

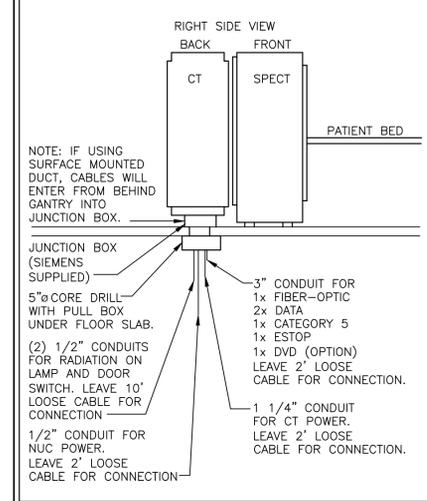
ELECTRICAL RACEWAY PLAN

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

CABLE ENTRANCES

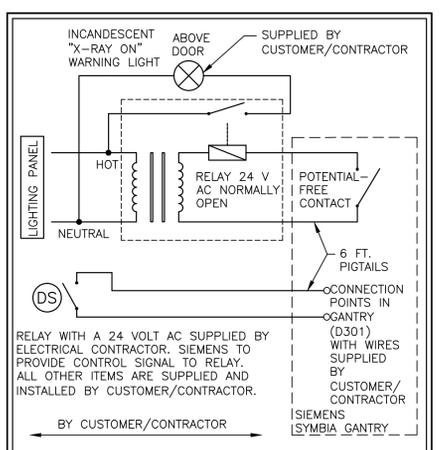
CABLES MAY ENTER FROM CONDUITS BENEATH FLOOR, SURFACE MOUNTED DUCT, OR FLUSH IN FLOOR TRENCH. PLEASE REFER TO SITE SPECIFIC SHEET E-101 AND E-102 TO SEE HOW CABLES ACCESS GANTRY.

EXAMPLE SHOWN IS CONDUITS BENEATH FLOOR:

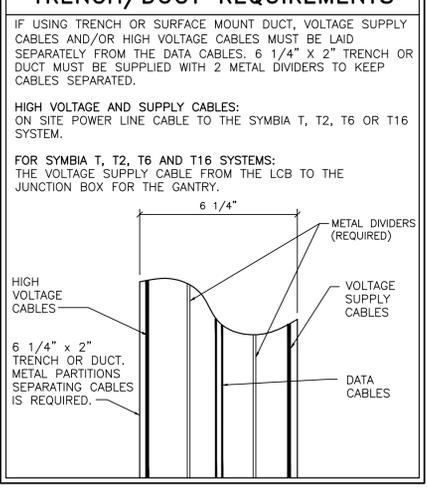


SIEMENS SUPPLIED CABLES

FROM	VIA	TO	DESCRIPTION	REMARKS
ICS/IRS	14	B	POWER CABLE: 300V.	MAXIMUM LENGTH 82'-0"
ICS/IRS	14	B	CAT 5 CROSS OVER CABLE: 150V.	MAXIMUM LENGTH 82'-0"
ICS/IRS	14	B	UNMARKED CABLE.	MAXIMUM LENGTH 82'-0"
ICS/IRS/DVD	14	B	DVD CABLE, DATA CABLE, FIBER CABLE: 30V.	MAXIMUM LENGTH 82'-0"
LCB	15	UPS	POWER CABLE: 300V.	MAXIMUM LENGTH 82'-0"
B	16	B2	PHS CABLE, POWER CABLE: 300V.	MAXIMUM LENGTH 20'-0"



TRENCH/DUCT REQUIREMENTS



ELECTRICAL LEGEND

SYM	SIZE	DESCRIPTION	REMARKS
(A)	AS REQUIRED	PULL BOX MOUNTED FLUSH WITH FINISHED WALL AT FLOOR LINE IN SHOWN LOCATION.	ANCILLARY WIRING
(B)	8" x 8"	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 5" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	GANTRY CABLE ACCESS
(B2)	6" x 6"	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 3" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION. SIEMENS SUPPLIED COVER.	PHS CABLE ACCESS UNDER THE PHS
(E-101)	---	FIXED POINT DESIGNATION, SAME PULL BOX/OPENING AS ICS.	
(E-102)	---	EMERGENCY POWER OFF BUTTON WITH PROTECTIVE COVER, MOUNTED ON WALL AT 5'-0" ABOVE FINISH FLOOR THAT PREVENTS RESETTING OF CIRCUIT BREAKER WHEN IN THE OFF POSITION. THERE SHALL BE AN EPO IN EACH ROOM OF THE SUITE WHERE SIEMENS EQUIPMENT IS LOCATED, EXACT LOCATIONS TO BE DETERMINED BY CUSTOMER/CONTRACTOR. SUPPLIED BY CUSTOMER/CONTRACTOR.	SEE POWER SCHEDULE
(CS)	AS REQUIRED	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 6" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	IMAGE CONSTRUCTION SYS
(CR)	---	FIXED POINT DESIGNATION, SAME PULL BOX/OPENING AS ICS.	IMAGE RECONSTRUCTION SYS
(DB)	AS REQUIRED	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 6" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	LINE CONNECTION BOX
(MP)	---	MAIN PANEL WITH MAIN BREAKER FLUSH OR SURFACE MOUNTED. REFER TO POWER SCHEDULE.	SEE POWER SCHEDULE
(PS)	AS REQUIRED	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 3" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	UPS FOR SPECT
(TF)	AS REQUIRED	TRANSFORMER PROVIDING STEP DOWN POWER FOR THE SPECT UPS (SPS), EXACT LOCATION DETERMINED BY CUSTOMER/CONTRACTOR BASED ON LOCATION OF MP AND SPS, SUPPLIED BY CUSTOMER/CONTRACTOR.	SEE POWER SCHEDULE
(E-101)	---	FIXED POINT DESIGNATION, SAME PULL BOX/OPENING AS ICS.	
(R-101B)	6" x 3 1/2"	ELECTRICAL DUCT THAT RUNS HORIZONTALLY ON THE WALL AT THE FLOOR LINE AND SURFACE MOUNTED ON FINISHED WALL AS SHOWN FOR EXCESS CABLE STORAGE.	RACEWAY
(1)	AS REQUIRED	CONDUIT FROM POWER SOURCE TO "MP" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(2)	AS REQUIRED	CONDUIT FROM "MP" TO "TF" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(3)	AS REQUIRED	CONDUIT FROM "TF" TO "SPS" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(4)	1/2"	CONDUIT FROM "SPS" TO "B" SIZED BY ELECTRICAL ENGINEER OF RECORD.	MAXIMUM CONDUIT LENGTH 76'-0"
(5)	1 1/4"	CONDUIT FROM "MP" TO "A" (LCB) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(6)	1 1/4"	CONDUIT FROM "LCB" TO "B" SIZED BY ELECTRICAL ENGINEER OF RECORD.	MAXIMUM CONDUIT LENGTH 76'-0"
(7)	AS REQUIRED	CONDUIT FROM "MP" TO "EPO" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(8)	AS REQUIRED	CONDUIT FROM "EPO" TO "EPO" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(9)	AS REQUIRED	CONDUIT FROM "EPO" TO "SPS" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(10)	1/2"	CONDUIT FROM "B" TO "DOOR SAFETY SWITCH" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
(11)	---	---	---
(12)	1/2"	CONDUIT FROM "B" TO "WARNING LIGHT" (X-RAY ON) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
(13)	---	---	---
(14)	(2) 3"	CONDUIT "B" TO "ICS".	MAXIMUM CONDUIT LENGTH 76'-0"
(15)	1 1/2"	CONDUIT FROM "LCB" TO "UPS".	MAXIMUM CONDUIT LENGTH 76'-0"
(16)	3"	CONDUIT FROM "B" TO "B2".	MAXIMUM CONDUIT LENGTH 14'-0"

CONTRACTOR SUPPLIED CABLES

FROM	VIA	TO	DESCRIPTION	REMARKS
POWER SOURCE	1	MP	3-PHASE CONDUCTORS, 1 NEUTRAL AND GROUND ALL TO BE THE SAME SIZE. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	2	TF	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
TF	3	SPS	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
SPS	4	B	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	5A	LCB	POWER CABLE FOR CT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
LCB	6	B	POWER CABLE FOR CT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	7	EPO	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
EPO	8	EPO	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
EPO	9	SPS	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
B	10	DOOR SAFETY SWITCH	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
B	11	---	---	---
B	12	WARNING LIGHT	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
B	13	---	---	---

FINISHED ROOM HEIGHT

SYMBIA T, T2, T6 OR T16	MINIMUM 8'-0"
SYMBIA T, T2, T6 OR T16 WITH CEILING MOUNTED COMPONENT OTHER THAN RADIATION ON LAMP	MINIMUM 8'-0" MAXIMUM 12'-0"

CONSIDER THE WARNING LIGHT WILL BE PLACED ON TOP OF THE PATIENT BOOM. ANY OTHER CEILING MOUNTED COMPONENT MUST BE PLACED AS TO NOT COLLIDE WITH WARNING LIGHT.

ELECTRICAL NOTES

- 1) COMPLIANCE: ELECTRICAL WORK SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA-70), O.S.H.A. REGULATIONS, AS WELL AS APPLICABLE REGULATIONS OF CITY, COUNTY, STATE AND FEDERAL AGENCIES. PROVIDE MATERIALS AND EQUIPMENT THAT COMPLY TO ANSI, IEEE AND NEMA STANDARDS. WHERE APPLICABLE, PROVIDE ONLY MATERIALS AND PRODUCTS THAT ARE U.L. LISTED AND LABELED. CUSTOMER'S/CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF NECA STANDARD OF INSTALLATION.
- 2) QUALITY ASSURANCE: THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD TO INSURE THAT THE NEW WORK WILL FIT TO THE EXISTING STRUCTURE AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST OR BE DISCOVERED THAT PREVENT THE INSTALLATION OF WORK AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OF EQUIPMENT, OR THE PERFORMANCE OF ANY WORK THAT MAY BE AFFECTED. DO NOT ALTER DRAWINGS, DIMENSIONS, OR SPECIFICATIONS IN ANY WAY WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SMS PROGRAM MANAGER. ALL DIMENSIONS ARE FROM FINISHED SURFACES. CONDUIT AND PULL BOXES TO BE INSTALLED BY THE CUSTOMER/CONTRACTOR WITH LOCATIONS BEING FIELD VERIFIED BY SMS PROJECT MANAGER.
- 3) POWER SUPPLY SOURCE: POWER SUPPLIES FOR SIEMENS MEDICAL SOLUTIONS EQUIPMENT SHALL BE DEDICATED SERVICES KEPT ENTIRELY FREE AND INDEPENDENT OF ALL OTHER BUILDING WIRING AND EQUIPMENT, SUCH AS: ELEVATORS, PUMPS, HVAC, FIRE ALARM SYSTEMS, ETC. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE CUSTOMER/UTILITY COMPANY FIELD REPRESENTATIVE.
- 4) WORK FURNISHED BY CUSTOMER/CONTRACTOR: WORK NOT PROVIDED BY SIEMENS MEDICAL SOLUTIONS BUT SHOWN ON DRAWINGS TO BE FURNISHED AND INSTALLED BY CUSTOMER/CONTRACTOR INCLUDES THE FOLLOWING BUT IS NOT LIMITED TO UNLESS NOTED OTHERWISE: ELECTRICAL RACEWAYS AND DUCTS, WIRING TROUGH, PULL BOXES, CONDUITS, CIRCUIT BREAKERS, EMERGENCY OFF BUTTONS, DOOR SWITCHES, WARNING LIGHTS, WIRING, WIRING DEVICES, CONNECTORS, LIGHTING EQUIPMENT AND GROUNDING.
- 5) RACEWAY AND CONDUIT NOTES: RACEWAY SHALL BE ELECTRIC METALLIC TUBING (EMT) FOR RIGID CONDUIT WORK, OR WHERE SHORT OFF-SET CONNECTIONS ARE REQUIRED LIQUIDTIGHT FLEXIBLE METAL CONDUIT SHALL BE USED. FIELD BENDS SHALL NOT BE LESS THAN AS SHOWN IN TABLE 346-10 OF THE NATIONAL ELECTRICAL CODE. PROVIDE A JETLINE "SUPER TRUE TAPE" OR EQUIVALENT CONDUIT MEASURING TAPE, FISH LINE IN ALL RACEWAYS AND CONDUITS. CONDUIT BODIES SHALL NOT BE USED, WHERE A CONDUIT ENTERS A BOX, FITTING, OR OTHER ENCLOSURE, AN INSULATED THROUGH CONNECTOR SHALL BE PROVIDED TO PROTECT THE WIRE FROM ABRASION. CONNECTORS SHALL BE DOUBLE SET SCREW TYPE, STEEL CONCRETE TIGHT. KEEP RACEWAYS AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF FLUES OR STEAM AND HOT WATER PIPES. INSTALL RACEWAY RUNS ABOVE WATER AND STEAM PIPES PROVIDED THAT CABLE RUN DISTANCES ARE MAINTAINED. USE TEMPORARY CLOSURES TO PREVENT FOREIGN MATTER FROM ENTERING RACEWAY. CONDUIT RUNS ARE SHOWN SCHEMATICALLY. INSTALL CONDUIT WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED. THE CONTRACTOR SHALL MAKE CERTAIN THAT ANY CONDUIT/RACEWAY RUNS CONTAINING SIEMENS MEDICAL SYSTEMS CABLES DO NOT EXCEED THE SPECIFIED MAXIMUM DISTANCES AS SHOWN ON THE ELECTRICAL DETAILS. PROVIDE ENCLOSED METAL RACEWAY SYSTEM (WIRE DUCT) WHERE SHOWN ON DRAWINGS WITH DIVIDERS TO SEPARATE THE DUCT (FOR POWER AND SIEMENS MEDICAL SOLUTIONS CABLES). DIVIDERS AND CROSSOVER PIECES TO BE PROVIDED AS NECESSARY. FOR UL CERTIFIED SYSTEMS, THE CABLE TO CABLE AS WELL AS THE CIRCUIT TO CIRCUIT SEPARATION REQUIREMENT WAS EVALUATED DURING THE UL SYSTEM INVESTIGATION OF THIS EQUIPMENT. ADDITIONAL SEPARATION OF THE SYSTEM CABLE ASSEMBLIES INTO SEPARATE OR PARTITIONED RACEWAYS, UNLESS OTHERWISE NOTED, IS NOT NECESSARY TO INSURE SEPARATION OF CIRCUITS, AS THEY CAN BE IN THE SAME RACEWAY. PROVIDE WIRE DUCT/RACEWAY WITH ACCESSIBLE REMOVABLE COVERS. LOCATIONS OF OPENINGS TO BE CUT IN FIELD ARE TO BE COORDINATED WITH SIEMENS PROJECT MANAGER. ELECTRICAL PULL BOXES AND RACEWAY COVERS SHALL BE INSTALLED IN A MANNER TO ALLOW ACCESSIBILITY FOR INSTALLATION AND MAINTENANCE. IN- FLOOR TRENCH DUCT AND FLUSH FLOOR BOXES SHALL BE PROVIDED WITH FULLY GASKETED REMOVABLE COVERS.
- 6) WIRING: WIRING SHALL BE INSTALLED IN METAL RACEWAY, 600 VOLT CLASS, STRANDED TYPE THHN-THWN, SINGLE CONDUCTOR ANNEALED COPPER FOR A MAXIMUM OPERATING TEMPERATURE OF 75° C (165° F), SIZED AS INDICATED. THE CUSTOMER/CONTRACTOR SHALL LEAVE MINIMUM 10 FT. WIRE TAILS AT ALL OUTLET POINTS WITH WIRE IDENTIFICATION TAGGED AT BOTH ENDS FOR FINAL CONNECTION BY SIEMENS MEDICAL SOLUTIONS.
- 7) IN ADDITION TO THE CIRCUIT BREAKER LOAD CURRENT RATING, CONSIDERATION MUST ALSO BE GIVEN TO SELECTING CIRCUIT BREAKERS THAT HAVE A HIGH ENOUGH SHORT CIRCUIT CURRENT WITHSTAND RATING TO SAFELY COORDINATE WITH THE POWER SYSTEM AVAILABLE SHORT CIRCUIT CURRENT. GENERALLY, WHEN THE 480 VOLT, 3 PHASE, X-RAY EQUIPMENT IS SERVED FROM A POWER SUPPLY SYSTEM THAT IS PROVIDED WITH A 500 KVA OR SMALLER TRANSFORMER, A STANDARD 14,000 RMS AMPERE WITHSTAND RATED CIRCUIT BREAKER WILL BE ADEQUATE. HOWEVER, IF THE POWER SUPPLY SYSTEM TRANSFORMER IS LARGER THAN 500 KVA, THEN THE CIRCUIT BREAKERS HAVING A SHORT CIRCUIT WITHSTAND RATING GREATER THAN 14,000 RMS AMPERES MAY BE REQUIRED.

