

Drawing Index

These sheets are a document set and should not be separated. Electrical information and references are contained on all sheets.

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These equipment installation drawings indicate the placement and interconnection of the listed equipment components. These drawings are not construction or site preparation drawings. Customer remains ultimately responsible for preparing the site to accommodate the installation and operation of such equipment in compliance with GE Healthcare's written specifications and all applicable federal, state, and/or local requirements.

* REQUIRED REFERENCE *

Precision MPi
Preinstallation Manual
2404435

A mandatory component of this drawing set is the GE Healthcare Preinstallation manual. Failure to reference the preinstallation manual will result in incomplete documentation required for site design and preparation.

Preinstallation documents for GE Healthcare products can be accessed on the web at:

<http://www.gehealthcare.com/company/docs/siteplanning.html>

GE Healthcare



R/F Site Planning



imagination at work

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)
- Contact a radiation physicist or consultant to specify radiation containment requirements.

GE Equipment Delivery Requirements

Items 1 through 8 on the GE Healthcare Site Readiness Checklist are REQUIRED to facilitate equipment delivery to the installation site. Equipment will not be delivered if these requirements are not satisfied.

GE Healthcare Site Readiness Checklist						
GEHC Global Order # : _____			Customer: _____			
GEHC On-site Representative : _____			MI Supplier: _____			
Name of customer reviewed with : _____			Lead Installer: _____			
GEHC PMI : _____			Phone Number: _____			
Target Site Prep Completion Date: _____			Helper: _____			
The customer is responsible for proper site preparation and site readiness regardless of any GEHC inspections/assessments.						
Item #	GEHC Minimum Requirements	Storage: Is item ready?	Predict (Pre-ship) Will item be ready?	Verify (Delivery): Is item ready?	Validate (Mech Install): Is item ready?	Comments If "N", please enter in comments or action plan
1	Equipment installation drawings must match actual room size and must meet clearance requirements. Deviations that meet installation requirements may be red-lined, if red-lining is allowed by local code. Seismic requirements are identified on construction drawings.					
2	Delivery route to installation or storage area meets requirements and has been discussed and scheduled with the customer. Ensure floor protection is discussed, requirements identified, and will be available at time of delivery and installation.					
3	Rooms that will contain equipment, including storage areas, are dust free. Room security to prevent unauthorized access and theft has been discussed with customer. The customer is aware of these security issues, implications and responsibility.					
4	In room HVAC ductwork and units (in room) must be mechanically installed and dust free. Installation rooms appear to meet environmental conditions (see Further Definitions) and observed issues have been communicated to the customer. If being stored, storage area must meet PIM storage criteria.					
5	Ceiling grid is installed, Unistrut is located per the installation drawings, and permanent lighting is installed and operational.					
6	Floor is clean and prepared for final floor covering. Customer has verified floor leveling meets the equipment installation drawings and PIM specs and no visible defects are observed. Gantry and table baseplate are installed prior to delivery (if applicable).					
7	Access to a working phone at the facility for emergency use, including MR magnet delivery.					
8	All walls primed (final coat not needed on Day 1), and counter tops that will support equipment must be installed. No dust-producing cabinetry work in installation areas.					
9	Mechanical supplier has been provided with a set of equipment installation drawings for reference. For California, permitted construction drawings or PMI-specified installation drawings are required.					
10	Conduit/electrical cable ducting/dividers/ access flooring installed, with the exception of surface-mounted floor ducting. Wiring to the main disconnect panel is installed and compliant with equipment installation drawings or pre-installation manual.					

Issued Date: 7/9/07 Rev 11

SHEET TITLE: SITE READINESS
MODALITY TYPE: PRECISION MPI

PROJECT TITLE:
2-56f
TYPICAL LAYOUT

PROJECT	REVISION
2-56f	00
DATE:	07-29-08
DRAWN BY:	JDR
CHECKED BY:	REK

REVISION HISTORY:

SHEET
C1

GE Healthcare Technologies
Installation Services Design Center
Milwaukee, Wisconsin

THIS PLAN IS SUBMITTED TO SUPPORT LOCATION OF THE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WORK. THE USER HAS BEEN ADVISED OF THE REQUIREMENTS IN PREPARING THIS PLAN. EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

GE EQUIPMENT LISTING

EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER : NEITHER A QUOTE OR GON WAS ISSUED AT THE DATE OF THESE DRAWINGS
NOTE: LOCAL CONDITIONS MAY DICTATE THAT ITEMS IDENTIFIED IN THIS CATEGORY BE INSTALLED BY OTHERS.

ITEM NO.	QUANTITY ORDERED	REFER TO SHEET "D"	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	EQUIPMENT CROSS REFERENCE CHART	
							STRC PLAN	ELEC PLAN
1	1		ONE LCD MONITOR SUSPENSION ON 7 FT. 9 IN. XT INBOARD BRIDGE	324 lbs	204 btu	B2011A	---	TV C
2	1		HEAT EXCHANGER	26 lbs	3412 btu	B0564	---	HE1 S
3	1		POSITIONER CONTROL PANEL	11 lbs	180 btu	B0563	---	PCP S
4	1		PRECISION MPI POSITIONER	3747 lbs	3430 btu	B0560A B0560 B0560B	---	BUI S
5	1		GENERATOR TOUCHSCREEN	11 lbs	180 btu	B0563	---	CP1 S
6	1		PRECISION MPI GENERATOR	372 lbs	2457 btu	B0562	---	GEN S
7	1		DIGITAL REVIEW STATION	79 lbs	3532 btu	B0567	---	PCC S
8	1		AUTOMATIC COLLIMATOR ELECTRONICS CABINET	105 lbs		B0561	---	CC S
9	2		LONGITUDINAL STATIONARY RAIL FOR XT SUSPENSION	68 lbs		B20041	---	C
10	1		MOBILE CONTROL PANEL		180 btu	B0565	---	MCP S

P = PREAPPROVAL
C = CALCULATIONS/PENDING APPROVAL
S = SPECIFICATIONS ONLY

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

EQUIPMENT LAYOUT

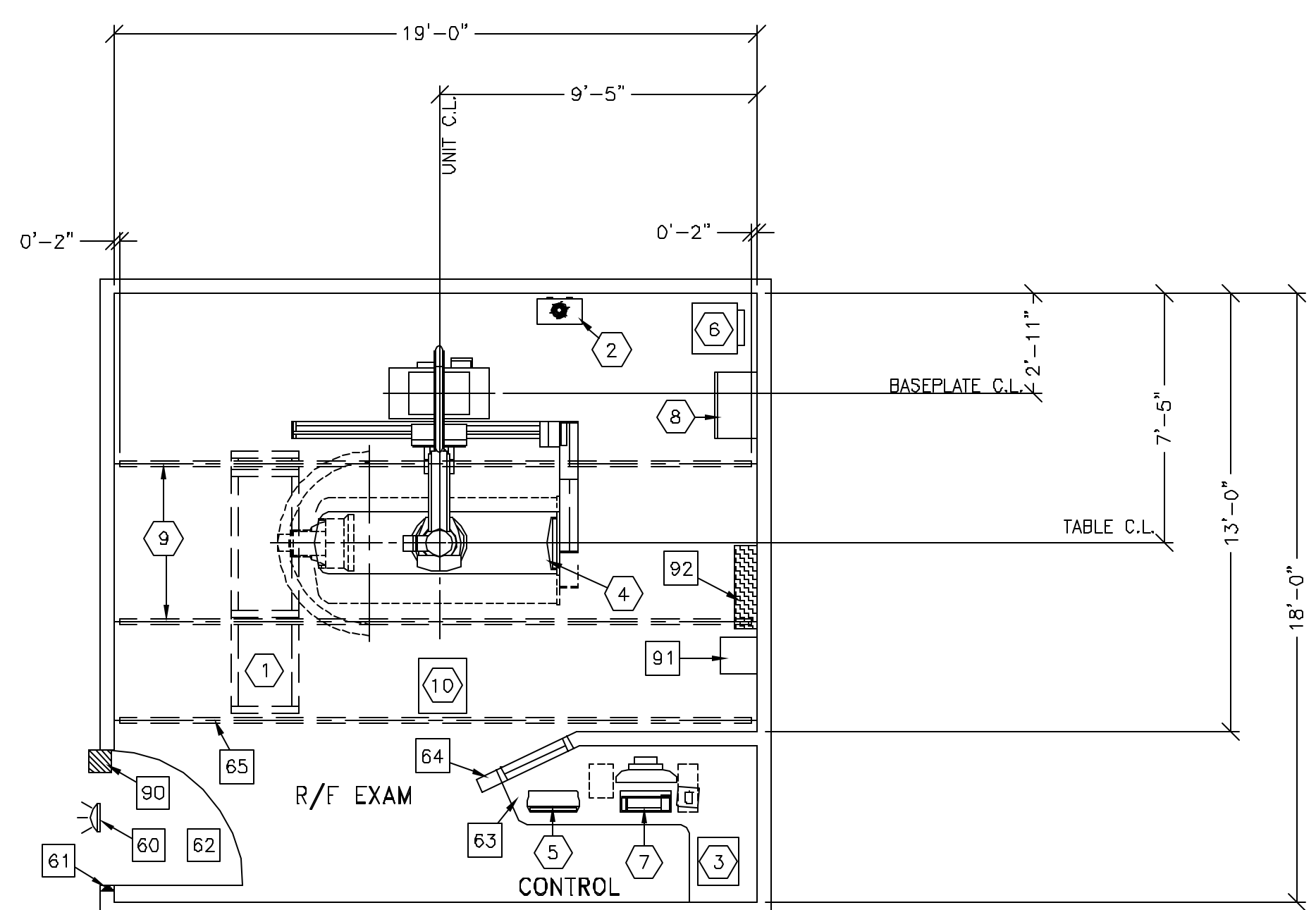
RECOMMENDED CEILING HEIGHT = 9'-8"

This equipment layout indicates the placement and interconnection of the indicated equipment components. There may be federal, state, and/or local requirements that could impact the placement of these components. It remains the Customer's responsibility for ensuring the site and final equipment placement complies with all applicable federal, state, and/or local requirements.

IMPORTANT CUSTOMER READINESS ALERT:

THIS EQUIPMENT REQUIRES CERTAIN MINIMUM CEILING HEIGHTS THAT VARY DEPENDING UPON EQUIPMENT ORDER CONFIGURATION. REVIEW THE CHART BELOW TO IDENTIFY THE APPROPRIATE CEILING HEIGHT FOR THIS SITE:

CEILING HEIGHT WITHOUT MONITOR SUSPENSION		CEILING HEIGHT WITH MONITOR SUSPENSION	
RECOMMENDED	MINIMUM	RECOMMENDED	MINIMUM
9 ft. 6 in.	9 ft. 9 in.	10 ft. 2 in.	9 ft. 8 in.
2.9m	2.75m	3.1m	2.9m



ANCILLARY ITEMS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	X-RAY ON WARNING LIGHT - AVAILABLE FROM GE SUPPLY CALL: 800-200-9760 GE CAT. NO. WX1ABW-DF-XIU
61	DOOR LIMIT SWITCH
62	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 48 IN. W x 80 IN. H (1219mm x 2032mm). CONTINGENT ON A 78 IN. (1981mm) CORRIDOR WIDTH
63	COUNTER TOP FOR EQUIPMENT - PROVIDE DIMMENTED OPENINGS AS REQUIRED TO ROUTE INTERCONNECT CABLES TO RACEWAY BELOW COUNTERTOP.
64	CONTROL WALL TO CEILING WITH LEAD GLASS VIEWING WINDOW.
65	CABLE DRAPE RAIL.

THE FOLLOWING ITEMS ARE AVAILABLE FROM GE HEALTHCARE TECHNOLOGIES. CONTACT YOUR LOCAL GE HEALTHCARE SERVICE REPRESENTATIVE FOR PRICING AND AVAILABILITY.

- 60 X-RAY ROOM WARNING LIGHT/ROOM LIGHTING CONTROL PANEL REFERENCE JUNCTION POINT 'A' ON SHEET 'E1' FOR DETAILED DESCRIPTION. CAT. NO. E4500SS FOR WARNING LIGHT & ROOM LIGHT CONTROL.
- 61 STEP-DOWN TRANSFORMER. REFERENCE JUNCTION POINT 'TRAN' ON SHEET 'E1' FOR DETAILED DESCRIPTION. PART OF CAT. NO. E4500KM. (10.75" W x 14.5" H x 11.12" D)
- 62 MAIN DISCONNECT. REFERENCE JUNCTION POINT 'A' ON SHEET 'E1' FOR DETAILED DESCRIPTION. CAT. NO. E4500KM. (30" W x 48" H x 8" D)

GENERAL SPECIFICATIONS

- THE REQUIRED CEILING HEIGHT INDICATED ON THESE PLANS IS TO ENSURE EQUIPMENT FUNCTION IS NOT INHIBITED. CONSULT WITH YOUR LOCAL GEHC INSTALLATION SPECIALIST REGARDING ACCEPTABILITY OF OTHER CEILING HEIGHTS.
- CHECK ALL DOOR OPENINGS AND HALLWAYS FROM DELIVERY LOCATION TO WHERE EQUIPMENT IS TO BE INSTALLED TO ENSURE THE ROUTE PHYSICALLY AND STRUCTURALLY WILL ACCOMMODATE THE EQUIPMENT AS SHIPPED.
- RADIATION PROTECTION REQUIREMENTS ARE NOT INDICATED ON THIS PLAN. WHERE NEEDED PER NATIONAL OR LOCAL CODE THEY SHALL BE SPECIFIED BY A QUALIFIED RADIOLOGICAL PHYSICIST.
- THE DEVELOPMENT OF THE EQUIPMENT LAYOUT, ROOM DIMENSIONS, MECHANICAL AND ELECTRICAL SUGGESTIONS IS PREDICATED UPON THE BEST INFORMATION OBTAINABLE FROM THE SITE, COUPLED WITH THE CUSTOMER'S KNOWN DESIRES. ARCHITECTURAL OR ELECTRICAL CHANGES INCLUDING RELOCATION OF EQUIPMENT ILLUSTRATED ON THIS DRAWING IS ALLOWED ONLY WITH NOTIFICATION, IN WRITING, AND REVIEW BY GEHC SERVICE DEPARTMENT. EQUIPMENT OPERATION, SERVICEABILITY, AND RESTRICTING CABLE LENGTHS, ETC., MAKE THIS ESSENTIAL FOR A PROPER INSTALLATION. GEHC RESERVES THE RIGHT TO MAKE ON THE JOB CHANGES BECAUSE OF CUSTOMER REQUIREMENTS AND/OR OBSTACLES IN CONSTRUCTION, ETC..
- ALL WORK TO BE IN COMPLIANCE WITH NATIONAL AND LOCAL BUILDING SAFETY CODES.
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.

SITE ENVIRONMENT SPECIFICATIONS

- AMBIENT OPERATING TEMPERATURE: 59 TO 75 DEGREES (F). MAXIMUM ALLOWABLE TEMPERATURE CHANGE OF 15 DEGREES (F)/HOUR.
- HUMIDITY: REFER TO PREINSTALLATION MANUAL FOR THE EQUIPMENT ILLUSTRATED ON THIS DRAWING.
- ALTITUDE: NOT TO EXCEED 8,000 FT. ABOVE SEA LEVEL.
- THE ENVIRONMENT FOR THE ELECTRONICS CABINET MUST BE CONTROLLED SO THE ABOVE RESTRICTIONS ARE NOT EXCEEDED.
- DO NOT RESTRICT THE AIR INTAKE AT THE LOWER FRONT OR AIR EXHAUST AT THE TOP OF THE ELECTRONICS CABINETS.

MAGNETIC INTERFERENCE SPECIFICATIONS

IMAGE INTENSIFIERS MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 1 GAUSS TO GUARANTEE SPECIFIED IMAGING PERFORMANCE.

X-RAY TUBES MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE SPECIFIED PERFORMANCE.

SYSTEM ELECTRONICS MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO GUARANTEE DATA INTEGRITY.

OPERATORS CONSOLE EQUIPMENT MUST BE LOCATED IN AMBIENT STATIC MAGNETIC FIELDS OF LESS THAN 10 GAUSS TO OBTAIN SPECIFIED GEOMETRIC LINEARITY.

THE FOLLOWING ITEMS, WHICH HAVE BEEN ORDERED FROM GE HEALTHCARE, ARE TO BE INSTALLED BY THE CUSTOMER OR HIS CONTRACTOR.

GE Healthcare Technologies
Installation Services Design Center
Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT LAYOUT
MODALITY TYPE: PRECISION MPI

THIS PLAN IS SUBMITTED TO SUBMITTER FOR REVIEW. THE SUBMITTER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE DRAWING. THE SUBMITTER'S REVIEW DOES NOT CONSTITUTE AN ENDORSEMENT OR A GUARANTEE OF THE ACCURACY OF THE INFORMATION CONTAINED HEREIN. THE SUBMITTER ACCEPTS RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
2-56f
TYPICAL LAYOUT

PROJECT	REVISION
2-56f	00

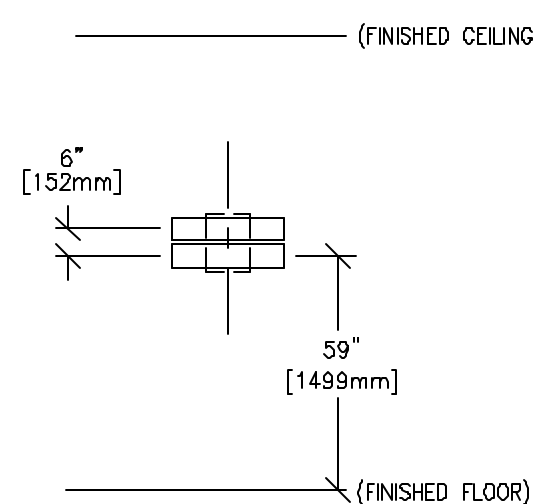
DATE: 07-29-08
DRAWN BY: JDR
CHECKED BY: REK

REVISION HISTORY:

SHEET
A1

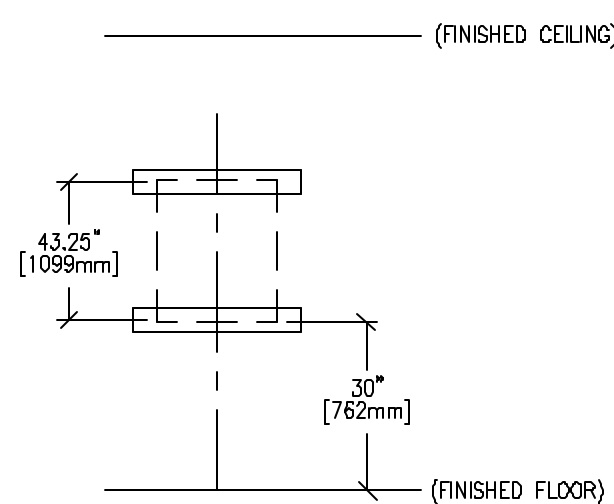
TYPICAL WALL SUPPORT ELEVATIONS

S110



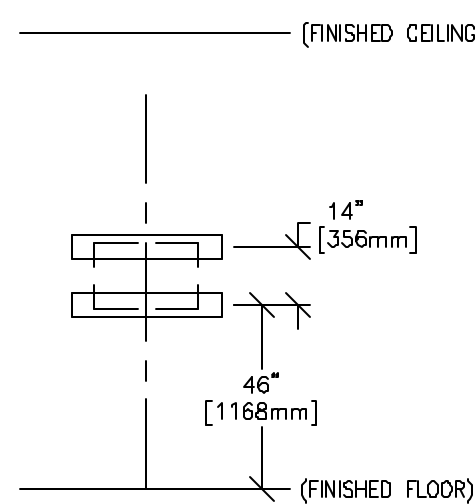
SUPPORT FOR STEP DOWN TRANSFORMER (NOT TO SCALE)

