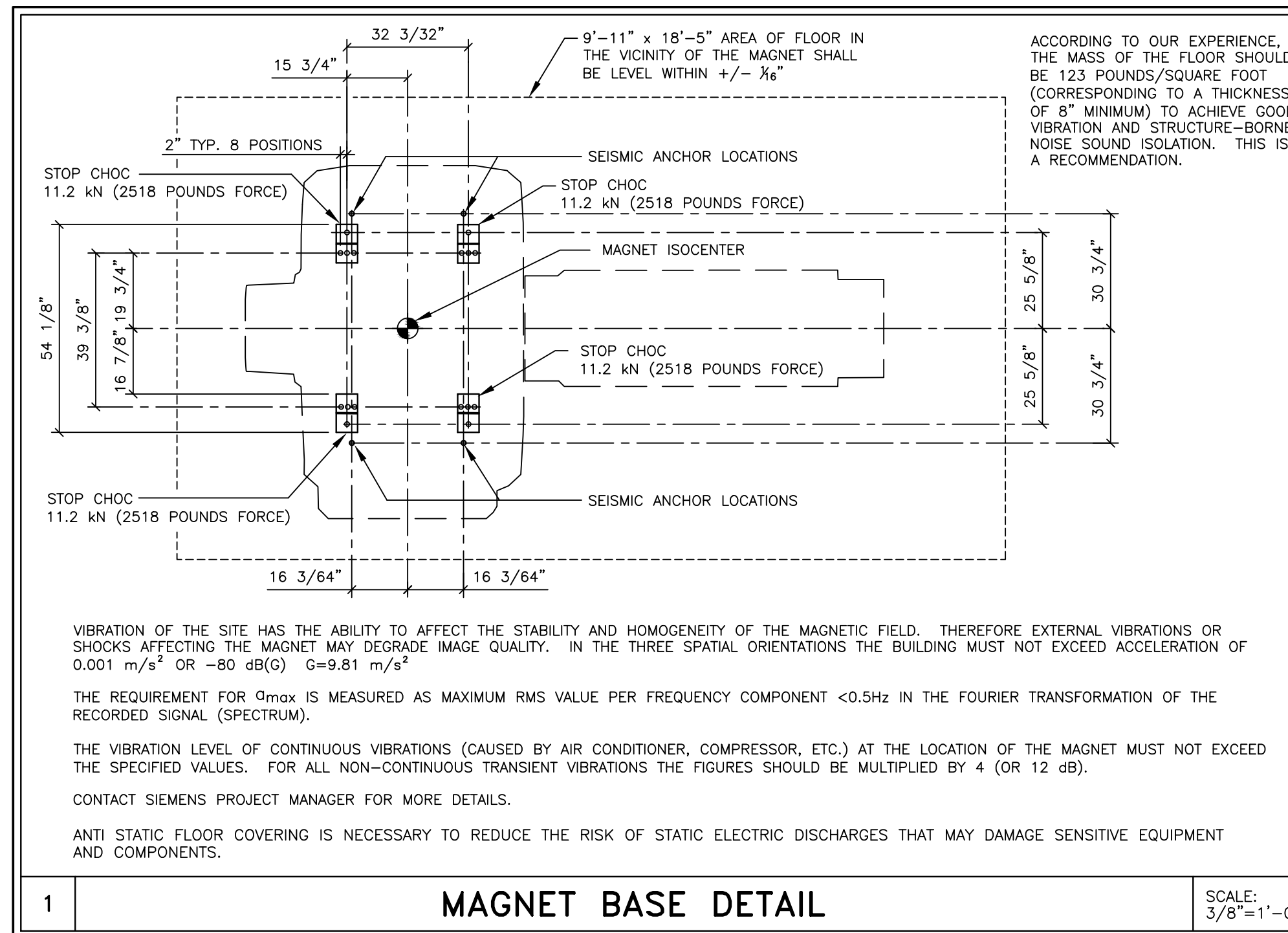
SOLA REV 14

NOTE: FOR THE WEIGHTS OF ALL SIEMENS EQUIPMENT SHOWN ON THIS PLAN, SEE THE "EQUIPMENT LEGEND" ON SHEET A-101.

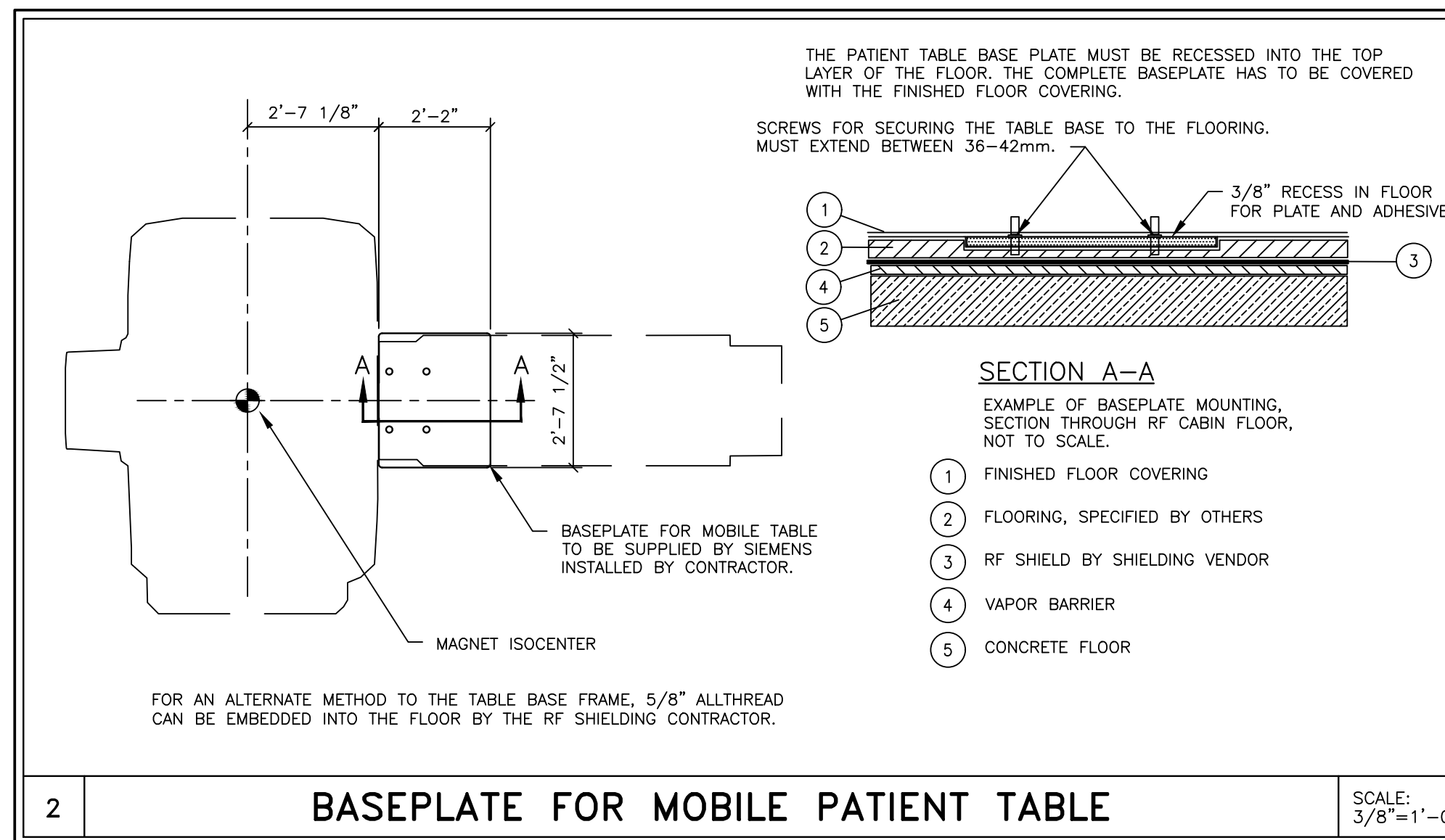


STRUCTURAL FLOOR PLAN

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



- STRUCTURAL NOTES**
- 1) THE CUSTOMER/CONTRACTOR SHALL FURNISH AND INSTALL ALL STRUCTURAL SUPPORT MEMBERS AND NEEDED HARDWARE FOR THE INSTALLATION OF THE SIEMENS EQUIPMENT.
 - 2) THE OVERHEAD STRUCTURAL SUPPORT SYSTEM SHALL BE FIXED, RIGID AND BRACED FOR SWAY.
 - 3) ALL STRUCTURAL SUPPORT MEMBERS SHALL BE TRUE, SQUARE, LEVEL, PARALLEL AND COPLANAR WITH RESPECT TO EACH OTHER, WITH A HORIZONTAL STRUCTURAL SUPPORT MEMBER TO BE LOCATED AND SET WITH A TRANSIT.
 - 4) ALL STRUCTURAL SUPPORT DETAILS SHOWN ARE SAMPLE DETAILS BASED UPON TYPICAL AND STANDARD BUILDING PRACTICES AND ARE NOT INTENDED AS ACTUAL CONSTRUCTION DETAILS. ALL CONSTRUCTION DETAILS AND SUPPORT CALCULATIONS SHALL BE PREPARED BY A PROFESSIONAL STRUCTURAL ENGINEER AT THE CUSTOMER'S EXPENSE. IN THE EVENT AN EXISTING SUPPORT SYSTEM IS TO BE USED, IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO VERIFY THE INTEGRITY OF THAT SYSTEM.
 - 5) MOUNTING PLATES, FRAMES, AND HARDWARE SUPPLIED BY SIEMENS AS DETAILED IN THIS DRAWING SET ARE INSTALLED BY SIEMENS UNLESS OTHERWISE REQUIRED. ANY DEVIATION FROM THE PROVIDED MATERIALS OR MOUNTING METHODS MUST BE DESIGNED AND DOCUMENTED BY THE STRUCTURAL ENGINEER OF RECORD. ALTERNATE MOUNTING MATERIALS (I.E. ANCHORS, THREADED ROD, BARKING PLATES, ETC.) MUST BE SUPPLIED BY THE CUSTOMER/CONTRACTOR. SIEMENS MAY REQUIRE ASSISTANCE FROM THE CUSTOMER/CONTRACTOR WITH INSTALLATION WHEN UTILIZING ALTERNATE MOUNTING MATERIALS.
 - 6) ALL CEILING FIXTURES (I.E. AIR SUPPLY GRILLES, AIR RETURN GRILLES, EXHAUST GRILLES, SPRINKLER HEADS, INCANDESCENT AND FLUORESCENT LIGHT FIXTURES, INTERCOM SPEAKERS, MEDICAL GAS COLUMNS, ETC.) SHALL BE INSTALLED FLUSH MOUNTED WITH THE FINISHED CEILING TO PROVIDE FREE AND UNRESTRICTED TRAVEL OF THE SMS CEILING MOUNTED EQUIPMENT.
 - 7) THE STRUCTURAL PLANNING AS SHOWN ON THE 1/4" STRUCTURAL PLAN HAS BEEN COORDINATED WITH THE EQUIPMENT LOCATION AS SHOWN ON THE 1/4" EQUIPMENT LAYOUT PLAN. FOR THIS REASON, ANY DEVIATIONS FROM THE STRUCTURAL PLANNING AS SHOWN MUST BE APPROVED BY SMS PLANNING DEPARTMENT.
 - 8) THE STRUCTURAL ENGINEER OF RECORD SHALL BE RESPONSIBLE FOR THE DESIGN AND DETAIL OF FLOOR, WALL AND CEILING STRUCTURES IN ACCORDANCE WITH THE WEIGHTS, MOMENTS AND FORCES AS SHOWN ON OUR STRUCTURAL CALCULATIONS, OR INFORMATION IN CONSIDERATION OF FORCES AS DETERMINED PER LOCAL GOVERNING BUILDING CODES.



CEILING HEIGHTS

EXAM ROOM	7'-11" MINIMUM
CONTROL ROOM	6'-11" MINIMUM
EQUIPMENT ROOM	7'-3" MINIMUM

PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 EXT: VMAIL: FAX: EMAIL: jesse.hulsey@siemens-healthineers.com		SIEMENS	
BARTLETT REGIONAL HOSPITAL			
3260 HOSPITAL DR, JUNEAU, AK 99801-7808 MRI SUITE - MRI - MAGNETOM SOLA XJ GRADIENTS			
PROJECT #: 2100552		SHEET: S-101	
THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.		DRAWN BY: D. BRISTOE	
ALL RIGHTS ARE RESERVED.		DATE: 03/09/21	
SCALE: AS NOTED	REF. #:	30257551	

ATTENTION:

- THIS DRAWING IS DESIGNED TO CONFORM TO FEATURES AND EQUIPMENT REQUIREMENTS PRESENTED AT THE TIME OF THEIR PREPARATION. SINCE BOTH THESE FACTORS ARE SUBJECT TO DESIGN MODIFICATION, THEY ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.
- THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.

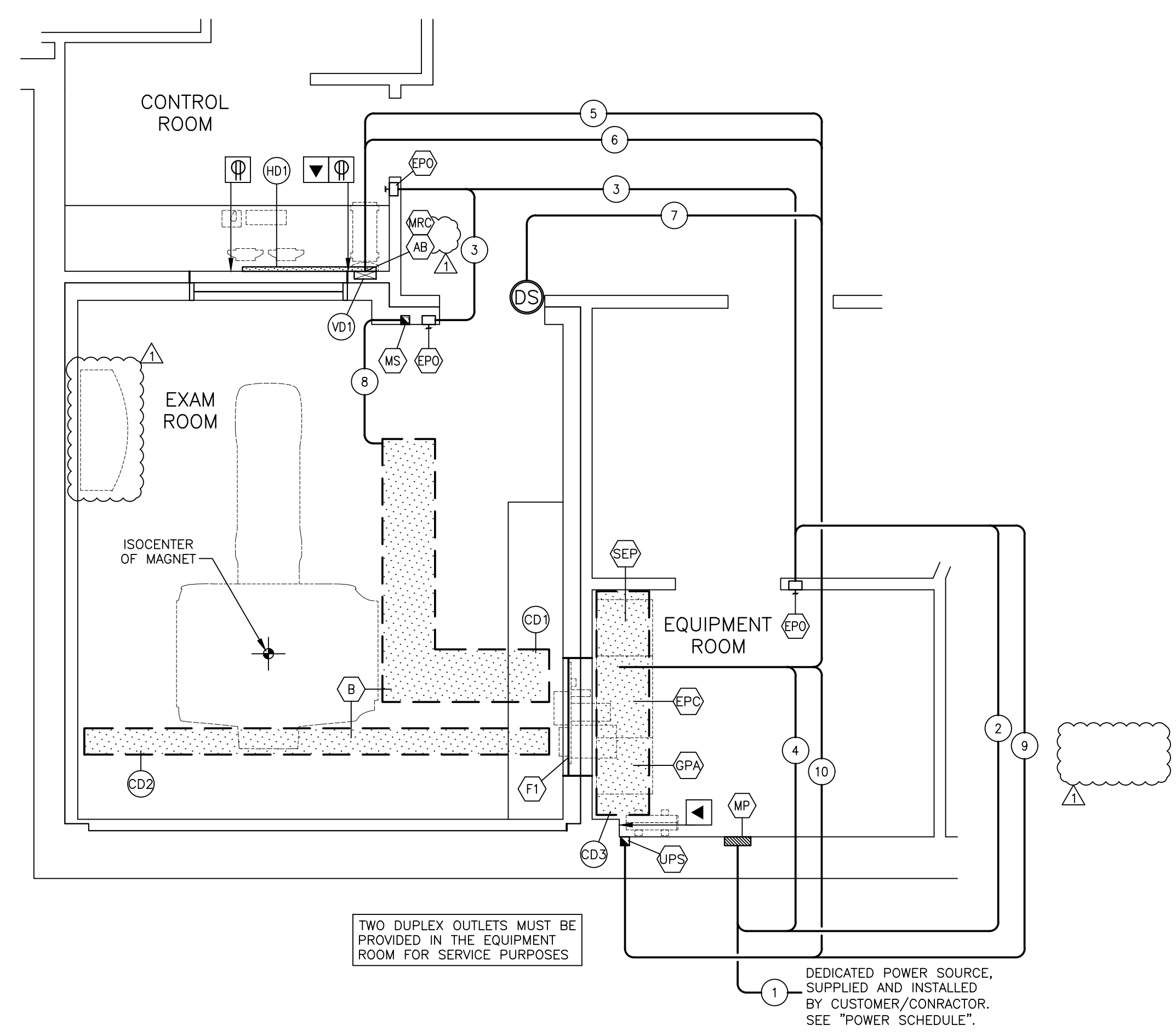
- IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.

- ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES.
- THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

SYM	DATE	DESCRIPTION
△	04/04/22	REMOVED SMS SUPPLIED CHILLER USING FACILITY CHILLED WATER
△	03/09/21	2100552RA DATED 02/08/21 APPROVED BY CUSTOMER FOR FINALS

-ISSUE BLOCK-

REFERENCE DOCUMENT - NOT FOR CONSTRUCTION



TWO DUPLEX OUTLETS MUST BE PROVIDED IN THE EQUIPMENT ROOM FOR SERVICE PURPOSES

DEDICATED POWER SOURCE, SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR. SEE "POWER SCHEDULE".

ELECTRICAL RACEWAY PLAN

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

SYMBOLS	
ALL MAY NOT APPLY	
	CAUTION OR WARNING
	CRITICAL NOTE(S)
	PANEL OR ENCLOSURE BY CUSTOMER/CONTRACTOR
	OPENING IN RACEWAY OR TRENCH/DUCT
	PULLBOX IN (FLOOR/WALL/CEILING)
	OPENING IN ACCESS FLOORING
	RF DOOR SWITCH - MCMASTER-CARR SUPPLY ROLLER LIMIT SWITCH 707614 PROVIDED BY CONTRACTOR AND MOUNTED AT TOP OF DOOR. COORDINATE WITH SIEMENS PROJECT MANAGER.
	(EPO) EMERGENCY POWER OFF BUTTON
	CEILING DUCT
	SURFACE MOUNTED DUCT
	VERTICAL DUCT
	ETHERNET CONNECTION TO CUSTOMER'S INFORMATION SYSTEMS NETWORK IN AN ACCESSIBLE LOCATION (VERIFY WITH SIEMENS PROJECT MANAGER).
	110 VOLT, 20 AMP, HOSPITAL GRADE DUPLEX OUTLET LOCATED NEAR THE ETHERNET CONNECTION.

REV 2

ELECTRICAL LEGEND			
SYM	SIZE	DESCRIPTION	REMARKS
SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR			
⊕	3"	OPENING IN FACE OF VERTICAL DUCT 5'-0" ABOVE FINISHED FLOOR IN LOCATION TO BE COORDINATED WITH THE ARCHITECT.	ALARM BOX
⊕	AS REQUIRED	LOCATION FOR CABLES TO DROP OUT OF BOTTOM OF RACEWAY.	ELECTRONICS CABINETS
⊕	AS REQUIRED	LOCATION FOR CABLES TO DROP OUT OF BOTTOM OF RACEWAY.	MAGNET CABLE ACCESS
⊕	----	EMERGENCY POWER OFF BUTTONS, MOUNTED WITH CENTERLINE AT 5'-0" ABOVE FINISHED FLOOR. ALL PARTS ARE TO BE NON-FERROUS INSIDE THE RF ROOM. EXACT LOCATIONS ARE TO BE VERIFIED WITH THE ARCHITECT.	SEE POWER SCHEDULE, SHEET E-102
⊕	----	SIEMENS RF FILTER PANEL TO BE MOUNTED ON RF SHIELDED WALL	FILTER PANEL
⊕	----	MAIN PANEL WITH MAIN BREAKER. EXACT LOCATION DETERMINED BY CUSTOMER/CONTRACTOR	SEE POWER SCHEDULE
⊕	4" x 4"	OPENING IN FACE OF RACEWAY IN SHOWN LOCATION.	HOST COMPUTER
⊕	AS REQUIRED	NON-FERROUS SINGLE GANG BOX MOUNTED FLUSH WITH FINISHED WALL MOUNTED 6'-0" ABOVE FINISHED FLOOR. PROVIDE NEATLY FINISHED AND REMOVABLE COVER WITH CABLE EXIT. EXACT LOCATION TO BE COORDINATED WITH THE ARCHITECT.	MAGNET STOP
⊕	----	CONDUIT LANDING PLATE ON UPS PER MANUFACTURER'S INFORMATION.	EATON 93PM UPS
⊕	----	OMITTED	
⊕	----	OMITTED	
⊕	24"x4"	ALUMINUM LADDER TRAY, MOUNTED AT HEIGHT COORDINATED WITH SIEMENS PROJECT MANAGER, IN THE EXAM ROOM, MAINTAINING 12" CLEARANCE ABOVE THE TRAY FOR ACCESS. CABLE LADDER IS REQUIRED TO SUPPORT INTERCONNECTING CABLES BETWEEN THE FILTER PANEL AND THE MAGNET. A 15" MINIMUM CLEARANCE IS REQUIRED BETWEEN THE LADDER TRAY AND THE RF FILTER PANEL (F1). WHEN ROUTING ALL RACEWAYS REFER TO DETAIL E-501/2 TAKING CARE SO THAT MAXIMUM CABLE LENGTHS ARE NOT EXCEEDED. A 12" SEPARATION BETWEEN CD1 AND CD2 MUST BE MAINTAINED. DO NOT LOCATE THIS CABLE TRAY ABOVE THE MAGNET.	CABLE TRAY SEE DETAIL E-501/2
⊕	12"x4"	ALUMINUM LADDER TRAY, MOUNTED AT HEIGHT COORDINATED WITH SIEMENS PROJECT MANAGER, IN THE EXAM ROOM, MAINTAINING 12" CLEARANCE ABOVE THE TRAY FOR ACCESS. CABLE LADDER IS REQUIRED TO SUPPORT INTERCONNECTING CABLES BETWEEN THE FILTER PANEL AND THE MAGNET. A 15" MINIMUM CLEARANCE IS REQUIRED BETWEEN THE LADDER TRAY AND THE RF FILTER PANEL (F1). WHEN ROUTING ALL RACEWAYS REFER TO DETAIL E-501/2 TAKING CARE SO THAT MAXIMUM CABLE LENGTHS ARE NOT EXCEEDED. A 12" SEPARATION BETWEEN CD1 AND CD2 MUST BE MAINTAINED. DO NOT LOCATE THIS CABLE TRAY ABOVE THE MAGNET.	CABLE TRAY SEE DETAIL E-501/2
⊕	24"x4"	LADDER TRAY, MOUNTED AT HEIGHT COORDINATED WITH SIEMENS PROJECT MANAGER IN EQUIPMENT ROOM MAINTAINING 12" CLEARANCE ABOVE THE TRAY FOR ACCESS. CABLE LADDER IS REQUIRED TO SUPPORT INTERCONNECTING CABLES BETWEEN THE EQUIPMENT ROOM AND THE RF FILTER PANEL (F1). AN 18" MINIMUM CLEARANCE IS REQUIRED BETWEEN THE LADDER TRAY AND THE FILTER PANEL.	CABLE TRAY SEE DETAIL E-501/2
⊕	4" x 2"	HORIZONTAL DUCT SURFACE MOUNTED ON WALL IN CONTROL AREA AT FLOOR LINE AS SHOWN, FINISHED TO MATCH WALLS.	
⊕	10" x 3-1/2"	VERTICAL DUCT MOUNTED FLUSH WITH FINISHED WALL IN CONTROL AREA FROM ABOVE FINISHED CEILING TO FLOOR LINE PROVIDED WITH REMOVABLE FINISHED COVERS.	
⊕	AS PER NEC	CONDUIT FROM FACILITY POWER TO MAIN PANEL "MP"	SEE POWER SCHEDULE, SHEET E-102
⊕	AS PER NEC	CONDUIT FROM "EPO" TO "EPO"	SEE POWER SCHEDULE, SHEET E-102
⊕	AS PER NEC	CONDUIT FROM "EPO" TO "EPO" TO BE NON-FERROUS WHEN INSIDE THE RF ROOM. CUSTOMER/CONTRACTOR IS TO PROVIDE RF FILTERS FOR ALL NON-SIEMENS WIRING.	SEE POWER SCHEDULE, SHEET E-102
⊕	(1) 2"	CONDUIT FROM "MP" TO END AT "CD3" (EPC) VIA FLEX CONDUIT. THERE MUST BE A DIELECTRIC SEPARATION BETWEEN THE CONDUIT AND THE CONNECTION AT THE SIEMENS EPC CABINET.	SEE POWER SCHEDULE, SHEET E-102
⊕	(2) 2 1/2"	CONDUIT FROM "VD1" (MRC) TO "CD3" (EPC)	NOT TO EXCEED 60 FT.
⊕	(1) 1 1/2"	CONDUIT FROM "VD1" (AB) TO "CD3" (EPC)	NOT TO EXCEED 60 FT.
⊕	(1) 1/2"	CONDUIT FROM "DS" TO "CD3" (EPC)	NOT TO EXCEED 60 FT.
⊕	(1) 3/4"	CONDUIT FROM "MS" TO "CD1" (WIRES TO MAGNET) TO BE NON-FERROUS WHEN INSIDE THE RF ROOM.	NOT TO EXCEED 20 FT.
⊕	(1) 3/4"	CONDUIT FROM "EPO" TO "UPS"	
⊕	(1) 2"	CONDUIT FROM "UPS" TO "CD3" (EPC)	MAXIMUM LENGTH 29 FEET
⊕	----	OMITTED	
⊕	----	OMITTED	

CONTRACTOR SUPPLIED CABLES				
FROM	VIA	TO	DESCRIPTION	REMARKS
SOURCE	1	MP	(3) PHASE CONDUCTORS, (1) FULL SIZE EQUIPMENT GROUND WIRE TO BE SIZED BY ELECTRICAL CONTRACTOR/ENGINEER.	
MP	2	EPO	DETERMINED BY ELECTRICAL CONTRACTOR.	
EPO	3	EPO	DETERMINED BY ELECTRICAL CONTRACTOR.	
MP	4	EPC	(3) 2/0 AND (1) 2/0 EQUIPMENT GROUND. TO REDUCE EMI (INTERFERENCE) THE POWER CABLES MUST BE SHIELDED. THIS CAN BE ACHIEVED BY USING EMT, WHICH IS CONSIDERED A SHIELDING DEVICE. IF CABLES ARE RUN IN FREE AIR SHIELDED CONDUCTORS MUST BE USED.	LANDED BY ELECTRICAL CONTRACTOR
EPO	9	UPS	DETERMINED BY ELECTRICAL CONTRACTOR.	6 FOOT TAILS
SOURCE		WCH	OMITTED	
WCH		WCS	OMITTED	

ELECTRICAL NOTES

- COMPLIANCE: ELECTRICAL WORK SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA-70), O.S.H.A. REGULATIONS, AS WELL AS APPLICABLE REGULATIONS OF CITY, COUNTY, STATE AND FEDERAL AGENCIES. PROVIDE MATERIALS AND EQUIPMENT THAT COMPLY TO ANSI, IEEE AND NEMA STANDARDS AND ARE U.L. LISTED AND LABELED. THE CUSTOMER'S/CONTRACTOR'S WORK AND ALL EQUIPMENT INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF NATIONAL ELECTRICAL CODE ADOPTED/ENFORCED BY THE AUTHORITY HAVING JURISDICTION.
- QUALITY ASSURANCE: THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD TO INSURE THAT THE NEW WORK WILL FIT INTO THE EXISTING STRUCTURE AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST OR BE DISCOVERED THAT PREVENT THE INSTALLATION OF WORK AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OF EQUIPMENT, OR THE PERFORMANCE OF ANY WORK THAT MAY BE AFFECTED. DO NOT ALTER DRAWINGS, DIMENSIONS, OR SPECIFICATIONS IN ANY WAY WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SIEMENS PROJECT MANAGER. ALL DIMENSIONS ARE FROM FINISHED SURFACES. CONDUIT AND PULL BOXES TO BE INSTALLED BY THE CUSTOMER/CONTRACTOR WITH LOCATIONS BEING FIELD VERIFIED BY SIEMENS PROJECT MANAGER.
- POWER SUPPLY SOURCE: POWER SUPPLIES FOR SIEMENS HEALTHCARE EQUIPMENT SHALL BE FROM A MEDICAL IMAGING PANEL OR BUILDING SERVICE EQUIPMENT THAT IS A GROUNDED 3 OR 4-WIRE "WYE" SOURCE PER THE SPECIFIC EQUIPMENT OPERATION REQUIREMENTS. A DEDICATED CIRCUIT SHALL BE PROVIDED THAT IS KEPT ENTIRELY FREE AND INDEPENDENT OF ALL OTHER BUILDING WIRING, NO ELEVATORS, GENERATORS, PUMPS, HVAC OR SIMILAR EQUIPMENT SHALL BE CONNECTED TO THE SAME CIRCUIT OR MEDICAL IMAGING PANEL THAT SERVES THE SIEMENS HEALTHCARE EQUIPMENT. IF THE POWER SUPPLY SOURCE DOES NOT MEET THE SPECIFIC SIEMENS EQUIPMENT POWER REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT REQUIRED TO ESTABLISH THE POWER SUPPLY IN ACCORDANCE WITH THE REQUIRED POWER SUPPLY PARAMETERS OF THE SIEMENS EQUIPMENT. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE CUSTOMER AND/OR UTILITY COMPANY FIELD REPRESENTATIVE.
- WORK FURNISHED BY CUSTOMER/CONTRACTOR: WORK NOT PROVIDED BY SIEMENS HEALTHCARE BUT SHOWN ON DRAWINGS TO BE FURNISHED AND INSTALLED BY CUSTOMER/CONTRACTOR INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING, UNLESS NOTED OTHERWISE: ELECTRICAL RACEWAYS AND DUCTS, WIRING TROUGHS, PULL BOXES, CONDUITS, CIRCUIT BREAKERS, ACCESS PANELS, EMERGENCY OFF BUTTONS, DOOR SWITCHES, WARNING LIGHTS, WIRING, WIRING DEVICES, CONNECTORS, LIGHTING EQUIPMENT AND GROUNDING.
- RACEWAY AND CONDUIT NOTES: ALL ITEMS IN THE MAGNET ROOM SHALL BE NON-FERROUS. ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT ENFORCED EDITION OF THE NATIONAL ELECTRICAL CODE. CONDUIT BODIES SHALL NOT BE USED, WHERE A CONDUIT ENTERS A BOX, FITTING, OR OTHER ENCLOSURE, AN INSULATED THROUGH CONNECTOR SHALL BE PROVIDED TO PROTECT THE WIRE FROM ABRASION. ALL CONNECTORS FOR EMT SHALL BE COMPRESSION OR DOUBLE SET SCREW TYPE. KEEP RACEWAYS AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF FLUES OR STEAM AND HOT WATER PIPES. INSTALL RACEWAY RUNS ABOVE WATER AND STEAM PIPES PROVIDED THAT CABLE RUN DISTANCES ARE MAINTAINED. USE TEMPORARY CLOSURES TO PREVENT FOREIGN MATTER FROM ENTERING RACEWAY. CONDUIT RUNS ARE SHOWN SCHEMATICALLY. INSTALL CONDUIT WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED. THE CONTRACTOR SHALL MAKE CERTAIN THAT ANY CONDUIT/RACEWAY RUNS CONTAINING SIEMENS HEALTHCARE CABLES DO NOT EXCEED THE SPECIFIED MAXIMUM DISTANCES AS SHOWN ON THE ELECTRICAL DETAILS. LISTED CONDUIT SIZES FOR SIEMENS-SUPPLIED CABLES MUST BE MAINTAINED IN ORDER TO ENABLE THE TOTAL CABLE BUNDLE INCLUDING CONNECTORS TO BE PULLED THROUGH WITHOUT DAMAGE. PROVIDE ENCLOSED METAL WIRE DUCT RACEWAY SYSTEM WHERE SHOWN ON DRAWINGS WITH DIVIDERS TO SEPARATE THE DUCT INTO TWO OR THREE SEPARATE COMPARTMENTS AS SHOWN ON THE SIEMENS PLANS FOR POWER AND SIEMENS HEALTHCARE (CABLING). DIVIDERS AND CROSSOVER PIECES TO BE PROVIDED AS NECESSARY. THE CABLE TO CABLE AS WELL AS THE CIRCUIT TO CIRCUIT SEPARATION REQUIREMENT WAS EVALUATED DURING THE UL SYSTEM CERTIFICATION OF THE EQUIPMENT. ADDITIONAL SEPARATION OF THE SYSTEM CABLE ASSEMBLIES INTO SEPARATE OR PARTITIONED RACEWAYS, UNLESS OTHERWISE NOTED, IS NOT NECESSARY TO INSURE SEPARATION OF CIRCUITS. PROVIDE WIRE DUCT/RACEWAY WITH ACCESSIBLE REMOVABLE COVERS. LOCATIONS OF BUILDING MATERIAL OPENINGS (I.E. ACCESS PANELS) TO BE CUT IN FIELD ARE TO BE COORDINATED WITH THE DRAWING REQUIREMENTS AND BUILDING STRUCTURE. THOSE THAT ARE NOT INDICATED OR INTERFERE WITH BUILDING ELEMENTS SHALL BE COORDINATED WITH SIEMENS PROJECT MANAGER. ELECTRICAL PULL BOXES AND RACEWAY COVERS SHALL BE INSTALLED IN A MANNER TO ALLOW ACCESSIBILITY FOR INSTALLATION AND MAINTENANCE. CONTRACTORS MUST PROVIDE PULL STRINGS FOR ALL CONDUIT AND WIRE DUCT/RACEWAY. IN-FLOOR TRENCH DUCT AND FLUSH FLOOR BOXES SHALL BE PROVIDED WITH FULLY GASKETED REMOVABLE COVERS. WHEN JUNCTION BOXES AND WIRE DUCT/RACEWAY ARE MOUNTED HIGHER THAN 14 FEET ABOVE FINISHED FLOOR, THE ELECTRICAL CONTRACTOR SHALL PROVIDE TWO ELECTRICIANS TO HELP THE SIEMENS INSTALL TEAM PULL SIEMENS SUPPLIED CABLES AT CUSTOMER EXPENSE. WHEN JUNCTION BOXES AND WIRE DUCT/RACEWAY ARE MOUNTED ABOVE A HARD CEILING (I.E. SHEET ROCK), A 24" x 24" ACCESS PANEL IS REQUIRED AT EACH JUNCTION BOX AND WITHIN 2 FEET OF EACH RACEWAY TRANSITION (SUCH AS A 90 DEGREE ELBOW OR TEE) IN DUCT/RACEWAY. THERE MUST BE FREE AND CLEAR ACCESS TO JUNCTION BOXES AND WIRE DUCT/RACEWAY. WHEN ACCESS PANELS ARE LOCATED MORE THAN 3 FEET FROM JUNCTION BOXES AND WIRE DUCT/RACEWAY THE ELECTRICAL CONTRACTOR SHALL PROVIDE TWO ELECTRICIANS TO HELP SIEMENS INSTALL TEAM PULL SIEMENS SUPPLIED CABLES AT CUSTOMER EXPENSE. 6) WIRING: ALL WIRING INSTALLED SHALL BE 600 VOLT CLASS, STRANDED TYPE THHN/THWN-2, SINGLE CONDUCTOR ANNEALED COPPER FOR A MAXIMUM OPERATING TEMPERATURE OF 90° C (194° F), SIZED AS INDICATED INSTALLED IN METAL RACEWAYS. THE CUSTOMER/CONTRACTOR SHALL LEAVE MINIMUM 10 FT. OF WIRE TAILS AT ALL OUTLET POINTS WITH WIRE IDENTIFICATION TAGGED AT BOTH ENDS FOR FINAL CONNECTION BY THE CUSTOMER/ELECTRICAL CONTRACTOR. 7) SHORT CIRCUIT REQUIREMENTS: ALL CIRCUIT BREAKERS SUPPLIED FOR THE SIEMENS EQUIPMENT REQUIREMENTS SHALL BE RATED HIGHER THAN THE SHORT CIRCUIT AVAILABLE AT THE TERMINALS OF THE ELECTRICAL EQUIPMENT AS DETERMINED BY THE ENGINEER OF RECORD, BUT NOT LESS THAN 35,000A RMS SYMMETRICAL AT 480V, 3-PHASE, 60 HERTZ. THE CONTRACTOR SHALL OBTAIN THE CORRECT SHORT CIRCUIT CURRENT RATING OF ALL THE NEW EQUIPMENT FOR INSTALLATION FROM THE ENGINEER OF RECORD.