ATTENTION:

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

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

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

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

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

PROJECT MANAGER: MIKE CAMPBELL
 TEL: (925) 408-6293 EXT: _____
 FAX: _____
 EMAIL: MIKE.CAMPBELL@SIEMENS.COM

SIEMENS

VA MARTINEZ 612

150 MIJR ROAD, MARTINEZ, CA 94553
 CT SCANNER C156 - SYMBIA T2

PROJECT #: **0900424**

SHEET: **E-101**

SHEET 5 OF 6 DRAWN BY: R. HILL

DATE: 05/26/15

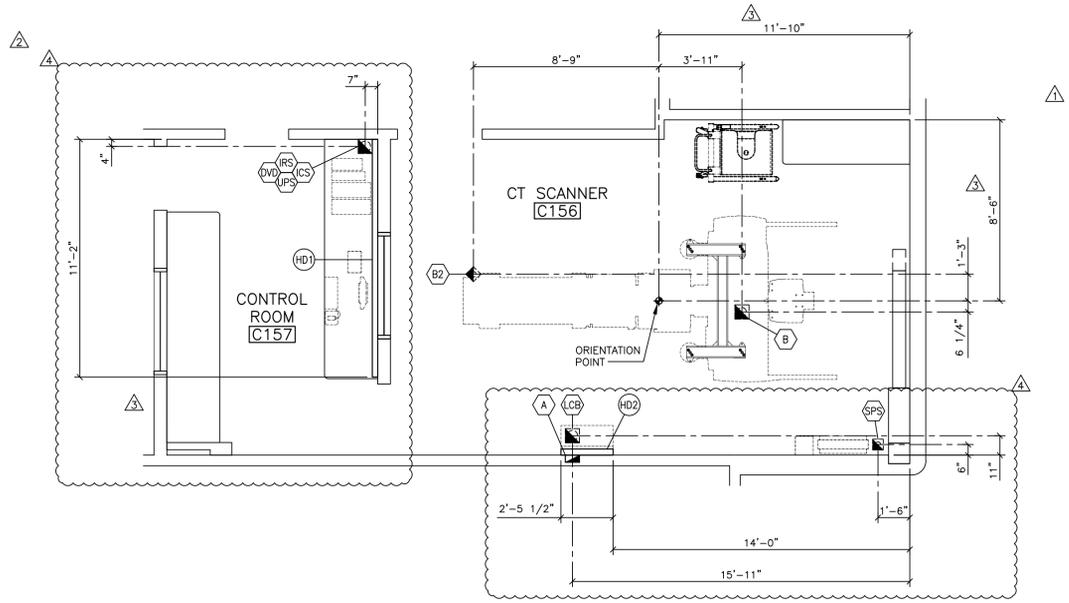
SCALE: AS NOTED REF: 30134844

REVISIONS:

DATE	DESCRIPTION
05/26/15	REVISED TO REFLECT NEW WALL BACKGROUND PER CUSTOMER REQUEST.
03/30/15	REVISED WALL BACKGROUND PER CUSTOMER REQUEST.
03/31/14	UPDATED TO REFLECT CURRENT SALES ORDER PER CUSTOMERS REQUEST.
03/04/14	CHANGED TO CONDUITS
10/26/11	R-101RB VERSION DATED 06/08/11 APPROVED BY THE CUSTOMER FOR FINALS.

ALL RIGHTS ARE RESERVED.

REFERENCE DOCUMENT - NOT FOR CONSTRUCTION



ELECTRICAL DIMENSION PLAN

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

POWER SCHEDULE	
ALL CONDUITS AND WIRE SIZES MUST BE DETERMINED BY THE ELECTRICAL ENGINEER ON RECORD PER N.E.C. AND TO MAINTAIN SIEMENS IMPEDANCE REQUIREMENTS.	
ITEM	DESCRIPTION
MP 1	MAIN PANEL WITH MAIN BREAKER FLUSH OR SURFACE MOUNTED. MAIN BREAKER MUST HAVE A TRIPPING DEVICE SO WHEN ANY EPO IS PRESSED THE MAIN BREAKER TRIPS. THIS TRIPPING DEVICE CONTROL CIRCUIT MUST BE OF FAIL-SAFE DESIGN. THE CONTROL CIRCUIT FOR THE EPO'S MUST HAVE AN ENERGY STORAGE SOURCE SO THAT THE CONTROL CIRCUIT NEVER LOSTS POWER.
MAIN BREAKER AMPS: SEE POWER REQUIREMENTS	
VOLTS PHASES NEUTRAL GROUND TOTAL WIRES	
480Y/277Y 3 1 1 5 (NOTE 1)	
A 1	BREAKER AMPS: 80 FOR LINE CONNECTION BOX (LCB) AND CT GANTRY (B)
VOLTS PHASES NEUTRAL GROUND TOTAL WIRES	
480Y/277Y 3 1 1 5 (NOTE 1)	
B 1	BREAKER AMPS: 25 UPS FOR SPECT (SPS) AND SPECT GANTRY (B)
VOLTS PHASES NEUTRAL GROUND TOTAL WIRES	
277Y 1 1 1 3 (NOTE 1)	
EPO VARIES	EMERGENCY POWER OFF BUTTON WITH PROTECTIVE COVER THAT PREVENTS ACCIDENTAL ACTIVATION OF THE EPO BUTTON. THE EPO MUST BE OF FAIL-SAFE DESIGN. THE CONTROL CIRCUIT FOR THE EPO'S MUST HAVE AN ENERGY STORAGE SOURCE SO THAT THE CONTROL CIRCUIT NEVER LOSTS POWER. ALL EPO'S ARE TO BE LATCHING TYPE AND MUST BE RESET BEFORE MAIN BREAKER CAN BE RESET.
IF ANY OPTIONAL UPS EQUIPMENT IS PROVIDED BY SIEMENS, THE CUSTOMER/CONTRACTOR SHALL PROVIDE AN ADDITIONAL CONTACT IN EACH EPO AND PROVIDE SEPARATE WIRING FOR AN ADDITIONAL EPO CIRCUIT AS REQUIRED. PLEASE COORDINATE THE TYPE OF CONTACT REQUIRED FOR THE UPS CIRCUIT WITH SIEMENS PROJECT MANAGER.	
THE EPO'S MUST BE INSTALLED BY A QUALIFIED ELECTRICAL CONTRACTOR ACCORDING TO NATIONAL ELECTRICAL CODE, STATE AND LOCAL REGULATIONS. MEASURES SHOULD BE TAKEN TO DESIGN THE CIRCUIT IN SUCH A WAY THAT IT WILL ALWAYS WORK WHEN THE MEDICAL EQUIPMENT IS POWERED. THE CUSTOMER IS SOLELY RESPONSIBLE FOR THE IMPLEMENTATION OF THE EPO'S AND THEIR ASSOCIATED CIRCUITS AND MUST MAKE THE FINAL DETERMINATION CONSIDERING ALL SITE CONDITIONS AND REGULATORY FACTORS.	
THE EPO SHALL BE MAINTAINED TYPE, PROVIDED WITH (1) SET(S) OF CONTACTS FOR TRIPPING OF THE MAIN IN THE MP. A SECOND SET OF NORMALLY OPEN CONTACTS IS REQUIRED FOR EACH EPO FOR THE SIEMENS SUPPLIED UPS FOR SPECT. THE EPO SHALL BE CONNECTED IN PARALLEL WITH THE (2) SETS OF CONTACTS, THEREBY WHEN ANY EPO IS ACTIVATED, THE NORMALLY OPEN CONTACT WILL CLOSE SHUTTING DOWN THE UPS FOR SPECT. THE OTHER CONTACT (NORMALLY OPEN/NORMALLY CLOSED) WILL TRIP THE MAIN BREAKER.	
ALL ITEMS LISTED IN THIS SCHEDULE SHALL BE SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR. REV 1	

CONDUIT LENGTH CALCULATIONS				
IF SITE SPECIFIC CONDITIONS EXCEED THE FOLLOWING ASSUMED VALUES THEN ADDITIONAL LENGTH MUST BE SUBTRACTED BY THE ELECTRICAL CONTRACTOR FROM THE MAXIMUM CONDUIT LENGTHS LISTED.				
IF DUCT LOCATIONS ARE ALTERED FROM THE SHOWN LAYOUT IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO RECALCULATE THE MAXIMUM CONDUIT LENGTHS.				
ASSUMED VALUES USED IN CALCULATING STATED MAXIMUM CONDUIT LENGTHS:				
VERTICAL DUCTS - 10'-0"				
FLOOR PENETRATIONS - 3'-0"				

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

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

POWER REQUIREMENTS					
SYSTEM	LINE VOLTAGE (VOLTS)	POWER CONSUMPTION (kVA) SEE NOTE BELOW	AUTOMATIC CIRCUIT BREAKER (AMPS)	INCOMING LINE IMPEDANCE (mΩ)	HZ
SYMBIA T/T2	3ø 480±10%	44.8 kVA SCAN	100	320	60

POWER CONSUMPTION:
SYMBIA T/T2 - 40 kVA MAXIMUM POWER CONSUMPTION, LESS THAN OR EQUAL TO 1 kVA STANDBY

SPECT GANTRY, PHS, UPS, & SNAC - 4.8 kVA MAXIMUM POWER CONSUMPTION, LESS THAN OR EQUAL TO 1.5 STANDBY

TOTAL CONSUMPTION = 44.8 TOTAL STANDBY = 2.5 kVA

NOTE: THE SPECT UNITS NEED TO BE WIRED SINGLE PHASE TO NEUTRAL WITH APPROPRIATE BREAKER AND WIRE SIZE.

DO NOT CONNECT ANY EXTERNAL USERS TO THE SPECT/CT POWER LINE. FOR SYMBIA T/T2, THE IMAGING SYSTEM IMS (ICS, IRS, AND MONITOR) MUST BE CONNECTED VIA THE UPS TO THE LCB. THE FUSE IS ALREADY INTEGRATED IN THE LCB.