S113



SUPPORT FOR MAIN DISCONNECT CONTROL (NOT TO SCALE)

S114

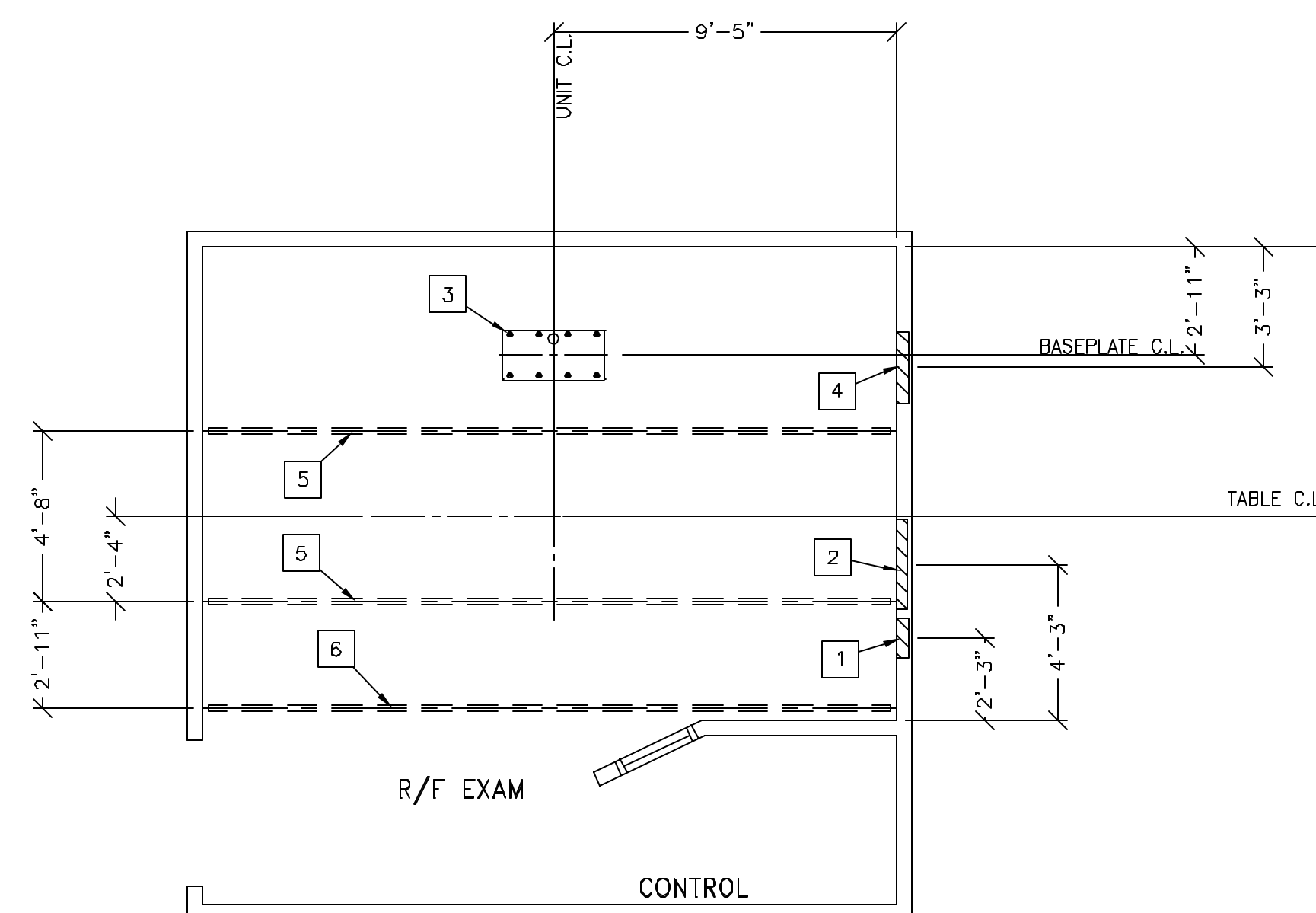


SUPPORT FOR COLLIMATOR ELECTRONICS CABINET (19x17) (NOT TO SCALE)

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

STRUCTURAL LAYOUT

RECOMMENDED CEILING HEIGHT = 9'-8"



STRUCTURAL SUPPORT METHODS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
1	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S110, FOR STEP DOWN TRANSFORMER.
2	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S113, FOR MAIN DISCONNECT PANEL.
3	FLOOR CONTACT AREA FOR PRECISION MPI.
4	SUPPORT BACKING, LOCATE AS SHOWN, REFER TO ELEVATION DETAIL S114, FOR COLLIMATOR CABINET.
5	UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING STATIONARY RAILS. SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS, EXTENDING BELOW FACE OF UNISTRUT CHANNEL. RUN WALL TO WALL, BE PARALLEL, SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. RAILS ARE MOUNTED TO THESE SUPPORTS EVERY 2'-2" AND REQUIRE 350 LBS. (159 LBS IN SEISMIC REGIONS) PER BOLT LOAD. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED. DO NOT USE SCREW ANCHORS IN DIRECT TENSION.
6	>>COMPONENTS FLUSH WITH CEILING<< UNISTRUT OR EQUIVALENT SUPPORT IN CEILING FOR FASTENING CABLE DRAPE RAIL. SUPPORTS TO RUN CONTINUOUS WITH NO FITTINGS, EXTENDING BELOW FACE OF UNISTRUT CHANNEL. RUN WALL TO WALL, BE PARALLEL, SQUARE, AND IN THE SAME HORIZONTAL PLANE, FLUSH WITH THE FINISHED CEILING. RAILS ARE MOUNTED TO THESE SUPPORTS EVERY 2'-2" AND REQUIRE 350 LBS. (159 LBS PER BOLT LOAD. METHODS OF SUPPORT THAT PERMIT ATTACHMENT TO STRUCTURAL STEEL OR THROUGH BOLTS IN CONCRETE SHOULD BE FAVORED. DO NOT USE SCREW ANCHORS IN DIRECT TENSION. >>COMPONENTS BELOW CEILING<< CABLE DRAPE RAIL, UNISTRUT CAT. NO. CP655 or EQUIVALENT.

STRUCTURAL NOTES

- o ALL STEEL WORK AND PARTS NECESSARY TO SUPPORT CEILING MOUNTED TUBE HANGER OR OTHER EQUIPMENT ARE TO BE SUPPLIED BY THE CUSTOMER OR HIS CONTRACTORS. THE UNISTRUT OR EQUIVALENT STRUCTURE SHOULD RUN CONTINUOUS WITH NO FITTINGS EXTENDING BELOW FACE OF UNISTRUT CHANNEL, RUN WALL TO WALL, BE PARALLEL, SQUARE AND IN THE SAME HORIZONTAL PLANE FLUSH WITH FINISHED CEILING. THE SYSTEM IS TO BE CROSS BRACED VERTICALLY, HORIZONTALLY AND DIAGONALLY TO ALLOW NO MOVEMENT AND A MAXIMUM OF 1,58mm(1/16") DEFLECTION. (10) 12,7mm (1/2") DIA x 38,1mm (1 1/2") LONG BOLTS WITH UNISTRUT 12,7mm (1/2") NUTS WITH SPRINGS ARE TO BE PROVIDED BY CUSTOMER OR HIS CONTRACTORS FOR EACH STATIONARY AND AUXILIARY SUPPORT RAIL. CLOSURE STRIPS SHALL BE PROVIDED FOR AREAS OF UNISTRUT EXPOSED AND WITHOUT MOUNTING UNITS.
- o 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.
- o 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.
- o ALL CEILING MOUNTED FIXTURES, AIR VENTS, SPRINKLERS, ETC. TO BE FLUSH MOUNTED, OR SHALL NOT EXTEND MORE THAN 6,35mm (1/4") BELOW THE FINISHED CEILING.
- o CONTROL WALLS WITH TUBE HANGER PASSAGE ABOVE SHALL BE CONSTRUCTED TO 2130mm (7'-0") HIGH.
- o FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO 3,17mm (1/8") IN 3050mm (10'-0")
- o DIMENSIONS ARE TO FINISHED SURFACES OF ROOM.
- o CUSTOMERS CONTRACTOR MUST PROVIDE ALL PENETRATIONS IN POST TENSION FLOORS.
- o CUSTOMERS CONTRACTOR MUST PROVIDE AND INSTALL ANY NON-STANDARD ANCHORING. DOCUMENTS FOR STANDARD ANCHORING METHODS ARE INCLUDED WITH GE EQUIPMENT FOR DRAWINGS GEOGRAPHIC AREAS THAT REQUIRE SUCH DOCUMENTATION.
- o 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.

GE Healthcare Technologies
 Installation Services Design Center
 Milwaukee, Wisconsin

SHEET TITLE: STRUCTURAL LAYOUT
 MODALITY TYPE: PRECISION MPI

THIS PLAN IS SUBMITTED TO SUPPORT THE LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL AND PIPING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXCEPT TO BE INSTALLED. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
 2-56f
 TYPICAL LAYOUT

PROJECT	REVISION
2-56f	00

DATE: 07-29-08
 DRAWN BY: JDR
 CHECKED BY: REK

REVISION HISTORY:

SHEET
 S1

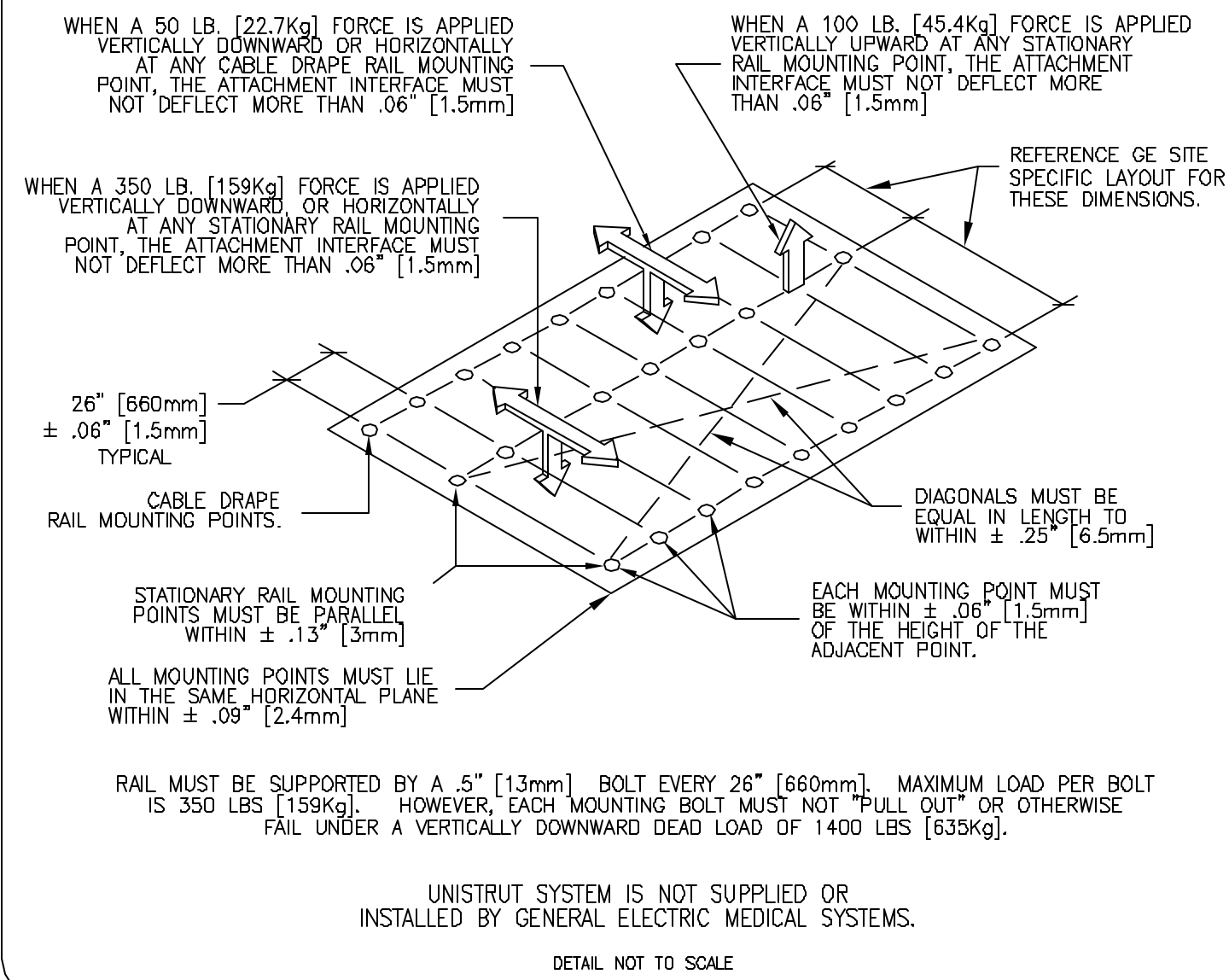
THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED

SUPPORT DETAIL

XT RADIOGRAPHIC SUSPENSION, INBOARD MOUNTING

B20-041

REV. DATE: 01/23/07

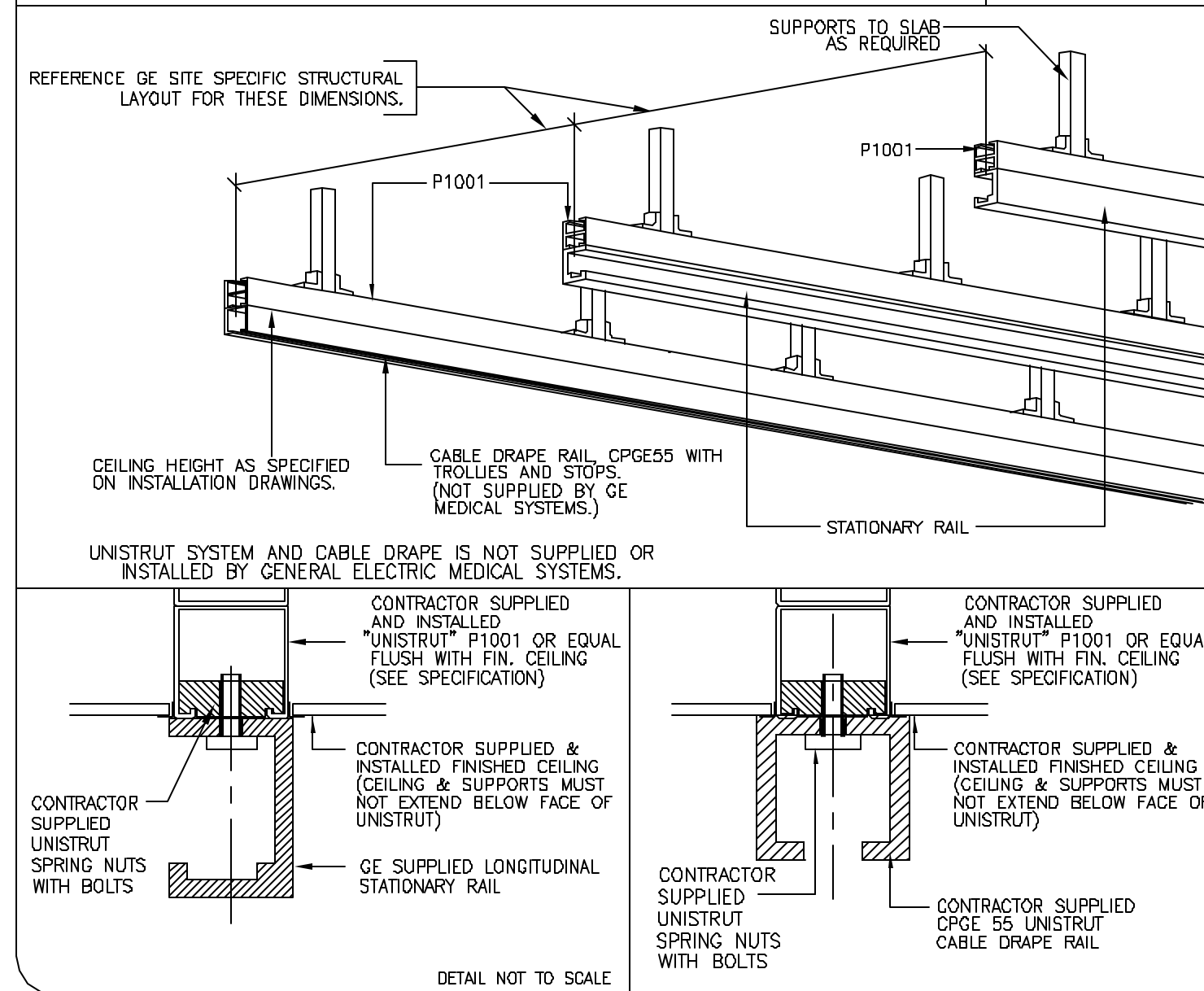


SUPPORT DETAIL

XT RADIOGRAPHIC SUSPENSION, INBOARD MOUNTING

B20-042

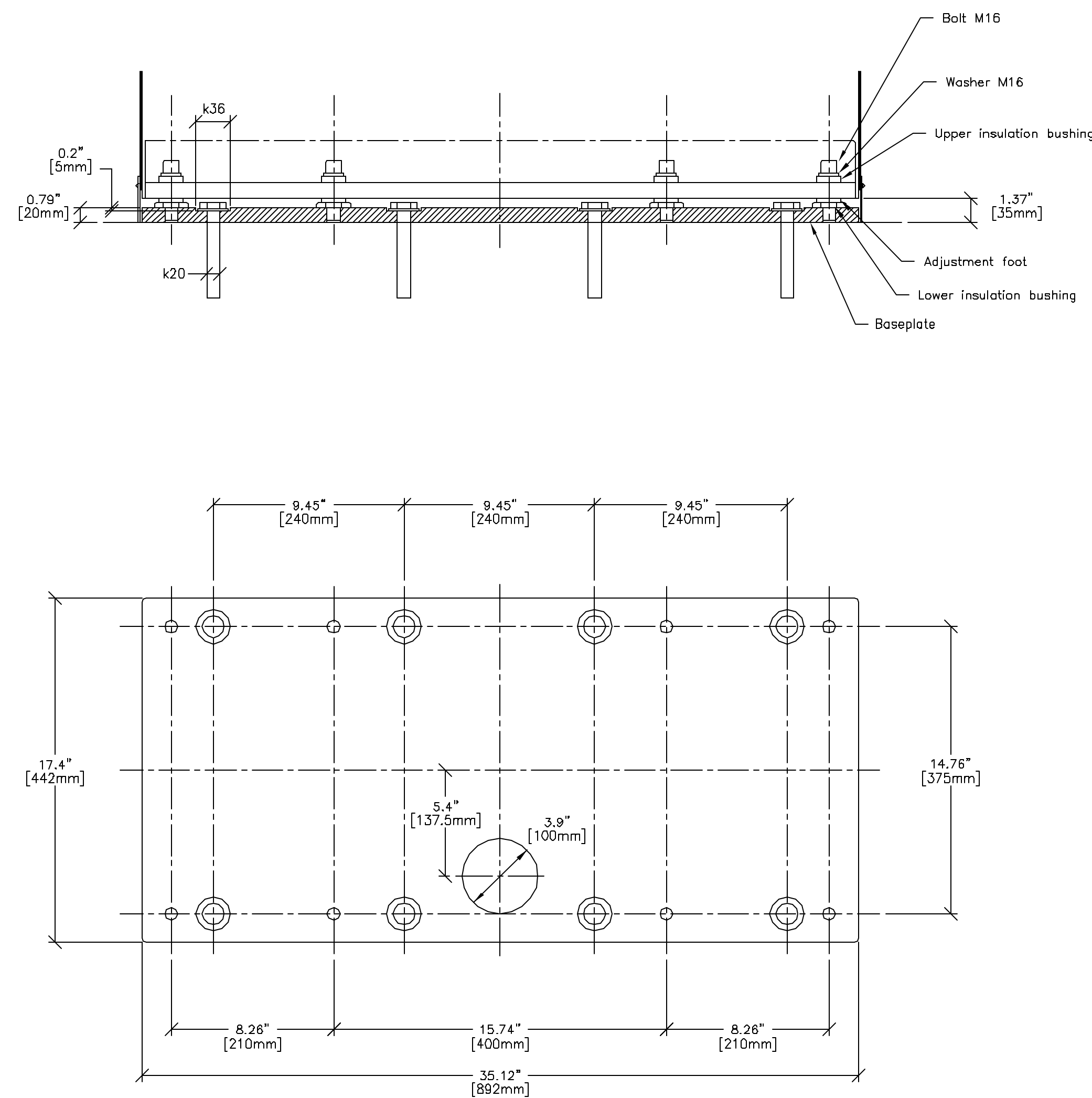
REV. DATE: 08/09/05



FLOOR MOUNTING DETAIL: PRECISION MPI BASEPLATE

B0560D

REV. DATE: 04/14/04



SHEET TITLE: STRUCTURAL DETAILS
 MODALITY TYPE: PRECISION MPI

THIS PLAN IS SUBMITTED TO SUPPORT LOCALIZATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING DETAILS AND ROOM PARAMETERS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:

2-56f
 TYPICAL LAYOUT

PROJECT	REVISION
2-56f	00
DATE: 07-29-08	
DRAWN BY: JDR	
CHECKED BY: REK	

REVISION HISTORY:

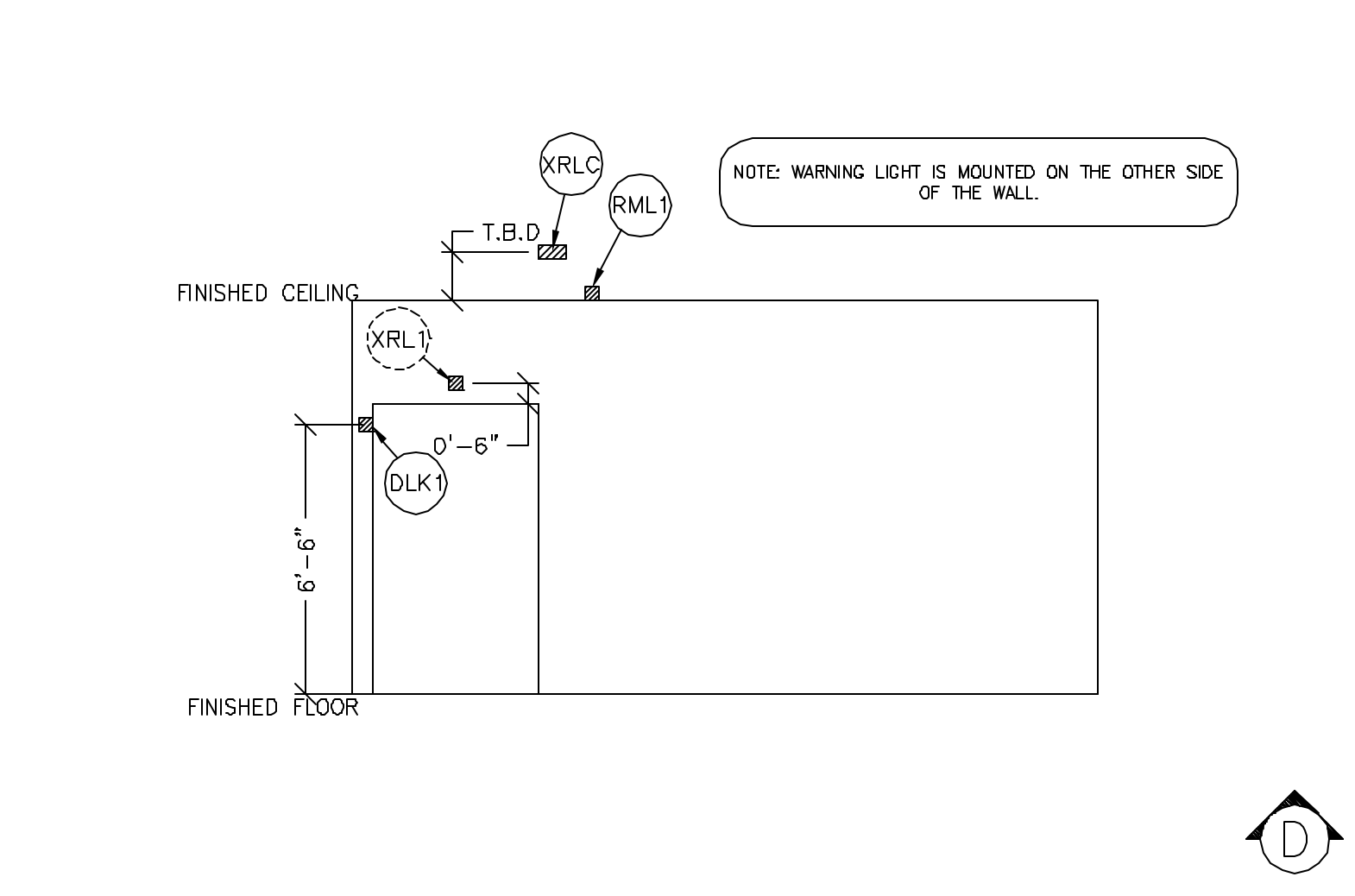
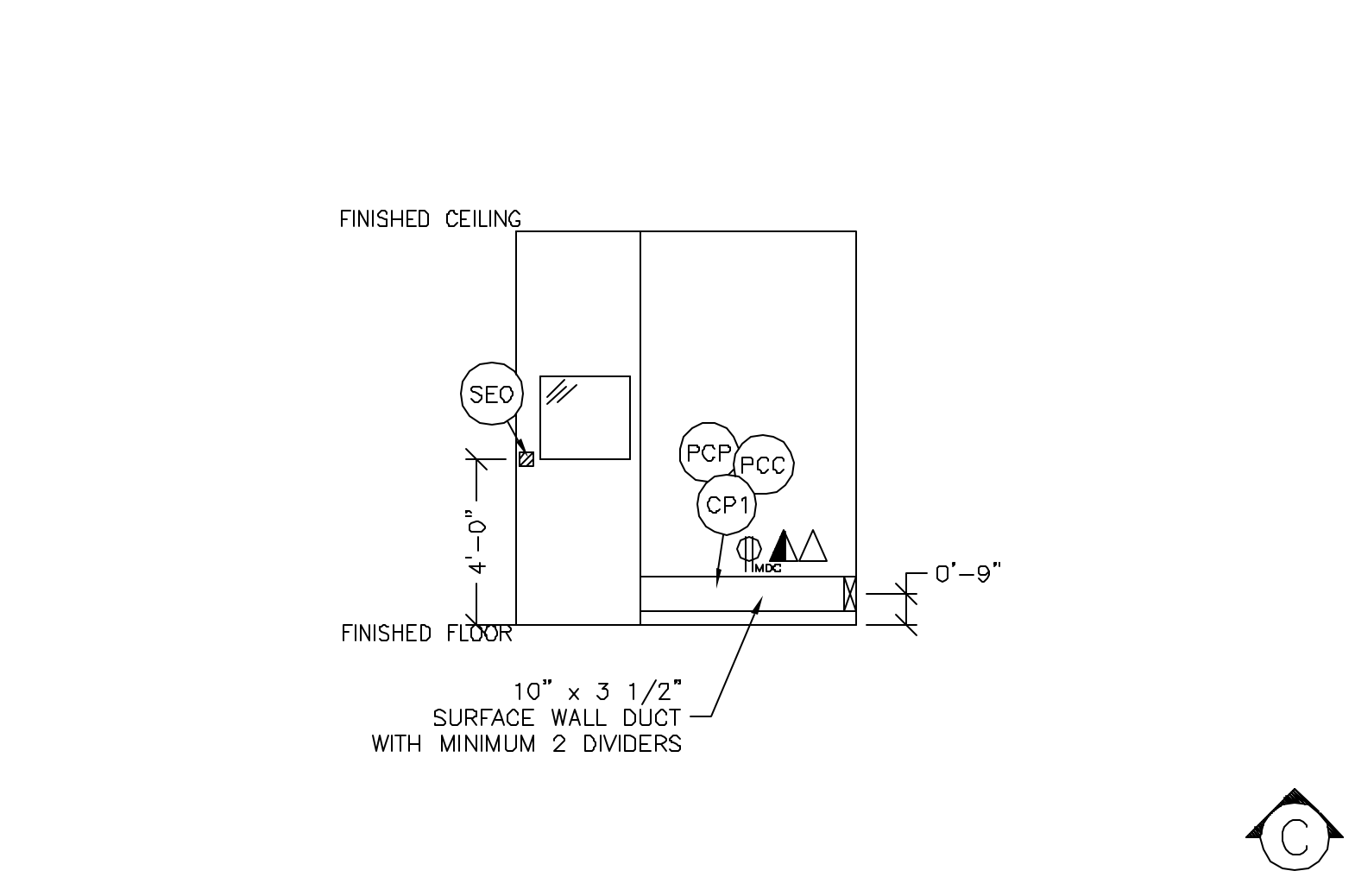
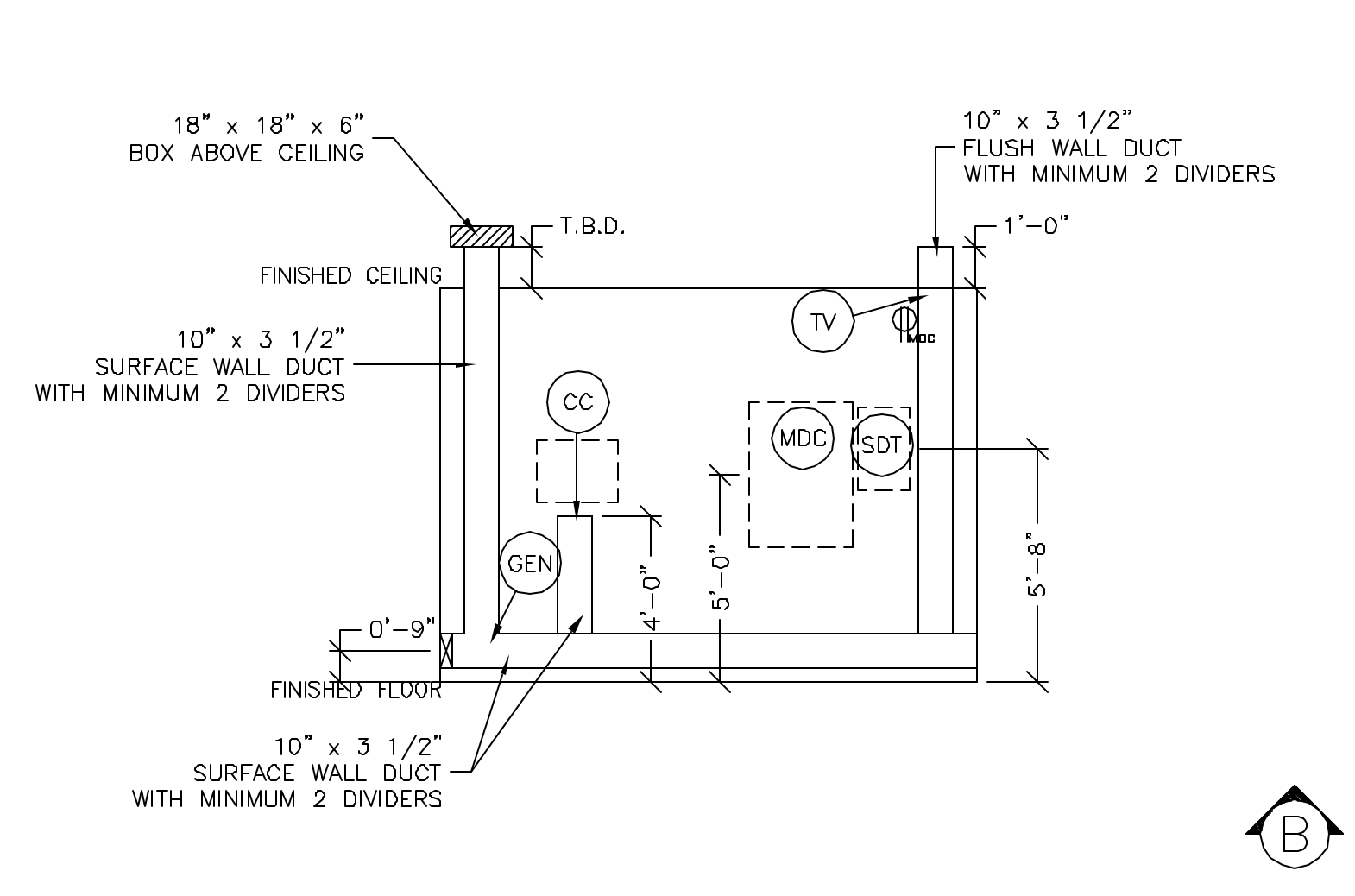
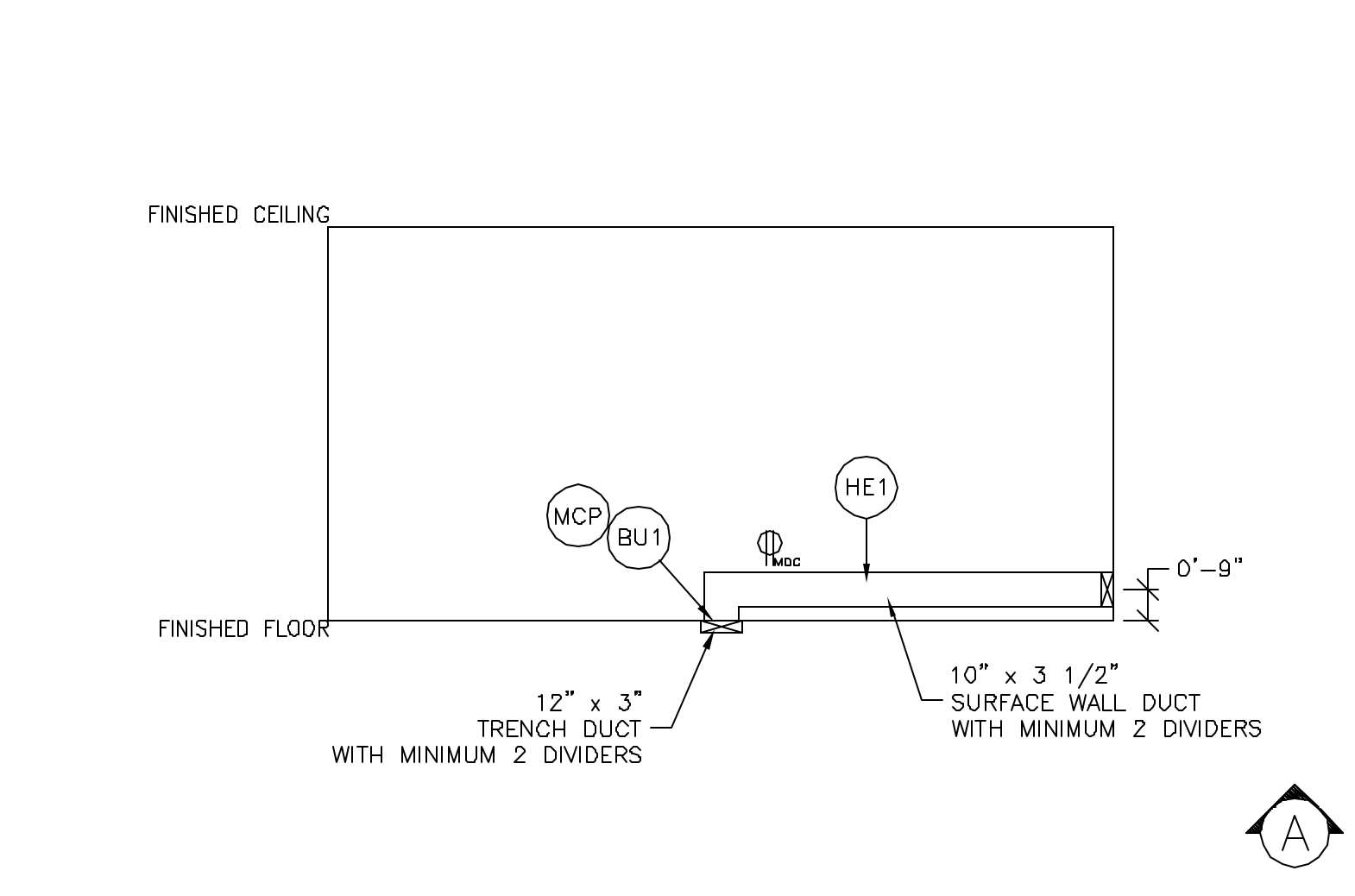
SHEET
 S2

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

ELECTRICAL PLAN

RECOMMENDED CEILING HEIGHT = 9'-8"

JUNCTION POINT DESCRIPTIONS



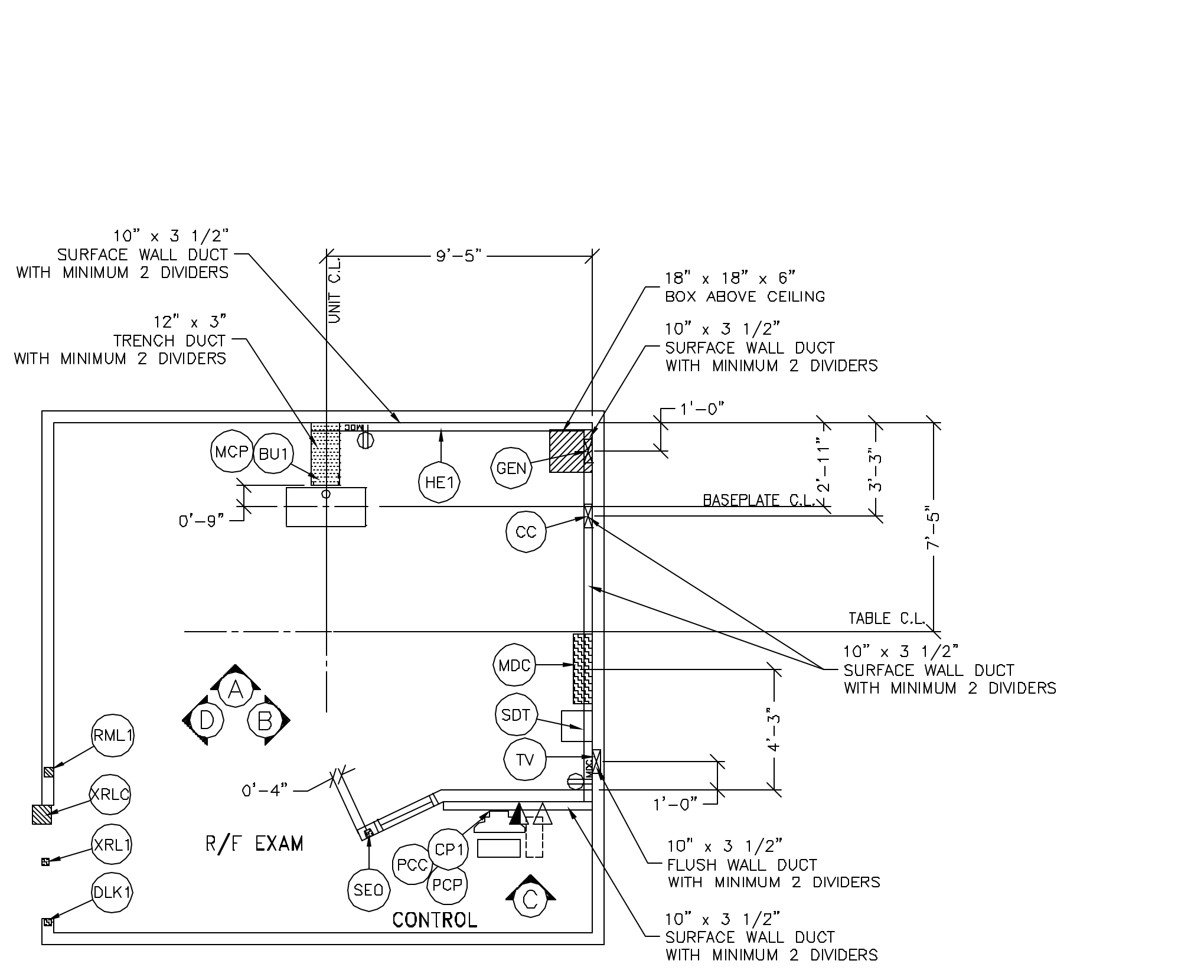
ELECTRICAL OUTLET LEGEND
CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS. HEIGHT ABOVE FLOOR DETERMINED BY LOCAL CODES UNLESS OTHERWISE SPECIFIED.