CEILING HEIGHTS	
EXAM ROOM	7'-11" MINIMUM
CONTROL ROOM	6'-11" MINIMUM
EQUIPMENT ROOM	7'-3" MINIMUM

SYM	DATE	DESCRIPTION
⊕	04/04/22	REMOVED SMS SUPPLIED CHILLER USING FACILITY CHILLED WATER
⊕	03/09/21	2100552RA DATED 02/08/21 APPROVED BY CUSTOMER FOR FINALS

PROJECT MANAGER: JESSE HULSEY
 TEL: (602) 300-2149
 FAX: EXT:
 EMAIL: jesse.hulsey@siemens-healthineers.com

SIEMENS

BARTLETT REGIONAL HOSPITAL
 3260 HOSPITAL DR, JUNEAU, AK 99801-7808
 MRI SUITE - MRI - MAGNETOM SOLA XJ GRADIENTS

PROJECT #: **2100552** SHEET: **E-101**

SHEET 6 OF 10 DRAWN BY: D. BRISTOE
 DATE: 03/09/21

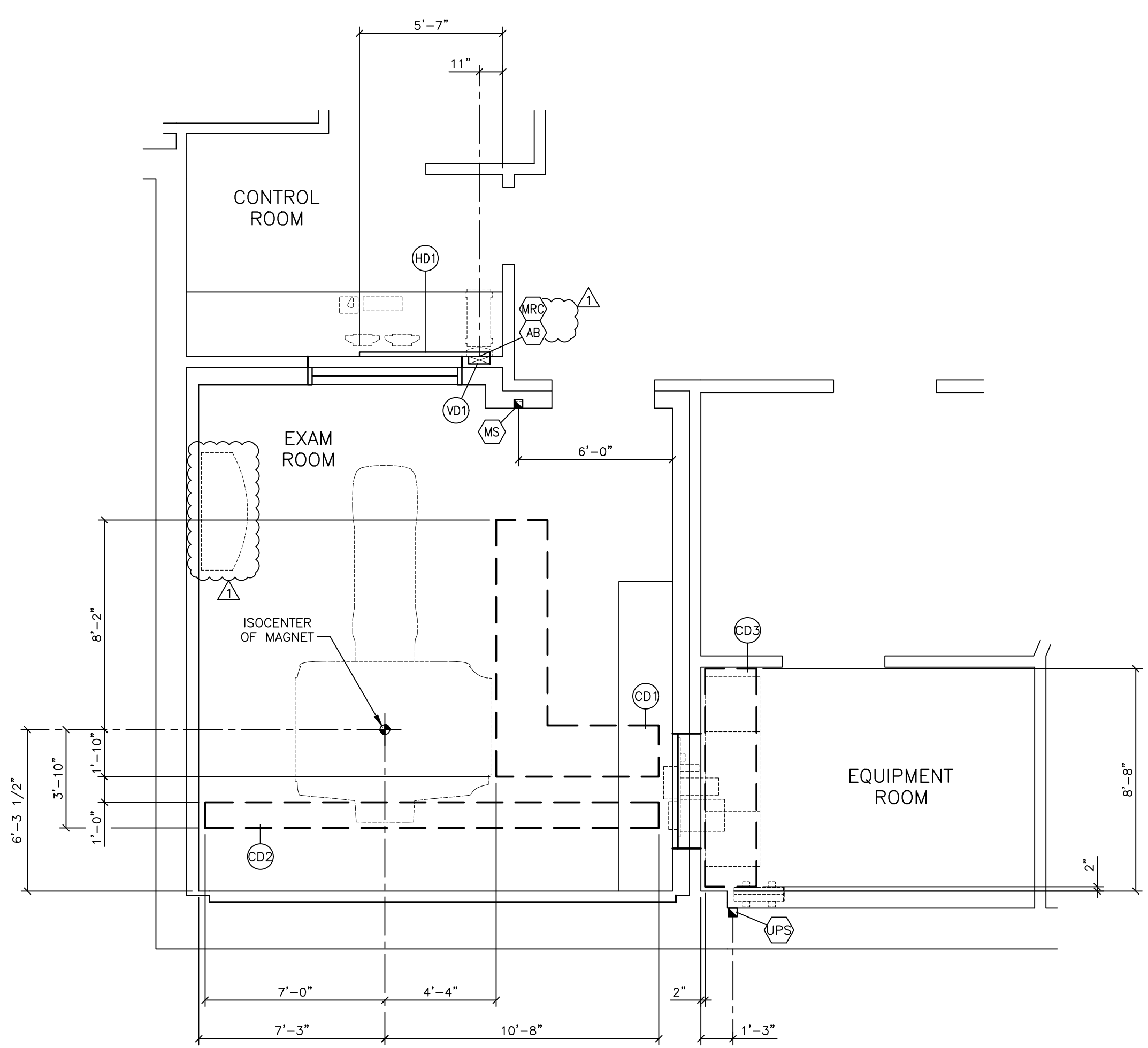
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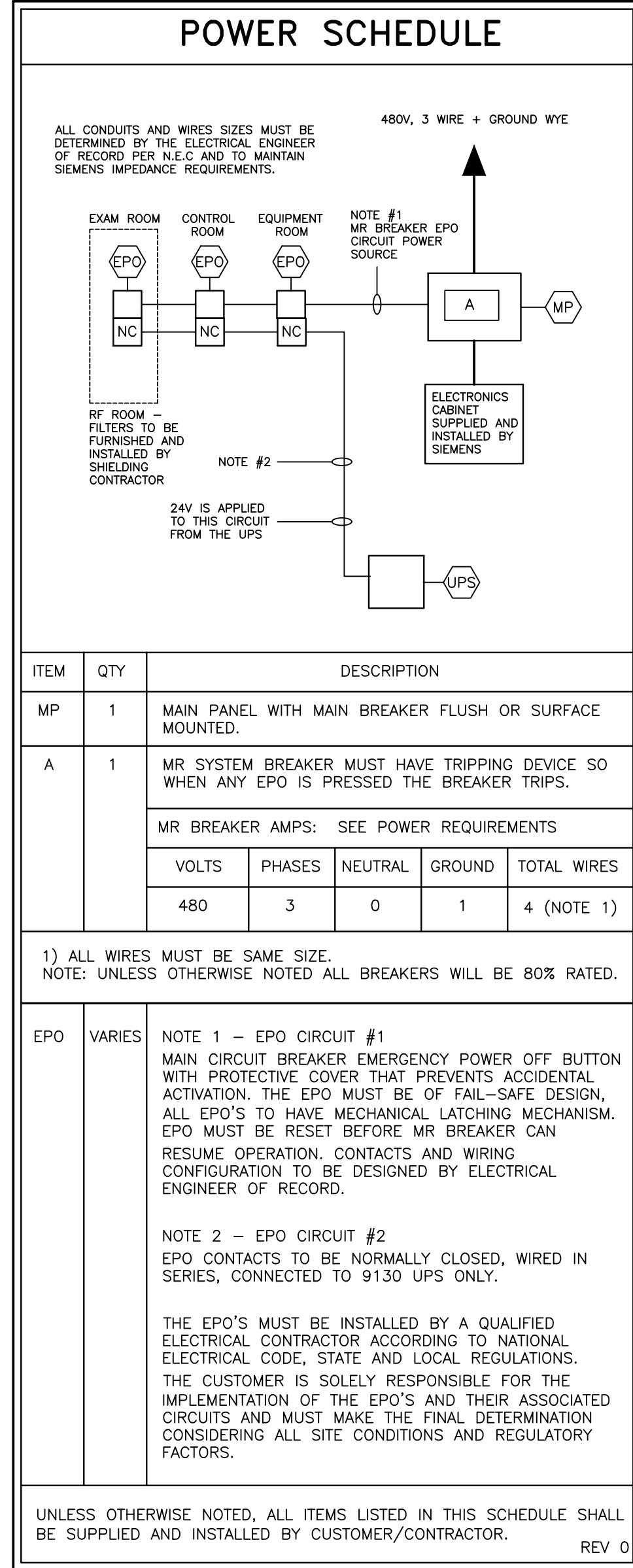
SCALE: AS NOTED REF. # 30257551

DATE: 03/09/21



ELECTRICAL DIMENSION PLAN

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



POWER QUALITY NOTES

- IT IS THE CUSTOMER'S RESPONSIBILITY TO COMPLY WITH THE POWER QUALITY REQUIREMENTS FOR SIEMENS MEDICAL SYSTEMS EQUIPMENT.
- THE ELECTRICAL FEEDER TO THE SIEMENS MEDICAL SYSTEMS EQUIPMENT MUST FEED ONLY THE IMAGING SYSTEM AND BE KEPT SEPARATE FROM ELECTRICAL FEEDERS TO HVAC, MOTORS, PUMPS, COMPRESSORS, ELEVATORS, AND OTHER POTENTIAL SOURCES OF ELECTRICAL INTERFERENCE.
- THE ELECTRICAL FEEDER TO THE IMAGING SYSTEM MUST BE RUN DIRECTLY TO A MAIN FACILITY DISTRIBUTION PANEL OR TO THE FACILITY SERVICE ENTRANCE, WITH NO OTHER LOADS POWERED FROM THIS FEEDER.
- IN ORDER TO COMPLY WITH IMAGING SYSTEM POWER QUALITY REQUIREMENTS, ADDITIONAL POWER CONDITIONING DEVICES MAY BE REQUIRED. EXAMPLES INCLUDE VOLTAGE REGULATORS, TRANSFORMERS, SURGE PROTECTIVE DEVICES, FILTERS, AND/OR UNINTERRUPTIBLE POWER SUPPLIES (UPS). RECOMMENDED FOR THE INSTALLATION OF ELECTRONIC EQUIPMENT CAN BE FOUND IN IEEE STANDARD 1100-1999 "POWERING AND GROUNDING ELECTRONIC EQUIPMENT".
- POWER CONDITIONING DEVICES NOT APPROVED BY SIEMENS MEDICAL SYSTEMS MAY NOT BE COMPATIBLE WITH THE MAGNETOM SYSTEM. "FERRORESONANT" POWER CONDITIONING EQUIPMENT RE-APPLIED FROM PREVIOUS GENERATION SYSTEMS IS ALSO GENERALLY EXCLUDED DUE TO HIGHER POWER REQUIREMENTS OF THE NEWER SYSTEMS.
- INCOMING SOURCE POWER WIRES MUST BE SEPARATED FROM ANY SIEMENS CABLING BY A MINIMUM OF 12".

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CEILING HEIGHTS

EXAM ROOM	7'-11" MINIMUM
CONTROL ROOM	6'-11" MINIMUM
EQUIPMENT ROOM	7'-3" MINIMUM

POWER REQUIREMENTS

VOLTAGE VARIATION: 480 VAC ±10% FOR ALL LINE AND LOAD CONDITIONS VOLTAGE UNBALANCE: 2% MAXIMUM DIFFERENCE BETWEEN PHASES	
VOLTAGE:	480V - 3 PHASE
FREQUENCY:	60 Hz ± 1.0 Hz
LINE IMPEDANCE:	<180 mOHMS
CONNECTION VALUE	69 kVA
SHORT TIME POWER (LESS THAN 3 SECONDS)	75 kVA
MR SYSTEM BREAKER SIZE (A)	100 A
ALL BREAKERS ARE RATED AT 80%	

POWER QUALITY

POOR POWER WILL ALTER EQUIPMENT PERFORMANCE

IT IS IN THE CUSTOMER'S INTEREST THAT THE ELECTRICAL CONTRACTOR BE RESPONSIBLE FOR TESTING AND VERIFYING THAT THE EQUIPMENT POWER SUPPLY COMPLIES WITH THE SIEMENS SPECIFICATIONS.

DEMAND AND CAPACITY

- IF EQUIPMENT UPGRADE IS ANTICIPATED, INSTALLING ELECTRICAL POWER TO MEET THE REQUIREMENTS OF THE HIGHER POWER GRADIENT PACKAGE AT THE TIME OF INITIAL INSTALLATION WILL REDUCE THE COST TO UPGRADE THE ELECTRICAL SYSTEM LATER.
- RECOMMENDED TRANSFORMER SIZE (SYSTEM WITHOUT UPS) IS BASED ON INDUSTRY STANDARD ISOLATION TRANSFORMER KVA RATINGS. SOURCE IMPEDANCE FEEDING THE MAGNETOM SYSTEM, INCLUDING ANY ISOLATION TRANSFORMERS, MUST MEET EQUIPMENT REQUIREMENTS AS LISTED HERE. SIEMENS RECOMMENDS A TRANSFORMER WITH COPPER WINDINGS, AN ELECTRO-STATIC SHIELD, AND A LOW IMPEDANCE (<3%) TO ENSURE THAT SOURCE IMPEDANCE REQUIREMENTS ARE MET.
- OVER CURRENT PROTECTION IS SPECIFIED FOR SYSTEMS WITHOUT AN UNINTERRUPTIBLE POWER SUPPLY (UPS). ADDITION OF A UPS REQUIRES A HIGHER CAPACITY MAINS CONNECTION (DEPENDENT UPON UPS MODEL AND SIZE). MAXIMUM FAULT CURRENT IS DEPENDENT UPON THE IMPEDANCE OF THE FACILITY ELECTRICAL SYSTEM. THE CUSTOMER'S ARCHITECT OR ELECTRICAL CONTRACTOR TO SPECIFY AIC RATING OF OVER CURRENT PROTECTION BASED ON FACILITY IMPEDANCE CHARACTERISTICS.
- MOMENTARY POWER IS BASED ON A MAXIMUM RMS VALUE FOR A PERIOD NOT TO EXCEED FIVE (5) SECONDS, AS DEFINED IN NEC 517.2. STAND-BY AND AVERAGE CURRENT ARE SUBSTANTIALLY LOWER.
- THE CONDUCTOR SIZE SHOULD BE SELECTED TO MEET THE VOLTAGE DROP REQUIREMENTS, TAKING INTO CONSIDERATION THE MAINS CAPACITY, RUN LENGTH, AND ANY ADDITIONAL TRANSFORMERS USED TO OBTAIN THE PROPER EQUIPMENT VOLTAGE LEVEL. NEMA STANDARD XR-9-1989 (R1994,R2000) PROVIDES GENERAL GUIDELINES FOR SIZING CONDUCTORS, TRANSFORMERS, AND ELECTRICAL SYSTEMS FOR MEDICAL IMAGING SYSTEMS.
- LONG-TIME POWER IS BASED ON THE HIGHEST AVERAGE RMS VALUES FOR A PERIOD EXCEEDING 5 MINUTES DURING CLINICAL SYSTEM OPERATION, AS DEFINED IN NEC 517.2.
- A CIRCUIT BREAKER WITH A HIGH INRUSH RATING (>8x RATED CURRENT) IS REQUIRED TO PERMIT SWITCH-ON OF THE UPS SYSTEM WITHOUT SPURIOUS TRIPPING. CIRCUIT BREAKERS WITH AN ADJUSTABLE MAGNETIC TRIP (SIEMENS FD6 SERIES OR SIMILAR) ARE HIGHLY RECOMMENDED.

REV 1

ELECTRICAL INSTALLATION NOTES

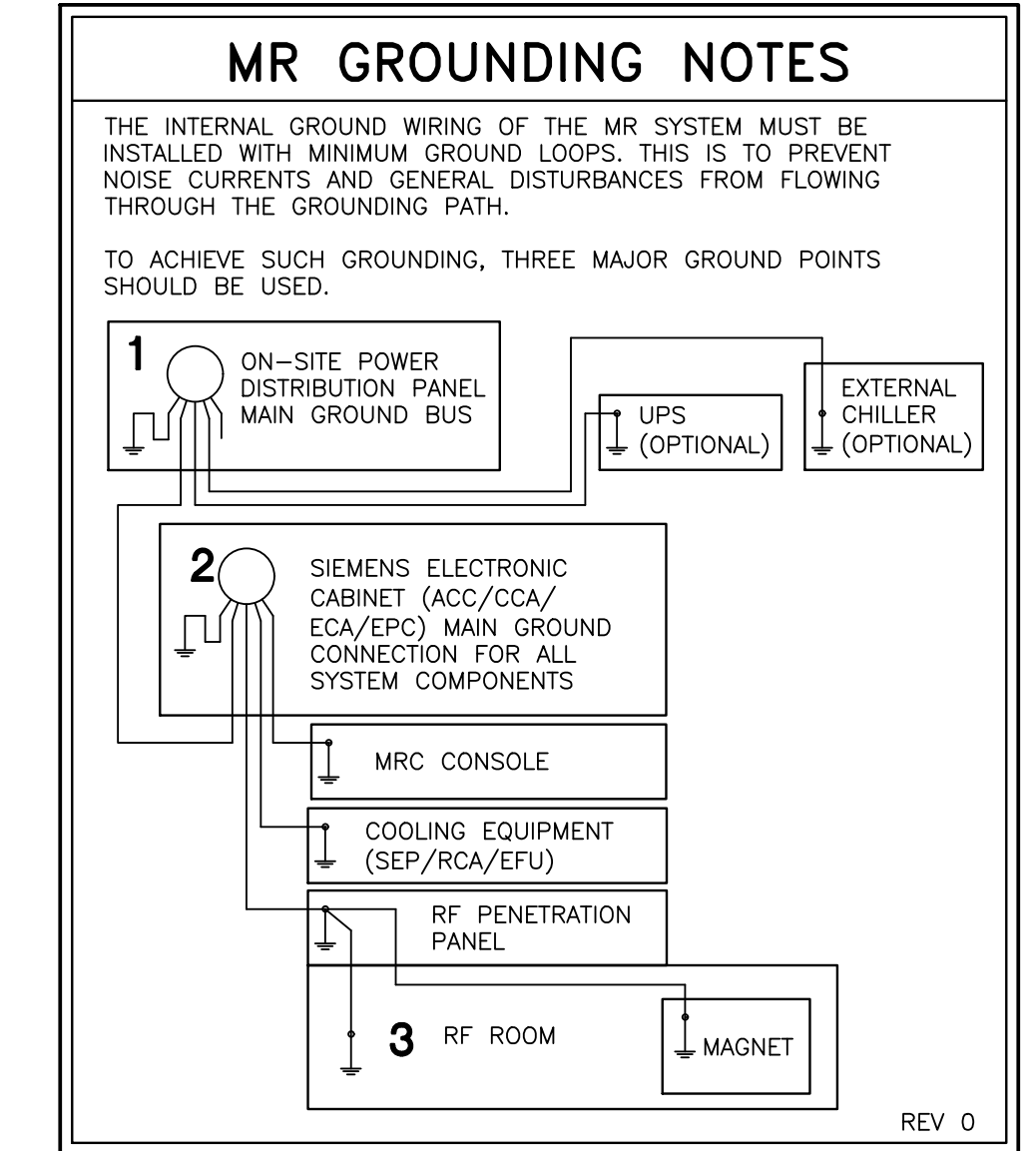
- INSTALL THE MR SYSTEM CIRCUIT BREAKER IN OR NEAR THE EQUIPMENT ROOM. THE PERMITTED FRINGE FIELD FOR THE PANEL IS UP TO 3mT. IF THE FRINGE FIELDS HAVE HIGHER VALUES, MAGNETIC SHIELDING MUST BE PROVIDED OR THE DISTANCE FROM THE MAGNET MUST BE INCREASED.
- AN ACCEPTABLE MEANS FOR SWITCHING MAIN POWER ON AND OFF SHOULD BE INSTALLED IN THE MAIN BREAKER PANEL. INSTALL EMERGENCY SHUTDOWN BUTTONS IN EACH ROOM WHERE THERE IS SIEMENS EQUIPMENT.
- THE ELECTRICAL FEEDER TO THE SIEMENS EQUIPMENT MUST FEED ONLY THE IMAGING SYSTEM AND BE KEPT SEPARATE FROM ELECTRICAL FEEDERS TO HVAC, MOTORS, PUMPS, COMPRESSORS, ELEVATORS AND OTHER POTENTIAL SOURCES OF ELECTRICAL INTERFERENCE.
- THE EMERGENCY POWER OFF (EPO) BUTTONS ARE TO BE MUSHROOM TYPE WITH PUSH LOCK AND PULL TO RELEASE.
- WALL RECEPTACLES MADE OF FERROMAGNETIC MATERIALS ARE NOT PERMITTED IN THE EXAM ROOM. PERIPHERAL UNITS (SUCH AS VENTILATORS) NOT APPROVED FOR USE IN A HIGH MAGNETIC FIELD ENVIRONMENT CAN INFLUENCE THE MAGNETIC FIELD, COMPROMISING IMAGE QUALITY. THE CUSTOMER IS RESPONSIBLE FOR INSTALLATION AND USE OF RECEPTACLES IN THE EXAM ROOM. INSTALLATION OF RECEPTACLES AND THE FILTERS REQUIRED ARE TO BE COORDINATED WITH THE RF SHIELDING SUPPLIER.
- THE RF SHIELD MUST BE FITTED WITH A GROUND STUD OR BUS BAR, LOCATED WITHIN 24" OF THE AUXILIARY FILTERS FOR ROOM LIGHTS AND OUTLETS, SUPPLIED AND INSTALLED BY THE RF SHIELD SUPPLIER.
- IN ORDER TO PREVENT GROUND LOOPS, ALL CUSTOMER OR CUSTOMER/CONTRACTOR SUPPLIED AC POWER ENTERING THE EXAMINATION ROOM (I.E. OUTLETS, EPO, ETC.) SHOULD BE SUPPLIED VIA AN ISOLATION TRANSFORMER. THE ISOLATION TRANSFORMER SECONDARY WINDING GROUND CONDUCTOR SHOULD BE CONNECTED TO THE RF SHIELD GROUND STUD OR BUS BAR.

REV 1

GROUNDING NOTES

EQUIPMENT GROUNDING CONDUCTOR TO COMPLY WITH THE FOLLOWING:

- SIZE GROUNDING WIRE TO SIEMENS EQUIPMENT PER POWER SCHEDULE REQUIREMENTS.
- DERIVED FROM THE ELECTRICAL SERVICE, TRANSFORMER OR MAIN DISTRIBUTION PANEL FEEDING THE SIEMENS EQUIPMENT.
- RUN IN THE SAME CONDUIT, TROUGH OR RACEWAY AS THE PHASE CONDUCTORS.
- CONTINUOUS, WITH NO BREAKS OR USE OF CONDUIT, CHASSIS OR EARTH AS THE SOLE GROUNDING PATH.
- BONDED TO CHASSIS AND/OR CONDUIT IN ACCORDANCE WITH THE NEC REQUIREMENTS.
- MINIMIZE CONNECTIONS OR TERMINALS TO ENSURE CONTINUITY OVER THE LIFE OF THE INSTALLATION.
- AS A NORM, THERE SHOULD NOT BE ANY CURRENT PRESENCE ON THE GROUND CONDUCTOR, BUT IT IS ACCEPTABLE TO HAVE <500mA DURING OPERATION OF THE IMAGING EQUIPMENT.



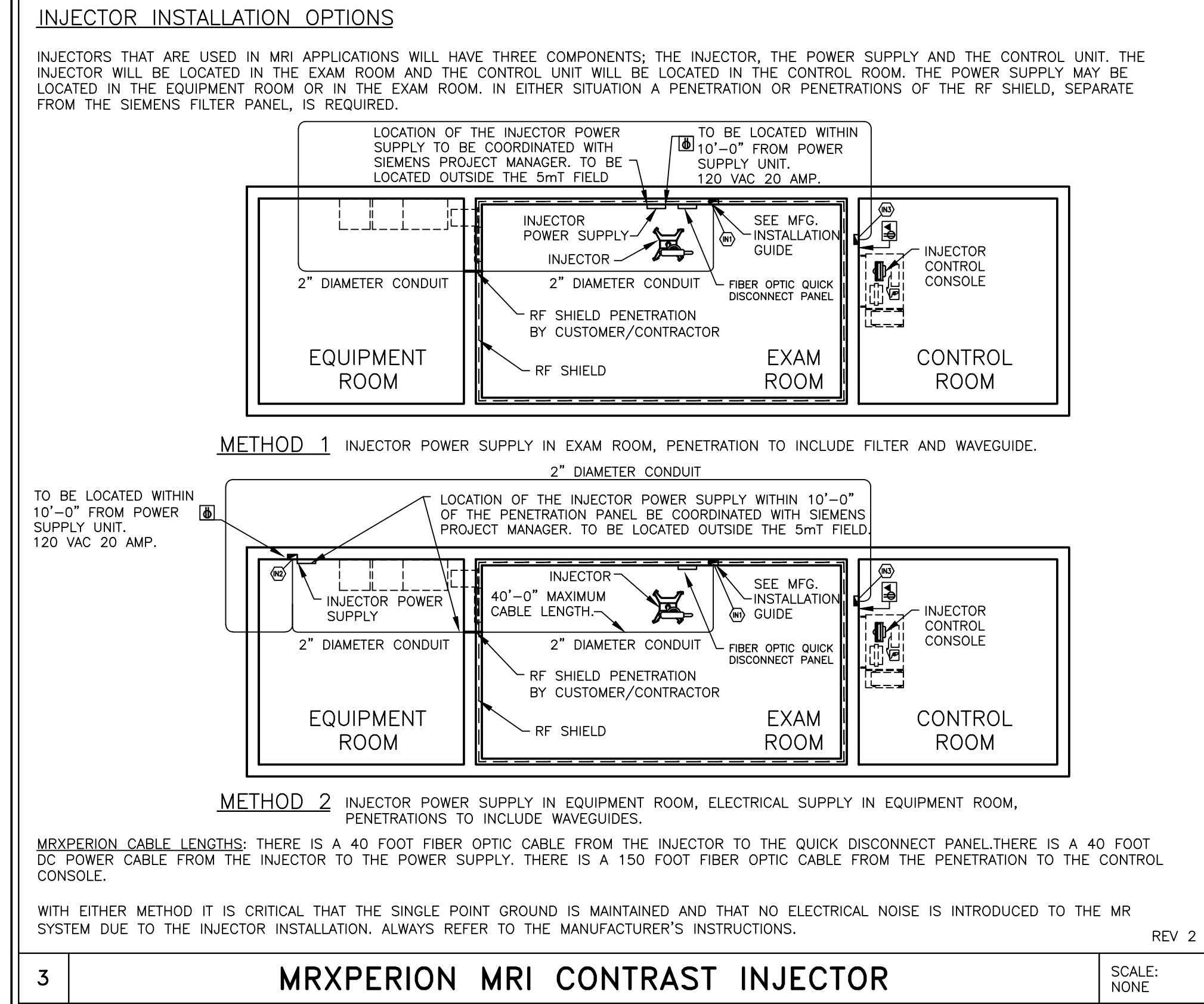
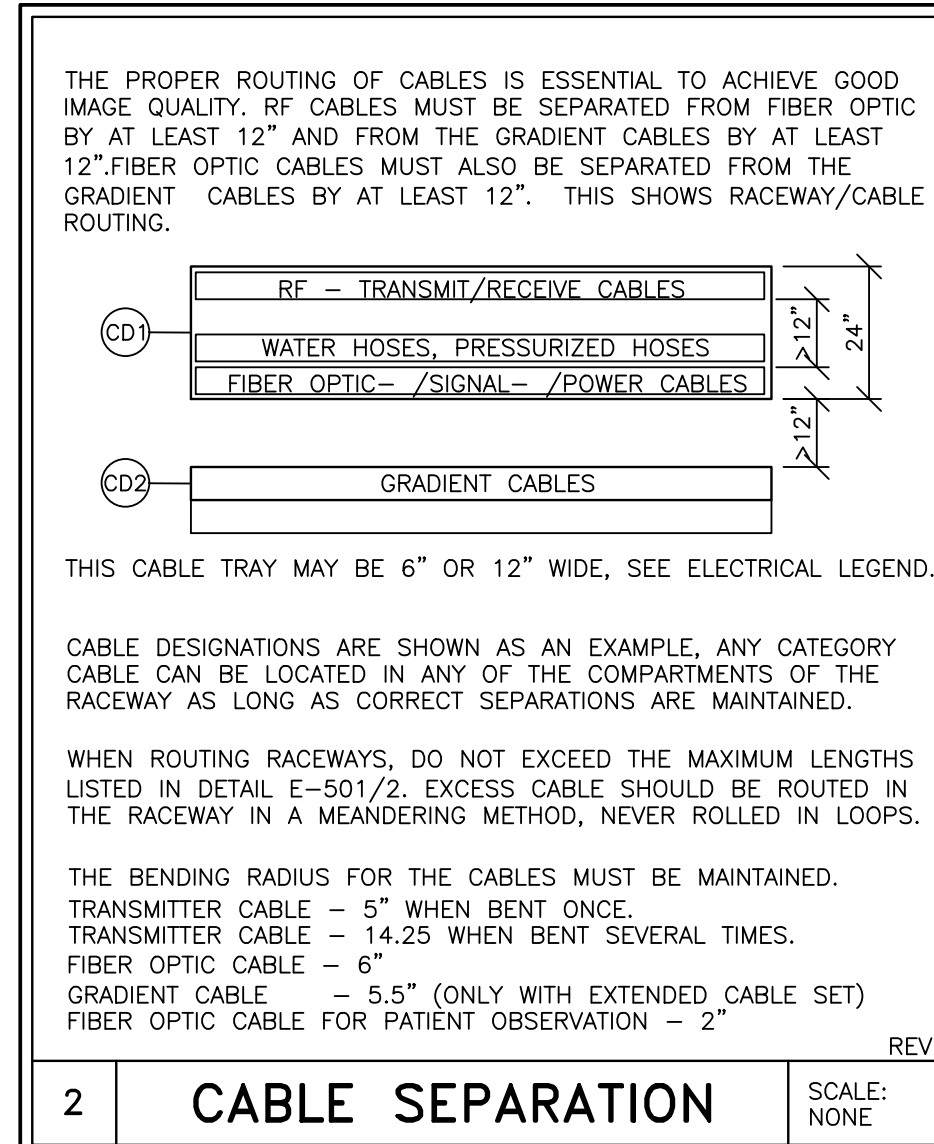
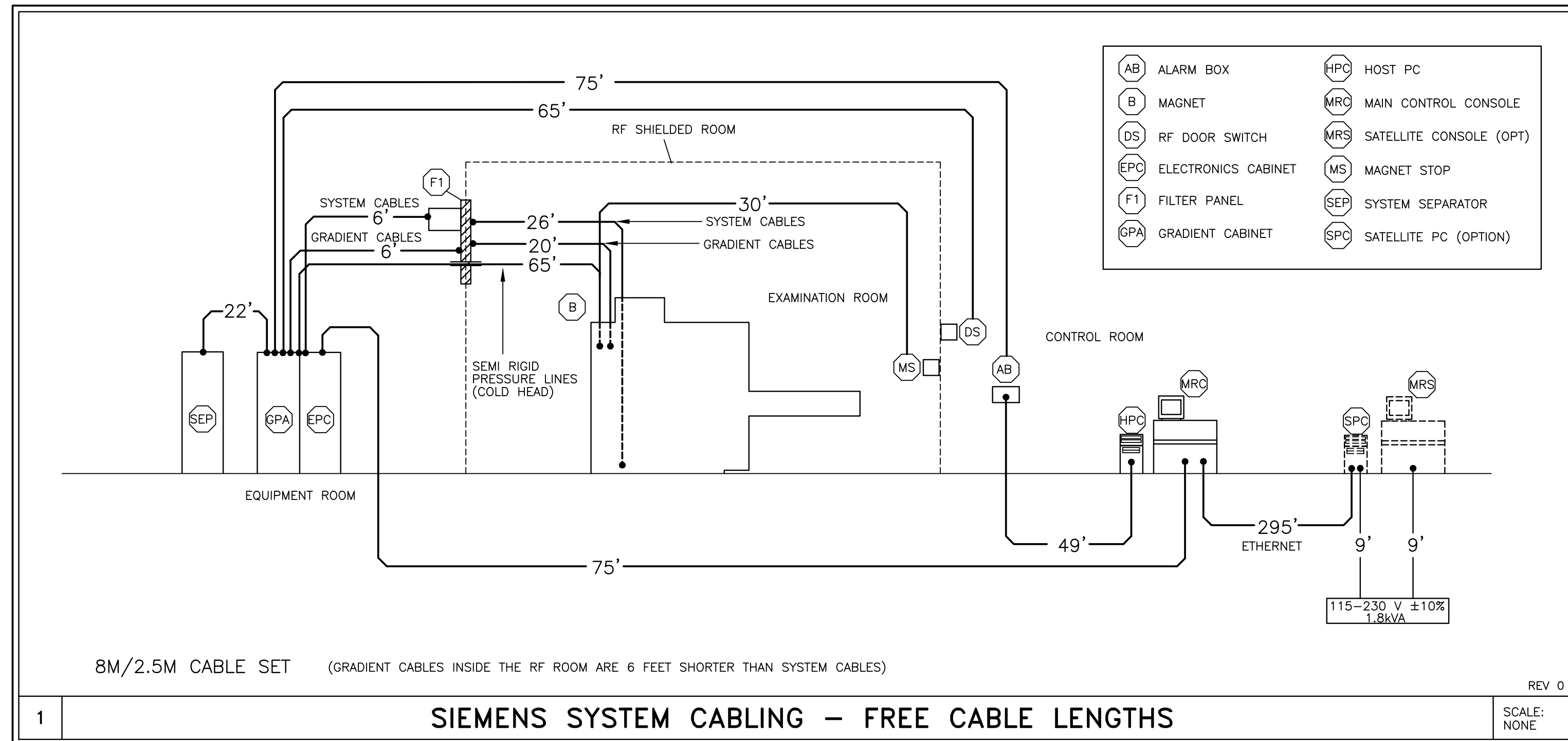
PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 VMAIL: EXT: FAX: EMAIL: jesse.hulsey@siemens-healthineers.com		SIEMENS
BARTLETT REGIONAL HOSPITAL 3260 HOSPITAL DR, JUNEAU, AK 99801-7808 MRI SUITE - MRI - MAGNETOM SOLA XJ GRADIENTS		
PROJECT #: 2100552		SHEET: E-102
SHEET 7 OF 10 DATE: 03/09/21		DRAWN BY: D. BRISTOE
SYMBOL DATE DESCRIPTION		SCALE: AS NOTED REF. # 30257551
-ISSUE BLOCK-		

ATTENTION:

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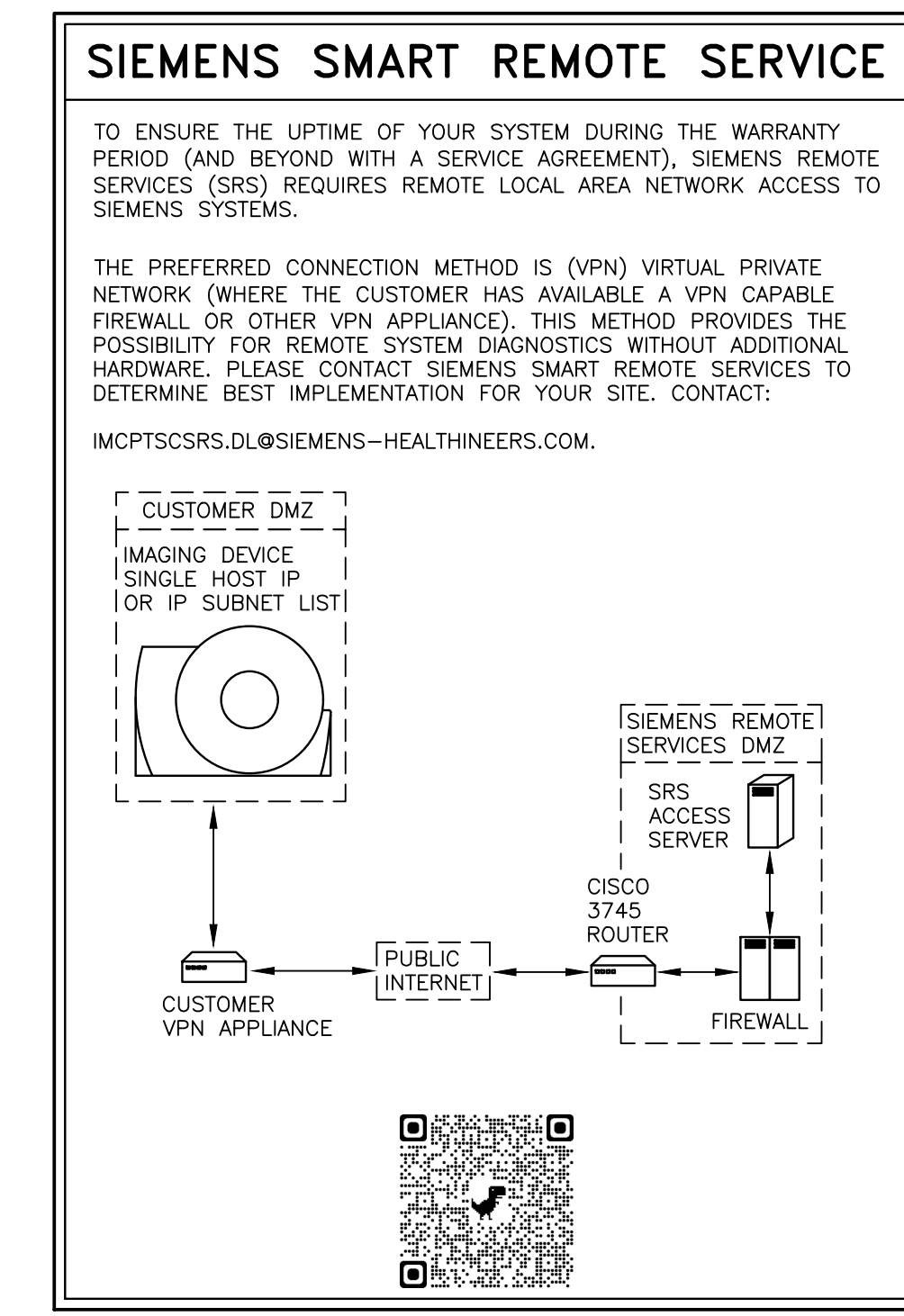
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- ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES.
- THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.



- ### CONDUITS AND RACEWAYS
- 1) ALL POWER CONDUCTORS SUPPLIED BY THE CUSTOMER/ CONTRACTOR SHALL BE INSTALLED IN METAL RACEWAY, 600 VOLT CLASS, STRANDED TYPE THHN-THWN, RATED FOR 75°C (165°F) OPERATION, RECOMMEND MINIMUM 5 FEET WIRE TAILS AT ALL OUTLET POINTS WITH WIRE IDENTIFICATION TAGGED AT BOTH ENDS FOR FINAL CONNECTION BY SIEMENS MEDICAL SYSTEMS.
 - 2) THE CABLE GROUPS INCLUDED WITH THE MAGNETOM SYSTEM MAY BE ROUTED IN THE SAME CABLE TRAY IF PROVIDED WITH AN 8" SEPARATION BETWEEN SMALL SIGNAL LINES, GRADIENT CABLES, AND THE RF TRANSMIT CABLE. A 24" WIDE LADDER TYPE CABLE TRAY IS RECOMMENDED. CABLES SHOULD NOT BE BUNDLED TOGETHER.
 - 3) NOTE THE CABLE CONNECTOR SIZES (LARGEST CONNECTOR SIZE IS 2 1/2" x 2 1/2") FOR CABLE FEED-THROUGHS AND CABLE DUCTS.
 - 4) THE CABLE LENGTHS SPECIFIED ARE THE STANDARD LENGTHS.
 - 5) THE SIEMENS SYSTEM CABLES ARE NOT PLENUM RATED AND SHOULD NOT BE RUN UNPROTECTED IN AN AIR PLENUM UNLESS ENCLOSED IN A SEALED CABLE TRAY OR CONDUIT.

- ### CABLE LENGTH RESTRICTIONS
- 1) THE CABLE SET LENGTH IDENTIFIES THE "FREE CABLE LENGTH". THIS IS THE LENGTH FROM CONNECTION POINT TO CONNECTION POINT. THE CABLE LENGTH IS NOT THE DISTANCE BETWEEN COMPONENTS.
 - 2) THE GRADIENT CABLES INSIDE THE RF SHIELDED ROOM ARE 6'-0" SHORTER THAN THE OTHER SYSTEM CABLES. THIS MEANS THAT IF THE 22' CABLE SET IS SELECTED, THE GRADIENT CABLES WILL BE 16' IN LENGTH. THE GRADIENT CABLES NEED TO GO UP INTO THE CABLE TRAY IN THE CEILING AT THE FILTER PLATE AND DOWN AT THE MAGNET. THESE VERTICAL RUNS MUST BE DEDUCTED FROM THE TOTAL CABLE LENGTH OF 16'.



CABLE PROTECTION

CABLES ARE NOT PLENUM RATED. ALL CABLES MUST BE ROUTED IN CABLE DUCTS OR CABLE CONDUITS.

