



ADDENDUM No. 1

2-20-2020

PROJECT: University Medical Center
Emergency Center
Pediatric & Radiology Renovation
602 Indiana Avenue
Lubbock, Texas 79415

DATE: 02/20/2020
PROJECT NO.: 21912

The following items take precedence over the drawings and project manual for the above-named project and in closing a contract shall become a part of the contract documents.

Where any item called for in the specifications or indicated on the drawings, is supplemented here, the original requirements remain in effect. Consider all supplemental conditions as added to the specifications and drawings.

Where any original item is amended, voided or superseded here, the provisions of such items not specifically amended, voided or superseded remain in effect.

ITEM #1: Addition of Door Hardware Schedule – Add to Specification Section 087100 Door Hardware the attached Door Hardware Schedule.

ITEM #2: GE CT Room Vendor Drawings – Refer to attached GE Vendor Drawings for CT Equipment requirements to be included in Project Scope of Work.

ITEM #3: Physicist Report – Refer to attached Physicist Shielding Report provided by Medical Physics Consulting to be implemented for CT Room 140 and adjacent associated spaces as noted.

ITEM #4: Vestibule 160 Existing Spandrel Windows – With the increased ceiling height in Vestibule 160, Contractor to provide additional gypsum board partition walls to extend from existing ceiling height (approximately 9'-9") to increased ceiling height (12'-0).

ITEM #5: Exam Light Clarification – Refer to Demolition Plan on Sheet A1, Key Note #40 in existing Ortho Room. This exam light is existing to remain. Contractor to remove and replace after new ceiling installation. Exam light in existing Eye Room to be reinstalled in new Eye Room location, Refer to Reflected Ceiling Plan on Sheet A7.

ITEM #6: Break Room 138 Modifications – Refer to attached Supplemental Drawings SD01 and SD02 for revisions to operable panel partition and revised millwork elevations 17/A14 and 25/A14. In addition, Contractor to note locker count modifications. All metal lockers in Scope of Work to be modified from 3-tier to 6-tier.



ITEM #7: Entrance Canopy Sections – Refer to attached Supplemental Drawings SD03 and SD04 for additional drawings for the entrance canopy.

ITEM #8: Interior Finish Items – In Control Room 141 and CT Equipment Room 147, SV2 to be changed to SV1 on Interior Sheet ID1, Material and Finish Schedules.

ITEM #9: Structural Addendum Items – Refer to attached Addendum items: Sheets S1, S2, SZ-1 and SZ-2 from Structural Engineer.

ITEM #10: Mechanical/Plumbing Addendum Items – Refer to attached Addendum items, Sheets P2 and P4 from Mechanical Engineer.

ITEM #11: Electrical Addendum Items – Refer to attached Addendum items, Sheets E1, E2 and E3 from Electrical Engineer.

End of Addendum

SECTION 087100 - DOOR HARDWARE

1.1 DOOR HARDWARE SCHEDULE

Door Hardware Set No. 1.0

Locations: 103A, 104A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3 EA.	HINGES	Mc KINNEY	T4A3786 4.5 X 4.5	652
1 EA.	EXIT DEVICE	SARGENT	8813 ETL	630
1 EA.	CLOSER	SARGENT	351 X TB	689
1 EA.	KICKPLATE	ROCKWOOD	10" X 2" LDW	630
1 EA.	STOP	ROCKWOOD	409	630
3 EA.	SILENCERS	ROCKWOOD	608	
1 EA.	MAG. HOLDER	ABH	2100	630
MAG HOLDER TIED TO THE FIRE ALARM SYSTEM				

Door Hardware Set No. 2.0

Locations: 105A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3 EA.	HINGES	Mc KINNEY	TA2714 4.5 X 4.5	652
1 EA.	PRIVACY	SARGENT	8265 LNL	626
1 EA.	CLOSER	SARGENT	351 - PS X TB	689
1 EA.	KICKPLATE	ROCKWOOD	10" X 2" LDW	630
3 EA.	SILENCERS	ROCKWOOD	608	

Door Hardware Set No. 3.0

Locations: 107A, 146A, 149A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3 EA.	HINGES	Mc KINNEY	TA2714 4.5 X 4.5	652
1 EA.	LOCKSET	SARGENT	8237 LNL	626
1 EA.	CLOSER	SARGENT	351 X TB	689
1 EA.	KICKPLATE	ROCKWOOD	10" X 2" LDW	630
1 EA.	STOP	ROCKWOOD	409	630
3 EA.	SILENCERS	ROCKWOOD	608	

Door Hardware Set No. 4.0

Locations: 116A, 152A, 152B, 155A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3 EA.	HINGES	Mc KINNEY	T4A3786 4.5 X 4.5	652
1 EA.	CLASSROOM P/P	SARGENT	7837 PT	626
1 EA.	CLOSER	SARGENT	351-CPSH X TB	689
1 EA.	ARMOR PLATE	ROCKWOOD	36" X 2" LDW	630
1 EA.	STOP	ROCKWOOD	409	630
3 EA.	SILENCERS	ROCKWOOD	608	

Door Hardware Set No. 5.0

Locations: 117A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3 EA.	HINGES	Mc KINNEY	TA2714 4.5 X 4.5	652
1 EA.	PRIVACY	SARGENT	8265 LNL	626
1 EA.	CLOSER	SARGENT	351 X TB	689
1 EA.	KICKPLATE	ROCKWOOD	10" X 2" LDW	630
1 EA.	STOP	ROCKWOOD	409	630
3 EA.	SILENCERS	ROCKWOOD	608	

Door Hardware Set No. 6.0

Locations: 132A, 156A, 161A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3 EA.	HINGES	Mc KINNEY	TA2714 4.5 X 4.5	652
1 EA.	LOCKSET	SARGENT	8204 LNL	626
1 EA.	CLOSER	SARGENT	351 X TB	689
1 EA.	KICKPLATE	ROCKWOOD	10" X 2" LDW	630
1 EA.	STOP	ROCKWOOD	409	630
3 EA.	SILENCERS	ROCKWOOD	608	

Door Hardware Set No. 7.0

Locations: 118A, 135A, 153A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
6 EA.	HINGES	Mc KINNEY	T4A3786 4.5 X 4.5	652
2 EA.	EXIT DEVICE	SARGENT	12-8810	630
2 EA.	CLOSER	SARGENT	351 X TB	689
2 EA.	ARMOR PLATE	ROCKWOOD	36" X 2" LDW	630
1 SET	GASKETING	PEMKO	HSS2000 X S88D	BLK
1 SET	ASTRAGAL	PEMKO	305CN	628
2 EA.	MAG. HOLDER	ABH	2100	689

MAG HOLDERS TIED TO THE FIRE ALARM SYSTEM

Door Hardware Set No. 8.0

Locations: 138A, 138B, 141A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3 EA.	HINGES	Mc KINNEY	TA2714 4.5 X 4.5	652
1 EA.	LOCKSET	SARGENT	8204 LNL	626
1 EA.	ELEC. STK.	HES	1006	630
1 EA.	CLOSER	SARGENT	351 X TB	689
1 EA.	KICKPLATE	ROCKWOOD	10" X 2" LDW	630
1 EA.	STOP	ROCKWOOD	409	630
1 SET	GASKETING	PEMKO	HSS2000 X S88D	BLK
1 EA.	ELECTROLYNX ADP	HES	2004M	
1 EA.	DPS	SECURITRON	DPS-M/W	
1 EA.	CARD READER	HID GLOBAL	921PT - RPK40 multiCLASS SE	BLK
1 EA.	POWER SUPPLY	SECURITRON	BPS-24-1	USP

Door Hardware Set No. 9.0

Locations: 139A, 148A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3 EA.	HINGES	Mc KINNEY	TA2714 4.5 X 4.5	652

UMC EMERGENCY CENTER PEDIATRIC & RADIOLOGY RENOVATION
CDG 21912

087100 - 3
DOOR HARDWARE

1 EA.	PRIVACY	SARGENT	8265 LNL	626
1 EA.	CLOSER	SARGENT	351 X TB	689
1 EA.	KICKPLATE	ROCKWOOD	10" X 2" LDW	630
1 EA.	STOP	ROCKWOOD	409	630
1 SET	GASKETING	PEMKO	HSS2000 X S88D	BLK

Door Hardware Set No. 10.0

Locations: 140A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
1 EA.	CONT. HINGE	PEMKO	CFM83-HD1	626
1 EA.	CONT. HINGE	PEMKO	CFM83-SER8-HD1	626
1 SET	AUTO FLUSH BOLT	ROCKWOOD	2942	626
1 EA.	COORDINATOR	ROCKWOOD	2600 X 2601AB	628
1 EA.	LOCKSET	SARGENT	74-8270-24V LNL	626
2 EA.	CLOSER	SARGENT	351 X LEAD LINED COVER X TB	689
2 EA.	ARMOR PLATE	ROCKWOOD	36" X 2" LDW	630
1 SET	GASKETING	PEMKO	HSS2000 X S88D	BLK
2 EA.	ASTRAGAL	PEMKO	357 X LEAD LINED	600
1 EA.	ELECTROLYNX ADP	HES	2004M	
1 EA.	DPS	SECURITRON	DPS-M/W	
1 EA.	CARD READER	HID GLOBAL	921PT - RPK40 multiCLASS SE	BLK
1 EA.	POWER SUPPLY	SECURITRON	BPS-24-1	USP
2 EA.	DOOR OPERATOR	UMC STANDARD	VERIFY BRAND AND LOCATION WITH OWNER	-

Door Hardware Set No. 11.0

Locations: 141B, 147A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
1 EA.	CONT. HINGE	PEMKO	CFM83-HD1	626
1 EA.	PRIVACY	SARGENT	74-8237 LNL	626
1 EA.	CLOSER	SARGENT	351 X LEAD LINED COVER X TB	689
1 EA.	KICKPLATE	ROCKWOOD	10" X 2" LDW	630
1 EA.	STOP	ROCKWOOD	409	630
3 EA.	SILENCERS	ROCKWOOD	608	

Door Hardware Set No. 12.0

Locations: 144A, 145A, 157A, 158A, 159A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3 EA.	HINGES	Mc KINNEY	TA2714 4.5 X 4.5	652
1 EA.	LOCKSET	SARGENT	8255 LNL	626
1 EA.	STOP	ROCKWOOD	409	630
3 EA.	SILENCERS	ROCKWOOD	608	


Door Hardware Set No. 13.0

Locations: 106A, 121A; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
1 EA.	KEYPAD ENTRY	UMC STANDARD	VERIFY WITH OWNER	-

END OF SECTION 087100



			University Medical Center Lubbock, Texas USA																
A	13/Feb/2020	Drawing based on request DC-220434																	
REV	DATE	MODIFICATIONS																	
01 - C1 - Cover Sheet		10 - S3 - Structural Details (1)				<div> GE Healthcare</div> <div>Ben Randall 806-316-8972 ben.randall@ge.com</div> <div>REVOLUTION FRONTIER FINAL STUDY</div>													
02 - C2 - Disclaimer - Site Readiness Checklist		11 - S4 - Structural Details (2)																	
03 - A1 - General Notes		12 - M1 - HVAC																	
04 - A2 - Equipment Layout		13 - E1 - Electrical Notes																	
05 - A3 - Radiation Protection		14 - E2 - Electrical Layout																	
06 - A4 - Equipment Dimensions		15 - E3 - Electrical Elevations																	
07 - A5 - Delivery		16 - E4 - Power Requirements																	
08 - S1 - Structural Notes		17 - E5 - Electrical Details - Interconnect																	
09 - S2 - Structural Layout																			
A mandatory component of this drawing set is the GE Healthcare Pre Installation manual. Failure to reference the Pre Installation manual will result in incomplete documentation required for site design and preparation. Pre Installation documents for GE Healthcare products can be accessed on the web at: www.gehealthcare.com/siteplanning						Drawn by		Verified by		Concession		S.O. (GON)		PIM Manual		Rev			
						JJL		JJL		-		2006482327.1		5786386-1EN		6			
GE does not take responsibility for any damages resulting from changes on drawings made by others. Errors may occur by not referring to the complete set of final issue drawing. GE cannot accept responsibility for any damage due to the partial use of GE final issue drawings, however caused. All dimensions are in millimeters unless otherwise specified. Do not scale from printed pdf files. GE accepts no responsibility or liability for defective work due to scaling from these drawings.						Format		Scale		File Name				Date				Sheet	
						A3		1/4"=1'-0"		CT-M105520-FIN-00-A.DWG				13/Feb/2020				01/17	

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

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

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

THE UNDERSIGNED, HEREBY CERTIFIES THAT I HAVE READ AND APPROVED THE PLANS IN THIS DOCUMENT.		
DATE	NAME	SIGNATURE

DOC1809666 Rev. 6

Customer Name:	PMI Name:
GON/SO Number:	Field Service Name:
Equipment:	Country/City or City/State:
Site Visit Date for SRC:	SRC Status:

Site Ready Checks at Installation

General Site Planning

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

Ceiling support structure, if on the GE drawing, is at correct location and height according to the drawing specifications. Levelness and spacing has been measured. Overhead support Structure has been confirmed with contractor to meet GE criteria.

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

Finished ceiling is installed. If applicable ceiling tiles installed per PMI discretion.

Delivery route from truck to installation space has been reviewed, all communications have occurred, arrangements made for special handling (if needed). Floors along delivery route will support weight of the equipment, reinforcements arranged if needed.

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

System power and grounded audit has been scheduled to be completed during installation of equipment. (If Required) GEHC PM to confirmed if needed.

Adequate room illumination installed and working.

Cableways (floor, wall, ceiling, etc.) ready for GE cables and are of correct length and diameter. Cableways routed per GE Final drawings and access openings installed as determined by GEHC PM. Surface floor duct installed at time of system installation.

HVAC systems Installed, and the site meets minimum environmental operational system requirements.

Network outlets installed and computer network available and working.

Hospital IT/connectivity contacts have been engaged and information has been added to Project management tool. (If Required)

Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications. Floor Strength and thickness have been discussed with customer/contractor and they have confirmed GE requirements are met.

Customer supplied countertops where GE equipment will be installed are in place.

Specific for CT & X-ray

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

PMI Signature:	
Customer Signature:	
FS Signatature: optional	

ENVIRONMENT

MAGNETIC FIELD SPECIFICATIONS

- Limit the magnetic interference to guarantee specified imaging performance.

GANTRY:

- Ambient static magnetic fields less than 1 Gauss.
- Ambient AC magnetic fields less than 0.01 Gauss peak.

OPERATOR CONSOLE:

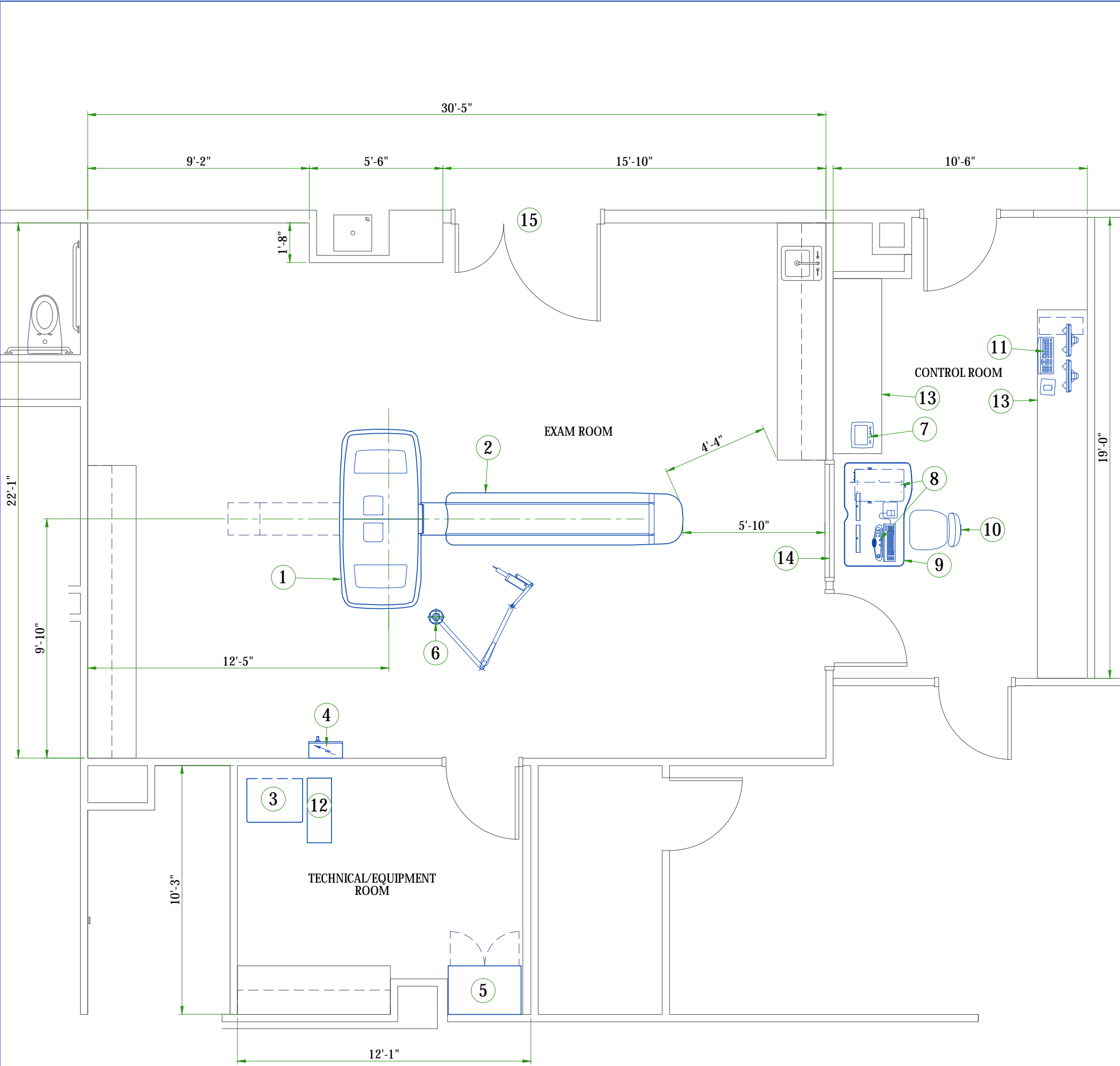
- Ambient static magnetic fields less than 10 Gauss.
- Use static dissipative vinyl.

MAXIMUM AUDIBLE NOISE LEVEL OF THE SYSTEM

- The maximum ambient noise level is produced by the gantry during a CT scan acquisition.
- It is less than 70 dBA when measured at a distance of one meter from the nearest gantry surface, in any direction.
- Noise level produced by UPS system: 69 dBA.

CUSTOMER SITE READINESS REQUIREMENTS

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE Healthcare Installation project manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE Healthcare Installation project manager can supply a reference list of rigging contractors.
- New construction requires the following;
 1. Secure area for equipment,
 2. Power for drills and other test equipment,
 3. Capability for image analysis,
 4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- It is the customer's responsibility to contract a vibration consultant/engineer to implement site design modifications to meet the GE vibration specification. Refer to the system preinstallation manual for the vibration specification.



LEGEND				
A	GE Supplied		C	Customer/contractor supplied and installed
B	GE Supplied/contractor installed		D	Available from GE
BY	ITEM	DESCRIPTION	MAX HEAT OUTPUT (btu)	WEIGHT (lbs)
A	1	Gantry	33292	4061
A	2	Patient Table (2000x)	-	1113
A	3	Power Distribution Unit	1708	804
B	4	Main Disconnect Panel	-	55
A	5	Service Cabinet	-	-
A	6	Injector - ceiling mounted	-	79
A	7	Injector Control and Electronics	320	22
A	8	Operators Console & Monitors (2)	3200	186
A	9	Smart Workstation Desk	-	88
A	10	Operator chair	-	-
A	11	Advantage workstation	2019	22
A	12	Uninterruptible Power Supply	2000	620
C	13	Counter top for equipment		
C	14	Lead glass window		
C	15	Minimum door opening for equipment delivery is 44 in. w x 83 in. h [1118mm x 2108mm], contingent on a 96 in. [2438mm] corridor width		
EXAM ROOM HEIGHT				
Finished ceiling height				9'-0"
The GE HPI Technical Support Group is an additional resource that can provide answers for general GE product siting questions and can be reached at (877)-305-9677 or mail to: HPITechCOE@ge.com For Accessory Sales : (866) 281-7545 Options 1, 2, 1, 2 or mail to: gehcaccessorysales@ge.com				

RADIATION PROTECTION LAYOUT

SHIELDING REQUIREMENTS SCALING

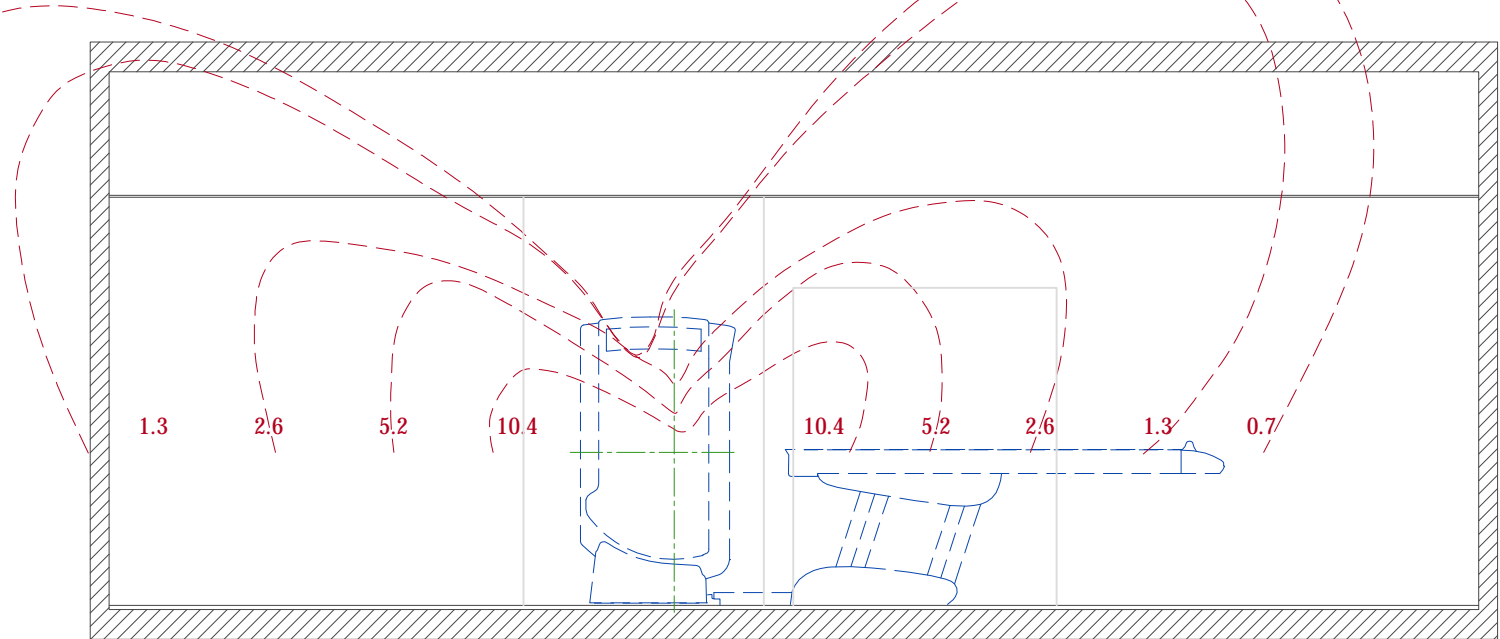
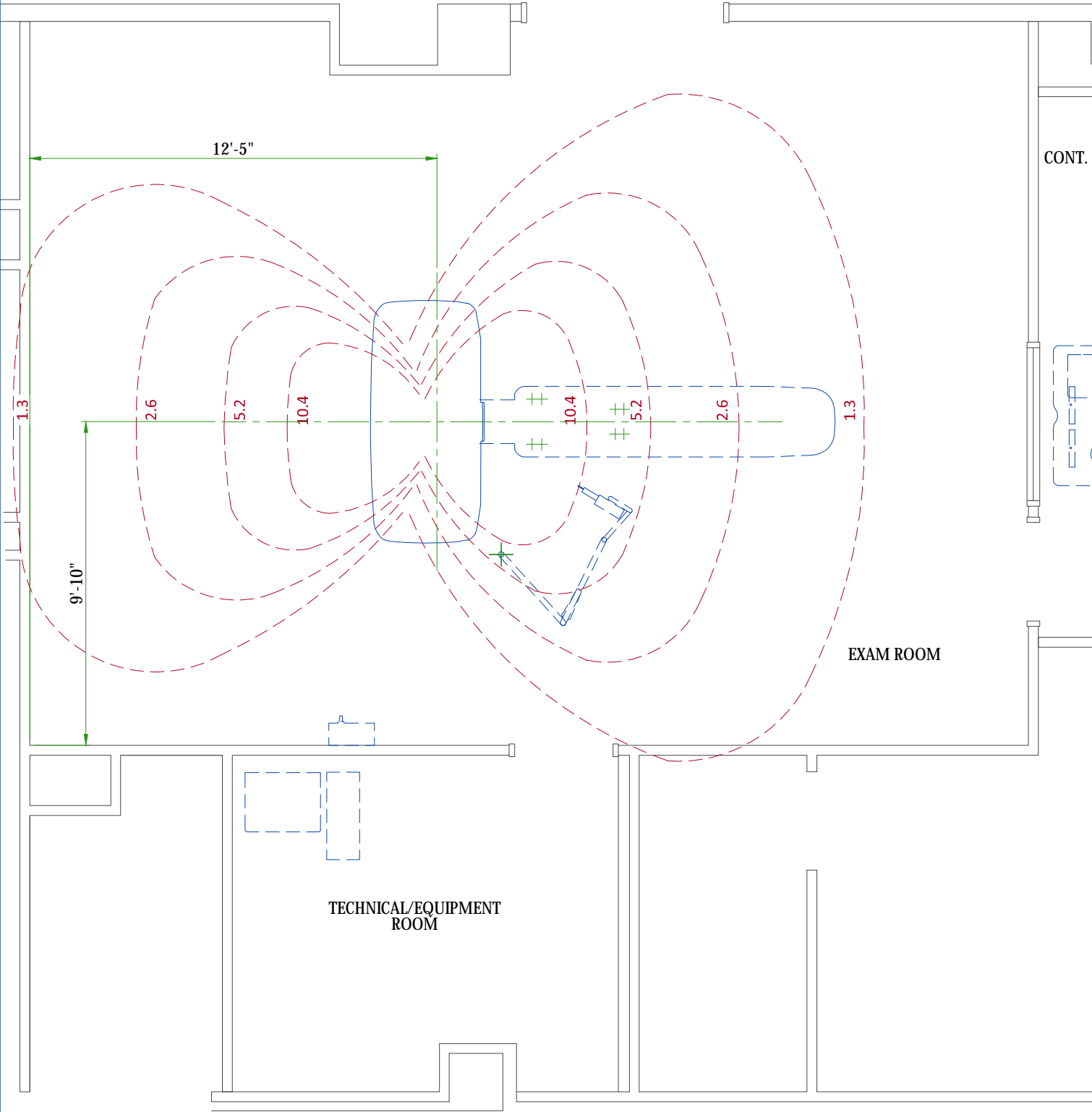
CHANGED PARAMETER (mAs)	MULTIPLICATION FACTOR (new mAs/100)
80 kV	0.24
100 kV	0.45
120 kV	0.71
140 kV	1.00
1 mm aperture	0.20
3 mm aperture	0.22
5 mm aperture	0.27
10 mm aperture	0.38
15 mm aperture	0.48
20 mm aperture	0.59
30 mm aperture	0.79
40 mm aperture	1.00

SHIELDING REQUIREMENTS:

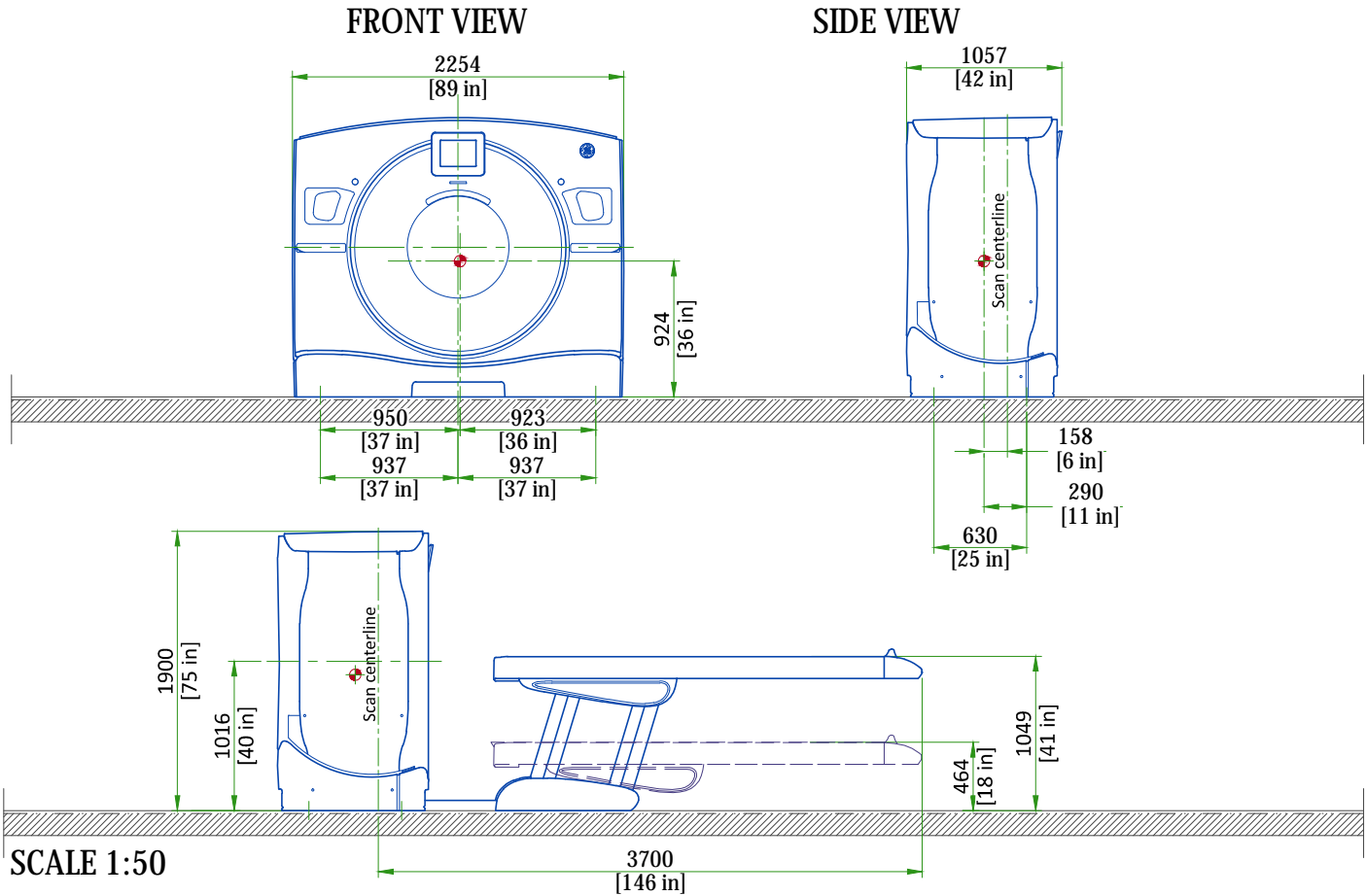
- Engage a qualified radiological health physicist to review your scan room shielding requirements, taking into consideration:
- Scatter radiation levels within the scanning room
 - Equipment placement.
 - Weekly projected work-loads (number of patients/day technique (kvp*ma))
 - Materials used for construction of walls, floors, ceiling, doors, and windows.
 - Activities in surrounding scan room areas.
 - Equipment in surrounding scan room areas (e.g., film developer, film storage)
 - Room size and equipment placement within the room relative to room size.