- DUPLEX HOSPITAL GRADE RELEGATED OUTLET 120-V SINGLE PHASE OUTLET POWERED FROM SYSTEM MAIN DISCONNECT
- DEDICATED TELEPHONE LINE(S) (SEE ELECTRICAL DETAIL ELEC-1 OR ELEC-67)
- NETWORK OUTLET (SEE ELECTRICAL DETAILS ELEC-83 AND ELEC-84 OR ELEC-87)

DUCT HATCHING LEGEND

- ABOVE CEILING DUCT
- UNDER FLOOR DUCT
- TRENCH DUCT (FLUSH FLOOR)
- SURFACE FLOOR DUCT
- ABOVE CEILING CONDUIT
- BELOW FLOOR CONDUIT

- JUNCTION POINT NOTES**
- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMER'S 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:
 - DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
 - DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
 - DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
 - 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 CUSTOMER'S 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.
 - ALL WIRING MUST BE THHN OR TFFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT INSULATION. ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.
 - GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.



NOTE: REFER TO CONDUIT LEGEND FOR ALL ADDITIONAL CONDUITS NOT SHOWN ON DRAWING.

PRECISION MPI REV. DATE: 02/20/03

- CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
- RECOMMENDED FEEDER SIZES FROM DISTRIBUTION TRANSFORMER TO THE POWER CABINET
- INPUT CONFIGURATION 3 PHASE GROUNDING WYE WITH GROUND, A NEUTRAL IS NOT REQUIRED UNLESS SYSTEM IS CONSIDERED WITH A UPS. IF A NEUTRAL IS USED IT MUST BE TERMINATED PRIOR TO OR INSIDE THE DISCONNECT PANEL AND NOT AT ANY GE CABINET.
- THE GROUNDING CONDUCTOR WILL BE OF SAME SIZE AS THE FEEDER WIRES. THIS GROUND WILL RUN FROM THE EQUIPMENT BACK TO THE FACILITY POWER SOURCE/MAIN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
- MINIMUM WIRE SIZE FOR CIRCUIT BREAKER, BASED ON RECOMMENDED OVERCURRENT PROTECTION.
- FOR A FULL SYSTEM UPS, REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.
- NOTE: POWER RUN FROM BREAKER TO GENERATOR MUST BE WELDING CABLE OR EQUIVALENT

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE	
	360-440 400	432-528 480
30	* 1	* 1
100	* 1	* 1
150	1/0	* 1
200	2/0	1/0
250	4/0	2/0
300	250M	3/0
350	300M	3/0
400	350M	4/0
450	500M	250M

ADDITIONAL CONDUIT RUNS FOR PRECISION MPI (BY CONTRACTOR)

CONDUITS REQUIRED FOR BASE SYSTEM (CONDUITS ARE LOCATED ABOVE CEILING)

TO	FROM	QUANTITY	WIRE SIZE/COLOR
XRLC	RML1	ONE	1/2" CND.
XRLC	XRL1	ONE	1/2" CND.
XRLC	GEN	ONE	1/2" CND.
XRLC	120-V 1Ø POWER	CND.	AS REQ'D
DLK1	GEN	ONE	1/2" CND.
MDC	GEN	ONE	CND. AS REQ'D
MDC	FEEDER	ONE	CND. AS REQ'D
MDC	SEO	ONE	1/2" CND.
MDC	SDT	ONE	CND. AS REQ'D

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

POINT	DESCRIPTION	QTY.	HARDWARE	DETAIL NO., SHT. E3
BU1	POSITIONER	1	GROMMET MATERIAL	
CC	COLLIMATOR CONTROL	1	80 IN. OF GROMMET MATERIAL FOR A 4 X 6 IN. OPENING IN DUCT COVER.	
CP1	GENERATOR TOUCHSCREEN	1	12 IN. OF GROMMET MATERIAL FOR A 3 X 3 IN. OPENING IN DUCT COVER	ELEC-5 ELEC-6
DLK1	DOOR SWITCH	1	ROOM DOOR INTERLOCK LIMIT SWITCH IN FRAME - NORMALLY OPEN (24V) SINGLE GANG BOX	
GEN	GENERATOR	1	32 IN. OF GROMMET MATERIAL FOR AN 8 X 8 IN. OPENING IN DUCT COVER	ELEC-6 ELEC-8
HE1	HEAT EXCHANGER	1	EXTERNALLY CONNECTED TO BU1	
MCP	MOBILE CONTROL PANEL	1	EXTERNALLY CONNECTED AT TABLE BASE	
MDC	MAIN DISCONNECT AVAILABLE FROM GEMSG. CALL: 800-558-5102 OR LOCAL GE INSTALLATION PROJECT MGR.	1	110-AMP CIRCUIT BREAKER PANEL	ELEC-132
PCC	PC CABINET	1	12 IN. OF GROMMET MATERIAL FOR A 3 X 3 IN. OPENING IN DUCT COVER	ELEC-5 ELEC-6
PCP	POSITIONER CONTROL PANEL	1	12 IN. OF GROMMET MATERIAL FOR A 3 X 3 IN. OPENING IN DUCT COVER	ELEC-5 ELEC-6
RML1	ROOM LIGHTS AVAILABLE FROM GE. CALL: 800-558-5102	1	COVERPLATE SINGLE GANG BOX	ELEC-17
SDT	STEP DOWN TRANSFORMER	1	FITTINGS AS REQUIRED	ELEC-137
SEO	EMERGENCY OFF	1	PROVIDE A SINGLE GANG, 8 1/8 IN. DEEP, FLUSH MTD. WALL BDX.	ELEC-126 ELEC-116
TV	TV MONITOR	1	GROMMET MATERIAL	ELEC-5 ELEC-6
XRL1	WARNING LIGHT	1	SINGLE GANG BOX INCANDESCENT LIGHT FIXTURE, 24V, 8 AMP OR LESS LOW VOLTAGE SOURCE. DO NOT USE FLUORESCENT FIXTURES.	ELEC-17
XRLC	WARNING LIGHT CONTROLLER AVAILABLE FROM GEMSG. CALL: 800-558-5102 OR LOCAL GE INSTALLATION PROJECT MGR.	1	E4500SS WARNING LIGHT 8 ROOM LIGHT CONTROL OR EQUIVALENT MAX 24V CONTROLLER	ELEC-17

CONTRACTOR SUPPLIED AND INSTALLED WIRING
ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM - TO	QUANTITY, WIRE SIZE/COLOR
3 PHASE > MDC	REFER TO FEEDER TABLE
MDC > GEN	REFER TO FEEDER TABLE
MDC > SEO	2-NO. 14 BLACK, 1-NO. 14 GREEN
MDC > BU1	1-NO. 12 BLACK, 1-NO. 12 GREEN
MDC > SDT	2-NO. 12 BLACK, 2-NO. 14 GREEN 2-NO. 8 BLACK, 2-NO. 8 GREEN
GEN > DLK1	1-NO. 14 BLACK, 1-NO. 14 GREEN
GEN > XRLC	2-NO. 14 BLACK, 2-NO. 14 GREEN
XRLC > 1 PHASE	1-NO. 14 BLACK, 1-NO. 14 GREEN
XRL1 > XRLC	1-NO. 14 BLACK, 1-NO. 14 GREEN
XRLC > RML1	1-NO. 14 BLACK, 1-NO. 14 GREEN

GE Healthcare Technologies
Installation Services Design Center
Milwaukee, Wisconsin

SHEET TITLE: ELECTRICAL LAYOUT
MODALITY TYPE: PRECISION MPI

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PROJECT TITLE:
2-56f
TYPICAL LAYOUT

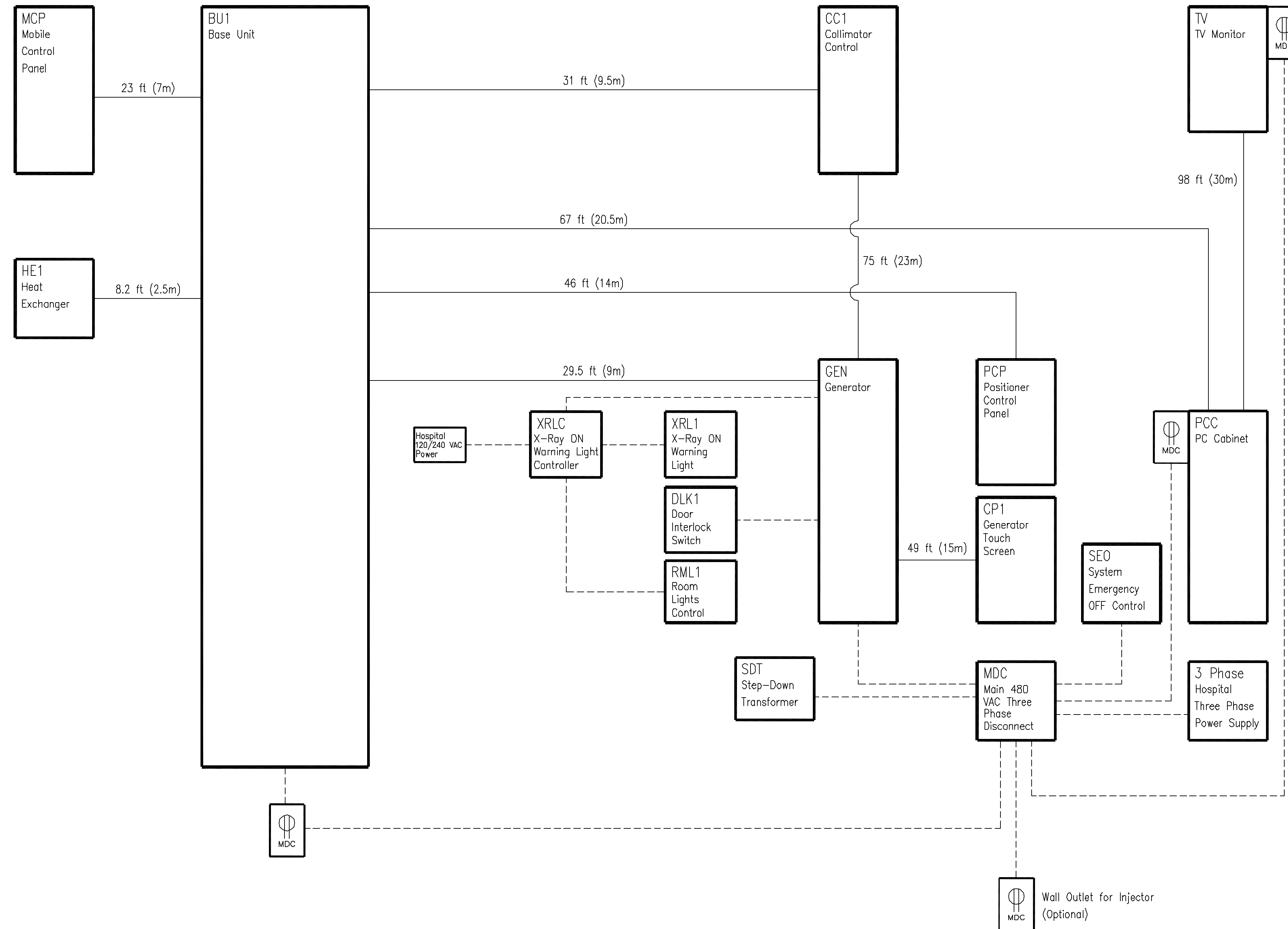
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REVISION HISTORY:

SHEET
E1

INTERCONNECT DIAGRAM



POWER SPECIFICATIONS

PRECISION MPI REV. DATE: 03/23/06

VOLTAGE PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS.
 RANGE OF LINE VOLTAGES
 NOMINAL LINE VOLTAGE OF 400 TO 480, 3 PHASE
 50 OR 60 Hz.

REQUIRED POWER SUPPLY: WYE DISTRIBUTED

MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A ALLOWABLE INPUT VOLTAGES/CURRENT DEMAND

NOMINAL VOLTAGE	NORMAL RANGE ±10 PERCENT	CURRENT (AMPS)		MINIMUM STANDARD OVERCURRENT PROTECTION
		MAX. MOMENTARY	CONTINUOUS	
400	360-440	206	31.4	125-A
480	432-528	181	45.5	110-A

ALL CALCULATIONS BASED UPON NOMINAL VOLTAGE

NOTE LOW LINE CONDITIONS MAY INHIBIT SOME HIGH kVp TECHNIQUES. THE GENERATOR AUTOMATICALLY ESTABLISHES THESE INHIBITS BASED ON ACTUAL LINE CONDITIONS AND SYSTEM REGULATION.

PHASE-BALANCE. PHASE-TO-PHASE VOLTAGES MUST BE WITHIN +2 PERCENT OF THE LOWEST PHASE-TO-PHASE VOLTAGE. MAXIMUM ALLOWABLE TRANSIENT VOLTAGE EXCURSIONS ARE 2.5 PERCENT OF RATED LINE VOLTAGE AT A MAXIMUM DURATION OF 5 CYCLES AND FREQUENCY OF 10 TIMES PER HOUR.

POWER DEMAND CONTINUOUS POWER DEMAND = 18.3 KVA. (MAX DEMAND = 144 KVA)

TABLE B MAXIMUM MOMENTARY POWER DEMAND.

DEMAND	
kVa * POWER FACTOR AT	144 0.73
mA	TBD
kVp	TBD

* DEMAND INCLUDES POWER FOR ENTIRE SYSTEM. LINE VOLTAGE REGULATION AT MAXIMUM POWER DEMAND MUST BE LESS THAN OR EQUAL TO 6 PERCENT.

DISTRIBUTION TRANSFORMER FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE IS 150 KVA.

ELECTRICAL NOTES

- NOTE 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. ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.
- NOTE 2: WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.
- NOTE 3: IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 4: CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.
- NOTE 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.
- NOTE 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.
- NOTE 7: ROUTING OF CABLE DUCTWORK, CONDUITS ETC., OTHER THAN SHOWN ON THIS DRAWING MAY RESULT IN THE NEED FOR GREATER THAN STANDARD CABLE LENGTHS (REFER TO THE INTERCONNECTION DIAGRAM FOR MAXIMUM USABLE LENGTHS POINT TO POINT).
- NOTE 8: CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 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.
- NOTE 10: THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.
- NOTE 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.

DIAGRAM KEY

- CUSTOMER/CONTRACTOR SUPPLIED WIRING. ROUTE IN ADEQUATE CONDUIT OR RACEWAY.
- _____ GE FURNISHED CABLE RUNS. ROUTE IN EMPTY CONDUIT OR RACEWAY.
- 59' [18M] MAXIMUM RUN LENGTH BETWEEN JUNCTION POINTS. Feet [Meters]

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED

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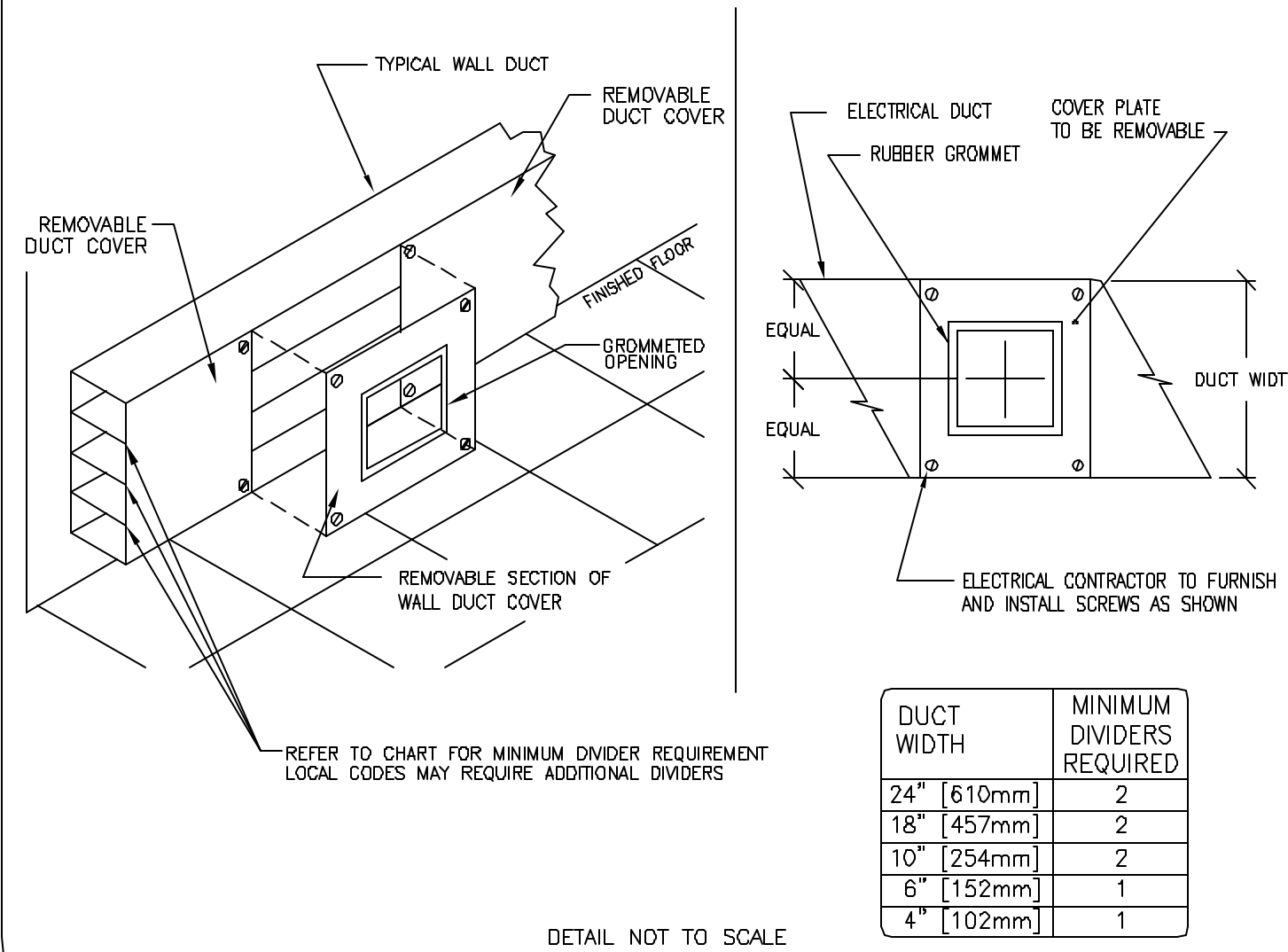
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REVISION HISTORY:

ELECTRICAL DETAIL
HORIZONTAL WALL DUCT (TYPICAL)

ELEC-5

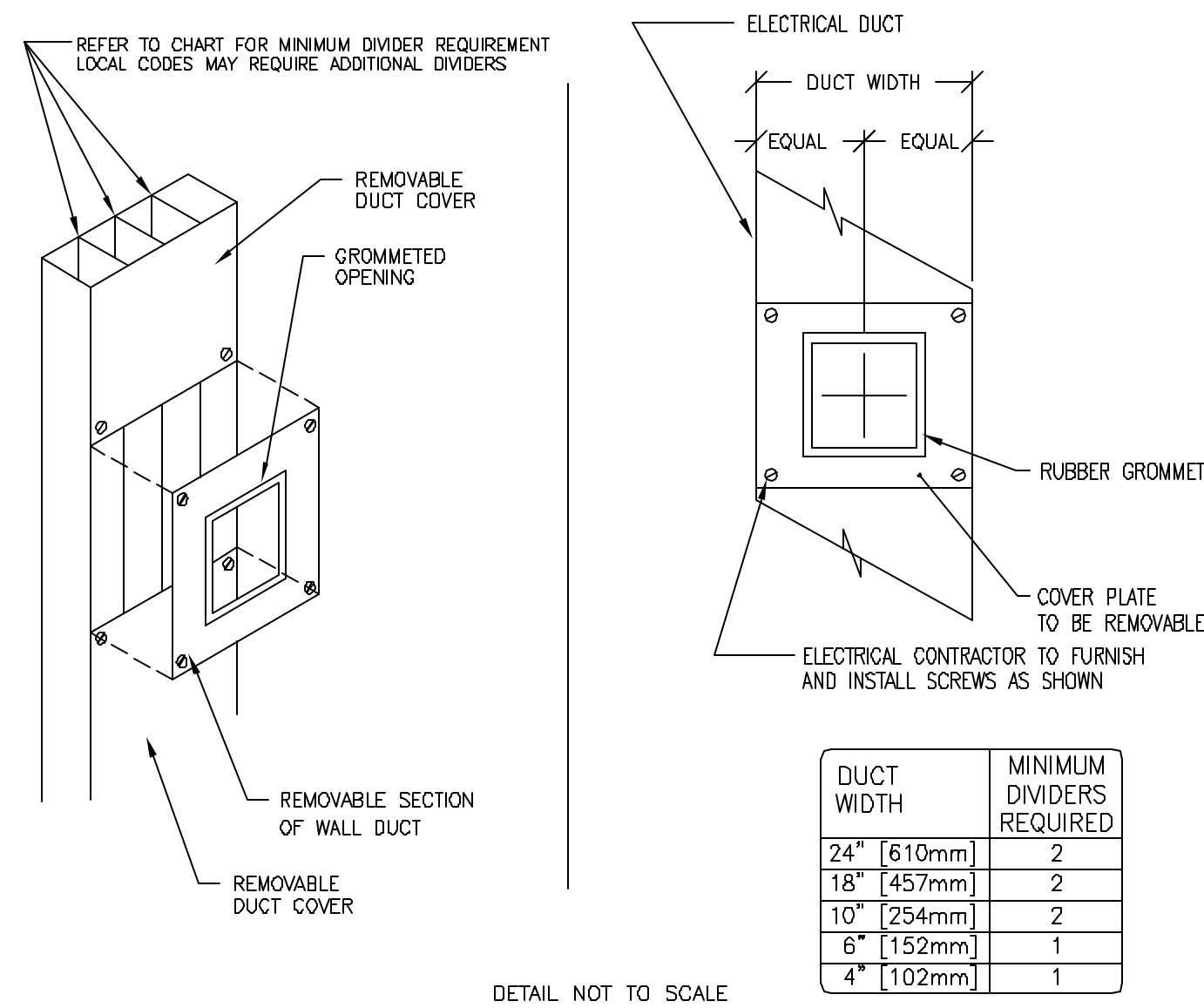
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ELECTRICAL DETAIL
VERTICAL WALL DUCT (TYPICAL)

ELEC-6

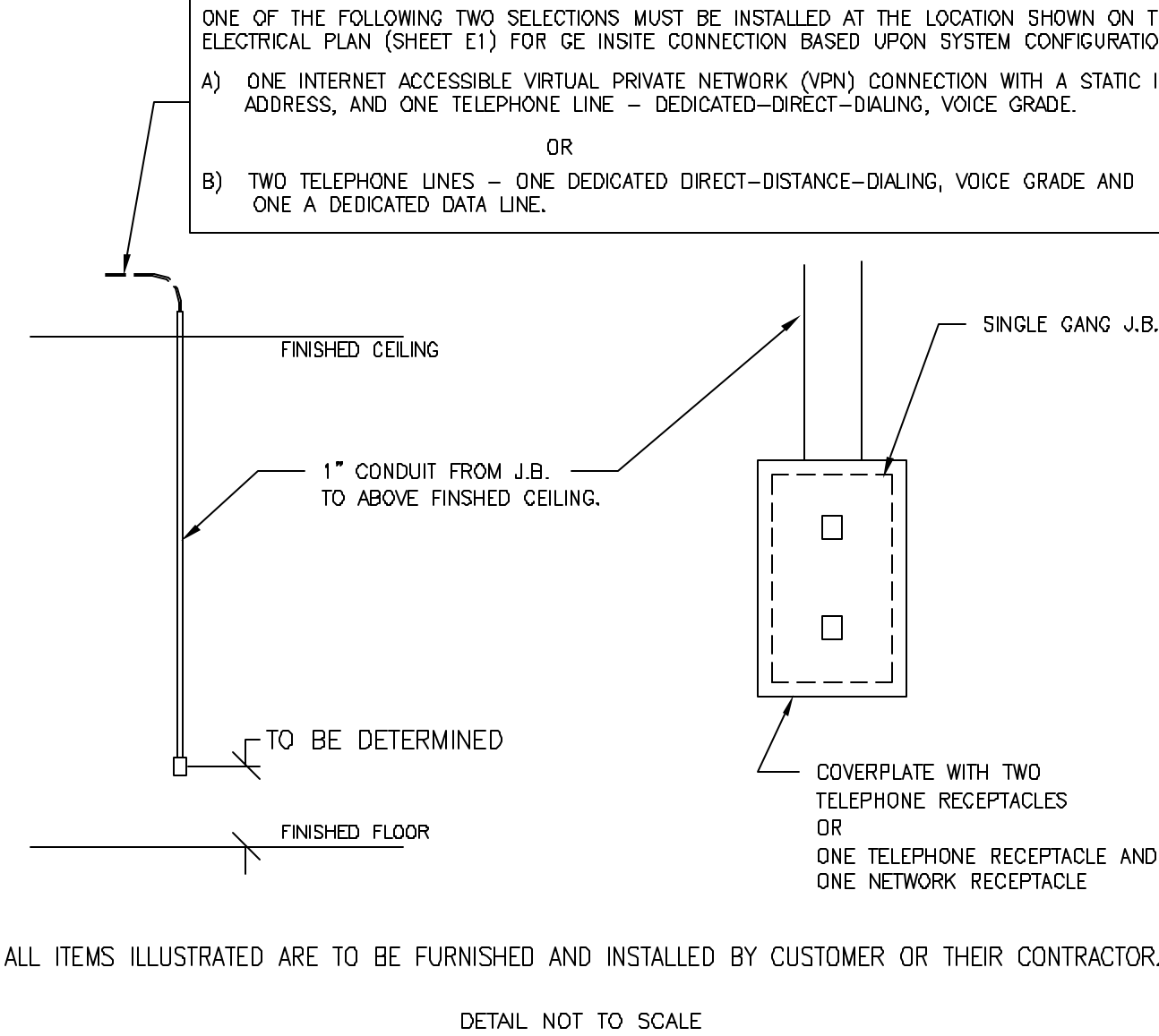
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ELECTRICAL DETAIL
INSITE CONNECTION (TYPICAL)

ELEC-1

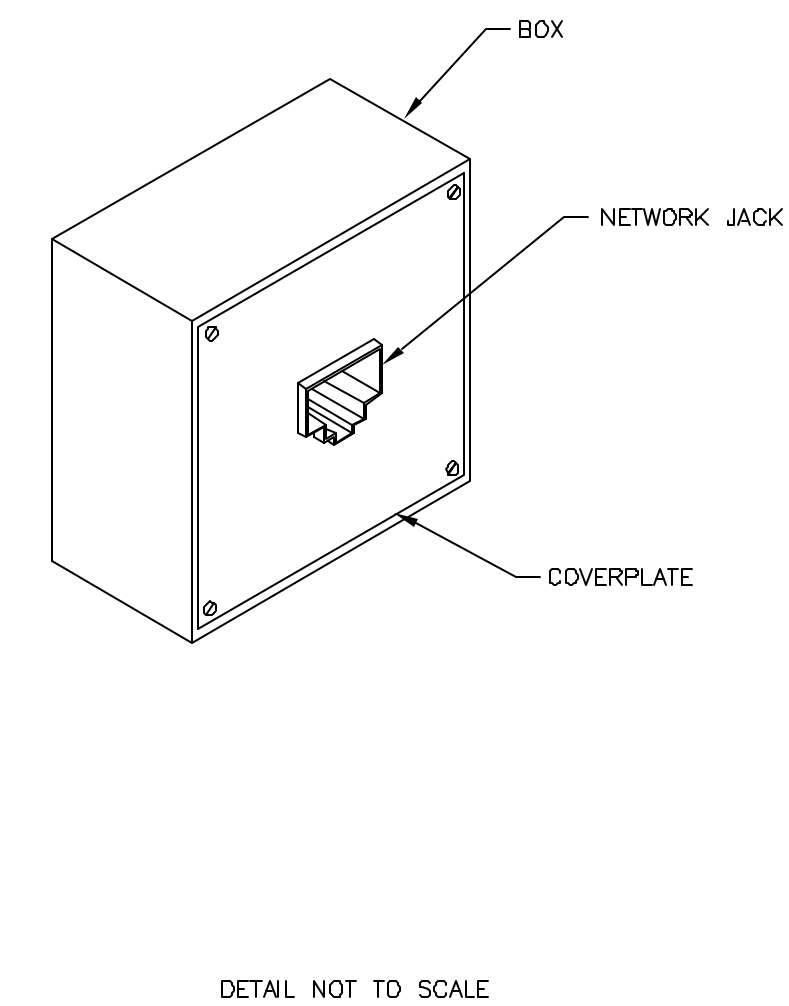
REV. DATE: 04/24/02



ELECTRICAL DETAIL
BOX WITH COVERPLATE AND NETWORK JACK

ELEC-83

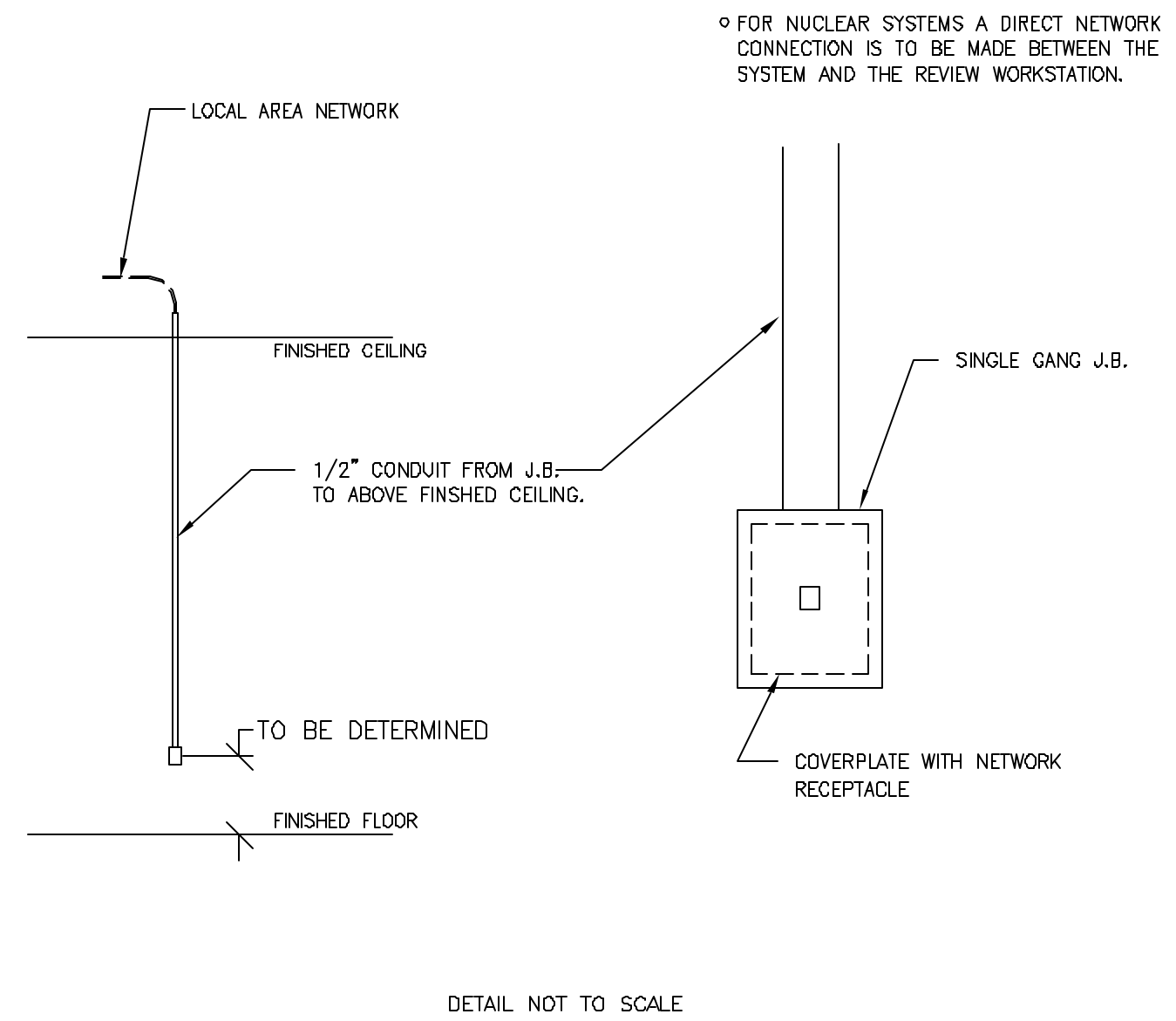
REV. DATE: 10/08/98



ELECTRICAL DETAIL
NETWORK CONNECTION (TYPICAL)

ELEC-84

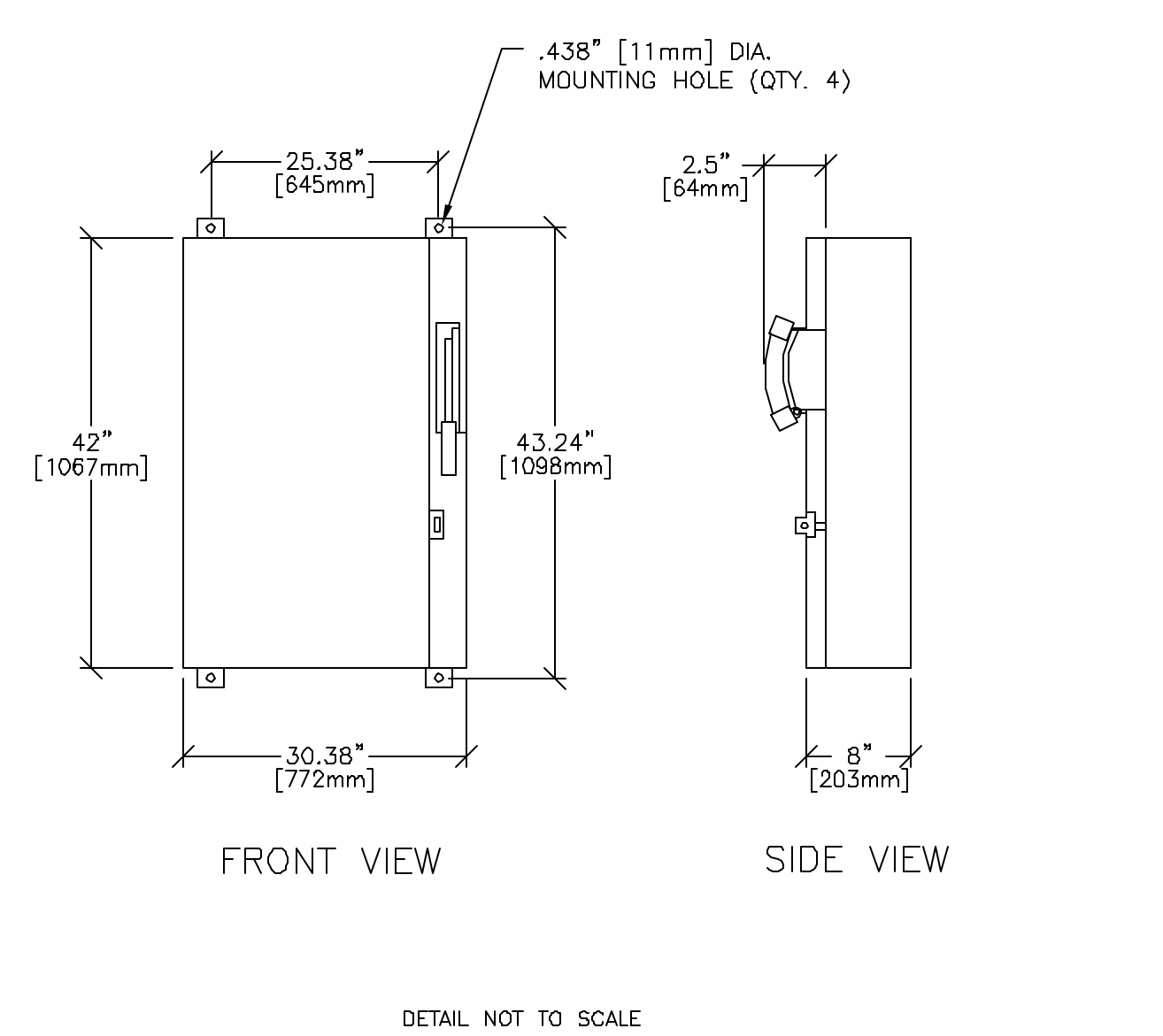
REV. DATE: 03/06/04



ELECTRICAL DETAIL
MAIN DISCONNECT

ELEC-132

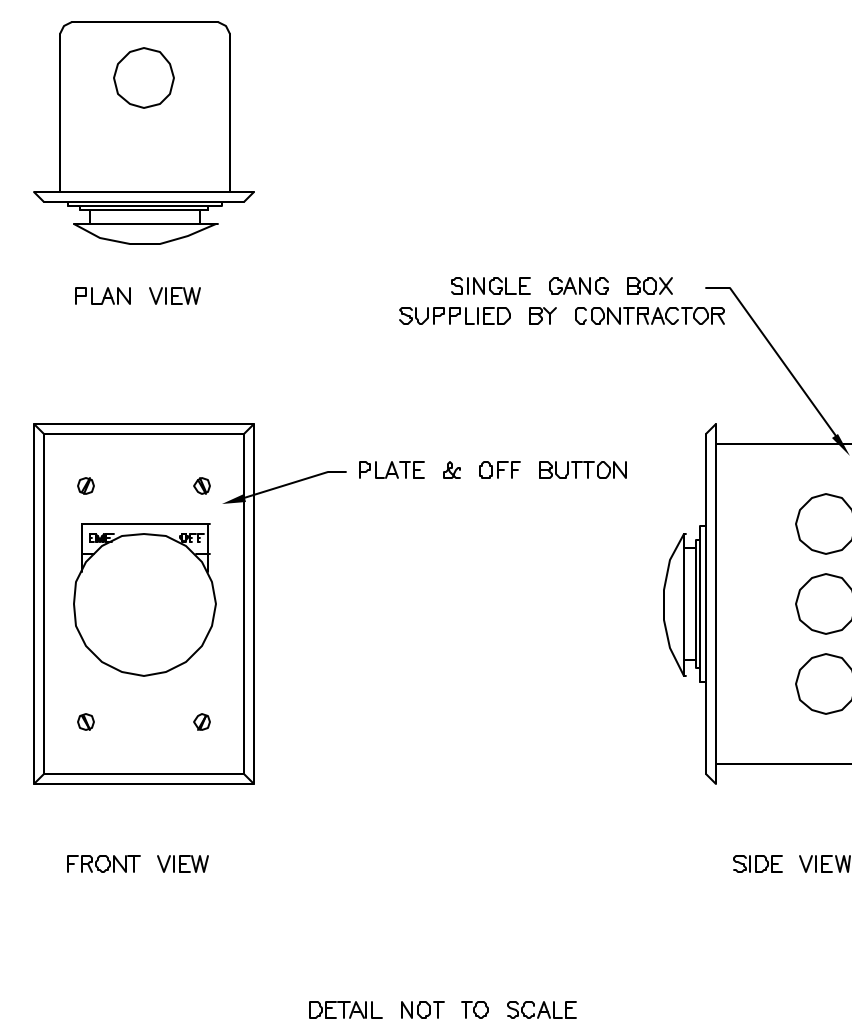
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ELECTRICAL DETAIL
EMERGENCY DISCONNECT