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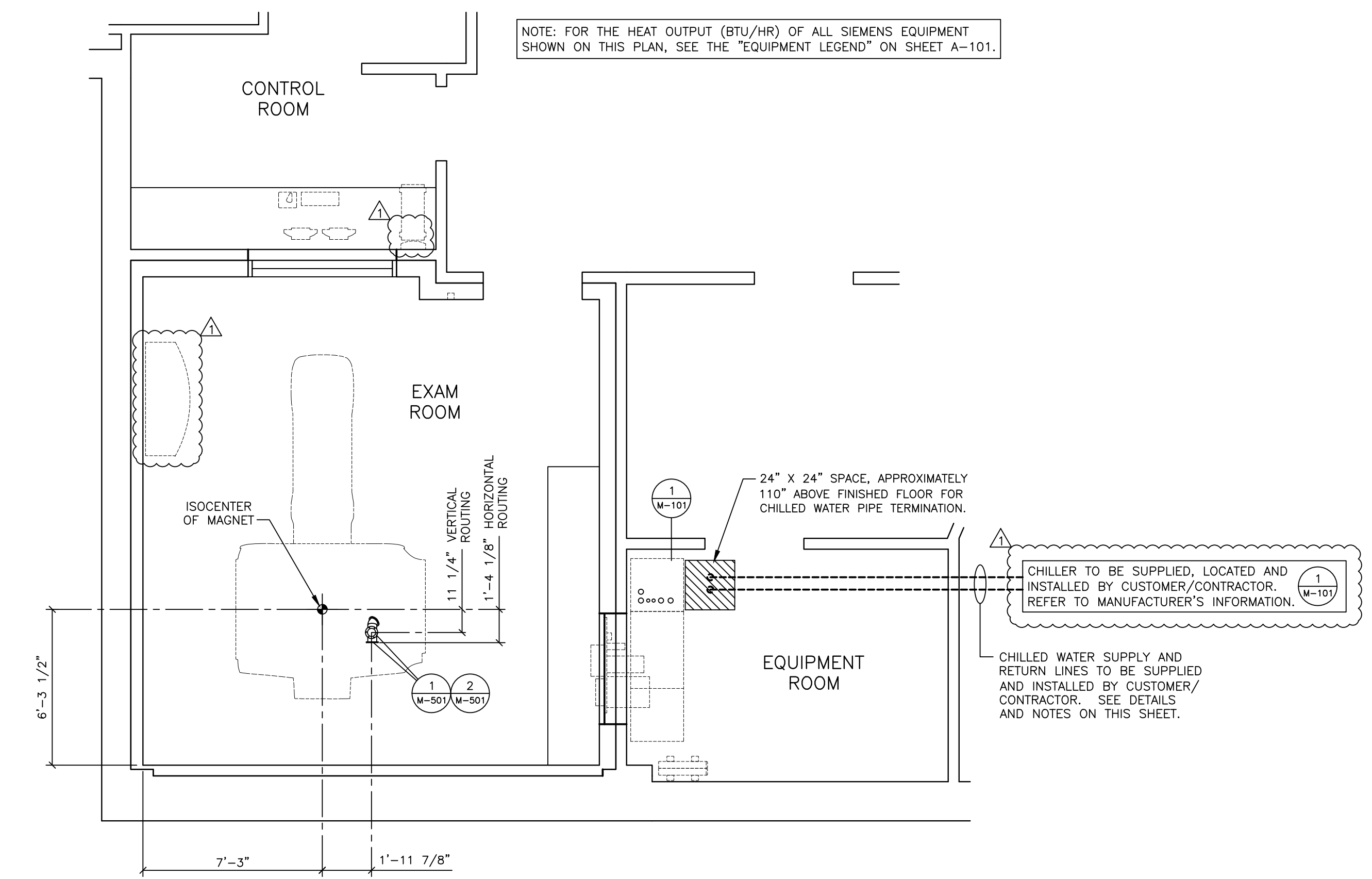
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		3260 HOSPITAL DR, JUNEAU, AK 99801-7808 MRI SUITE - MRI - MAGNETOM SOLA XJ GRADIENTS	
04/04/22	REMOVED SMS SUPPLIED CHILLER USING FACILITY CHILLED WATER	THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.	PROJECT #: 2100552
03/09/21	2100552RA DATED 02/08/21 APPROVED BY CUSTOMER FOR FINALS	ALL RIGHTS ARE RESERVED.	SHEET: E-501
SYM	DATE	DESCRIPTION	SHEET OF 8 OF 10
-ISSUE BLOCK-			DRAWN BY: D. BRISTOE
SCALE: AS NOTED		REF. # 30257551	DATE: 03/09/21

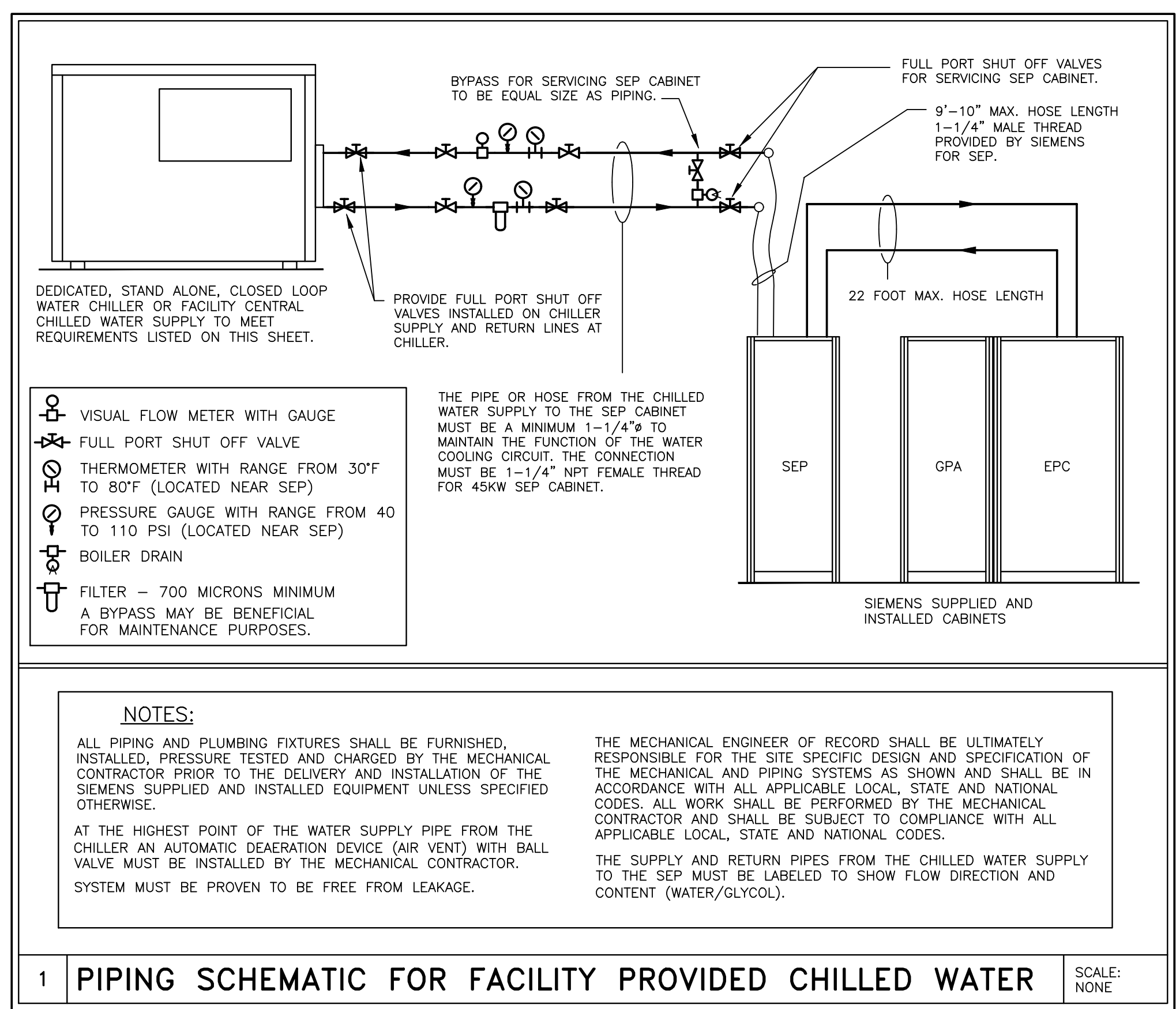
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MECHANICAL PLAN

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



CHILLED WATER SUPPLY

A CHILLED WATER SUPPLY IS REQUIRED TO THE MRI SYSTEM 24 HOURS A DAY, YEAR ROUND FOR THE COOL HEAD AND GRADIENT SYSTEMS. THIS CAN BE PROVIDED BY A CENTRAL CHILLED WATER SUPPLY OR A SEPARATE STAND ALONE CHILLER THAT MEETS THE STATED REQUIREMENTS. CHILLED WATER CAN ALSO BE SUPPLIED BY A CHILLER PROVIDED BY SIEMENS.

A SEPARATOR CABINET (SEP) OR INTERFACE PANEL (IFP) MUST BE INCLUDED WITH THE SIEMENS ORDER. THE PIPE SIZE BETWEEN THE WATER SUPPLY AND SEP MUST MEET MANUFACTURER AND SIEMENS REQUIREMENTS; LARGER DIAMETER PIPE MAY BE REQUIRED DUE TO LENGTH OF RUN. FLOW AND PRESSURE REQUIREMENTS MUST BE MET.

PERMISSIBLE MATERIALS THAT CAN BE USED FOR THE PIPING ARE: STAINLESS STEEL (V2A, V4A), NON-FERROUS METAL (COPPER, BRASS), SYNTHETIC MATERIAL, PLASTICS, BRAZING SOLDER, HARD SOLDER, OR FITTING SOLDER TYPE 3 AND 4. THERE ARE MATERIALS THAT MAY CAUSE DAMAGE TO THE COOLING SYSTEM AND CANNOT BE USED, THESE MATERIALS ARE ALUMINUM, IRON, CARBON STEEL, ZINC, ZINC PLATED STEEL, OR STANDARD STEEL PIPES.

27 GALLONS OF DISTILLED/DE-IONIZED WATER MUST BE PROVIDED AND INSTALLED BY CUSTOMER/CONTRACTOR FOR FILLING THE SECONDARY CHILLED WATER CIRCUIT.

SEE MANUFACTURER'S REQUIREMENTS FOR GLYCOL AND WATER QUALITY TO BE PROVIDED AND FILLED BY CUSTOMER/CONTRACTOR.

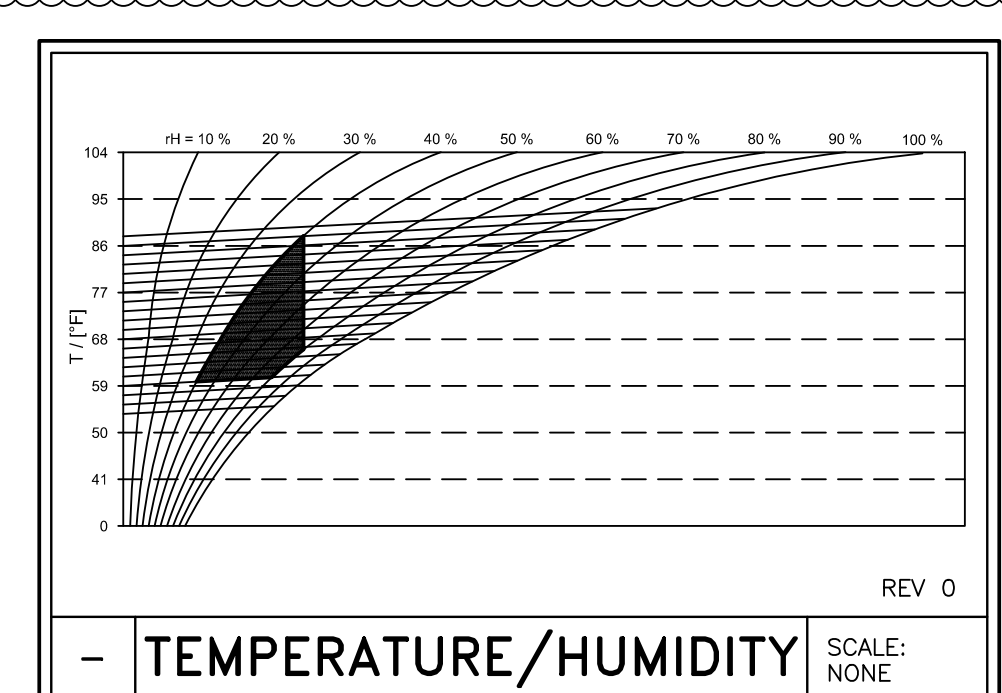
THE SUPPLY AND RETURN CHILLED WATER PIPES MUST BE LABELED. THE LOCATION OF THE LABELS MUST BE AT ALL CONNECTION AND REFILLING POINTS AND MUST CONTAIN FLOW DIRECTION AND CONTENTS.

CHILLED WATER REQUIREMENTS

XJ GRADIENTS

WATER REQUIREMENTS TO BE MEASURED AT THE SEP CABINET.

FLOW RATE:	23.78-29.05 GPM
WATER TEMPERATURE:	42.8°F - 53.6°F
BTU DISCHARGE TO THE WATER	170,759 BTU/HR
WATER PRESSURE	MAXIMUM 87 PSI
LOSS OF PRESSURE FOR SEP CABINET	<14.5 PSI 11.6 TYPICAL
CHILLED WATER ACIDITY RANGE	6 pH TO 8 pH
CHILLED WATER HARDNESS	<250 ppm CALCIUM CARBONATE
CHLORINE GAS CONCENTRATION	<200 ppm
FILTRATION	700 μm



CEILING HEIGHTS

EXAM ROOM 7'-11" MINIMUM

CONTROL ROOM 6'-11" MINIMUM

EQUIPMENT ROOM 7'-3" MINIMUM

ENVIRONMENTAL REQUIREMENTS

- AIR CONDITIONING IS TO PROVIDE A TEMPERATURE OF 70°F ±5°F IN THE EXAM ROOM, 70°F±10°F IN THE EQUIPMENT & CONTROL AREAS. RELATIVE HUMIDITY OF 40-60% (NON-CONDENSING) IS REQUIRED EXAMINATION ROOM AND 40-80% (NON-CONDENSING) IN ALL OTHER AREAS WHERE SIEMENS EQUIPMENT IS INSTALLED. THESE CONDITIONS ARE TO BE MET AT ALL TIMES; 24 HOURS A DAY, 7 DAYS A WEEK.
- A DEDICATED AIR CONDITIONING AND HUMIDIFICATION SYSTEM IS RECOMMENDED FOR THE EXAM ROOM. A MINIMUM AIR EXCHANGE RATE OF 6 TIMES PER HOUR FOR THE EXAM ROOM IS REQUIRED. IT IS RECOMMENDED TO INSTALL A FRESH AIR SYSTEM WITH 30%-50% FRESH AIR INTAKE. AIR SUPPLY AND RETURN ABOVE THE FINISHED CEILING IN THE EXAM ROOM IS RECOMMENDED. EACH ROOM SHOULD HAVE A DEDICATED CONTROL AND SENSOR TO MONITOR AND ADJUST THE AIR.
- THE HEAT INTO THE EXAM ROOM IS LESS THAN 10,236 BTU/HR. THE HEAT INTO THE EQUIPMENT ROOM IS LESS THAN 3,412 BTU/HR. THIS HEAT DISSIPATION IS FROM THE SIEMENS EQUIPMENT ONLY. AUXILIARY SUPPORT EQUIPMENT (ie. UPS) AND LIGHTING MUST BE CONSIDERED FOR TOTAL HEAT LOADS.
- IT IS IMPORTANT FOR FRESH AIR INTAKE SYSTEMS TO EXHAUST AIR DIRECTLY OUT OF THE BUILDING. THE EXHAUST AIR MUST NOT BE DEFLECTED INTO ANOTHER ROOM. THE MAGNET ROOM EXHAUST AIR SHOULD BE INSTALLED AT LEAST 6'-6" ABOVE FINISHED FLOOR.
- THE AIR INTAKE OF THE AIR CONDITIONING SYSTEM MUST NOT BE LOCATED IN THE VICINITY OF THE QUENCH VENT EXHAUST.
- IF THE INPUT DRAWS UPON AIR FROM OUTSIDE THE BUILDING, IT IS RECOMMENDED TO INSTALL AN ON-SITE FILTER TO REMOVE DUST PARTICLES GREATER THAN 10 MICRONS.
- DO NOT LOCATE ANY HVAC DIFFUSERS ABOVE THE MAGNET. THERE SHALL NOT BE AIR BLOWING DIRECTLY ON THE MAGNET. 12/11/12

MECHANICAL NOTES

- THE AIR H.V.A.C. SYSTEM MUST OPERATE FOR A MINIMUM OF 48 CONSECUTIVE HOURS PRIOR TO THE DELIVERY OF THE EQUIPMENT.
- THE FILTERS MUST BE CHANGED IMMEDIATELY PRIOR TO THE DELIVERY OF THE EQUIPMENT.
- SIEMENS REQUIRES THE USE OF A DEDICATED H.V.A.C. SYSTEM FOR THE EQUIPMENT ROOM TO BE LOCATED, SIZED AND SPECIFIED BY THE MECHANICAL ENGINEER OF RECORD AND TO BE SUPPLIED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- SIEMENS RECOMMENDS THAT THE CUSTOMER PROVIDE AND INSTALL AN OXYGEN MONITORING SYSTEM WITH VISUAL AND AUDIBLE ALARMS TO INDICATE WHEN THE OXYGEN CONTAINED IN AMBIENT AIR FALLS BELOW PRE-PROGRAMMED SAFETY LEVELS WITH THE SENSOR TO BE LOCATED IN THE SCAN ROOM IN THE AREA DESIGNATED FOR CRYOGEN FILLING.
- THE SIEMENS ACTIVE SHIELDED MAGNET RECIRCULATES LIQUID HELIUM, ELIMINATING THE NEED FOR A DEDICATED CRYOGEN STORAGE AREA. THE RECIRCULATING SYSTEM SIGNIFICANTLY REDUCES THE HELIUM "BOIL OFF". THE MAGNET WILL REQUIRE OCCASIONAL FILLING. A DELIVERY ROUTE FOR CRYOGEN DEWARS MUST BE ESTABLISHED. A MINIMUM 36" CLEARANCE IS REQUIRED.

REV 0

FIRE CONTROL NOTES

- SIEMENS HAS NO SPECIFIC REQUIREMENT FOR FIRE PROTECTION. FIRE PROTECTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH LOCAL CODES AND CUSTOMER'S INSURANCE REQUIREMENTS. ALL FIRE PROTECTION SYSTEMS SHALL BE DEFINED BY THE ARCHITECT OF RECORD WITH DESIGN, SPECIFICATION AND DETAILING OF THE FIRE PROTECTION SYSTEM BY THE MECHANICAL ENGINEER OF RECORD IN ACCORDANCE WITH SIEMENS GUIDELINES AS STATED HEREIN. THE ELECTRONIC EQUIPMENT OF THE MR SYSTEMS WILL BE DAMAGED BY WATER, REDUCTION OR ELIMINATION OF WATER USED FOR FIRE SUPPRESSION WILL REDUCE POTENTIAL WATER DAMAGE. PRE-ACTION INERT GAS, OR HALOCARBONS OR OTHER METHODS CAN REDUCE OR ELIMINATE WATER. REFER TO YOUR FIRE PROTECTION PROFESSIONAL.
- THE USE OF SMOKE DETECTORS INSIDE OF THE MR EXAMINATION ROOM IS NOT RECOMMENDED. SMOKE DETECTORS, BY DESIGN, CAN GENERATE NOISE THAT MAY INTERFERE WITH THE MRI EXAMINATION AND CAUSE IMAGE ARTIFACTS. IF THE USE OF A SMOKE DETECTOR IN THE EXAMINATION ROOM IS MANDATED BY LOCAL REQUIREMENTS, SPECIAL NOISE TESTS MUST BE PERFORMED BY SIEMENS SERVICE AFTER THE MRI IS OPERATIONAL. MRI EQUIPMENT PERFORMANCE PROBLEMS DUE TO SMOKE DETECTORS ARE THE RESPONSIBILITY OF THE CUSTOMER AND ARE NOT COVERED UNDER WARRANTY OR SERVICE AGREEMENT.
- ALL MATERIAL USED INSIDE THE MAGNET ROOM SHALL BE NON-MAGNETIC. SEE CONSTRUCTION REQUIREMENTS.
- ALL PENETRATIONS IN THE RF CABIN/SHIELD SHALL BE THROUGH A WAVE GUIDE TO BE EQUIPPED WITH A DIELECTRIC COUPLER ON BOTH ENDS OF THE WAVE GUIDE. ALL WAVE GUIDES SHALL BE DESIGNED, DETAILED AND SPECIFIED BY THE RF CABIN/SHIELD CONTRACTOR WITH ALL LOCATIONS TO BE DETERMINED BY THE ARCHITECT AND MECHANICAL ENGINEER OF RECORD TO BE ESTABLISHED IN A PRE-PLANNING MEETING PRIOR TO THE DESIGN, SPECIFICATION, AND FABRICATION OF THE RF CABIN/SHIELD.
- EACH ELECTRICAL PENETRATION OF THE RF CABIN/SHIELD FOR ELECTRICAL SERVICING OF THE FIRE PROTECTION SYSTEM SHALL BE THROUGH AN RF FILTER TO BE SUPPLIED BY THE RF SHIELD CONTRACTOR WITH FILTER LOCATIONS TO BE DETERMINED BY THE ARCHITECT AND THE ELECTRICAL ENGINEER OF RECORD TO BE ESTABLISHED IN A PRE-PLANNING MEETING PRIOR TO THE DESIGN, SPECIFICATION AND FABRICATION OF THE RF CABIN/SHIELD.
- IT IS PERMISSIBLE TO RUN "BLACK PIPE" UP TO THE DIELECTRIC COUPLER ON THE OUTSIDE OF THE RF SHIELD.
- THERE MUST BE NO GROUND CONNECTIONS MADE DURING THE INSTALLATION OF EITHER THE PIPING OR ELECTRICAL FOR THE FIRE PROTECTION SYSTEM.
- THE USE OF HALON IS NOT ACCEPTABLE.
- THE LOCATION OF FIRE CONTROL SYSTEM COMPONENTS SHALL BE COORDINATED THROUGH THE ARCHITECT OF RECORD WITH ALL LOCATIONS TO BE COORDINATED WITH SIEMENS EQUIPMENT LOCATIONS AS SHOWN ON THE 1/4" SCALE EQUIPMENT LOCATION PLAN.
- THE FIRE CONTROL CONTRACTOR SHALL VERIFY EQUIPMENT MOUNTING PROCEDURES AND LOCATIONS ON ANY WALLS CONTAINING RF SHIELDING WITH THE SIEMENS PROJECT MANAGER PRIOR TO THE COMMENCEMENT OF WORK.

REV 1

COMPRESSOR LINE INSULATION

COMPRESSOR LINES RUNNING FROM THE COMPRESSOR (OR SEP CABINET) TO THE MAGNET ARE INSULATED BY SIEMENS. ADDITIONAL INSULATION (ARMAFLEX OR EQUIVALENT) FOR NOISE REDUCTION (CHIRPING) MAY BE REQUIRED. ADDITIONAL INSULATION NOT PROVIDED BY SIEMENS.

REV 0

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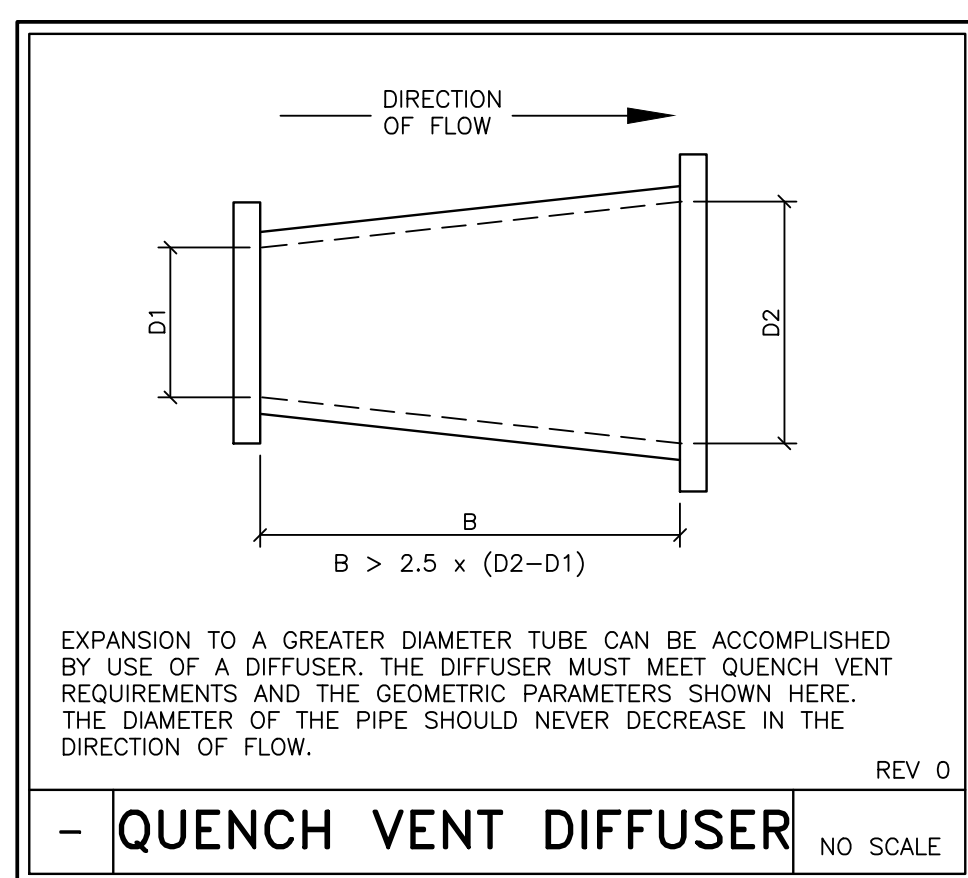
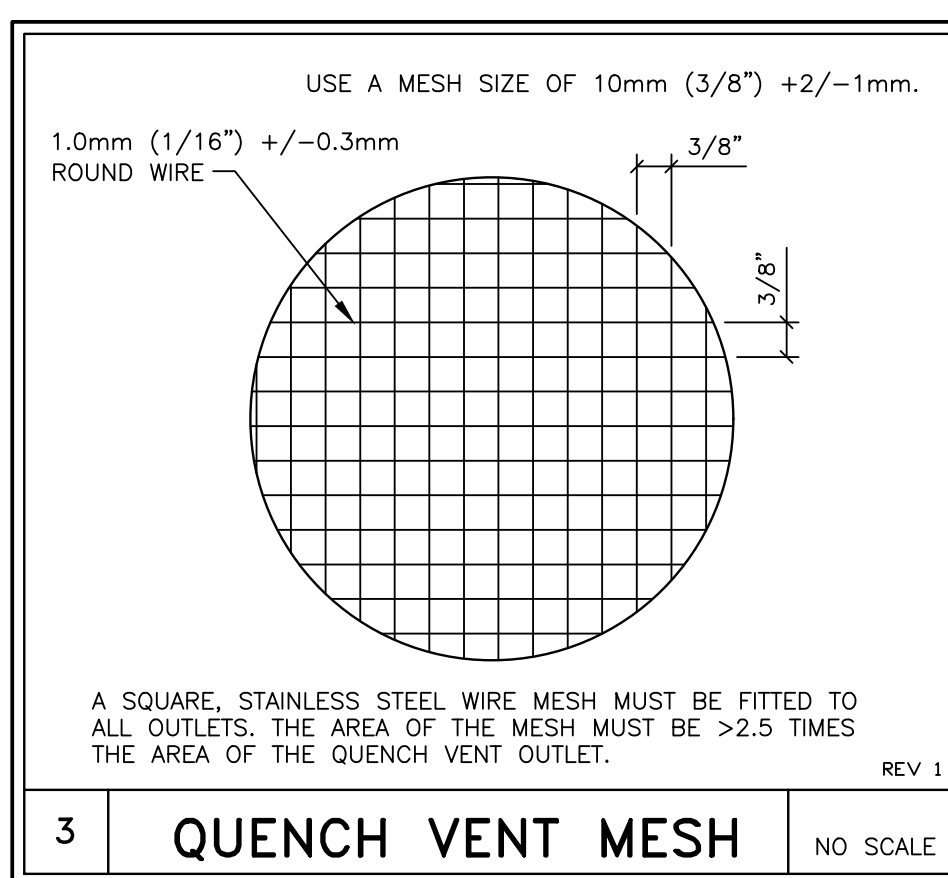
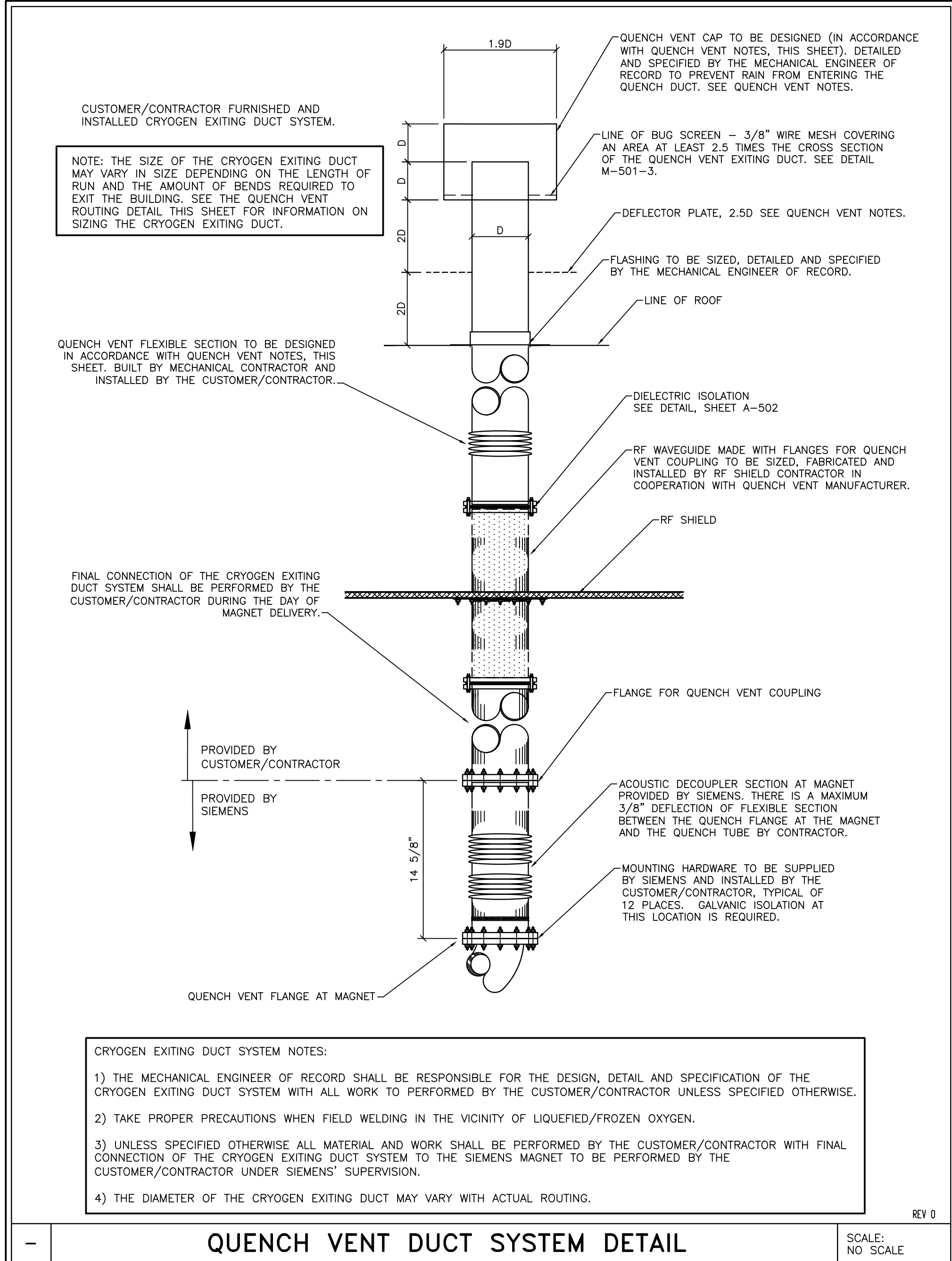
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PROJECT #: 2100552		SHEET: M-101	
SHEET 9 OF 10		DRAWN BY: D. BRISTOE	
DATE: 03/09/21		REF. # 30257551	
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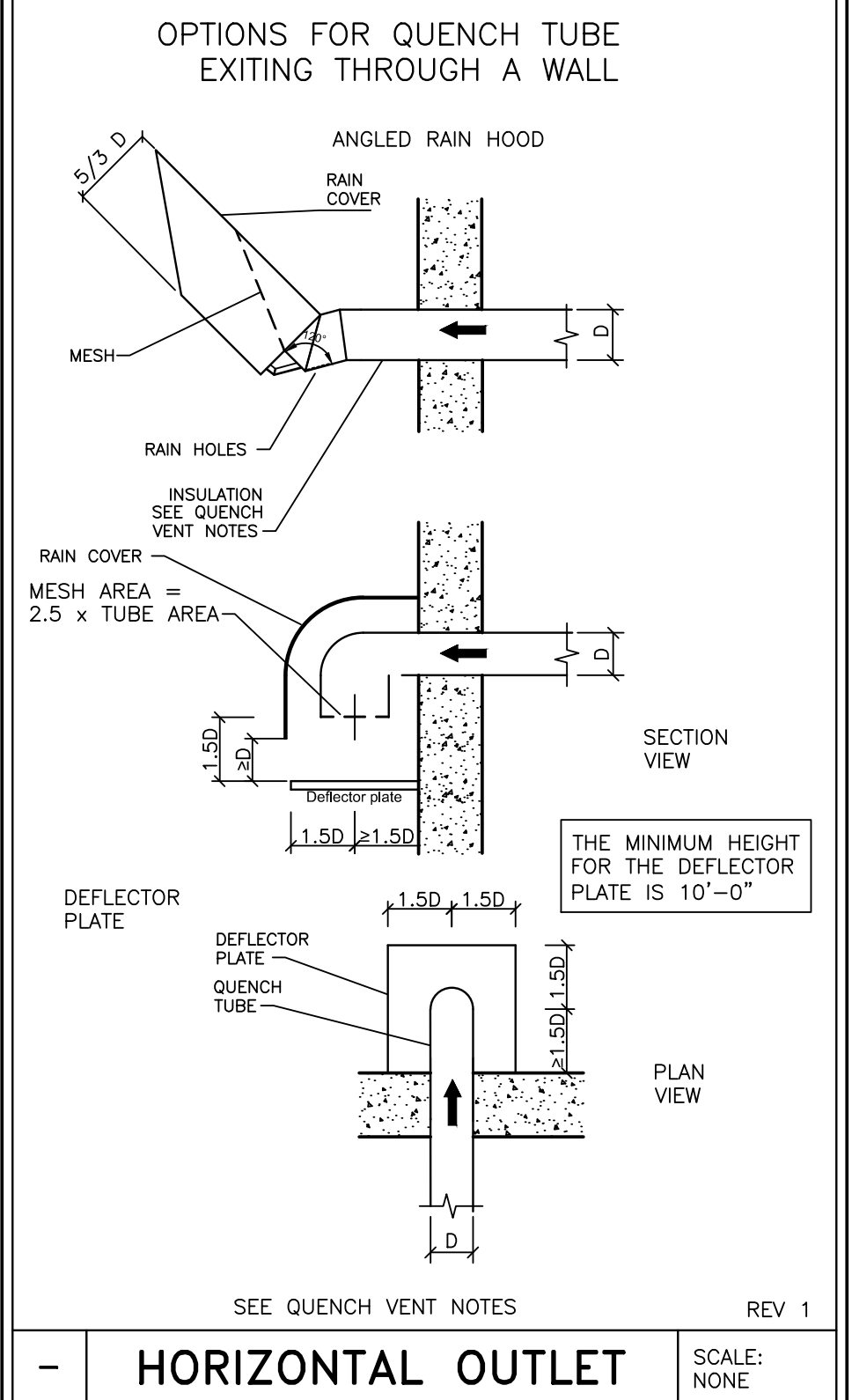
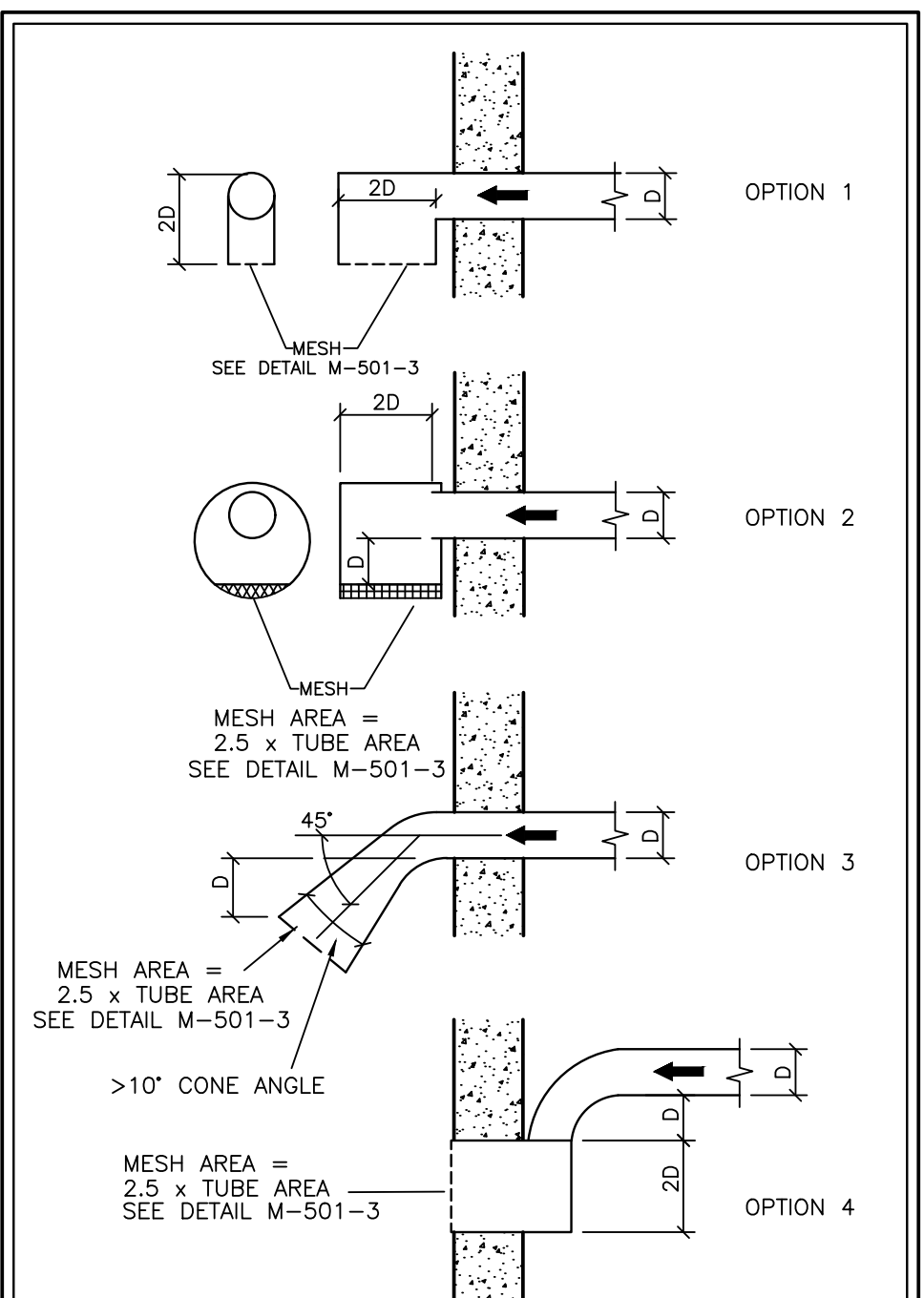
PROJECT: BARTLETT REGIONAL HOSPITAL
3260 HOSPITAL DR, JUNEAU, AK 99801-7808
MRI SUITE - MRI - MAGNETOM SOLA XJ GRADIENTS



CRYOGEN NOTES

- "CRYOGENS" IS A TERM USED TO IDENTIFY THE REFRIGERANT USED TO MAKE THE MAGNET "SUPER-CONDUCTING". IN THIS APPLICATION, LIQUID AND GASEOUS HELIUM. SPECIAL CARE MUST BE TAKEN DURING THE TRANSFERRING OF THE MAGNET WITH CRYOGENS AND NORMAL EXHAUST OF CRYOGENS FROM THE SYSTEM. ASIDE FROM THE OBVIOUS DANGER OF FREEZING, HELIUM GAS WILL ALSO DISPLACE THE OXYGEN IN THE ROOM. THE INSTALLATION OF AN APPROVED TOXGARD MONITORING SYSTEM IS RECOMMENDED.
- THERE SHALL BE A TRANSPORT ROUTE FOR DELIVERY OF CRYOGENS TO THE EXAM ROOM. SPECIAL VESSELS CALLED DEWARs ARE USED TO TRANSPORT HELIUM. A 250 LITER DEWAR WEIGHS 335 POUNDS AND HAS A 32" DIAMETER, A 500 LITER IS 540 POUNDS, AND IS 42" IN DIAMETER.
- HELIUM GAS CYLINDERS MAY BE USED DURING THE INITIAL FILLING OF HELIUM INTO THE MAGNET. THE FACILITY IN WHICH THESE MAY BE USED NEEDS TO HAVE THE ABILITY TO TEMPORARILY STORE AND SECURE THESE CYLINDERS THAT WILL PREVENT THEM FROM INADVERTENTLY FALLING OVER.
- OUTSIDE VENTING OF THE HELIUM IS TO BE PROVIDED BY MEANS OF A VENT PIPE OF NON-MAGNETIC MATERIAL CALLED A QUENCH VENT.