The Illustrations on this page depict measured radiation levels within the scanning room, while scanning a 32 cm CTDI phantom placed on the patient table and using a large filter, with the technique shown. Use the mAs, kV and aperture scaling factors in the table shown here to adjust exposure levels to the scan technique used at the site.
Example: (using the Illustration) The exposure level for a 120 kV, 800mA, 1 sec. scan at 1270 mm (50 in) away from the scan place is
8 8

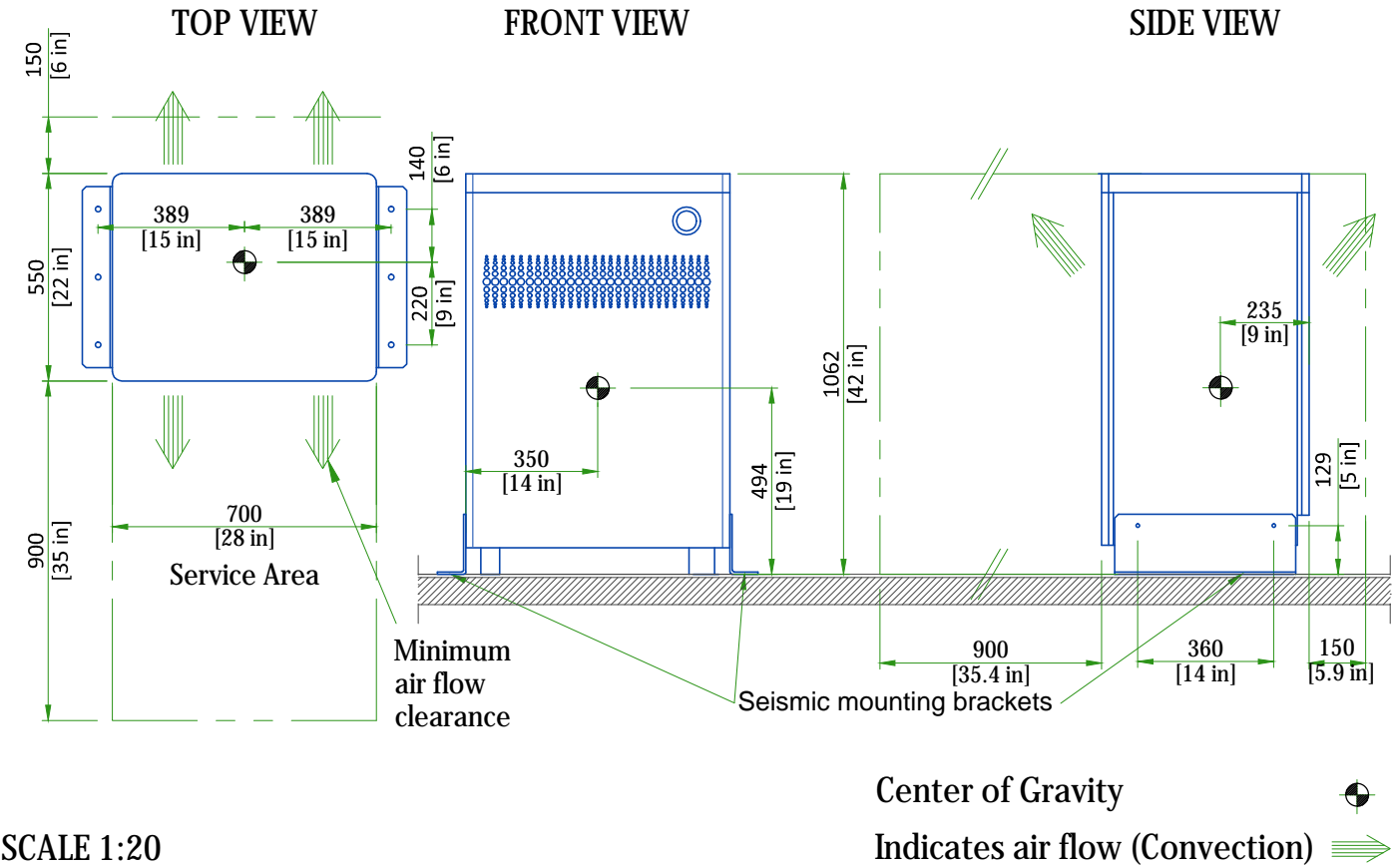
NOTE: Actual measurements can vary. Expected deviations equals
may be greater (up to a factor of 2), due to the inherent deviation in small values. The maximum deviation anticipated for tube output



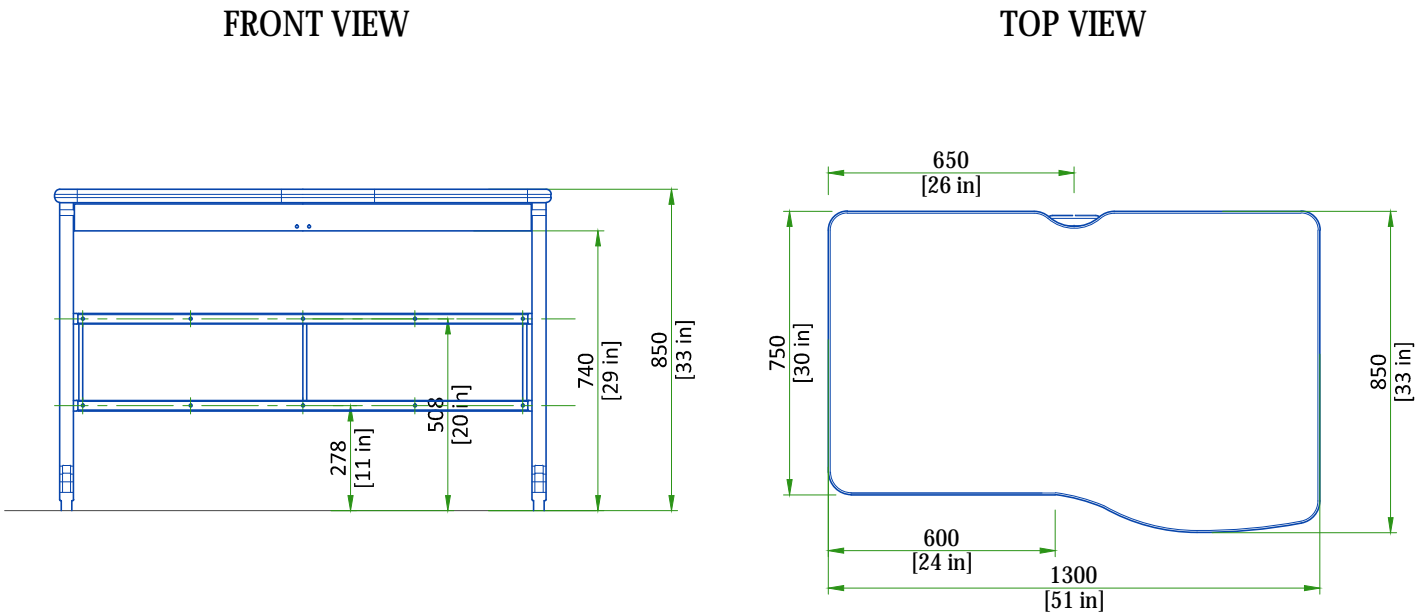
GANTRY WITH GT2000/GT2000X TABLE



POWER DISTRIBUTION UNIT (PDU)

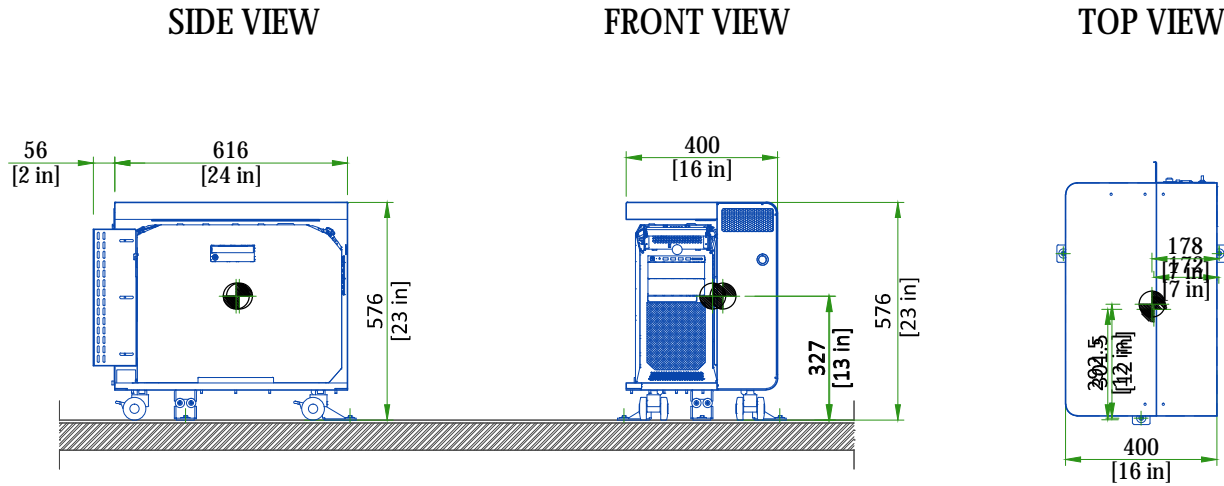


AURORA SWS TABLE



(Table weight: 40 kg)

OPEN CONSOLE WITH Z8G4 HOST PC



Weight: 64.5 kg [142.2 lbs]

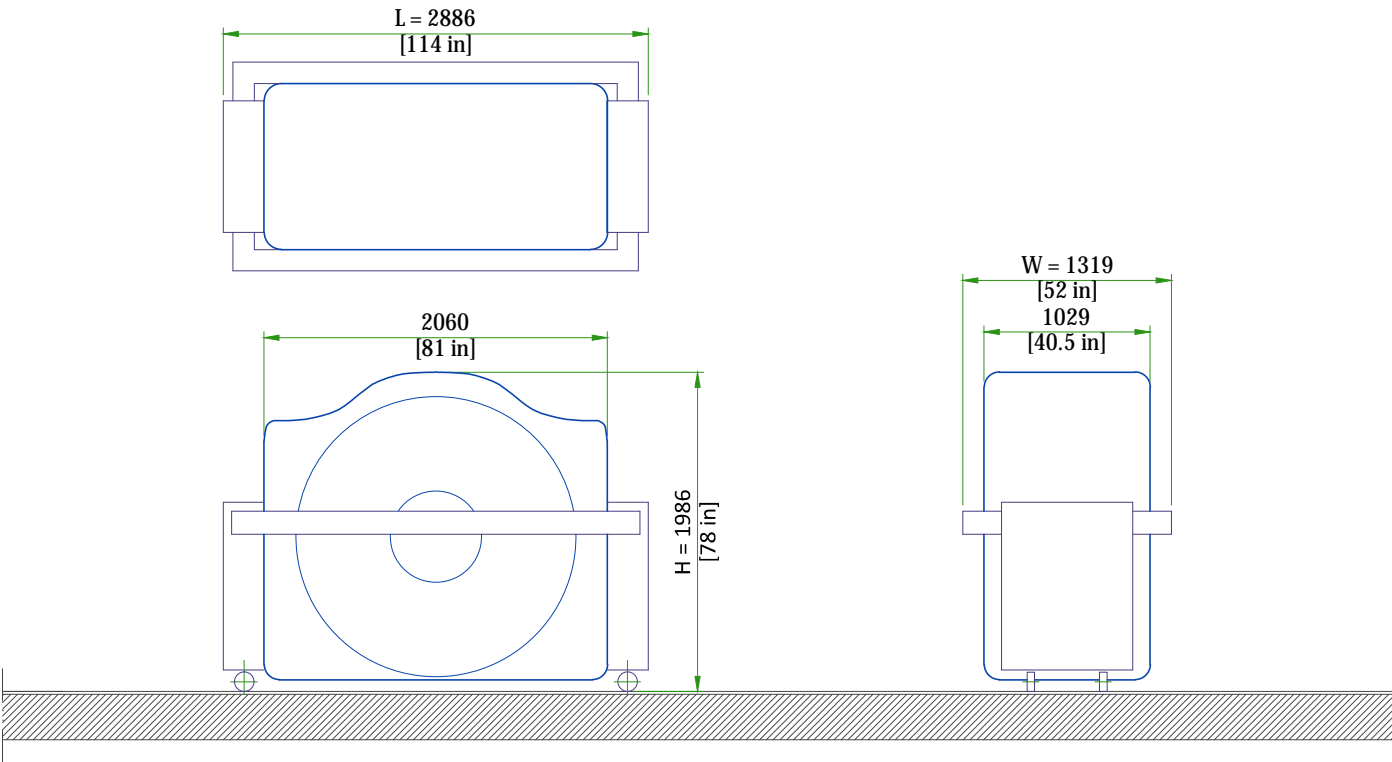
DELIVERY

THE CUSTOMER/CONTRACTOR SHOULD:

- Provide an area adjacent to the installation site for delivery and unloading of the GE equipment.
- Ensure that the dimensions of all doors, corridors, ceiling heights are sufficient to accommodate the movement of GE equipment from the delivery area into the definitive installation room.
- Ensure that access routes for equipment will accommodate the weights of the equipment and any transportation, lifting and rigging equipment.
- Ensure that all necessary arrangements for stopping and unloading on public or private property not belonging to the customer have been made.

DIMENSIONS OF DELIVERY WITH DOLLY TRANSPORT EQUIPMENT				
EQUIPMENT	DIMENSIONS			WEIGHT
GANTRY	LENGTH	2886 mm	114 in	1986 kg 4370 lbs
	WIDTH	1319 mm	52 in	
	HEIGHT	1986 mm	78 in	
GT2000 / GT200X TABLE	LENGTH	2997 mm	118 in	632 kg 1392 lbs
	WIDTH	762 mm	30 in	
	HEIGHT	1143 mm	45 in	

GANTRY DELIVERY

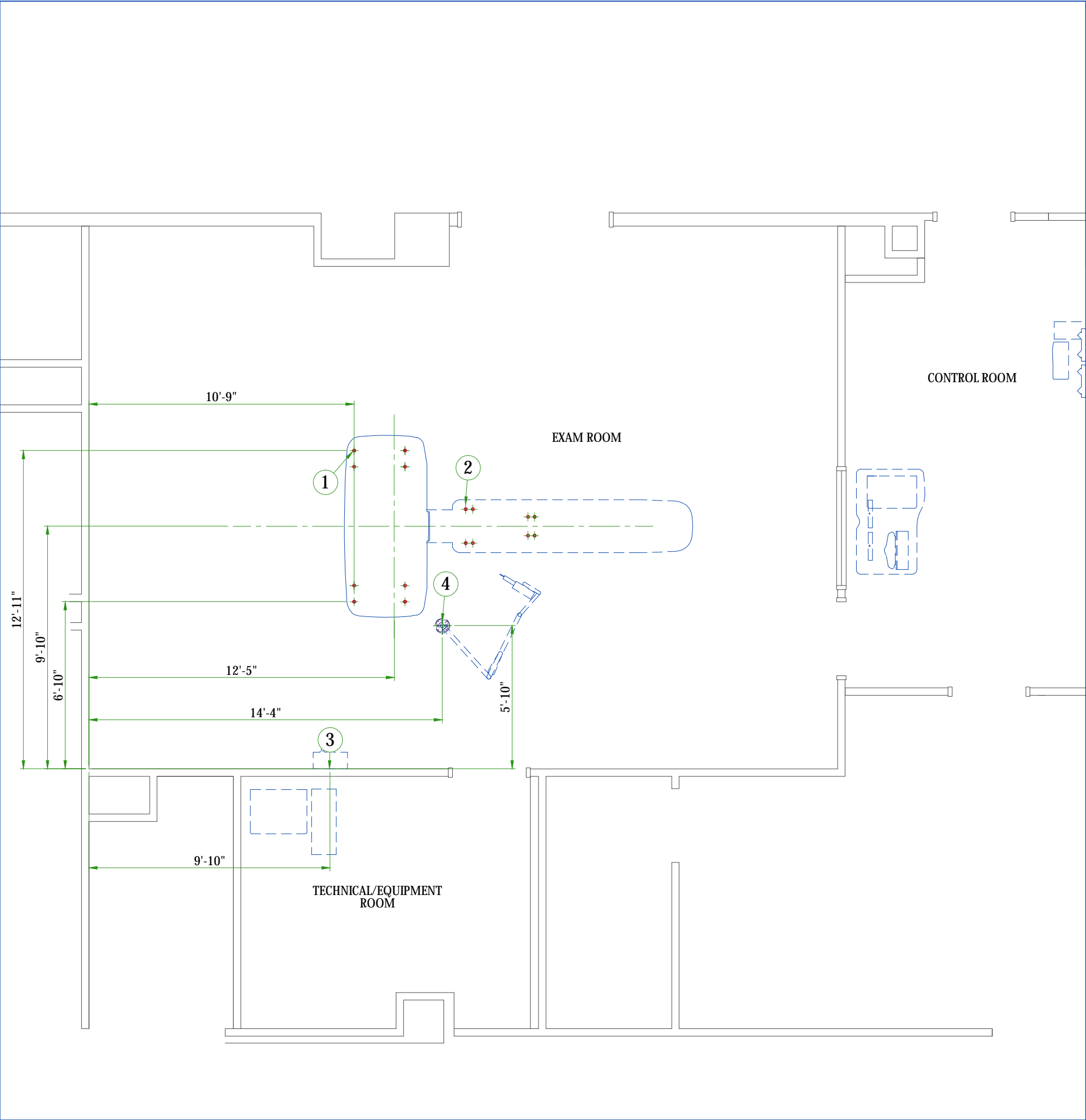


- The gantry is shipped on a dolly equipped with elevating casters (normal shipping configuration).

NOT TO SCALE

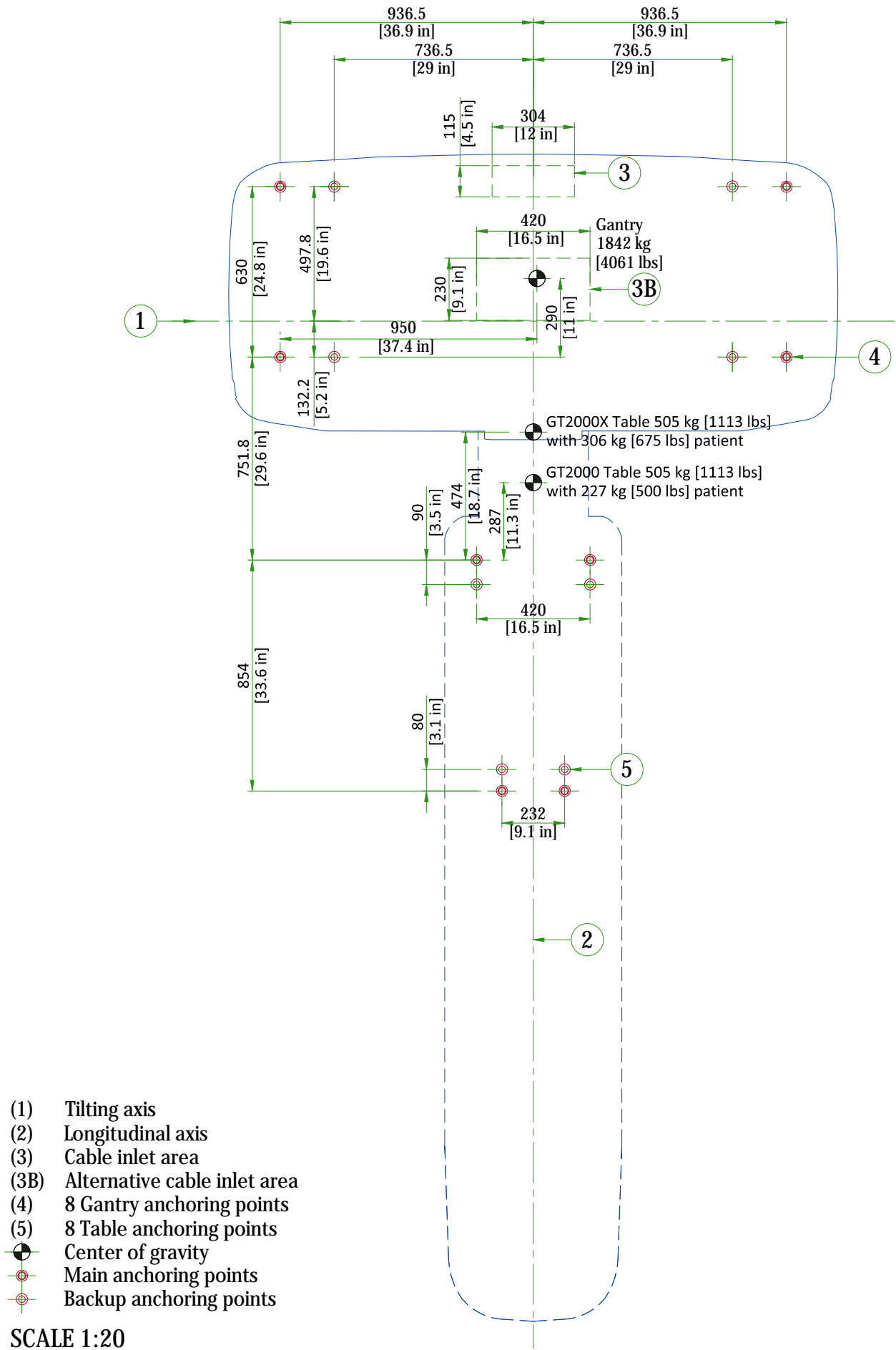
STRUCTURAL NOTES

- all steel work and parts necessary to support ceiling mounted equipment is to be supplied by the customer or his contractors.
- methods of support for the steelwork that will permit attachment to structural steel or through bolts in concrete construction should be favored. Do not use concrete or masonry anchors in direct tension.
- all units that are wall mounted or wall supported are to be provided with supports where necessary. Wall supports are to be supplied and installed by the customer or his contractors. See plan and detail sheets for suggested locations and mounting hole locations.
- all ceiling mounted fixtures, air vents, sprinklers, etc. To be flush mounted, or shall not extend more than 1/4" below the finished ceiling.
- floor slabs on which equipment is to be installed must be level to 1/4" in 10'-0"
- dimensions are to finished surfaces of room.
- customers contractor must provide all penetrations in post tension floors.
- customers contractor must provide and install any non-standard anchoring. Documents for standard anchoring methods are included with GE equipment drawings for geographic areas that require such documentation.
- customers contractor must provide and install hardware for "through the floor" anchoring and/or any bracing under access floors. This contractor must also provide floor drilling that cannot be completed because of an obstruction encountered while drilling by the GE installer such as rebar etc.
- it is the customer's responsibility to perform any floor or wall penetrations that may be required. The customer is also responsible for ensuring that no subsurface utilities (e.g., electrical or any other form of wiring, conduits, piping, duct work or structural supports (i.e. post tension cables or rebar)) will interfere or come in contact with subsurface penetration operations (e.g. drilling and installation of anchors/screws) performed during the installation process. To ensure worker safety, GE installers will perform surface penetration operations only after the customer's validation and completion of the "GE surface penetration permit"



ITEM	DESCRIPTION
(CONTRACTOR SUPPLIED & INSTALLED)	
1	Gantry leveling pads. See Structural Detail
2	Table leveling pads. See Structural Detail
3	Support Backing, locate as shown
Ceiling	
4	Structural supports for fastening the overhead counterpoised suspension. Support should run continuous with no fittings extending below face of channel, be parallel, square, and in the same horizontal plane, above finished ceiling. Ensure mounting surface is installed level or plumb within +/- 1 degree, and is structurally sufficient to maintain a level or plumb condition under 110 lb (50kg) system load and maximum system moment of 4400 in-lb (500n-m). Methods of support that will permit attachment to structural steel or through bolts in concrete construction should be favored. Do not use screw anchors in direct tension. 14" x 14" x 1/2" thick steel plate provided by manufacturer. See detail on structural detail sheets.