AN ON/OFF SWITCH IN ACCORDANCE WITH UL 2601/CSA114 INCLUDING A SWITCH POSITION INDICATOR IS INTEGRATED IN THE LCB, A SEPARATE ON/OFF SWITCH MAY BE REQUIRED PER LOCAL CODE.

THE SCANNER AND CONTROL ROOM SHOULD BE EQUIPPED WITH AT LEAST ONE EACH EMERGENCY POWER OFF BUTTON.

UPS FOR SPECT PREINSTALL REQUIREMENTS	
THE CUSTOMER HAS PURCHASED THE UPS FOR SPECT OPTION FOR THE SPECT PORTION OF THE SYMBIA T'S SYSTEMS. THE UPS FOR SPECT REQUIRES 208/220/240 VAC AND NEEDS A CUSTOMER/CONTRACTOR SUPPLIED STEP DOWN TRANSFORMER (277 VOLTS PRIMARY 5 kVA STEP DOWN TRANSFORMER TO 208/220/240 VAC). IT IS THE CUSTOMER/CONTRACTOR RESPONSIBILITY TO PROVIDE POWER TO AND CONNECT THE STEP DOWN TRANSFORMER PRIOR TO EQUIPMENT DELIVERY AND INSTALLATION.	

CUSTOMER SUPPLIED	
DOOR (SAFETY) SWITCH REQUIRED ON ALL DOORS ACCESSING THE EXAMINATION ROOM IN ACCORDANCE WITH LOCAL CODES.	
RADIATION WARNING LIGHTS REQUIRED ON ALL DOORS ACCESSING THE EXAMINATION ROOM IN ACCORDANCE WITH FDA CODES.	
EMERGENCY POWER OFF BUTTON SHOULD BE INSTALLED IN BOTH THE SCANNER AND CONTROL ROOM.	

POWER DISTRIBUTION	
TO ENSURE TROUBLE-FREE OPERATION, WE RECOMMEND THAT THE MAIN POWER LINE RUN DIRECTLY FROM THE HOUSE TRANSFORMER TO THE ON-SITE POWER DISTRIBUTOR.	
THE MAIN POWER LINE SHOULD BE ROUTED DIRECTLY FROM THE ON-SITE POWER DISTRIBUTOR TO THE SYMBIA SYSTEM MAIN POWER PANEL.	

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

FINISHED ROOM HEIGHT	
SYMBIA T, T2, T6 OR T16	MINIMUM 8'-0"
SYMBIA T, T2, T6 OR T16 WITH CEILING MOUNTED COMPONENT OTHER THAN RADIATION ON LAMP	MINIMUM 8'-0" MAXIMUM 12'-0"
CONSIDER THE WARNING LIGHT WILL BE PLACED ON TOP OF THE PATIENT BOOM. ANY OTHER CEILING MOUNTED COMPONENT MUST BE PLACED AS TO NOT COLLIDE WITH WARNING LIGHT.	

<p>PROJECT MANAGER: MIKE CAMPBELL TELL: (925) 408-6293 EXT: FAX: EMAIL: MIKE.CAMPBELL@SIEMENS.COM</p>		<p>SIEMENS</p> <p>VA MARTINEZ 612</p> <p>150 MIJR ROAD, MARTINEZ, CA 94553 CT SCANNER C156 - SYMBIA T2</p>	
<p>PROJECT #: 0900424</p>		<p>SHEET #: E-102</p>	
<p>DATE: 05/26/15</p>		<p>SCALE: AS NOTED REF. # 50134844</p>	

ATTENTION:

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

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

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

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

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

SYM	DATE	DESCRIPTION
△	05/26/15	REVISED TO REFLECT NEW WALL BACKGROUND PER CUSTOMER REQUEST.
△	03/30/15	REVISED WALL BACKGROUND PER CUSTOMER REQUEST.
△	03/31/14	UPDATED TO REFLECT CURRENT SALES ORDER PER CUSTOMERS REQUEST.
△	03/04/14	CHANGED TO CONDUITS
△	10/26/11	R-1018B VERSION DATED 06/08/11 APPROVED BY THE CUSTOMER FOR FINALS.

ALL RIGHTS ARE RESERVED.

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

VISUAL RADIATION INDICATOR IS INCLUDED WITH THE SYMBIA AND LOCATED ON THE PATIENT BOOM ARM ACCORDING TO IEC 60601-2-44 AND 21 CFR.

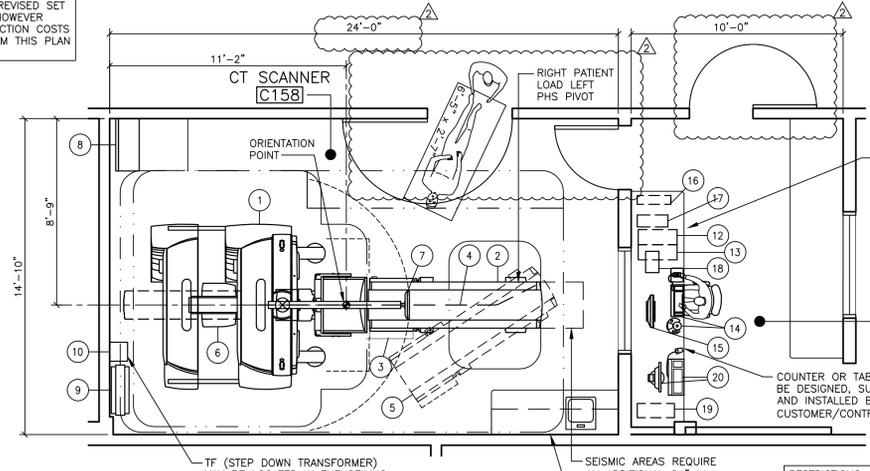
SIEMENS HIGHLY RECOMMENDS THE CUSTOMER'S ARCHITECT DESIGNATES SPACE FOR A HOT LAB, PATIENT WAITING AREA, AND UPTAKE ROOM.

HEIGHT OF WINDOW TO BE COORDINATED WITH COUNTERTOP/DESK HEIGHT.

COLLIMATOR CART TO BE LOCATED PER CUSTOMER'S DISCRETION.

SYMBIA.NET WORKPLACE LOCATED AT CUSTOMER'S DISCRETION.

IT IS THE RESPONSIBILITY OF THE CUSTOMER/CONTRACTOR TO PROVIDE A MEANS OF MOUNTING THE PC TOWER OFF OF FINISHED FLOOR FOR DAMAGE PROTECTION AGAINST TIP-OVER, FLUIDS, IMPACT ETC.



IT IS THE RESPONSIBILITY OF THE CUSTOMER/CONTRACTOR TO PROVIDE A MEANS OF MOUNTING THE PC TOWER OFF OF FINISHED FLOOR FOR DAMAGE PROTECTION AGAINST TIP-OVER, FLUIDS, IMPACT ETC.

RESTRICTIONS: SERVICE CLEARANCE HAS NOT BEEN MAINTAINED IN SOME AREAS AS INDICATED ON THE PLAN.

ARCHITECTURAL EQUIPMENT PLAN

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

ROOM MEASUREMENTS

ALL ROOM MEASUREMENTS AND ROOM DETAIL SPECIFICATIONS MUST BE VERIFIED ON SITE PRIOR TO BEGINNING ANY CONSTRUCTION WORK.

NOISE LEVEL

SYSTEM COMPONENT	DECIBEL LEVEL (AT 3'-3" DISTANCE)
SYMBIA T, T2, T6 AND T16 GANTRY	68
FRONT PHS (PATIENT TABLE)	60
UPS FOR IMS	<45

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

CASEWORK & ACCESSORY NOTES

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

STATE AGENCY REVIEW

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

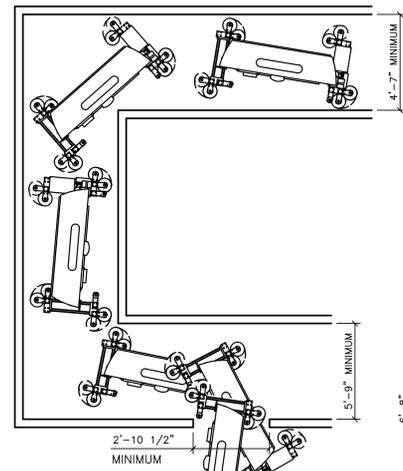
TRANSPORT AND DELIVERY NOTES

NM SUB-SYSTEM ON SKID	4,118 LBS.
NM GANTRY WITH TRANSPORT AND BOOM	3,886 LBS.
CT SUB-SYSTEM	2,480 LBS.
FRONT PHS	2,745 LBS.
REAR PHS	506 LBS.

NORMAL TRANSPORT REQUIREMENTS: DURING THE MOVEMENT OF THE GANTRY THROUGH CORRIDORS THE TRANSPORT CASTERS ARE SWIVELED OUT FOR STABILITY. FRONT PHS REQUIRES THE SAME HALLWAY TRANSPORT ROUTE AS THE GANTRY AS SHOWN BELOW.

PLEASE CONSULT PLANNING GUIDE FOR ELEVATOR CLEARANCES FOR GANTRY AND FRONT PHS.

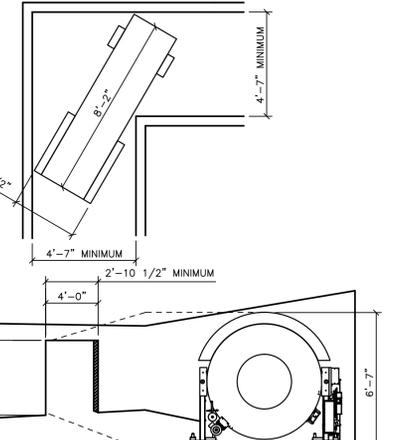
HALLWAY TRANSPORT FOR GANTRY:



HALLWAY TO DOOR TRANSPORT: TRANSPORTS MAY HAVE TO BE SWIVELED IN NARROW AREAS. ONCE SYSTEM HAS PASSED THROUGH NARROW AREA, THE TRANSPORT ROLLERS MUST BE SWIVELED OUT AGAIN FOR STABILITY.

TRANSPORTING GANTRY FLOOR LOAD: ACCESS FLOORS MUST BE LAID OUT TO SUPPORT A LOAD MINIMUM 1296 LBS. DURING TRANSPORT OF THE GANTRY, HIGHER LOADS CAN OCCUR AT INDIVIDUAL POINTS IF THE FLOOR IS NOT LEVEL. COVER THE TRANSPORT PATH WITH SHEET METAL TO DISTRIBUTE THE FLOOR LOAD.

HALLWAY TRANSPORT FOR FRONT PHS:

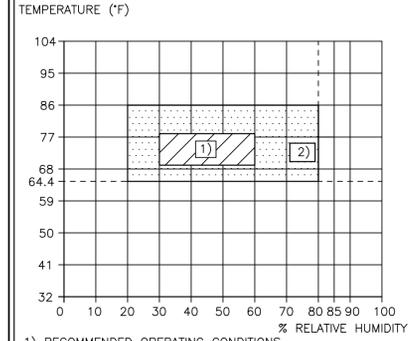


TRANSPORT DEVICES MOUNTED ON LEFT AND RIGHT SIDE OF GANTRY.

EQUIPMENT LEGEND

NO	DESCRIPTION	SMS SYM	WEIGHT (LBS)	BTU/HR TO AIR	DIMENSIONS (INCHES)			REMARKS
					W	D	H	
1	SYMBIA T6 GANTRY W/COLLIMATORS	⊕	7,413	24,574	93	84 1/2	90 1/2	6,826 BTU ON STANDBY. WORST CASE WEIGHT 7,963 LBS. WITH (2) HIGH ENERGY COLLIMATORS AT 275 LBS. EACH
2	FRONT PHS	⊖	2,512	-	31 1/8	97 1/2	23 3/16	MAXIMUM HEIGHT 41"
3	AUTOMATIC COLLIMATOR CHANGER-ACC WITH ACC - PRODUCTIVITY PACKAGE	⊖	684	-	31 1/8	97 1/2	23 3/16	WEIGHT CALCULATED WITH 1 SET LOW AND MEDIUM ENERGY COLLIMATORS.
4	UNDER THE FLOOR PHS CABLE	⊖	-	-	-	-	-	UNDER FLOOR
5	PHS STANDARD PIVOT	⊖	-	-	-	-	-	STANDARD PIVOT - 33 DEGREES
6	REAR PHS WITH SNAC	⊖	415.3	-	-	-	-	ON FLOOR
7	PATIENT BOOM SWING ARM	⊖	-	-	-	-	-	ON FLOOR
8	LINE CONNECTION BOX	⊖	227	1,365	29 1/2	11 3/4	32	ON FLOOR
9	UPS FOR SPECT	⊕	120	1,024	10	28 3/8	17 7/8	ON FLOOR
10	TRANSFORMER REQUIRED WITH UPS FOR SPECT (SPS)	⊕	-	-	-	-	-	CUSTOMER SUPPLIED PRIOR TO INSTALLATION. SEE POWER SCHEDULE.
11	COLLIMATOR CART (EMPTY)	⊖	400	-	47 3/8	32 5/8	47 1/2	WORST CASE 1330 LBS. WITH 1 SET HE AND 1 SET ME
12	IMAGE CONSTRUCTION SYSTEM FOR SYNGO MI (ACQUISITION) WORKPLACE	⊖	66	2,398	8 1/2	22	18	OFF FLOOR.
13	IMAGE RECONSTRUCTION SYSTEM FOR SYNGO MI (ACQUISITION) WORKPLACE	⊖	66	-	8 1/2	22	18	OFF FLOOR. *BTU'S INCL. WITH ICS
14	CONTROL AND KEYBOARD	⊖	-	-	-	-	-	ON CUSTOMER'S COUNTER
15	18" MONITOR	⊖	31	-	18 3/8	2 5/8	14 13/16	ON CUSTOMER'S COUNTER
16	SYNGO MI (ACQUISITION) WORKPLACE UPS FOR IMS STANDARD COMPONENT	⊕	70	-	5	19	17 1/4	OFF FLOOR
17	UPS FOR E.SOFT/C.CAM	⊕	46	-	6 3/4	17 1/2	8 1/2	ON FLOOR
18	DVD	⊖	-	-	-	-	-	ON CUSTOMER'S COUNTER
19	(2) SYMBIA.NET WORKPLACE CPU	⊕	51	1,400	8	21	17 1/2	OFF FLOOR
20	(2) SYMBIA.NET WORKPLACE KEYBOARD AND MONITOR	⊖	31	-	17 5/8	18 5/16	17	ON CUSTOMER'S COUNTER. *BTU'S INCL. WITH SNW CPU

ENVIRONMENTAL REQUIREMENTS



- RECOMMENDED OPERATING CONDITIONS.
- REQUIRED OPERATING CONDITIONS.