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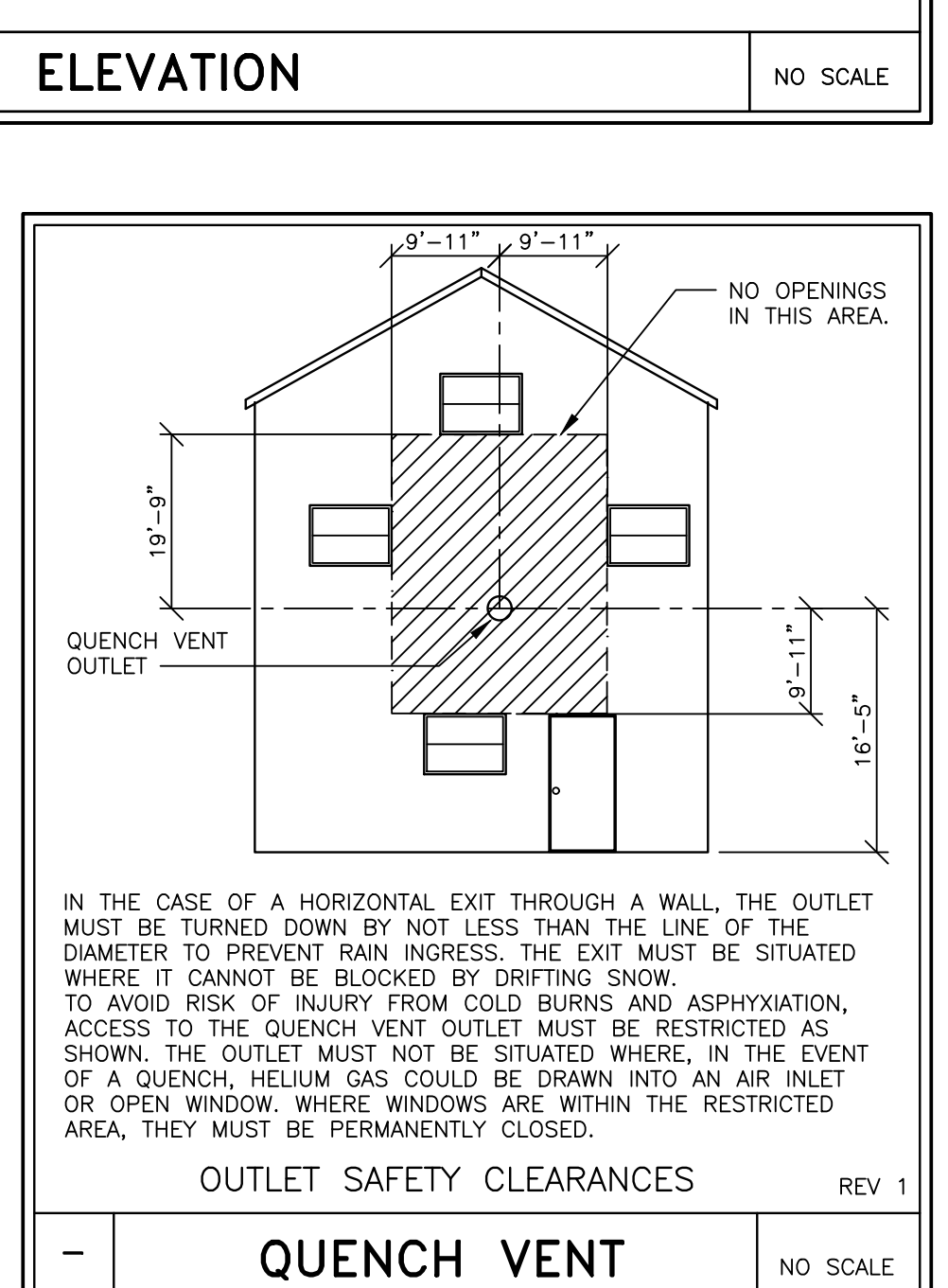
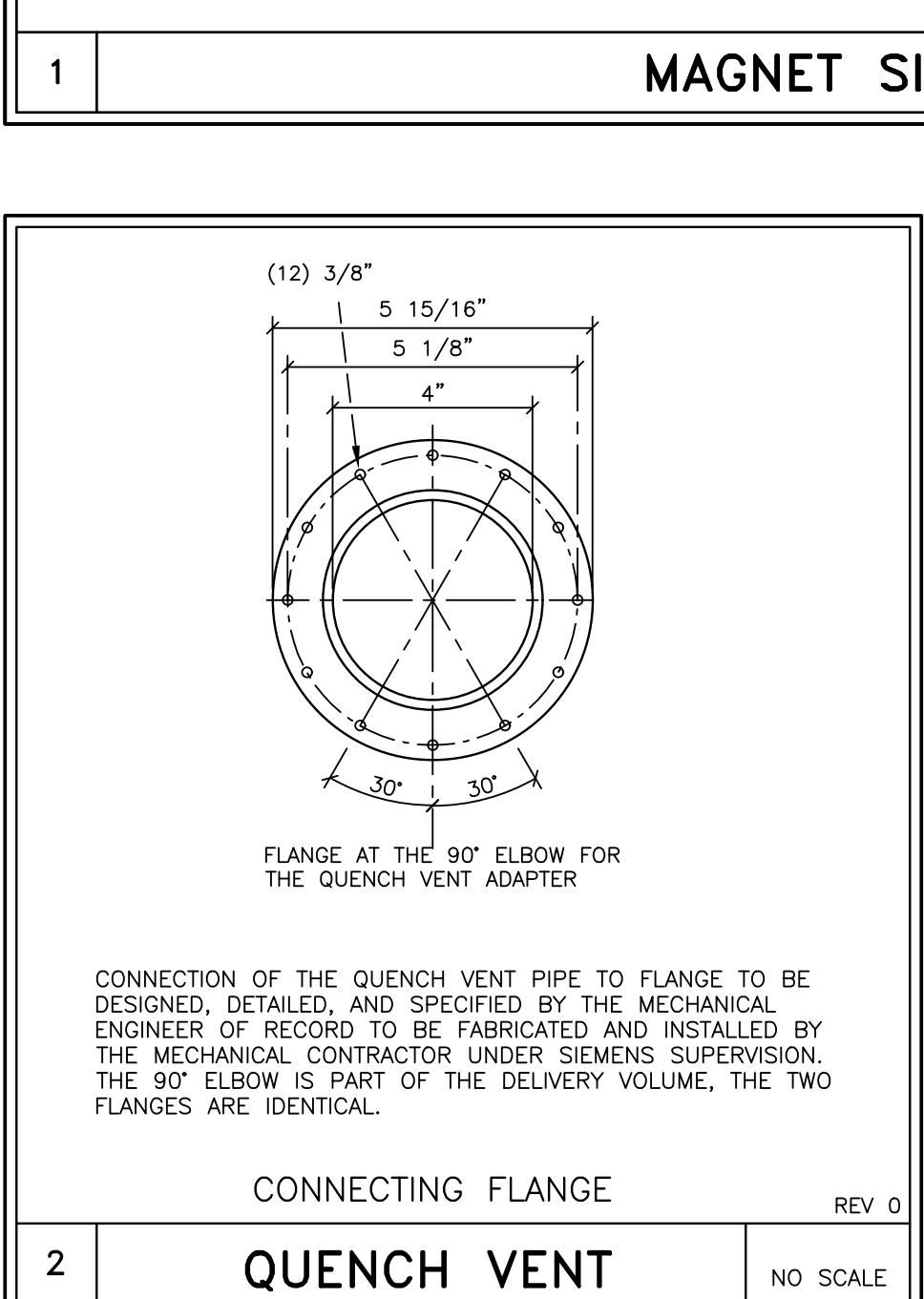
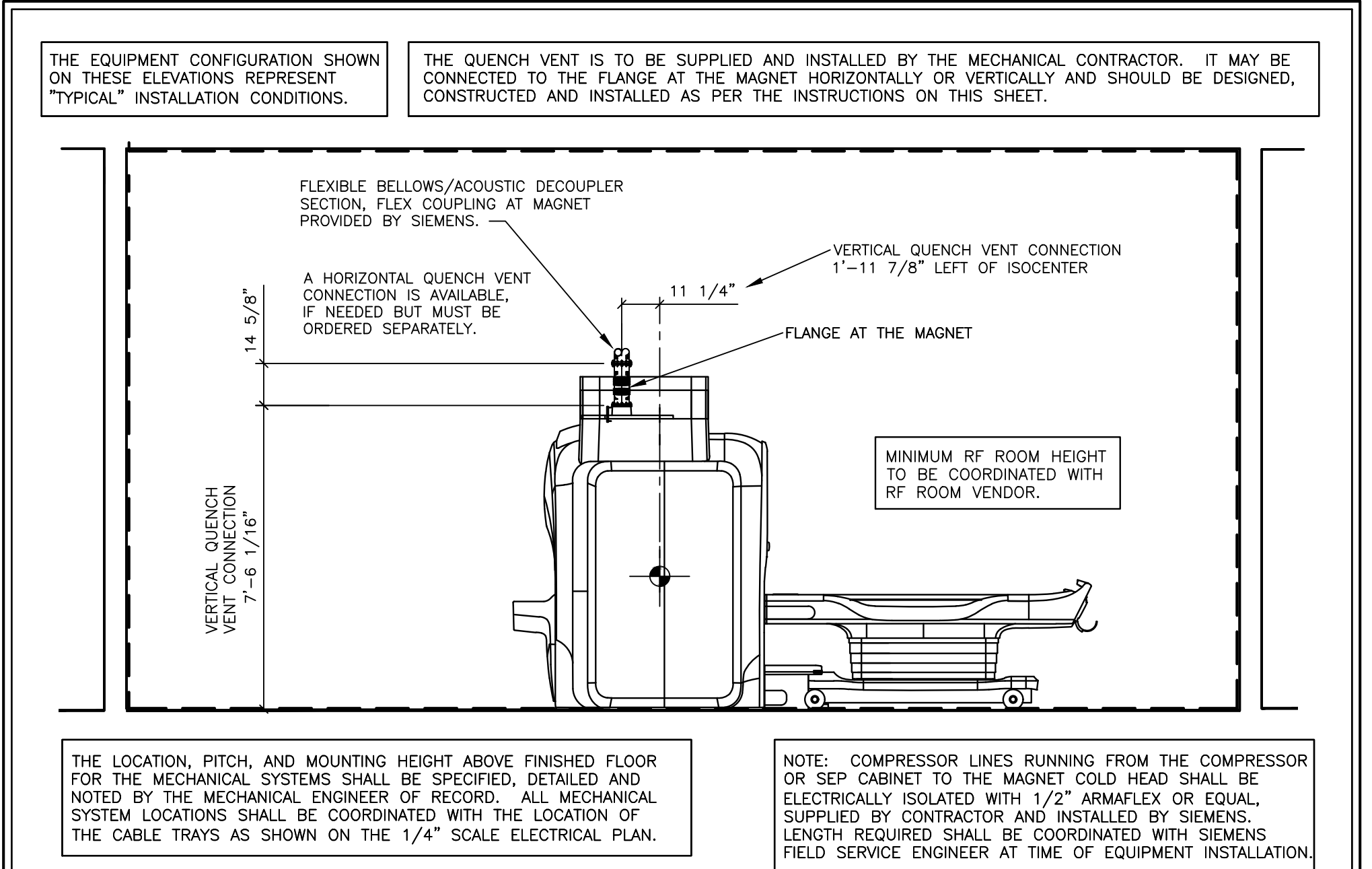


QUENCH VENT NOTES

QUENCH VENT DESIGN INSTRUCTIONS

- IN THE EVENT OF A QUENCH, THE THERMAL ENERGY DISSIPATED CAUSES AN EXTREMELY RAPID BOIL OFF OF THE LIQUID HELIUM. THE SYSTEM MUST BE CAPABLE OF VENTING THE LARGE VOLUME OF GAS GENERATED AT THE APPROXIMATE EXPANSION RATIO OF 1:700 FROM LIQUID AT 4.2K TO ROOM TEMPERATURE GAS. THE EXHAUST SYSTEM IS CRITICAL FOR THE SAFE OPERATION OF THE MAGNET. THE DATA IN THIS DOCUMENT MUST BE FOLLOWED. SINCE HELIUM VENTED IN A QUENCH IS AN ASPHYXIANT & AN EXTREMELY COLD GAS, THE QUENCH TUBE MUST ALWAYS END AT A POINT WHERE ACCESS BY PEOPLE IS NOT POSSIBLE. QUENCH TUBE PLANNING MUST ONLY BE DONE BY QUALIFIED PERSONNEL. IT IS THE OWNER'S RESPONSIBILITY TO ENSURE THAT THE QUENCH TUBE IS MAINTAINED IN AN OPERABLE STATE.
- IF THE QUENCH VENT IS NOT CONFIGURED CORRECTLY THERE IS A RISK OF DANGER THAT MAY LEAD TO DEATH OR SERIOUS INJURY AND CAN RESULT IN STRUCTURAL DAMAGE. THE EXHAUST MUST NOT BE VENTED IN AN ENCLOSED SPACE. THE OPERATOR OF THE SYSTEM MUST PREPARE AN EMERGENCY PLAN IN THE EVENT OF A QUENCH.
- THE QUENCH TUBE CONSISTS OF STRAIGHT, HYDRAULICALLY SMOOTH SECTIONS, BENDS UP TO 90° AND A DIFFUSER, IF REQUIRED. THE END OF THE TUBE MUST BE PROTECTED FROM RAIN, SNOW, AND FOREIGN OBJECTS. ROUND SECTIONS ONLY, NO SQUARE SECTIONS.
- THE SIEMENS MAGNET HAS A QUENCH VALVE ASSEMBLY FOR CONNECTION TO THE TUBE LOCATED AT THE TOP LEFT SIDE OF THE MAGNET (SEE MAGNET ELEVATION). THE MECHANICAL CONTRACTOR WILL SUPPLY AND INSTALL A QUENCH VENT TUBE WITH CAP, TO BE NON-MAGNETIC STAINLESS STEEL (≥22 GAUGE RECOMMENDED). GRADES AISI304, 309, 316, OR 321 ONLY. THERMAL CONDITIONS MAY CAUSE THE TUBE TO CONTRACT UP TO 3mm/METER SO A STAINLESS STEEL BELLOWS OR FLEXIBLE SECTION MUST BE INSTALLED A MINIMUM OF EVERY 32'-9" NOT TO EXCEED 2% OF THE OVERALL LENGTH. THE QUENCH TUBE MAY ALSO BE MADE OF ALUMINUM, EXTRUDED TUBE ALUMINUM GRADES 6063 AND 6062 ONLY MUST BE USED. ROLLED AND WELDED TUBE FROM SHEET ALUMINUM GRADE 5083 ONLY MUST BE USED. THE WALL SECTIONS OF ALUMINUM TUBE MUST BE A MINIMUM 14 GAUGE. THERMAL CONTRACTION OF 4.5 MM/METER MUST BE CONSIDERED FOR ALUMINUM QUENCH TUBES. THE MOVEMENT OF THE BELLOWS MUST BE RESTRICTED TO PREVENT EXCESSIVE EXPANSION DUE TO PRESSURE. THE WEIGHT OF THE TUBE MUST BE SUPPORTED BY THE BUILDING AND BE FLEXIBLE ENOUGH TO ALLOW MOVEMENT FROM THERMAL CONTRACTION. THE WALL EXIT SHOULD ALSO BE FLEXIBLE.
- PRESSURE CALCULATION**
5) THE MAXIMUM INTERNAL PRESSURE IS CALCULATED AT 1.45 PSI. THE MAXIMUM PRESSURE SHOULD BE ENGINEERED FOR 6.5 PSI.
- USE THE QUENCH VENT CALCULATOR PROVIDED BY SIEMENS TO DESIGN A QUENCH VENT THAT MEETS DESIGN REQUIREMENTS FOR DIAMETER, LENGTH, NUMBER OF ELBOWS AND PRESSURE DROP. ALL BENDS MUST BE SMOOTH WELDED AND HAVE A CENTERLINE TO INTERNAL PIPE DIAMETER RATIO OF 1.5 TO 5.0. EXPANSIONS TO PIPE DIAMETER CAN BE DONE WITH A DIFFUSER. ONLY ROUND TUBE SECTIONS MAY BE USED, RECTANGULAR SECTIONS ARE NOT ALLOWED.
- THERE MUST BE A 12-19 INCH FLEXIBLE SECTION OF PIPE FOR CONNECTION TO THE QUENCH VALVE AT THE MAGNET WITH AN INSIDE DIAMETER GREATER THAN 4" (1.57) OR 6" (3.07) AND ABLE TO WITHSTAND 6.5 PSI.
- CONNECTING SECTIONS**
8) SECTIONS OF THE PIPE CAN ONLY BE JOINED BY WELDING OR BOLTED FLANGES WITH FIBER GASKETS. ROTARY FLANGES ARE PERMITTED, VEE CLAMPED FLANGES MAY NOT BE USED.
- QUENCH VENT EXIT**
9) THE PROTECTION AT THE END OF THE TUBE SHALL BE 3/8" WIRE MESH WITH 1/16 INCH WIRES, COVERING AN AREA AT LEAST 2.5 TIMES THE CROSS SECTION AREA OF THE QUENCH PIPE.
10) WHERE THE QUENCH TUBE EXITS THROUGH A FLAT ROOF, THE OUTLET MUST BE ABOVE A LEVEL WHERE WATER COULD ENTER IN THE EVENT THAT THE ROOF DRAINS BECOME BLOCKED. IN THE CASE OF A HORIZONTAL EXIT THROUGH A WALL, THE OUTLET SHALL BE ANGLED DOWNWARD NOT LESS THAN 1 PIPE DIAMETER TO PREVENT RAIN INGRESS. THE EXIT SHALL BE LOCATED ABOVE THE LEVEL OF DRIFTING SNOW.
11) WHERE THE QUENCH TUBE EXITS VERTICALLY, A RAIN COVER MUST ALSO BE FITTED WITH THE DIAMETER TO BE TWO TIMES THE DIAMETER OF THE QUENCH TUBE. THE CLEARANCE BETWEEN THE RAIN GUARD AND THE MESH SHALL BE 2 TIMES THE DIAMETER OF THE TUBE. A DEFLECTOR PLATE SHALL BE WELDED TO THE TUBE WHERE IT EXITS THE ROOF TO PREVENT HELIUM FROM RE-ENTERING THE BUILDING. THE DEFLECTOR SHALL BE AT LEAST 3 TIMES THE DIAMETER OF THE QUENCH TUBE AND LOCATED TWO PIPE DIAMETERS ABOVE THE ROOF AND TWO PIPE DIAMETERS BELOW THE RAIN GUARD.
DURING A QUENCH THE HELIUM GAS EXITING THE QUENCH PIPE MAY BE AT TEMPERATURES OF LESS THAN -400°F. DUE TO THIS TEMPERATURE ROOFING MATERIALS OR ITEMS AROUND THE VENT EXIT MAY BE ADVERSELY AFFECTED. CONSIDERATION OF MATERIALS AND ITEMS PLACED NEAR THE VENT EXIT SHOULD BE TAKEN INTO ACCOUNT SO DAMAGE DOES NOT OCCUR.
12) WHERE THE QUENCH TUBE EXITS HORIZONTALLY, THE OUTLET MUST CONFORM TO OPTIONS 1-4 OR THE ANGLED RAIN HOOD. THE OUTLET SHOULD NOT BE LOCATED WHERE HELIUM GAS CAN BE DRAWN INTO AN AIR INLET, ENTER AN OPEN WINDOW, OR BLOW DIRECTLY ONTO STRUCTURE OR EQUIPMENT. RESTRICT ACCESS TO WINDOWS AND DOORS TO AVOID INJURY FROM COLD BURNS AND ASPHYXIATION BY 9'-11" ON EACH SIDE, BELOW AND 19'-9" ABOVE, IF THE OUTLET IS POSITIONED TOO LOW A DEFLECTOR PLATE CAN BE USED WITH OPTION 1 AND 3.
WARNING SIGNS AND OUTLET RESTRICTIONS
A WARNING SIGN MUST BE FIXED AND VISIBLE NEAR THE QUENCH VENT OUTLET. THE TUBE MUST HAVE A WARNING POSTED ALONG ITS ENTIRE LENGTH FOR EXTREMELY COLD HELIUM GAS - AUTHORIZED PERSONNEL ONLY.
13) AREAS WITH ACCESS IN THE AREA OF THE OUTLET MUST BE CLEARLY IDENTIFIED AND FENCED, FOR EXAMPLE, A ROOF OUTLET WITH MAINTENANCE ACCESS.
INSULATION AND GALVANIC SEPARATION
14) THE QUENCH TUBE MUST HAVE MINIMUM 1" INSULATION FOR THE FULL LENGTH. WITHIN THE RF ROOM THERE SHOULD BE A 1" LAYER OF MINERAL FIBER INSULATION WITH A VAPOR BARRIER AND 1" CLASS 0 OR CLASS AP ARMAFLEX. OUTDOOR PIPES MUST BE WEATHERPROOF. THE INSULATION MUST NOT TOUCH THE MAGNET COVERS. TO AVOID RF DISTURBANCES THE INSULATION MUST NOT MAKE ELECTRICAL CONTACT WITH THE WAVEGUIDE.
15) GALVANIC SEPARATION MUST BE PROVIDED BETWEEN THE MAGNET, THE QUENCH VENT, THE RF ROOM, AND THE BUILDING. TWO SEPARATIONS ARE REQUIRED USING STAINLESS STEEL BOLTS, INSULATING BUSHES AND LOCKING NUTS. NO OTHER DESIGNS ARE PERMITTED FOR SAFETY.
DOCUMENTATION
16) THE DESIGN AND CONSTRUCTION OF THE QUENCH PIPE MUST BE DOCUMENTED WITH DRAWINGS AND CALCULATIONS THAT ARE KEPT WITH INSTALLATION DOCUMENTS. IT MUST COMPLY WITH THE REQUIREMENTS IN THIS DOCUMENT BEFORE BEING CONNECTED TO THE MAGNET.

REV 6



HELIUM CONTENT

MAXIMUM LIQUID FILL	1,356 LITERS
TYPICAL BOIL OFF RATE	0.0 L/HR
TYPICAL REFILL INTERVAL	NA

FOR TYPICAL CLINICAL USE, DEPENDING ON SEQUENCES AND OPERATING TIME.

WITHOUT THE COLD HEAD RUNNING THE LIQUID HELIUM WILL BOIL OFF FROM 97% TO 0% IN APPROXIMATELY 30 DAYS. THE LOSS DURING SHIPPING IS APPROXIMATELY 65 LITERS PER DAY.

SIEMENS

BARTLETT REGIONAL HOSPITAL

3260 HOSPITAL DR, JUNEAU, AK 99801-7808
MRI SUITE - MRI - MAGNETOM SOLA XJ GRADIENTS

PROJECT #: **2100552** SHEET: **M-501**

DATE: 03/09/21

SYMBOL: **AS NOTED** REF: **30257551**

PROJECT MANAGER: JESSE HULSEY
TEL: (602) 300-2149 EXT:
FAX:
EMAIL: jesse.hulsey@siemens-healthineers.com

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DATE: 03/09/21

ATTENTION:

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- THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.

- IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.

- ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES.

- THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

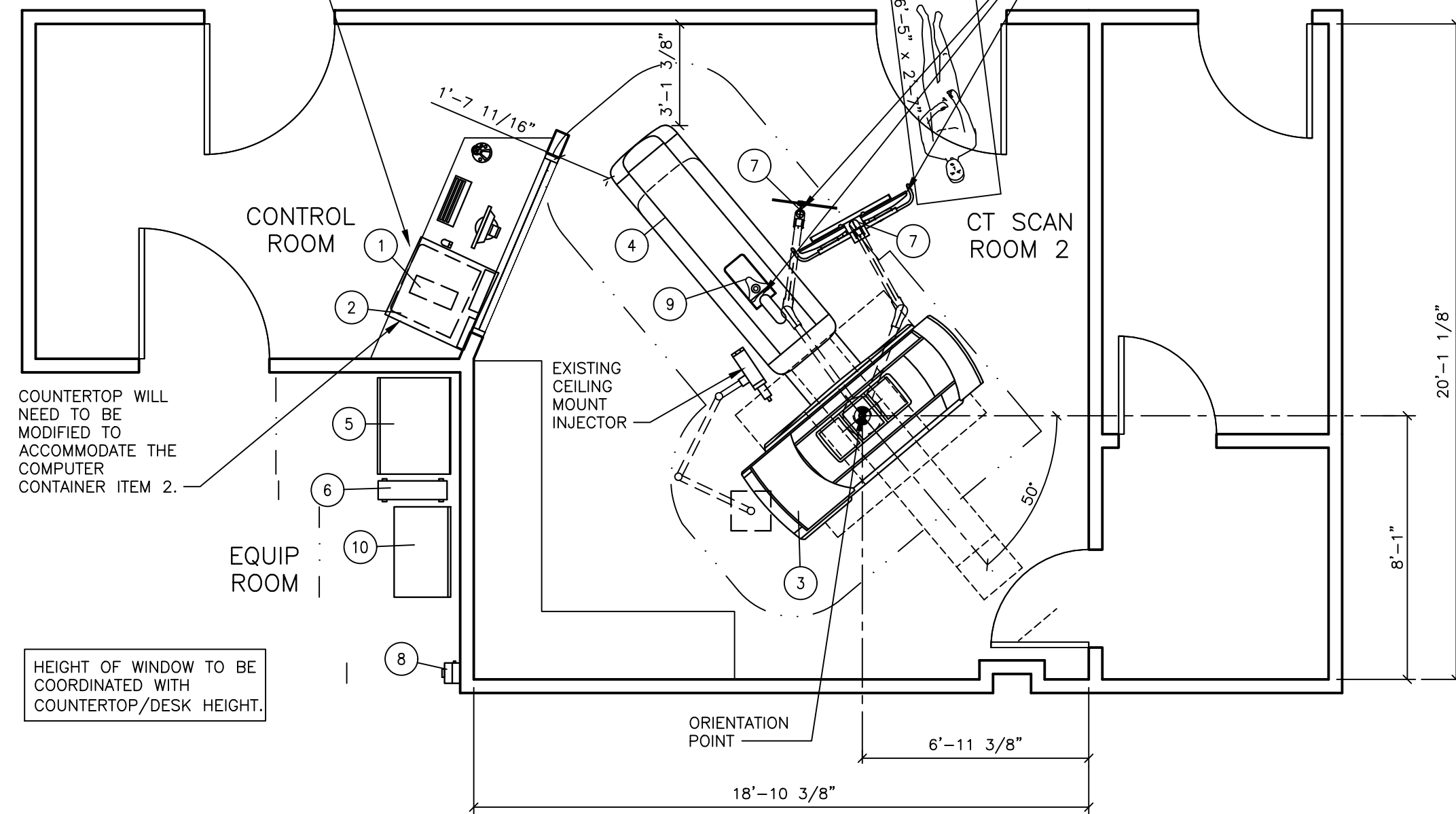
REFERENCE DOCUMENT - NOT FOR CONSTRUCTION

IT IS THE RESPONSIBILITY OF THE CUSTOMER/CONTRACTOR TO PROVIDE A MEANS OF MOUNTING THE PC TOWER(S) OFF FINISHED FLOOR FOR DAMAGE PROTECTION AGAINST TIP-OVER, FLUIDS, IMPACT, ETC. ADDITIONAL MOUNTING IS NOT NECESSARY IF SIEMENS CONTAINER IS UTILIZED.

THIS SET OF FINAL DRAWINGS IS REFLECTIVE OF THE LATEST SALES CONFIGURATION. ANY CHANGES TO THIS SALES CONFIGURATION MAY REQUIRE A REVISION TO THIS PROJECT PLAN. IF REQUESTED, SIEMENS WILL PRODUCE A REVISED SET OF FINAL DRAWINGS TO REFLECT THE CHANGES, HOWEVER SIEMENS IS NOT RESPONSIBLE FOR ANY CONSTRUCTION COSTS ASSOCIATED WITH THE CHANGES THAT OCCUR FROM THIS PLAN MODIFICATION.

STRETCHER SIZE (6'-5" X 2'-7") SHOWN IS FOR REFERENCE ONLY. VERIFICATION AND COORDINATION BY CUSTOMER IS REQUIRED TO ENSURE PROPER TRANSPORT AND WORKFLOW ACCESS.

CEILING HEIGHT MUST BE TAKEN INTO CONSIDERATION WHEN A CAREVISION WITH RAD SHIELD AND A 3D CAMERA ARE BOTH PURCHASED TO PREVENT A COLLISION OF THE TWO ITEMS.



ARCHITECTURAL EQUIPMENT PLAN

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

PLANNING REQUIREMENTS

EMERGENCY POWER OFF (EPO) BUTTONS REQUIRED IN CONTROL AREA, EXAMINATION ROOM AND EQUIPMENT AREA.

DOOR (SAFETY) SWITCH REQUIRED ON ALL DOORS ACCESSING THE EXAMINATION ROOM IN ACCORDANCE WITH LOCAL CODES.

CASEWORK & ACCESSORY NOTES

1) ALL CASEWORK IS EITHER EXISTING OR IS TO BE DESIGNED, DETAILED, FURNISHED AND INSTALLED BY THE CUSTOMER AND/OR CONTRACTOR. FOLLOW DESIGN RECOMMENDATIONS INCLUDED HERewith, AS THEY ARE ESSENTIAL FOR THE SUCCESSFUL INSTALLATION & OPERATION OF THE SIEMENS EQUIPMENT.

2) ALL FURNITURE (CHAIRS, ETC.) FOR THE CONTROL ROOM ARE TO BE PROVIDED BY THE CUSTOMER.

STATE AGENCY REVIEW

PRIOR TO SIEMENS EQUIPMENT INSTALLATION, APPROVAL OF CONSTRUCTION OR STRUCTURAL MODIFICATIONS UTILIZING X-RAY FOR DIAGNOSTIC OR THERAPEUTIC PURPOSES, MUST BE OBTAINED BY THE CUSTOMER FROM THE APPROPRIATE STATE AGENCY, IF APPLICABLE.

EQUIPMENT LEGEND								
NO	DESCRIPTION	SMS SYM	WEIGHT (LBS)	BTU/HR TO AIR	DIMENSIONS (INCHES)			REMARKS
					W	D	H	
1	SYNGO ACQUISITION WORKPLACE AND STANDARD COMPONENTS	CS	<55	1,706	6 7/8	16 9/16	15 9/16	OFF FLOOR/IN CONTAINER
2	COMPUTER CONTAINER	CS	77	---	31 1/2	31 1/2	29 1/4	HOUSING FOR ICS/IES
3	SOMATOM EDGE PLUS GANTRY	EB	4,850	3,412*	93 11/16	38	78	*ADDITIONAL HEAT DISSIPATED TO WATER
4	PATIENT TABLE	PT	1,100	1,024	29 5/16	100 13/16	31 1/8	2000mm TABLE
5	POWER DISTRIBUTION CABINET	PC	1,373	6,824	35 7/16	26 15/16	76 3/4	UPS LOCATED INSIDE OF PDC
6	IMAGE RECONSTRUCTION SYSTEM	IS	55	1,706	8	25 3/8	17 11/16	
7	CARE VISION DUAL MONITOR WITH RADIATION SHIELD	CV	160	---	---	---	---	CEILING MOUNTED
8	EATON SURGE PROTECTIVE DEVICE PANEL	SD	13.5	---	7 1/2	6 11/16	12	WALL MOUNTED
9	3D CAMERA	3C	29	---	29 1/4	9 5/16	5 1/4-10	
10	INTERFACE HEAT EXCHANGER	IE	441	---	33 1/4	20 9/16	39 1/2	

ARCHITECTURAL NOTES

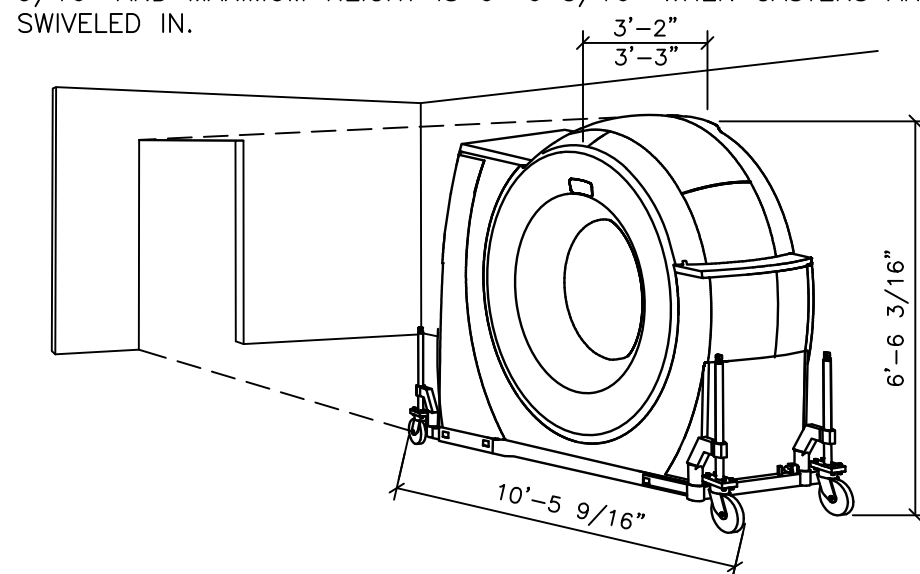
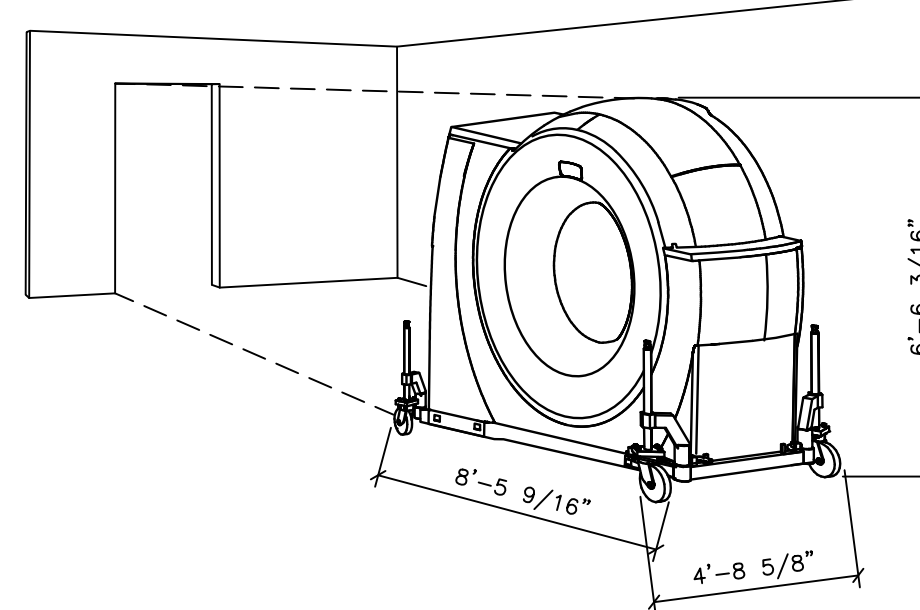
- ALL PRELIMINARY EQUIPMENT LAYOUTS SUBMITTED BY SIEMENS HEALTHCARE ARE BASED ON THE RECOMMENDED SPACE NECESSARY FOR THE OPERATION AND SERVICEABILITY OF THE EQUIPMENT BEING PROPOSED. SIEMENS WILL NOT SUBMIT AN EQUIPMENT LAYOUT THAT IS NOT IN THE BEST INTEREST OF BOTH THE CUSTOMER AND SIEMENS. ALL EQUIPMENT LAYOUTS ARE BASED EITHER ON AN ACTUAL SITE SURVEY OR ARCHITECTURAL DRAWINGS SUPPLIED TO SIEMENS. SIEMENS WILL NOT BE RESPONSIBLE FOR ANY ALTERATIONS THAT ENCRoACH WITH DESIGNATED SAFETY AND SERVICE CLEARANCE ZONES AS INDICATED ON DRAWINGS (I.E., PIPE CHASES, VENTILATION DUCTS, CASEWORK, AND SOFFITS, ETC.) MADE BY THE CUSTOMER OR REQUIRED BY A CUSTOMER'S ARCHITECTURAL FIRM ONCE PRELIMINARY DRAWINGS HAVE BEEN SUBMITTED AND APPROVED. DO NOT ALTER ANY SPECIFICATIONS AND/OR DIMENSIONS WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SIEMENS PROJECT MANAGER.
- SIEMENS HEALTHCARE IS NOT AN ARCHITECTURAL OR ENGINEERING FIRM. DRAWINGS SUPPLIED BY SIEMENS ARE NOT CONSTRUCTION DRAWINGS. THEREFORE, THESE DRAWINGS ARE TO BE USED ONLY FOR INFORMATION TO COMPLEMENT ACTUAL CONSTRUCTION DRAWINGS AVAILABLE FROM A CUSTOMER APPOINTED ARCHITECTURAL REPRESENTATIVE OR A CUSTOMER'S ENGINEERING DESIGN GROUP. THE CUSTOMER'S ARCHITECT AND GENERAL CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE CODES AND PROFESSIONAL DESIGN REQUIREMENTS INCLUDING OSHA/NEC SAFETY CLEARANCE REQUIREMENTS IN ADDITION TO SIEMENS-REQUIRED SAFETY/SERVICE CLEARANCES SHOWN.
- THE CUSTOMER IS RESPONSIBLE FOR ALL ROOM AND AREA PREPARATION COSTS, PROFESSIONAL FEES, PERMITS, REPORTS, AND INSPECTION FEES.
- EQUIPMENT WARRANTIES, EXPRESSED OR IMPLIED ON THE PART OF SIEMENS SHALL BE CONTINGENT UPON STRICT COMPLIANCE WITH THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL AND RECOMMENDATIONS AND REQUIREMENTS CONTAINED IN THESE DRAWINGS, UNLESS SPECIFIED OTHERWISE.
- ALL DIMENSIONS SHOWN ARE FROM FINISHED SURFACES UNLESS SPECIFIED OTHERWISE.
- THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST. ACTUAL PROTECTION REQUIREMENTS SHALL BE SPECIFIED BY A REGISTERED RADIATION PHYSICIST AT CUSTOMER'S ENGAGEMENT AND EXPENSE. RESPONSIBILITY FOR ALL INFORMATION AS TO THE ROOM LOCATION, USE, AND NUMBER OF ANTICIPATED EXAMINATIONS TO BE PERFORMED DURING THE PERIOD SHALL BE PROVIDED TO THE PHYSICIST BY THE CUSTOMER. THE CUSTOMER SHALL FURTHER TAKE ALL RESPONSIBILITY IN THE COMMUNICATION AND COORDINATION OF ACTIVITIES OF THE RADIATION PHYSICIST AND THE ARCHITECTURAL REPRESENTATIVE.
- SIEMENS HEALTHCARE SHALL BE RESPONSIBLE FOR SIEMENS EQUIPMENT INSTALLATION, CALIBRATION, CONNECTION AND INSTALLATION OF SIEMENS PROVIDED CABLES. THE CUSTOMER/ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR TERMINATIONS OF CUSTOMER/ELECTRICAL CONTRACTOR-SUPPLIED CABLES TO SIEMENS EQUIPMENT. IN THE EVENT THAT SPECIFIC TRADE RULES OR LICENSE REQUIREMENTS PROHIBIT THIS, THE CUSTOMER SHALL INITIATE THE SERVICES OF APPROVED OTHER CONTRACTORS AND PAY FOR SELECTED, APPROVED PARTIES TO PERFORM THIS WORK WITH SUPERVISION PROVIDED BY SIEMENS. CALIBRATION WHEN ACCOMPLISHED OUTSIDE OF NORMAL INSTALLATION SEQUENCES DUE TO CONTRACTOR OR TRADE RULE ACTIONS OR REQUIREMENTS SHALL BE SUPPORTED BY, CHARGED TO, AND ACCEPTED BY THE CUSTOMER AS AN ADDITIONAL INSTALLATION EXPENSE.
- THE CUSTOMER SHALL COORDINATE WITH SIEMENS PROJECT MANAGER THE LOCATIONS AND TRAVEL OF ALL ANCILLARY EQUIPMENT TO BE CEILING OR WALL MOUNTED (I.E.: O.R. LIGHTS, MEDICAL GAS COLUMNS, PHYSIOLOGICAL MONITORING INFLECTORS, CRT PLATFORMS, SPRINKLER HEADS, SMOKE DETECTORS, ELECTRICAL OUTLETS, HVAC GRILLES, SPEAKERS, AND GENERAL ROOM LIGHTING, ETC.).
- THE GENERAL CONTRACTOR/CUSTOMER SHALL BE RESPONSIBLE FOR ALL FINAL PAINT, TOUCH-UP AND ANY COSMETIC OR TRIM WORK WHICH NEEDS TO BE OR IS REQUIRED TO BE COMPLETED AFTER THE INSTALLATION OF THE SIEMENS EQUIPMENT AND ANY ASSOCIATED SUPPORT APPARATUS.
- CUSTOMER/CONTRACTOR MUST ASSIST SIEMENS INSTALLERS WITH INSTALLATION OF EQUIPMENT ABOVE 14'-0". REFER TO THE ELECTRICAL NOTES ON SIEMENS SHEET E-101 FOR MORE DETAILS.