ELEC-126

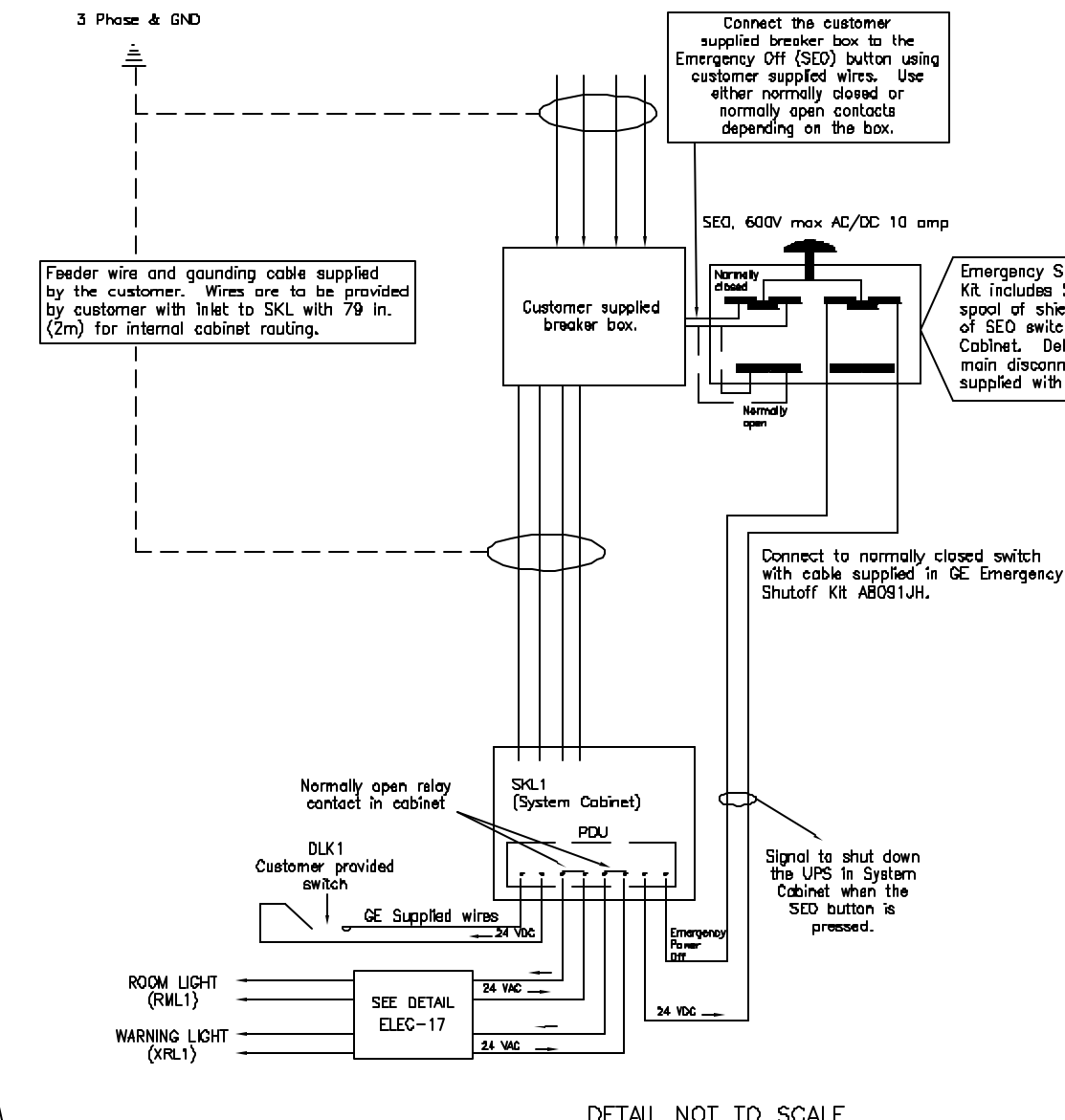
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ELECTRICAL DETAIL
ROOM POWER SUPPLY

ELEC-116

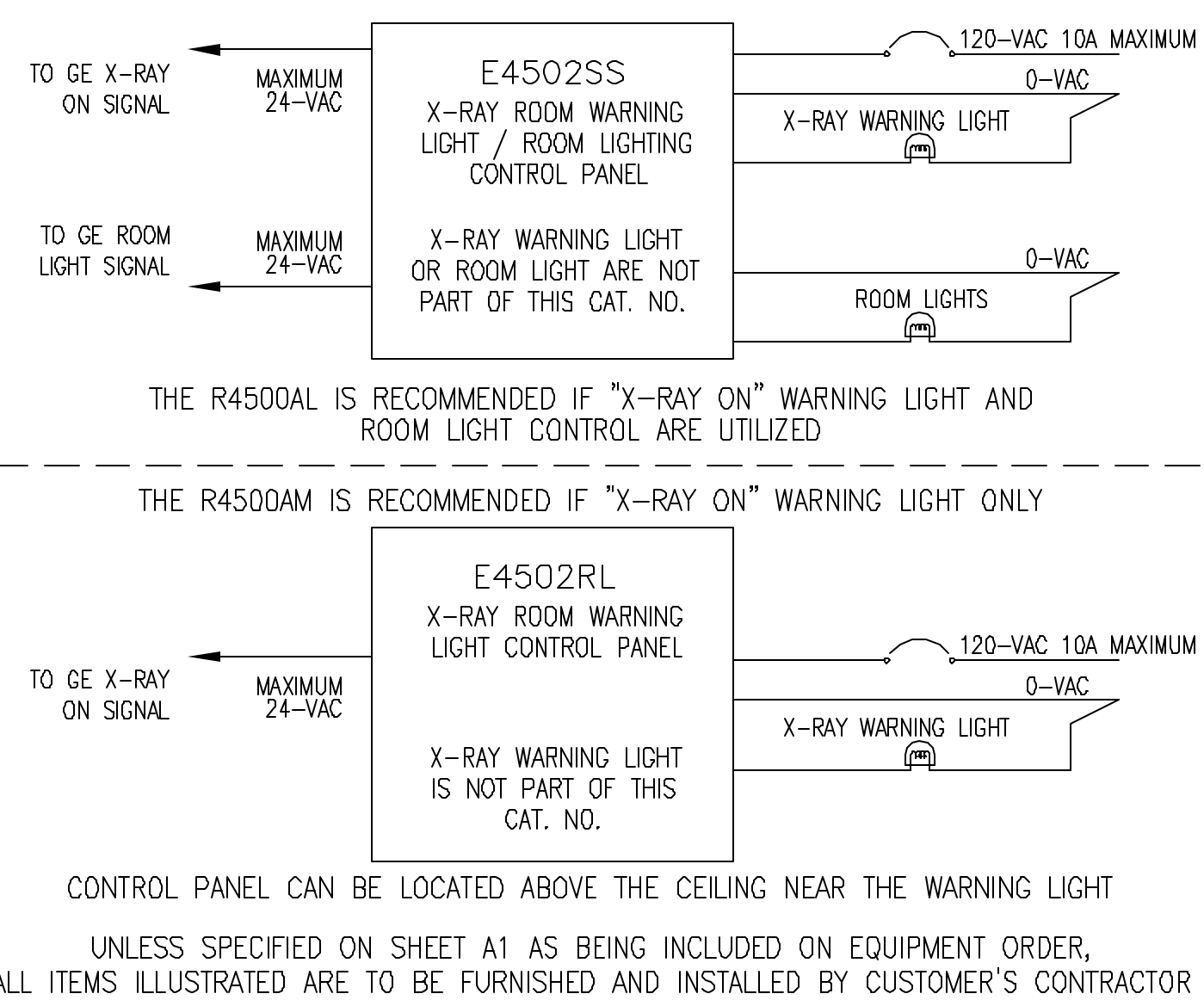
REV. DATE: 11/16/04



ELECTRICAL DETAIL
X-RAY WARNING LIGHT & ROOM LIGHT CONTROL PANEL

ELEC-17

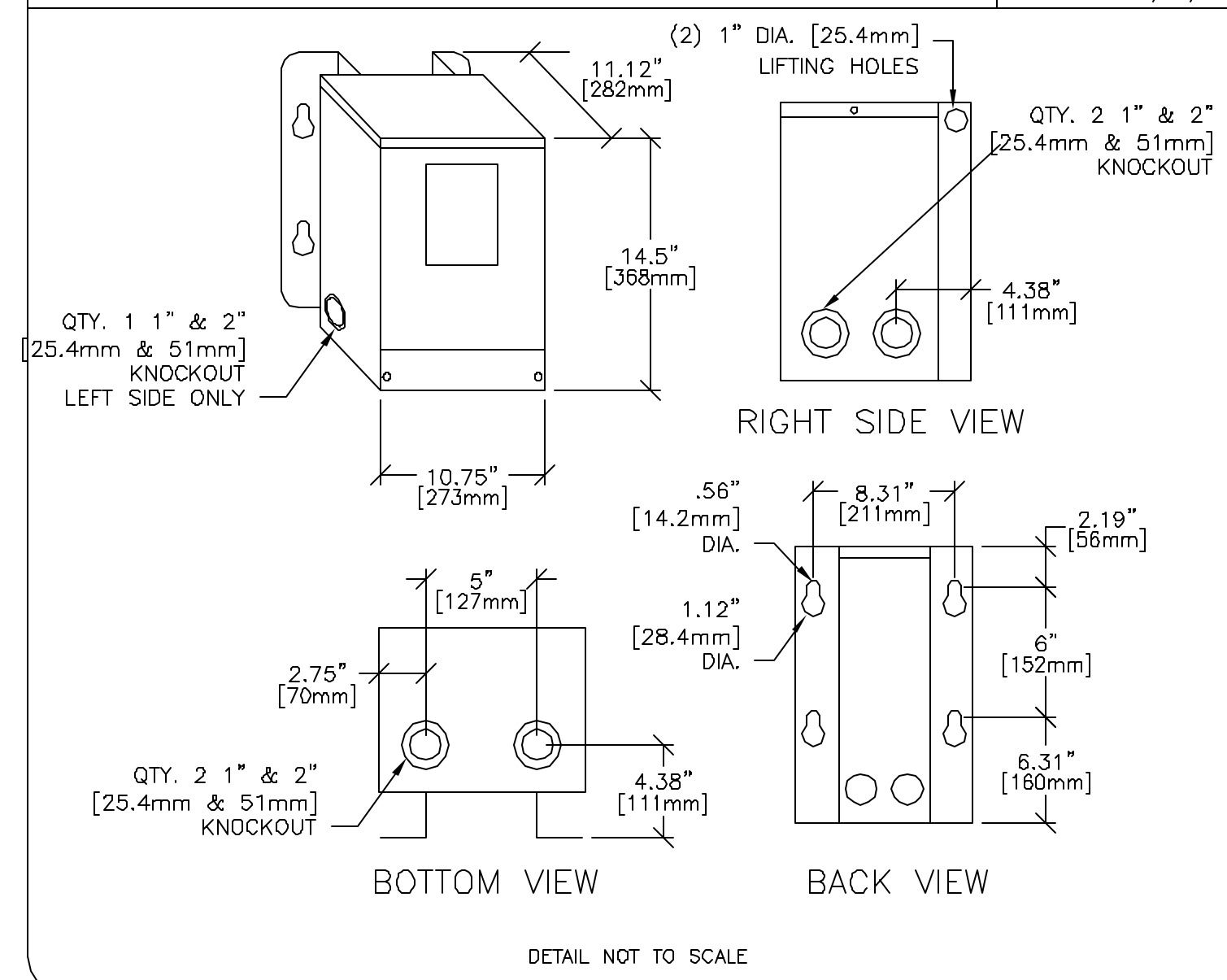
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EQUIPMENT DETAIL
STEP DOWN TRANSFORMER

ELEC-137

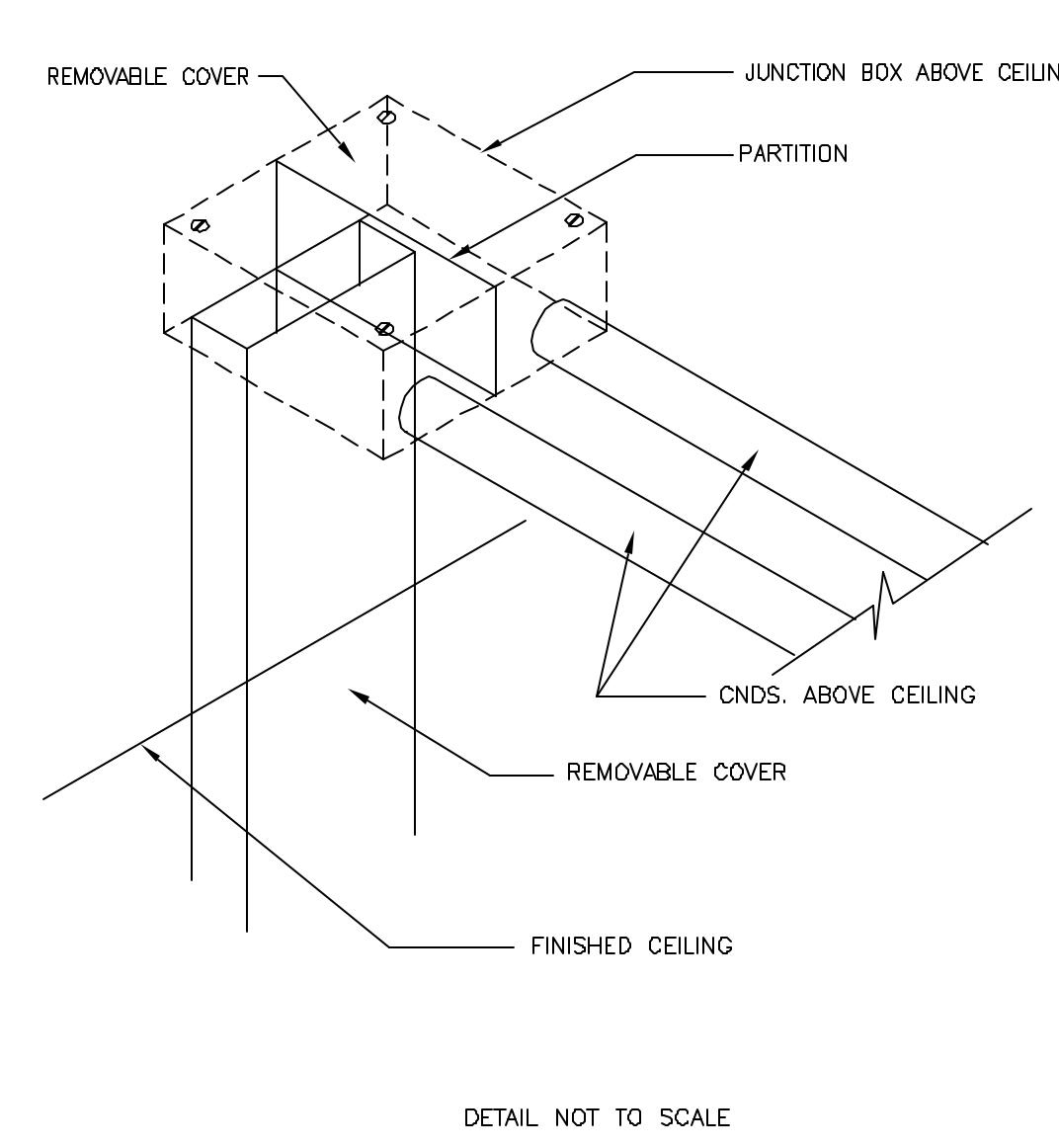
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ELECTRICAL DETAIL
J.B. / WALL DUCT DETAIL (TYPICAL)