TEMPERATURE, HUMIDITY, DUST, AIR CONTAMINATION: REFER TO THE CLIMATOGRAM ABOVE FOR THE PERMITTED CLIMATE RANGE.

THE MAXIMUM TEMPERATURE GRADIENT IS 8°F PER HOUR.

THE OPTIMAL ENVIRONMENT FOR THE SCANNER ROOM AND THE SYSTEM IS 65°F-86°F (± 8°F/HR.) WITH A RELATIVE HUMIDITY OF 20-80% NON-CONDENSING. THE OPTIMAL ENVIRONMENT FOR THE CONTROL ROOM 75°F (± 8°F/HR.) WITH A RELATIVE HUMIDITY OF 20-80% NON-CONDENSING. TEMPERATURE RANGES FOR THE SCANNER ROOM AND CONTROL CANNOT BE GUARANTEED IN ALL SEASONS OF THE YEAR, AN APPROPRIATE AIR-CONDITIONING SYSTEM MUST BE INSTALLED ON-SITE BY THE CUSTOMER/CONTRACTOR.

FOR EXTERNAL AIR SUPPLY (FRESH AIR) IT IS RECOMMEND THAT COARSE FILTERS OF THE CLASS EU3 TO EU4 BE USED ON-SITE TO FILTER OUT DUST PARTICLES >10µm.

THE VENTILATION SHOULD ENSURE THAT AGGRESSIVE POLLUTANTS ARE PREVENTED FROM ENTERING THE ROOM. THE ROOM AIR SHOULD BE PROTECTED AGAINST CONTAMINATION BY HYDROGEN SULFIDE, EVEN IN SMALL AMOUNTS. THE MOST WELL KNOWN SOURCES OF HYDROGEN SULFIDE INCLUDE: EXHAUST FUMES AND WASTE WATER FROM DEVELOPERS, EXPOSED SEWER DRAINS, EXHAUST FUMES FROM DIESEL POWER UNITS. IF A DANGER OF SUCH CONTAMINATION EXISTS, CORRECTIVE ACTIONS HAVE TO BE TAKEN E.G.: EXTRACTOR FANS, SIPHON, AND MODIFICATION OF VENTILATION INTAKE.

FINISHED ROOM HEIGHT

SYMBIA T, T2, T6 OR T16	MINIMUM 8'-0"
SYMBIA T, T2, T6 OR T16 WITH CEILING MOUNTED COMPONENT OTHER THAN RADIATION ON LAMP	MINIMUM 8'-0" MAXIMUM 12'-0"

CONSIDER THE WARNING LIGHT WILL BE PLACED ON TOP OF THE PATIENT BOOM. ANY OTHER CEILING MOUNTED COMPONENT MUST BE PLACED AS TO NOT COLLIDE WITH WARNING LIGHT.

SITE READINESS GUIDELINES

THE FOLLOWING GENERAL CONDITIONS ARE NECESSARY TO HAVE THE STATUS OF "READY SITE":

- PROPER POWER AVAILABLE AT SIEMENS EQUIPMENT POWER CABINET LOCATION.
- AIR CONDITIONING/HUMIDIFICATION SYSTEMS COMPLETE, TESTED, AND FUNCTIONING PROPERLY ACCORDING TO SIEMENS SPECIFICATIONS.
- PROPER LIGHTING INSTALLED AND FUNCTIONING.
- PLUMBING COMPLETE EXCEPT FOR ANY FINAL CONNECTIONS TO SIEMENS EQUIPMENT. LINES MUST BE FLUSHED AND LEAKED TESTED.
- ALL CABLE TRAYS/DUCTS/CONDUITS CORRECTLY SIZED AND INSTALLED IN THE CORRECT LOCATIONS ACCORDING TO THE SIEMENS DRAWINGS.
- ALL REINFORCEMENT PLATES INSTALLED AS REQUIRED.
- ROOM FOR EQUIPMENT INSTALLATION AND IMMEDIATE VICINITY IS DUST-FREE AND IS TO REMAIN SO FOR THE DURATION OF THE INSTALLATION.
- A SECURE AREA, APPROXIMATELY 10'x10', IS AVAILABLE AT EQUIPMENT DELIVERY FOR PARTS AND INSTALLATION TOOLS.
- CUSTOMER SUPPLIED CAMERAS AND PROCESSORS INSTALLED.
- MODEM OUTLET OR ROUTER, VOICE AND DATA TELEPHONE LINES INSTALLED.
- WALLS TO BE PRIMED AND PAINTED, FLOORS TO BE TILED CEILINGS TO BE INSTALLED.

IF THESE CONDITIONS ARE NOT MET, THE SIEMENS PROJECT MANAGER AND THE DESIGNATED SIEMENS INSTALLATION SUPERVISOR SHALL RESCHEDULE THE INSTALLATION START DATE. NOTE: ADDITIONAL COST MAY BE INCURRED BY THE CUSTOMER/CONTRACTOR WHEN THE SIEMENS SITE READINESS GUIDELINES ARE NOT MET, AND DELIVERY DATES NEED TO BE RESCHEDULED.

ENVIRONMENTAL/POWER AUDIT

AS AN INDICATION OF OUR COMMITMENT TO QUALITY, SIEMENS MAY, AT NO COST TO YOUR FACILITY, CHECK THE OPERATING ENVIRONMENT AFTER SYSTEM TURNOVER TO DETERMINE IF THE REQUIREMENTS FOR TEMPERATURE, HUMIDITY, POWER, AND GROUNDING ARE MET AS PER SIEMENS' PUBLISHED SPECIFICATIONS. SIEMENS WILL GENERATE A WRITTEN REPORT DETAILING THE ENVIRONMENTAL AND ELECTRICAL CONDITION OF THE SITE AFTER TURNOVER AND WILL SHARE THE REPORT WITH YOU. IN THE EVENT WE IDENTIFY ANY ENVIRONMENTAL/POWER DEFICIENCIES AT THE SITE, YOUR FACILITY WILL BE REQUESTED TO CORRECT DEFICIENCIES WITHIN THIRTY (30) DAYS. SHOULD ANY CORRECTIVE ACTIONS BE NECESSARY, AND UPON REQUEST, SIEMENS WILL PROVIDE GUIDANCE IN AN EFFORT TO FACILITATE RESOLUTION. PLEASE BE ADVISED THAT AFTER 30 DAYS NOTICE ANY REPAIR OR MAINTENANCE SERVICES NECESSITATED BY SEVERE DEFICIENCIES WILL FALL OUTSIDE YOUR WARRANTY COVERAGE.

ARCHITECTURAL NOTES

- ALL PRELIMINARY EQUIPMENT LAYOUTS SUBMITTED BY SIEMENS MEDICAL SOLUTIONS, INC. (SMS HEREAFTER) ARE BASED ON THE RECOMMENDED SPACE NECESSARY FOR THE OPERATION AND SERVICEABILITY OF THE EQUIPMENT BEING PROPOSED. SMS WILL NOT SUBMIT AN EQUIPMENT LAYOUT THAT IS NOT IN THE BEST INTEREST OF BOTH THE CUSTOMER AND SMS. ALL EQUIPMENT LAYOUTS ARE BASED EITHER ON AN ACTUAL SITE LOCATION SURVEY OR ARCHITECTURAL DRAWINGS SUPPLIED TO SMS. SMS WILL NOT BE RESPONSIBLE FOR ANY ALTERATIONS THAT ENCROUGH WITHIN DESIGNATED SAFETY AND SERVICE CLEARANCE ZONES AS INDICATED ON DRAWINGS (IE: PIPE CHASES, VENTILATION DUCTS, CASEWORK, AND SOFFITS, ETC.) MADE BY THE CUSTOMER OR REQUIRED BY A CUSTOMER'S ARCHITECTURAL FIRM ONCE PRELIMINARY DRAWINGS HAVE BEEN SUBMITTED AND APPROVED. DO NOT ALTER ANY SPECIFICATIONS AND/OR DIMENSIONS WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SMS PROJECT MANAGER.
- SMS IS NOT AN ARCHITECTURAL OR ENGINEERING FIRM. DRAWINGS SUPPLIED BY SMS ARE NOT CONSTRUCTION DRAWINGS. THEREFORE, THESE DRAWINGS ARE TO BE USED ONLY FOR INFORMATION TO COMPLEMENT ACTUAL CONSTRUCTION DRAWINGS AVAILABLE FROM A CUSTOMER APPOINTED ARCHITECTURAL REPRESENTATIVE OR A CUSTOMER'S ENGINEERING DESIGN GROUP. THE CUSTOMER'S ARCHITECT AND GENERAL CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE CODES AND PROFESSIONAL DESIGN REQUIREMENTS.
- THE CUSTOMER IS RESPONSIBLE FOR ALL ROOM AND AREA PREPARATION COSTS, PROFESSIONAL FEES, PERMITS, REPORTS, AND INSPECTION FEES.
- EQUIPMENT WARRANTIES, EXPRESSED OR IMPLIED ON THE PART OF SMS SHALL BE CONTINGENT UPON STRICT COMPLIANCE WITH THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL AND RECOMMENDATIONS AND REQUIREMENTS CONTAINED IN THESE DRAWINGS, UNLESS SPECIFIED OTHERWISE.
- ALL DIMENSIONS SHOWN ARE TAKEN FROM FINISHED SURFACES UNLESS SPECIFIED OTHERWISE.
- THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST. ACTUAL PROTECTION REQUIREMENTS SHALL BE SPECIFIED BY A REGISTERED RADIATION PHYSICIST AT CUSTOMER'S ENGAGEMENT AND EXPENSE. RESPONSIBILITY FOR ALL INFORMATION AS TO THE ROOM LOCATION, USE, AND NUMBER OF ANTICIPATED EXAMINATIONS TO BE PERFORMED PER TIME PERIOD SHALL BE PROVIDED TO THE PHYSICIST BY THE CUSTOMER. THE CUSTOMER SHALL FURTHER TAKE ALL RESPONSIBILITY IN THE COMMUNICATION AND COORDINATION OF ACTIVITIES OF THE RADIATION PHYSICIST AND THE ARCHITECTURAL REPRESENTATIVE.
- SMS SHALL BE RESPONSIBLE FOR SMS EQUIPMENT INSTALLATION AND CALIBRATION, CONNECTION AND INSTALLATION OF SMS PROVIDED INSTALLATION DRAWINGS THE LOCATION AND TRAVEL OF ALL ANCHORAGE EQUIPMENT TO BE CEILING OR WALL MOUNTED (IE: O.R. LIGHTS, MEDICAL GAS COLUMNS, PHYSIOLOGICAL MONITORING INJECTORS, CRT PLATFORMS, SPRINKLER HEADS, SMOKE DETECTORS, ELECTRICAL OUTLETS, HVAC GRILLES, SPEAKERS, AND GENERAL ROOM LIGHTING, ETC.).
- THE GENERAL CONTRACTOR/CUSTOMER SHALL BE RESPONSIBLE FOR ALL FINAL PAINT, TOUCH-UP AND ANY COSMETIC OR TRIM WORK WHICH NEEDS TO BE OR IS REQUIRED TO BE COMPLETED AFTER THE INSTALLATION OF THE SMS EQUIPMENT AND ANY ASSOCIATED SUPPORT APPARATUS.

MAGNETIC FIELD PRECAUTIONS

THE PRESENCE OF MAGNETIC FIELDS IN THE VICINITY OF EQUIPMENT MAY HAVE AN ADVERSE EFFECT. IT IS THE CUSTOMER'S RESPONSIBILITY TO VERIFY THAT THE FOLLOWING VALUES ARE NOT EXCEEDED.