TRANSPORT AND DELIVERY NOTES

TOTAL GANTRY TRANSPORT WEIGHT: 5,267 LBS.
GANTRY WITHOUT TRANSPORT DEVICE: 4,850 LBS.
TRANSPORT DEVICE: 417 LBS.

NORMAL TRANSPORT REQUIREMENTS:
DURING THE MOVEMENT OF THE GANTRY THROUGH CORRIDORS THE TRANSPORT CASTERS ARE SWIVELED OUT FOR STABILITY AS SHOWN BELOW. THE MAXIMUM WIDTH IS 4'-8 5/8" AND THE MAX. LENGTH IS 8'-5 9/16" WHEN CASTERS ARE SWIVELED OUT.

NARROW SPACE TRANSPORT REQUIREMENTS:
WHEN TRANSPORTING THE GANTRY THROUGH A NARROW SPACE OR DOORWAY, THE TRANSPORT CASTERS ARE SWIVELED IN. THE MAXIMUM WIDTH WITH TOUCH PANELS ON THE FRONT SIDE OF THE GANTRY ONLY IS 3'-2", MAXIMUM LENGTH 10'-5 9/16" AND MAXIMUM HEIGHT IS 6'-6 3/16" WHEN CASTERS ARE SWIVELED IN. THE MAXIMUM WIDTH WITH TOUCH PANELS ON THE FRONT AND REAR SIDE OF THE GANTRY IS 3'-3", MAXIMUM LENGTH 10'-5 9/16" AND MAXIMUM HEIGHT IS 6'-6 3/16" WHEN CASTERS ARE SWIVELED IN.



Project Milestones To Be Completed Before Equipment Delivery

Reference Sheet

<input type="checkbox"/>	Lead shielding (walls, doors, windows) complete	A-102
<input type="checkbox"/>	Climate control functioning 24 hours a day, 7 days a week	A-101
<input type="checkbox"/>	Delivery path verified	A-101
<input type="checkbox"/>	Casework complete in exam and control rooms	A-101
<input type="checkbox"/>	Floor levelness verified and within specifications	S-501
<input type="checkbox"/>	Floor thickness verified and within specifications	S-501
<input type="checkbox"/>	All conduits, troughs, and core drills are outside of the No Core Drill areas	E-102
<input type="checkbox"/>	Carevision anchor plate installed (if applicable)	S-102
<input type="checkbox"/>	Overhead injector support structure and plate installed (if applicable)	S-102
<input type="checkbox"/>	Ceiling height verified (check min. height with options)	S-102
<input type="checkbox"/>	Cables runs checked to ensure maximum length is not exceeded	E-101
<input type="checkbox"/>	Cables inlets installed at locations per plans	E-102
<input type="checkbox"/>	Main panel and breakers installed	E-102
<input type="checkbox"/>	Contractor supplied electrical cabling and pigtails installed	E-102
<input type="checkbox"/>	Contractor supplied EPO's installed and functioning	E-102
<input type="checkbox"/>	Contractor supplied X-Ray warning light and wiring installed	E-501
<input type="checkbox"/>	Outdoor chiller unit and service switch installed (water/air option) (if applicable)	M-101
<input type="checkbox"/>	Indoor chiller unit installed (water/air option) (if applicable)	M-101
<input type="checkbox"/>	Water lines flushed and pressure tested (for hard-piping only) (if applicable)	M-101
<input type="checkbox"/>	Additional fittings/adapters ordered for hard piping (water/air option) (if applicable)	M-101
<input type="checkbox"/>	Vertical distance between indoor and outdoor unit verified (water/air option) (if applicable)	A-101
<input type="checkbox"/>	Extension cables installed for chiller if standard distance exceeded between indoor and outdoor units (water/air option) (if applicable)	M-101
<input type="checkbox"/>	Facility water verified to meet equipment requirements (Facility supplied water option) (if applicable)	M-101
<input type="checkbox"/>	Room lighting complete and functioning	A-101
<input type="checkbox"/>	All rooms containing Siemens equipment are clean and dust free	A-101
<input type="checkbox"/>	Network addresses obtained for Siemens Remote Services (SRS)	A-102

NOISE LEVEL

SYSTEM COMPONENT	DECIBEL LEVEL (AT 3'-3" DISTANCE)
GANTRY	<70
PATIENT TABLE	<60
PDC CABINET	≤55
IRS TOWER	<55
HEAT EXCHANGER - WATER/AIR SPLIT	<60

1) NOISE DEPENDS ON THE ROOM TEMPERATURE AND THE PROCESSOR LOAD.

RESOURCE LIST (SMS USE ONLY)

DESIGNATION	PG NUMBER	DATE
SOMATOM EDGE PLUS	C2-033.891.01.05.02	10.21
COMMON CT	CT00-000.891.04.21.02	07.21
COMMON CT OPTIONS	CT00-000.891.03.49.02	11.21

FINISHED ROOM HEIGHT

FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

PROJECT MANAGER: JESSE HULSEY
TEL: (602) 300-2149
EMAIL: JESSE.HULSEY@SIEMENS-HEALTHINEERS.COM

SIEMENS

BARTLETT REGIONAL HOSPITAL
3260 HOSPITAL DR, JUNEAU, AK 99801-7808
CT SCAN ROOM 2 - SOMATOM EDGE PLUS

SYM	DATE	DESCRIPTION
△	06/06/22	UPDATED ELECTRICAL ROUTING
△	05/05/22	R-101RB VERSION DATED 03/03/22 APPROVED BY CUSTOMER FOR FINALS

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SCALE: AS NOTED
REF. #: 30257548

PROJECT #: **2200096**
SHEET: **A-101**
DATE: 06/06/22
DRAWN BY: L. BACH

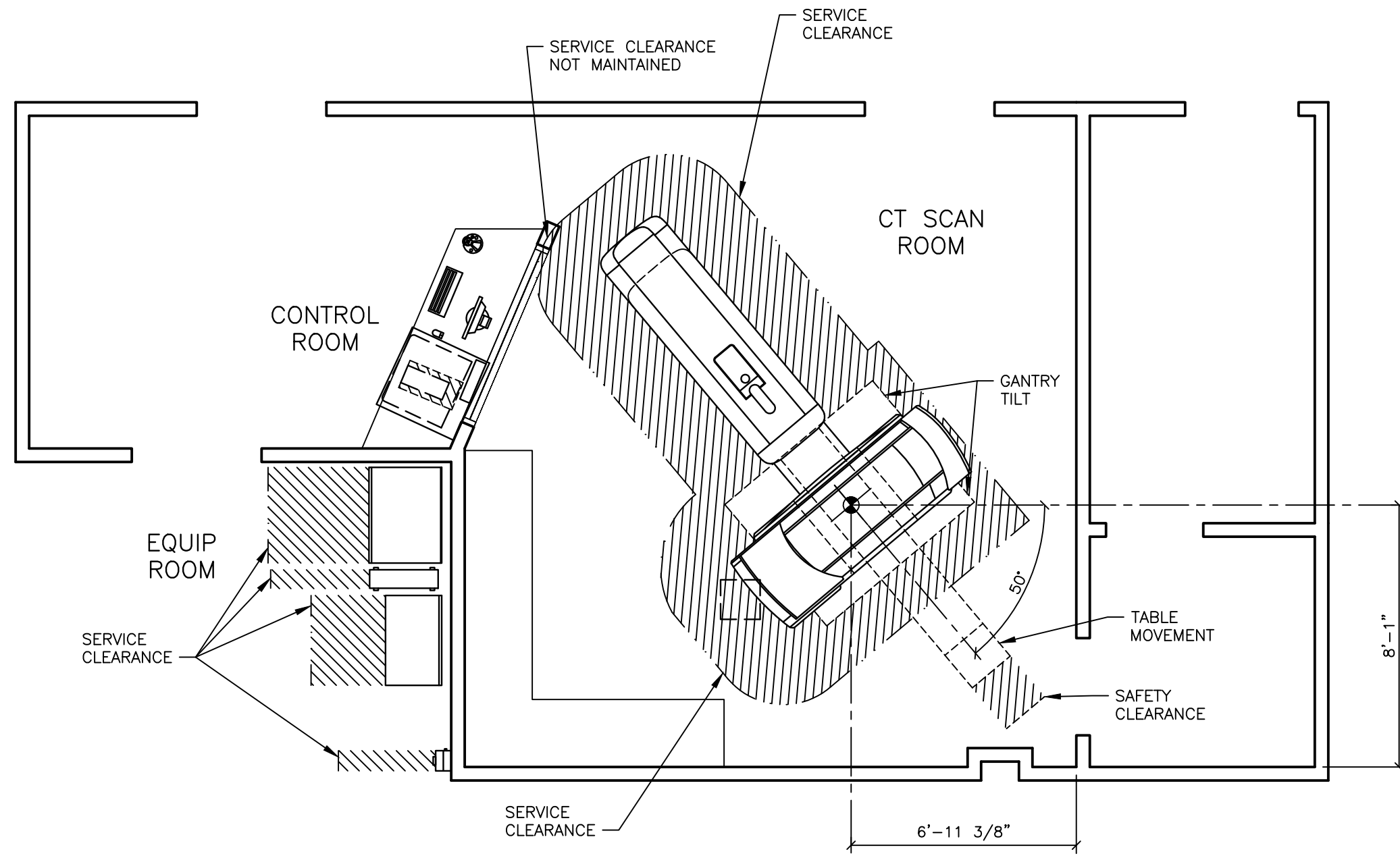
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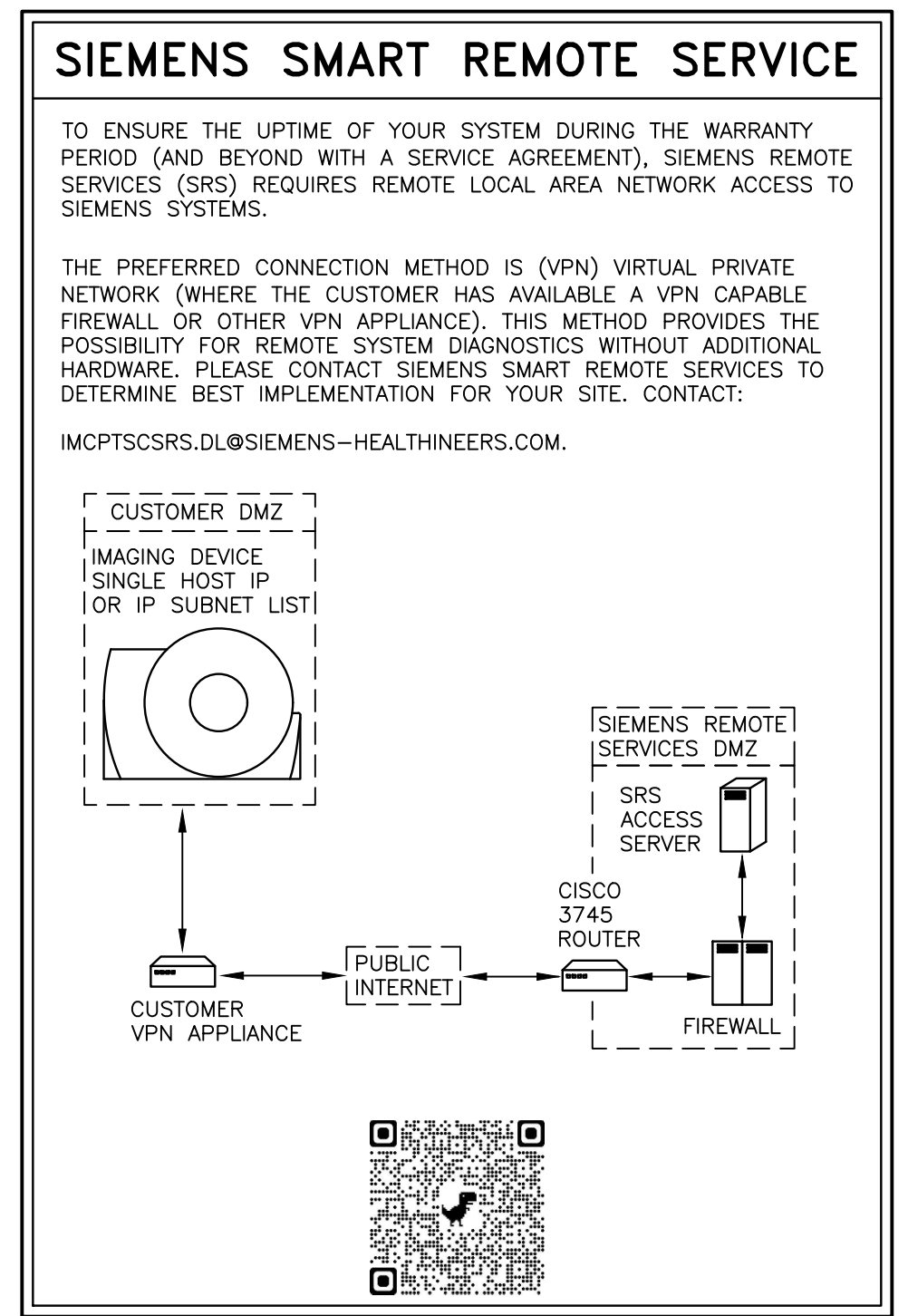
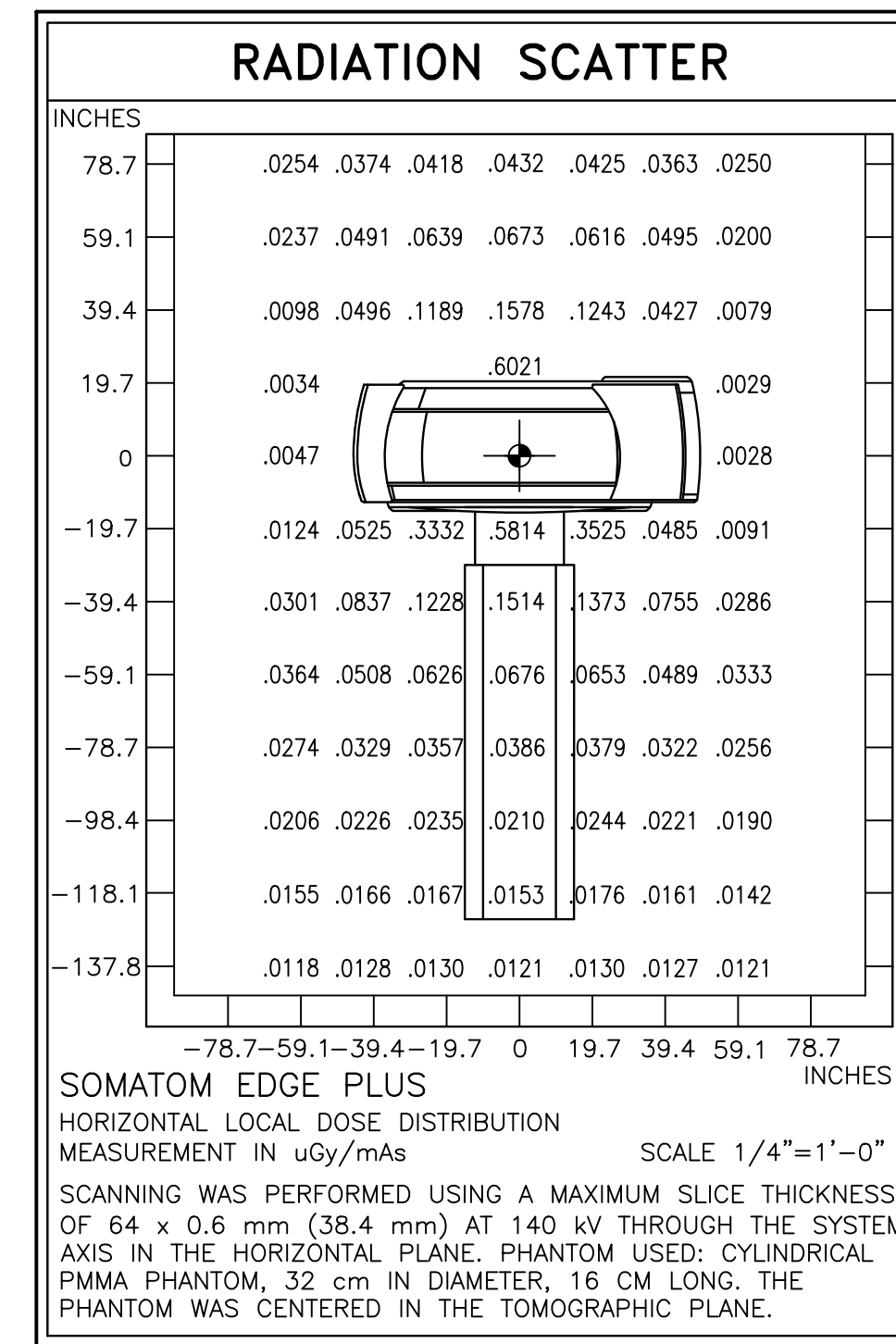
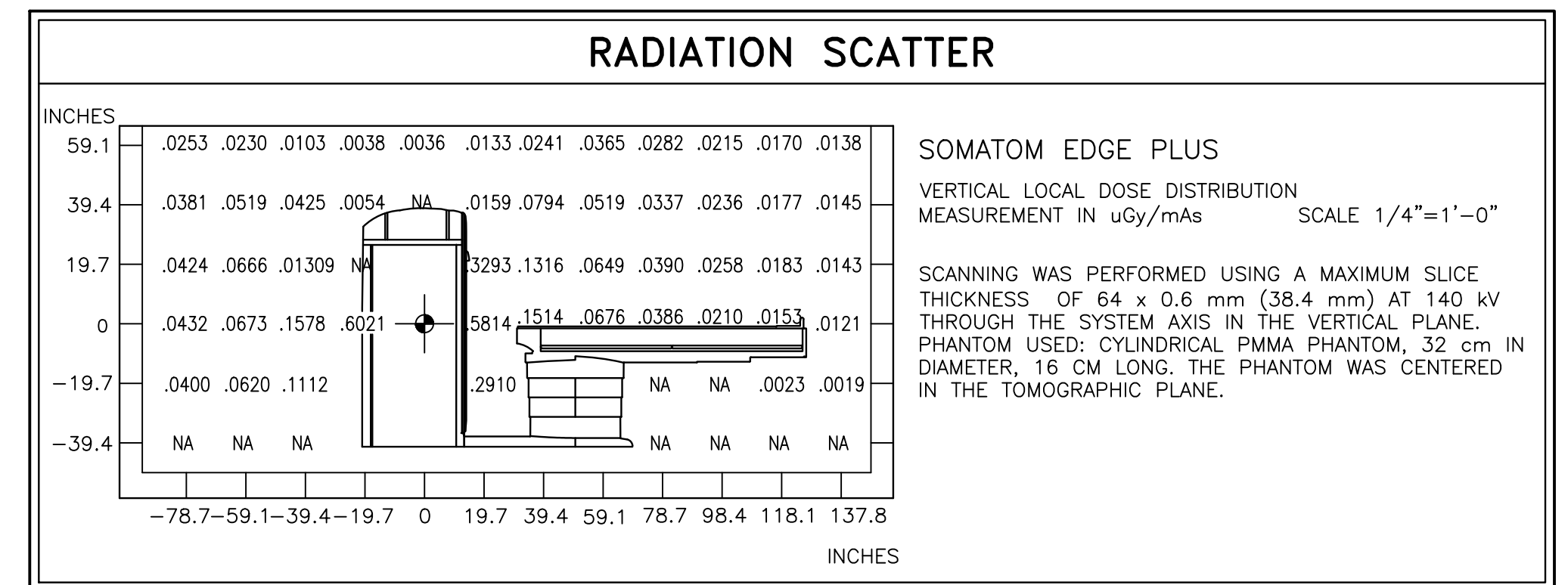
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- ISSUE BLOCK -



SAFETY/SERVICE CLEARANCE PLAN

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



SAFETY CLEARANCE NOTE

IF THE SAFETY DISTANCES ARE NOT OBSERVED, SAFETY MEASURES IN ACCORDANCE WITH LOCAL CODES SHOULD BE UTILIZED (FOR EXAMPLE BARRIERS, WARNING SIGNS, AND SAFETY MATS).

FINISHED ROOM HEIGHT	
FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 VMAIL: EXT: FAX: EMAIL: JESSE.HULSEY@SIEMENS-HEALTHINEERS.COM		SIEMENS	
		BARTLETT REGIONAL HOSPITAL	
		3260 HOSPITAL DR, JUNEAU, AK 99801-7808 CT SCAN ROOM 2 - SOMATOM EDGE PLUS	
		PROJECT #: 2200096	SHEET: A-102
06/06/22	UPDATED ELECTRICAL ROUTING	THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.	
05/05/22	R-101RB VERSION DATED 03/03/22 APPROVED BY CUSTOMER FOR FINALS	ALL RIGHTS ARE RESERVED.	
SYM	DATE	DESCRIPTION	
-ISSUE BLOCK-			
SCALE: AS NOTED		REF. #:	30257548
		DATE:	06/06/22
		DRAWN BY:	L. BACH

ATTENTION:

- THIS DRAWING IS DESIGNED TO CONFORM TO FEATURES AND EQUIPMENT REQUIREMENTS PRESENTED AT THE TIME OF THEIR PREPARATION. SINCE BOTH THESE FACTORS ARE SUBJECT TO DESIGN MODIFICATION, THEY ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.
- THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.

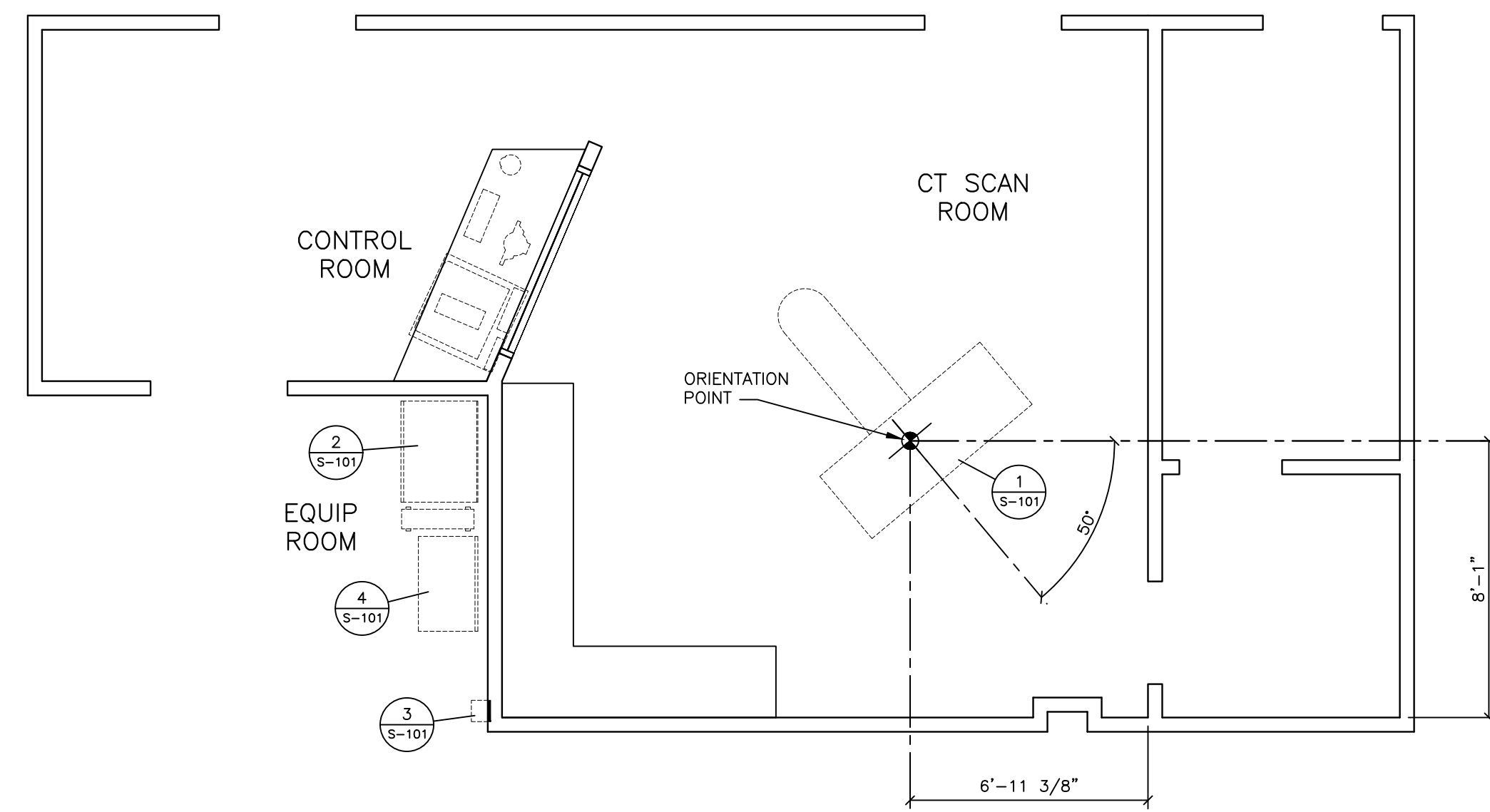
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EDGE PLUS
REV 16

REFERENCE DOCUMENT - NOT FOR CONSTRUCTION

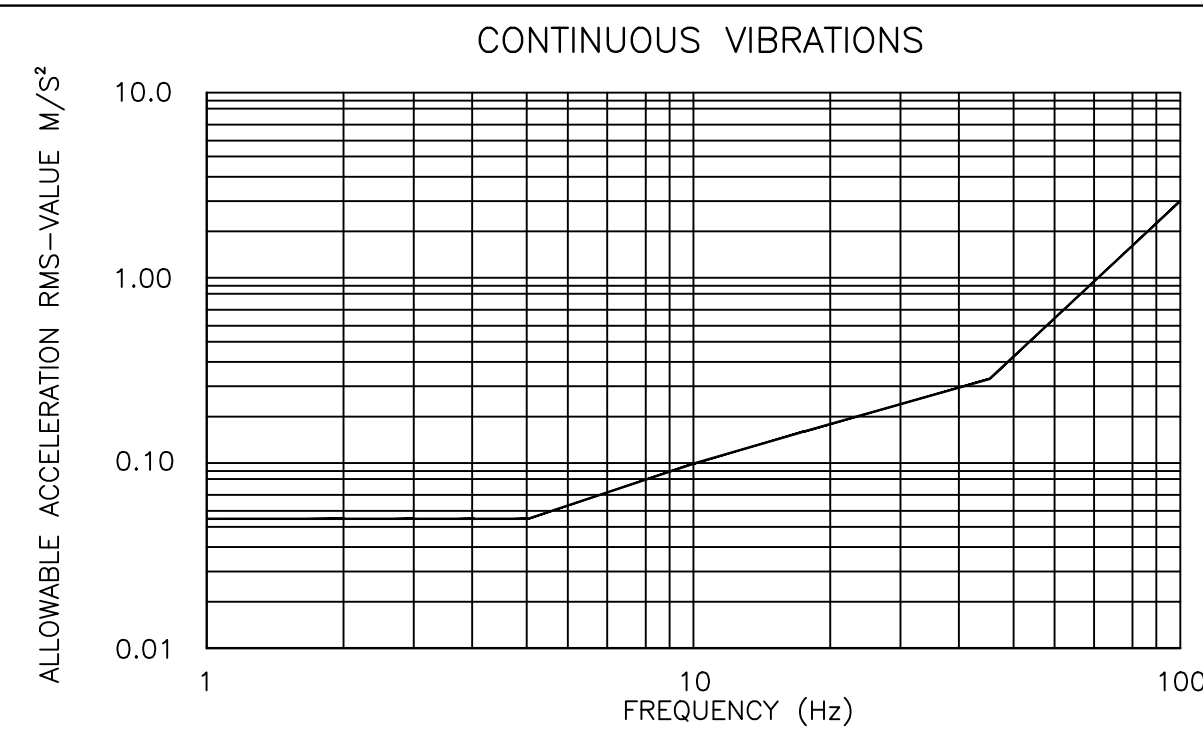
NOTE: FOR THE WEIGHTS OF ALL SIEMENS EQUIPMENT SHOWN ON THIS PLAN, SEE THE "EQUIPMENT LEGEND" ON SHEET A-101.



STRUCTURAL FLOOR PLAN

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

FLOOR AND BUILDING VIBRATIONS

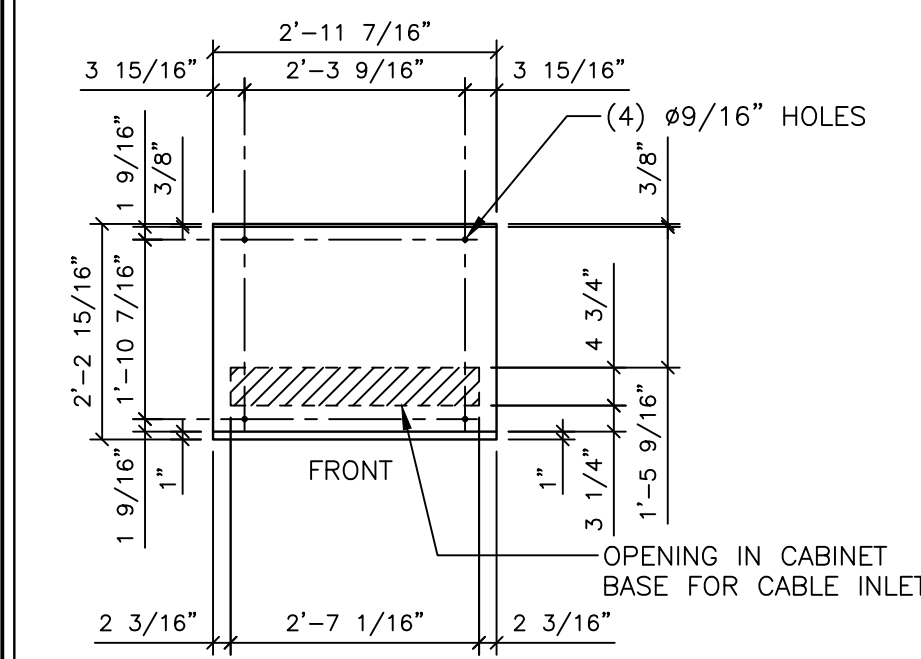


CONTINUOUS VIBRATIONS
THE CT SYSTEM IS NOT SENSITIVE TO COMMON VIBRATIONS. IF THE CT IS AWAY FROM VIBRATIONAL SOURCES OR THE CT IS REPLACING A CT SYSTEM, THAT TO DATE, HAS NOT SHOWN IMAGE QUALITY PROBLEMS DUE TO VIBRATIONS, IT IS USUALLY NOT NECESSARY TO EXECUTE VIBRATIONAL MEASUREMENTS. IF THERE ARE ANY DOUBTS, THE FOLLOWING THRESHOLDS HAVE TO BE VERIFIED BY MEASUREMENT. IN THE THREE SPATIAL DIRECTIONS, ACCELERATION IN VIBRATIONS AT THE MOUNTING POINTS OF THE GANTRY AND THE PATIENT TABLE MUST NOT EXCEED THE THRESHOLDS AS DESCRIBED HERE.

TRANSIENT VIBRATIONS (SHOCKS)
ANY TRANSIENT VIBRATION HAS TO BE LESS THAN 0.5 M/S² PEAK-TO-PEAK IN THE TIME DOMAIN. THE VIBRATIONS HAVE TO BE MEASURED WITH A SAMPLING RATE OF 1000HZ.

THE THRESHOLD IS DEFINED AS ACCELERATION RMS VALUE (ROOT MEAN SQUARE) IN M/S² OF AN FFT SPECTRUM DERIVED WITH A FREQUENCY RESOLUTION OF 1 HZ AND USING A HANNING-WINDOW. THE VIBRATIONS HAVE TO BE MEASURED WITH A SAMPLING RATE OF 1000HZ USING AN ANTI-ALIASING-FILTER WITH A LIMIT FREQUENCY OF 250HZ. THE THRESHOLD IS VALID FOR VIBRATIONS AT THE INSTALLATION LOCATION WITH A CT IN POSITION. MEASUREMENTS MUST BE TAKEN PRIOR TO THE INSTALLATION OF THE CT, THEREFORE CHANGES IN THE EIGENFREQUENCY OF THE SLAB CAUSED BY THE ADDITIONAL MASS OF THE CT MUST BE CONSIDERED WHEN COMPARING THE FREQUENCY SPECTRUM WITH THE THRESHOLD.

POWER DISTRIBUTION CABINET



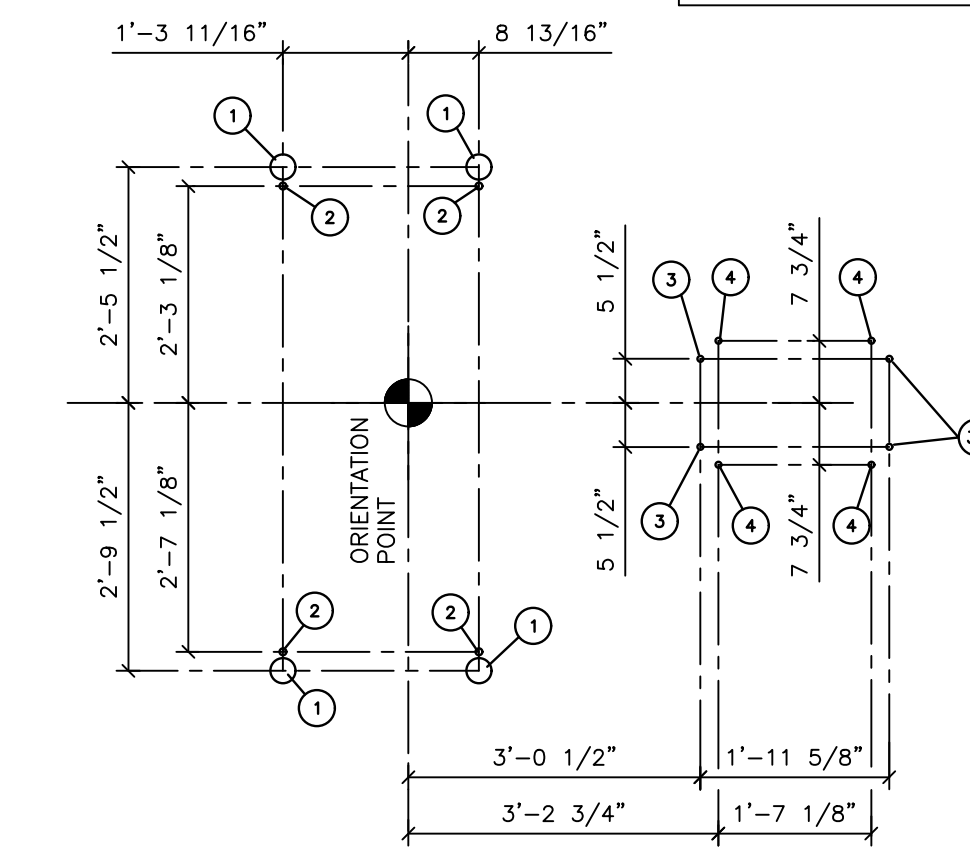
BOLTING THE POWER DISTRIBUTION CABINET TO THE FLOOR IS ONLY NECESSARY WHEN LOCAL OR NATIONAL REGULATIONS REQUIRE IT. (EXAMPLE: EARTHQUAKE ZONES). BOLT THE CABINET TO THE FLOOR USING ANCHORS THROUGH THE DRILL HOLES IN THE FLOOR PLATE. MATERIALS FOR BOLTING MUST BE SUPPLIED ON-SITE.