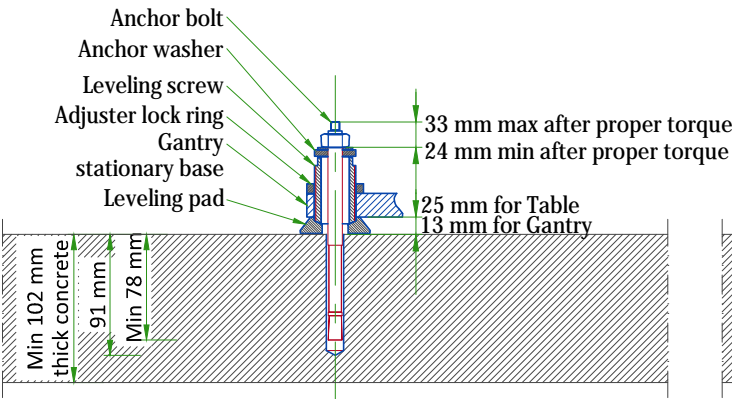
ANCHORING/LOADING DISTRIBUTION TO THE FLOOR



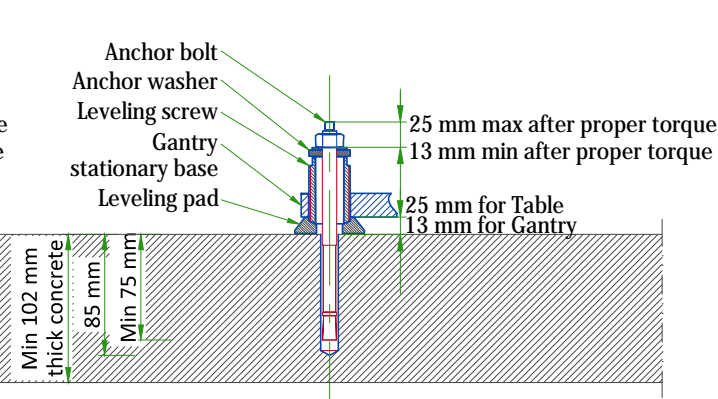
SCALE 1:20

FLOOR REQUIREMENTS

GE SUPPLIED ANCHORS (2106573)



GE SUPPLIED ANCHORS (5487992-2)

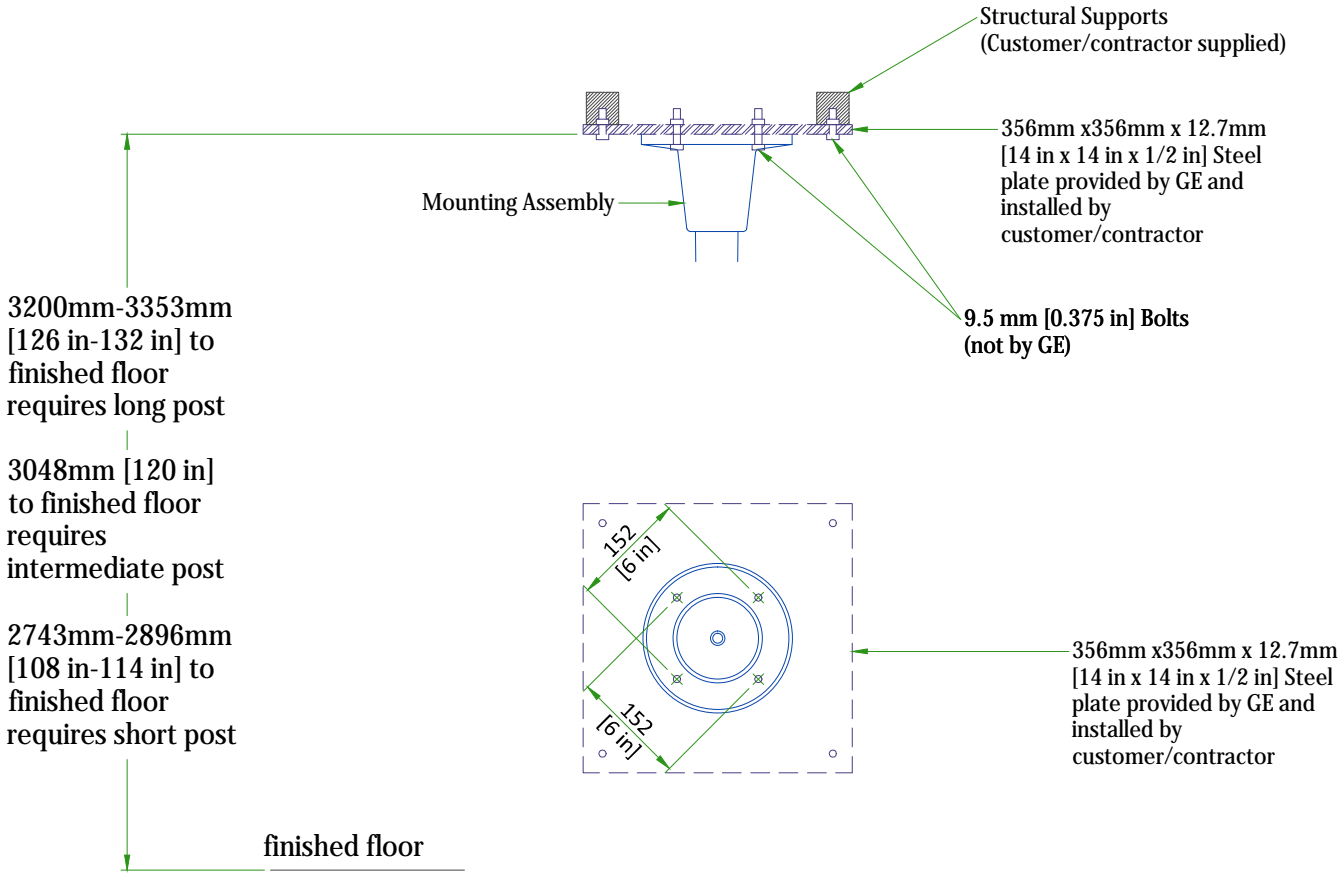


FINISHED FLOOR REQUIREMENTS

- Installation requires a finish floor in the scan and control rooms
- The floor surface in the scan room directly under the gantry and table must be level.
- The floor levelness tolerance of the floor surface that the gantry and table will rest on is 6 mm over a 3000 mm distance.
- Shims should not be used to compensate for a floor that does not meet this requirement.
- Eight or more floor covering openings that are 101.6 mm in diameter are made to ensure the table and gantry rest on a solid surface. These floor penetrations can be sealed if required.
- The distance from central line of anchor to the edge of concrete basement of Gantry/table should not be less than 178 mm.
- These requirements apply to all installation types.

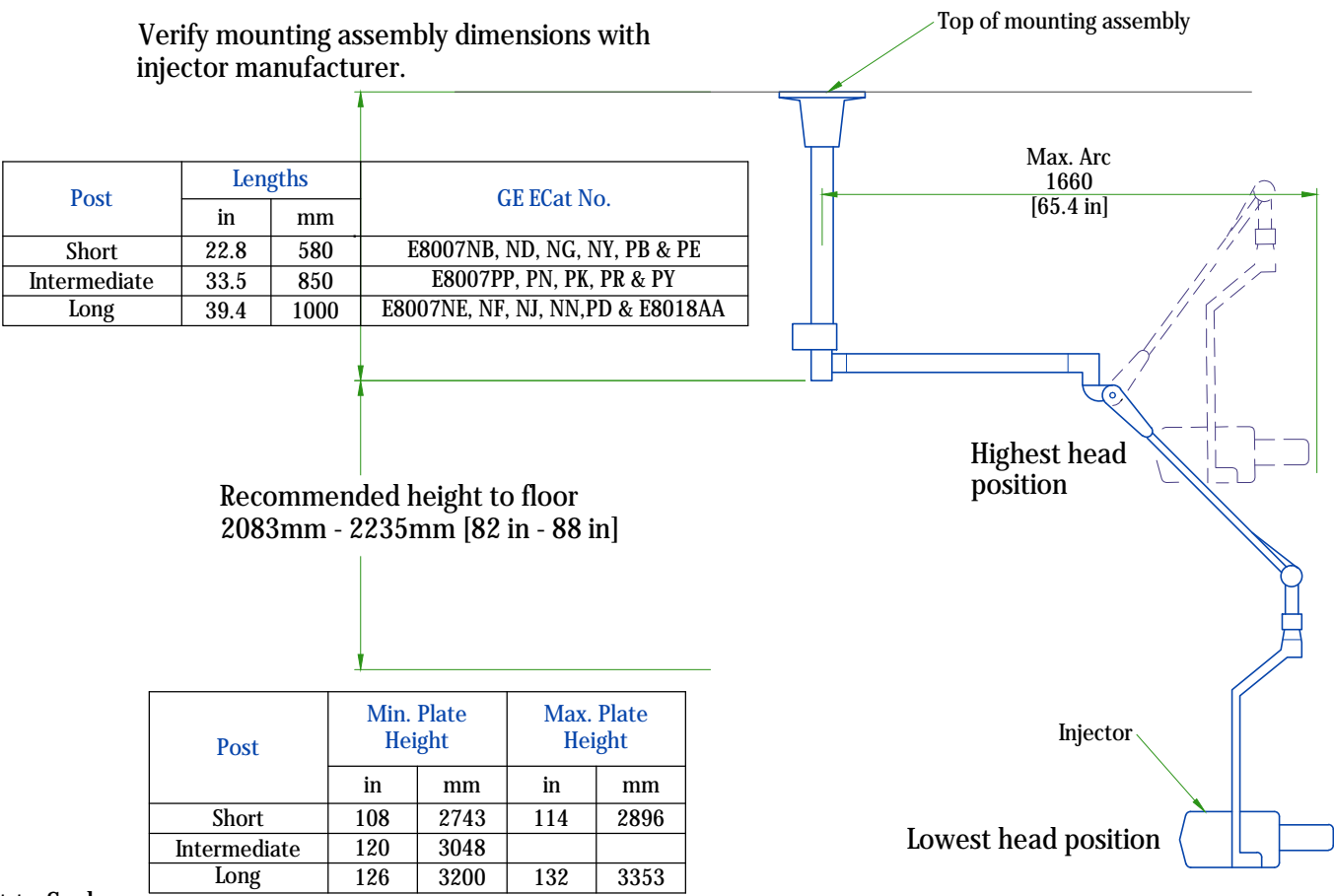
NOT TO SCALE

MEDRAD MOUNTING DETAILS FOR CEILING INJECTOR



Scale 1:10

MEDRAD MOUNTING DETAILS FOR CEILING INJECTOR



Not to Scale

TEMPERATURE AND HUMIDITY SPECIFICATIONS

IN-USE CONDITIONS

	EXAM ROOM			CONTROL ROOM			TECHNICAL ROOM		
Temperature	Min	Recommended	Max	Min	Recommended	Max	Min	Recommended	Max
	#	#	#	#	#	#	#	#	#
	6 7	7 7	7 7	6 7	7 7	7 7	6 7	7 7	7 7
Temperature gradient	· #			· #			· #		
	· 7			· 7			· 7		
Relative humidity (1)	30% to 60%			30% to 60%			30% to 60%		
Humidity gradient	5%/h			5%/h			5%/h		

STORAGE CONDITIONS

Temperature	# · #
	+3 7 · 7
Temperature gradient	· #
	· 7
Relative humidity (1)	70%
Humidity gradient	5%/h

Storage longer than 6 months is not recommended.

(1) Non-condensing

AIR RENEWAL

According to local standards.

NOTE

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

HEAT DISSIPATION

ROOM	DESCRIPTION	HEAT DISSIPATION (kW)	HEAT DISSIPATION (BTU/hr)
		MAX	MAX
Exam Room	Gantry and Table (Without patient)	9.76	33292
	TOTAL	9.76	33292
Exam/Technical Room*	Power distribution unit (PDU)	0.50	1708
	Partial UPS	0.59	2000
	TOTAL	1.09	3708
Control Room	Console with 2 LCD monitors	0.94	3200
	Advantage workstation	1.0	3412
	TOTAL	1.94	6612
* Technical Room is not mandatory, the placements of these elements are recommended in the Exam Room.			

ELECTRICAL NOTES

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

- All junction boxes, conduit, duct, duct dividers, switches, circuit breakers, cable tray, etc., are to be supplied and installed by customers electrical contractor.
- Conduit and duct runs shall have sweep radius bends
- Conduits and duct above ceiling or below finished floor must be installed as near to ceiling or floor as possible to reduce run length.
- Ceiling mounted junction boxes illustrated on this plan must be installed flush with finished ceiling.
- All ductwork must meet the following requirements:

1.Ductwork shall be metal with dividers and have removable, accessible covers.

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

3.Ductwork shall be electrically and mechanically bonded together in an approved manner.

4.PVC as a substitute must be used in accordance with all local and national codes.
- All openings in access flooring are to be cut out and finished off with grommet material by the customers contractor.
- General contractor to insert pull cords for all cable run conduits between the equipment room and the operators control room.
- 10 foot pigtails at all junction points.
- Grounding is critical to equipment function and patient safety. Site must conform to wiring specifications shown on this plan.

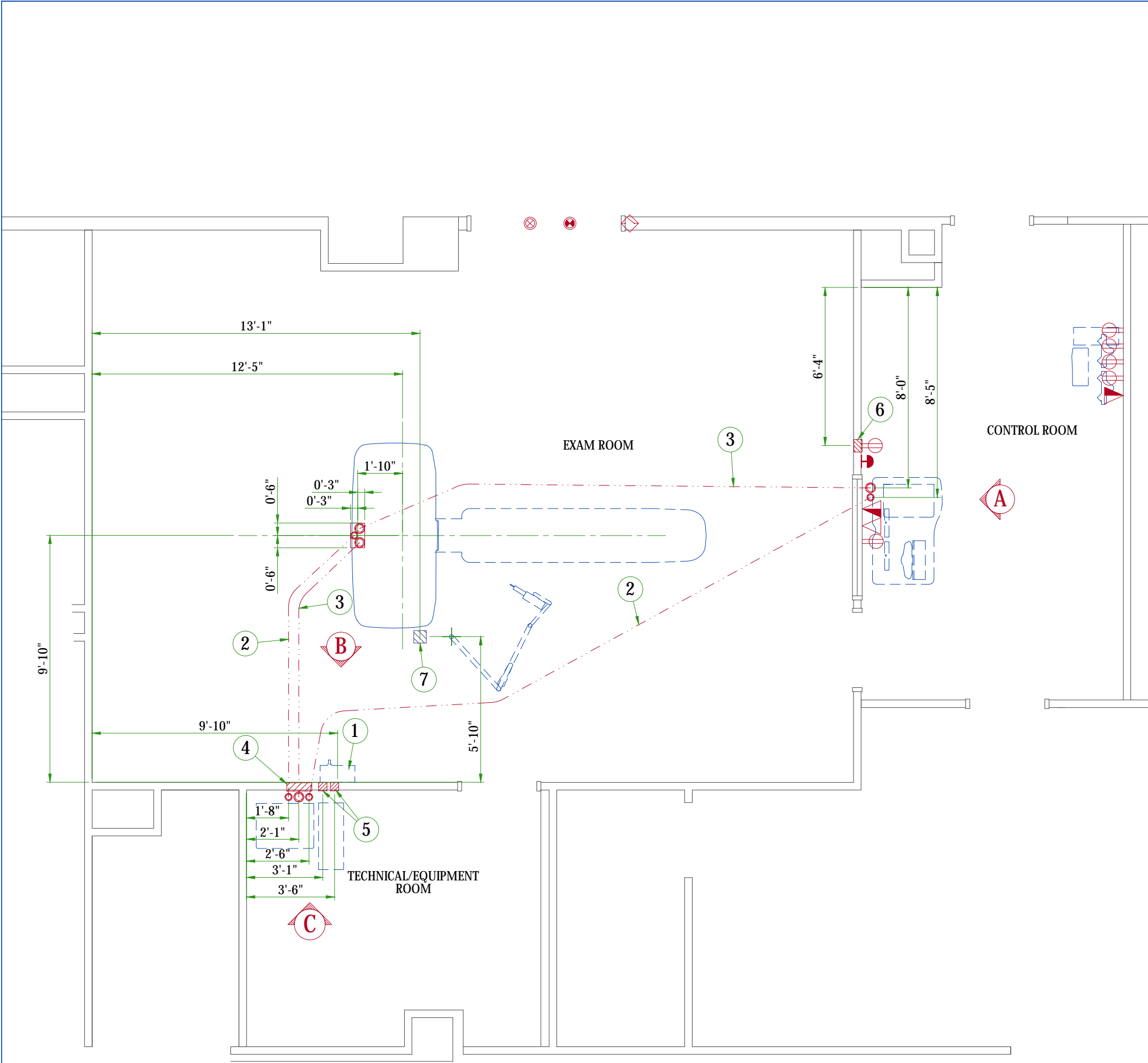
CONNECTIVITY REQUIREMENTS

Broadband Connections are necessary during the installation process and going forward to ensure full support from the Engineering Teams for the customers system. Maximum performance and availability for the customers system is maintained and closely monitored during the lifetime of the system.

Proactive and reactive maintenance is available utilizing the wide range of digital tools using the connectivity solutions listed below:

- Site-to-Site VPN/GE Solution
- Site-to-Site VPN/Customer Solution
- Connection through Dedicated Service Network
- Internet Access - connectivity for InSite 2.0

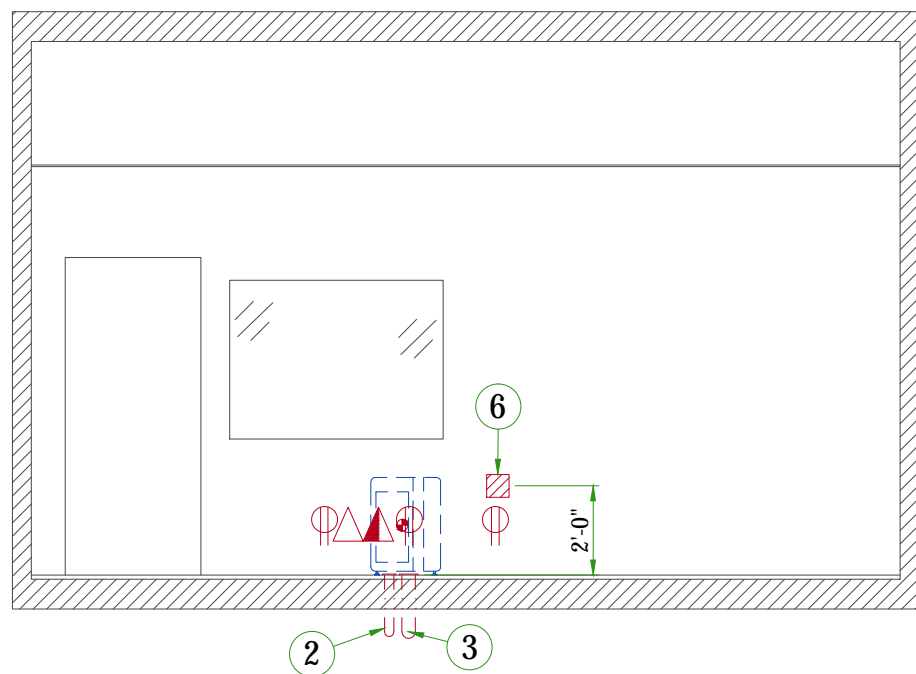
The requirements for these connectivity solutions are explained in the broadband solutions catalogue (separate document).



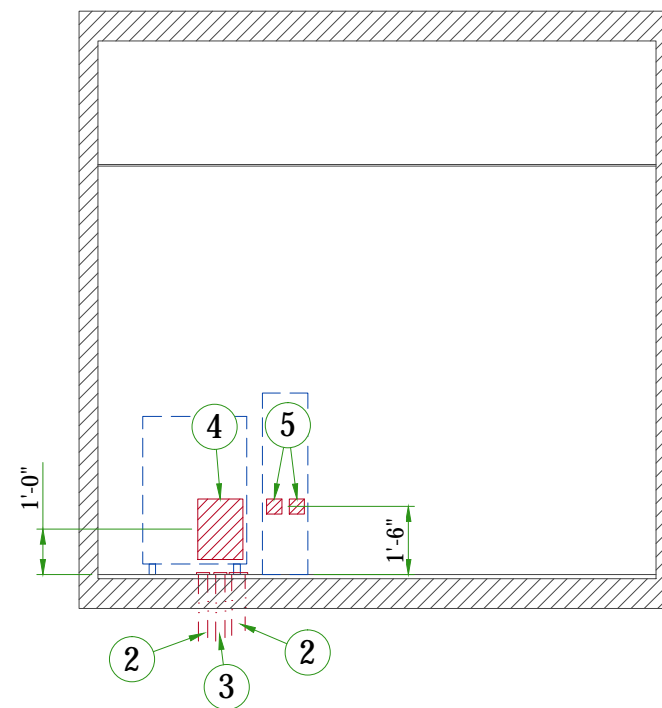
ITEM	DESCRIPTION
1	Main disconnect panel
2	2 1/2" conduit below floor
3	3 1/2" conduit below floor
4	12" x 16" x 4" box for power distribution unit
5	4" x 4" x 4" box for partial UPS
6	6" x 6" x 4" box
7	6" x 6" x 4" box in ceiling

ITEM	Outlet Legend for GE Equipment
	System emergency off (SEO), (recommended height 1.2m [48"] above floor)
	X-Ray room warning light control panel
	X-Ray ON lamp (L1) - 24V
	Door interlock switch (needed only if required by state/local codes)
	Duplex hospital grade, dedicated wall outlet 120-v, single phase power
	Network outlet
	Dedicated phone line(s)

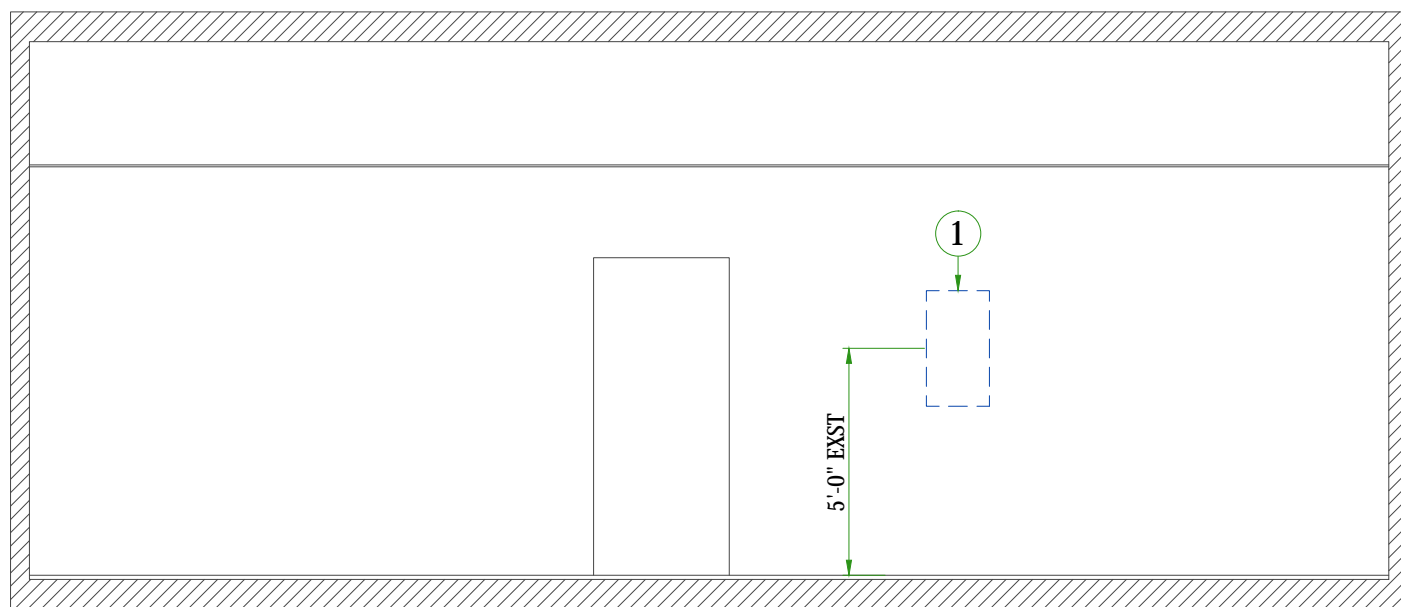
Additional Conduit Runs (Contractor Supplied and Installed)				
From	To	Qty	Size	
			In.	mm
3 phase power	Main disconnect	1	AS REQ'D	AS REQ'D
Main disconnect	Emergency off	1	1/2	13
	Power Distribution Unit	1	AS REQ'D	AS REQ'D
Power Distribution Unit	Door Switch	1	1/2	13
	Warning light control	1	1/2	13
Warning light		1	1/2	13
1 phase power		1	1/2	13
Options				
Main Disconnect Panel	UPS	1	1 1/4	30
Power Distribution Unit		1	2	50
Injector	Injector Control	1	2 1/2	64
Laser Light Control	Positioning Laser Light	1	1	25



A



C



B

POWER REQUIREMENTS

POWER SUPPLY	3 PHASES+G
FREQUENCIES	= . . =
MAXIMUM POWER DEMAND	150kVA
AVERAGE (CONTINUOUS) POWER DEMAND	11kVA
POWER FACTOR	0.85

- Power supply should come into a power distribution box (PDB) containing the protective units and controls.
- The section of the supply cable should be calculated in accordance with its length and the maximum permissible voltage drops.
- There must be discrimination between supply cable protective device at the beginning of the installation (main low-voltage transformer side) and the protective devices in the PDB.

SUPPLY CHARACTERISTICS

- Power input must be separate from any others which may generate transients (elevators, air conditioning, radiology rooms equipped with high speed film changers...).
- All equipment (lighting, power outlets, etc...) installed with GE system components must be powered separately.
- Phase imbalance 2% maximum.
- Transients must be less than 1500V peak. (on a 400V line)

GROUND SYSTEM

- System of equipotential grounding.
- Equipotential: The equipotential link will be by means of an equipotential bar. This equipotential bar should be connected to the protective earth conductors in the ducts of the non GE cableways and to additional equipotential connections linking up all the conducting units in the rooms where GE system units are located.

CABLES

- Power and cable installation must comply with the distribution diagram.
- All cables must be isolated and flexible, cable color codes must comply with standards for electrical installation.
- The cables from signaling and remote control (Y, SEO, L...) will go to PDB with a pigtail length of 1.5m, and will be connected during installation. Each conductor will be identified and isolated (screw connector).