ELEC-2

REV. DATE: 09/30/94



SHEET TITLE: ELECTRICAL DETAILS
MODALITY TYPE: PRECISION MPI

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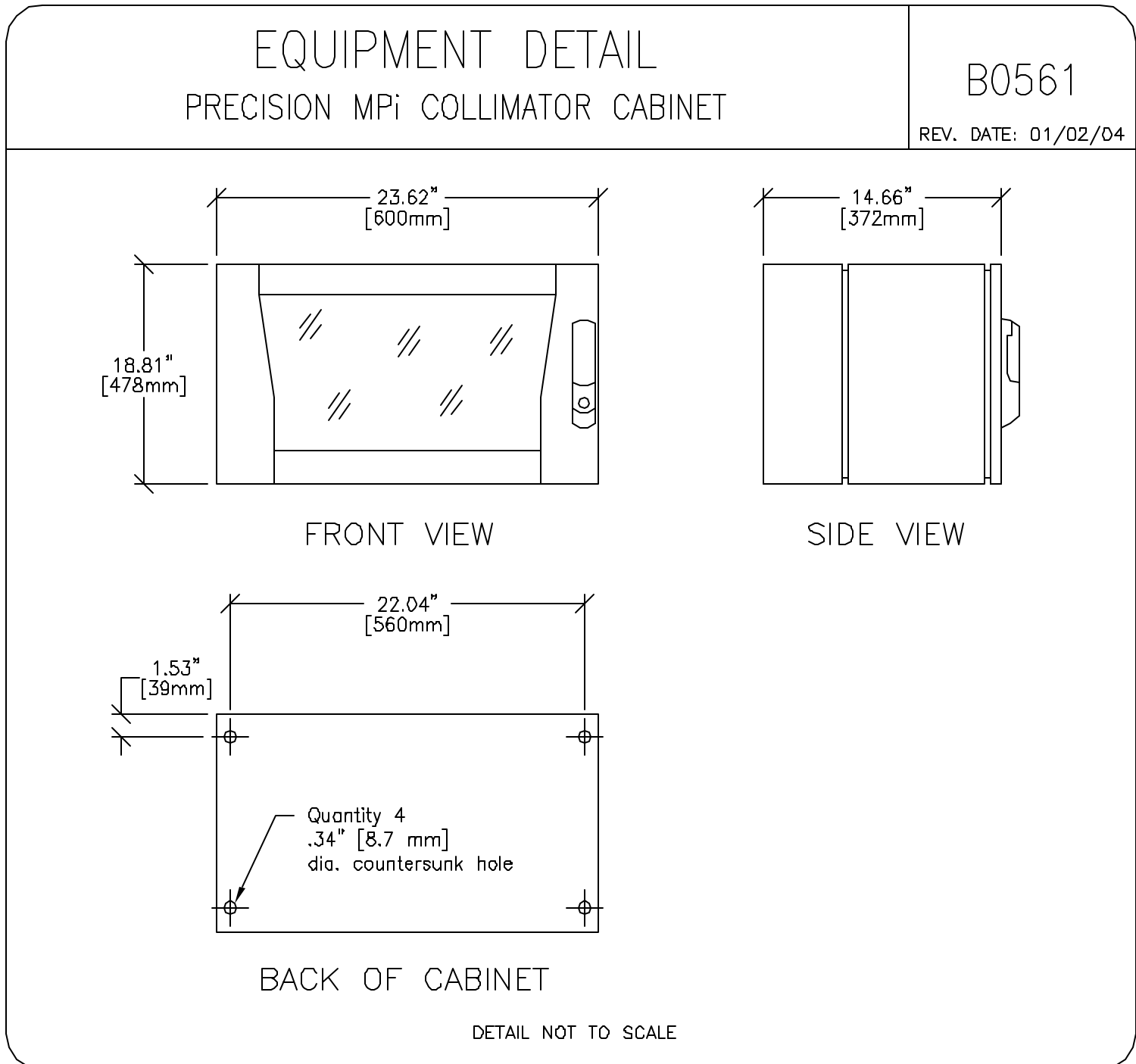
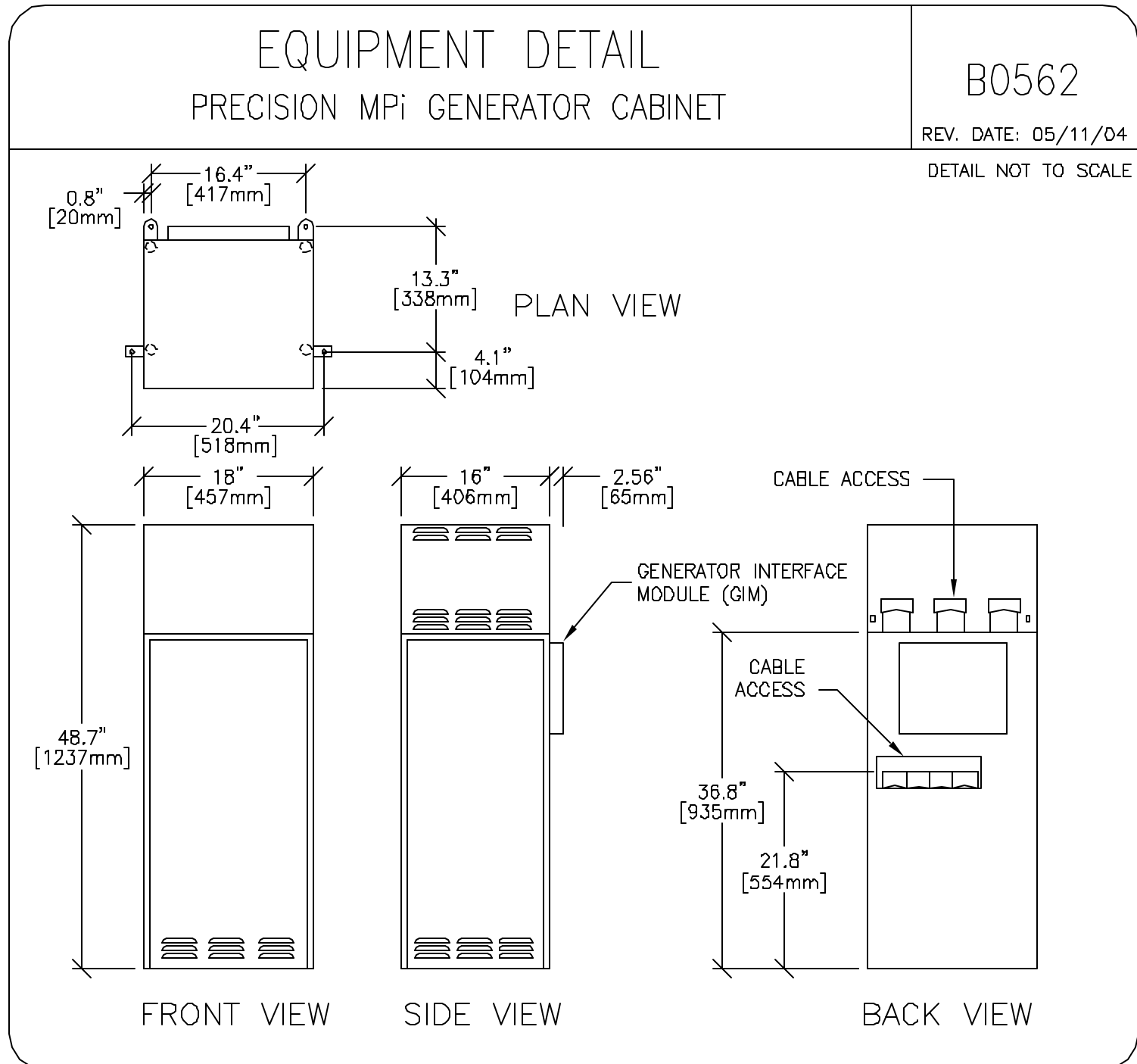
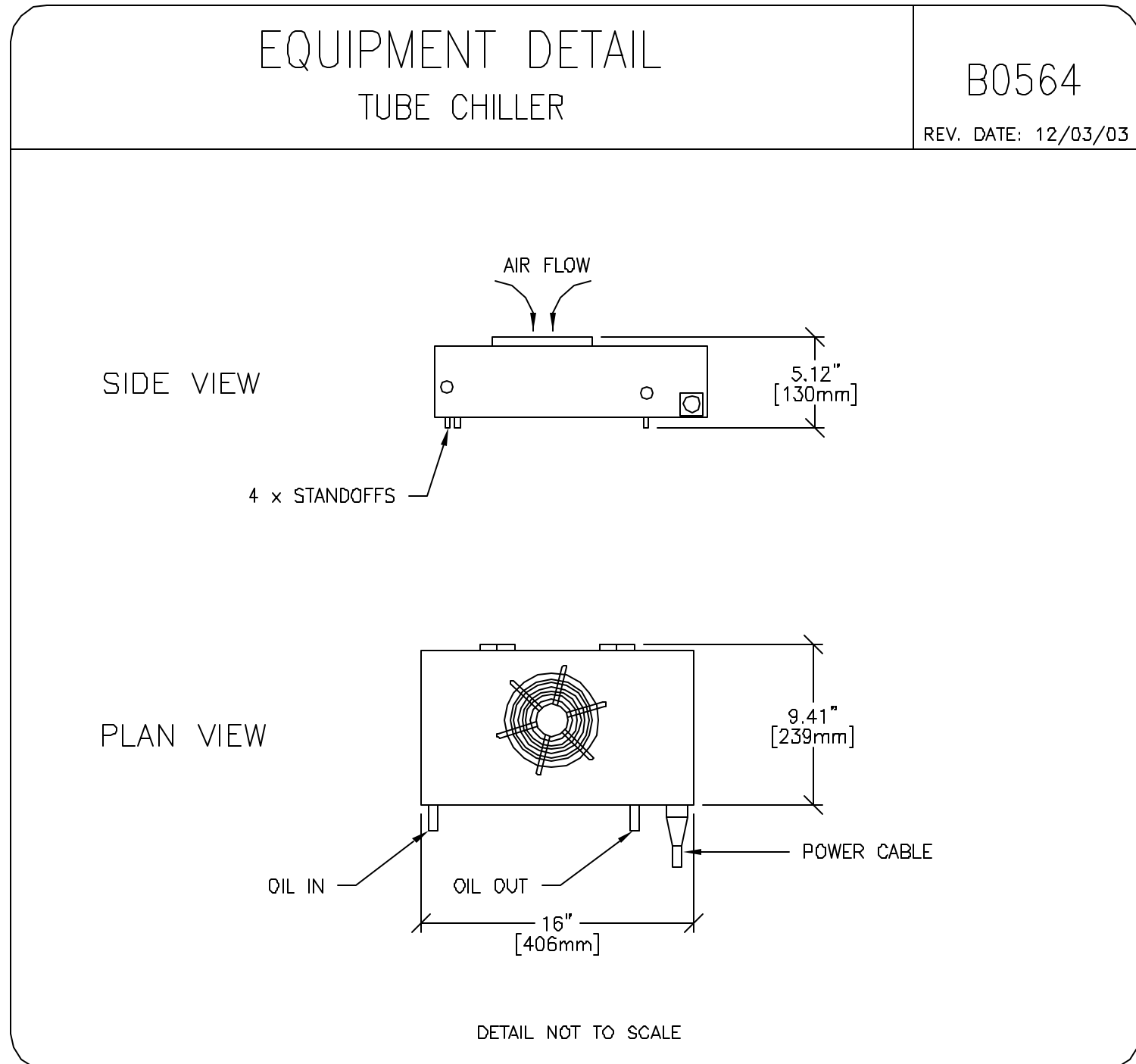
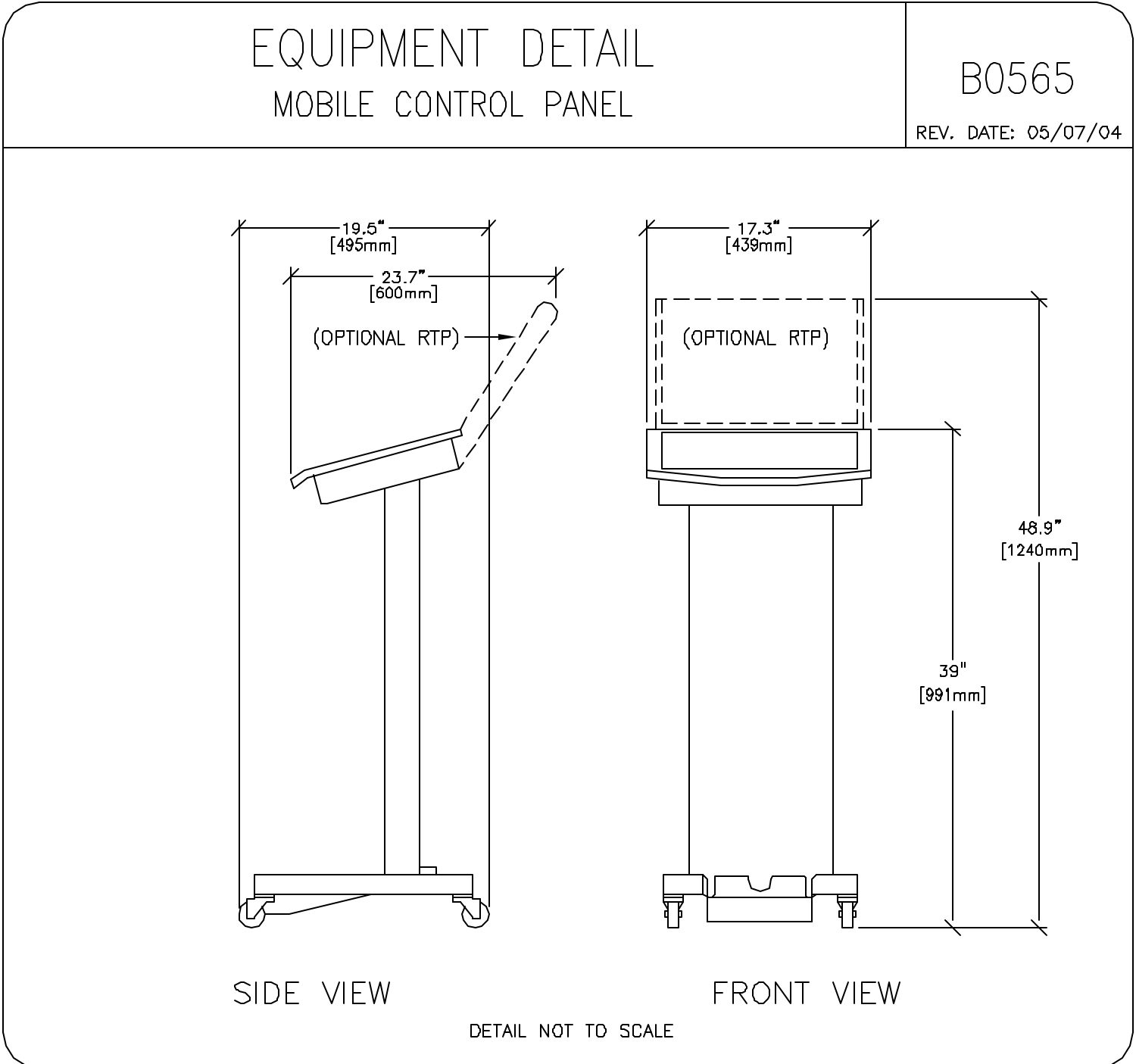
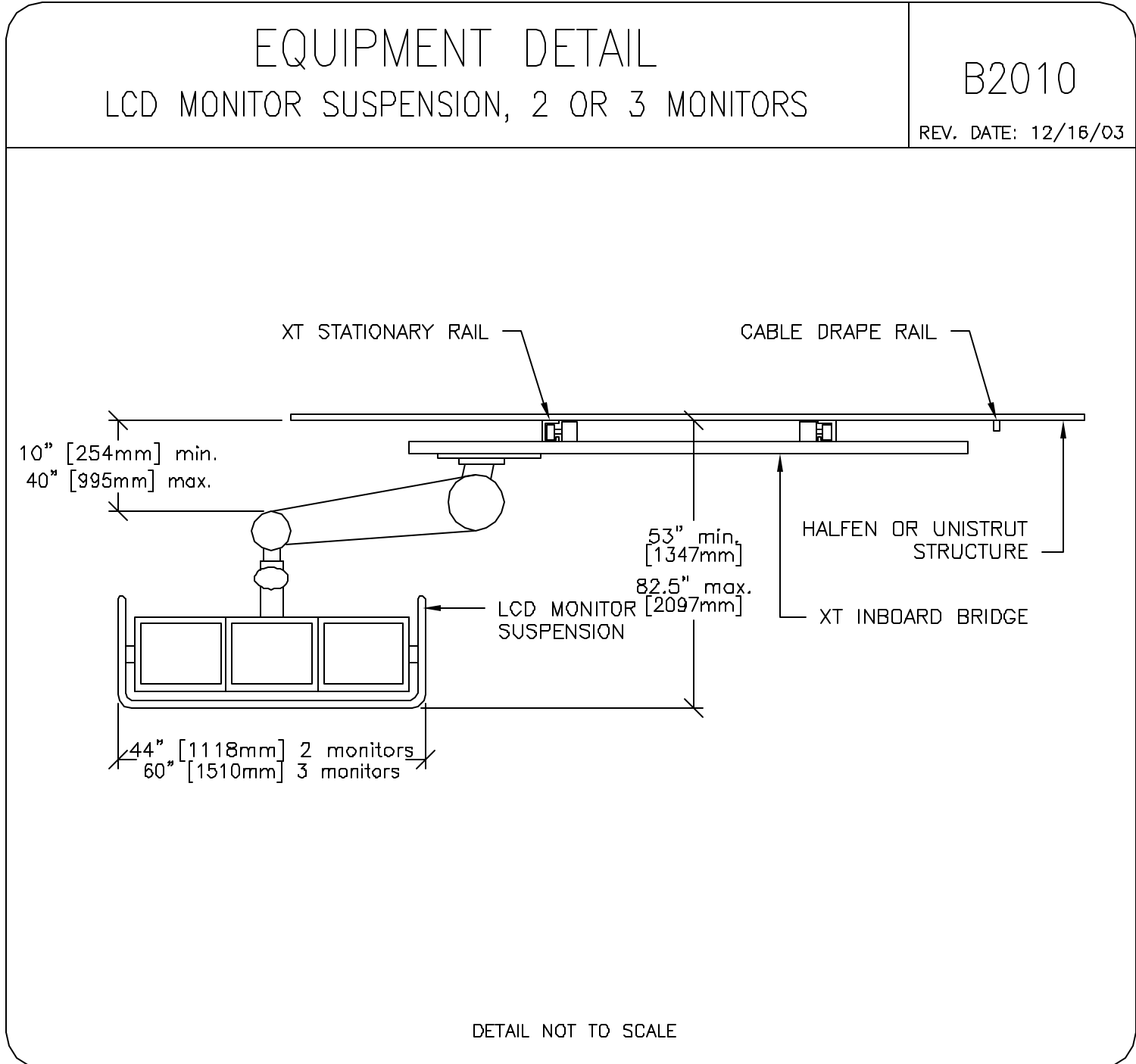