MAXIMUM ALLOWABLE MAGNETIC FIELD	DEVICES
1.0mT (10 GAUSS)	COMPUTERS, MAGNETIC DISK DRIVES
0.2mT (2 GAUSS)	SIEMENS CT PORTION OF SYMBIA SIEMENS CT SCANNERS
0.15mT (1.5 GAUSS)	COLOR MONITOR (FOR LIQUID CRYSTAL DISPLAYS ONLY)
0.1mT (1.0 GAUSS AC OR DC)	SIEMENS HAS ESTABLISHED THE UPPER LIMITS OF MAGNETIC FIELD EXPOSURE FOR THE SYMBIA DETECTORS

MAGNETIC FIELDS SHOULD BE MEASURED PRIOR TO DELIVERY.

RESOURCE LIST (SMS USE ONLY)

DESIGNATION	PG NUMBER	DATE
SYMBIA T, T2, T6 AND T16	NM02-001.891.02.12.02	10/14

ATTENTION:

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

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

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

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

PROJECT MANAGER: MIKE CAMPBELL
 TEL: (925) 408-6293
 FAX: EXT:
 EMAIL: mike.campbell@siemens.com

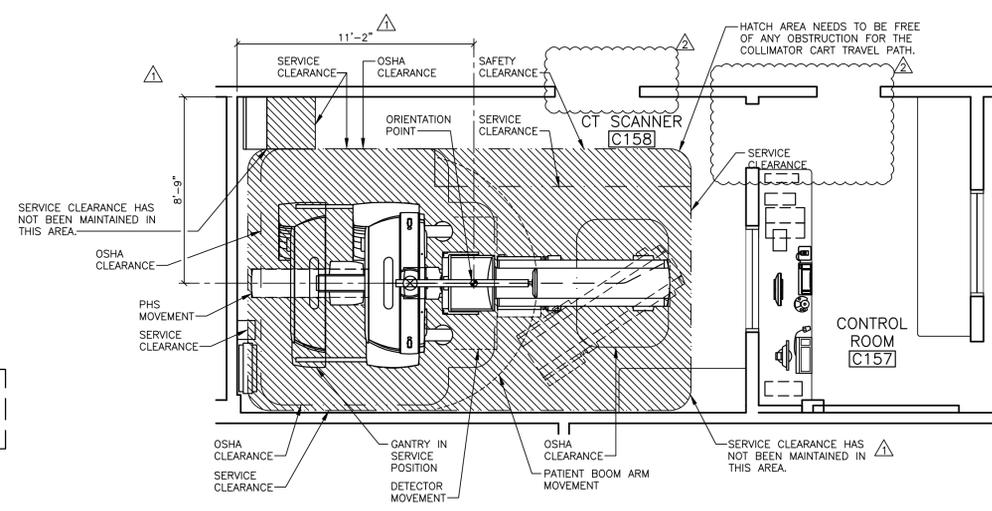
SIEMENS
VA MARTINEZ 612
 150 MIJR ROAD, MARTINEZ, CA 94553
 SCANNER ROOM C158 - SYMBIA T6

PROJECT #: REPLACES: 0900425
1400791
 SHEET: **A-101**

SHEET 1 OF 6 DRAWN BY: R. HILL
 DATE: 05/26/15

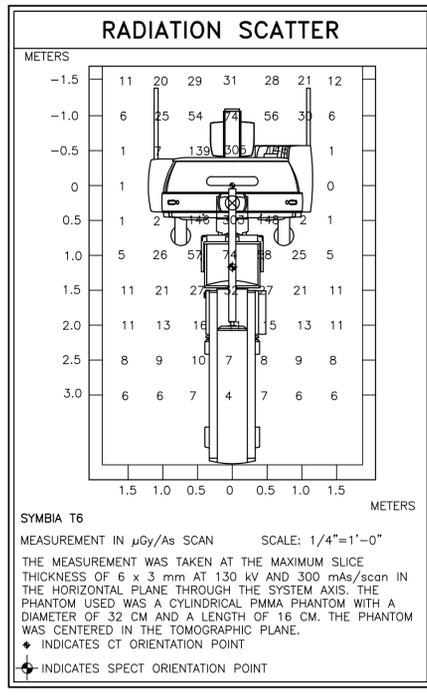
SCALE: AS NOTED REF. # 50143923

ALL RIGHTS ARE RESERVED.



SAFETY/SERVICE CLEARANCE PLAN

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



SIEMENS REMOTE SERVICES (SRS)

TO ENSURE THE UPTIME OF YOUR SYSTEM DURING THE WARRANTY PERIOD (AND BEYOND WITH A SERVICE AGREEMENT), SIEMENS REMOTE SERVICES (SRS) REQUIRES REMOTE LOCAL AREA NETWORK ACCESS TO SIEMENS SYSTEMS.

SRS REQUIRES ONE OF THE FOLLOWING CONNECTION METHODS:

(PREFERRED) VPN CONNECTION

THE PREFERRED CONNECTION METHOD IS (VPN) VIRTUAL PRIVATE NETWORK (WHERE THE CUSTOMER HAS AVAILABLE A VPN CAPABLE FIREWALL OR OTHER VPN APPLIANCE). THIS METHOD PROVIDES THE POSSIBILITY FOR REMOTE SYSTEM DIAGNOSTICS WITHOUT ADDITIONAL HARDWARE. PLEASE CONTACT SIEMENS REMOTE SERVICES (800-888-SIEM) TO DETERMINE IF THIS METHOD IS SUITABLE FOR YOUR SITE.

(OPTIONAL) SRS ROUTER CONNECTION

- THE SRS ROUTER IS SUPPLIED BY SIEMENS AND INSTALLED AT THE CUSTOMER'S SITE, WHILE STILL REMAINING THE PROPERTY OF SIEMENS. THE CUSTOMER'S NETWORK ADMINISTRATOR AND SIEMENS REMOTE SERVICES SHALL DETERMINE THE TYPE AND LOCATION OF THE SRS ROUTER REQUIRED.
- THE SRS ROUTER IS CONNECTED TO AN ANALOG MODEM THAT IS SUPPLIED BY SIEMENS, WHICH THEN IN TURN IS CONNECTED TO AN ANALOG PHONE LINE THAT IS SUPPLIED BY THE CUSTOMER. ONE SRS ROUTER ALLOWS REMOTE DIAGNOSTICS TO MULTIPLE MEDICAL SYSTEMS.
- THE SRS ROUTER SHOULD BE INSTALLED IN A SECURE LOCATION (CUSTOMER'S NETWORK COMPUTER ROOM) THAT HAS LIMITED ACCESS. IT CAN BE LOCATED ON A SHELF, TABLE, OR IN A CABINET. THE CONNECTION CABLES (WITH INDICATED LENGTHS BELOW) ARE INCLUDED WITH DELIVERY.

SRS ROUTER CONNECTION DIAGRAM

NOTE: ALL POWER OUTLETS ARE SUPPLIED/INSTALLED BY CUSTOMER.

- ETHERNET SWITCH OR HUB, SUPPLIED BY CUSTOMER
- SRS ROUTER, SUPPLIED BY SIEMENS (SIZE: 11.2"W X 8.7"D X 5.5"H, WEIGHT: 2 LBS.)
- ANALOG MODEM, SUPPLIED BY SIEMENS
- ANALOG PHONE LINE, SUPPLIED BY CUSTOMER

* OPTIONAL SWITCH AND CABLES ARE NOT INCLUDED, BUT CAN BE ORDERED FROM SIEMENS.

- SIEMENS REMOTE SERVICE SCALE: NONE

SAFETY CLEARANCE NOTE

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

RADIATION SAFETY

LEAD OR EQUIVALENT SHIELDING MAY BE REQUIRED IN THE WALLS OF THE SCANNER ROOM, HOTLAB AND/OR PATIENT PREPARATION AREAS. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO VERIFY WITH THE SITE'S RADIATION SAFETY OFFICER THAT RADIATION DOSE RATES FROM THE SPECT PATIENT AND/OR ISOTOPE WILL NOT EXCEED LOCAL RADIATION SAFETY GUIDELINES IN THE ROOM ADJACENT TO SCANNER, HOTLAB, AND/OR PATIENT PREPARATION AREAS.

IMPROPER SHIELDING MAY AFFECT CAMERA'S PERFORMANCE.

RADIOACTIVE SOURCES

THE FOLLOWING RADIOACTIVE SOURCES ARE REQUIRED FOR THE SYMBIA T AT THE TIME OF INSTALLATION FOR CALIBRATION:

- 1) 10-20 mCi Co57 (COBALT 57) OR LIQUID FILLED Tc99 (TECHNETIUM 99) SHEET SOURCE (FOR EXTRINSIC FLOOD).
- 2) POINT SOURCE 30-35 uCi Tc99 (FOR INTRINSIC FLOODS, TUNING AND PEAKING).
- 3) QUANTITY OF 5 - 1 mCi Tc99 POINT SOURCES (FOR MHR CALIBRATION).
- 4) QUANTITY OF 10 Tc99 POINT SOURCES WITH COMBINED ACTIVITY OF ALL SOURCES 5 mCi TO 20 mCi (FOR NM/CT FOV).

IT IS CUSTOMER'S RESPONSIBILITY TO OBTAIN THESE SOURCES PRIOR TO INSTALLATION. CO-57 RECTANGULAR FLOOD SHEET SOURCE MAY BE ORDERED FROM SIEMENS (ASK SIEMENS SALES ASSOCIATE). Tc99 MUST OBTAINED THROUGH CUSTOMER'S LOCAL RADIOACTIVE SOURCE PROVIDER.

THESE RADIOACTIVE SOURCES AREA NEEDED TO COMPLETE CALIBRATION OF EQUIPMENT. PLEASE NOTE SOURCE PROVIDERS WILL NOT SHIP SOURCES TO SITE WITHOUT A VALID RAM LICENSE.

RAM LICENSE

RAM LICENSE NEEDS TO BE APPLIED FOR THROUGH GOVERNMENT AGENCY AS EARLY AS POSSIBLE. PLEASE ADDRESS WITH YOUR RSO (RADIATION SAFETY OFFICER).

RAM LICENSE MUST BE OBTAINED NO LATER THAN 4 WEEKS AHEAD OF SCHEDULED DELIVERY. DELAY OF INSTALLATION MAY OCCUR IF SITE HAS NOT OBTAINED RAM LICENSE AT THIS TIME. RADIOACTIVE SOURCES NEEDED TO COMPLETE CALIBRATION OF EQUIPMENT WILL NOT BE SHIPPED TO SITE WITHOUT VALID RAM LICENSE.

LIGHTING GUIDELINES

ROOM LIGHTING IS THE RESPONSIBILITY OF THE CUSTOMER. HOWEVER, SIEMENS OFFERS THE FOLLOWING RECOMMENDATIONS, AS A GENERAL GUIDE ONLY, WHEN PLANNING FOR LIGHTING.

- 1) OVERALL GENERAL ILLUMINATION IS NECESSARY FOR CLEAN UP AND MAINTENANCE OF EQUIPMENT.
- 2) THE LIGHTING IN ROOMS IN WHICH DIAGNOSES ARE MADE ON VIDEO DISPLAY UNITS (MONITORS) MUST MEET THE FOLLOWING REQUIREMENTS:
 - ADJUSTABLE, GLARE-FREE AND REPRODUCIBLE SETTING OF LIGHTING (I.E. DIMMER WITH SCALE)
 - NO REFLECTIONS FROM WINDOWS, LAMPS AND VIEWING BOXES WHEN THE MONITORS ARE IN THEIR STANDARD OPERATING POSITION.

FINISHED ROOM HEIGHT

SYMBIA T, T2, T6 OR T16	MINIMUM 8'-0"
SYMBIA T, T2, T6 OR T16 WITH CEILING MOUNTED COMPONENT OTHER THAN RADIATION ON LAMP	MINIMUM 8'-0" MAXIMUM 12'-0"

CONSIDER THE WARNING LIGHT WILL BE PLACED ON TOP OF THE PATIENT BOOM. ANY OTHER CEILING MOUNTED COMPONENT MUST BE PLACED AS TO NOT COLLIDE WITH WARNING LIGHT.

PROJECT MANAGER: MIKE CAMPBELL
TEL: (925) 408-6293 EXT:
FAX:
EMAIL: mike.campbell@siemens.com

SIEMENS

VA MARTINEZ 612

150 MIJR ROAD, MARTINEZ, CA 94553
SCANNER ROOM C158 - SYMBIA T6

PROJECT #: REPLACES: 0900425
1400791

SHEET: **A-102**

SHEET 2 OF 6 DRAWN BY: R. HILL

DATE: 05/26/15

SCALE: AS NOTED REF: # 0143923

ALL RIGHTS ARE RESERVED.

