

SIEMENS MEDICAL SYSTEMS, INC.

MAGNETOM SYMPHONY 1.5T M.R.I. SUITE

GENERAL NOTES

- ALL SPECIFICATIONS AND SPACE REQUIREMENTS ARE SHOWN GENERICALLY. CONTACT GAMMA TECH, INC. FOR SPECIFIC REQUIREMENTS PERTAINING TO OPTIONAL EQUIPMENT COMPONENTS AND ADDITIONAL ROOM PREPARATION SPECIFICATIONS.
- RECOMMENDED UNFINISHED CEILING HEIGHT IS 12'-0".
- CONTROL AND MAGNET ROOM TEMPERATURE: 70° ±5° F. EQUIPMENT ROOM TEMPERATURE: 65° ±5° F. HUMIDITY: 55% ±5% (NON-CONDENSING).
- MAIN INCOMING POWER SUPPLY: 480VAC, THREE PHASE 60 Hz, 50KVA, WYE OR DELTA CONNECTED, 100AMP, 3 POLE, MAIN CB (TOTAL AT 480 VOLTS).

© PLANNING DIVISION

FILE NAME:
SIEMENS SYMPHONY

REVISION DATE:
05.15.2009

SYMPHONY 1.5T MAGNET SYSTEM EQUIPMENT LEGEND								
NO	DESCRIPTION	SMS SYM	WEIGHT (LBS)	BTU/HR TO AIR	DIMENSIONS (INCHES)			REMARKS
					W	D	H	
1	MRC KEYBOARD	MRC	5	---	27 1/4	10 1/8	1 3/4	ON CUSTOMERS COUNTER
2	COLOR LCD MONITOR FOR MRC	MRC	22	239	18 1/4	10 5/8	17 1/2	ON CUSTOMERS COUNTER
3	HOST PC MRC	MRC	49	2,389	11	27	18 1/8	BELOW COUNTER TOP
4	ALARM BOX	AB	3	---	12	4	8	WALL MOUNTED
5	1.5T AS-MAGNET WITH COVERS AND PATIENT TABLE	M	12,130	6,630	84	119 1/2	92 1/4	
6	RF-FILTER PLATE	F1	165	---	46 1/2	21 3/4	21 1/2	WALL MOUNTED
7	MAGNET STOP	MS	1	---	3	5	3	WALL MOUNTED
8	ELECTRONICS CABINET (WITH CCS-WATER)	EP	1,985	3,415	63	26	78 1/2	TOTAL OF GPA, CCA, CCS
9	RCA CABINET	RCA	1,103	3,415	26	26	74 1/4	
10	PATIENT MONITOR	PM	30	---	13	8		
THE ITEMS LISTED BELOW ARE OPTIONS. THEY ARE AVAILABLE THROUGH THE SIEMENS EQUIPMENT SUPPLIER. MOST HAVE EQUIVALENTS. ALL ARE CONTRACTOR INSTALLED. END USER SHALL CONSULT WITH SUPPLIER REGARDING PURCHASE AND LOCATION.								
11	SURFACE COIL CART	SCC	110	---	21 1/4	53 1/2	50	
12	TYPICAL CLOSED LOOP WATER CHILLER (KKT KRAUS, FILTRINE, NESLAB, OR EQUIVALENT) [UNIT IS LOCATED AND INSTALLED BY CONTRACTOR.]	CH	-	---	---	---	---	SEE MFG REQUIREMENTS
13	TYPICAL TRANSFER STATION [UNIT IS LOCATED AND INSTALLED BY CONTRACTOR.]	TS	-	---	---	---	---	WALL MTD. IN EQUIP. ROOM
14	TYPICAL CHILLER REMOTE CONTROL/STATUS PANEL [UNIT IS LOCATED AND INSTALLED BY CONTRACTOR.]	CP	-	---	---	---	---	SEE MFG REQUIREMENTS WALL MTD. IN EQUIP. ROOM

PROTECTING THE MAGNETIC FIELD

THE SIEMENS MAGNETOM 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. FIELD DISTORTION ENCOUNTERED BY MOVING FERROMAGNETIC OBJECTS IS MORE DIFFICULT TO COMPENSATE AND MAY REQUIRE THE USE OF MAGNETIC SHIELDING.