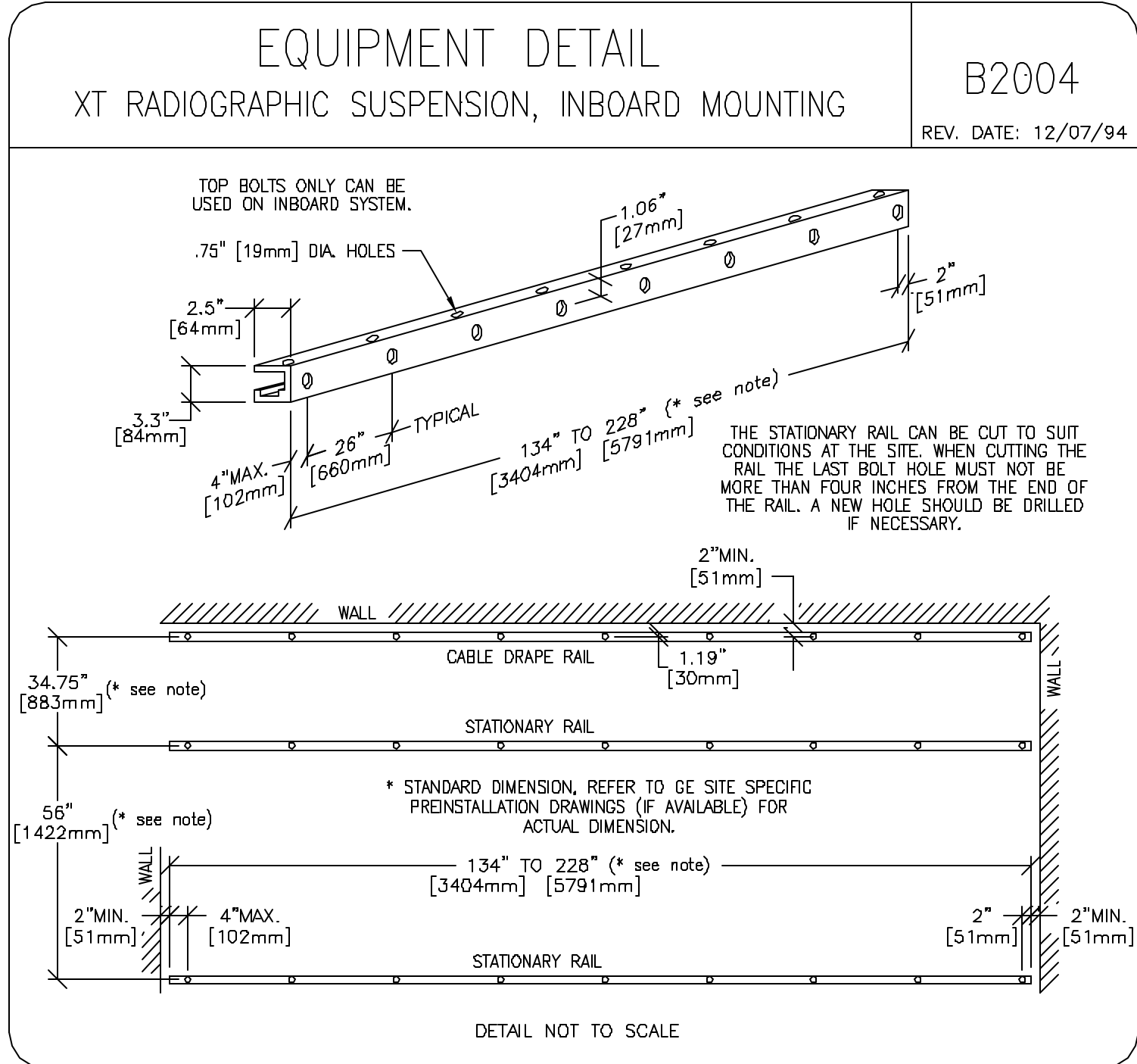
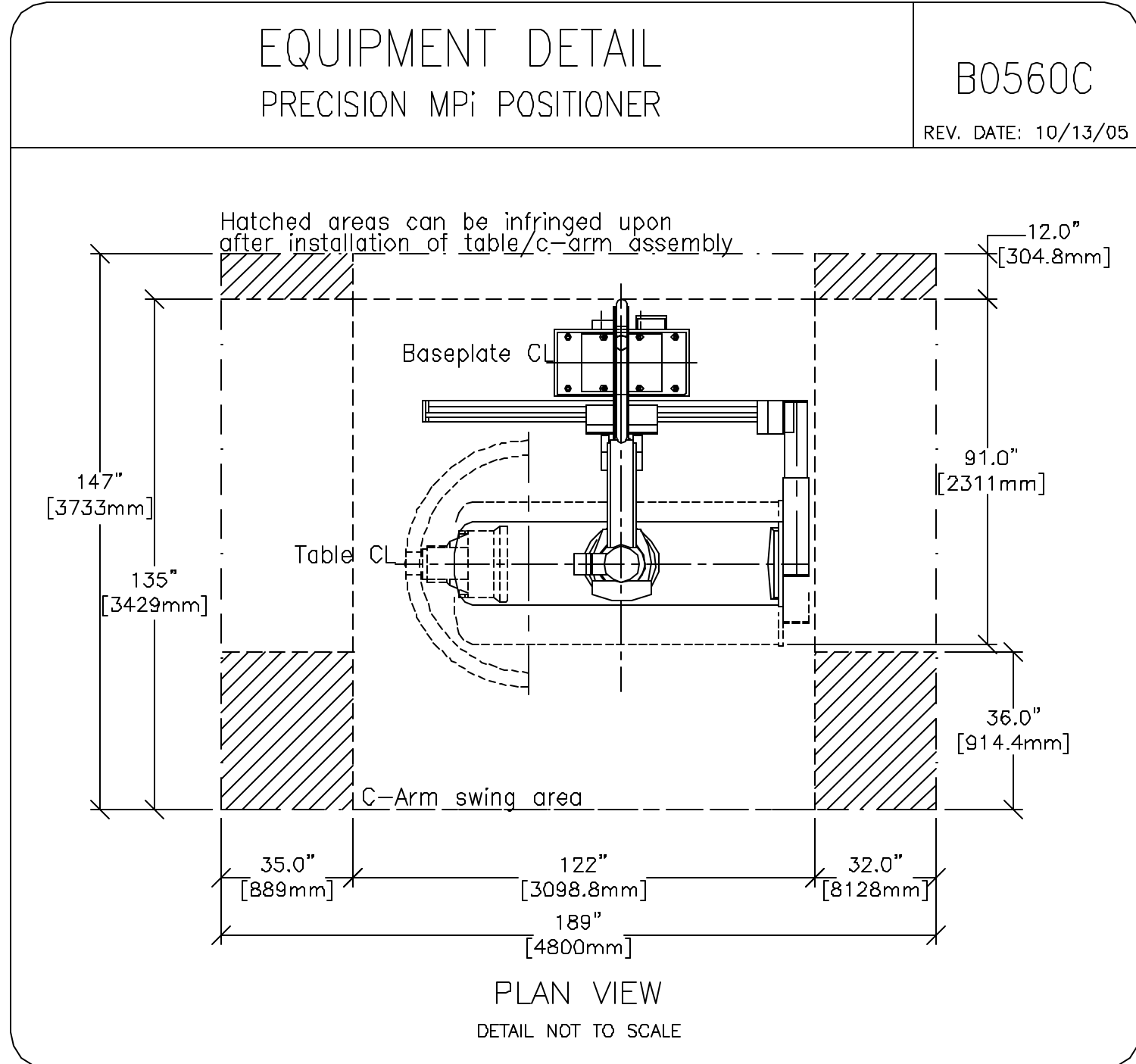
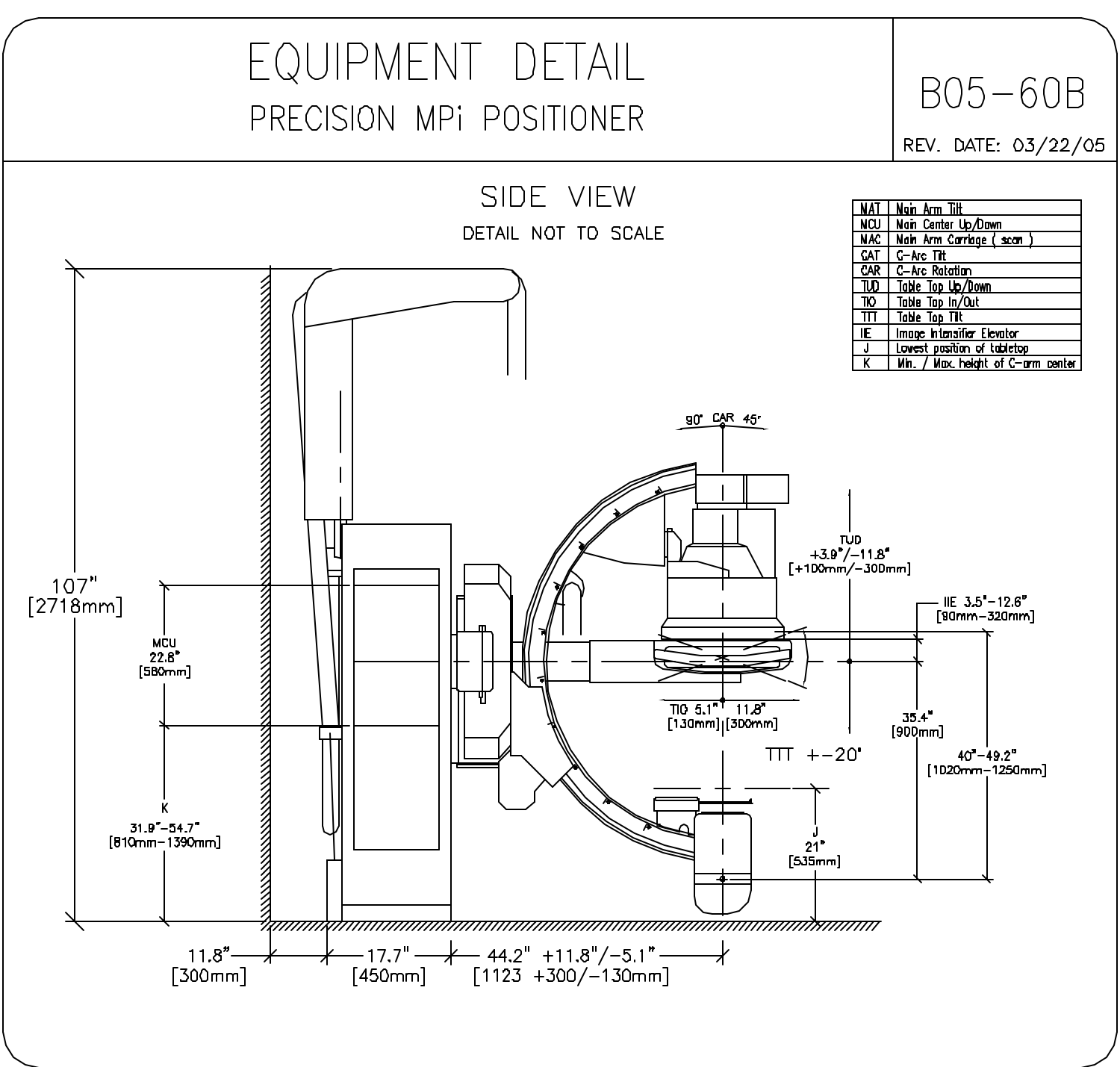
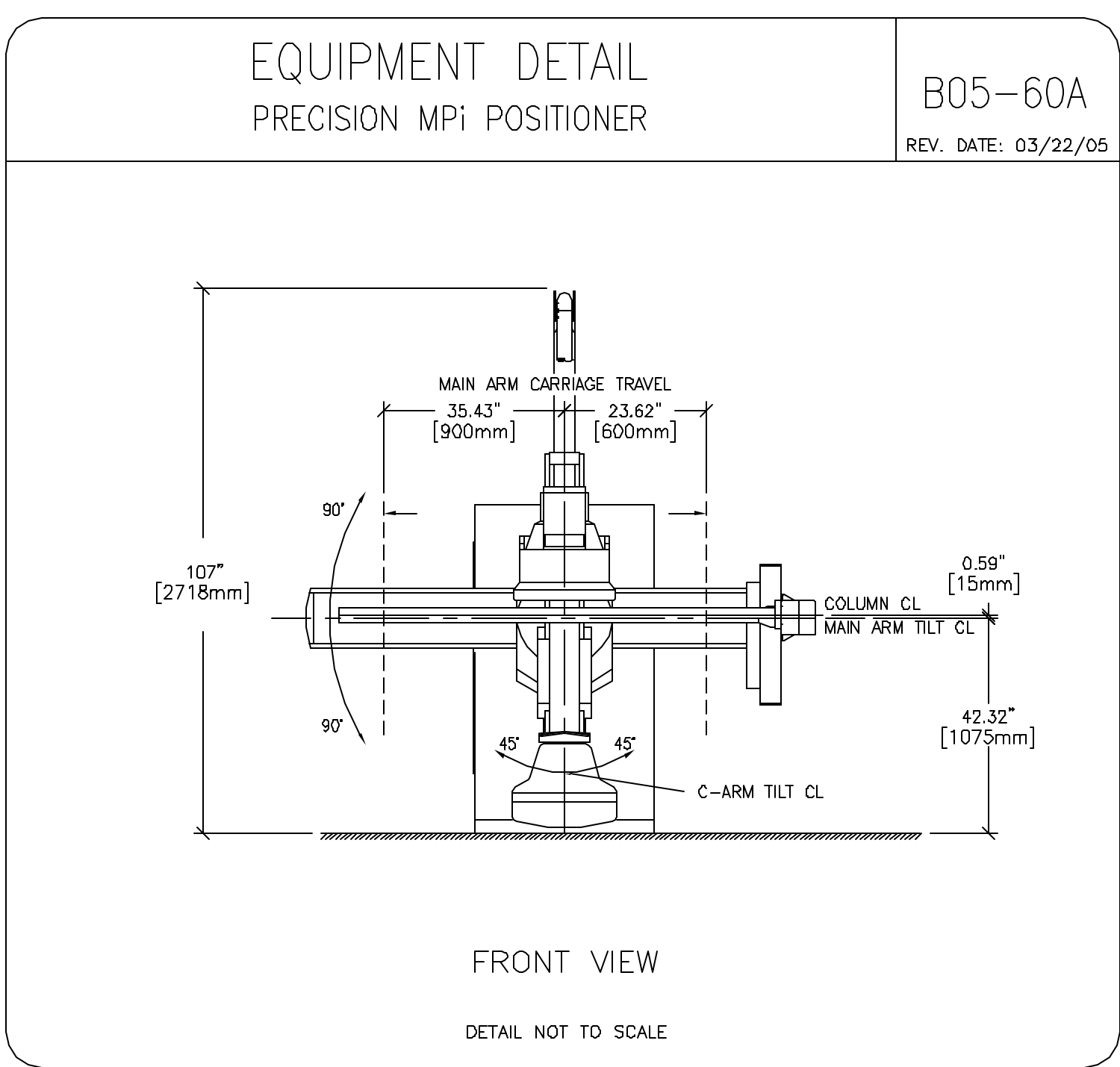
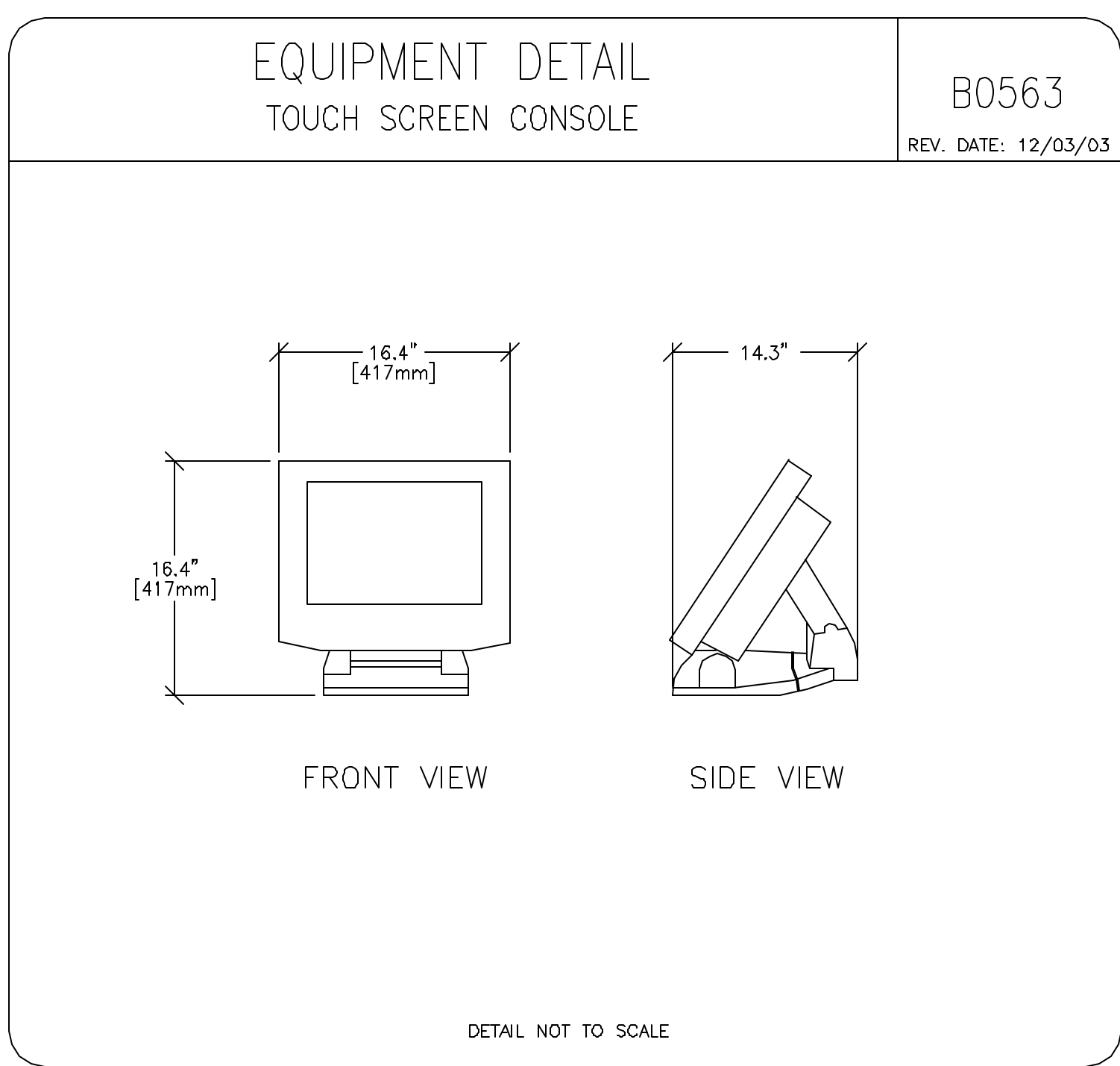
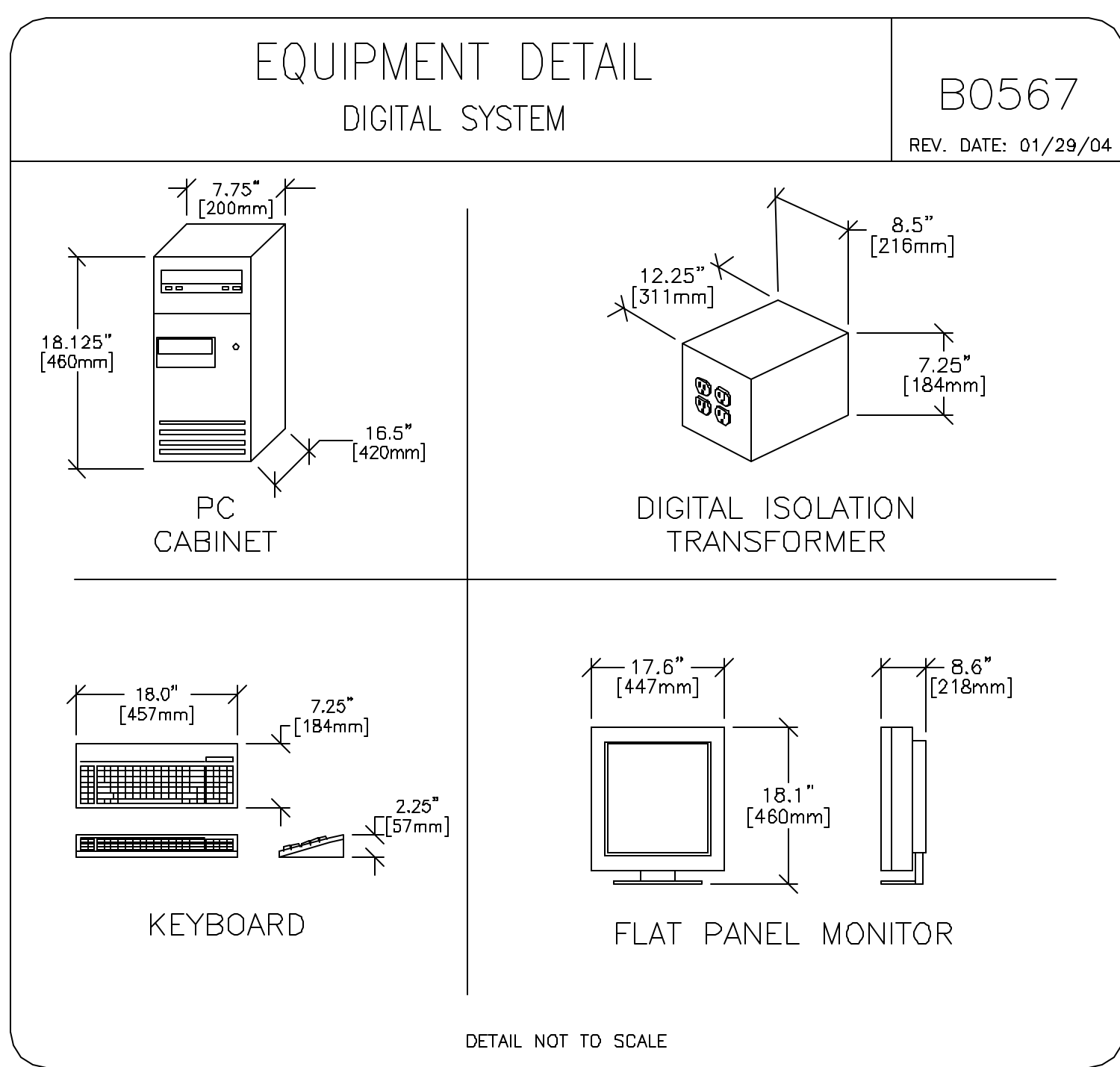
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SHEET
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