ATTENTION:

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

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

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

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

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

SYMBIA T, T2, T6, T16
REV. 4

FLOOR REQUIREMENTS

- 1) THE MINIMUM ALLOWABLE CONCRETE THICKNESS FOR NONSEISMIC REGIONS OF THE SCANNER ROOM FLOOR IS 4".
- 2) CONDITIONS OF FLOORING:
 - VIBRATION FREE LOCATION AS FOUND IN A TYPICAL CLINICAL ENVIRONMENT.
 - INSTALLATION OF THE GANTRY AND PATIENT TABLE ON:
 - CONCRETE FLOORING CLASS C20/25 TO C50/60.
 - COMPOSITE FLOORING OR ACCESS FLOOR WITH SUITABLE ON SITE MOUNTING FRAME, SUB CONSTRUCTION, OR EQUIVALENT STRUCTURE.
- 3) WEIGHT CAPACITY OF FLOORING SHOULD BE TESTED BY A STRUCTURAL ENGINEER.
- 4) ANY FLOORING OTHER THAN LISTED ABOVE REQUIRES AN ON SITE FRICTION FREE SUB CONSTRUCTION MADE FROM STEEL IN THE AREAS OF SUPPORT. PLEASE CONSULT STRUCTURAL ENGINEER.
- 5) THE MINIMUM EXTRACTION FORCE FOR THE POINTS WHERE THE PATIENT TABLE IS ATTACHED IS 610 LBF. PER ANCHOR.
 - INSTALLATION ON A FLOATING FLOOR WITHOUT SUB-CONSTRUCTION IS PROHIBITED.
- 6) THE BASE FRAME FOOT PADS ARE MOUNTED TO THE FLOOR USING (4) 5/8" X 3 1/2" ANCHORS.
- 7) FLOOR LEVELNESS REFER TO FLOOR LEVELING AND FLATTENING DETAIL LOCATED ON THIS SHEET.
- 8) THE MINIMUM REQUIREMENTS FOR COMPRESSIVE STRENGTH FOR THE FLOOR COVERING BASED ON SYMBIA COLLIMATOR CART SHALL BE 375 PSI. THIS IS BASE ON WORSE CASE LOADING WITH 2-HIGH ENERGY AND 2-MEDIUM ENERGY COLLIMATORS PLACED ON THE COLLIMATOR CART.

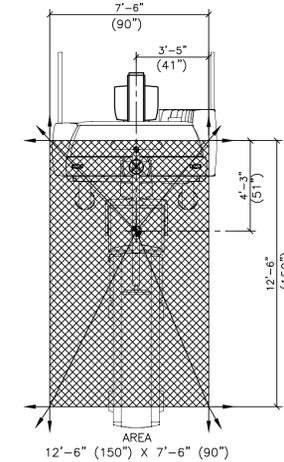
PREPARATION/PROCEDURE FOR FLOOR LEVELING AND FLATTENING

PREPARATION LEVELING AND FLATTENING THE FLOOR AREA

THE SCANNER ROOM FLOOR MUST BE LEVELED AND THE SURFACE MUST BE SMOOTH. ANY DEVIATION IN LEVELS WILL HAVE A DETRIMENTAL EFFECT ON THE PATIENT HANDLING TABLE (PHS) TO THE GANTRY ALIGNMENT WHICH MAY EFFECT COLLIMATOR EXCHANGE.

IT IS RECOMMENDED THAT THE FLOOR IN THE ENTIRE ROOM WILL BE LEVELED AND FLATTENED ACCORDING TO THE SIEMENS SPECIFICATIONS GIVEN BELOW. IT IS IMPERATIVE THAT THE SYSTEM INSTALLATION AREA, AS INDICATED BY THE HATCH AREA BELOW, IS LEVELED AND FLATTENED.

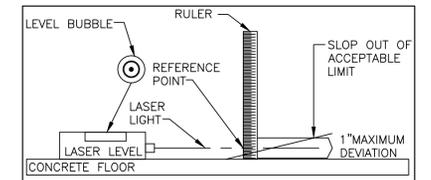
UPON COMPLETION OF THE INSTALLATION FLOOR AREA, VERIFY THE SURFACE FLATNESS, USING A STRAIGHT EDGE 4'-0" IN LENGTH OR LONGER.



FLOOR CHECKING PROCEDURE

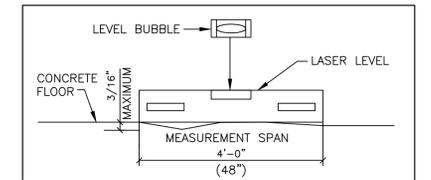
THIS PROCEDURE PROVIDES DETAILS ON HOW TO VERIFY THAT THE FLOOR IS BOTH FLAT AND LEVEL BEFORE SYSTEM INSTALLATION BEGINS. THIS PROCEDURE SHOULD BE COMPLETE BY THE SIEMENS PROJECT MANAGER AND CUSTOMER/CONTRACTOR. MEASUREMENTS SHOULD BE TAKEN LEFT TO RIGHT OR RIGHT TO LEFT, FRONT TO BACK OR BACK TO FRONT AND DIAGONALLY IN EITHER DIRECTION. REFER TO THE DIAGRAM ON THE LEFT.

- SLOPE - FLOOR SLOPE SHOULD BE WITHIN $\pm 1"$ OVER 12'-6" (150")
- 1) PLACE LASER LEVEL ON FLOOR.
 - 2) MAKE SURE THAT THE LASER LEVELING DEVICE IS ABSOLUTELY LEVEL.
 - 3) TURN ON LASER.
 - 4) USE A RULE TO MEASURE THE HEIGHT OF THE LASER LIGHT FROM THE FLOOR NEXT TO THE LASER LEVEL. THIS IS REFERENCE POINT ON THE RULER FOR ALL OTHER MEASUREMENTS.
 - 5) KEEP THE LASER ON AND USE A RULE TO MEASURE THE HEIGHT OF THE LASER LIGHT BEAM AT VARIOUS POINTS 12'-6" (150") FROM THE LASER. THE MEASUREMENT FROM THE FLOOR SHOULD BE WITHIN 1" OF THE ORIGINAL LASER LIGHT REFERENCE POINT. REPEAT AT VARIOUS POINTS AND DIRECTIONS REPRESENTED AS HATCH AREA IN THE DIAGRAM TO THE LEFT.



FLATNESS - FLOOR SURFACE SHOULD BE SMOOTH AND HAVE NO MORE THAN 3/16" DEVIATION IN ANY 4'-0" (48") SEGMENT IN ENTIRE THE SCANNER ROOM AREA.

- 1) VERIFY SURFACE FLATNESS FOR THE ENTIRE SCANNER ROOM AREA, USE STRAIGHT EDGE OR BUBBLE LEVEL THAT IS 4'-0" (48") LONG.



IT IS THE CUSTOMER/CONTRACTOR'S RESPONSIBILITY IF ANY MEASUREMENT OUT OF ACCEPTABLE LIMITS ARE AN INDICATION THAT THE FLOOR NEEDS TO BE LEVELED WITH SOME SORT OF LEVELING COMPOUND.

WHERE THE UNACCEPTABLE DEVIATION EXIST, THE WHOLE (MINIMUM SYSTEM AREA) SHOULD BE RE-SUFACED.

LEVELING SPECIFICATIONS

FLOOR LEVELING AREA	12'-6" (150") X 7'-6" (90").
SLOPE	WITHIN $\pm 1"$ OVER 12'-6" (150").
FLATNESS	FLOOR SURFACE SHOULD BE SMOOTH AND HAVE NO MORE THAN 3/16" DEVIATION IN ANY 4'-0" (48") THROUGHOUT THE SCANNER ROOM OR SYSTEM INSTALLATION AREA.
FLOOR SURFACE	FLOOR SHOULD HAVE ONE SINGLE Poured SURFACE. NO FILL MATERIAL SHOULD BE USED TO COMPENSATE FOR HOLES OR DEPRESSIONS IN THE FLOOR SURFACE.

SIEMENS 1, 12, 15, 116
REV. 4

SIEMENS
VA MARTINEZ 612
 150 MUJR ROAD, MARTINEZ, CA 94553
 SCANNER ROOM C158 - SYMBIA T6

PROJECT MANAGER: MIKE CAMPBELL TEL: (925) 408-6293 FAX: EXT: EMAIL: mike.campbell@siemens.com
PROJECT #: 1400791 REPLACES: 0900425
SHEET: 4 OF 6 DRAWN BY: R. HILL
DATE: 05/26/15
SCALE: AS NOTED REF. # 50143923

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

S-501

ALL RIGHTS ARE RESERVED.

ATTENTION:

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

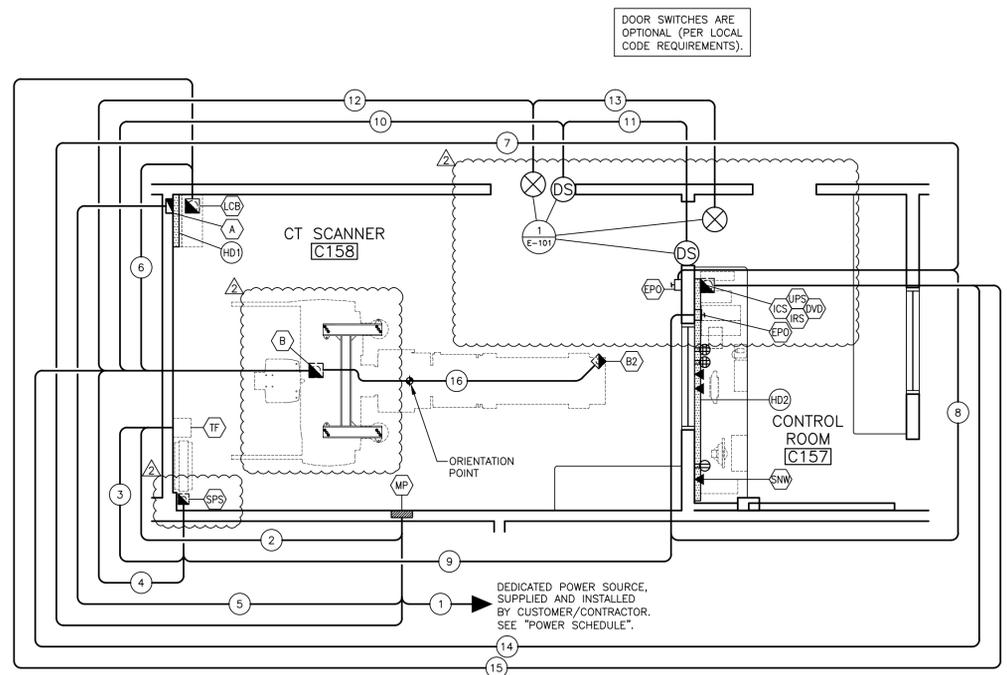
- IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.

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

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

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

- ISSUE BLOCK -



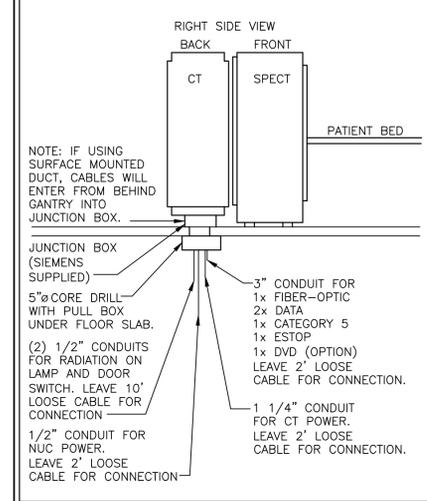
ELECTRICAL RACEWAY PLAN

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

CABLE ENTRANCES

CABLES MAY ENTER FROM CONDUITS BENEATH FLOOR, SURFACE MOUNTED DUCT, OR FLUSH IN FLOOR TRENCH. PLEASE REFER TO SITE SPECIFIC SHEET E-101 AND E-102 TO SEE HOW CABLES ACCESS GANTRY.

EXAMPLE SHOWN IS CONDUITS BENEATH FLOOR:



SIEMENS SUPPLIED CABLES

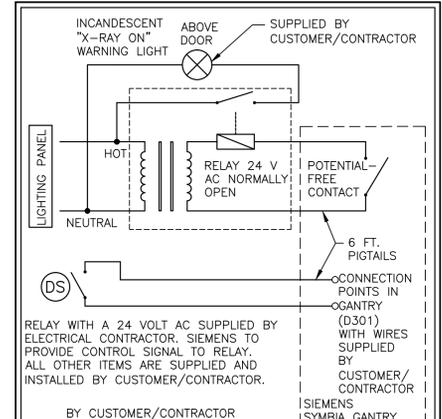
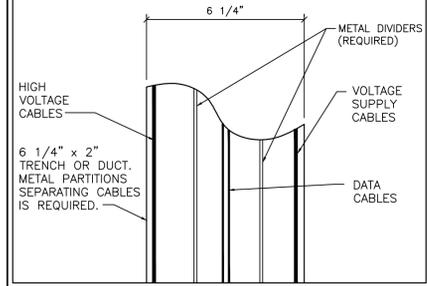
FROM	VIA	TO	DESCRIPTION	REMARKS
ICS/IRS	14	B	POWER CABLE: 300V.	MAXIMUM LENGTH 82'-0"
ICS/IRS	14	B	CAT 5 CROSS OVER CABLE: 150V.	MAXIMUM LENGTH 82'-0"
ICS/IRS	14	B	UNMARKED CABLE.	MAXIMUM LENGTH 82'-0"
ICS/IRS/DVD	14	B	DVD CABLE, DATA CABLE, FIBER CABLE: 30V.	MAXIMUM LENGTH 82'-0"
LCB	15	UPS	POWER CABLE: 300V.	MAXIMUM LENGTH 82'-0"
B	16	B2	PHS CABLE, POWER CABLE: 300V.	MAXIMUM LENGTH 20'-0"

TRENCH/DUCT REQUIREMENTS

IF USING TRENCH OR SURFACE MOUNT DUCT, VOLTAGE SUPPLY CABLES AND/OR HIGH VOLTAGE CABLES MUST BE LAID SEPARATELY FROM THE DATA CABLES. 6 1/4" x 2" TRENCH OR DUCT MUST BE SUPPLIED WITH 2 METAL DIVIDERS TO KEEP CABLES SEPARATED.