MAGNET SITING REQUIREMENTS

REQUIRED MINIMUM DISTANCE FROM MAGNET CENTER	SOURCE OF INTERFERENCE (FERROMAGNETIC OBJECTS)
> 3'-6"	STEEL REINFORCEMENT RODS IN FLOOR - MAXIMUM 20 LBS/SQ. FT.
> 12'	WHEEL CHAIRS, STRETCHERS (UP TO 110 LBS.)
> 13'	STEEL GIRDERS, HIGHLY REINFORCED COLUMNS, A/C CHILLERS
> 17'	TRANSPORT DEVICES UP TO 440 LBS.
> 22'	VEHICLES UP TO 2,000 LBS.
> 25'	ELEVATORS, TRUCKS (UP TO 10,000 LBS.)
> 33'	POWER LINES, TRANSFORMERS
> 130'	ELECTRIC RAILWAY SYSTEMS

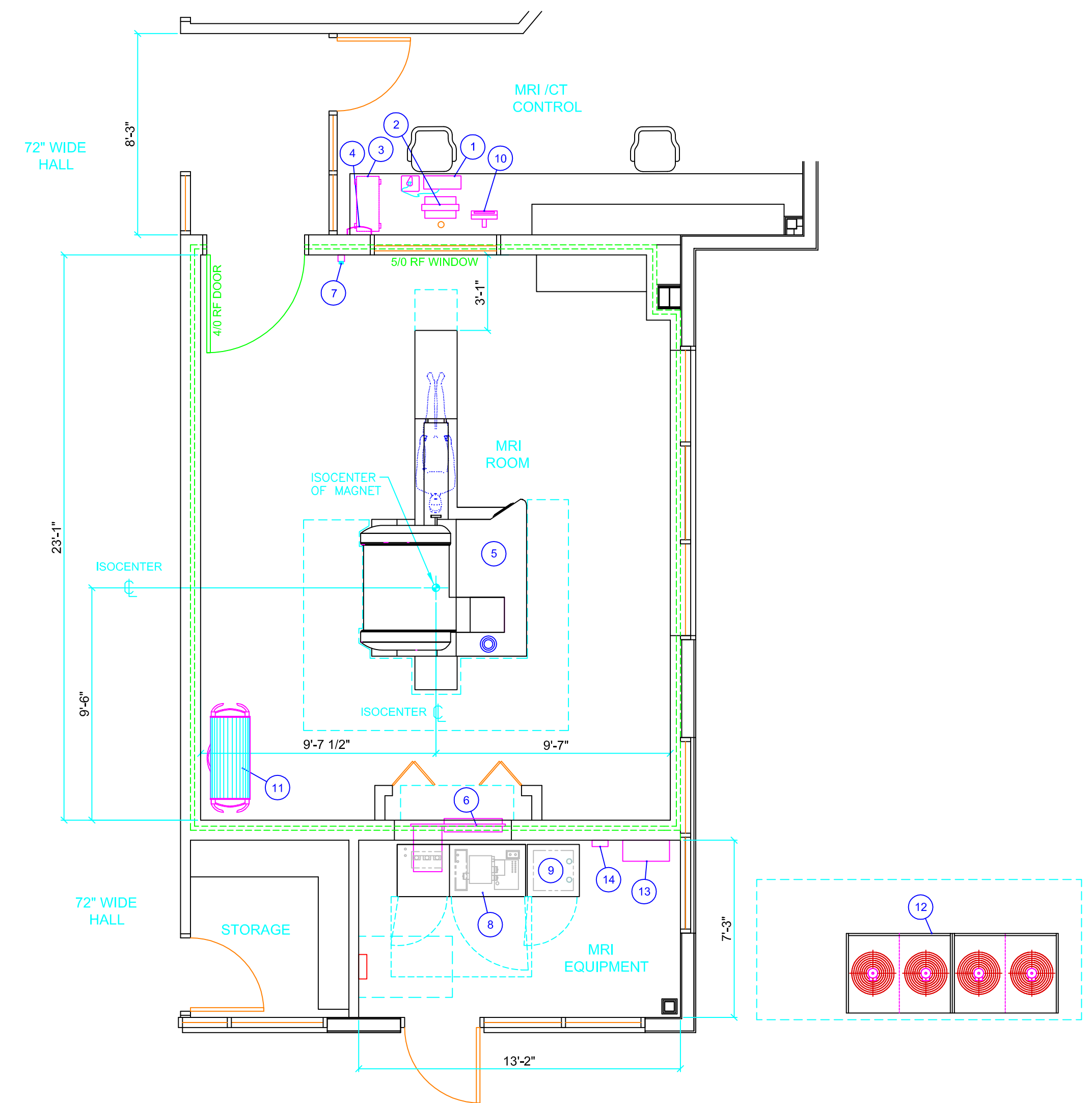
THE DISTANCES LISTED ABOVE ARE FOR SITES USING THE MAGNETOM FOR SPECTROSCOPY. SITES WHICH WILL NOT USE SPECTROSCOPY WILL REQUIRE SMALLER DISTANCES TO MOVING FERROMAGNETIC OBJECTS. CONTACT THE LOCAL PLANNER OR THE MR PROJECT PLANNING SPECIALIST FOR THESE REQUIREMENTS.