PDC CABINET BASE

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

THE GANTRY AND PATIENT TABLE ARE SUPPLIED AND INSTALLED BY SIEMENS.

THE CONCRETE FLOOR MUST BE LEVEL WITHIN 3/8" MAXIMUM DEVIATION IN THE AREA AROUND THE BASE OF THE GANTRY AND THE BASE OF THE PATIENT TABLE.



- ① (4) ADJUSTABLE FEET OF GANTRY - Ø3 1/8".
- ② (4) Ø7/8" HOLES IN THE GANTRY BASE FOR MOUNTING THE GANTRY TO THE FLOOR IF REQUIRED, EX. EARTHQUAKE ZONES.
- ③ (4) Ø3/4" MOUNTING HOLES / ADJUSTABLE FEET TO MOUNT THE PATIENT TABLE TO THE FLOOR.
- ④ MAXIMUM POSSIBLE EXTRACTION FORCE AT THESE POINTS IS 2364 POUNDS WITH A 507 POUND PATIENT (INCLUDES SAFETY-FACTOR 4).
- ⑤ (4) Ø3/4" ALTERNATE FLOOR MOUNTING HOLES.

GANTRY AND PATIENT TABLE MOUNTING DETAIL

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

FLOOR SURFACE REQUIREMENTS

THE GANTRY AND PATIENT TABLE MUST BE INSTALLED ON THE SAME PLANE. IT IS THE CUSTOMER'S RESPONSIBILITY TO MEET FLOOR LEVELNESS SPECIFICATIONS AS OUTLINED IN THIS DETAIL. THE GANTRY AND PATIENT TABLE MUST BE PLACED DIRECTLY ON THE CONCRETE FLOOR. EXISTING FLOOR COVERING IN THE AREA OF THE INSTALLATION SUPPORT SURFACE AND ATTACHMENT POINTS OF THE GANTRY AND THE ENTIRE FOOTPRINT AREA OF THE PATIENT TABLE MUST BE REMOVED AND REPLACED WITH SIMS OF THE APPROPRIATE THICKNESS. THE GANTRY AND PATIENT TABLE RESTS ON ADJUSTABLE FEET AND ANY LEVELING IS DONE WITH THE ADJUSTABLE FEET.

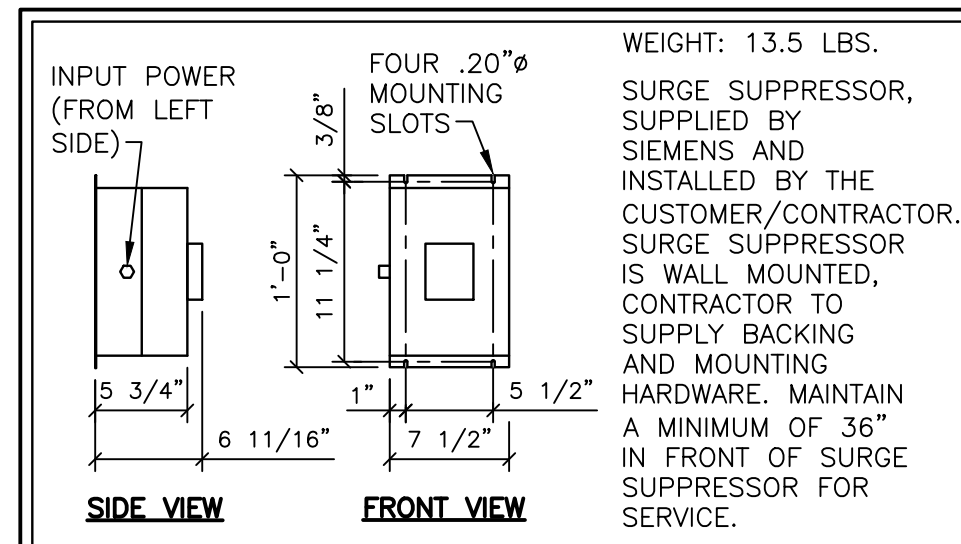
BOLTING REQUIREMENTS

THE WEIGHT CAPACITY OF THE FLOOR MUST BE EVALUATED BY A STRUCTURAL ENGINEER. BOLTING THE GANTRY TO THE FLOOR IS ONLY NECESSARY WHEN LOCAL OR NATIONAL REGULATIONS REQUIRE IT (EXAMPLE: EARTHQUAKE ZONES). BOLT THE GANTRY TO THE FLOOR USING ANCHORS THROUGH THE MOUNTING HOLES IN THE GANTRY BASE. MATERIALS FOR BOLTING MUST BE SUPPLIED ON-SITE.

THE PATIENT TABLE MUST ALWAYS BE BOLTED TO THE FLOOR THROUGH THE ATTACHMENT POINTS IN THE TABLE PEDESTAL. A DRILLING TEMPLATE AND ALL INSTALLATION MATERIALS ARE INCLUDED IN THE DELIVERY FOR STANDARD ANCHORING. ANCHOR: HILTI HSL-4G M10/60 (USED WITHOUT COMPOSITE FLOORING) OR HSL-4G M10/120 (USED WITH MAX. 2 3/8" COMPOSITE FLOORING) ARE SUPPLIED WITH THE TABLE. THE CONCRETE MUST BE MIN. 5 1/2" THICK.

THE FOLLOWING APPROVED CHEMICAL ANCHORS MAY BE USED WHEN STANDARD ANCHORS ARE NOT POSSIBLE. TO BE SUPPLIED BY THE CUSTOMER/CONTRACTOR:
 1. HILTI INJECTABLE ADHESIVE ANCHOR: HIT-RE 500-V3 HARDENING TIME AT TEMP. FROM 68°-75° = 7 HOURS
 2. HILTI INJECTABLE ADHESIVE ANCHOR: HIT-HY 200-A HARDENING TIME AT TEMP. FROM 70°-86° = 30 MIN.
 3. HILTI INTERNALLY THREADED INSERT: HIS-N M10X110 USE THIS SIZE WHEN REPLACING AN ANCHOR. MIN. CONCRETE THICKNESS: 6"
 4. HILTI INTERNALLY THREADED INSERT: HIS-N M8X90 USED WHEN MOUNTING HOLES HAVE NOT BEEN DRILLED. MIN. CONCRETE THICKNESS: 4 3/4".

IT IS THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER TO DETERMINE THE ANCHORING DEPTH AND CONCRETE STRENGTH NEEDED TO INSTALL THE TABLE BASE WITH THE SIEMENS SUPPLIED ANCHORS OR EQUIVALENT ANCHORS SPECIFIED BY THE STRUCTURAL ENGINEER AND SUPPLIED BY THE CUSTOMER/CONTRACTOR.

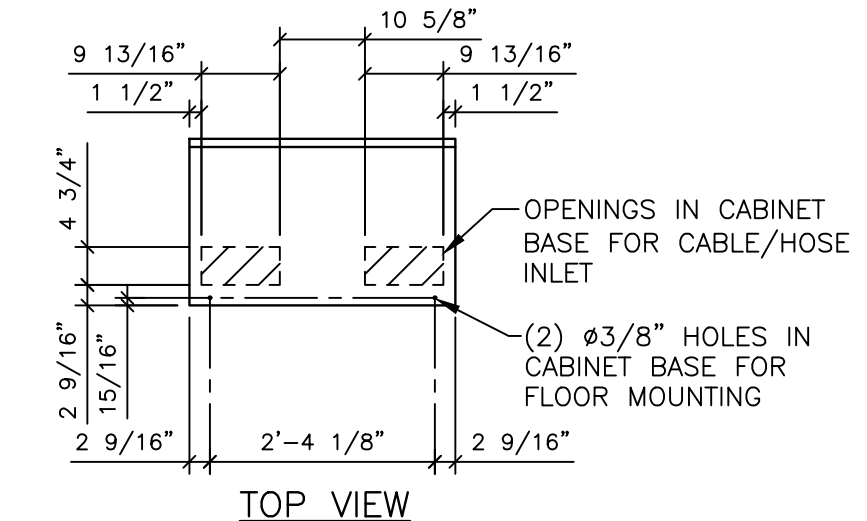


PARALLEL SURGE SUPPRESSOR UNIT MUST BE LOCATED WITHIN 3 FEET CABLE RUN FROM CIRCUIT BREAKER.

SURGE SUPPRESSOR

SCALE: NONE

INTERFACE HEAT EXCHANGER CABINET



THE INTERFACE HEAT EXCHANGER CABINET SHOULD BE MOUNTED ON THE WALL. SCREWS AND ANCHORS FOR MOUNTING ARE NOT DELIVERED WITH THE SYSTEM, THEY MUST BE PROVIDED ON-SITE. HOSES WILL BE VISIBLE WHEN THE CABINET IS MOUNTED ON THE WALL. THE INTERFACE HEAT EXCHANGER REQUIRES 12" OF SPACE BELOW THE CABINET FOR BENDING RADIUS OF HOSES. CUSTOMER/CONTRACTOR MAY DESIGN/SUPPLY/INSTALL A SUPPORT STRUCTURE/PLATFORM IF WALL MOUNTING IS NOT POSSIBLE.

IHE CABINET BASE

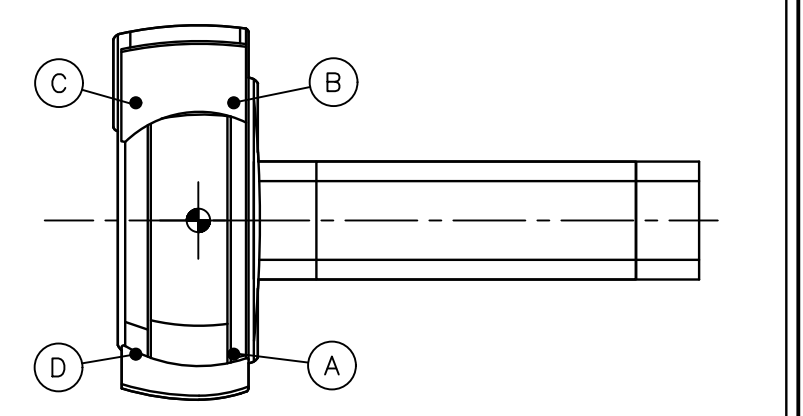
SCALE: 1/2" = 1'-0"

STRUCTURAL NOTES

- 1) THE CUSTOMER/CONTRACTOR SHALL FURNISH AND INSTALL ALL STRUCTURAL SUPPORT MEMBERS AND NEEDED HARDWARE FOR THE INSTALLATION OF THE SIEMENS EQUIPMENT.
- 2) THE OVERHEAD STRUCTURAL SUPPORT SYSTEM SHALL BE FIXED, RIGID AND BRACED FOR SWAY.
- 3) ALL STRUCTURAL SUPPORT MEMBERS SHALL BE TRUE, SQUARE, LEVEL, PARALLEL AND COPLANAR WITH RESPECT TO EACH OTHER, WITH A HORIZONTAL STRUCTURAL SUPPORT MEMBER TO BE LOCATED AND SET WITH A TRANSIT.
- 4) ALL STRUCTURAL SUPPORT DETAILS SHOWN ARE SAMPLE DETAILS BASED UPON TYPICAL AND STANDARD BUILDING PRACTICES AND ARE NOT INTENDED AS ACTUAL CONSTRUCTION DETAILS. ALL CONSTRUCTION DETAILS AND SUPPORT CALCULATIONS SHALL BE PREPARED BY A PROFESSIONAL STRUCTURAL ENGINEER AT THE CUSTOMER'S EXPENSE. IN THE EVENT AN EXISTING SUPPORT SYSTEM IS TO BE USED, IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO VERIFY THE INTEGRITY OF THAT SYSTEM.
- 5) MOUNTING PLATES, FRAMES, AND HARDWARE SUPPLIED BY SIEMENS AS DETAILED IN THIS DRAWING SET ARE INSTALLED BY SIEMENS UNLESS OTHERWISE REQUIRED. ANY DEVIATION FROM THE PROVIDED MATERIALS OR MOUNTING METHODS MUST BE DESIGNED AND DOCUMENTED BY THE STRUCTURAL ENGINEER OF RECORD. ALTERNATE MOUNTING MATERIALS (I.E. ANCHORS, THREADED ROD, BACKING PLATES, ETC.) MUST BE SUPPLIED BY THE CUSTOMER/CONTRACTOR. SIEMENS MAY REQUIRE ASSISTANCE FROM THE CUSTOMER/CONTRACTOR WITH INSTALLATION WHEN UTILIZING ALTERNATE MOUNTING MATERIALS.
- 6) ALL CEILING FIXTURES (I.E. AIR SUPPLY GRILLES, AIR RETURN GRILLES, EXHAUST GRILLES, SPRINKLER HEADS, INCANDESCENT AND FLUORESCENT LIGHT FIXTURES, INTERCOM SPEAKERS, MEDICAL GAS COLUMNS, ETC.) SHALL BE INSTALLED FLUSH MOUNTED WITH THE FINISHED CEILING TO PROVIDE FREE AND UNRESTRICTED TRAVEL OF THE SMS CEILING MOUNTED EQUIPMENT.
- 7) THE BOTTOM SIDE OF THE UNISTRUT CEILING GRID AND ANY CEILING MOUNTED SUPPORT PLATES ARE TO BE INSTALLED FLUSH WITH THE FINISHED CEILING. THE CUSTOMER/CONTRACTOR SHALL ALSO PROVIDE COVERSTRIPS FOR THE UNISTRUT.
- 8) THE STRUCTURAL PLANNING AS SHOWN ON THE 1/4" STRUCTURAL PLAN HAS BEEN COORDINATED WITH THE EQUIPMENT LOCATION AS SHOWN ON THE 1/4" EQUIPMENT LAYOUT PLAN. FOR THIS REASON, ANY DEVIATIONS FROM THE STRUCTURAL PLANNING AS SHOWN MUST BE APPROVED BY SMS PLANNING DEPARTMENT.
- 9) THE STRUCTURAL ENGINEER OF RECORD SHALL BE RESPONSIBLE FOR THE DESIGN AND DETAIL OF FLOOR, WALL, AND CEILING STRUCTURES IN ACCORDANCE WITH THE STRUCTURAL INFORMATION SHOWN, AND LOCAL GOVERNING BUILDING CODES.
- 10) ALL ANCHORS, SUPPORTS AND BRACES FOR SECURING THE SIEMENS EQUIPMENT ON THE UNDERSIDE OF THE CONCRETE SLAB (WHETHER SUPPLIED BY SIEMENS OR CONTRACTOR) SHALL BE SECURED IN A MANNER TO PREVENT THEM FROM FALLING DURING A DE-INSTALLATION. ALL WORK FOR SECURING THESE MOUNTS SHALL BE BY THE CONTRACTOR.

FLOOR LOADING

DESCRIPTION			
F STAT MAX	AMPLITUDE	DESCRIPTION	
		STATIC FLOOR LOADING DUE TO GANTRY'S OWN WEIGHT	
		DIFFERENCE BETWEEN MINIMUM AND MAXIMUM FLOOR LOADING DURING GANTRY ROTATION	
MEASUREMENT POINTS			
ADJUSTABLE FOOT	F STAT MAX (POUNDS)	AMPLITUDE FOR F DYN (POUNDS)	BEARING AREA PER ADJUSTABLE FOOT
(A)	1034	±135	8 IN ²
(B)	1540	±112	
(C)	1248	±112	
(D)	1034	±135	



- NOTE:**
- 1) THE VALUES PROVIDED FOR FLOOR LOADING APPLY ONLY IF THE GANTRY IS SATISFACTORILY LEVELED.
 - 2) THE FLOOR STRUCTURE MUST BE CAPABLE OF WITHSTANDING THE OCCUPIED WEIGHT OF THE GANTRY AND THE INDIVIDUAL CONTACT AREA LOADING.

FINISHED ROOM HEIGHT

FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

SYM	DATE	DESCRIPTION
△	06/06/22	UPDATED ELECTRICAL ROUTING
△	05/05/22	R-101RB VERSION DATED 03/03/22 APPROVED BY CUSTOMER FOR FINALS

PROJECT MANAGER: JESSE HULSEY
 TEL: (602) 300-2149 EXT:
 EMAIL: JESSE.HULSEY@SIEMENS-HEALTHINEERS.COM

BARTLETT REGIONAL HOSPITAL
 3260 HOSPITAL DR, JUNEAU, AK 99801-7808
 CT SCAN ROOM 2 - SOMATOM EDGE PLUS

PROJECT #: **2200096**
 SHEET: **S-101**

DATE: 06/06/22
 DRAWN BY: L. BACH

SCALE: AS NOTED
 REF. #: 30257548

SIEMENS

BARTLETT REGIONAL HOSPITAL

3260 HOSPITAL DR, JUNEAU, AK 99801-7808
 CT SCAN ROOM 2 - SOMATOM EDGE PLUS

PROJECT #: **2200096**

SHEET: **S-101**

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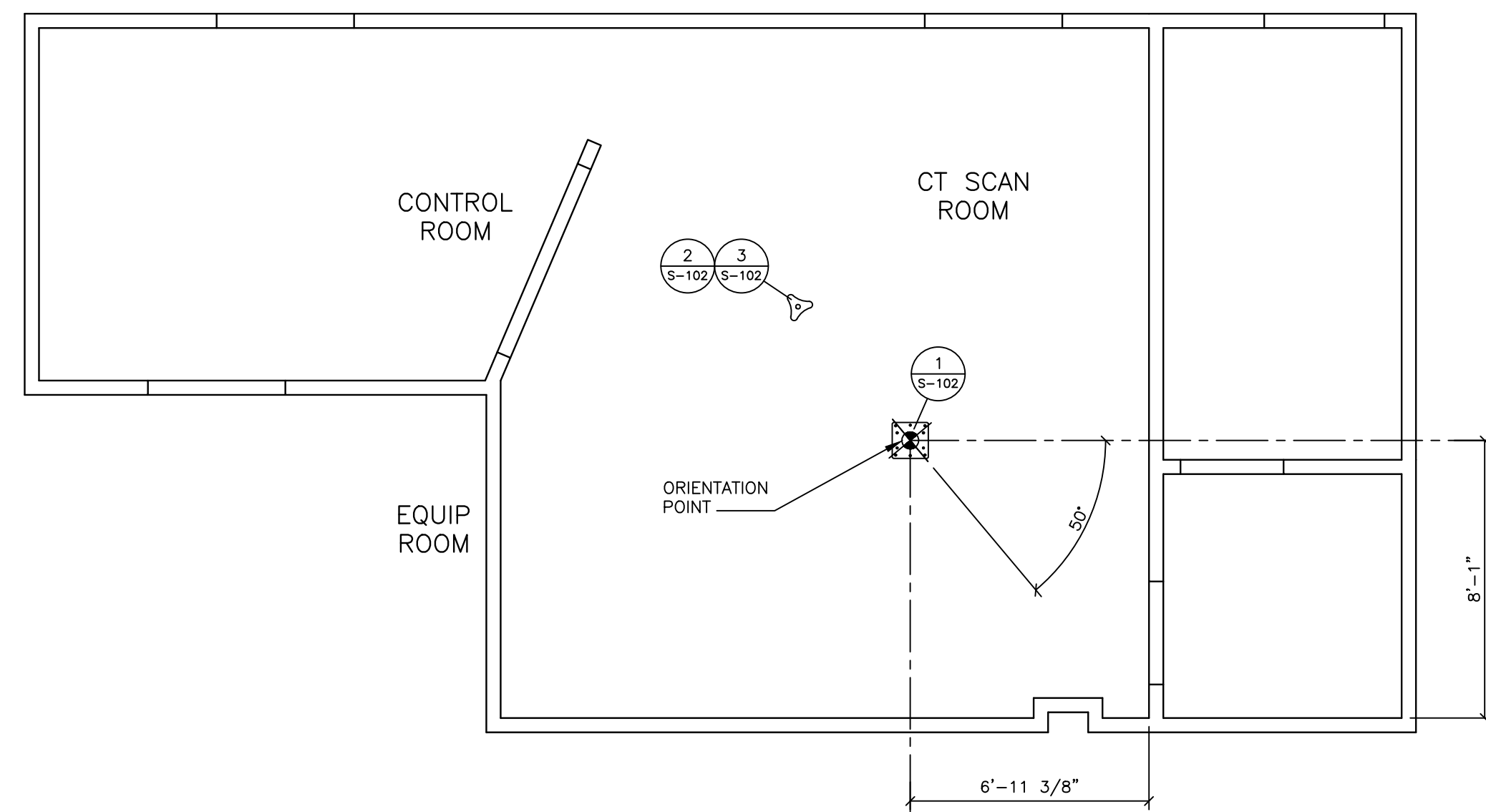
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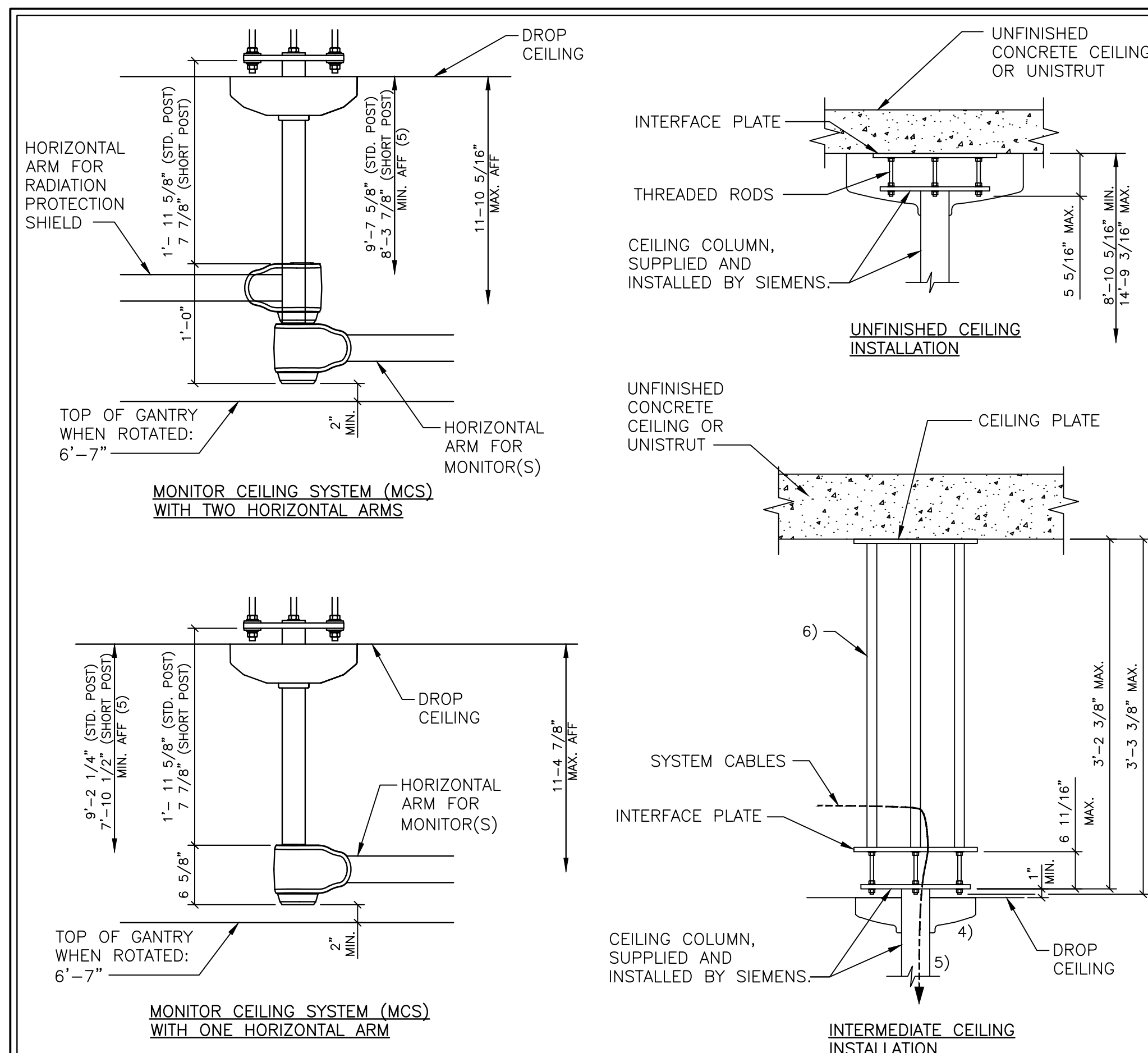
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NOTE: FOR THE WEIGHTS OF ALL SIEMENS EQUIPMENT SHOWN ON THIS PLAN, SEE THE "EQUIPMENT LEGEND" ON SHEET A-101.



STRUCTURAL CEILING PLAN

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



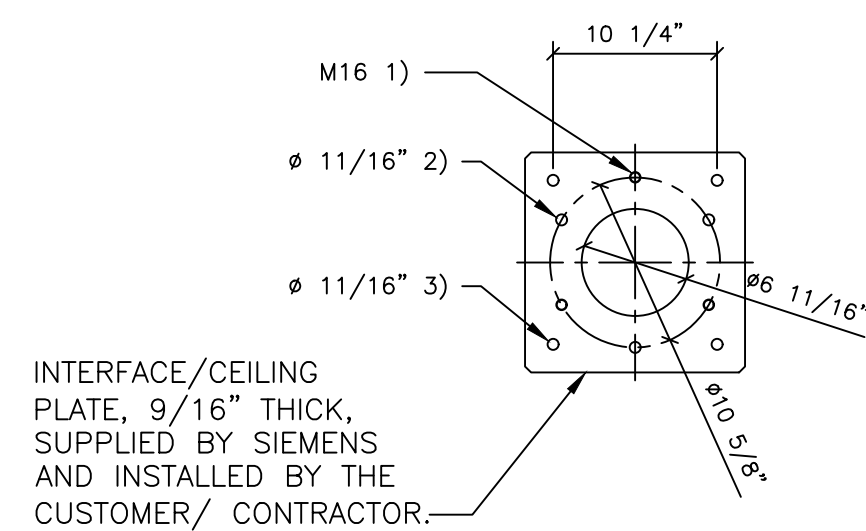
CARE VISION MONITOR CEILING MOUNT DETAIL

SCALE: NONE

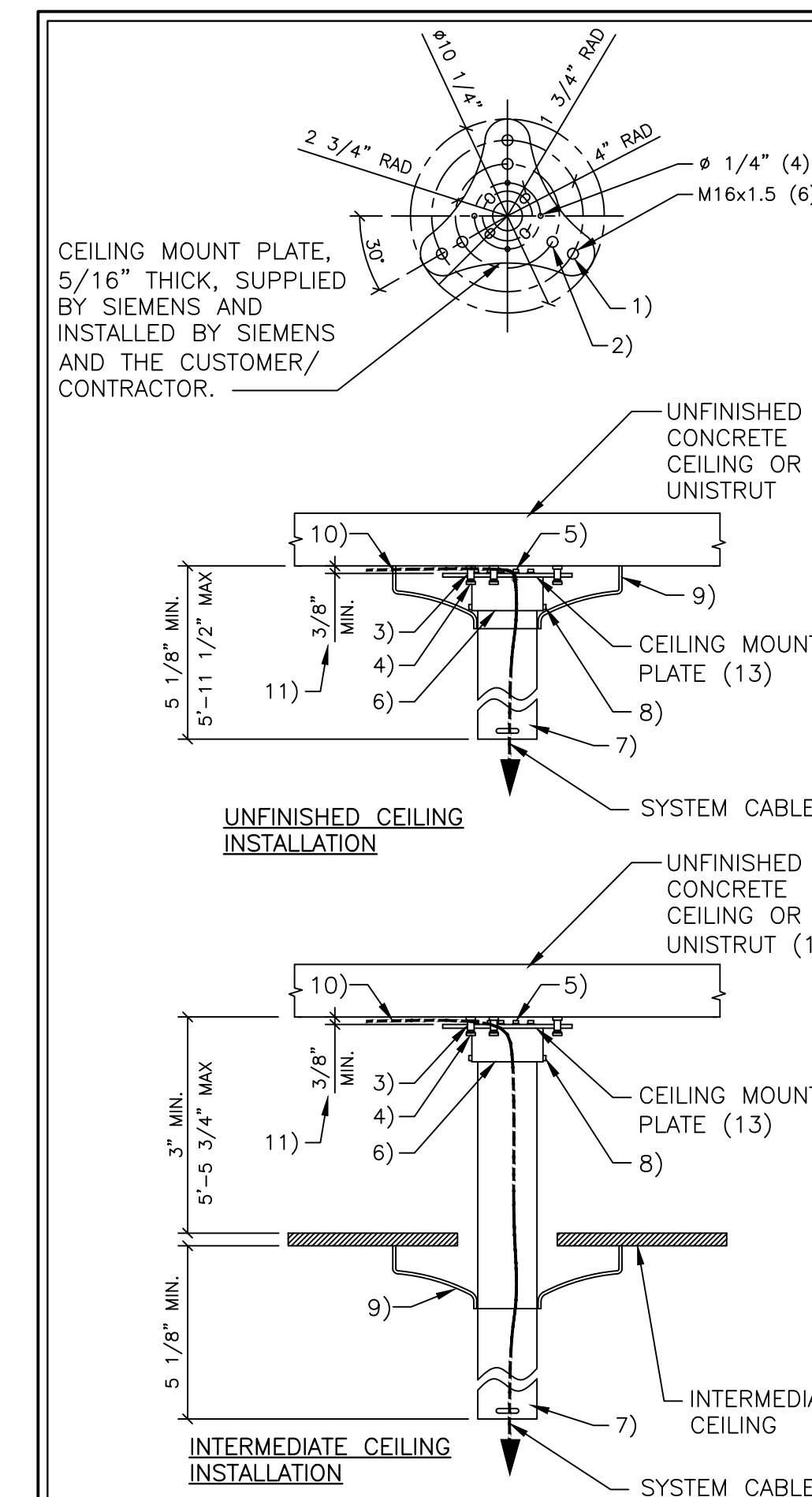
THE WEIGHT CAPACITY OF THE CEILING MUST BE EVALUATED BY A STRUCTURAL ENGINEER.

- 1) THREE M16 THREADED HOLES FOR THE THREADED RODS IN THE CEILING PLATE.
- 2) THREE 11/16" THREADED HOLES FOR THE THREADED RODS IN THE INTERFACE PLATE.
- 3) FOUR 11/16" HOLES FOR MOUNTING TO UNFINISHED CEILING.
- 4) CANOPY "SMALL" - $\phi 1'-2 \frac{3}{16}"$
"BIG" - $\phi 1'-11 \frac{5}{8}"$
"BIG" CANOPY IS MANDATORY FOR UNFINISHED CEILING INSTALLATION.
- 5) STANDARD CEILING COLUMN CAN BE PARTIALLY INSTALLED ABOVE THE DROP CEILING TO GAIN MORE DISTANCE TO THE GANTRY TO ACCOMMODATE A LOWER CEILING. SHORTENING OF THE CEILING COLUMN IS NOT PERMITTED. LENGTH OF CEILING COLUMN IS 1'-11 5/8".
- 6) SPACER SLEEVES CONTAINING THREADED RODS SUPPLIED BY SIEMENS AND INSTALLED BY THE CUSTOMER/CONTRACTOR. THREADED RODS ARE SUPPLIED IN 3'-3 3/8" LENGTHS AND MAY BE SHORTENED TO ACCOMMODATE CEILING HEIGHT.

4 ANCHORS ARE INCLUDED IN THE DELIVERY VOLUME, HILTI HST 3 M16 OR FISCHER FAZ II 16/25. EXTRACTION FORCE IS MIN. 1,349 LBS. AT EACH CEILING MOUNTING POINT.



INTERFACE/CEILING PLATE, 9/16" THICK, SUPPLIED BY SIEMENS AND INSTALLED BY THE CUSTOMER/ CONTRACTOR.



3D CAMERA CEILING MOUNT DETAIL

SCALE: NONE

THE WEIGHT CAPACITY OF THE CEILING MUST BE EVALUATED BY A STRUCTURAL ENGINEER.

- 1) PRIMARY HOLES FOR CEILING MOUNT.
- 2) ALTERNATE HOLES FOR CEILING MOUNT.
- 3) THREE THREADED BUSHES FOR LEVELING. OUTSIDE THREADS M16x1.5, IN DELIVERY VOLUME.
- 4) THREE M8 THREADED BOLT ANCHORS FOR CEILING MOUNTING AND M8 COUNTER NUT WITH WASHER BY CUSTOMER/CONTRACTOR.
- 5) SCREWS FOR ATTACHING THE FLANGE TO THE CEILING MOUNT PLATE, IN DELIVERY VOLUME.
- 6) FLANGE
- 7) 3 1/8" x 5'-11" FLANGE PIPE IS DELIVERED AS PART OF THE CEILING MOUNT. NEEDS TO BE SHORTENED TO THE REQUIRED LENGTH ON-SITE DURING INSTALLATION.
- 8) SCREWS FOR ATTACHING THE FLANGE TO FLANGE PIPE, IN DELIVERY VOLUME.
- 9) 12" CANOPY.
- 10) GAP MUST BE CUT IN THE CANOPY DURING INSTALLATION FOR SYSTEM CABLING.
- 11) 3/8" MINIMUM SPACE FOR ROUTING OF SYSTEM CABLING.
- 12) WHEN UNISTRUT IS TO BE USED THERE WILL NEED TO BE A MOUNTING PLATE PROVIDED BY CUSTOMER/CONTRACTOR FOR THE CEILING PLATE TO BE ATTACHED TO.
- 13) CANNOT BE MOUNTED TO WOOD STRUCTURE.

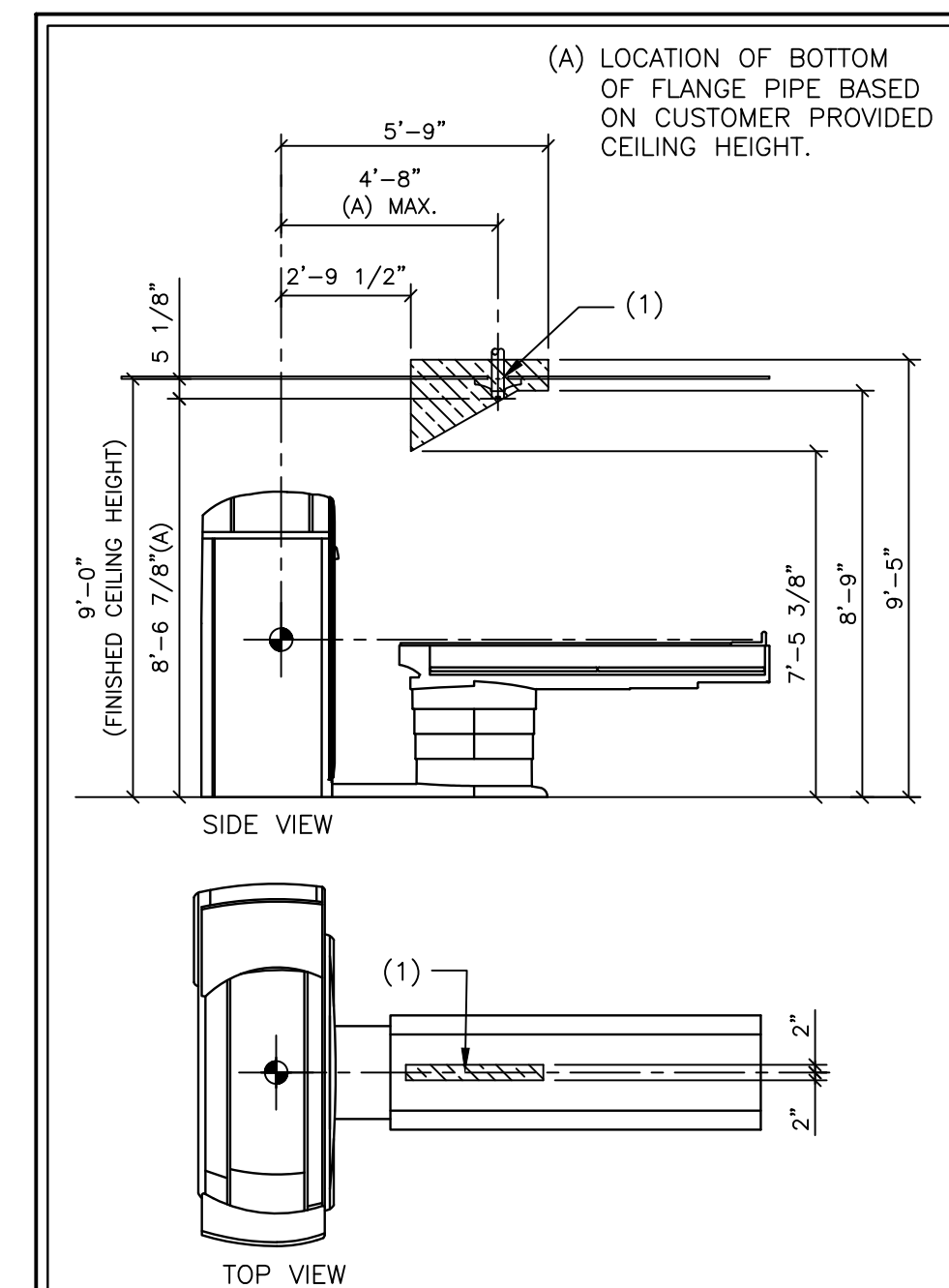
THE CEILING MOUNT PLATE AND THE ON-SITE SUBSTRUCTURE MUST BE INSTALLED LEVEL. YOU CAN COMPENSATE FOR ANY UNEVENNESS OF THE CEILING BY ADJUSTING THE THREADED BUSHES.

THE SYSTEM CABLES ARE ROUTED THROUGH THE FLANGE PIPE.

EXTRACTION FORCE:
AT EACH CEILING MOUNT POINT: MIN. 225 LBS.