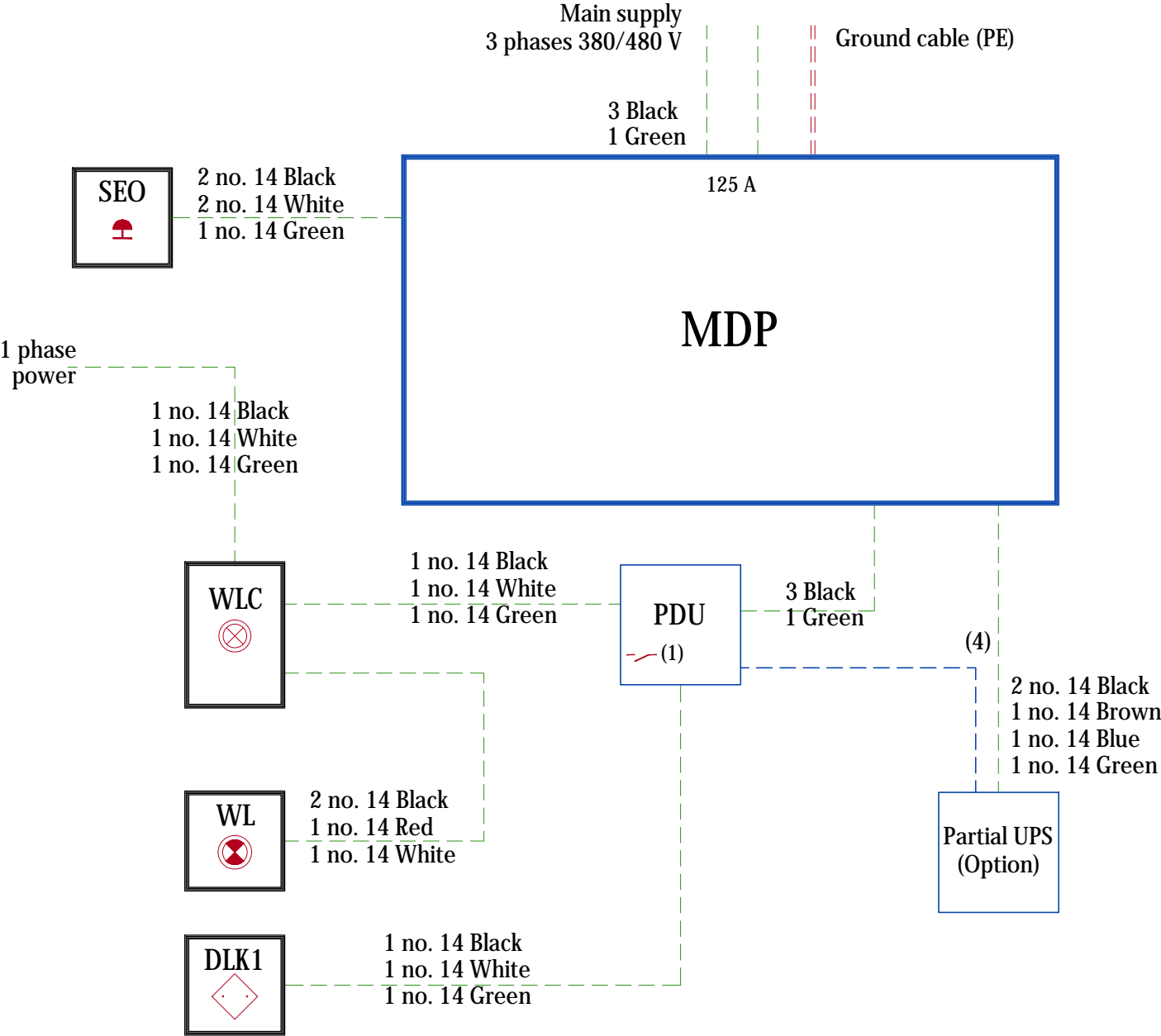
CABLEWAYS

The general rules for laying cableways should meet the conditions laid down in current standards and regulations, with regard to:

- Protecting cables against water (cableways should be waterproof).
- Protecting cables against abnormal temperatures (proximity to heating pipes or ducts).
- Protecting cables against temperature shocks.
- Replacing cables (cableways should be large enough for cables to be replaced).
- Metal cableways should be grounded.

FEEDER TABLE								
MIN. FEEDER WIRE SIZE, AWG OR MCM (sq. mm)/VAC	MINIMUM FEEDER WIRE LENGTH - ft (m)							
	50 (15)	100 (30)	150 (46)	200 (61)	250 (76)	300 (91)	350 (107)	400 (122)
480 VAC	1 (45)	1 (45)	1 (45)	1 (45)	1 (45)	1/0 (55)	1/0 (55)	2/0 (70)
GENERAL NOTES								
In all cases qualified personnel must verify that the feeder (at the point of take-off) and the run to the CT system meet all the requirements stated in the PIM								
For a single unit installation, the minimum transformer size is 225KV _a , with 2.4% rated regulation at unity power factor. Resultant maximum allowable feeder regulation is 3.4%								
Grounding conductor will be a 1/0 minimum. this ground will run from the equipment back to the power source/main grounding point and always travel in the same conduit with the feeders								

POWER DISTRIBUTION

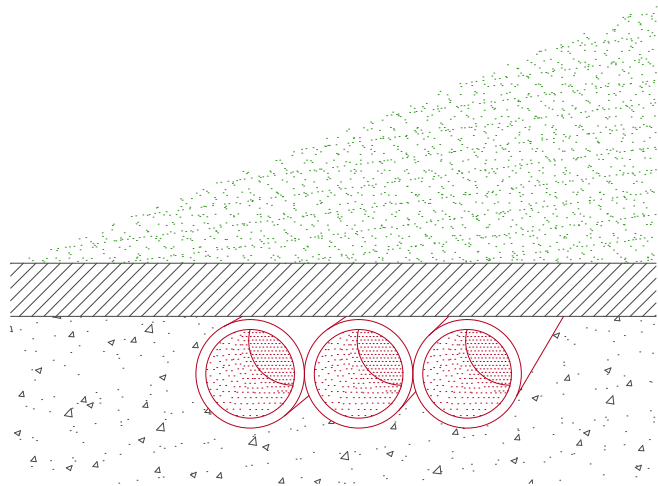


- MDP Main Disconnect Panel
PDU Power distribution unit
SEO Emergency OFF button (Control Room), located 1.50m (4.9') above floor
WLC Warning Light Control
WL Warning Light
DLK1 Door Interlock Switch (needed only if required by state/local codes)

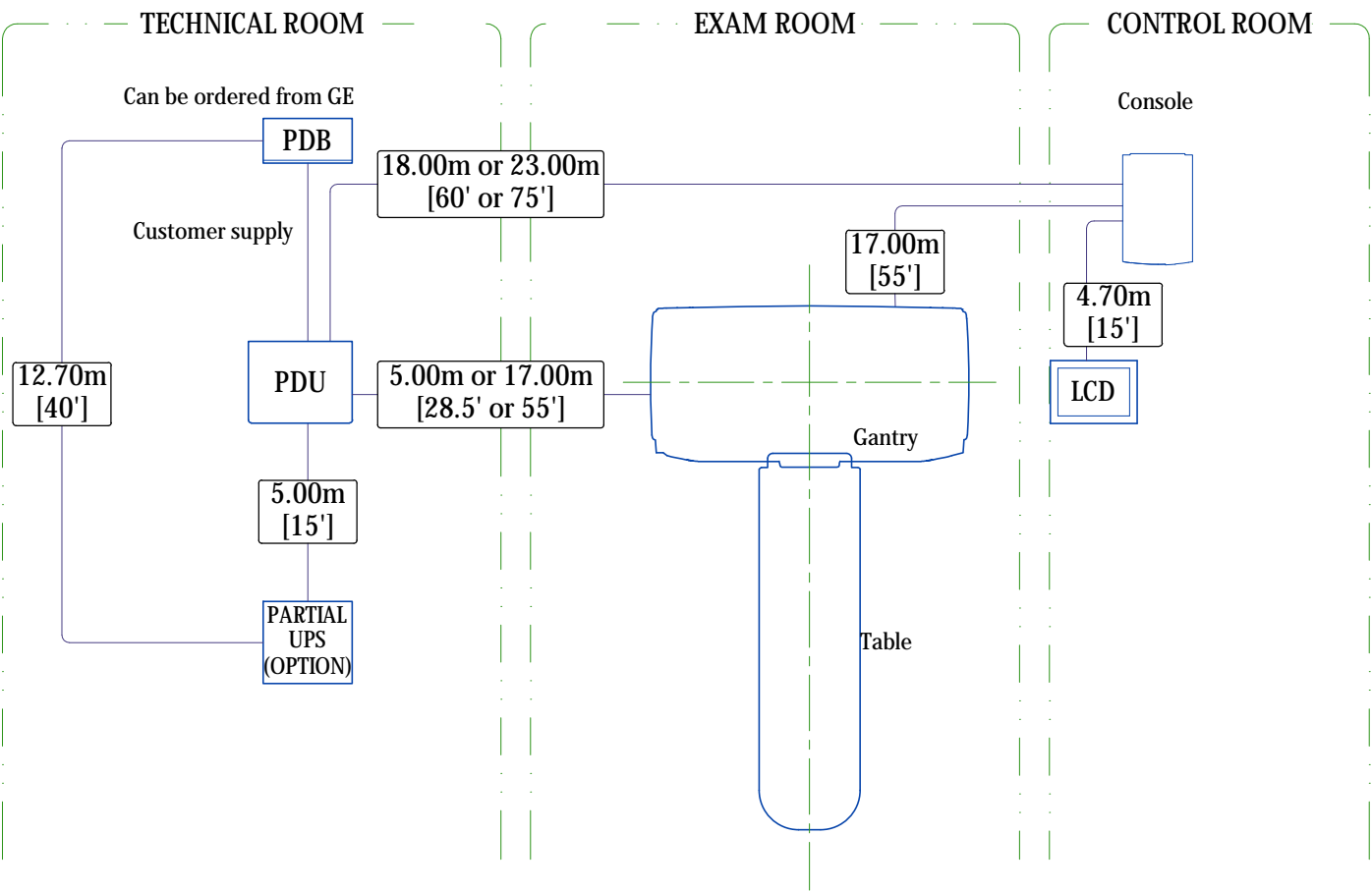
- Notes :
(1) Two dry contacts: "System ON" and "X-Ray ON", both released by PDU.
Max. voltage = 30 V
(2) If length < 10 m (32.8')
Cable with 2m (6.6') extra length on the floor behind the back of PDU
(3) Cable with 2m (6.6') extra length on the floor behind the back of PDU
(4) Cable delivered with partial UPS installed by GE (Option)

CABLE MANAGEMENT

CONDUIT IN THE FLOOR



INTERCONNECTIONS



Medical Physics Consulting

8403 Richmond Ave , Lubbock, Texas 79424, Tel: 806-794-0953

Date: February 16,2020

CT Room Shielding Report

ER Room University Medical Center

General

This shielding design is based on the drawing provided by Ramiro Sanchez based on GE drawing, which is attached along with. The CT scanner is facing the control wall East.

Work Load (W): the workload selected for the calculation is shown in the report

Use factor (U): The primary radiation is collimated and is intercepted by the detector bank. Therefore, all barriers are facing the scatter radiation with $U=1$

Occupancy factor (T): The occupancy factor is based on the data from NCRP Report 147

Shielding Material:

All barriers are to be shielded with lead extending up to 7 feet high from the floor slab. The lead shall be fixed to the rigid gypsum board walls or metal studs so as to avoid cold flowing of the metal by its own weight. The junctions must be overlapped with lead sheet at least ½ inch overlap. Nails if used for fixing must be made of lead.

All barrier penetrations such as openings for doors, windows, conduits, pipes, air ducts, service boxes etc require installation of either lead baffles or lead backing to restore the protective effectiveness of the barrier.

Viewing window:

The control room wall viewing window must be provided with 1/16-inch lead equivalent glass window.

Doors:

The doors, door frames and door bucks shall have the same effective shielding thickness as the wall in which they are mounted.

The doors shall be mounted such that the bottom edge is as close as possible to the finished floor with the clearance of less than ½ inch from the floor.

Windows:

The windows if used shall have the same effective thickness as the wall unless they are mounted above 7 feet from floor...

Summary:

This report contains the following:

1. The calculation formulas used and the drawing indicating the distances

2. Table1. Calculation table indicating the parameters used

Shielding Thickness Summary

1. AB: Control Wall thickness 1/16 inch
 - 1.1 VW 1/16-inch lead equivalent glass
 - 1.2 Door1 1/32-inch Lead
2. BC: North wall to hallway: 1/16-inch Lead
 - 2.1 Door2 1/16-inch Lead
3. CD: West wall to Break Room: 1/16-inch Lead
4. DE: South wall to equipment room and Hallway :1/16-inch Lead
 - 4.1 Door 3 to storage 1/32inch Lead
5. No Occupancy above the roof. Therefore, the 1-inch concrete typically provided is adequate

Postings:

- The doors opening to Hallway must be provided with Radiation sign
- The patient entry door must have locking mechanism from inside the room in order to avoid inadvertent entry while the X-ray is ON

Any deviations from this report require recalculation by the physicist.

Murali Nair

Murali Nair Ph.D
Licensed Radiological Physicist
Texas License MP 0409

Date: 2/16/2020

University Medical Center, Lubbock, Texas, ER Room

CT Scanner GE Revolution Shielding Report Date 16-Feb-20

Ref: NCRP Report 147

CT Scanner GE Revolution CT
 Manufacturer: GE mAs(body)=250
 Technique Used: 130KVp mAs(Head)=300
 Technique: Dose Length Product (DLP)

Weekly Air Kerma at 1 meter

k(H): air kerma for head	9.00E-05	cm ⁻¹			
k(B) air kerma for body	3.00E-04	cm ⁻¹			
CTDI head	0.225 mGy/mAs	p	1	L cm	20
CTDI body	0.138 mGy/mAs	p	1.35	L cm	50

Work Load calculation

N(H)	50 per week mAs	300
N(B)	200 per Week mAs	250
Ksec at 1 meter	NxKx(L/p)xmAsxCTDI100	
Ksec (Head)	6.08E+00 mGy at 1met	
Ksec (Body)	7.67E+01 mGy at 1met	
K(tot)=Ksec(Head)+K(Body)	82.74 mGy at 1meter	

Required transmission B at any location to be shielded is

B = $\frac{P \cdot d^2}{K(tot) \cdot T}$ (P:shielding goal, T: Occupancy factor. D distance in meter)

From Archer et al

Required thickness (t) $(1/\alpha) * \ln[(B^{-1} - r + b/a)/(1 + b/a)]$

NCRP page 123 for Lead 120kVp

α (mm⁻¹) β (mm⁻¹) γ

2.246 5.73 0.547

All measurements are derived from the drawing provided by Ramiro Sanchez, RSO

The size of the room is 30'x22' obtained from the drawing .

Required thicknesses are given in lead unless mentioned otherwise

Shielding must extend 7 feet above the floor

Calculated By:

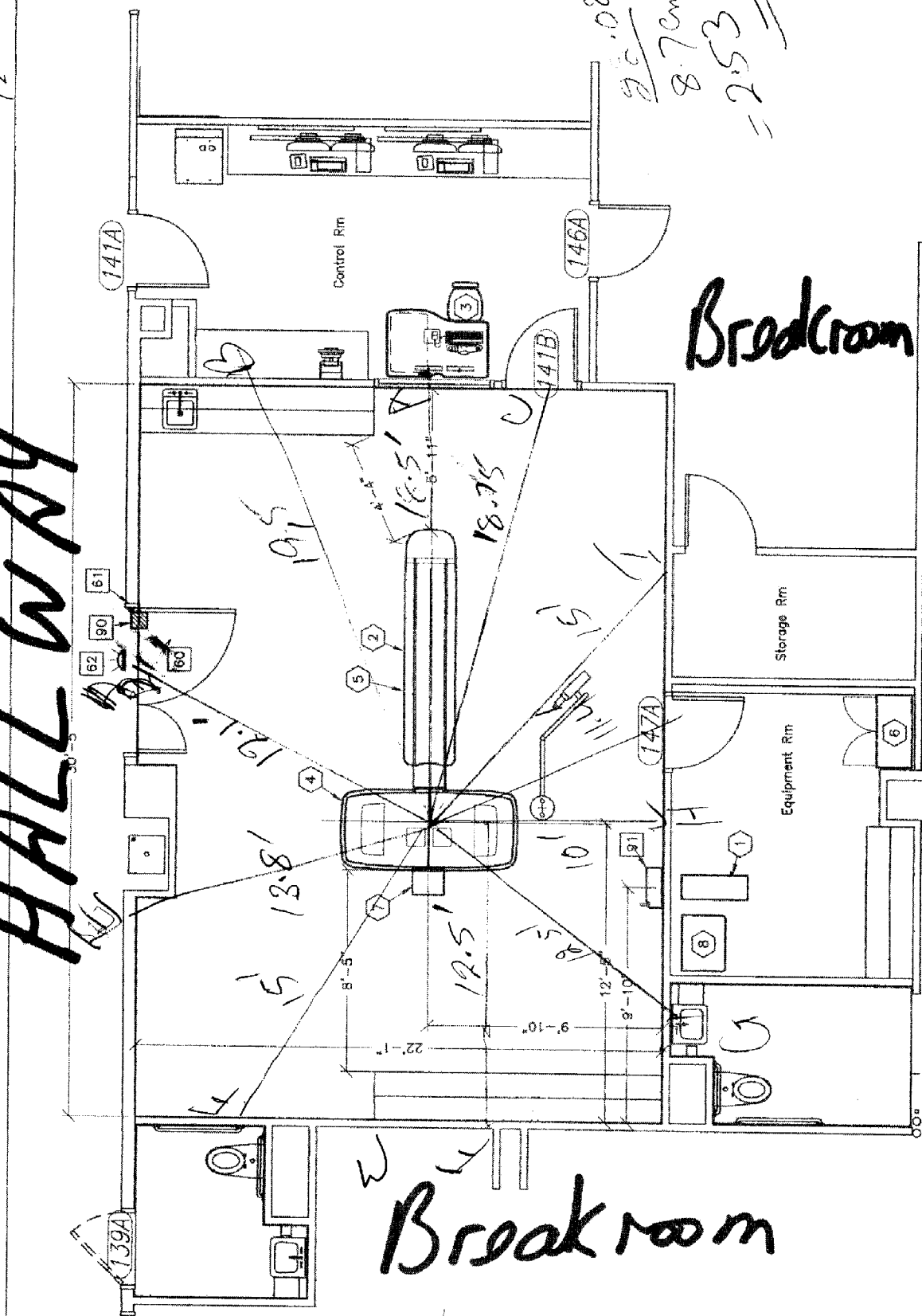
Murali Nair

Date

2/16/2020

Murali T.K.Nair Ph.D

Certified Physicist in Diag. Radiology

$$\frac{30.4}{12.2}$$


PRELIMINARY PLANNING ONLY

PROJECT TITLE:

University Medical Center
Revolution Frontier CT
Lubbock, TX

SCHEME NO
IR2020 DRAWN BY: BRR
DATE: 2/6/20

THIS LAYOUT **MUST** BE APPROVED BEFORE
FINAL DRAWINGS CAN BE STARTED. THANK YOU

CUSTOMER

DATE:

GE INSTALL.
SPECIALIST

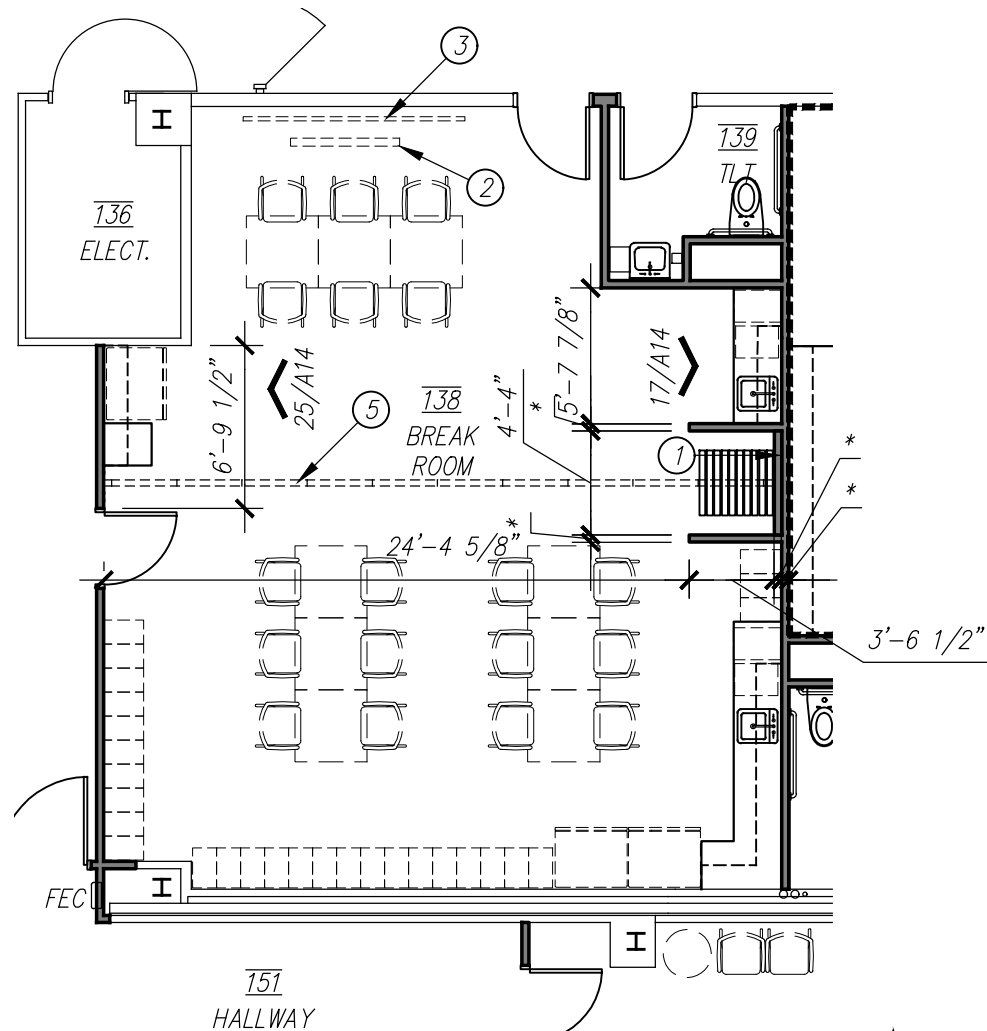
DATE:



GE Healthcare

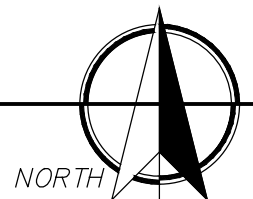
Modality Installation Planning

721



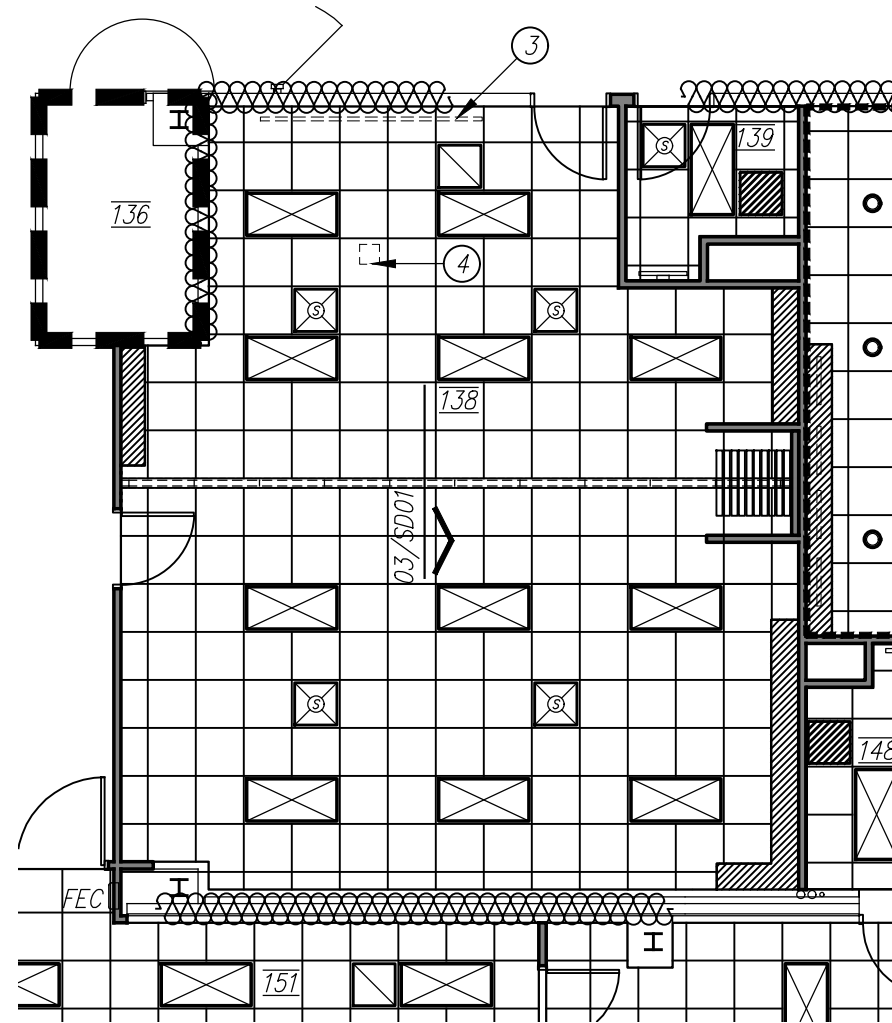
01/SD01 PARTIAL ANNOTATED PLAN

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



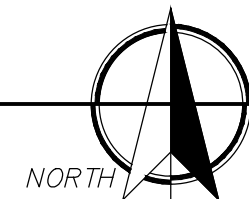
GENERAL NOTES

- 1). REFER TO SHEETS A5 AND A7 FOR KEYED NOTES.
- 2). * = 3 5/8" METAL STUDS @ 16" O.C.



02/SD01 PARTIAL RCP

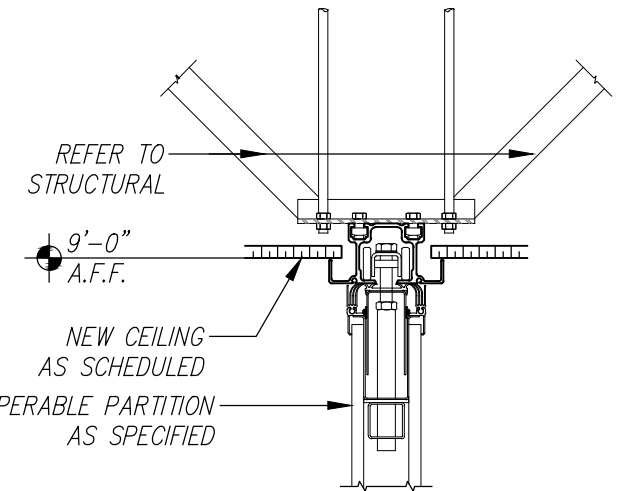
SCALE: 1/8" = 1'-0"



KEYED NOTE

DESIGNATED BY: ← (#)

- ① PROVIDE BLOCKING PER MANUFACTURER'S STANDARD.
- ② MOVABLE SMART BOARD. OWNER FURNISHED, OWNER INSTALLED.
- ③ CEILING MOUNTED PROJECTION SCREEN. OWNER FURNISHED, CONTRACTOR INSTALLED.
- ④ CEILING MOUNTED PROJECTOR. OWNER FURNISHED, OWNER INSTALLED. COORDINATE EXACT LOCATION FOR MOUNTING WITH OWNER IN ADVANCE OF INSTALLATION.
- ⑤ PAIRED OPERABLE PANEL PARTITION AS SPECIFIED, INVISIBLE HINGES OPTIONAL.