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.

X,Y AND Z AXIS	DEVICES
6'-7" / 10'-10" 3.0mT	SMALL MOTORS, WATCHES, CAMERAS, CREDIT CARDS, MAGNETIC DATA CARRIERS (SHORT-TERM EXPOSURE)
7'-7" / 13'-2" 1.0mT	COMPUTERS, MAGNETIC DISK DRIVES, OSCILLOSCOPES
8'-3" / 15'-5" 0.5mT	CARDIAC PACEMAKERS, X-RAY TUBES, INSULIN PUMPS, B/W MONITORS, MAGNETIC DATA CARRIERS (LONG-TERM STORAGE)
11'-2" / 19'-1" 0.2mT	SIEMENS CT-SCANNERS
13'-10" / 23'-0" 0.1mT	COLOR MONITORS, SIEMENS LINEAR ACCELERATORS
17'-9" / 27'-11" 0.05mT	X-RAY IMAGE INTENSIFIERS, GAMMA CAMERAS, PET CYCLOTRON, ELECTRON MICROSCOPES, LINEAR ACCELERATORS

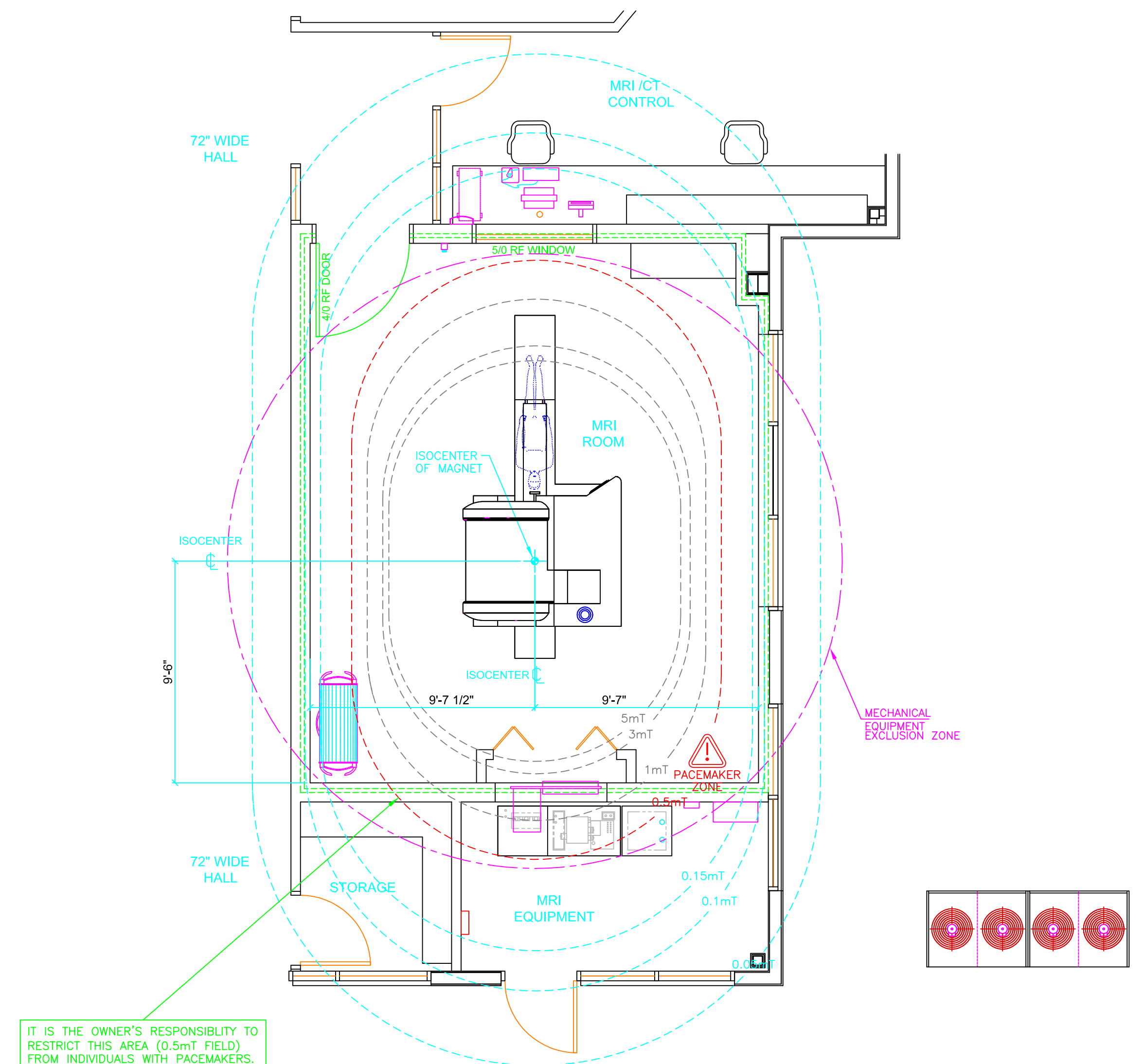
THE OWNER/USER IS TO VERIFY THE LOCATION OF THE 0.5mT FIELD AND ENSURE THAT IT IS MAINTAINED AS A RESTRICTED AREA.



PROPOSED EQUIPMENT LAYOUT

THIS LAYOUT WILL REQUIRE MAGNETIC SHIELDING SHIELDING BY OTHERS TO CONTAIN 5G LINE AT WALLS

THE ABILITY OF THE FLOOR AND STRUCTURAL SUPPORT MEMBERS TO PROPERLY SUPPORT THE MAGNET IS TO BE DETERMINED BY A STRUCTURAL ENGINEER. FERROUS OBJECTS WILL INTERFERE WITH MAGNET OPERATION. FOR THIS REASON, ALL STRUCTURAL SUPPORT MEMBERS AND FLOOR MATERIALS MUST BE NON-FERROUS.



FRINGE FIELD LAYOUT

THIS LAYOUT WILL REQUIRE MAGNETIC SHIELDING SHIELDING BY OTHERS TO CONTAIN 5G LINE AT WALLS

FERROUS OBJECTS WILL INTERFERE WITH MAGNET OPERATION. FOR THIS REASON, ALL STRUCTURAL SUPPORT MEMBERS AND FLOOR MATERIALS MUST BE NON-FERROUS. CARE SHOULD BE GIVEN REGARDING PLACEMENT OF SENSITIVE ELECTRONICS WITHIN THE 1G LINE.