AT EACH CEILING MOUNT POINT IN SEISMIC AREAS:
MIN. 1371 LBS AT FLANGE PIPE LENGTH >4'-3"
MIN. 944 LBS AT FLANGE PIPE LENGTH <4'-3" TO 2'-7"
MIN. 427 LBS AT FLANGE PIPE LENGTH <2'-7"

A SAFETY WIRE ROPE IS DELIVERED AS PART OF THE CEILING MOUNT TO BE INSTALLED BETWEEN THE UNFINISHED CEILING AND THE 3D CAMERA IN SEISMIC AREAS. IF POSSIBLE, IT IS RECOMMENDED TO ALWAYS INSTALL THE SAFETY ROPE.



NOTES - UNLESS OTHERWISE SPECIFIED:

- 1) CAMERA MOUNTING AREA. THE END OF THE FLANGE PIPE SHOULD BE POSITIONED WITHIN THE HATCHED AREA.
- 2) INSTALLATION OUTSIDE THE PRESCRIBED MOUNTING AREA IS NOT PERMITTED.

3D CAMERA MOUNTING DETAIL

REV 2

SCALE: NONE

FINISHED ROOM HEIGHT	
FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

SYM	DATE	DESCRIPTION
06/06/22		UPDATED ELECTRICAL ROUTING
05/05/22		R-101RB VERSION DATED 03/03/22 APPROVED BY CUSTOMER FOR FINALS

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 TEL: (602) 300-2149 EXT:
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SIEMENS

BARTLETT REGIONAL HOSPITAL
 3260 HOSPITAL DR, JUNEAU, AK 99801-7808
 CT SCAN ROOM 2 - SOMATOM EDGE PLUS

PROJECT #: **2200096** SHEET: **S-102**

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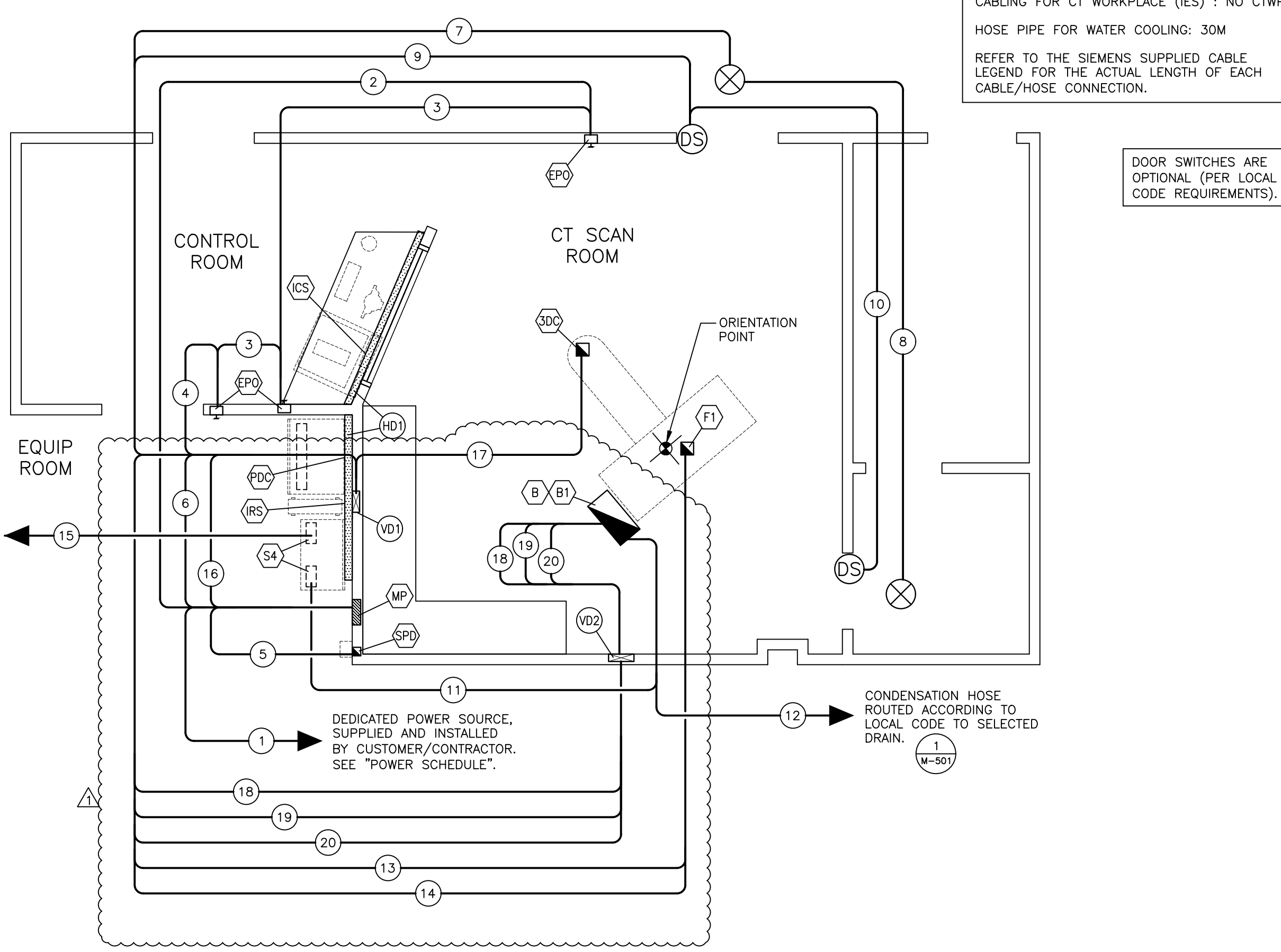
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EDGE PLUS
REV 16

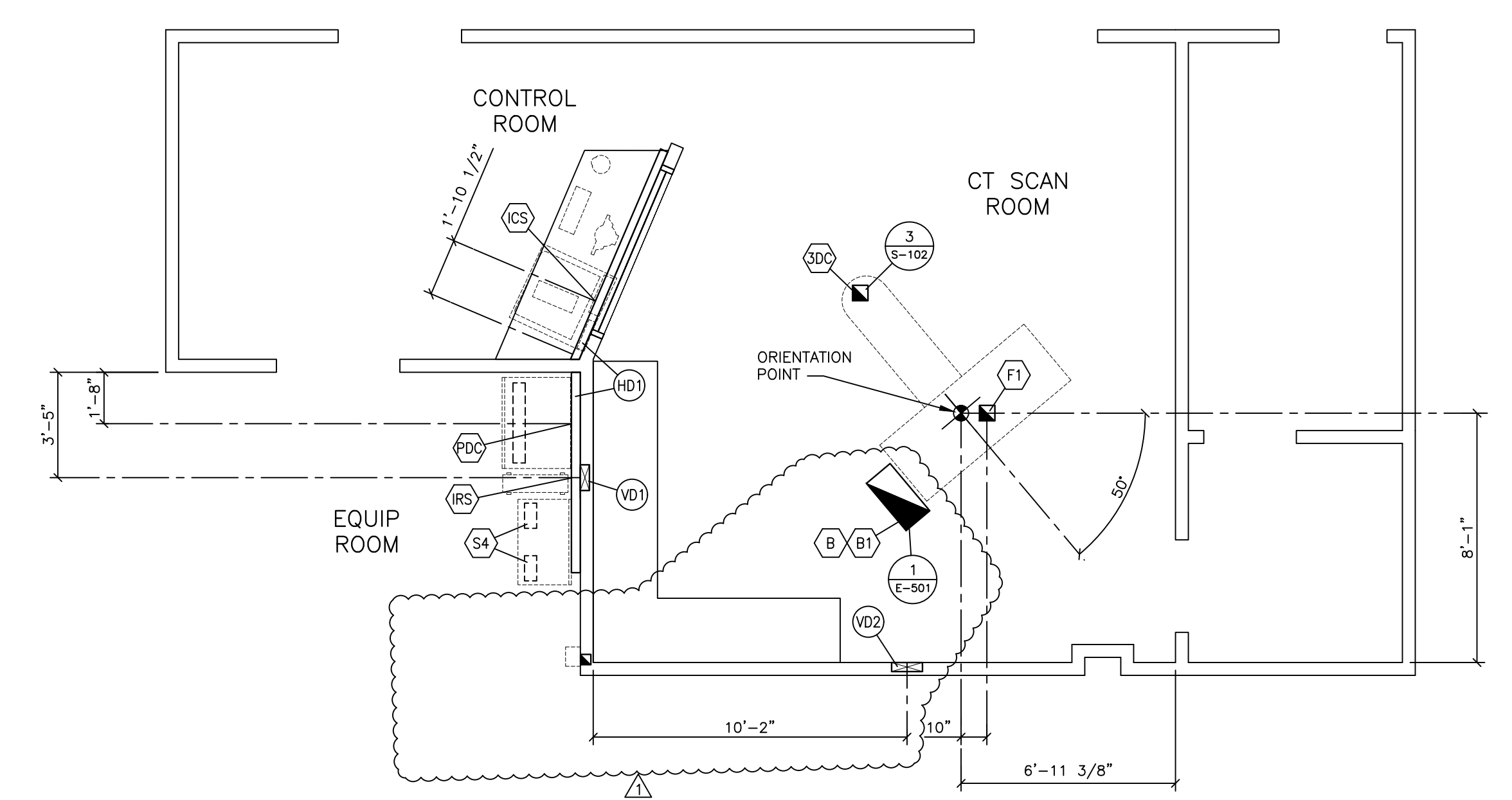
REFERENCE DOCUMENT - NOT FOR CONSTRUCTION

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ELECTRICAL RACEWAY PLAN

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



ELECTRICAL DIMENSION PLAN

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

ELECTRICAL LEGEND			
SYM	SIZE	DESCRIPTION	REMARKS
(B/B1)	12" x 24"	PULL BOX MOUNTED FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	GANTRY CABLE ACCESS
(E)	---	EMERGENCY POWER OFF BUTTON, EXACT LOCATIONS TO BE DETERMINED BY CUSTOMER/CONTRACTOR.	SEE POWER SCHEDULE
(F1)	AS REQUIRED	PULL BOX MOUNTED ABOVE FINISHED CEILING.	CARE VISION MONITOR CEILING MOUNT
(CS)	12" x 4"	OPENING IN RACEWAY IN SHOWN LOCATION.	IMAGE RECONSTRUCTION SYS.
(CS)	8" x 4"	OPENING IN RACEWAY IN SHOWN LOCATION.	IMAGE RECONSTRUCTION CAB.
(MP)	---	MAIN PANEL WITH MAIN BREAKER, EXACT LOCATION DETERMINED BY CUSTOMER/CONTRACTOR.	SEE POWER SCHEDULE.
(S)	12" x 5"	OPENING IN RACEWAY IN SHOWN LOCATION.	POWER DISTRIBUTION CAB.
(S)	---	TWO OPENINGS IN BASE OF INTERFACE HEAT EXCHANGER.	INTERFACE HEAT EXCHANGER
(S)	AS REQUIRED	PULL BOX MOUNTED FLUSH WITH FINISHED WALL PROVIDED WITH 2" OPENING IN FINISHED COVER. THE SURGE PROTECTIVE DEVICE MUST BE LOCATED WITHIN 3 FEET CABLE RUN FROM CIRCUIT BREAKER, AT HEIGHT DETERMINED BY CUSTOMER/ CONTRACTOR.	SEE DETAIL S-101
(SC)	AS REQUIRED	PULL BOX MOUNTED ABOVE FINISHED CEILING TO COORDINATE WITH THE LOCATION OF THE 3D CAMERA.	3D CAMERA
(R)	10" x 3 1/2"	ELECTRICAL DUCT RUN HORIZONTALLY ON THE WALL AT THE FLOOR LINE AND SURFACE MOUNTED ON FINISHED WALL AS SHOWN. DUCT TO BE DIVIDED INTO TWO SECTIONS WITH METAL DIVIDERS. LENGTH: 14'-0".	RACEWAY
(R)	12" x 3 1/2"	ELECTRICAL DUCT MOUNTED FLUSH WITH FINISHED WALL IN SHOWN LOCATION PROVIDED WITH FINISHED, REMOVABLE COVERS. TO EXTEND FROM FLOOR LINE TO END ABOVE FINISHED CEILING. DUCT TO BE DIVIDED INTO TWO SECTIONS WITH METAL DIVIDERS.	RACEWAY
(1)	AS REQUIRED	CONDUIT FROM POWER SOURCE TO "MP" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(2)	AS REQUIRED	CONDUIT FROM "MP" TO "EPO" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(3)	AS REQUIRED	CONDUIT FROM "EPO" TO "EPO" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(4)	AS REQUIRED	CONDUIT FROM "EPO" TO "VD1" (PDC), SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(5)	AS REQUIRED	CONDUIT FROM "MP" TO "SPD" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(6)	AS REQUIRED	CONDUIT FROM "MP" TO "VD1" (PDC), SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(7)	AS REQUIRED	CONDUIT FROM "VD1" (PDC) TO "WARNING LIGHT".	
(8)	AS REQUIRED	CONDUIT FROM "WARNING LIGHT" TO "WARNING LIGHT".	
(9)	AS REQUIRED	CONDUIT FROM "VD1" (PDC) TO "DS".	
(10)	AS REQUIRED	CONDUIT FROM "DS" TO "DS".	
(11)	(2) 3"	CONDUITS FROM "B1" TO "B1", TO CONTAIN SIEMENS COOLING WATER HOSES WITH A MINIMUM 6" BENDING RADIUS.	MAX. CONDUIT LENGTH 96'-0" SEE SHEET M-101
(12)	1"	CONDUIT, IF REQUIRED PER LOCAL CODE, FOR CONDENSATION HOSE FROM "B1" TO SELECTED DRAIN TYPE. THE MINIMUM BENDING RADIUS IS 3 3/16".	MAX. CONDUIT LENGTH 32'-9"
(13)	2-1/2"	CONDUIT FROM "VD1" (ICS) TO "F1".	MAX. CONDUIT LENGTH 62'-0"
(14)	2-1/2"	CONDUIT FROM "VD1" (PDC) TO "F1".	MAX. CONDUIT LENGTH 58'-0"
(15)	(2) 3"	CONDUITS, IF REQUIRED PER LOCAL CODE, FROM "S4" TO ON-SITE WATER CONNECTION, TO CONTAIN SIEMENS COOLING WATER HOSES WITH A MINIMUM 6" BENDING RADIUS.	MAX. CONDUIT LENGTH 16'-0" SEE SHEET M-101
(16)	AS REQUIRED	CONDUIT FROM "MP" TO "VD1" (S4), SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(17)	2-1/2"	CONDUIT FROM "VD1" (PDC) TO "3DC".	MAX. CONDUIT LENGTH 78'-0"
(18)	(3) 3"	CONDUITS FROM "VD1" (PDC) TO "VD2" TO "B" WITH A MINIMUM 6" BENDING RADIUS.	MAX. CONDUIT LENGTH 60'-0"
(19)	3"	CONDUIT FROM "B" TO "VD2" TO "VD1" (ICS).	MAX. CONDUIT LENGTH 53'-0"
(20)	1-1/2"	CONDUIT FROM "B" TO "VD2" TO "VD1" (IRS).	MAX. CONDUIT LENGTH 60'-0"

ELECTRICAL NOTES

1) COMPLIANCE: ELECTRICAL WORK SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA-70), O.S.H.A. REGULATIONS, AS WELL AS APPLICABLE REGULATIONS OF CITY, COUNTY, STATE AND FEDERAL AGENCIES. PROVIDE MATERIALS AND EQUIPMENT THAT COMPLY WITH ANSI, IEEE AND NEMA STANDARDS AND ARE U.L. LISTED AND LABELED. THE CUSTOMER'S/CONTRACTOR'S WORK AND ALL EQUIPMENT INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE ADOPTED/ENFORCED BY THE AUTHORITY HAVING JURISDICTION.

2) QUALITY ASSURANCE: THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD TO INSURE THAT THE NEW WORK WILL FIT INTO THE EXISTING STRUCTURE AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST OR BE DISCOVERED THAT PREVENT THE INSTALLATION OF WORK AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OF EQUIPMENT, OR THE PERFORMANCE OF ANY WORK THAT MAY BE AFFECTED. DO NOT ALTER DRAWINGS, DIMENSIONS, OR SPECIFICATIONS IN ANY WAY WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SIEMENS PROJECT MANAGER. ALL DIMENSIONS ARE FROM FINISHED SURFACES. CONDUIT AND PULL BOXES TO BE INSTALLED BY THE CUSTOMER/CONTRACTOR WITH LOCATIONS BEING FIELD VERIFIED BY THE SIEMENS PROJECT MANAGER.

3) POWER SUPPLY SOURCE: POWER SUPPLIES FOR SIEMENS HEALTHCARE EQUIPMENT SHALL BE FROM A MEDICAL IMAGING PANEL OR BUILDING SERVICE EQUIPMENT THAT IS A GROUNDING 3 OR 4-WIRE "WYE" SOURCE PER THE SPECIFIC EQUIPMENT OPERATION REQUIREMENTS. A DEDICATED CIRCUIT SHALL BE PROVIDED THAT IS KEPT ENTIRELY FREE AND INDEPENDENT OF ALL OTHER BUILDING WIRING, NO ELEVATORS, GENERATORS, PUMPS, HVAC OR SIMILAR EQUIPMENT SHALL BE CONNECTED TO THE SAME CIRCUIT OR MEDICAL IMAGING PANEL THAT SERVES THE SIEMENS HEALTHCARE EQUIPMENT. IF THE POWER SUPPLY SOURCE DOES NOT MEET THE SPECIFIC SIEMENS EQUIPMENT POWER REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT REQUIRED TO ESTABLISH THE POWER SUPPLY IN ACCORDANCE WITH THE REQUIRED POWER SUPPLY PARAMETERS OF THE SIEMENS EQUIPMENT. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE CUSTOMER AND/OR UTILITY COMPANY FIELD REPRESENTATIVE.

4) WORK FURNISHED BY CUSTOMER/CONTRACTOR: WORK NOT PROVIDED BY SIEMENS HEALTHCARE BUT SHOWN ON DRAWINGS TO BE FURNISHED AND INSTALLED BY CUSTOMER/CONTRACTOR INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING, UNLESS NOTED OTHERWISE: ELECTRICAL RACEWAYS AND DUCTS, WIRING TROUGHS, PULL BOXES, CONDUITS, CIRCUIT BREAKERS, ACCESS PANELS, EMERGENCY OFF BUTTONS, DOOR SWITCHES, WARNING LIGHTS, WIRING DEVICES, CONNECTORS, LIGHTING EQUIPMENT AND GROUNDING.

5) RACEWAY AND CONDUIT NOTES: ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT ENFORCED EDITION OF THE NATIONAL ELECTRICAL CODE. CONDUIT BODIES SHALL NOT BE USED, WHERE A CONDUIT ENTERS A BOX, FITTING, OR OTHER ENCLOSURE, AN INSULATED THROAT CONNECTOR SHALL BE PROVIDED TO PROTECT THE WIRE FROM ABRASION. ALL CONNECTORS FOR EMT SHALL BE COMPRESSION OR DOUBLE SET SCREW TYPE.

KEEP RACEWAYS AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF FLUES OR STEAM AND HOT WATER PIPES. INSTALL RACEWAY RUNS ABOVE WATER AND STEAM PIPES PROVIDED THAT CABLE RUN DISTANCES ARE MAINTAINED. USE TEMPORARY CLOSURES TO PREVENT FLOOR MATTER FROM ENTERING RACEWAY.

CONDUIT RUNS ARE SHOWN SCHEMATICALLY. INSTALL CONDUIT WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED. THE CONTRACTOR SHALL MAKE CERTAIN THAT ANY CONDUIT/RACEWAY RUNS CONTAINING SIEMENS HEALTHCARE CABLES DO NOT EXCEED THE SPECIFIED MAXIMUM DISTANCES AS SHOWN ON THE ELECTRICAL DETAILS. LISTED CONDUIT SIZES FOR SIEMENS-SUPPLIED CABLES MUST BE MAINTAINED IN ORDER TO ENABLE THE TOTAL CABLE BUNDLE INCLUDING CONNECTORS TO BE PULLED THROUGH WITHOUT DAMAGE.

PROVIDE ENCLOSED METAL WIRE DUCT RACEWAY SYSTEM WHERE SHOWN ON DRAWINGS WITH DIVIDERS TO SEPARATE THE DUCT INTO TWO OR THREE SEPARATE COMPARTMENTS AS SHOWN ON THE SIEMENS PLANS (FOR POWER AND SIEMENS HEALTHCARE CABLING), DIVIDERS AND CROSSOVER PIECES TO BE PROVIDED AS NECESSARY. THE CABLE TO CABLE AS WELL AS THE CIRCUIT TO CIRCUIT SEPARATION REQUIREMENT WAS EVALUATED DURING THE UL SYSTEM CERTIFICATION OF THE EQUIPMENT. ADDITIONAL SEPARATION OF THE SYSTEM CABLE ASSEMBLIES INTO SEPARATE OR PARTITIONED RACEWAYS, UNLESS OTHERWISE NOTED, IS NOT NECESSARY TO INSURE SEPARATION OF CIRCUITS.

PROVIDE WIRE DUCT/RACEWAY WITH ACCESSIBLE REMOVABLE COVERS. LOCATIONS OF BUILDING MATERIAL OPENINGS (I.E. ACCESS PANELS) TO BE CUT IN FIELD ARE TO BE COORDINATED WITH THE DRAWING REQUIREMENTS AND BUILDING STRUCTURE. THOSE THAT ARE NOT INDICATED OR INTERFERE WITH BUILDING ELEMENTS SHALL BE COORDINATED WITH SIEMENS PROJECT MANAGER. ELECTRICAL PULL BOXES AND RACEWAY COVERS SHALL BE INSTALLED IN A MANNER TO ALLOW ACCESSIBILITY FOR INSTALLATION AND MAINTENANCE. CONTRACTORS MUST PROVIDE PULL STRINGS FOR ALL CONDUIT AND WIRE DUCT/RACEWAY, IN-FLOOR TRENCH DUCT AND FLUSH FLOOR BOXES SHALL BE PROVIDED WITH FULLY GASKETED REMOVABLE COVERS.

WHEN JUNCTION BOXES AND WIRE DUCT/RACEWAY ARE MOUNTED HIGHER THAN 14 FEET ABOVE FINISHED FLOOR, THE ELECTRICAL CONTRACTOR SHALL PROVIDE TWO ELECTRICIANS TO HELP THE SIEMENS INSTALLERS PULL SIEMENS SUPPLIED CABLES AT CUSTOMER'S EXPENSE.

WHEN JUNCTION BOXES AND WIRE DUCT/RACEWAY ARE MOUNTED ABOVE A HARD CEILING (I.E. SHEET ROCK), A 24" x 24" ACCESS PANEL IS REQUIRED AT EACH JUNCTION BOX AND WITHIN 2 FEET OF EACH RACEWAY TRANSITION (SUCH AS A 90 DEGREE ELBOW OR TEE) IN DUCT/RACEWAY. THERE MUST BE FREE AND CLEAR ACCESS TO JUNCTION BOXES AND WIRE DUCT/RACEWAY. WHEN ACCESS PANELS ARE LOCATED MORE THAN 3 FEET FROM JUNCTION BOXES AND WIRE DUCT/RACEWAY THE ELECTRICAL CONTRACTOR SHALL PROVIDE TWO ELECTRICIANS TO HELP SIEMENS INSTALLERS PULL SIEMENS SUPPLIED CABLES AT CUSTOMER'S EXPENSE.

6) WIRING: ALL WIRING INSTALLED SHALL BE 600 VOLT CLASS, STRANDED TYPE THHN/THWN-2, SINGLE CONDUCTOR ANNEALED COPPER FOR A MAXIMUM OPERATING TEMPERATURE OF 90° C (194° F), SIZED AS INDICATED, INSTALLED IN METAL RACEWAYS. THE CUSTOMER/CONTRACTOR SHALL LEAVE A MINIMUM 10 FEET OF WIRE TAILS AT ALL OUTLET POINTS WITH WIRE IDENTIFICATION TAGGED AT BOTH ENDS FOR FINAL CONNECTION BY THE CUSTOMER/ELECTRICAL CONTRACTOR.

7) SHORT CIRCUIT REQUIREMENTS: ALL CIRCUIT BREAKERS SUPPLIED FOR THE SIEMENS EQUIPMENT REQUIREMENTS SHALL BE RATED HIGHER THAN THE SHORT CIRCUIT AVAILABLE AT THE TERMINALS OF THE ELECTRICAL EQUIPMENT AS DETERMINED BY THE ENGINEER OF RECORD, BUT NOT LESS THAN 35,000 RMS SYMMETRICAL AT 480V, 3-PHASE, 60 HERTZ. THE CONTRACTOR SHALL OBTAIN THE CORRECT SHORT CIRCUIT CURRENT RATING OF ALL THE NEW EQUIPMENT FOR INSTALLATION FROM THE ENGINEER OF RECORD.

SYMBOLS	
ALL MAY NOT APPLY	
[Symbol]	MAIN PANEL OR ENCLOSURE BY CUSTOMER/CONTRACTOR
[Symbol]	OPENING IN RACEWAY OR TRENCHDUCT
[Symbol]	PULLBOX IN (FLOOR/WALL/CEILING)
[Symbol]	OPENING IN ACCESS FLOORING
[Symbol]	WARNING LIGHT (X-RAY ON)
[Symbol]	DOOR SAFETY SWITCH
[Symbol]	(EPO) EMERGENCY POWER OFF BUTTON
[Symbol]	TRENCHDUCT
[Symbol]	CEILING DUCT
[Symbol]	UNDER FLOOR DUCT
[Symbol]	SURFACE DUCT
[Symbol]	VERTICAL DUCT
[Symbol]	ETHERNET CONNECTION TO CUSTOMER'S INFORMATION SYSTEMS NETWORK (VERIFY WITH SMS PROJECT MANAGER).
[Symbol]	110 VOLT, 20 AMP, HOSPITAL GRADE DUPLEX OUTLET UNLESS OTHERWISE STATED.
[Symbol]	110 VOLT, 20 AMP, HOSPITAL GRADE QUAD OUTLET
[Symbol]	SPECIAL PURPOSE RECEPTACLE

CONDUIT LENGTH CALCULATIONS

IF SITE SPECIFIC CONDITIONS EXCEED THE FOLLOWING ASSUMED VALUES THEN ADDITIONAL LENGTH MUST BE SUBTRACTED BY THE ELECTRICAL CONTRACTOR FROM THE MAXIMUM CONDUIT LENGTHS LISTED.

IF DUCT LOCATIONS ARE ALTERED FROM THE SHOWN LAYOUT IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO RECALCULATE THE MAXIMUM CONDUIT LENGTHS.

ASSUMED VALUES USED IN CALCULATING STATED MAXIMUM CONDUIT LENGTHS:
 VERTICAL DUCTS - 10'-0"
 FLOOR PENETRATIONS - 3'-0"

POWER QUALITY

POOR POWER WILL ALTER EQUIPMENT PERFORMANCE

IT IS IN THE CUSTOMER'S INTEREST THAT THE ELECTRICAL CONTRACTOR BE RESPONSIBLE FOR TESTING AND VERIFYING THAT THE EQUIPMENT POWER SUPPLY COMPLIES WITH THE SIEMENS SPECIFICATIONS.

CABLE PROTECTION

CABLES ARE NOT PLENUM RATED. ALL CABLES MUST BE ROUTED IN CABLE DUCTS OR CABLE CONDUITS.

FINISHED ROOM HEIGHT	
FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET

PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 FAX: EMAIL: JESSE.HULSEY@SIEMENS-HEALTHINEERS.COM	EXT: 	SIEMENS
BARTLETT REGIONAL HOSPITAL 3260 HOSPITAL DR, JUNEAU, AK 99801-7808 CT SCAN ROOM 2 - SOMATOM EDGE PLUS		
06/06/22	UPDATED ELECTRICAL ROUTING	THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.
05/05/22	R-101RB VERSION DATED 03/03/22 APPROVED BY CUSTOMER FOR FINALS	
SYM	DATE	DESCRIPTION
-ISSUE BLOCK-		
SCALE: AS NOTED		REF. #: 30257548
PROJECT #:		SHEET:
2200096		E-101
SHEET 5	OF 7	DRAWN BY: L. BACH
DATE: 06/06/22		

ATTENTION:

- THIS DRAWING IS DESIGNED TO CONFORM TO FEATURES AND EQUIPMENT REQUIREMENTS PRESENTED AT THE TIME OF THEIR PREPARATION. SINCE BOTH THESE FACTORS ARE SUBJECT TO DESIGN MODIFICATION, THEY ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.

- THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.

- IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.

- ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES.

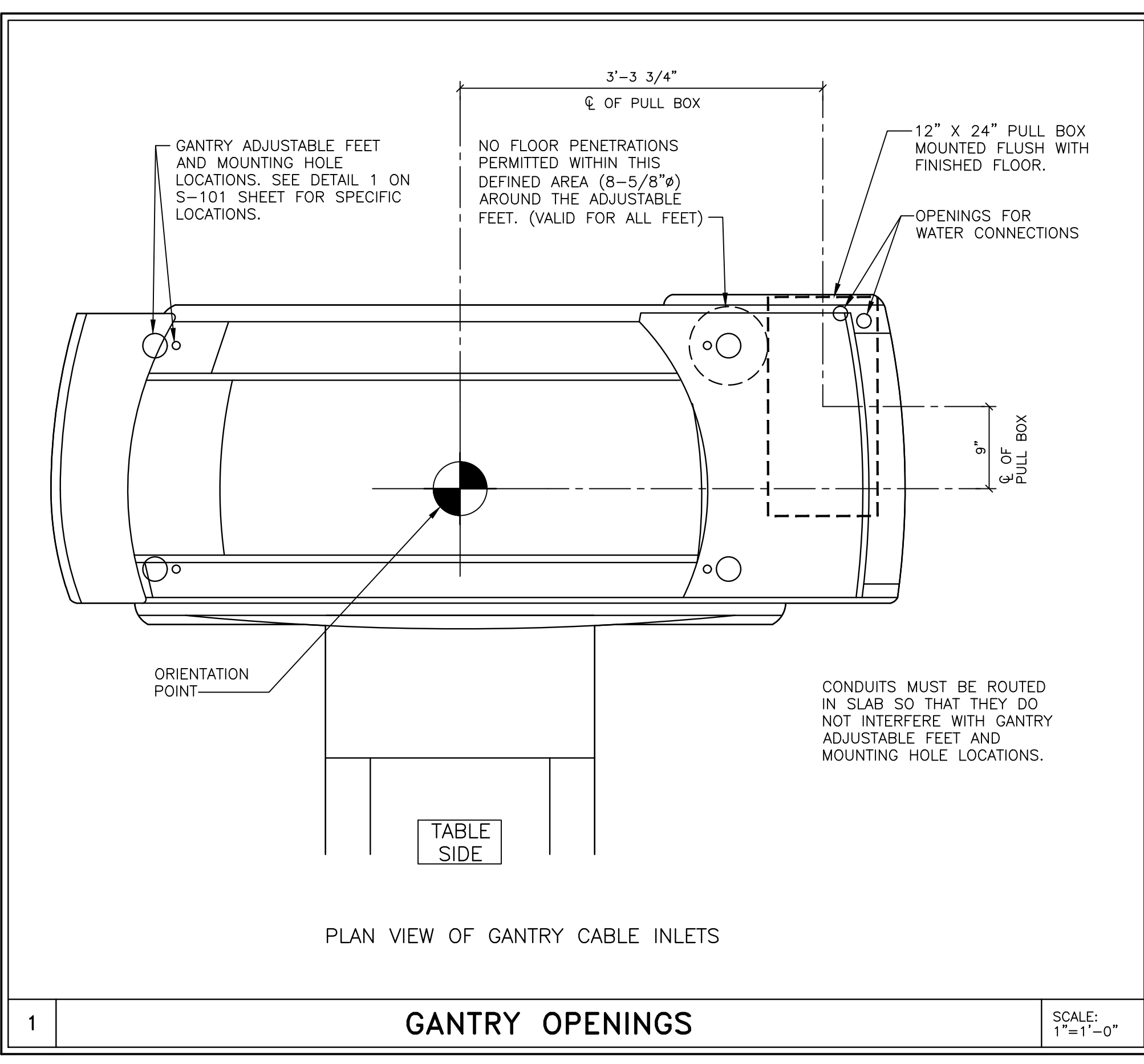
- THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

CONTRACTOR SUPPLIED CABLES

FROM	VIA	TO	DESCRIPTION	REMARKS
POWER SOURCE	1	MP	3-PHASE CONDUCTORS, 1 NEUTRAL, 1 GROUND. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	2	EPO	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
EPO	3	EPO	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
EPO	4,VD1,HD1	PDC	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	5	SPD	3-PHASE CONDUCTORS, 1 NEUTRAL AND 1 GROUND. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	6,VD1,HD1	PDC	3 PHASE CONDUCTORS, 1 NEUTRAL AND 1 GROUND. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
PDC	HD1,VD1,7	WARNING LIGHT	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	
WARNING LIGHT	8	WARNING LIGHT	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	
PDC	HD1,VD1,9	DS	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	
DS	10	DS	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	
MP	16,VD1,HD1	S4	3 PHASE CONDUCTORS AND 1 ISOLATED GROUND. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE

SIEMENS SUPPLIED CABLES

FROM	VIA	TO	DESCRIPTION	REMARKS
PDC	HD1	ICS	POWER CABLE; W8:300V, W12:300V, W34:GND DATA CABLE; W61:30V, W63:30V	MAXIMUM LENGTH 82'-0"
PDC	HD1	IRS	POWER CABLE; W7:300V, W33:GND DATA CABLE; W57:30V, W65:30V	MAXIMUM LENGTH 82'-0"
PDC	HD1,VD1,18,VD2,18	B	POWER CABLE; W1:600V, W2:600V, W3:600V, W4:HIGH VOLTAGE, W9:300V, W30:GND DATA CABLE; W53:30V, W54:30V, W59:30V, W74:FIBER	MAXIMUM LENGTH 82'-0"
B	19,VD2,19,VD1,HD1	ICS	CONTROL CABLE; W51:30V DATA CABLE; W341:24V DISPLAY PORT CABLE; W020:SV	MAXIMUM LENGTH 82'-0"
B	20,VD2,20,VD1,HD1	IRS	DATA CABLE; W70:FIBER, W98:30V	MAXIMUM LENGTH 82'-0"
S4	11	B1	WATER HOSES	MAXIMUM LENGTH 96'-0"
B1	12	DRAIN	CONDENSATION HOSE	MAXIMUM LENGTH 32'-9"
ICS	HD1,VD1,13	F1	CONTROL CABLE	MAXIMUM LENGTH 104'-0"
PDC	HD1,VD1,14	F1	POWER CABLE	MAXIMUM LENGTH 68'-0"
ON-SITE WATER CONN.	15	S4	WATER HOSES	MAXIMUM LENGTH 16'-0"
PDC	HD1,VD1,17	3DC	POWER CABLE:230V, GRD, ETH:24V	MAXIMUM LENGTH 88'-0"

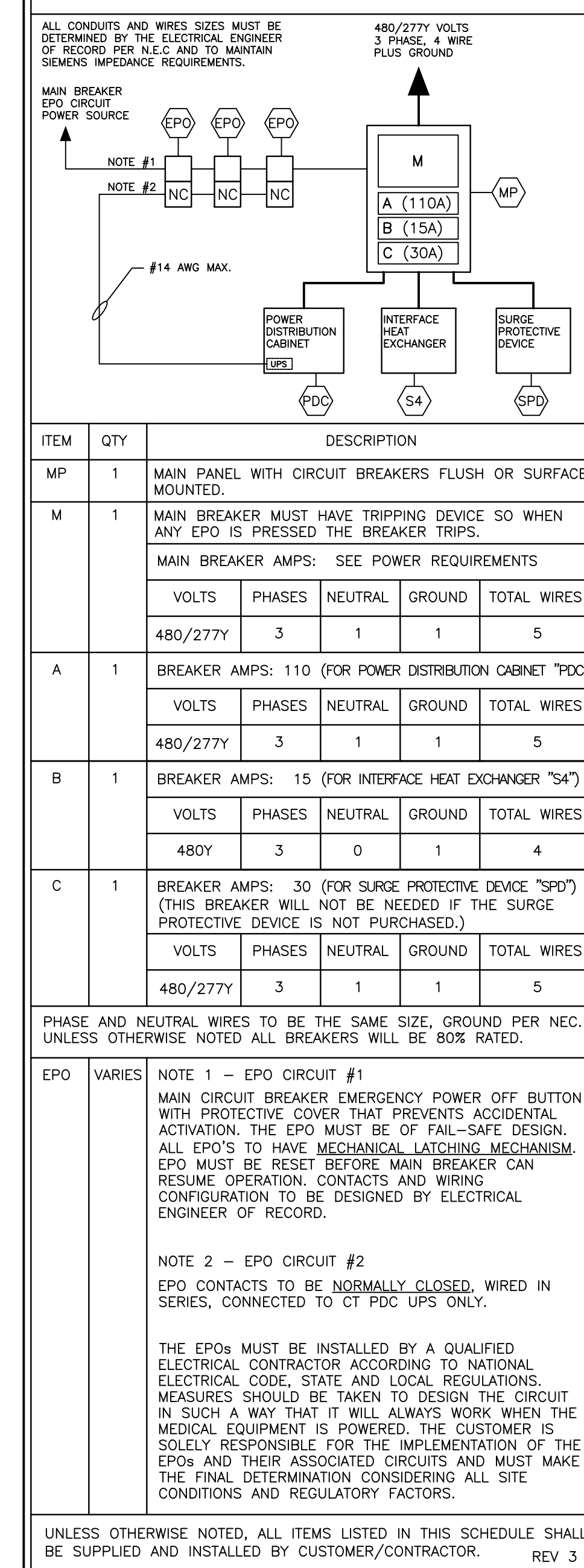


GROUNDING NOTES

EQUIPMENT GROUNDING CONDUCTOR TO COMPLY WITH THE FOLLOWING:

- 1) SIZE GROUNDING WIRE TO SIEMENS EQUIPMENT PER POWER SCHEDULE REQUIREMENTS.
- 2) DERIVED FROM THE ELECTRICAL SERVICE, TRANSFORMER OR MAIN DISTRIBUTION PANEL FEEDING THE SIEMENS EQUIPMENT.
- 3) RUN IN THE SAME CONDUIT, TROUGH OR RACEWAY AS THE PHASE CONDUCTORS.
- 4) CONTINUOUS, WITH NO BREAKS OR USE OF CONDUIT, CHASSIS OR EARTH AS THE SOLE GROUNDING PATH.
- 5) BONDED TO CHASSIS AND/OR CONDUIT IN ACCORDANCE WITH THE NEC REQUIREMENTS.
- 6) MINIMIZE CONNECTIONS OR TERMINALS TO ENSURE CONTINUITY OVER THE LIFE OF THE INSTALLATION.
- 7) AS A NORM, THERE SHOULD NOT BE ANY CURRENT PRESENCE ON THE GROUND CONDUCTOR, BUT IT IS ACCEPTABLE TO HAVE $\leq 500\text{mA}$ DURING OPERATION OF THE IMAGING EQUIPMENT.