HIGH VOLTAGE AND SUPPLY CABLES: ON SITE POWER LINE CABLE TO THE SYMBIA T, T2, T6 OR T16 SYSTEM.

FOR SYMBIA T, T2, T6 AND T16 SYSTEMS: THE VOLTAGE SUPPLY CABLE FROM THE LCB TO THE JUNCTION BOX FOR THE GANTRY.



AUXILIARY WIRING

SCALE: NONE

ELECTRICAL LEGEND			
SYM	SIZE	DESCRIPTION	REMARKS
(A)	AS REQUIRED	PULL BOX MOUNTED FLUSH WITH FINISHED WALL AT FLOOR LINE IN SHOWN LOCATION.	ANCILLARY WIRING
(B)	8" x 8"	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 5" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	GANTRY CABLE ACCESS
(B2)	6" x 6"	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 3" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION. SIEMENS SUPPLIED COVER.	PHS CABLE ACCESS UNDER THE PHS
(E)	---	FIXED POINT DESIGNATION, SAME PULL BOX/OPENING AS ICS.	
(E2)	---	EMERGENCY POWER OFF BUTTON WITH PROTECTIVE COVER, MOUNTED ON WALL AT 5'-0" ABOVE FINISH FLOOR THAT PREVENTS RESETTING OF CIRCUIT BREAKER WHEN IN THE OFF POSITION. THERE SHALL BE AN EPO IN EACH ROOM OF THE SUITE WHERE SIEMENS EQUIPMENT IS LOCATED, EXACT LOCATIONS TO BE DETERMINED BY CUSTOMER/CONTRACTOR. SUPPLIED BY CUSTOMER/CONTRACTOR.	SEE POWER SCHEDULE
(C5)	AS REQUIRED	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 6" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	IMAGE CONSTRUCTION SYS
(C6)	---	FIXED POINT DESIGNATION, SAME PULL BOX/OPENING AS ICS.	IMAGE RECONSTRUCTION SYS
(D5)	AS REQUIRED	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 6" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	LINE CONNECTION BOX
(MP)	---	MAIN PANEL WITH MAIN BREAKER FLUSH OR SURFACE MOUNTED. REFER TO POWER SCHEDULE.	SEE POWER SCHEDULE
(S)	---	ETHERNET CONNECTION TO HOSPITAL NETWORK, EXACT LOCATION TO BE COORDINATED WITH SIEMENS PROJECT MANAGER.	SYMBIANET WORKPLACE
(S2)	AS REQUIRED	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 3" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	UPS FOR SPECT
(TF)	AS REQUIRED	TRANSFORMER PROVIDING STEP DOWN POWER FOR THE SPECT UPS (SPS). EXACT LOCATION DETERMINED BY CUSTOMER/CONTRACTOR BASED ON LOCATION OF MP AND SPS. SUPPLIED BY CUSTOMER/CONTRACTOR.	SEE POWER SCHEDULE
(E2)	---	FIXED POINT DESIGNATION, SAME PULL BOX/OPENING AS ICS.	
(R)	6" x 3 1/2"	ELECTRICAL DUCT THAT RUNS HORIZONTALLY ON THE WALL AT THE FLOOR LINE AND SURFACE MOUNTED ON FINISHED WALL AS SHOWN FOR EXCESS CABLE STORAGE.	RACEWAY
(1)	AS REQUIRED	CONDUIT FROM POWER SOURCE TO "MP" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(2)	AS REQUIRED	CONDUIT FROM "MP" TO "TF" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(3)	AS REQUIRED	CONDUIT FROM "TF" TO "SPS" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(4)	1/2"	CONDUIT FROM "SPS" TO "B" SIZED BY ELECTRICAL ENGINEER OF RECORD.	MAXIMUM CONDUIT LENGTH 76'-0"
(5)	1 1/4"	CONDUIT FROM "MP" TO "A" (LCB) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(6)	1 1/4"	CONDUIT FROM "LCB" TO "B" SIZED BY ELECTRICAL ENGINEER OF RECORD.	MAXIMUM CONDUIT LENGTH 76'-0"
(7)	AS REQUIRED	CONDUIT FROM "MP" TO "EPO" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(8)	AS REQUIRED	CONDUIT FROM "EPO" TO "EPO" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(9)	AS REQUIRED	CONDUIT FROM "EPO" TO "SPS" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
(10)	1/2"	CONDUIT FROM "B" TO "DOOR SAFETY SWITCH" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
(11)	AS REQUIRED	CONDUIT FROM "DOOR SAFETY SWITCH" TO "DOOR SAFETY SWITCH" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
(12)	1/2"	CONDUIT FROM "B" TO "WARNING LIGHT" (X-RAY ON) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
(13)	AS REQUIRED	CONDUIT FROM "WARNING LIGHT" (X-RAY ON) TO "WARNING LIGHT" (X-RAY ON) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
(14)	(2) 3"	CONDUIT "B" TO "ICS".	MAXIMUM CONDUIT LENGTH 76'-0"
(15)	1 1/2"	CONDUIT FROM "LCB" TO "UPS".	MAXIMUM CONDUIT LENGTH 76'-0"
(16)	3"	CONDUIT FROM "B" TO "B2".	MAXIMUM CONDUIT LENGTH 14'-0"

CONTRACTOR SUPPLIED CABLES

FROM	VIA	TO	DESCRIPTION	REMARKS
POWER SOURCE	1	MP	3-PHASE CONDUCTORS, 1 NEUTRAL AND GROUND ALL TO BE THE SAME SIZE. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	2	TF	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
TF	3	SPS	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
SPS	4	B	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	5A	LCB	POWER CABLE FOR CT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
LCB	6	B	POWER CABLE FOR CT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	7	EPO	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
EPO	8	EPO	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
EPO	9	SPS	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
B	10	DOOR SAFETY SWITCH	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
DOOR SAFETY SWITCH	11	DOOR SAFETY SWITCH	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
B	12	WARNING LIGHT	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
WARNING LIGHT	13	WARNING LIGHT	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101

FINISHED ROOM HEIGHT

SYMBIA T, T2, T6 OR T16	MINIMUM 8'-0"
SYMBIA T, T2, T6 OR T16 WITH CEILING MOUNTED COMPONENT OTHER THAN RADIATION ON LAMP	MINIMUM 8'-0" MAXIMUM 12'-0"

CONSIDER THE WARNING LIGHT WILL BE PLACED ON TOP OF THE PATIENT BOOM. ANY OTHER CEILING MOUNTED COMPONENT MUST BE PLACED AS TO NOT COLLIDE WITH WARNING LIGHT.

ELECTRICAL NOTES

- 1) COMPLIANCE: ELECTRICAL WORK SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA-70), O.S.H.A. REGULATIONS, AS WELL AS APPLICABLE REGULATIONS OF CITY, COUNTY, STATE AND FEDERAL AGENCIES. PROVIDE MATERIALS AND EQUIPMENT THAT COMPLY TO ANSI, IEEE AND NEMA STANDARDS. WHERE APPLICABLE, PROVIDE ONLY MATERIALS AND PRODUCTS THAT ARE U.L. LISTED AND LABELED. CUSTOMER'S/CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF NECA STANDARD OF INSTALLATION.
- 2) QUALITY ASSURANCE: THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD TO INSURE THAT THE NEW WORK WILL FIT TO THE EXISTING STRUCTURE AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST OR BE DISCOVERED THAT PREVENT THE INSTALLATION OF WORK AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OF EQUIPMENT, OR THE PERFORMANCE OF ANY WORK THAT MAY BE AFFECTED. DO NOT ALTER DRAWINGS, DIMENSIONS, OR SPECIFICATIONS IN ANY WAY WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SMS PROGRAM MANAGER. ALL DIMENSIONS ARE FROM FINISHED SURFACES. CONDUIT AND PULL BOXES TO BE INSTALLED BY THE CUSTOMER/CONTRACTOR WITH LOCATIONS BEING FIELD VERIFIED BY SMS PROJECT MANAGER.
- 3) POWER SUPPLY SOURCE: POWER SUPPLIES FOR SIEMENS MEDICAL SOLUTIONS EQUIPMENT SHALL BE DEDICATED SERVICES KEPT ENTIRELY FREE AND INDEPENDENT OF ALL OTHER BUILDING WIRING AND EQUIPMENT, SUCH AS ELEVATORS, GENERATORS, PUMPS, HVAC SYSTEMS, ETC. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE CUSTOMER/UTILITY COMPANY FIELD REPRESENTATIVE.
- 4) WORK FURNISHED BY CUSTOMER/CONTRACTOR: WORK NOT PROVIDED BY SIEMENS MEDICAL SOLUTIONS BUT SHOWN ON DRAWINGS TO BE FURNISHED AND INSTALLED BY CUSTOMER/CONTRACTOR INCLUDES THE FOLLOWING BUT IS NOT LIMITED TO UNLESS NOTED OTHERWISE: ELECTRICAL RACEWAYS AND DUCTS, WIRING TROUGH, PULL BOXES, CONDUITS, CIRCUIT BREAKERS, EMERGENCY OFF BUTTONS, DOOR SWITCHES, WARNING LIGHTS, WIRING, WIRING DEVICES, CONNECTORS, LIGHTING EQUIPMENT AND GROUNDING.
- 5) RACEWAY AND CONDUIT NOTES: RACEWAY SHALL BE ELECTRIC METALLIC TUBING (EMT) FOR RIGID CONDUIT WORK, OR WHERE SHORT OFF-SET CONNECTIONS ARE REQUIRED LIGHTDUTY FLEXIBLE METAL CONDUIT SHALL BE USED. FIELD BENDS SHALL NOT BE LESS THAN AS SHOWN IN TABLE 346-10 OF THE NATIONAL ELECTRICAL CODE. PROVIDE A JETLINE "SUPER TRUE TAPE" OR EQUIVALENT CONDUIT MEASURING TAPE, FISH LINE IN ALL RACEWAYS AND CONDUITS. CONDUIT BODIES SHALL NOT BE USED, WHERE A CONDUIT ENTERS A BOX, FITTING, OR OTHER ENCLOSURE, AN INSULATED THROUGH CONNECTOR SHALL BE PROVIDED TO PROTECT THE WIRE FROM ABRASION. CONNECTORS SHALL BE DOUBLE SET SCREW TYPE, STEEL CONCRETE TIGHT. KEEP RACEWAYS AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF FLUES OR STEAM AND HOT WATER PIPES. INSTALL RACEWAY RUNS ABOVE WATER AND STEAM PIPES PROVIDED THAT CABLE RUN DISTANCES ARE MAINTAINED. USE TEMPORARY CLOSURES TO PREVENT FOREIGN MATTER FROM ENTERING RACEWAY. CONDUIT RUNS ARE SHOWN SCHEMATICALLY. INSTALL CONDUIT WITH A MINIMUM OF BONDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED. THE CONTRACTOR SHALL MAKE CERTAIN THAT ANY CONDUIT/RACEWAY RUNS CONTAINING SIEMENS MEDICAL SYSTEMS CABLES DO NOT EXCEED THE SPECIFIED MAXIMUM DISTANCES AS SHOWN ON THE ELECTRICAL DETAILS. PROVIDE ENCLOSED METAL RACEWAY SYSTEM (WIRE DUCT) WHERE SHOWN ON DRAWINGS WITH DIVIDERS TO SEPARATE THE DUCT (FOR POWER AND SIEMENS MEDICAL SOLUTIONS CABLES). DIVIDERS AND CROSSOVER PIECES TO BE PROVIDED AS NECESSARY. FOR UL CERTIFIED SYSTEMS, THE CABLE TO CABLE AS WELL AS THE CIRCUIT TO CIRCUIT SEPARATION REQUIREMENT WAS EVALUATED DURING THE UL SYSTEM INVESTIGATION OF THIS EQUIPMENT. ADDITIONAL SEPARATION OF THE SYSTEM CABLE ASSEMBLIES INTO SEPARATE OR PARTITIONED RACEWAYS, UNLESS OTHERWISE NOTED, IS NOT NECESSARY TO INSURE SEPARATION OF CIRCUITS, AS THEY CAN BE IN THE SAME RACEWAY. PROVIDE WIRE DUCT/RACEWAY WITH ACCESSIBLE REMOVABLE COVERS. LOCATIONS OF OPENINGS TO BE CUT IN FIELD ARE TO BE COORDINATED WITH SIEMENS PROJECT MANAGER. ELECTRICAL PULL BOXES AND RACEWAY COVERS SHALL BE INSTALLED IN A MANNER TO ALLOW ACCESSIBILITY FOR INSTALLATION AND MAINTENANCE. IN- FLOOR TRENCH DUCT AND FLUSH FLOOR BOXES SHALL BE PROVIDED WITH FULLY GASKETED REMOVABLE COVERS.
- 6) WIRING: WIRING SHALL BE INSTALLED IN METAL RACEWAY, 600 VOLT CLASS, STRANDED TYPE THHN-THWN, SINGLE CONDUCTOR ANNEALED COPPER FOR A MAXIMUM OPERATING TEMPERATURE OF 75° C (165° F), SIZED AS INDICATED. THE CUSTOMER/CONTRACTOR SHALL LEAVE MINIMUM 10 FT. WIRE TAILS AT ALL OUTLET POINTS WITH WIRE IDENTIFICATION TAGGED AT BOTH ENDS FOR FINAL CONNECTION BY SIEMENS MEDICAL SOLUTIONS.
- 7) IN ADDITION TO THE CIRCUIT BREAKER LOAD CURRENT RATING, CONSIDERATION MUST ALSO BE GIVEN TO SELECTING CIRCUIT BREAKERS THAT HAVE A HIGH ENOUGH SHORT CIRCUIT CURRENT WITHSTAND RATING TO SAFELY COORDINATE WITH THE POWER SYSTEM AVAILABLE SHORT CIRCUIT CURRENT. GENERALLY, WHEN THE 480 VOLT, 3 PHASE, X-RAY EQUIPMENT IS SERVED FROM A POWER SUPPLY SYSTEM THAT IS PROVIDED WITH A 500 KVA OR SMALLER TRANSFORMER, A STANDARD 14,000 RMS AMPERE WITHSTAND RATED CIRCUIT BREAKER WILL BE ADEQUATE. HOWEVER, IF THE POWER SUPPLY SYSTEM TRANSFORMER IS LARGER THAN 500 KVA, THEN THE CIRCUIT BREAKERS HAVING A SHORT CIRCUIT WITHSTAND RATING GREATER THAN 14,000 RMS AMPERES MAY BE REQUIRED.