03/SD01 DETAIL

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

UNIVERSITY MEDICAL CENTER
EMERGENCY CENTER PEDIATRIC & RADIOLOGY RENOVATION
SD01: BREAK ROOM 138 MODIFICATIONS

SCALE: AS NOTED

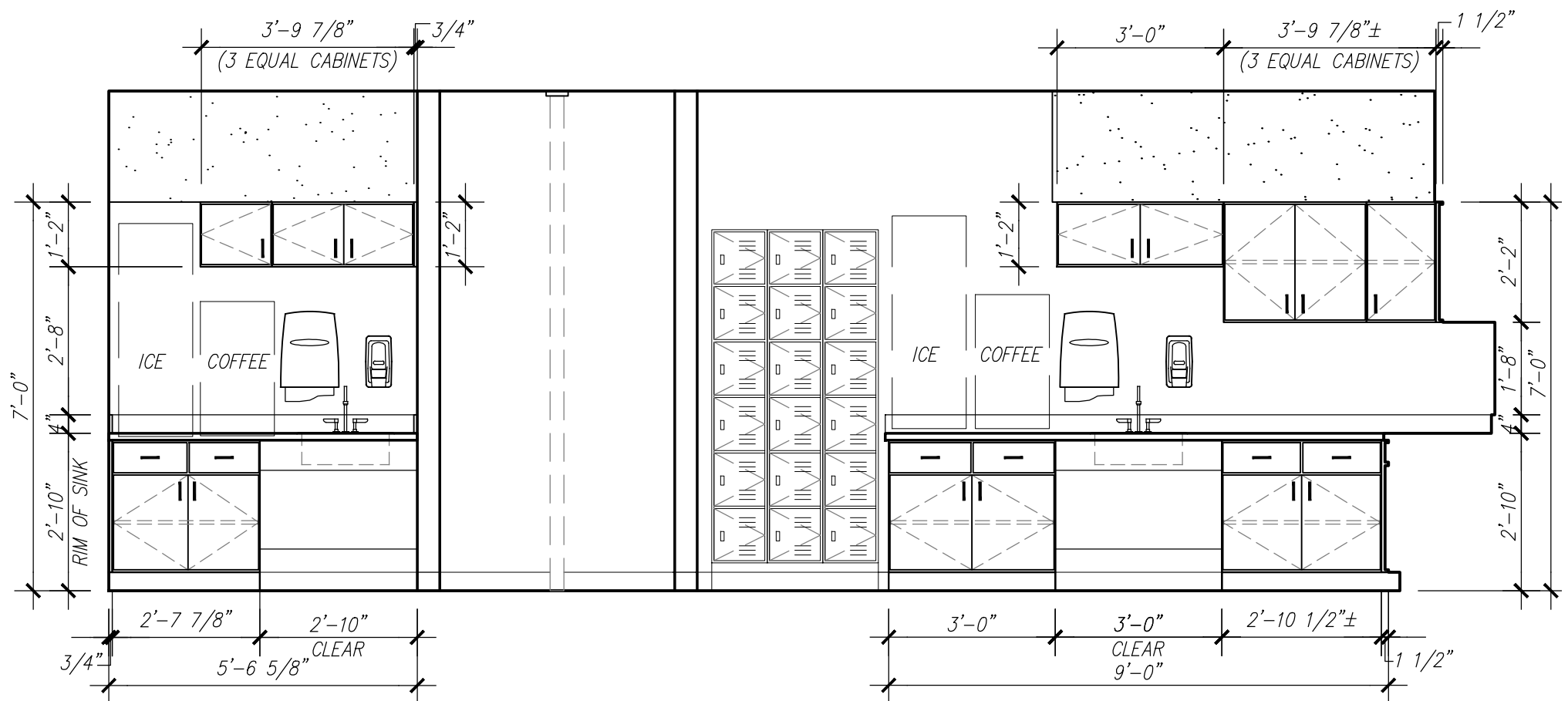
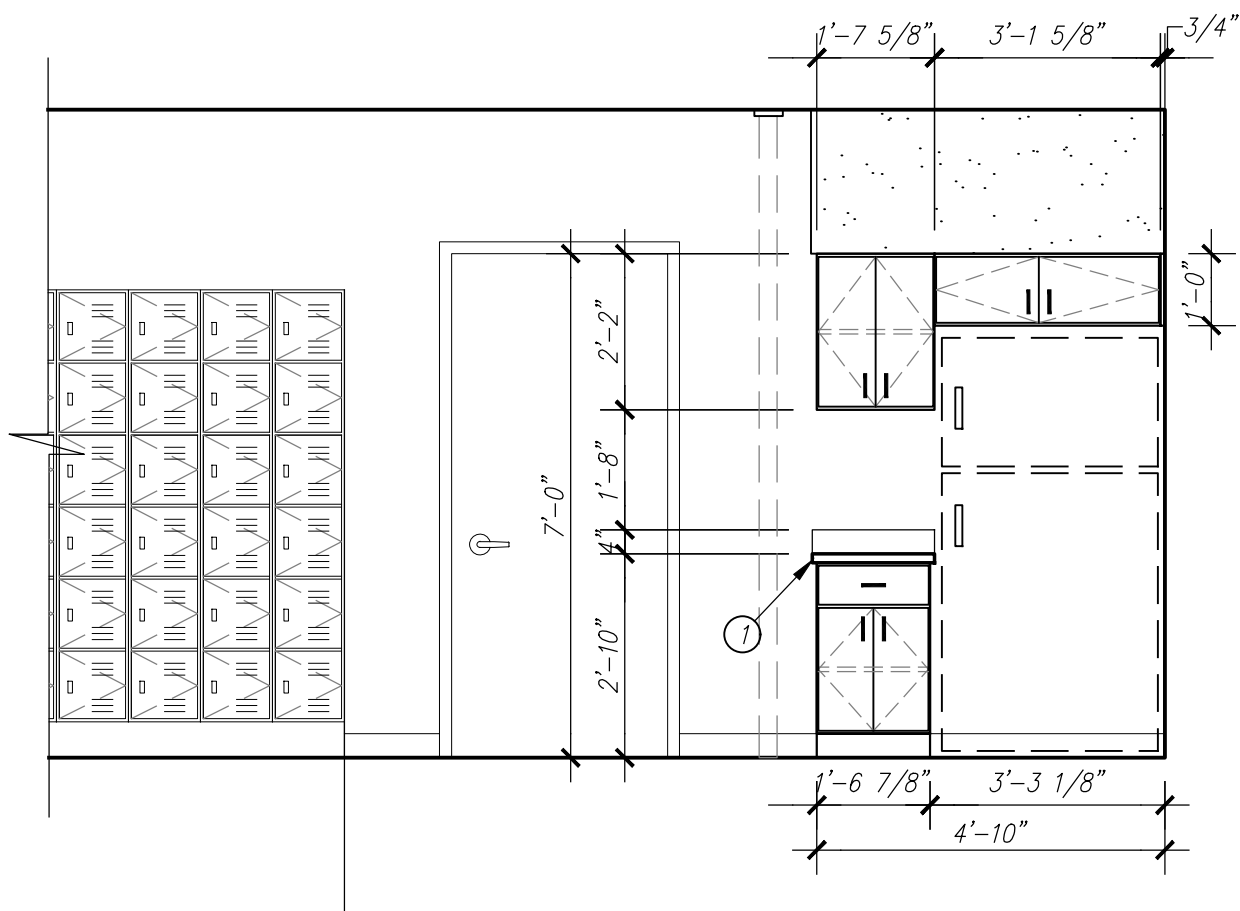
CONDRAY DESIGN GROUP, INC.



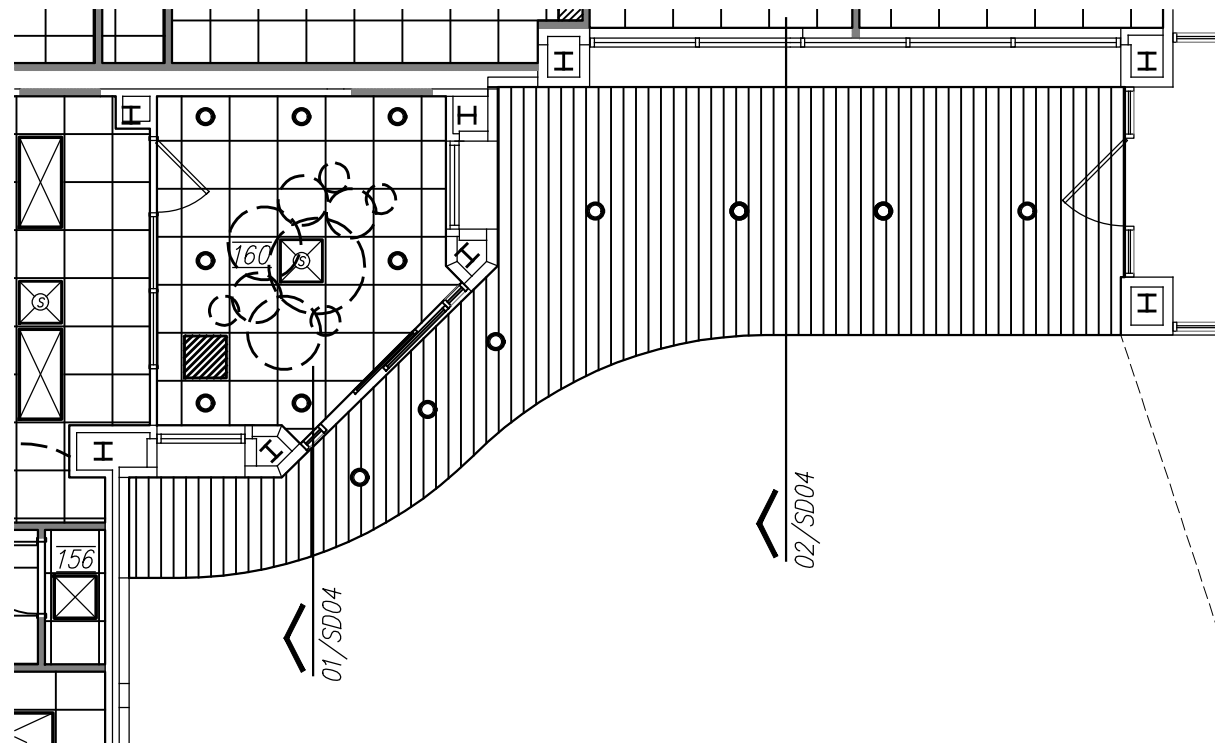
Stacey Elizabeth Mincey

2-20-2020

PROJ. NO. 21912
DATE: 02/20/2020



PROJ. NO. 21912
DATE: 02/20/2020



01/SD03 PARTIAL CEILING PLAN AT ENTRANCE CANOPY

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



** NOTE:
REFER TO SHEET A7&A8 FOR MORE REFLECTED CEILING PLAN KEYED NOTES



[Signature]

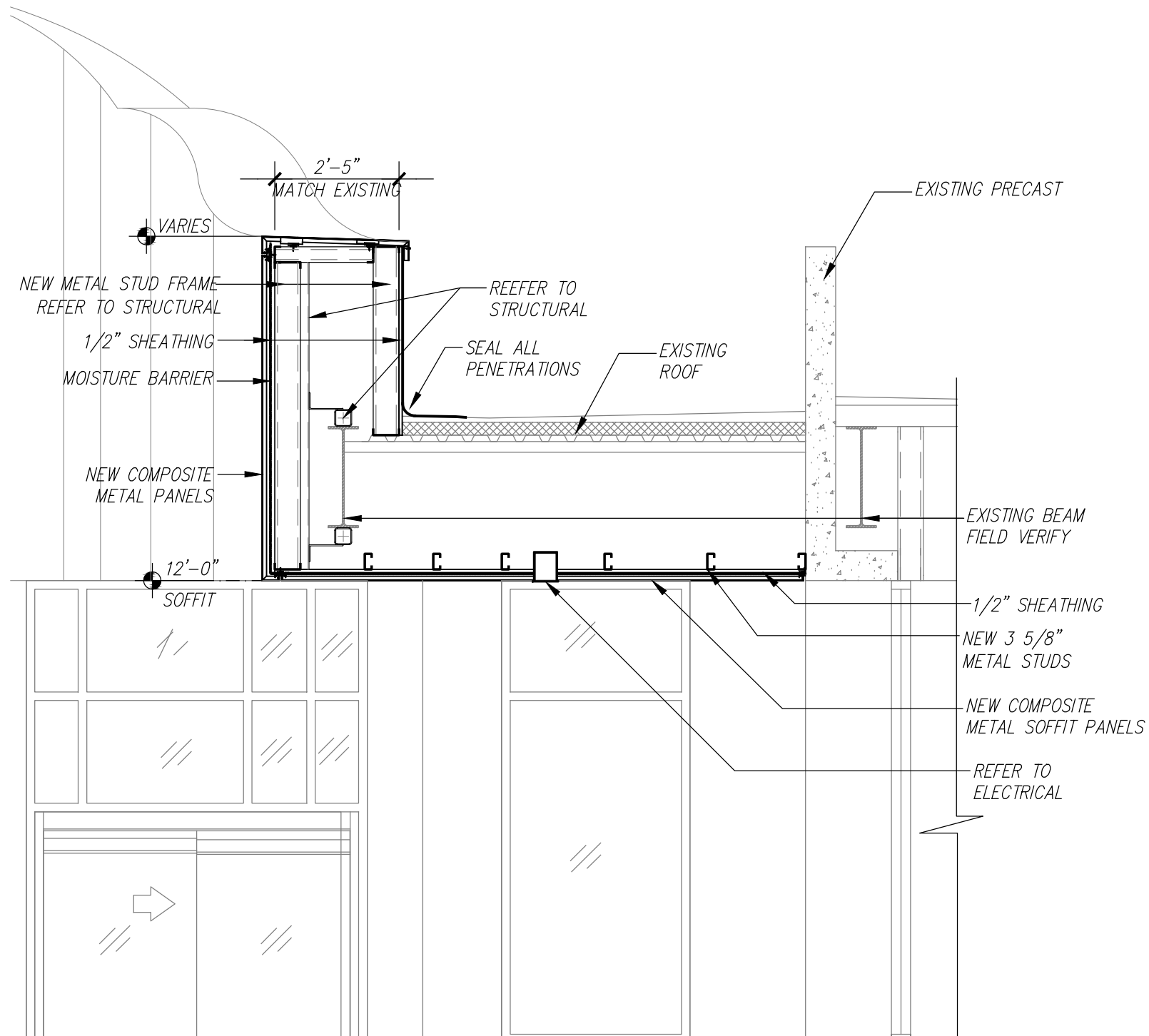
2-20-2020

UNIVERSITY MEDICAL CENTER
EMERGENCY CENTER PEDIATRIC & RADIOLOGY RENOVATION
SD03: NEW ENTRANCE CANOPY PLAN

SCALE: AS NOTED

CONDRA Y DESIGN GROUP, INC.

PROJ. NO. 21912
DATE: 02/20/2020



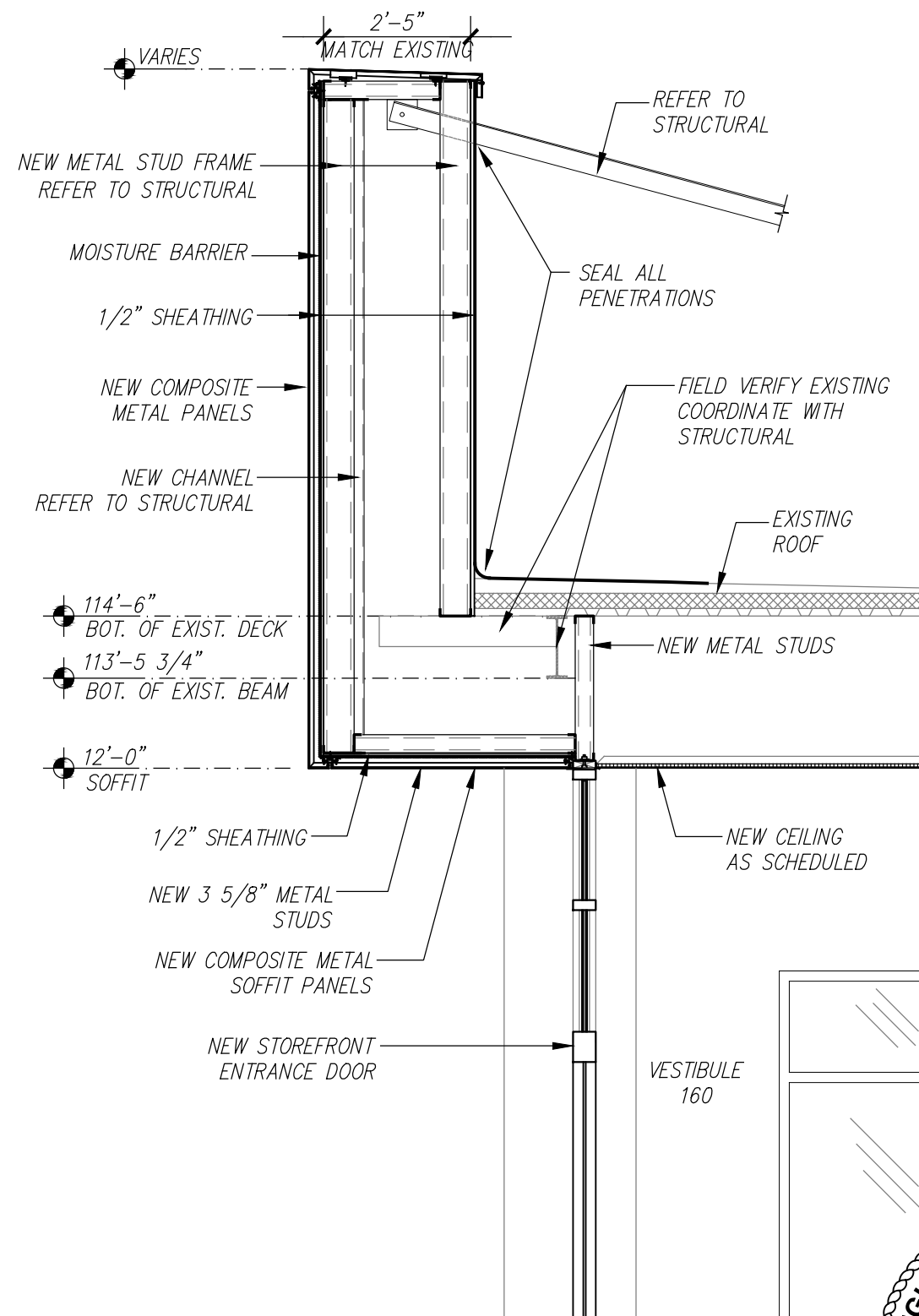
01/SD04 CANOPY SECTION

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

UNIVERSITY MEDICAL CENTER
EMERGENCY CENTER PEDIATRIC & RADIOLOGY RENOVATION
SD04: NEW ENTRANCE CANOPY SECTIONS

SCALE: AS NOTED

CONDRAY DESIGN GROUP, INC.



02/SD04 CANOPY SECTION

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



[Signature]

2-20-2020

PROJ. NO. 21912
DATE: 02/20/2020

GENERAL STRUCTURAL NOTES

APPLY UNLESS NOTED ON STRUCTURAL DRAWINGS. IN CASE OF CONFLICT BETWEEN GSN, DETAILS AND PLANS, THE GREATER REQUIREMENTS GOVERN.

GENERAL

- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2012 INTERNATIONAL BUILDING CODE, INCLUDING AMENDMENTS, EXCEPT WHERE APPLICABLE CODES OR THE CONTRACT DOCUMENTS ARE MORE RESTRICTIVE.
- THE SPECIFICATIONS AND REQUIREMENTS INDICATED ON THIS SHEET ARE INTENDED AS A BASIC SUMMARY OF THE MATERIAL, CONSTRUCTION AND INSPECTION REQUIREMENTS FOR THE PROJECT. ADDITIONAL, ARE GIVEN IN THE PROJECT SPECIFICATIONS. IN THE EVENT OF CONFLICT BETWEEN THE REQUIREMENTS INDICATED ON THIS SHEET AND THOSE IN THE PROJECT SPECIFICATIONS, THE MORE STRINGENT WILL GOVERN.
- FOR LOCATIONS AND DIMENSIONS OF SLEEVES, CURB, OPENINGS AND DEPRESSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SEE ARCHITECTURAL, CIVIL, MECHANICAL DRAWINGS. CONTRACTOR SHALL VERIFY AND COORDINATE REQUIREMENT FOR AND LOCATION OF ABOVE ITEMS WHETHER SHOWN ON THE STRUCTURAL DRAWINGS OR NOT.
- EMBEDDED ITEMS, SUCH AS PIPE SLEEVES, CONDUITS AND INSERTS SHALL BE IN PLACE BEFORE CONCRETE IS POURED. SEE ARCHITECTURAL, CIVIL, MECHANICAL DRAWINGS FOR ITEMS REQUIRING SLEEVES AND EMBEDMENTS IN CONCRETE WHICH ARE NOT SHOWN IN THE STRUCTURAL DRAWINGS.
- ALL STRUCTURAL RELATED SHOP DRAWINGS SHALL BE SUBMITTED, REVIEWED & APPROVED BY THE ENGINEER OF RECORD PRIOR TO ERECTION/CONSTRUCTION.
- STRUCTURAL DIMENSIONS AND OPENINGS CONTROLLED BY OR RELATED TO MECHANICAL OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. STRUCTURAL DIMENSIONS RELATED TO OR CONTROLLED BY EXISTING STRUCTURES SHALL BE VERIFIED IN FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS, INCLUDING LOCATION AND DIMENSIONS OF ALL EXISTING CONSTRUCTION AND UTILITIES. CONTRACTOR SHALL NOTIFY ENGINEER IF THERE ARE CONFLICTS BETWEEN THE CONTRACT DOCUMENTS AND EXISTING CONSTRUCTION BEFORE PROCEEDING WITH WORK.
- THE STRUCTURES ARE DESIGNED FOR STABILITY IN THE FINAL CONDITION ONLY. PROVIDE TEMPORARY BRACING AND SHORING AS REQUIRED FOR STABILITY DURING CONSTRUCTION.
- THE GENERAL NOTES AND TYPICAL DETAILS ARE GENERAL AND APPLY THE ENTIRE PROJECT EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY.

LOADING CRITERIA

- DEAD LOAD
A. ROOF 20 PSF
- LIVE LOADS
A. ROOF 20 PSF
- LATERAL LOADS (UNCHANGED, THEREFORE NOT CONSIDERED)
- SNOW LOAD:
 - GROUND SNOW LOAD: 15 PSF
 - IMPORTANCE FACTOR: 1.10

CAST-IN-PLACE CONCRETE

- CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF ACI 301 AND ACI 318
- DO NOT TAMP SLABS. USE ROLLER BUG, VIBRATING SCREED OR BULL FLOAT TO FINISH. REVIBRATE TOPS OF COLUMNS SOON AFTER PLACING CONCRETE, TO CLOSE PLASTIC SHRINKAGE CRACKS.
- PROVIDE 15 MILS THICK VAPOR RETARDER UNDER ALL SLABS ON GRADE. ALL JOINTS AND SEAMS, BOTH LATERAL AND BUTT, SHALL BE OVERLAPED 6" AND TAPED. ALL DAMAGED AREAS AND PENETRATIONS SHALL BE SEALED WITH VAPOR RETARDER AND VAPOR RETARDER SHALL EXTEND FROM THE BOTTOM OF THE SLAB DOWN ALL FOOTINGS A MINIMUM OF 12".
- PROVIDE CONCRETE (WITH TYPE I-II CEMENT) HAVING THE FOLLOWING GENERAL CHARACTERISTICS:

CLASS	28-DAY STRENGTH (PSI)	SLUMP RANGE (IN)	AGGREGATE SIZE (IN)	W/C RATIO	USAGE
A	4,000	3-5	3/4"	0.45 MAX	ALL FOOTINGS & INTERIOR SLAB ON GRADE

NOTE: THE READY MIX-CONCRETE SHOULD ARRIVE AT THE TARGET SLUMP AND THE CONTRACTOR SHOULD NOT BE ALLOWED TO ADD WATER TO THE MIXTURE.

- NO ADMIXTURES SHALL BE USED WITHOUT APPROVAL. NO AIR ENTRAINMENT SHALL BE ALLOWED IN FLAT SLABS. ADMIXTURES CONTAINING CHLORIDES SHALL NOT BE USED. CONCRETE SHALL NOT BE IN CONTACT WITH ALUMINUM.
- FLY ASH (POZZOLAN) IF PERMITTED SHALL NOT EXCEED 15% REPLACEMENT OF TOTAL CEMENT CONTENT USING A 1:1 REPLACEMENT FACTOR.

STRUCTURAL STEEL

- FOR ALL STRUCTURAL STEEL FABRICATION AND CONSTRUCTION LATEST AISC HANDBOOKS AND CODES SHALL APPLY. ALL STEEL FABRICATION IS REQUIRED TO BE COMPLETED BY AN APPROVED STEEL FABRICATOR RECOGNIZED BY THE BUILDING DEPARTMENT.
- ASTM A-36, EXCEPT AS FOLLOWS:
 - WIDE FLANGE SECTIONS, ASTM A992 GRADE 50;
 - PIPE SECTIONS, ASTM A-53 GRADE B;
 - TUBE SECTIONS, ASTM A-500 GRADE B.
- ANCHOR BOLTS, ASTM F1554 GRADE 36 UNO; HIGH STRENGTH BOLTS, A-325-X OR A-325-SC PER SCHEDULES. MINIMUM EMBEDMENT OF ALL BOLTS IN GROUT OR CONCRETE SHALL BE 8" INCLUDING BOLT HEAD OR 5" WITH A STD HOOK. WELDED ANCHORS AND SHEAR CONNECTORS SHALL BE ICC APPROVED.
- UNLESS OTHERWISE NOTED MINIMUM CONNECTION SHALL BE: (2) 3/4" DIAMETER BOLTS OR 3/16" FILLET WELD 4" LONG, USING 1/4" CONNECTION MATERIAL AND DETAILED TO MINIMIZE BENDING IN THE CONNECTION.

WELDING

- ALL CONSTRUCTION AND TESTING PER AMERICAN WELDING SOCIETY CODES AND RECOMMENDATIONS. ALL WELDING SHALL BE BY WELDERS HOLDING CURRENT VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN TYPE OF WELD CALLED FOR. WELDING RODS TO BE LOW HYDROGEN TYPE, E70 FOR STRUCTURAL STEEL AND E60 FOR METAL DECK AND LIGHT GAGE STEEL STUDS.
- ALL BUTT WELDED SPICES IN MATERIAL THICKER THAN 5/16" SHALL BE INSPECTED BY AN INDEPENDENT TESTING LABORATORY TO CERTIFY CONNECTION AS MEETING OR EXCEEDING STRENGTH OF MATERIALS SPliced.
- ALL WELDING OF STRUCTURAL STEEL SHALL CONFORM TO THE "STRUCTURAL WELDING CODES-STEEL" AWS D1.1, CURRENT EDITION.
- ALL WELDING OF LIGHT GAGE STEEL STUDS AND STEEL DECK SHALL CONFORM TO THE "STRUCTURAL WELDING CODES-SHEET STEEL" AWS D1.3, CURRENT EDITION.
- WELDS INDICATED MAY BE MADE IN SHOP OR FIELD WITH APPROVAL.

STRUCTURAL MODIFICATIONS AND REPAIR

- REFER TO AS-BUILT DRAWINGS FOR CONSTRUCTION WORK ASSOCIATED WITH THE EXISTING STRUCTURES. AS-BUILT CONDITIONS AND DIMENSIONS MUST BE FIELD VERIFIED BY CONTRACTOR.
- ALL DEMOLITION, REMOVAL AND CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITH CONSIDERATION FOR EXISTING FACILITIES STRUCTURES, EQUIPMENTS, ETC.
- UNLESS OTHERWISE NOTED ON PLANS, CUTTING EXISTING REINFORCING DUE TO DOWELS DRILLING, PIPING, CONDUITS OR OTHER PENETRATION THROUGH EXISTING CONCRETE STRUCTURE IS PROHIBITED. CONTRACTOR SHALL IDENTIFY EXISTING REINFORCING LOCATIONS BY NON-DESTRUCTIVE APPROACHES PRIOR TO DRILLING HOLES OR CUTTING OPENINGS.
- EXISTING CONCRETE SURFACES THAT WILL COME IN CONTACT WITH NEW CONCRETE SHALL BE ROUGHENED TO 1/4" AMPLITUDE TO WITHIN 1" OF EDGE. BONDING AGENT SHALL BE APPLIED TO THE EXISTING CONCRETE SURFACES PRIOR TO THE NEW CONCRETE PLACEMENT.
- ALL EXISTING CONDITIONS COULD NOT BE OBSERVED OR ACCOUNTED FOR. CONTRACTOR & OWNER SHOULD ANTICIPATE SOME CHANGES WILL BE NECESSARY TO ACCOMMODATE UNFORESEEN EXISTING CONDITIONS. CONTINGENCIES SHOULD BE IN PLACE FOR THESE POSSIBILITIES.