POWER SCHEDULE



POWER REQUIREMENTS

SYSTEM	SUPPLY VOLTAGE (VOLTS)	POWER CONSUMPTION (KVA)	SUPPLY IMPEDANCE (m Ω)	MAIN CIRCUIT BREAKER (AMPS)
SOMATOM EDGE PLUS	3 ϕ 480/277Y \pm 10%	SEE BELOW	\leq 200	125

POWER CONSUMPTION (WITH STANDARD HOSPITAL CHILLED WATER OR AIR COOLED SYSTEM)
 CT OPERATING FOR 3 SEC - 140 kVA
 CT OPERATING AT 35 SEC - 93 kVA
 CT OPERATING AT 100 SEC - 43 kVA
 CT SYSTEM ON (STAND-BY) - 4 kVA
 CT SYSTEM ON (COMP ON) - 2.5 kVA
 CT GANTRY OFF (EVA ON) - 1.7 kVA

POWER CONSUMPTION (WITH OPTIONAL WATER/AIR SPLIT COOLING SYSTEM)
 CT OPERATING FOR 3 SEC - 140 kVA
 CT OPERATING AT 35 SEC - 93 kVA
 CT OPERATING AT 100 SEC - 43 kVA
 CT SYSTEM ON (STAND-BY) - 4 kVA
 CT SYSTEM ON (COMP ON) - 2.5 kVA
 CT GANTRY OFF (EVA ON) - 1.7 kVA
 COOLING SYSTEM - 16kVA
 COOLING SYSTEM FLOW HEATER (OPTIONAL) - 12kVA

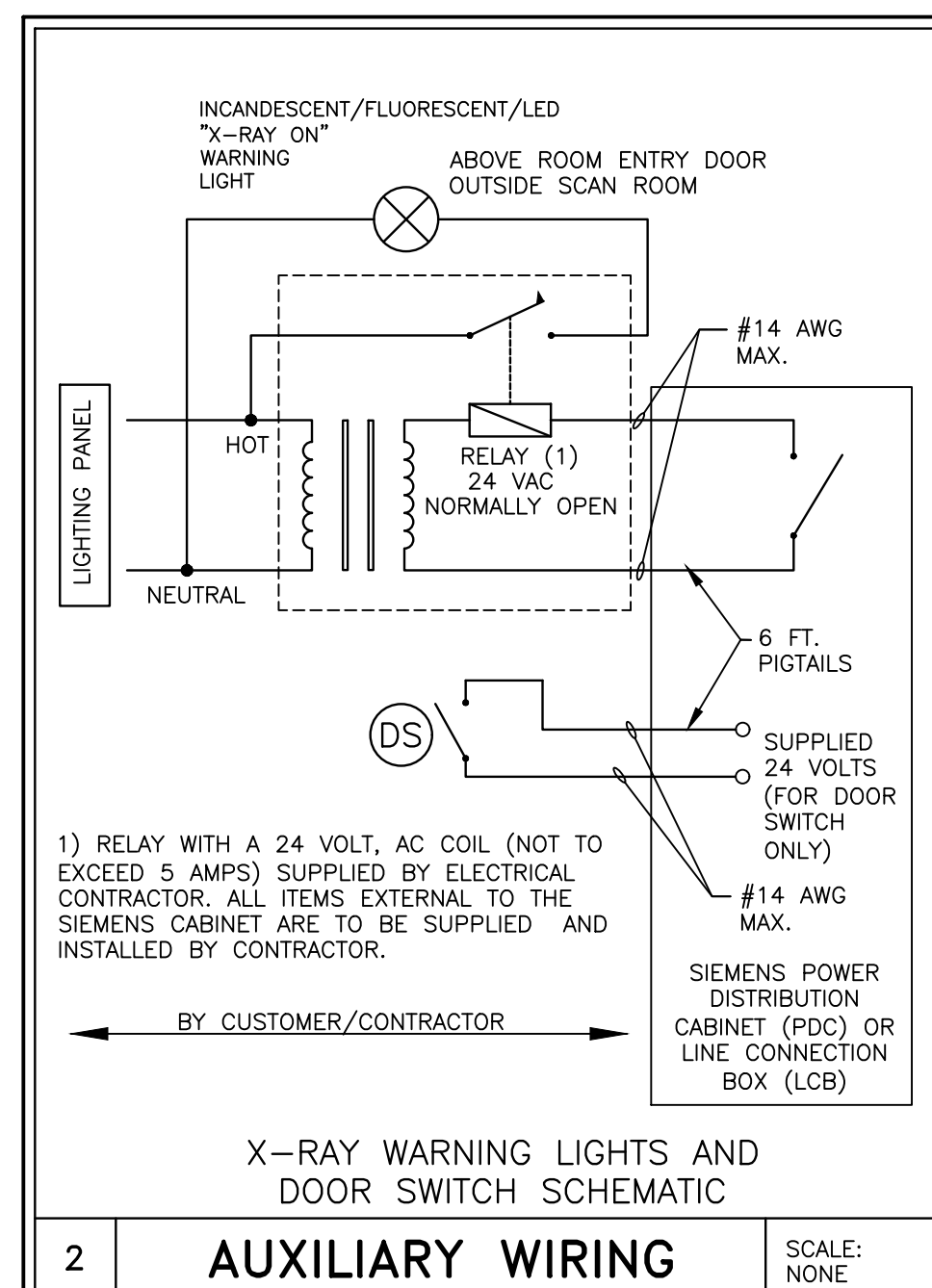
IF AN ON-SITE TRANSFORMER IS REQUIRED TO OBTAIN CT OPERATING VOLTAGE, IT MUST BE OF SUFFICIENT CAPACITY AND CHARACTERISTICS TO MAINTAIN SUPPLY VOLTAGE AND IMPEDANCE REQUIREMENTS (TRANSFORMER AND CONDUCTORS).

ALL STANDARD COMPONENTS AND ADD-ONS ARE SUPPLIED VIA THE POWER DISTRIBUTION SYSTEM.

DO NOT CONNECT NON-SIEMENS COMPONENTS SUCH AS LASER CAMERAS OR FILM PROCESSORS TO THE SIEMENS POWER DISTRIBUTION SYSTEM (PDS).

THE EXAMINATION ROOM SHOULD BE EQUIPPED WITH AT LEAST ONE EMERGENCY POWER OFF (PANIC) BUTTON.

TO ENSURE SATISFACTORY SYSTEM OPERATION THE PDS MUST HAVE A DEDICATED PROTECTIVE GROUND CONDUCTOR.



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- ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES.

- THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

PROJECT MANAGER: JESSE HULSEY
 TEL: (602) 300-2149 EXT:
 FAX:
 EMAIL: JESSE.HULSEY@SIEMENS-HEALTHINEERS.COM

SIEMENS

BARTLETT REGIONAL HOSPITAL
 3260 HOSPITAL DR, JUNEAU, AK 99801-7808
 CT SCAN ROOM 2 - SOMATOM EDGE PLUS

PROJECT #: **2200096** SHEET: **E-501**

DATE: 06/06/22

SYMBOLS: 06/06/22 UPDATED ELECTRICAL ROUTING
 05/05/22 R-101RB VERSION DATED 03/03/22 APPROVED BY CUSTOMER FOR FINALS

THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.

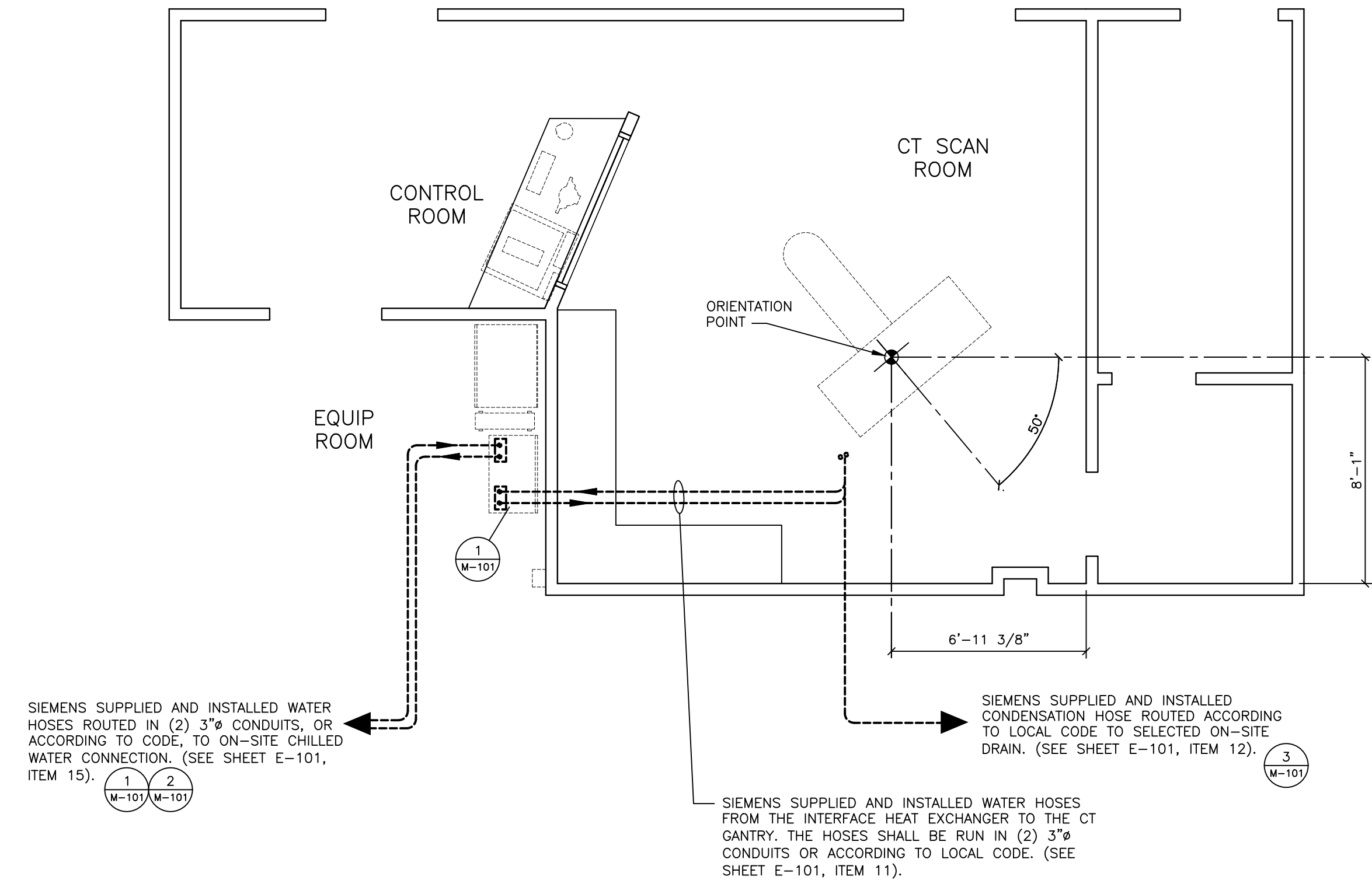
ALL RIGHTS ARE RESERVED.

SCALE: AS NOTED REF. #: 30257548

DATE: 06/06/22

BY CUSTOMER/CONTRACTOR

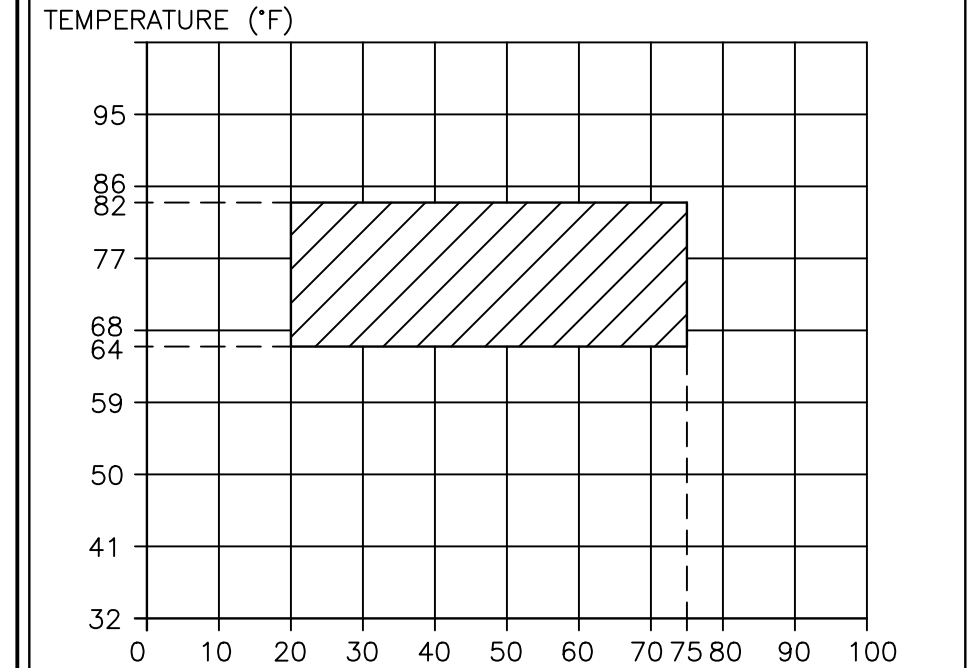
NOTE: FOR THE HEAT OUTPUT (BTU/HR) OF ALL SIEMENS EQUIPMENT SHOWN ON THIS PLAN, SEE THE "EQUIPMENT LEGEND" ON SHEET A-101.



MECHANICAL PLAN

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

ENVIRONMENTAL REQUIREMENTS



TEMPERATURE, HUMIDITY, DUST, AIR CONTAMINATION:
REFER TO THE CLIMATOGRAM ABOVE FOR THE PERMITTED CLIMATE RANGE.
THE MAXIMUM TEMPERATURE GRADIENT IS 6 K/HR.
THE ENVIRONMENTAL REQUIREMENTS FOR THE OPERATOR AND THE SYSTEM IS 64 TO 82 °F WITH A RELATIVE HUMIDITY OF 20-75% AND A BAROMETRIC PRESSURE OF 11.6 TO 15.4 PSI.
EXTERIOR AIR VENTS SHOULD BE EQUIPPED WITH A FILTRATION SYSTEM OF THE FILTER CLASS MERV 8 TO FILTER DUST PARTICLES >10 µm.
THE ROOM AIR SHOULD BE PROTECTED AGAINST CONTAMINATION BY HYDROGEN SULPHIDE, EVEN IN SMALL AMOUNTS. IF A DANGER OF SUCH CONTAMINATION EXISTS, CORRECTIVE ACTIONS HAVE TO BE TAKEN. E.G., EXTRACTOR FANS, SIPHON, MODIFICATION OF VENTILATION INTAKE, ETC..

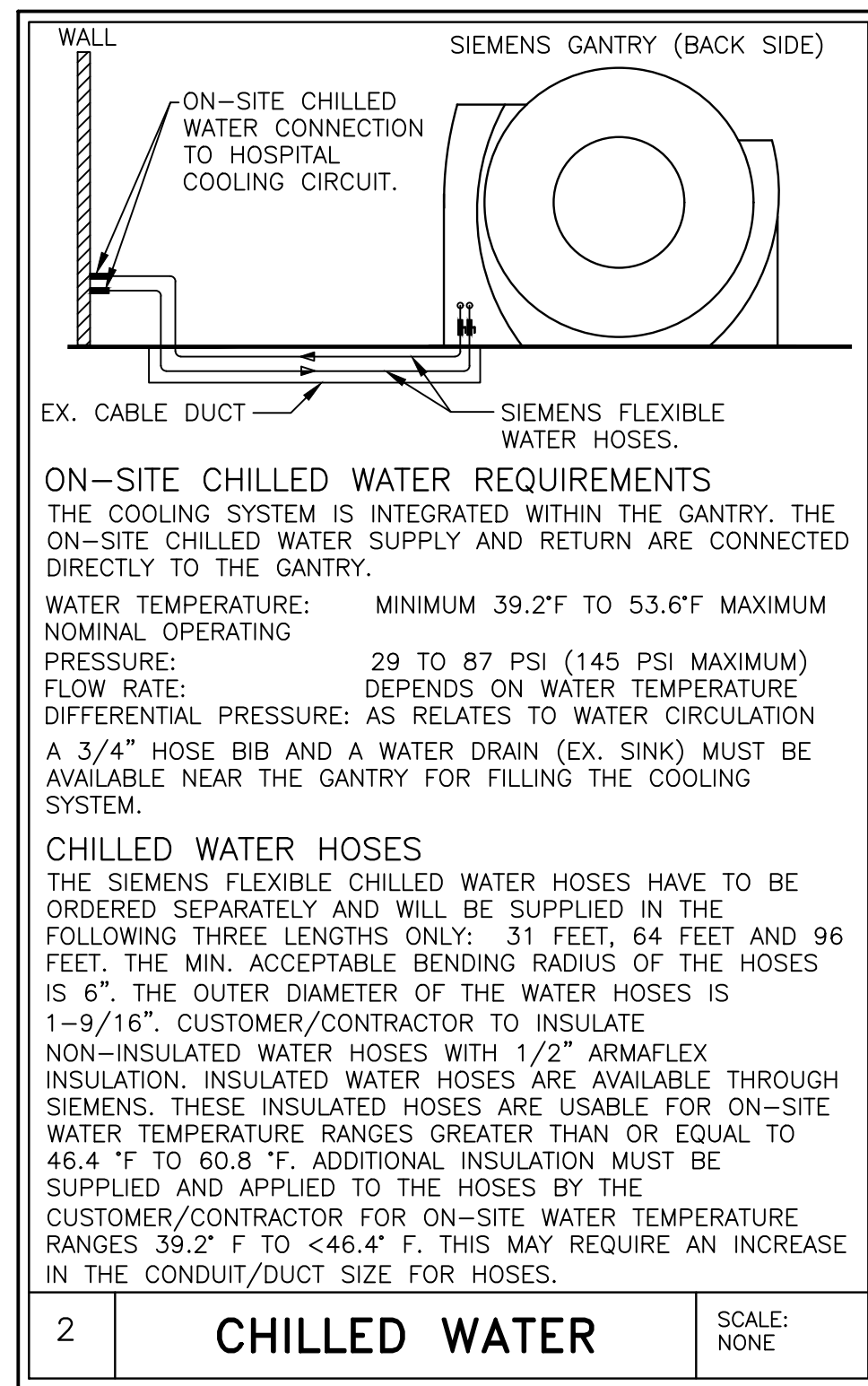
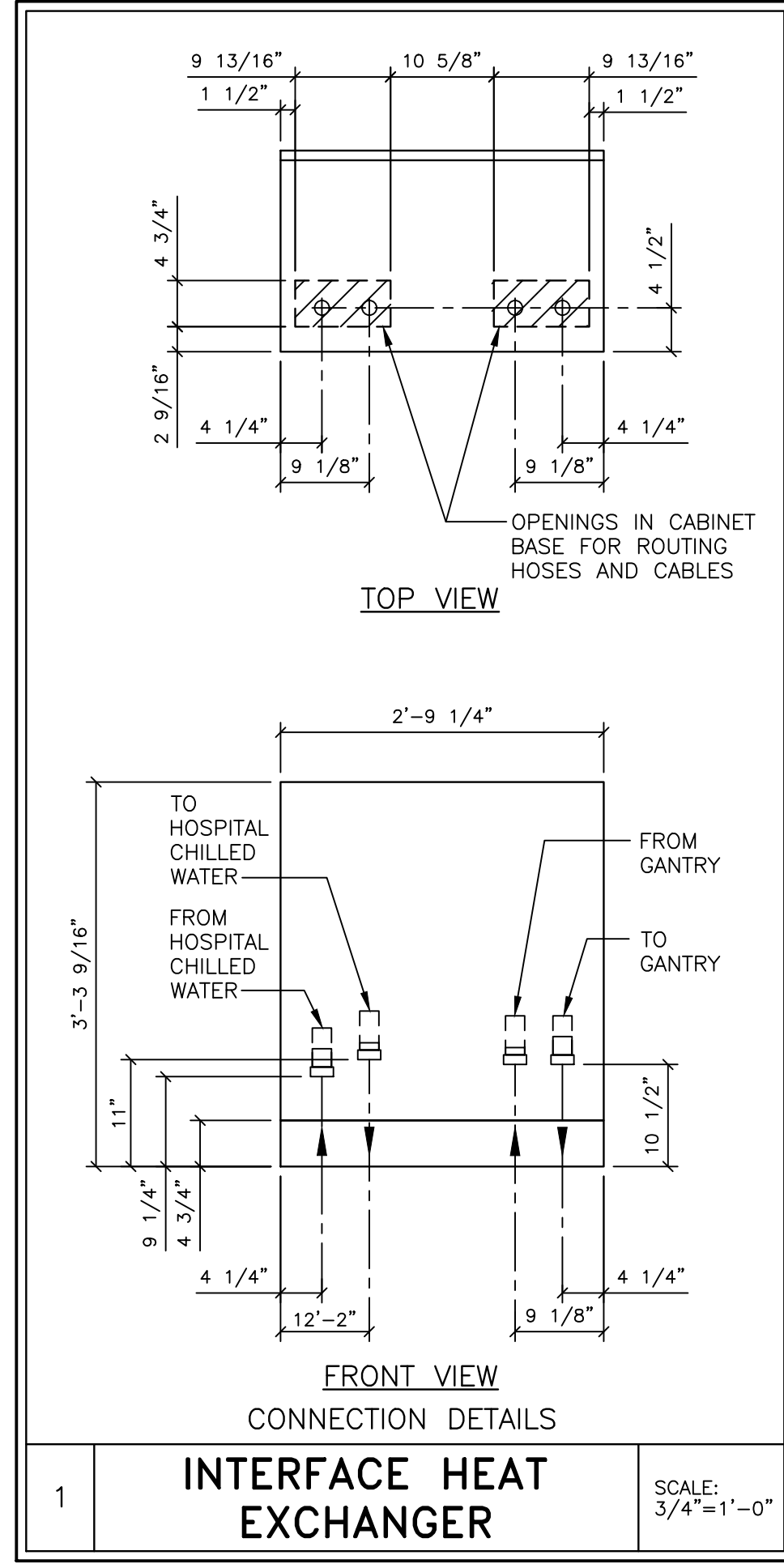
TECHNICAL DATA

WATER SUPPLY RATE	SEE WATER FLOW RATE DIAGRAM
TEMPERATURE RANGE OF WATER	MINIMUM 39.2°F TO 53.6°F MAXIMUM
TEMPERATURE GRADIENT OF WATER	MAXIMUM 1 K/MINUTE
BTU DISCHARGE TO THE WATER	40,946 BTU/HR
NOMINAL OPERATING PRESSURE	29 TO 87 PSI (145 PSI MAXIMUM) (1)
FILTRATION	200 MICRONS
DIFFERENTIAL PRESSURE	SEE DIFFERENTIAL PRESSURE DIAGRAM

WATER QUALITY
THE WATER MUST BE OF DRINKABLE QUALITY. IF THE WATER IS OF LESSER QUALITY A FILTER WITH A MESH OF 200 MICRONS IS REQUIRED IN THE ON-SITE INLET.

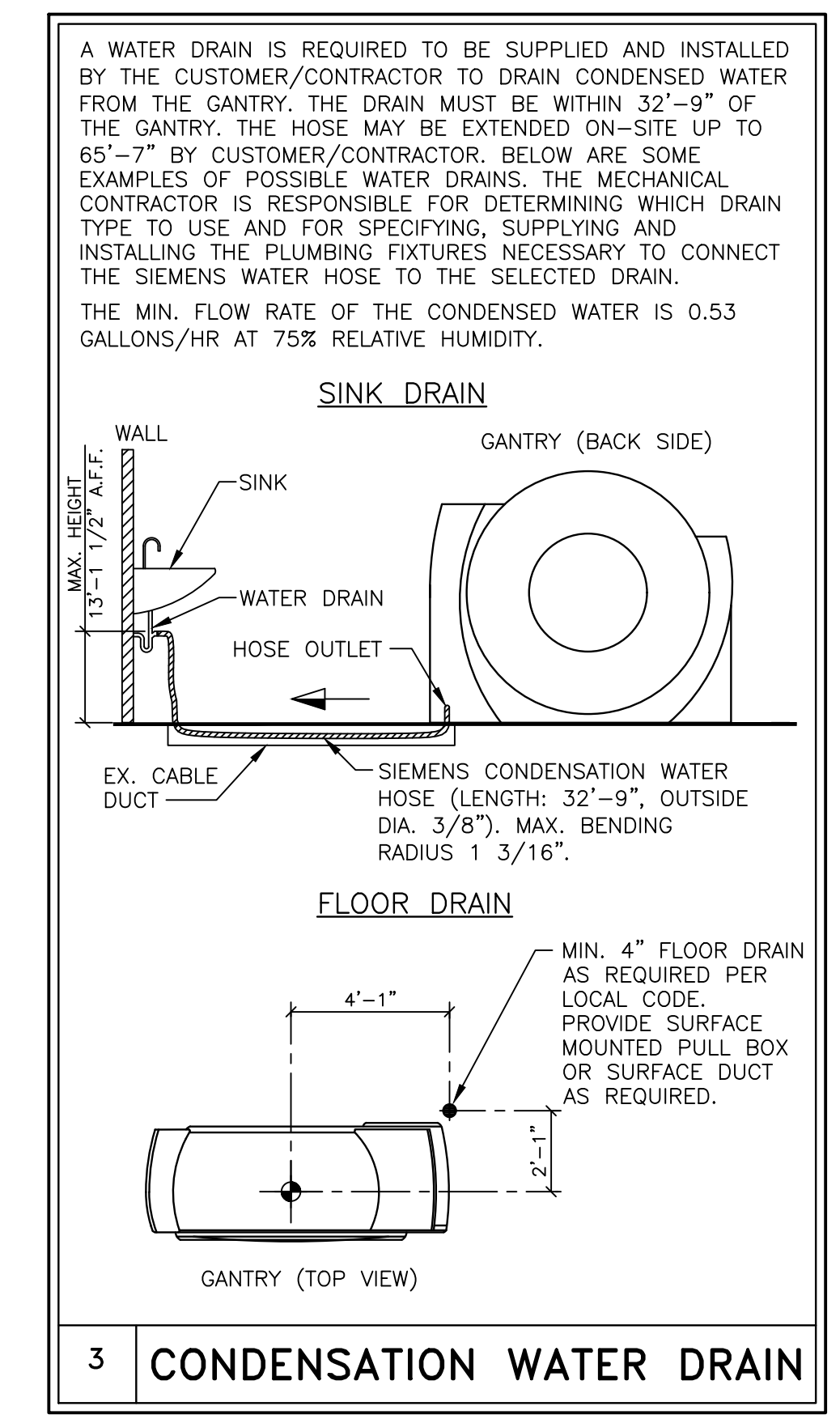
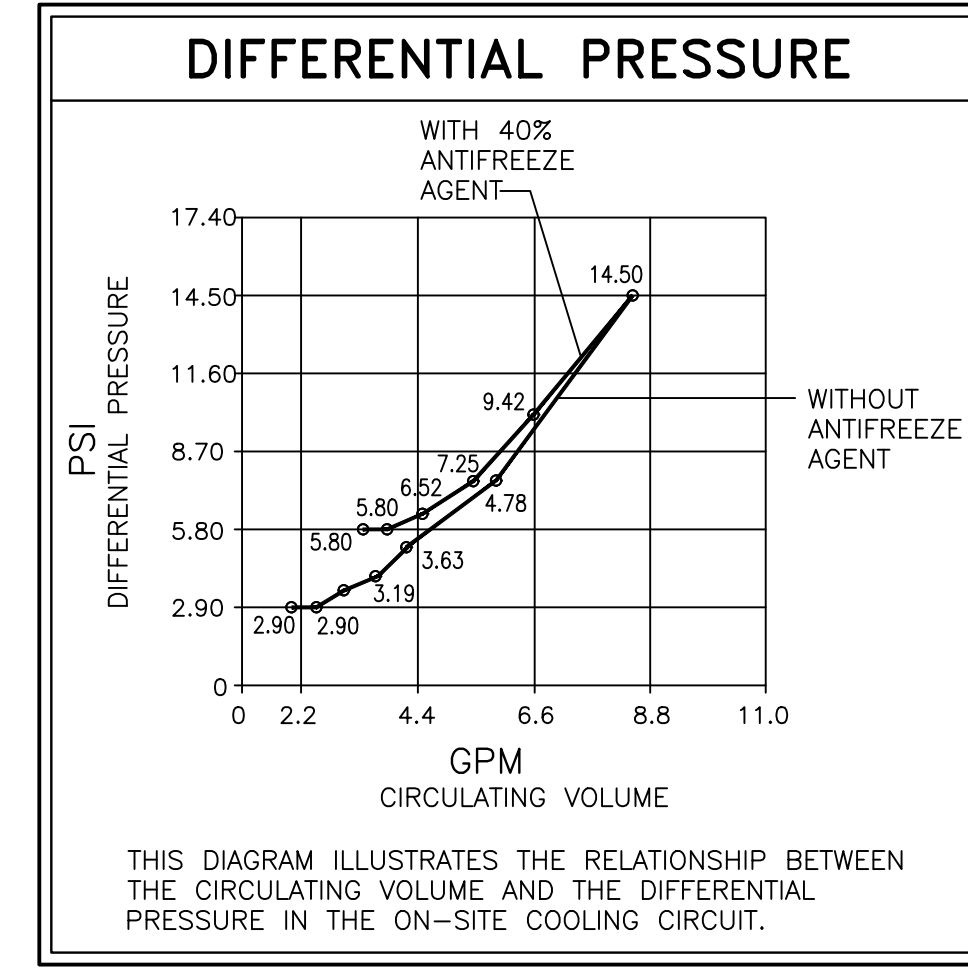
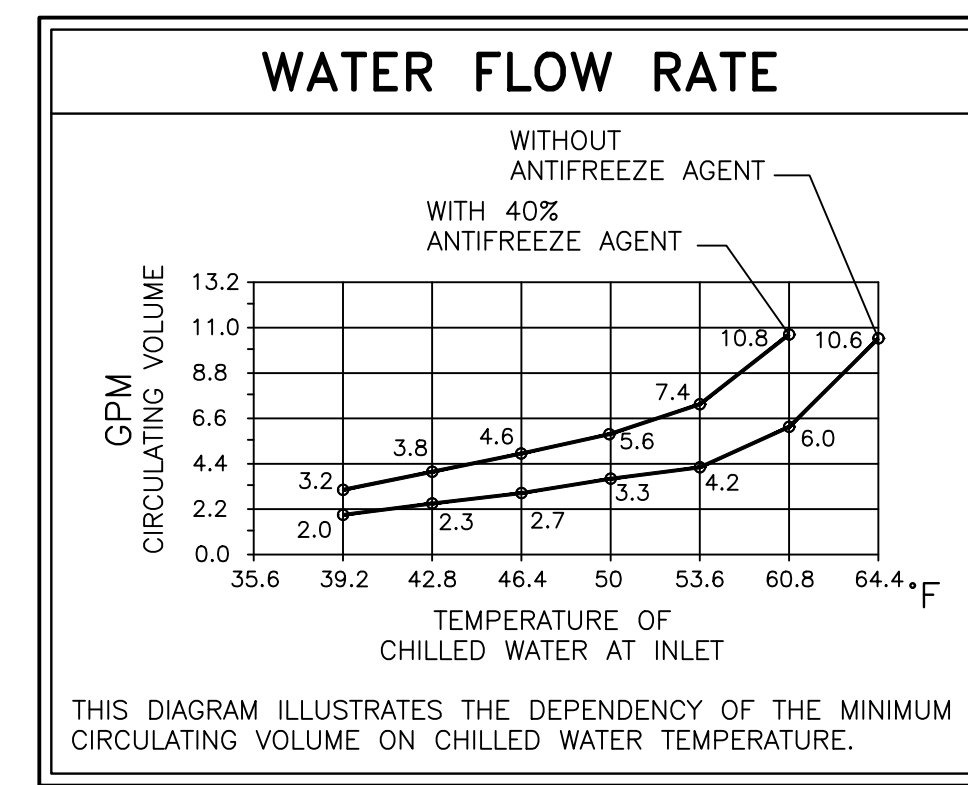
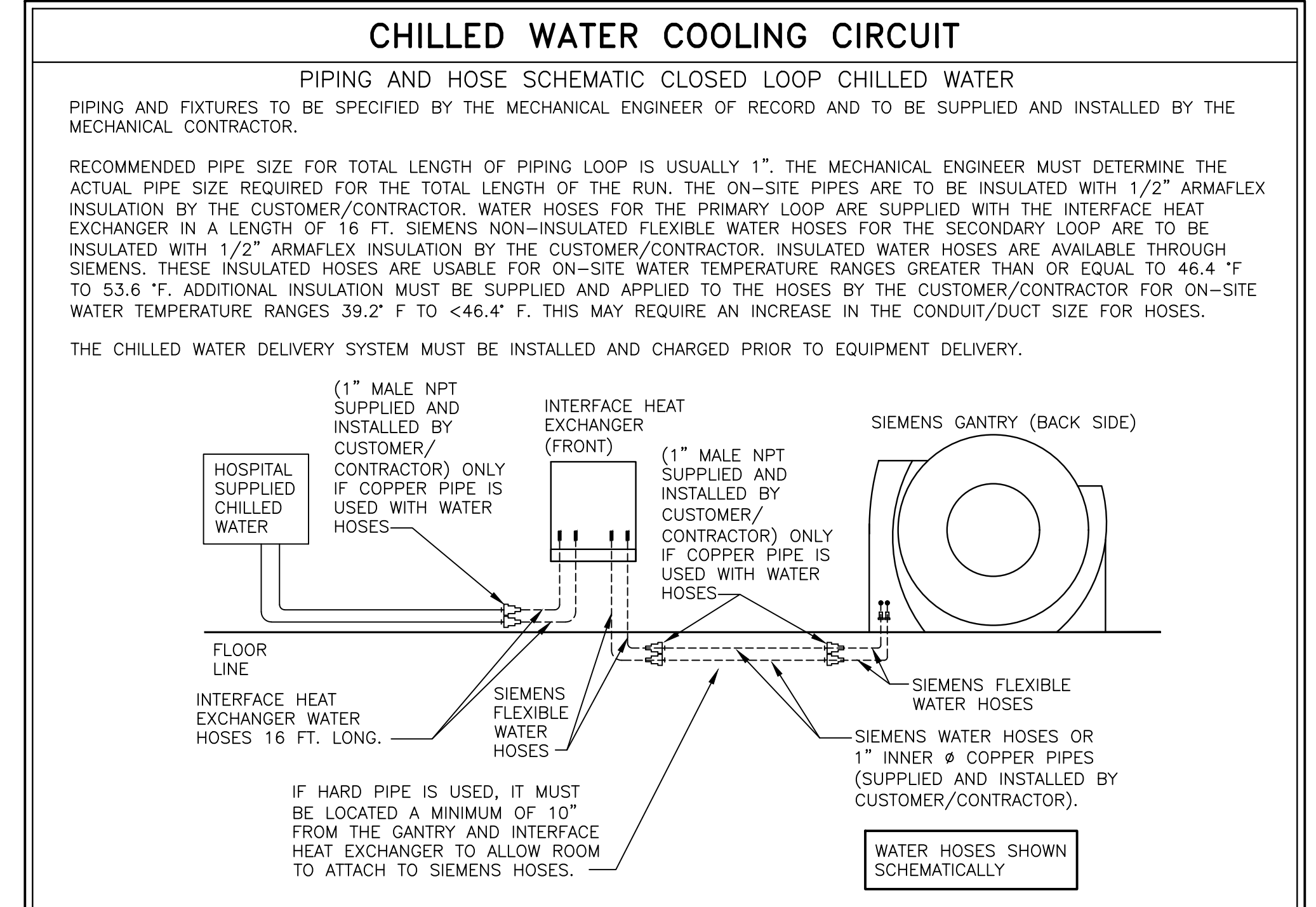
ANTI-FREEZE
AN ANTI-FREEZE AGENT MAY BE ADDED BY THE TECHNICIAN WHO WILL START THE SYSTEM. TO THE ON-SITE CIRCUIT TO PROVIDE PROTECTION FOR TEMPERATURES TO -13°F WITH A MIXTURE OF 40% ANTIFREEZE. TO COMPENSATE FOR THE RESULTING REDUCTION IN COOLING CAPACITY, THE WATER FLOW RATE WILL HAVE TO BE INCREASED. WATER WITH ANTIFREEZE FROM THE ON-SITE CHILLED WATER MUST BE BETWEEN 39.2 °F AND 53.6° F. ONLY WATER AT THIS TEMPERATURE MAY FLOW THROUGH THE WATER/WATER COOLING SYSTEM. ANTI-FREEZE TO BE SUPPLIED BY THE CUSTOMER/CONTRACTOR. CHILLER MANUFACTURER'S SPECIFICATIONS MAY DIFFER, VERIFY WITH SIEMENS PROJECT MANAGER.

1) TO GUARANTEE THE LIMIT OF THE MAXIMUM WATER PRESSURE OF 145 PSI, THE ON-SITE COOLING WATER SYSTEM MUST PROVIDE A SUITABLE SAFETY DEVICE, EX. PRESSURE RELIEF VALVE.



FINISHED ROOM HEIGHT

FOR CT GANTRY ONLY	MINIMUM 7'-6 9/16"
CAREVISION MONITOR/CEILING MOUNT	SEE DETAIL ON S-102 SHEET



ATTENTION:

- THIS DRAWING IS DESIGNED TO CONFORM TO FEATURES AND EQUIPMENT REQUIREMENTS PRESENTED AT THE TIME OF THEIR PREPARATION. SINCE BOTH THESE FACTORS ARE SUBJECT TO DESIGN MODIFICATION, THEY ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.
- THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.

- IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.

- ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES.
- THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

PROJECT MANAGER: JESSE HULSEY TEL: (602) 300-2149 FAX: EXT: EMAIL: JESSE.HULSEY@SIEMENS-HEALTHINEERS.COM	<p>SIEMENS</p> <p>BARTLETT REGIONAL HOSPITAL</p> <p>3260 HOSPITAL DR, JUNEAU, AK 99801-7808 CT SCAN ROOM 2 - SOMATOM EDGE PLUS</p>
<p>PROJECT #:</p> <p>2200096</p> <p>SHEET: M-101</p>	
<p>06/06/22 UPDATED ELECTRICAL ROUTING</p> <p>05/05/22 R-101RB VERSION DATED 03/03/22 APPROVED BY CUSTOMER FOR FINALS</p>	<p>THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.</p> <p>ALL RIGHTS ARE RESERVED.</p> <p>SCALE: AS NOTED REF. #: 30257548</p>
<p>SYM DATE DESCRIPTION</p> <p>-ISSUE BLOCK-</p>	<p>DATE: 06/06/22</p> <p>DRAWN BY: L. BACH</p>