ATTENTION:

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

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

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

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

PROJECT MANAGER: MIKE CAMPBELL
 TEL: (925) 408-6293
 FAX: EXT:
 EMAIL: mike.campbell@siemens.com

SIEMENS

VA MARTINEZ 612

150 MIJR ROAD, MARTINEZ, CA 94553
 SCANNER ROOM C158 - SYMBIA T6

PROJECT #: REPLACES: 0900425 SHEET:
1400791

SHEET 5 OF 6 DRAWN BY: R. HILL

E-101

DATE: 05/26/15

SCALE: AS NOTED REF: #0143923

05/26/15 REVISED WALL BACKGROUND PER CUSTOMER NEW CAD BACKGROUND.

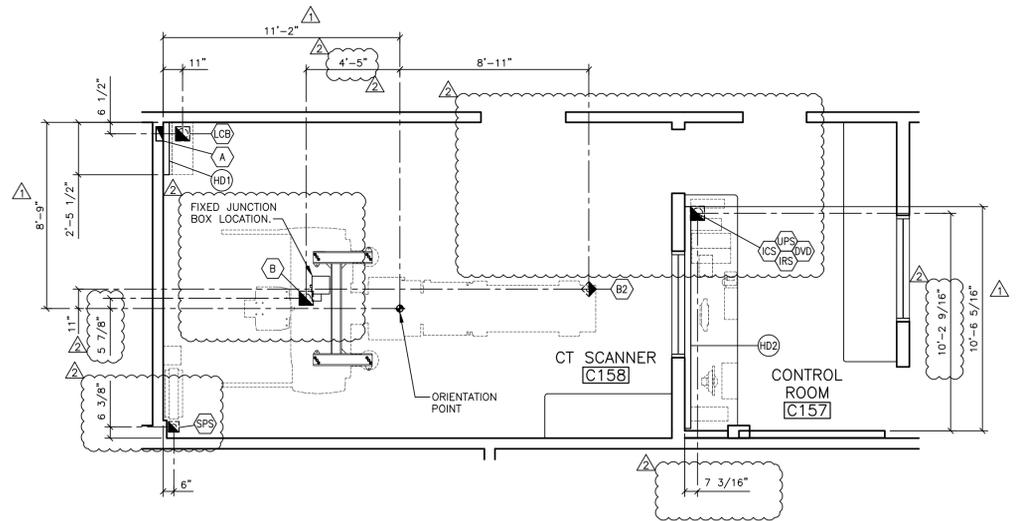
03/27/15 REVISED WALL BACKGROUND PER CUSTOMER REQUEST.

03/07/14 R-101RB VERSION DATED 06/08/11 APPROVED BY THE CUSTOMER FOR FINLS.

ALL RIGHTS ARE RESERVED.

-ISSUE BLOCK-

SYMBIA T, T2, T6, T16 REV. 4



ELECTRICAL DIMENSION PLAN

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

POWER SCHEDULE

ALL CONDUITS AND WIRE SIZES MUST BE DETERMINED BY THE ELECTRICAL ENGINEER ON RECORD PER N.E.C. AND TO MAINTAIN SIEMENS IMPEDANCE REQUIREMENTS.

ITEM	QTY	DESCRIPTION
MP	1	MAIN PANEL WITH MAIN BREAKER FLUSH OR SURFACE MOUNTED. MAIN BREAKER MUST HAVE A TRIPPING DEVICE SO WHEN ANY EPO IS PRESSED THE MAIN BREAKER TRIPS. THIS TRIPPING DEVICE CONTROL CIRCUIT MUST BE OF FAIL-SAFE DESIGN. THE CONTROL CIRCUIT FOR THE EPO'S MUST HAVE AN ENERGY STORAGE SOURCE SO THAT THE CONTROL CIRCUIT NEVER LOSES POWER.
MAIN BREAKER AMPS: SEE POWER REQUIREMENTS		
VOLTS PHASES NEUTRAL GROUND TOTAL WIRES		
480Y/277Y 3 1 1 5 (NOTE 1)		
A	1	BREAKER AMPS: 80 FOR LINE CONNECTION BOX (LCB) AND CT GANTRY (B)
VOLTS PHASES NEUTRAL GROUND TOTAL WIRES		
480Y/277Y 3 1 1 5 (NOTE 1)		
B	1	BREAKER AMPS: 25 UPS FOR SPECT (SPS) AND SPECT GANTRY (B)
VOLTS PHASES NEUTRAL GROUND TOTAL WIRES		
277Y 1 1 1 3 (NOTE 1)		
EPO	VARIES	EMERGENCY POWER OFF BUTTON WITH PROTECTIVE COVER THAT PREVENTS ACCIDENTAL ACTIVATION OF THE EPO BUTTON. THE EPO MUST BE OF FAIL-SAFE DESIGN, THE CONTROL CIRCUIT FOR THE EPO'S MUST HAVE AN ENERGY STORAGE SOURCE SO THAT THE CONTROL CIRCUIT NEVER LOSES POWER. ALL EPO'S ARE TO BE LATCHING TYPE AND MUST BE RESET BEFORE MAIN BREAKER CAN BE RESET.
IF ANY OPTIONAL UPS EQUIPMENT IS PROVIDED BY SIEMENS, THE CUSTOMER/CONTRACTOR SHALL PROVIDE AN ADDITIONAL CONTACT IN EACH EPO AND PROVIDE SEPARATE WIRING FOR AN ADDITIONAL EPO CIRCUIT AS REQUIRED. PLEASE COORDINATE THE TYPE OF CONTACT REQUIRED FOR THE UPS CIRCUIT WITH SIEMENS PROJECT MANAGER.		
THE EPO'S MUST BE INSTALLED BY A QUALIFIED ELECTRICAL CONTRACTOR ACCORDING TO NATIONAL ELECTRICAL CODE, STATE AND LOCAL REGULATIONS. MEASURES SHOULD BE TAKEN TO DESIGN THE CIRCUIT IN SUCH A WAY THAT IT WILL ALWAYS WORK WHEN THE MEDICAL EQUIPMENT IS POWERED. THE CUSTOMER IS SOLELY RESPONSIBLE FOR THE IMPLEMENTATION OF THE EPO'S AND THEIR ASSOCIATED CIRCUITS AND MUST MAKE THE FINAL DETERMINATION CONSIDERING ALL SITE CONDITIONS AND REGULATORY FACTORS.		
THE EPO SHALL BE MAINTAINED TYPE, PROVIDED WITH (1) SET(S) OF CONTACTS FOR TRIPPING OF THE MAIN IN THE MP. A SECOND SET OF NORMALLY OPEN CONTACTS IS REQUIRED FOR EACH EPO FOR THE SIEMENS SUPPLIED UPS FOR SPECT. THE EPO SHALL BE CONNECTED IN PARALLEL WITH THE (2) SETS OF CONTACTS, THEREBY WHEN ANY EPO IS ACTIVATED, THE NORMALLY OPEN CONTACT WILL CLOSE SHUTTING DOWN THE UPS FOR SPECT. THE OTHER CONTACT (NORMALLY OPEN/NORMALLY CLOSED) WILL TRIP THE MAIN BREAKER.		
ALL ITEMS LISTED IN THIS SCHEDULE SHALL BE SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR. REV 1		

CONDUIT LENGTH CALCULATIONS

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

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

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

GROUNDING NOTES

EQUIPMENT GROUND CONDUCTOR TO COMPLY WITH THE FOLLOWING:

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

SYMBOLS

ALL MAY NOT APPLY

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

POWER REQUIREMENTS

SYSTEM	LINE VOLTAGE (VOLTS)	POWER CONSUMPTION (kVA) SEE NOTE BELOW	AUTOMATIC CIRCUIT BREAKER (AMPS)	INCOMING LINE IMPEDANCE (mΩ)	HZ
SYMBIA T6/T16	3ø 480±10%	74.8 kVA SCAN	100	320	60

POWER CONSUMPTION:
 SYMBIA T6/T16 - LESS THAN OR EQUAL TO 70 kVA MAXIMUM POWER CONSUMPTION, LESS THAN OR EQUAL TO 3 kVA STANDBY

SPECT GANTRY, PHS, UPS, & SNAC - 4.8 kVA MAXIMUM POWER CONSUMPTION, LESS THAN OR EQUAL TO 1.5 STANDBY

TOTAL CONSUMPTION = 74.8 TOTAL STANDBY = 4.5 kVA

NOTE: THE SPECT UNITS NEED TO BE WIRED SINGLE PHASE TO NEUTRAL WITH APPROPRIATE BREAKER AND WIRE SIZE.

DO NOT CONNECT ANY EXTERNAL USERS TO THE SPECT/CT POWER LINE. FOR SYMBIA T6/T16, THE IMAGING SYSTEM IMS (ICS, IRS, AND MONITOR) MUST BE CONNECTED VIA THE UPS TO THE LCB. THE FUSE IS ALREADY INTEGRATED IN THE LCB.

AN ON/OFF SWITCH IN ACCORDANCE WITH UL 2601/CSA114 INCLUDING A SWITCH POSITION INDICATOR IS INTEGRATED IN THE LCB, A SEPARATE ON/OFF SWITCH MAY BE REQUIRED PER LOCAL CODE.

THE SCANNER AND CONTROL ROOM SHOULD BE EQUIPPED WITH AT LEAST ONE EACH EMERGENCY POWER OFF BUTTON.

UPS FOR SPECT PREINSTALL REQUIREMENTS

THE CUSTOMER HAS PURCHASED THE UPS FOR SPECT OPTION FOR THE SPECT PORTION OF THE SYMBIA T'S SYSTEMS. THE UPS FOR SPECT REQUIRES 208/220/240 VAC AND NEEDS A CUSTOMER/CONTRACTOR SUPPLIED STEP DOWN TRANSFORMER (277 VOLTS PRIMARY 5 kVA STEP DOWN TRANSFORMER TO 208/220/240 VAC). IT IS THE CUSTOMER/CONTRACTOR RESPONSIBILITY TO PROVIDE POWER TO AND CONNECT THE STEP DOWN TRANSFORMER PRIOR TO EQUIPMENT DELIVERY AND INSTALLATION.

CUSTOMER SUPPLIED

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

RADIATION WARNING LIGHTS REQUIRED ON ALL DOORS ACCESSING THE EXAMINATION ROOM IN ACCORDANCE WITH FDA CODES.

EMERGENCY POWER OFF BUTTON SHOULD BE INSTALLED IN BOTH THE SCANNER AND CONTROL ROOM.

POWER DISTRIBUTION

TO ENSURE TROUBLE-FREE OPERATION, WE RECOMMEND THAT THE MAIN POWER LINE RUN DIRECTLY FROM THE HOUSE TRANSFORMER TO THE ON-SITE POWER DISTRIBUTOR.

THE MAIN POWER LINE SHOULD BE ROUTED DIRECTLY FROM THE ON-SITE POWER DISTRIBUTOR TO THE SYMBIA SYSTEM MAIN POWER PANEL.

POWER QUALITY

POOR POWER WILL ALTER EQUIPMENT PERFORMANCE

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

FINISHED ROOM HEIGHT

SYMBIA T, T2, T6 OR T16	MINIMUM 8'-0"
SYMBIA T, T2, T6 OR T16 WITH CEILING MOUNTED COMPONENT OTHER THAN RADIATION ON LAMP	MINIMUM 8'-0" MAXIMUM 12'-0"

CONSIDER THE WARNING LIGHT WILL BE PLACED ON TOP OF THE PATIENT BOOM. ANY OTHER CEILING MOUNTED COMPONENT MUST BE PLACED AS TO NOT COLLIDE WITH WARNING LIGHT.

PROJECT MANAGER: MIKE CAMPBELL TEL: (925) 408-6293 EXT: FAX: EMAIL: mike.campbell@siemens.com		SIEMENS	
VA MARTINEZ 612		150 MIJR ROAD, MARTINEZ, CA 94553 SCANNER ROOM C158 - SYMBIA T6	
PROJECT #: 0900425		SHEET: 1400791	
SHEET 6 OF 6		DRAWN BY: R. HILL	
DATE: 05/26/15		E-102	
-ISSUE BLOCK-		SCALE: AS NOTED REF. # 50143923	

ATTENTION:

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

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

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

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

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

SYMBIA T, T2, T6, T16
REV 4