STRUCTURAL OBSERVATIONS

- JOB SITE OBSERVATIONS BY THE PROFESSIONAL ENGINEER OR HIS AUTHORIZED REPRESENTATIVE SHALL CONSIST OF VISUAL OBSERVATION OF MATERIALS, EQUIPMENTS OR CONSTRUCTION WORK FOR THE PURPOSE OF ASCERTAINING THAT THE WORK IS IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITHY THE DESIGN INTENT. SUCH OBSERVATIONS SHALL NOT BE RELIED UPON BY OTHERS AS ACCEPTANCE OF THE WORK., NOR SHALL IT BE CONSTRUED TO RELIEVE THE CONTRACTOR IN ANY WAY FROM HIS OBLIGATIONS AND RESPONSIBILITY UNDER THE CONSTRUCTION CONTRACT. SPECIFICALLY BUT WITHOUT LIMITATIONS, OBSERVATIONS BY THE DESIGN PROFESSIONAL SHALL NOT REQUIRE THE DESIGN PROFESSIONAL TO ANSWER RESPONSIBILITY FOR THE MEANS AND METHODS OF CONSTRUCTION, NOR FOR SAFETY ON THE JOB SITE.
- NOTIFY ENGINEER 48 HOURS IN ADVANCE WHEN A STRUCTURAL OBSERVATION IS REQUIRED. NOTIFY THE ENGINEER FOR THE FOLLOWING ITEMS:
 - BEFORE PLACEMENT OF CONCRETE FOR FOUNDATIONS & SLAB
 - AFTER FRAMING OF ROOF STRUCTURE BUT BEFORE PLACEMENT OF ROOFING MATERIAL.

STRUCTURAL ABBREVIATIONS

STRUCTURAL ABBREVIATIONS			
AB	ANCHOR BOLT	LLH	LONG LEG HORIZ.
ADJ	ADJACENT	LLV	LONG LEG VERTICAL
AFF	ABOVE FINISH FLOOR	LONG	LONGITUDINAL
ALUM	ALUMINUM	LP	LOW POINT
APPROX	APPROXIMATELY	MAX	MAXIMUM
ARCH	ARCHITECT(URAL)	MECH	MECHANICAL
BLDG	BUILDING	MFR	MANUFACTURER
BGR	BEARING	MIN	MINIMUM
BOT	BOTTOM	NOM	NOMINAL
BTWN	BETWEEN	NTS	NOT TO SCALE
C/C	CENTER TO CENTER	OD	OUTSIDE DIAMETER
CJ	CONSTR/CONTROL JT	OF	OUTSIDE FACE
¢	CENTERLINE	OPPO	OPPOSITE HAND
CLR	CLEAR	OPNG	OPENING
COL	COLUMN	OPP	OPPOSITE
CONC	CONCRETE	PL	PLATE
CONST	CONSTRUCTION	PNL	PANEL
CONT	CONTINUOUS	R	RADIUS
DIA/Ø	DIAMETER	RAD	RADIUS
DIAG	DIAGONAL	RE	REFER TO
DN	DOWN	REF	REFERENCE
DWG	DRAWING	REINF	REINFORCING
DWL	DOWEL	REQ'D	REQUIRED
EA	EACH	SCHED	SCHEDULE
EF	EACH FACE	SEC	SECTION
EL	ELEVATION	SF	SQUARE FEET
ELEC	ELECTRIC(AL)	SHT	SHEET
EXP JT	EXPANSION JOINT	SIM	SIMILAR
EQ	EQUAL	SJ	SAWCUT JOINT
EQUIP	EQUIPMENT	SPA	SPACE(S)
EW	EACH WAY	SPEC(S)	SPECIFICATIONS
EXIST	EXISTING	SQ	SQUARE
EJ	EXPANSION JOINT	SS	STAINLESS STEEL
EXT	EXTERIOR	STD	STANDARD
FD	FLOOR DRAIN	STIFF	STIFFENER
FND	FOUNDATION	STIR	STIRRUP
FF	FINISH FLOOR	STL	STEEL
FFE	FINISH FLOOR ELEV.	STRUCT	STRUCTURAL
FT	FEET	SYM	SYMMETRICAL
FTG	FOOTING	T	TREAD/THICKNESS
GA	GAUGE	T&B	TOP AND BOTTOM
GALV	GALVANIZED	TC	TOP OF CURB
GB	GRADE BEAM	TOB	TOP OF BEAM
GSN	GENERAL STRUCT. NOTES	TOC	TOP OF CONCRETE
HORIZ	HORIZONTAL	TOJ	TOP OF JOIST
HP	HIGH POINT	TOS	TOP OF STEEL
H5	HEADED STUDS	TOW	TOP OF WALL
HSS	HOLLOW STRUC. SEC.	TRANS	TRANSVERSE
ID	INSIDE DIAMETER	TS	TUBE STEEL
IN	INCH	TYP	TYPICAL
INT	INTERIOR	UNO	UNLESS NOTED OTHERWISE
JT	JOINT	VERT	VERTICAL
		W	WIDTH
		W/	WITH
		WD	WOOD
		W/O	WITHOUT
		WP	WORKING POINT
		WS	WATER STOP
		WWF	WELDED WIRE FABRIC

FOUNDATION NOTES:

- (E) ON PLAN INDICATES EXISTING.
- FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION OR FABRICATION.
- (E) FOUNDATIONS NOT SHOWN IN PLAN IS OUTSIDE STRUCTURAL SCOPE OF PROJECT. NOTIFY EOR IF STRUCTURAL WORK EXTENDS BEYOND AREA SHOWN.
- DO NOT UNDERMINE OR DISTURB (E) FOOTINGS/FOUNDATIONS.

KEYED NOTES

- CT EQUIPMENT (BY OTHERS)
MAX. LOADING = 5,200 LBS
- SAWCUT AND SELECTIVELY DEMOLISH (E) SLAB AND REPLACE WITH NEW CONCRETE SLAB AS SHOWN. MAX. VARIANCE IN FLOOR LEVELNESS: ¼" OVER 10'-0"
- TO AVOID OVERCUTTING, PROVIDE 2" DIA. CORE AT EACH CORNER PRIOR TO SAWCUTTING (E) SLAB.

EXISTING FOUNDATION PART PLAN AT CT ROOM

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



STRUCTURAL SHEET INDEX

SHEET #	SHEET TITLE
S1	GENERAL STRUCTURAL NOTES & EXISTING FOUNDATION PART PLAN
S2	EXISTING FRAMING PLAN
SZ-1	FRAMING DETAILS I
SZ-2	FRAMING DETAILS II

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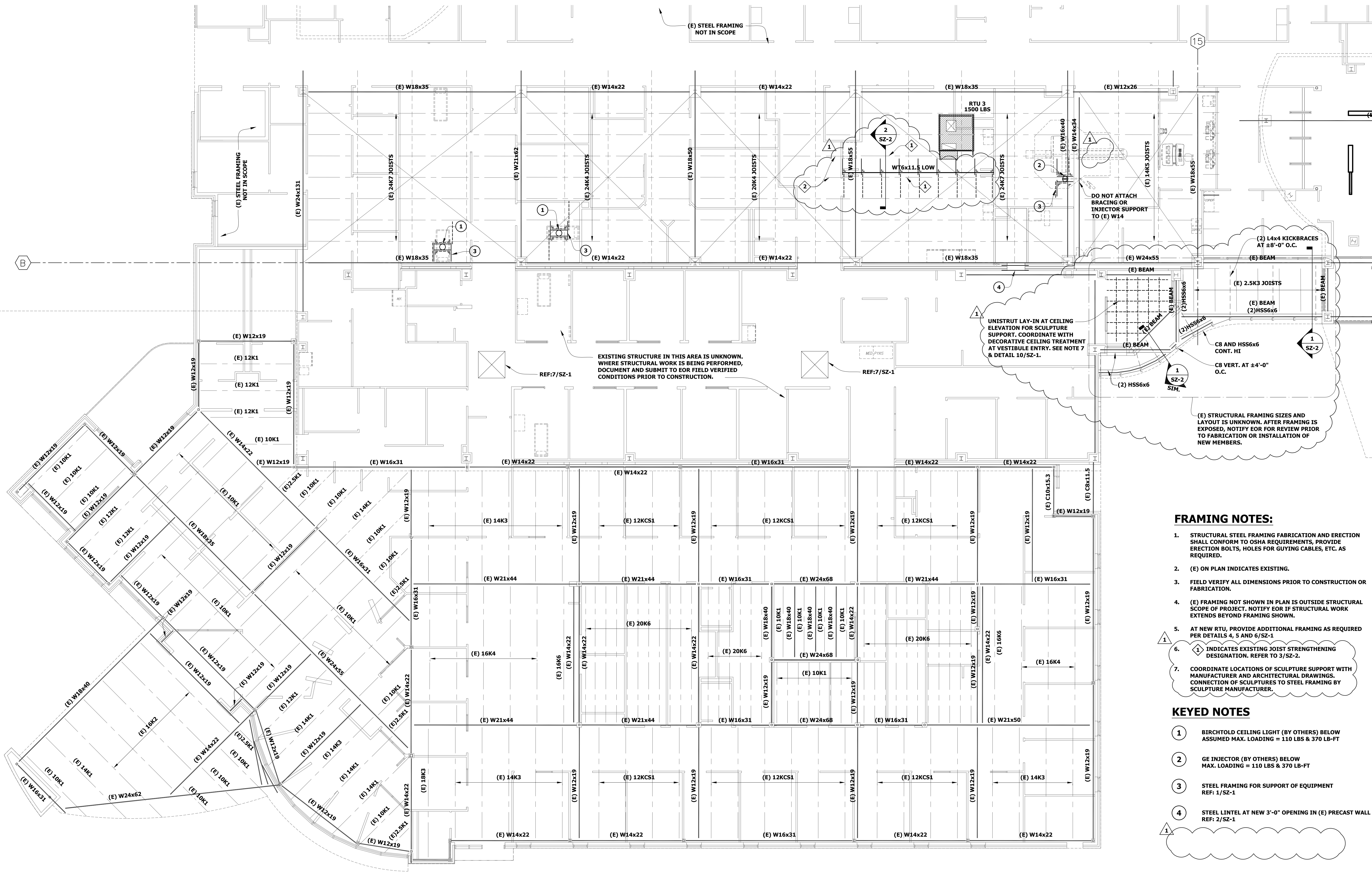
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PROJECT NO. 21912
DATE: 02/07/2020

SHEET NO.
S1

1 OF 4



EXISTING FRAMING PLAN

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



FRAMING NOTES:

- STRUCTURAL STEEL FRAMING FABRICATION AND ERECTION SHALL CONFORM TO OSHA REQUIREMENTS, PROVIDE ERECTION BOLTS, HOLES FOR GUYING CABLES, ETC. AS REQUIRED.
- (E) ON PLAN INDICATES EXISTING.
- FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION OR FABRICATION.
- (E) FRAMING NOT SHOWN IN PLAN IS OUTSIDE STRUCTURAL SCOPE OF PROJECT. NOTIFY EOR IF STRUCTURAL WORK EXTENDS BEYOND FRAMING SHOWN.
- AT NEW RTU, PROVIDE ADDITIONAL FRAMING AS REQUIRED PER DETAILS 4, 5 AND 6/SZ-1
- 1 INDICATES EXISTING JOIST STRENGTHENING DESIGNATION. REFER TO 3/SZ-2.
- COORDINATE LOCATIONS OF SCULPTURE SUPPORT WITH MANUFACTURER AND ARCHITECTURAL DRAWINGS. CONNECTION OF SCULPTURES TO STEEL FRAMING BY SCULPTURE MANUFACTURER.

KEYED NOTES

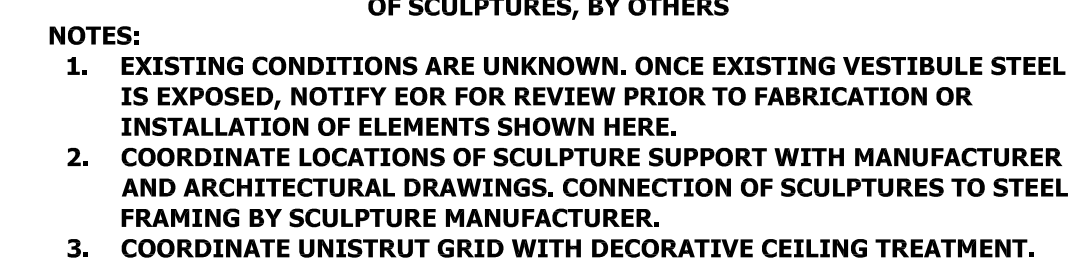
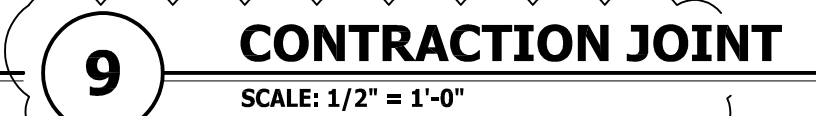
- 1 BIRCHTOLD CEILING LIGHT (BY OTHERS) BELOW ASSUMED MAX. LOADING = 110 LBS & 370 LB-FT
- 2 GE INJECTOR (BY OTHERS) BELOW MAX. LOADING = 110 LBS & 370 LB-FT
- 3 STEEL FRAMING FOR SUPPORT OF EQUIPMENT REF: 1/SZ-1
- 4 STEEL LINTEL AT NEW 3'-0" OPENING IN (E) PRECAST WALL REF: 2/SZ-1

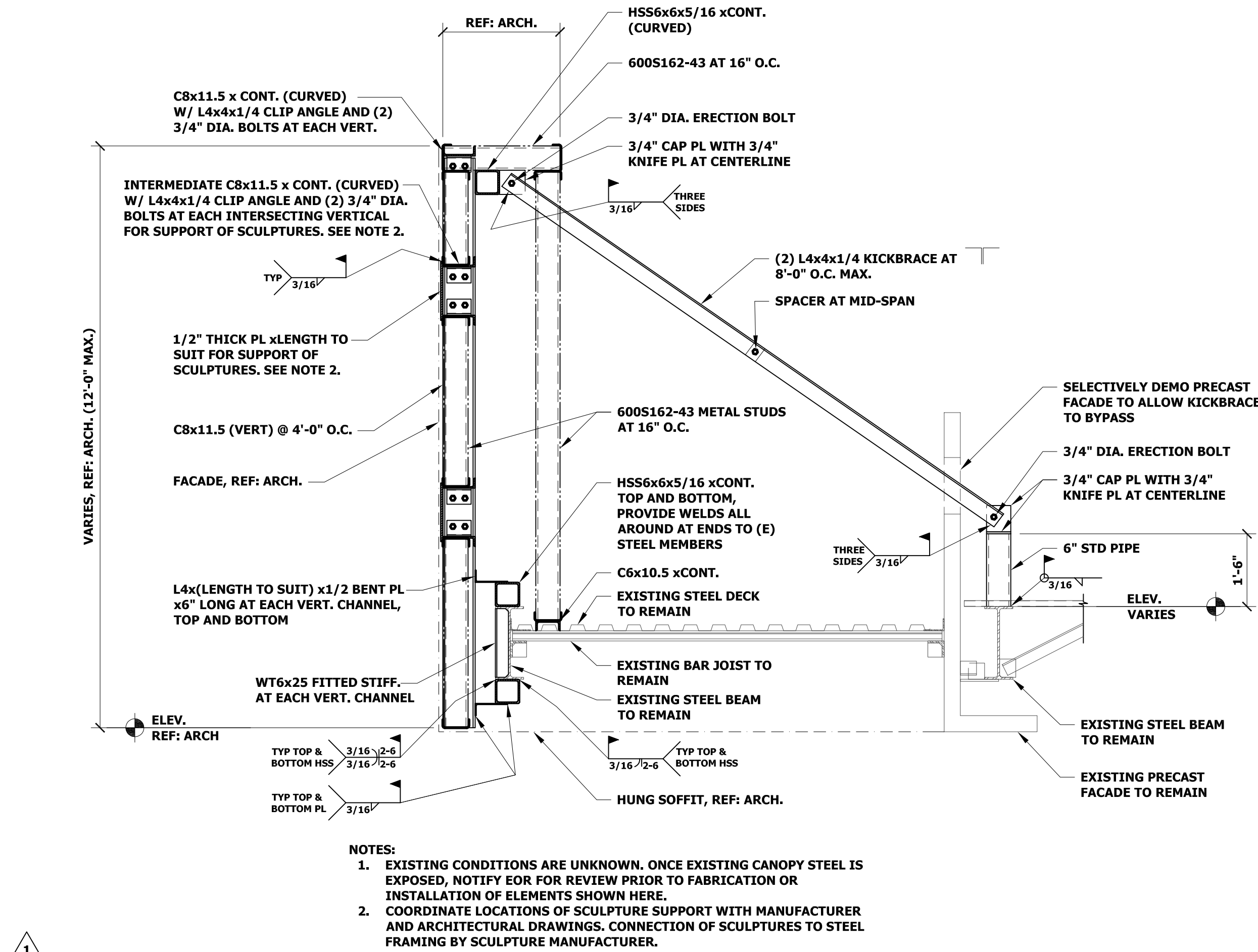
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DATE: 02/07/2020

SHEET NO.
S2
2 OF 4





1

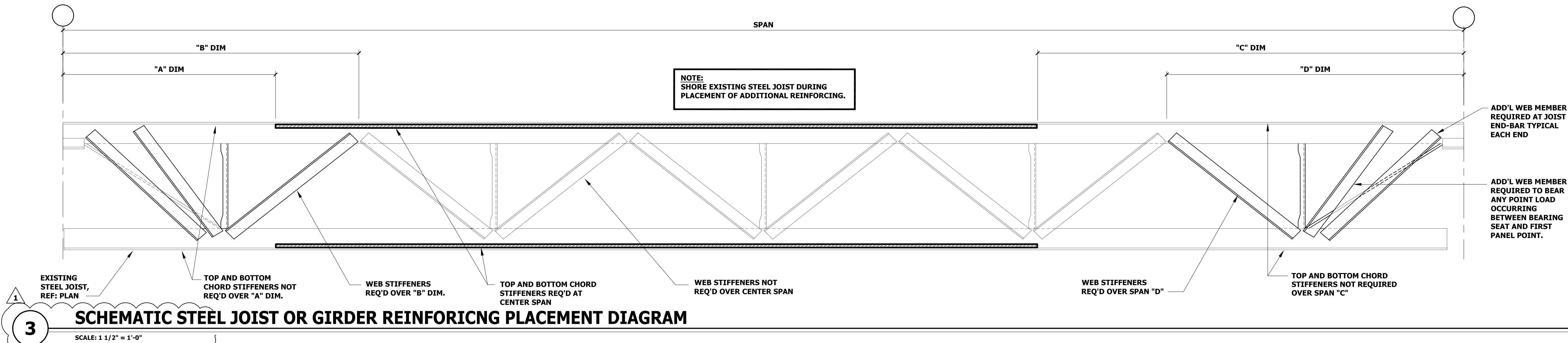
DIAGRAM OF STRUCTURAL SUPPORT FOR NEW CANOPY

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

JOIST STRENGTHENING SCHEDULE								
MARK	SPAN	"A" DIM.	"B" DIM.	"C" DIM.	"D" DIM.	WEB STIFFENERS	TOP AND BOTTOM CHORD STIFFENERS	NOTES
1	40'-0"	5'-0"	10'-0"	5'-0"	10'-0"	FIELD VERIFY	OPTION 1-3 ACCEPTABLE	K JOIST
2	30'-0"	N/A	N/A	N/A	10'-0"	FIELD VERIFY	OPTION 1-3 ACCEPTABLE	K JOIST

TOP AND BOTTOM CHORD STIFFENERS
CONTRACTOR CAN CHOOSE ONE OF THE FOLLOWING OPTIONS:
OPTION 1: 1/2" x CONT. A36 MINIMUM SMOOTH ROD EACH SIDE
OPTION 2: L 2x2x3/16 x CONT. ANGLE EACH SIDE
OPTION 3: C3x6 x CONT. CHANNEL

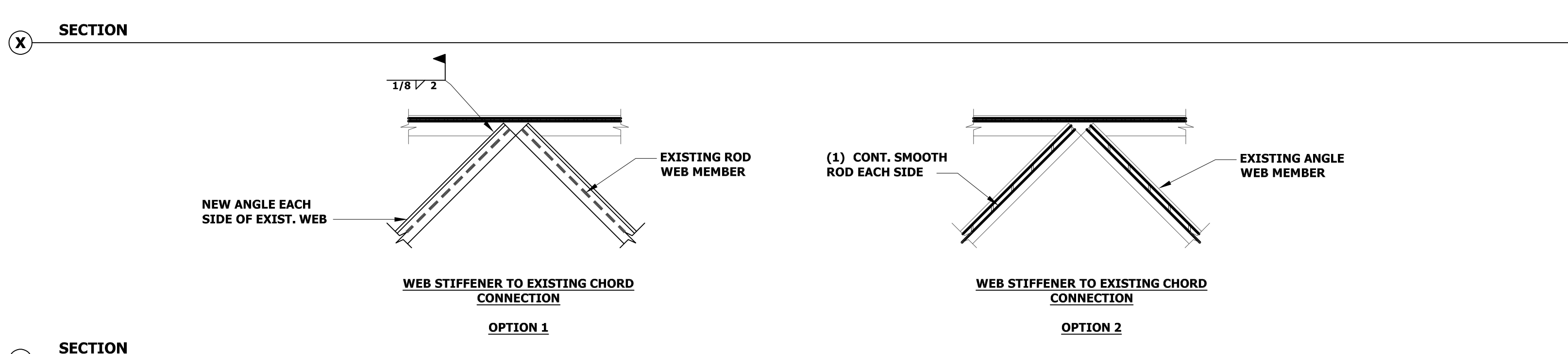
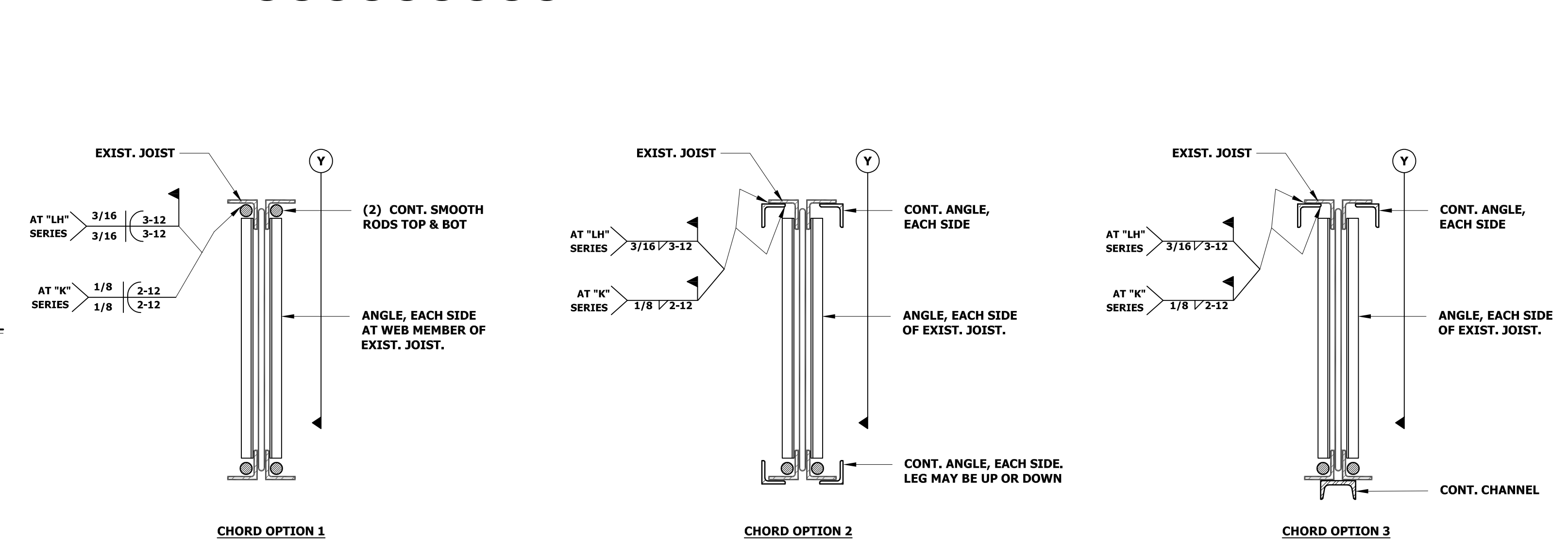
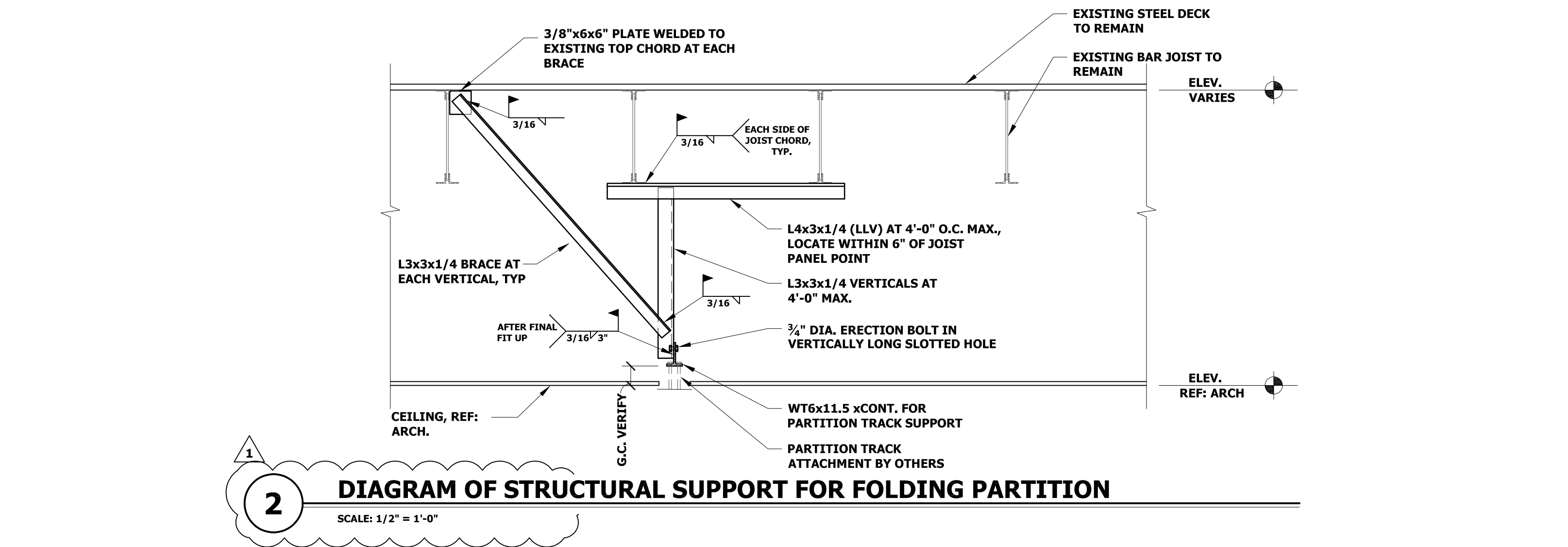
WEB STIFFENERS
WEB OPTION 1: L 2x2x3/16 EACH SIDE AT EXISTING WEB MEMBER
WEB OPTION 2: 1/2" DIA. A36 SMOOTH ROD



3

SCHEMATIC STEEL JOIST OR GIRDER REINFORICNG PLACEMENT DIAGRAM

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



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SHEET NO. SZ-2

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ADDENDUM #1

Page 1 of 2

February 21, 2020

**University Medical Center
EC Pediatric & Radiology
602 Indiana Avenue
Lubbock, TX 79415**



NOTICE TO BIDDERS:

The following shall be incorporated in and become a part of the original Drawings and Specifications of the above identified project. Please acknowledge receipt of this Addendum by noting it on your Proposal.

Mechanical Items:

- Item 1. Drawing Sheet M2: Floor Plan – Mechanical Ductwork
Drawing Sheet M3: (Existing) VAV Box Schedule
- a. VAV Box (EXVAV-1) serving room 141-Control Room shall be revised to 450 CFM max airflow, 225 CFM min, and 0.8 GPM. Associated low pressure supply duct shall be revised to 12" round, return duct revised to 14x8, and return grille (R-1) revised to 12x12 neck size.
- Item 2. Drawing Sheet M2: Floor Plan – Mechanical Ductwork
- a. Relocate exhaust grille (E-1) in 160-Vestibule to south corner of room to avoid crossing supply and exhaust duct due to limited ceiling space.
- Item 3. Drawing Sheet M2: Floor Plan – Mechanical Ductwork
- a. Remove existing supply diffuser and return grille in room 163-ER30. Replace with new supply diffuser (S-1, 9x9 neck) and new return grille (R-1, 10x10 neck) and connect to existing duct runouts.

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ADDENDUM #1

Page 2 of 2

Item 4. Drawing Sheet M2: Floor Plan – Mechanical Ductwork

- a. All supply diffusers and return grilles located in 138-Break Room shall be adjusted to new ceiling grid layout shown on revised architectural sheet.

Plumbing Items:

Item 5. Drawing Sheet P3: Floor Plan – Plumbing

- a. Shift location of sink (S-1) and associated plumbing lines located in northeast portion of 138-Breakroom to accommodate room for operable partition as shown on revised architectural floor plan.

Item 6. Drawing Sheet P2 and P4: Floor Plans – Plumbing Medical Gas

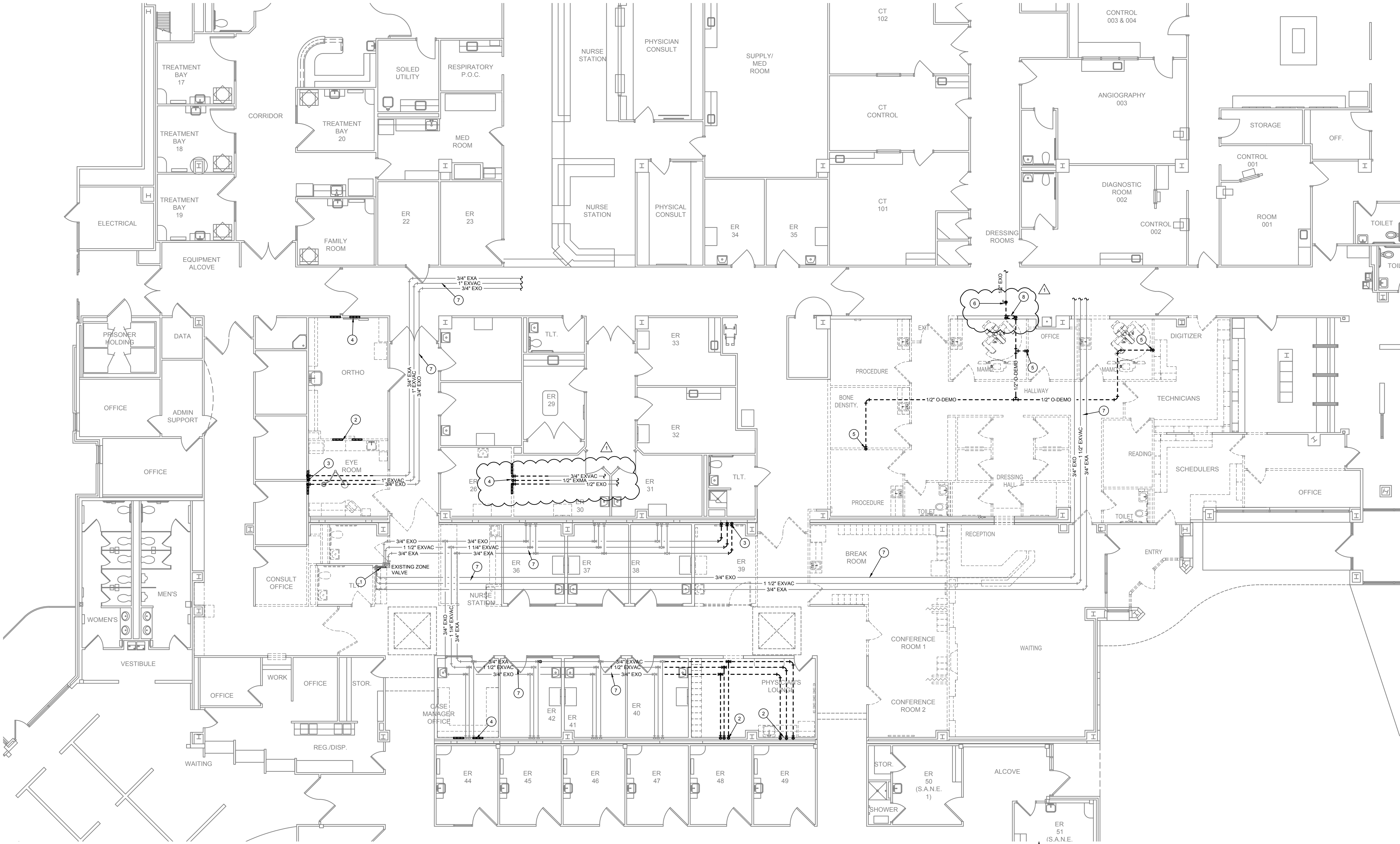
- a. Refer to attached revised sheet P2 and P4 for changes to the medical gas systems. The changes include new zone valve and modified piping to ceiling mounted outlets in CT room. The other change is to provide new outlets and modify piping for the moving of east wall of Eye Room 121.

Fire Protection Items:

Item 7. Drawing Sheet FP1: Floor Plan – Fire Protection

- a. Room 163-ER30 shall be added to fire sprinkler scope of work.

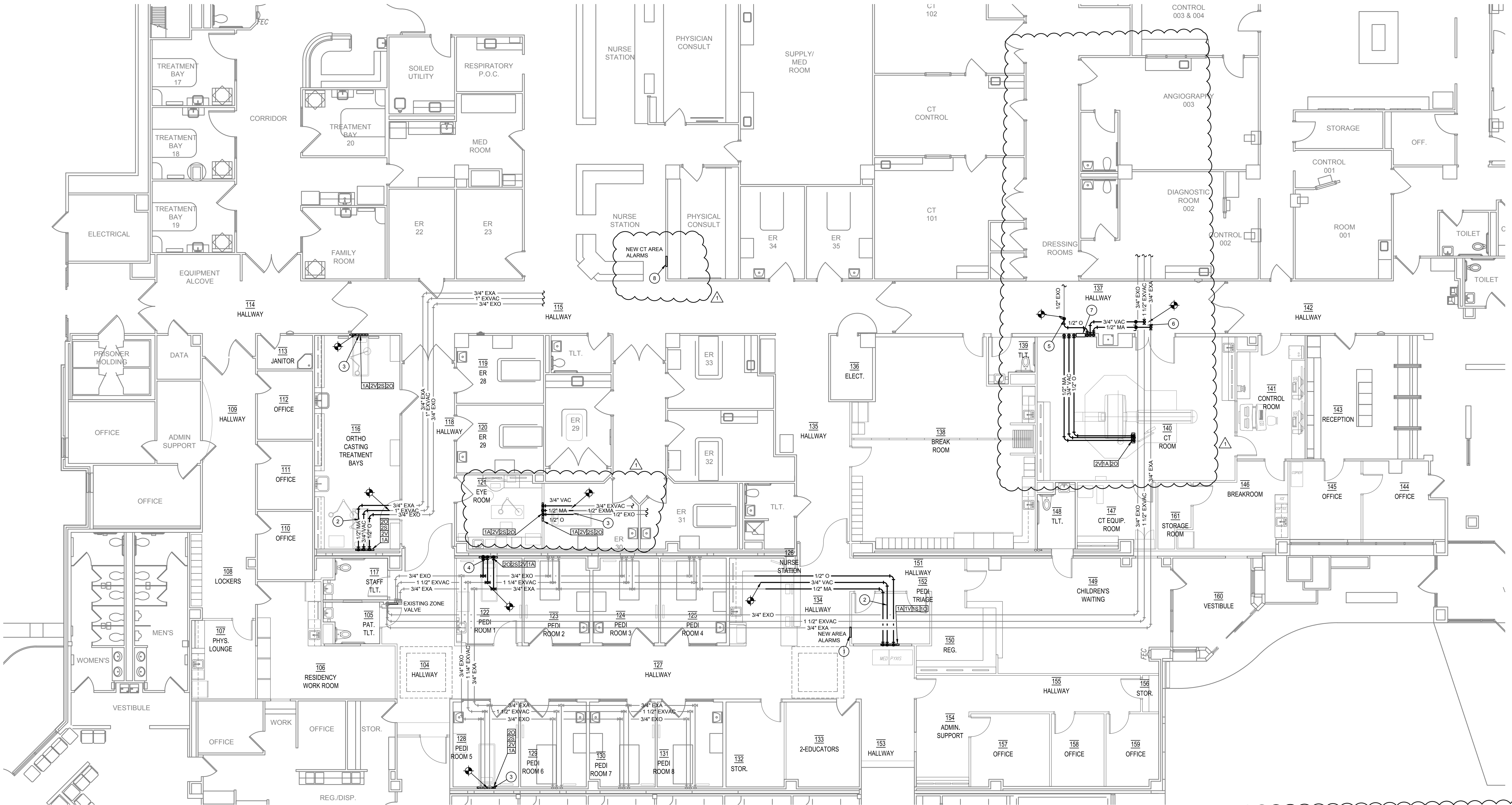
End of Fincher Engineering, LLC Addendum



1/P2 DEMOLITION FLOOR PLAN - PLUMBING - MEDICAL GAS
SCALE: 1/8" = 1'-0"



GENERAL NOTES	KEYED NOTES
<p>A. CONTRACTOR SHALL TAKE CARE TO PROTECT ALL OPERATIONAL SYSTEMS. ANY EXISTING SYSTEMS THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR.</p> <p>B. FOR ALL ITEMS SHOWN OR NOTED TO BE REMOVED, REMOVE ALL ASSOCIATED ITEMS INCLUDING ALL HANGERS, INSULATION, VALVES, ETC.</p> <p>C. VERIFY EXACT LOCATION OF ALL EXISTING UTILITIES, PLUMBING FIXTURES, AND PIPING AT THE JOBSITE. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL UTILITIES PRIOR TO BID.</p> <p>D. CONTRACTOR SHALL COORDINATE ALL PLUMBING DISCONNECTIONS AND INTERRUPTIONS WITH BUILDING OWNER. VERIFY EXACT SCHEDULE WITH ARCHITECT AND OWNER.</p> <p>E. MEDICAL GAS SYSTEM SHALL BE RE-CERTIFIED AT EACH PHASE OF WORK AS REQUIRED BY NFPA.</p>	<p>1. EXISTING VACUUM, OXYGEN, AND AIR ZONE VALVES TO REMAIN BUT EXISTING ALARMS TO BE REMOVED. PREPARE EXISTING LINES TO ACCEPT NEW ALARM AND SENSORS IN NEW LOCATION AT NEW NURSES STATION.</p> <p>2. REMOVE EXISTING WALL MOUNTED MEDICAL GAS OUTLETS. REMOVE ASSOCIATED MED GAS PIPING RUNOUTS BACK TO ACTIVE MAIN THAT IS REMAINING.</p> <p>3. REMOVE EXISTING WALL MOUNTED MEDICAL GAS OUTLETS. REMOVE ASSOCIATED MED GAS PIPING BACK AS SHOWN AND PREPARE TO BE EXTENDED TO SERVE NEW OUTLETS.</p> <p>4. REMOVE EXISTING WALL MOUNTED MEDICAL GAS OUTLETS IN BOTH ROOMS ON BOTH SIDES OF WALL. REMOVE ASSOCIATED MED GAS PIPING BACK AS SHOWN AND PREPARE TO BE EXTENDED TO SERVE NEW OUTLETS.</p> <p>5. REMOVE EXISTING OXYGEN OUTLET. REMOVE ASSOCIATED OXYGEN PIPING BACK TO ACTIVE MAIN IN CORRIDOR AS SHOWN.</p> <p>6. REMOVE OXYGEN LINE IN THIS AREA BACK TO APPROXIMATELY THIS LOCATION.</p> <p>7. EXISTING MEDICAL GAS LINES TO REMAIN.</p> <p>8. REMOVE EXISTING OXYGEN ZONE VALVE.</p>

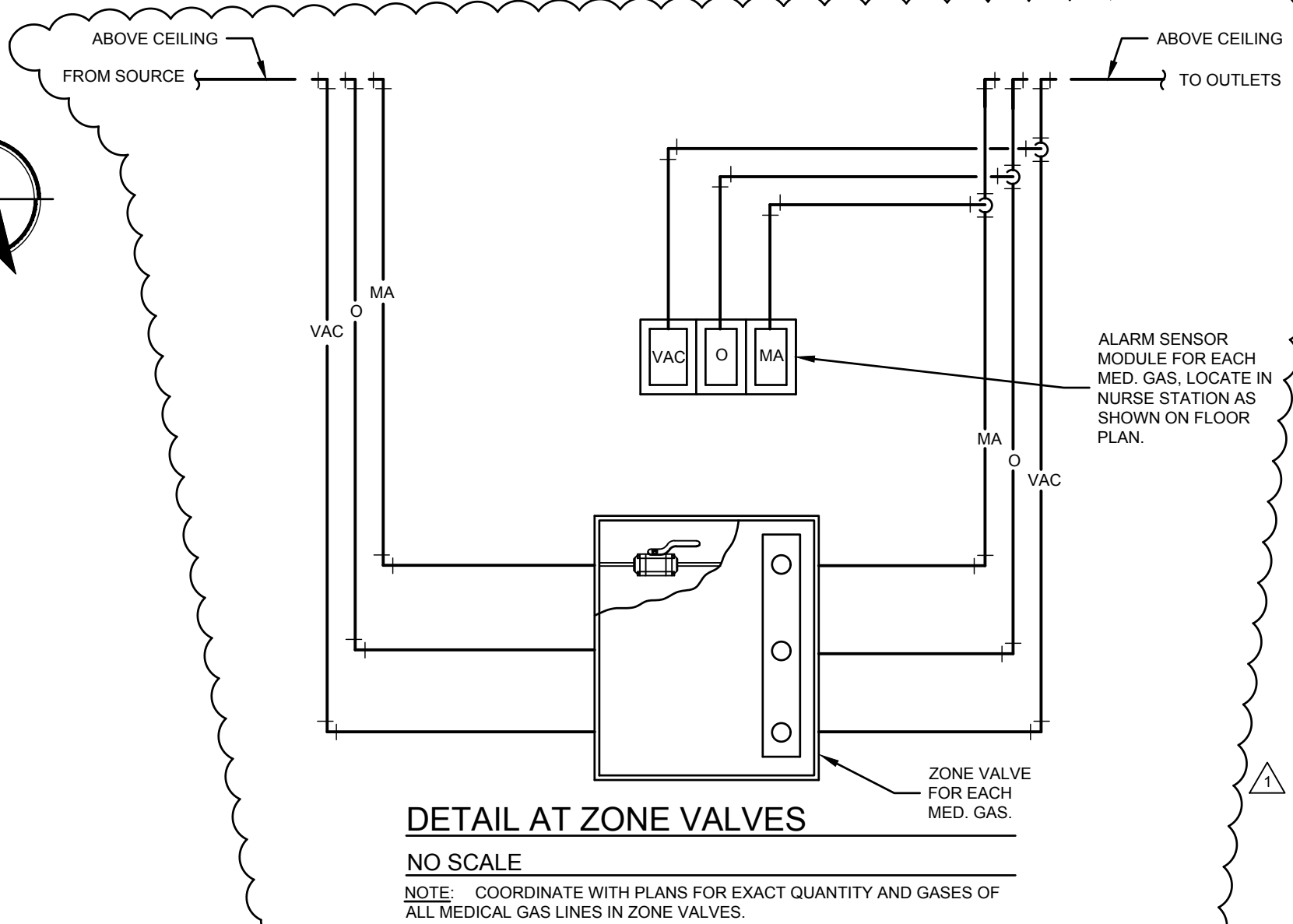
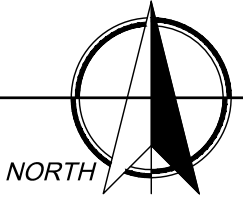


- GENERAL NOTES**
- A. HANG ALL MEDICAL GAS LINES OVERHEAD WITH UNISTRUT, ALL THREAD, AND PIPE CLAMPS AS MANUFACTURED BY HYDRA-ZORB "CUSH-A-CLAMP".
 - B. MOUNTING HEIGHT OF ALL MEDICAL GAS OUTLETS SHALL BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.
 - C. REFER TO MEDICAL GAS OUTLET LEGEND FOR RUNOUT LINE SIZES TO INDIVIDUAL FIXTURES WHERE LINE SIZES ARE NOT INDICATED ON FLOOR PLAN.
 - D. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATIONS, MOUNTING HEIGHTS, AND ORIENTATION OF ALL MEDICAL GAS OUTLETS.
 - E. MEDICAL GAS SYSTEM SHALL BE RE-CERTIFIED AT EACH PHASE OF WORK AS REQUIRED BY NFPA.
 - F. ALL MEDICAL GAS OUTLETS ARE TO MATCH EXISTING UMC MEDICAL GAS SYSTEMS BEACON MEDAES GEOMETRIC SYSTEM.

- KEYED NOTES**
- 1. NEW AREA ALARMS TO CONNECT BACK TO ZONE VALVES SERVING THIS AREA WHERE THE ALARMS WERE NOTED TO BE REMOVED.
 - 2. NEW MEDICAL GAS RUNOUTS (1/2" MA, 1/2" O, AND 3/4" VACUUM) FROM EXISTING LINES OVER TO NEW OUTLETS AS SHOWN.
 - 3. NEW MEDICAL GAS OUTLETS AT HEADWALL OF BOTH ROOMS. CONNECT TO EXISTING PIPING ABOVE CEILING AND EXTEND DOWN IN WALL TO SERVE THESE NEW OUTLETS. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATIONS OF ALL OUTLETS.
 - 4. CONNECT NEW PIPING TO EXISTING MED GAS LINES OVERHEAD AND TURN 1/2" MA, 1/2" O, AND 3/4" VAC LINES DOWN TO CONNECT TO MEDICAL GAS OUTLETS LOCATED IN WALL. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATIONS OF ALL OUTLETS. TYPICAL FOR ALL SHOWN.
 - 5. CONNECT NEW 1/2" OXYGEN TO EXISTING OXYGEN LINE.
 - 6. CONNECT NEW 3/4" VACUUM AND 1/2" AIR TO EXISTING LINES. PROVIDE LOCKING SERVICE VALVE AT EACH TAP.
 - 7. NEW ZONE VALVE TO SERVE NEW CT ROOM WITH 1/2" AIR, 1/2" OXYGEN, AND 3/4" VACUUM LINES. REFER TO DETAIL.
 - 8. PROVIDE ALARMS FOR NEW ZONE VALVE AT NURSES STATION. CONFIRM EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION.
 - 9. MEDICAL GAS OUTLETS LOCATED IN CEILING OF CT ROOM. VERIFY EXACT PLACEMENT WITH OWNER PRIOR TO INSTALLATION.

1/P4 FLOOR PLAN - PLUMBING - MEDICAL GAS
SCALE: 1/8" = 1'-0"

MEDICAL GAS OUTLET LEGEND	
SYMBOL	DESCRIPTION
	OXYGEN OUTLET (# INDICATES QUANTITY) (1/2" LINE SERVING OUTLET)
	MEDICAL AIR OUTLET (# INDICATES QUANTITY) (1/2" LINE SERVING OUTLET)
	VACUUM OUTLET (# INDICATES QUANTITY) (3/4" LINE SERVING OUTLET)
	SLIDE (# INDICATES QUANTITY)



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REVISIONS:
ADDENDUM #1 02/21/2020
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4 OF 6

**UNIVERSITY MEDICAL CENTER
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Texas Firm Registration No. F-4415
BSA Project No. 20-003



ADDENDUM NUMBER 1

February 21, 2020

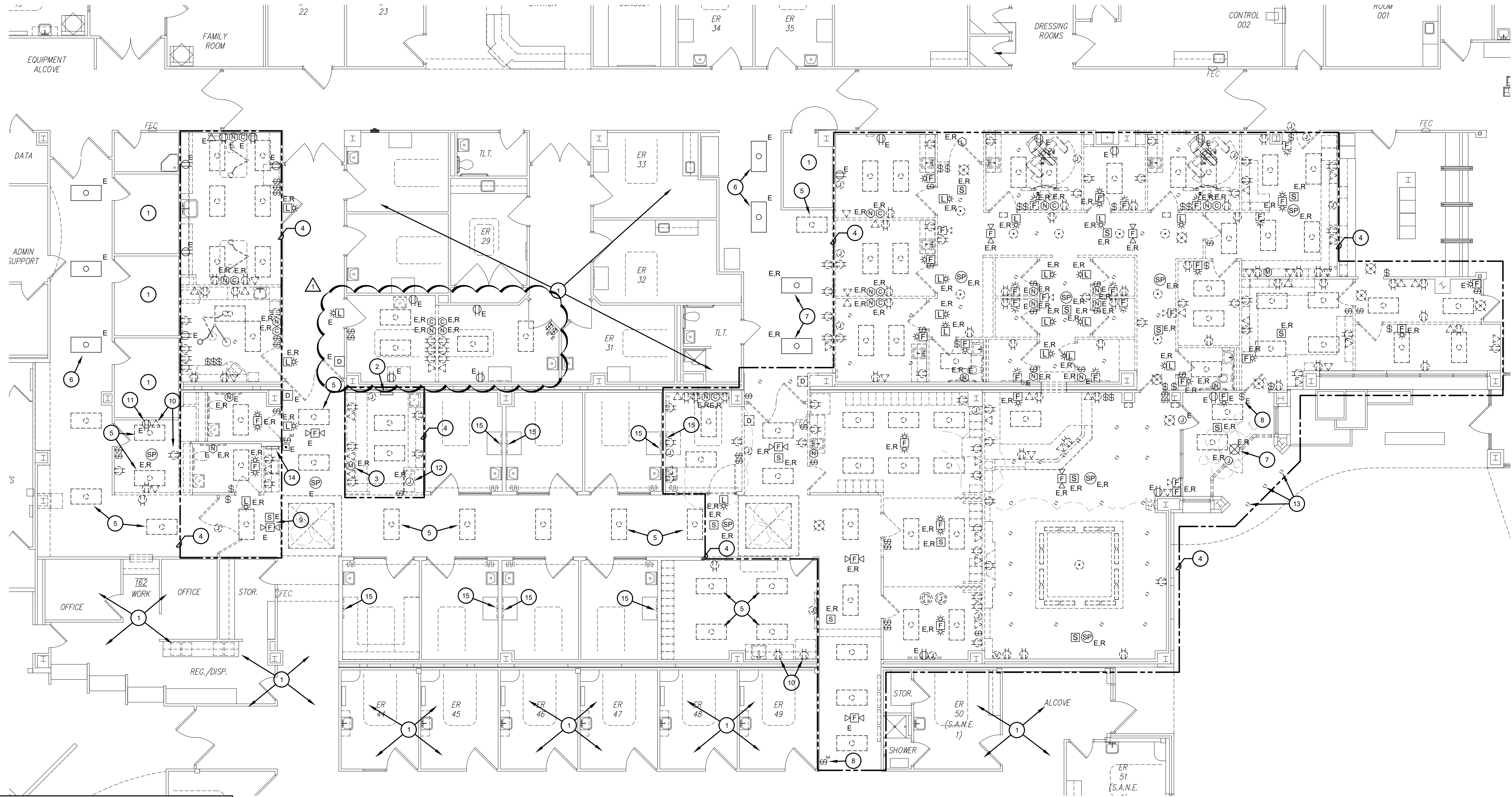
NOTICE TO BIDDERS:

The following shall be incorporated in and become a part of the original Drawings and Specifications of the above identified project. Please acknowledge receipt of this Addendum by noting it on your Proposal.

Electrical Items:

- Item 1: Drawings, Sheets E1-E3, refer to the attached revised full-size drawings, dated 2-20-2020, for additional electrical work requirements (clouded revisions).
- Item 2: Drawings, Sheet E2, refer to the attached revised full-size drawing for revised light fixture schedule (revised Type D & added new Type J).
- Item 3: Drawings, Sheet E3, in CT Room 140, Control Room 141 & CT Equipment Room 147, the electrical contractor shall refer to the attached GE Healthcare vendor drawings for additional electrical work required in these rooms and include all associated labor and materials necessary in bid price.
- Item 4: Drawings, Sheet E3, at existing ER Nurse Station just north of Hallway 115, provide new power connections to the new med gas alarm panel. Refer to addendum Sheet P4 for exact med gas alarm and nurse station location. Connect new alarm panel onto nearest existing med gas alarm circuit at nurse station. Verify exact requirements at jobsite.
- Item 5: Drawings, Sheet E4, in existing room ER 30 163 (adjacent to Eye Room 121), relocate the existing nurse call devices and all associated conduit & wiring from existing west wall being demolished into new stud wall. Reconnect all for operation as existing. Verify exact requirements at jobsite.

End of BSA Addendum



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PROJECT NO. 21912
DATE: 02/07/2020

SHEET NO.
E1

1 OF 6

ELECTRICAL DEMOLITION SYMBOL LEGEND	
SYMBOL	DESCRIPTION (NOT ALL SYMBOLS ARE USED)
	EXISTING 2X4 LIGHT FIXTURE TO BE REMOVED
	EXISTING 1X4 LIGHT FIXTURE TO BE REMOVED
	EXISTING DOWNLIGHT TO BE REMOVED
	EXISTING EXIT SIGN LIGHT FIXTURE TO BE REMOVED
	EXISTING WALL MOUNTED SWITCH TO BE REMOVED
	EXISTING WIRING DEVICE TO BE REMOVED
	EXISTING FIRE ALARM DEVICE TO BE REMOVED
	EXISTING 2X4 LIGHT FIXTURE TO REMAIN
	EXISTING 1X4 LIGHT FIXTURE TO REMAIN
	EXISTING DOWNLIGHT TO REMAIN
	EXISTING EXIT SIGN LIGHT FIXTURE TO REMAIN
	EXISTING WALL MOUNTED SWITCH TO REMAIN
	EXISTING WIRING DEVICE TO REMAIN
	EXISTING RELOCATED VOLUME CONTROL SWITCH
	EXISTING RELOCATED CEILING MOUNTED SPEAKER
	EXISTING FIRE ALARM PULL STATION, SMOKE AND HEAT DETECTOR TO REMAIN
	EXISTING FIRE ALARM HORN(SPEAKER) / STROBE UNIT TO REMAIN
	EXISTING FIRE ALARM PULL STATION, SMOKE AND HEAT DETECTOR TO BE RELOCATED
	EXISTING HORN(SPEAKER) / STROBE UNIT TO BE RELOCATED
	EXISTING NURSE CALL MASTER STATION TO BE RELOCATED
	EXISTING NURSE CALL CODE BLUE STATION TO BE RELOCATED
	EXISTING NURSE CALL DUTY STATION TO BE RELOCATED
	EXISTING NURSE CALL EMERGENCY PULL CORD STATION (WEATHERPROOF) TO BE RELOCATED
	EXISTING NURSE CALL PATIENT BED STATION TO BE RELOCATED
	EXISTING CEILING MOUNTED NURSE CALL DOME LIGHT TO BE RELOCATED

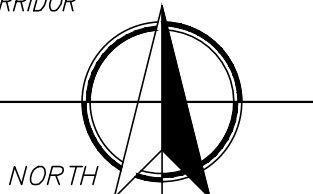
FLOOR PLAN - ELECTRICAL DEMOLITION

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



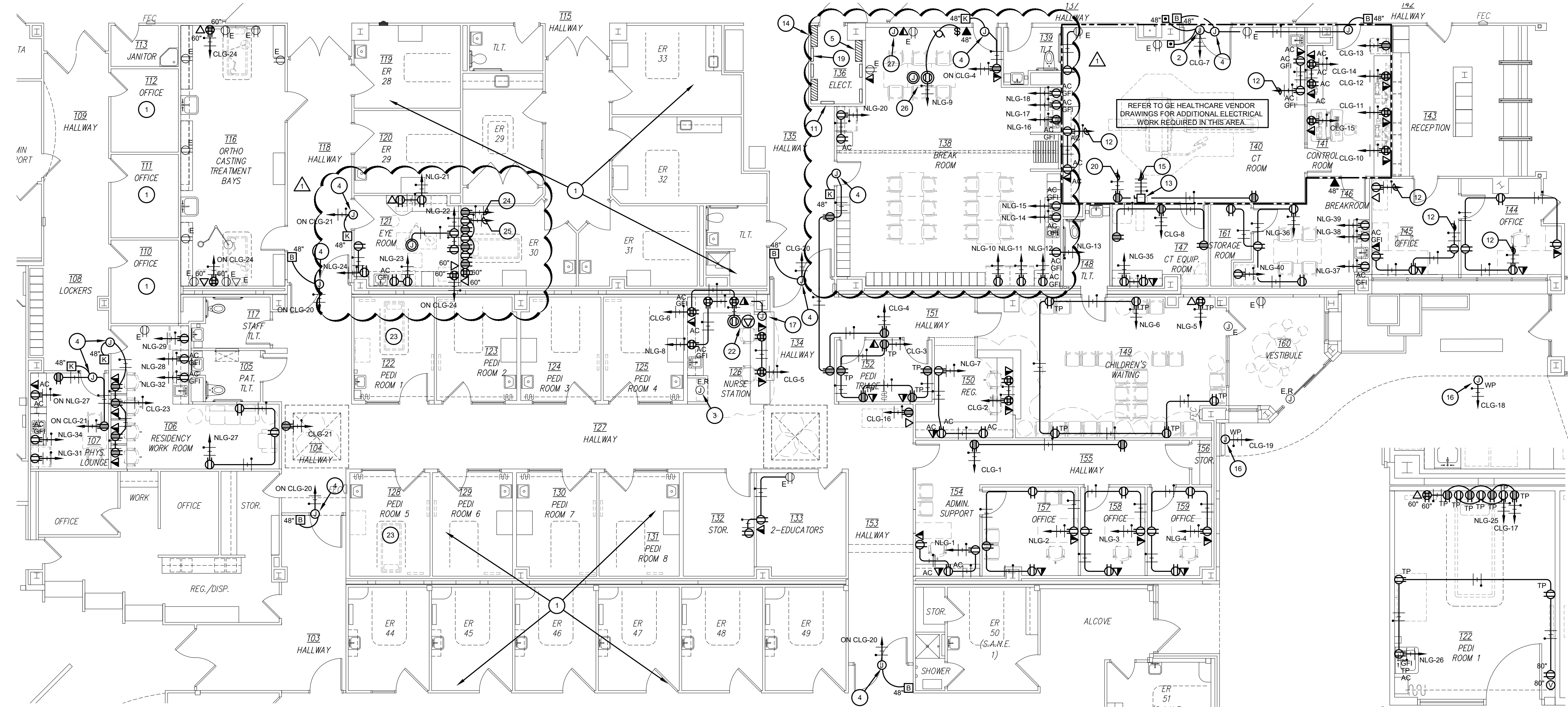
GENERAL NOTES:

- EXISTING FACILITY SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. ELECTRICAL SYSTEMS REQUIRED TO SHUT DOWN SHALL BE STRICTLY COORDINATED WITH THE OWNER AND ALL OTHER CONSTRUCTION TRADES. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY TO FACILITATE ALL REQUIRED TEMPORARY POWER, CONTROLS, ETC. TO KEEP EXISTING FACILITY OPERATIONAL.
 - CONTRACTOR SHALL VERIFY EXISTING CONDITIONS BEFORE BIDDING TO DETERMINE THE TOTAL SCOPE OF WORK REQUIRED AND INCLUDE ALL IN BID.
 - VERIFY EXACT DEMOLITION REQUIREMENTS WITH ARCHITECTURAL DEMOLITION PLAN.
 - VERIFY EXACT SALVAGE REQUIREMENTS WITH OWNER BEFORE DEMOLITION BEGINS.
 - CONTRACTOR SHALL COORDINATE THE ELECTRICAL DEMOLITION REQUIREMENTS WITH ARCHITECTURAL, MECHANICAL AND ACTUAL SITE CONDITIONS. PROVIDE FOR THE COMPLETE DEMOLITION OF ALL THE EXISTING ELECTRICAL EQUIPMENT THAT CONFLICTS WITH OTHER WORK.
 - REMOVE ALL ELECTRICAL DEVICES IN WALLS TO BE REMOVED DURING CONSTRUCTION.
 - REMOVE ALL ELECTRICAL DEVICES INTERFERING WITH NEW WALL CONSTRUCTION.
 - REMOVE AND RECONNECT ANY ELECTRICAL AND/OR MECHANICAL DEVICES INTERFERING WITH CONSTRUCTION BUT REUSED AFTER CONSTRUCTION.
 - PROVIDE BLANK COVERPLATES FOR ALL J-BOXES/PULLBOXES NOT BEING REUSED FOR NEW CONSTRUCTION.
 - REMOVE ALL IN WALL AND ABOVE CEILING J-BOXES, PULLBOXES, CONDUIT AND WIRE NOT BEING REUSED FOR NEW CONSTRUCTION. ALL ELECTRICAL DEVICES AND EQUIPMENT TO BE DEMOLISHED SHALL HAVE RESPECTIVE CONDUIT AND WIRING REMOVED BACK TO POINT OF ORIGIN.
 - REPLACE AND STRAIGHTEN ANY ABOVE CEILING INSULATION AFTER CONSTRUCTION IS COMPLETE.
 - DEMOLISH ALL CONDUIT AND WIRING THAT HAS BECOME ABANDONED AS A RESULT OF THE DEMOLITION WORK. REMOVE ALL EXPOSED CONDUIT AND J-BOXES WHICH HAVE BECOME EMPTY AS A RESULT OF THE DEMOLITION. WHERE J-BOXES CANNOT BE REMOVED PROVIDE BLANK COVERPLATES.
 - NOT ALL ITEMS TO BE DEMOLISHED ARE SHOWN. CONTRACTOR SHALL PROVIDE FOR THE COMPLETE DEMOLITION OF ELECTRICAL EQUIPMENT AS REQUIRED TO SUPPORT THE ARCHITECTURAL AND MECHANICAL DEMOLITION WORK, EXCEPT WHERE NOTED TO REMAIN.
- NO WORK IN THIS AREA.
 - EXISTING FIRE ALARM REMOTE ANNUNCIATOR TO BE RELOCATED. REFER TO SHEET E5 FOR NEW LOCATION.
 - EXISTING NURSE CALL MASTER STATION TO BE RELOCATED. REFER TO SHEET E5 FOR NEW LOCATION.
 - ALL LIGHT FIXTURES, SWITCHES, WIRING DEVICES, COMMUNICATION OUTLETS, ETC. AND ASSOCIATED CONDUIT AND WIRE WITHIN THIS AREA TO BE REMOVED BACK TO POINT OF ORIGIN UNLESS INDICATED OTHERWISE. EXISTING FIRE ALARM, NURSE CALL DEVICES AND CEILING MOUNTED SPEAKERS TO BE REMOVED AND RELOCATED AS INDICATED ON SHEET E5. DEVICES NOT USED IN NEW CONSTRUCTION SHALL BE RETURNED TO OWNER.
 - EXISTING LIGHT FIXTURE (SHOWN DASHED) AND ALL ASSOCIATED CONDUIT AND WIRE TO BE REMOVED BACK TO POINT OF ORIGIN (TYPICAL OF ALL DASHED FIXTURES).
 - EXISTING LIGHT FIXTURE (NOTED "E") TO REMAIN (TYPICAL).
 - EXISTING LIGHT FIXTURE (NOTED "E,R") TO BE RELOCATED. REFER TO SHEET E2 FOR NEW LOCATION (TYPICAL).
 - EXISTING LIGHT SWITCH (NOTED "E") TO REMAIN.
 - EXISTING FIRE ALARM DEVICE (NOTED "E") TO REMAIN.
 - EXISTING WIRING DEVICE (I.E. RECEPTACLE, COMMUNICATION OUTLET, J-BOX, CONDUIT AND WIRE)(SHOWN DASHED) TO BE REMOVED BACK TO POINT OF ORIGIN (TYPICAL).
 - EXISTING WIRING DEVICE (I.E. RECEPTACLE, COMMUNICATION OUTLET, J-BOX, CONDUIT AND WIRE)(NOTED "E") TO REMAIN (TYPICAL).
 - EXISTING J-BOX (NOTED "E,R"), POWER AND CONTROL WIRING SERVING PNEUMATIC TUBE SYSTEM TO BE RELOCATED. REFER TO SHEET E3 FOR NEW LOCATION.
 - EXISTING LIGHT FIXTURES (SHOWN DASHED) TO BE REMOVED. EXISTING CIRCUIT WIRING TO REMAIN FOR EXTENSION AND CONNECTION TO NEW LIGHT FIXTURES. REFER TO SHEET E2.
 - EXISTING MED GAS ALARM PANEL TO BE REMOVED. EXISTING CONDUIT AND WIRE TO BE RE-ROUTED TO NEW PANEL LOCATION. REFER TO NOTE #12 ON SHEET E4 FOR NEW MED GAS ALARM PANEL LOCATION AND REQUIREMENTS.
 - REMOVE EXISTING X-RAY VIEWBOX. PROVIDE BLANK COVERPLATE FOR J-BOX.



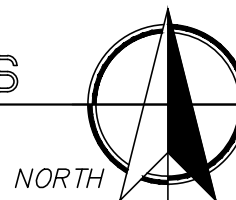
- 7 NEW WORK IN THIS AREA.
- 8 EXISTING LIGHT FIXTURE TO REMAIN.
- 9 EXISTING LIGHT SWITCH (NOTED "E") TO REMAIN.
- 10 CONNECT NEW CANOPY LIGHTS TO PREVIOUS EXISTING (RELOCATED) CANOPY LIGHTING CIRCUIT.
- 11 2 #12 & #12 GR. IN 1/2" CONDUIT ONTO EXISTING CRITICAL BRANCH LIGHTING CIRCUIT (277V) PREVIOUSLY SERVING THIS AREA.

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PROJECT NO.	21912	
DATE:	02/07/2020	
SHEET NO.		
E2		
2	OF	6



FLOOR PLAN - POWER & COMMUNICATIONS

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



POWER/COMMUNICATIONS SYMBOL LEGEND	
SYMBOL	DESCRIPTION (NOT ALL SYMBOLS ARE USED)
	DUPLEX RECEPTACLE - 20A, 125V, 2P, 3W, GROUNDING
	DUPLEX RECEPTACLE CONNECTED ONTO EMERGENCY (CRITICAL BRANCH) CIRCUIT
	DUPLEX RECEPTACLE - 20A, 125V, 2P, 3W, GROUNDING WITH USB CHARGING
	DUPLEX MOUNTED ABOVE COUNTER. VERIFY HEIGHT WITH ARCHITECT
	GFCI DUPLEX RECEPTACLE
	WEATHER PROOF DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE SERVING ELECTRIC WATER COOLER
	TAMPER PROOF DUPLEX RECEPTACLE
	QUADRUPLEX RECEPTACLE (DOUBLE DUPLEX)
	QUADRUPLEX RECEPTACLE CONNECTED ONTO EMERGENCY (CRITICAL BRANCH) CIRCUIT
	208V, SINGLE OR THREE PHASE RECEPTACLE AS SPECIFIED
	TELEPHONE OUTLET, DATA OUTLET, COMBINATION TELEPHONE/DATA OUTLET LOCATION (J-BOX WITH 3/4" CONDUIT & CONDUIT BUSHINGS STUBBED TO 6" ABOVE ACCESSIBLE CEILING)
	NUMBER NEXT TO DEVICE INDICATES MOUNTING HEIGHT
	JUNCTION BOX LOCATION
	CABLE T.V. OUTLET (J-BOX WITH 3/4" CONDUIT STUBBED 6" ABOVE ACCESSIBLE CEILING PROVIDE CONDUIT WITH BUSHINGS)
	DISCONNECT SWITCH
	CIRCUIT INDICATION - PHASE, NEUTRAL, SWITCH LEG, GROUND
	CIRCUIT RUN TO PANELBOARD - NUMBER OF WIRES SHOWN
	PUSH BUTTON DEVICE LOCATION
	SECURITY SYSTEM BADGE TAG LOCATION
	SECURITY SYSTEM KEYPAD LOCATION
	EXISTING WIRING DEVICE TO REMAIN

NEW PANEL "NLG"										MAINS		100A MLO	
MOUNTING SURFACE										BUS		100 AMPS.	
208/120 VOLTS 3 PHASE 4 WIRE + GR.										MIN. CKT. BKR. I.C.		10,000 AMPS.	
(NORMAL BRANCH)													
DESCRIPTION	LOAD / PHASE			BKR	CKT NO.	NOTES	CKT NO.	BKR	LOAD / PHASE			DESCRIPTION	
	A	B	C						A	B	C		
RECEPTACLE	600			20	1		2	20	800			RECEPTACLE	
RECEPTACLE		800		20	3		4	20		800		RECEPTACLE	
VIDEO WALL			1000	20	5		6	20			1000	RECEPTACLE	
RECEPTACLE	600			20	7		8	20	800			RECEPTACLE	
PROJ/SCREEN		800		20	9		10	20		1000		REFRIGERATOR	
REFRIGERATOR			1000	20	11		12	20			200	RECEPTACLE	
RECEPTACLE	200			20	13		14	20	1200			COFFEE MAKER	
ICE MACHINE		1000		20	15		16	20		200		RECEPTACLE	
COFFEE MAKER			1200	20	17		18	20			1200	ICE MAKER	
RECEPTACLE	800			20	19		20	20	1000			REFRIGERATOR	
RECEPTACLE		600		20	21		22	20		400		RECEPTACLE	
U/C REFRIG			1000	20	23		24	20			400	RECEPTACLE	
RECEPTACLE	600			20	25		26	20	800			RECEPTACLE	
REFRIGERATOR		600		20	27		28	20		200		RECEPTACLE	
REFRIGERATOR			1000	20	29		30	20			600	RECEPTACLE	
REFRIGERATOR	1000			20	31		32	20	1200			COFFEE MAKER	
SPARE				20	33		34	20		1200		COFFEE MAKER	
RECEPTACLE		400		20	35		36	20			800	RECEPTACLE	
RECEPTACLE	200			20	37		38	20	1200			COFFEE MAKER	
ICE MACHINE		1000		20	39		40	20		1000		REFRIGERATOR	
EF-1 & 2			600	20	41		42	20				SPARE	
SPARE				20	43		44	20				SPARE	
SPARE				20	45		46	20				SPARE	
SPARE				20	47		48	20				SPARE	
SPARE				20	49		50	20				SPARE	
SPARE				20	51		52	20				SPARE	
SPARE				20	53		54	20				SPARE	
CONNECTED LOAD: 31,000					DEMAND LOAD: 29,800								
PHASE A: 11000 AMPS 92					PHASE A: 9967 AMPS 83								
PHASE B: 9600 AMPS 80					PHASE B: 9467 AMPS 79								
PHASE C: 10400 AMPS 87					PHASE C: 10367 AMPS 86								
GENERAL NOTES:													
A. ALL 120V SINGLE PHASE BRANCH CIRCUITS SHALL BE PROVIDED WITH A DEDICATED NEUTRAL.													
NOTES:													

NEW PANEL "CLG"												
MOUNTING SURFACE						MAINS						
208/120 VOLTS 3 PHASE 4 WIRE + GR.						BUS						
(CRITICAL BRANCH)						100 AMPS.						
						MIN. CKT. BKR. I.C.						
						10,000 AMPS.						
DESCRIPTION	LOAD / PHASE			BKR	CKT NO.	NOTES	CKT NO.	BKR	LOAD / PHASE			DESCRIPTION
	A	B	C						A	B	C	
RECEPTACLE	400			20	1		2	20	800			RECEPTACLE
RECEPTACLE		1000		20	3		4	20		600		RECEPTACLE
RECEPTACLE			800	20	5		6	20			1000	RECEPTACLE
AUTO DOORS	800			20	7		8	20	400			RECEPTACLE
SPARE				20	9		10	20		400		RECEPTACLE
RECEPTACLE			400	20	11		12	20			400	RECEPTACLE
RECEPTACLE	400			20	13		14	20	400			RECEPTACLE
RECEPTACLE		400		20	15		16	20		1200		PYXS
RECEPTACLE			1200	20	17	1	18	20			1200	SIGNAGE
SIGNAGE	800			20	19	1	20	20	800			SEC. DOORS
RECEPTACLE		800		20	21		22	20		1200		RECEPTACLE
RECEPTACLE			800	20	23		24	20			1200	RECEPTACLE
DOOR DEVICES	600			20	25		26	20				SPARE
SPARE				20	27		28	20				SPARE
SPARE				20	29		30	20				SPARE
SPARE				20	31		32	20				SPARE
SPARE				20	33		34	20				SPARE
SPACE ONLY				20	35		36					SPACE ONLY
SPACE ONLY				20	37		38					SPACE ONLY
SPACE ONLY				20	39		40					SPACE ONLY
SPACE ONLY				20	41		42					SPACE ONLY
SPACE ONLY				20	43		44					SPACE ONLY
SPACE ONLY				20	45		46					SPACE ONLY
SPACE ONLY				20	47		48					SPACE ONLY
SPACE ONLY				20	49		50					SPACE ONLY
SPACE ONLY				20	51		52					SPACE ONLY
SPACE ONLY				20	53		54					SPACE ONLY
CONNECTED LOAD: 18,000						DEMAND LOAD: 16,233						
PHASE A:		5400	AMPS		45	PHASE A:		5400	AMPS		45	
PHASE B:		5600	AMPS		47	PHASE B:		5067	AMPS		42	
PHASE C:		7000	AMPS		58	PHASE C:		5767	AMPS		48	
GENERAL NOTES:												
A. ALL 120V SINGLE PHASE BRANCH CIRCUITS SHALL BE PROVIDED WITH A DEDICATED NEUTRAL												
NOTES:												
1. ROUTE CIRCUIT THRU EXTERIOR SIGNAGE CONTACTOR "C1" CONTROLLED BY ROOF MOUNTED PHOTOCELL.												

ENLARGED FLOOR PLANS

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



GENERAL NOTES:

- EXISTING FACILITY SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. ELECTRICAL SYSTEMS REQUIRED TO SHUT DOWN SHALL BE STRICTLY COORDINATED WITH THE OWNER AND ALL OTHER CONSTRUCTION TRADES. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY TO FACILITATE ALL REQUIRED TEMPORARY POWER, CONTROLS, ETC. TO KEEP EXISTING FACILITY OPERATIONAL.
- TELEPHONE, DATA, COMBINATION TELEPHONE/DATA, CABLE T.V. AND AUDIO/VIDEO OUTLETS SHALL EACH CONSIST OF (1) TWO-GANG SQUARE BOX WITH SINGLE GANG ADAPTER TRIM RING AND (1) 3/4" CONDUIT STUBBED UP TO 6" ABOVE AN ACCESSIBLE CEILING. ALL COMMUNICATIONS CONDUITS SHALL BE INSTALLED WITH INSULATED THROAT BUSHINGS AT EACH END. ALL TELEPHONE, DATA, CABLE T.V. AND AUDIO/VISUAL WIRING, DEVICES AND TERMINATIONS INSTALLED BY CONTRACTOR.
- IT IS ASSUMED THAT ANY OUTLET, SWITCH, RECEPTACLE, FIXTURE OR PANEL MAY BE RELOCATED WITHIN A TEN (10) FOOT RADIUS OF THE INDICATED LOCATION WITHOUT ADDITIONAL CHARGE TO THE OWNER.
- ALL ABOVE CEILING CABLING SHALL BE SEPARATED BY TYPE, BUNDLED NEATLY AND SUPPORTED BY J-HOOKS FROM STRUCTURE.
- ALL NEW WALL MOUNTED DEVICES (J-BOXES & CONDUIT) SHALL BE RECESSED INTO NEW OR EXISTING WALLS. NO SURFACE MOUNTED RACEWAY ALLOWED.
- COORDINATE ALL RECEPTACLE, COMMUNICATION OUTLETS AND J-BOX LOCATIONS WITH ARCHITECTURAL WALL ELEVATIONS TO AVOID CONFLICTS WITH SHELVING, MILLWORK, ETC.
- VERIFY EXACT LOCATIONS OF ALL WALL, FLOOR AND CEILING MOUNTED DEVICES AND EQUIPMENT WITH THE ARCHITECT.
- VERIFY EXACT MOUNTING HEIGHT OF ALL RECEPTABLES, COMMUNICATIONS OUTLETS, AND J-BOXES SHOWN ABOVE OR BELOW MILLWORK, CABINETS, TABLES, PATIENT HEADWALLS, ETC. WITH ARCHITECT PRIOR TO ROUGH-IN.
- ALL IN WALL CONDUIT SERVING DEVICES SHALL BE ROUTED FROM ABOVE AND INSTALLED VERTICALLY. NO HORIZONTAL CONDUIT ROUTING IN WALL WILL BE APPROVED.
- ALL ELECTRICAL INSTALLATIONS SHALL COMPLY WITH THE 2017 NATIONAL ELECTRICAL CODE.
- ALL LIGHT SWITCHES AND RECEPTACLE COVERPLATES (FACEPLATES) SHALL BE MACHINE ENGRAVED (LASER ETCHED) INDICATING THE PANEL AND CIRCUIT NUMBER SERVING DEVICES.
- PROVIDE UPDATED TYPEWRITTEN CIRCUIT DIRECTORIES IN ALL EXISTING PANELS THAT ARE MODIFIED DURING CONSTRUCTION.

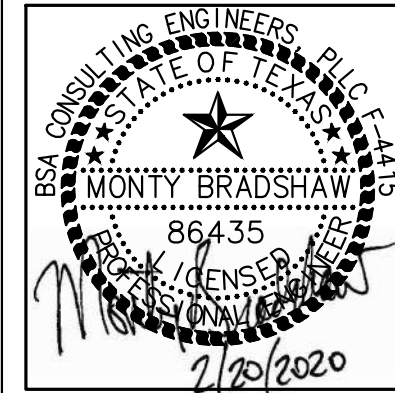
KEYED NOTES:

- NO WORK IN THIS AREA.
- J-BOX MOUNTED ABOVE DOOR TO SERVE POWER CONNECTIONS TO AUTOMATIC DOOR OPERATOR. INSTALL CONDUIT AND WIRING FROM WALL OPERATOR TO DOOR CONTROLLER AS REQUIRED.
- EXISTING RELOCATED J-BOX (NOTED "E.R.") SERVING PNEUMATIC TUBE SYSTEM. EXTEND CONDUIT AND WIRE TO NEW LOCATION AND RECONNECT ALL FOR OPERATION AS EXISTING.
- J-BOX MOUNTED ABOVE DOOR TO SERVE POWER CONNECTIONS SECURITY SYSTEM DOOR LOCK. PROVIDE 1/2" CONDUIT DOWN TO TAP BADGE / KEYPAD ACCESS CONTROL STATION AS INDICATED.
- EXISTING DISTRIBUTION PANEL "DPNB" (208V) (NORMAL BRANCH) TO REMAIN. INSTALL THREE (3) NEW FUSES IN EXISTING 100A-3P SPARE SWITCH TO SERVE NEW PANEL "NLG".
- EXISTING PANEL "YLA" (208V) (CRITICAL BRANCH) TO REMAIN. INSTALL NEW 100A-3P CIRCUIT BREAKER IN AVAILABLE SPACE TO SERVE NEW PANEL "CLG".
- NEW PANEL "NLG" (208V) (NORMAL BRANCH).
- NEW PANEL "CLG" (208V) (CRITICAL BRANCH).
- 4 #2 & #8 GR. IN 1-1/4" CONDUIT TO A NEW 100A-3P CIRCUIT BREAKER IN EXISTING PANEL "YLA".
- 4 #2 & #8 GR. IN 1-1/4" CONDUIT TO AN EXISTING SPARE 100A-3P FUSIBLE SWITCH IN EXISTING DISTRIBUTION PANEL "DPNB" (NOTE #5).
- EXISTING PANEL "NLE" (208V) (NORMAL BRANCH) TO REMAIN.
- 2 #12 & #12 GR. IN 1/2" CONDUIT TO A NEW 20A-1P CIRCUIT BREAKER IN EXISTING PANEL "NLE". INSTALL NEW CIRCUIT BREAKER IN AVAILABLE SPACE.
- 125A-3P SHUNT TRIP ENCLOSED CIRCUIT BREAKER IN NEMA 1 RECESSED ENCLOSURE.
- EXISTING PANEL "XDA" (480V) (EQUIPMENT BRANCH) TO REMAIN. PROVIDE AND INSTALL A NEW 125A-3P CIRCUIT BREAKER IN AVAILABLE SPACE TO SERVE NEW XRAY EQUIPMENT.
- 4 #10 & #10 GR. IN 2" CONDUIT TO A NEW 125A-3P CIRCUIT BREAKER IN EXISTING DISTRIBUTION PANEL "XDA" (NOTE #14).
- WEATHERPROOF J-BOX TO SERVE POWER CONNECTIONS TO NEW SIGNAGE. VERIFY MOUNTING HEIGHT AND REQUIREMENTS WITH ARCHITECT/INSTALLER PRIOR TO ROUGH-IN.
- J-BOX TO SERVE POWER CONNECTIONS TO NEW SIGNAGE. VERIFY MOUNTING HEIGHT AND REQUIREMENTS WITH ARCHITECT/INSTALLER PRIOR TO ROUGH-IN.
- EXISTING COMMUNICATIONS RACK TO REMAIN.
- EXISTING PANEL "CLE" (208V) (CRITICAL BRANCH) TO REMAIN.
- 2 #12 & #12 GR. IN 1/2" CONDUIT TO A NEW 20A-1P CIRCUIT BREAKER IN EXISTING PANEL "CLE". INSTALL NEW CIRCUIT BREAKER IN AVAILABLE SPACE.
- LOCATION OF NEW EXTERIOR SIGNAGE TIMECLOCK "C1" (20A-4P).
- ABOVE CEILING MOUNTED RECEPTACLE AND DATA OUTLET TO SERVE POWER AND COMMUNICATIONS TO CEILING MOUNTED MONITOR. VERIFY EXACT LOCATIONS AND REQUIREMENTS WITH ARCHITECT.
- REFER TO ENLARGED FLOOR PLANS THIS SHEET FOR ADDITIONAL WORK IN THIS AREA.
- 2 #12 & #12 GR. IN 1/2" CONDUIT ONTO EXISTING CRITICAL BRANCH CIRCUIT (120V) PREVIOUSLY SERVING THIS ROOM.
- 2 #12 & #12 GR. IN 1/2" CONDUIT ONTO EXISTING NORMAL BRANCH CIRCUIT (120V) PREVIOUSLY SERVING THIS ROOM.
- ABOVE CEILING MOUNTED RECEPTACLE AND J-BOX TO SERVE POWER AND COMMUNICATIONS TO OVERHEAD PROJECTOR. VERIFY EXACT LOCATIONS AND REQUIREMENTS WITH ARCHITECT.
- J-BOX TO SERVE PROJECTION SMARTBOARD COMMUNICATIONS. PROVIDE 1-1/4" CONDUIT STUBBED UP TO 6" ABOVE CEILING (TYPICAL).

COMMUNICATIONS (DATA/TELEPHONE/CABLE T.V.) SCOPE:

ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL FROM EACH COMMUNICATION DEVICE OUTLET TWO (2) 4 PAIR, 24 AWG, CAT 6 PLENUM RATED CABLES TO EXISTING EQUIPMENT RACK IN ELECTRICAL ROOM. ALL CABLES SHALL BE TERMINATED WITH CAT 6 RJ45 CONNECTORS & FACEPLATES AT THE OUTLET END AND TO RESPECTIVE NEW RJ45 PATCH PANELS IN THE EXISTING EQUIPMENT RACK. CONTRACTOR SHALL PROVIDE AND INSTALL NEW PATCH PANELS IN EXISTING RACK AS REQUIRED TO ACCOMMODATE NEW CABLING. VERIFY EXACT REQUIREMENTS AT JOBSITE WITH OWNER PRIOR TO INSTALLATION. PROVIDE ALL LABOR AND MATERIALS REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION.

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REVISIONS:
ADDENDUM #1 - 2/20/2020
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