

## IDENTIFY PRODUCT PLANNING GUIDE



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<p><b>CONVENTIONS</b></p>	<p>All dimension units are shown as Metric (primary) followed by Imperial (secondary).</p> <p>Metric [Imperial] – The default is cm [inches] unless otherwise noted. Tolerances are given where critical, otherwise, general tolerances from ISO 4463-1: 1989 should be used. The metric to imperial construction dimension conversions may vary due to industry standards.</p> <p>All listed component weights are within a <math>\pm 5\%</math> tolerance, not including system cabling or coolant, if applicable.</p>
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# EXECUTIVE SUMMARY

## Intended Audience

The intended audiences for the PPG are any Varian external Customers or their representatives.

## Purpose

This document is designed to assist customers and their representatives to understand the minimum requirements to enable a Varian IDENTIFY System to be installed. This document is a reference for the IDENTIFY system only, the target systems planning documents should also be consulted. This document does not cover specific site conditions that may require additional detailed design or safety solutions.

The information herein will be useful to project managers, architectural and site planners, construction engineers, contractors' trade personnel, and others. Good site preparation and coordination between Varian and the Customer's representative are essential for smooth and efficient machine installation.

It is important to finalize the detailed design of the site configuration before construction is started. Once the site is completed, it will be difficult, and costly to make revisions.

## Document Structure

This document has four main sections:

- Product Overview - System pictures, identification of deliverables, and references.
- Varian System - System components, size, weight, and limitations.
- Customer Requirements - Room sizes, utility, and environmental requirements in trade sections.
- Project Management - Customer project tasks, durations, and responsibilities.

## Project Planning

Once an order is placed, Varian will assign an Installation Project Manager (PM) to assist the Customer and their representatives with the installation of the IDENTIFY system. Refer to [Section 4 Project Management](#) for more information.

## Typical Lead-times and Durations

Site Survey up to 4 months before install

Pre-Installation Kit (PIK) delivery lead time – **3 weeks**

PIK installation – **4 Days** (depending on site conditions and access)

IDENTIFY Central Server installation – **1 day** (must be completed before Main System installation)

Main System delivery lead time – **3 weeks** (may vary, confirm with Varian PM)

Main System installation – **~5 – 8 Days** (total)

- Equipment Delivery and HW Install
- System Cabling and Power Up
- SW installation
- Calibration
- Acceptance

On-Site Training – **2 - 3 days**

[Table 4-1](#) shows the detailed process and responsibilities for each major project milestone.

## Site Readiness

The room must be clinically ready, meeting all the requirements within the PPG. All services and utilities must be available with the final finishes completed. The [1] Varian IDENTIFY Pre-Installation Checklist is used to measure compliance. Any tasks that are NOT complete must be approved by the Varian PM before the system can be delivered. The Varian installation engineer must have exclusive possession of the treatment area during system installation.



## REVISION HISTORY

REV	DATE	DESCRIPTION OF CHANGE	AUTHOR NAME
H	May 2022	<ul style="list-style-type: none"> <li>• Figure 1-1, Replaced image</li> <li>• Table 2-11, Added wall bracket weight</li> <li>• Figure 2-11, Replaced with original Palm Scanner</li> <li>• Figure 2-12, Replaced with original Palm Scanner Wall Bracket</li> <li>• 2.4.3, Renamed Planning Tool to Windows Planning Tool</li> <li>• 2.6, Added Note for Wall Mount Bracket</li> <li>• 2.7.1.5, Added Wall Cleat Section</li> </ul>	DKU
I	September 2022	<ul style="list-style-type: none"> <li>• Cover, Replaced image</li> <li>• 1 Overview, Removed Patient ID, Patient Setup, and Welcome Desk</li> <li>• Figure 1-1, Replaced image</li> <li>• Figure 1-2, Updated image</li> <li>• Table 1-1, Updated IDENTIFY component list</li> <li>• Figure 1-3, Updated image</li> <li>• Figure 1-4, Replaced image and removed v2.2 note</li> <li>• 1.1, Added Elekta to third-party system compatibility</li> <li>• 1.1, Removed notice for Patient Setup and RFID tags</li> <li>• 1.1, Removed Warning for Setup Camera laser</li> <li>• 2.1, Removed Interlock Box bullet point</li> <li>• 2.1.2, Added Network Description</li> <li>• 2.1.9, Removed Interlock Box section</li> <li>• 2.2, Removed Patient ID section</li> <li>• 2.3, Removed Patient Setup section</li> <li>• 2.6, Removed Welcome Desk section</li> <li>• 2.7.1.3, Removed Interlock Box</li> <li>• Table 2-17, Removed Patient Setup tools</li> <li>• Table 2-18, Removed Surface Camera Calibration Board</li> <li>• Figure 2-25, Removed Surface Camera Calibration Board</li> <li>• Figure 2-26, Removed Isocenter Calibration Tool</li> <li>• Table 2-19, Removed Interlock Box, Patient ID, Patient Setup, and Welcome Desk cables</li> <li>• 3.1, Added Elekta accelerator bullet</li> <li>• Table 3-1, Removed Patient Setup</li> <li>• Figure 3-1, Removed post B (TrueBeam)</li> <li>• Figure 3-2, Removed post B and note on Patient Setup</li> <li>• Figure 3-3, Removed post B (Halcyon)</li> <li>• Figure 3-4, Removed post B</li> <li>• 3.1.3, Added a new section for GCX post positions on Elekta</li> <li>• Figure 3-7, Removed Patient Setup from post A (CT)</li> <li>• Figure 3-8, Removed Patient Setup from post A and v2.2 note</li> <li>• 3.2.2, Revised CT WAP mounting location</li> <li>• Figure 3-10, Removed Palm Scanner and Interlock Box</li> <li>• Table 3-2, Removed Welcome Desk</li> <li>3.5.3, Removed Welcome Desk</li> <li>• Table 3-3, Removed Interlock Box, Patient ID, Patient Setup, and Welcome Desk conduit runs</li> <li>• Figure 3-12, Updated image</li> <li>• Figure 3-13, Updated image</li> <li>• Figure 3-14, Updated image and removed v2.2 note</li> <li>• Figure 3-15, Removed post B</li> </ul>	DKU



	<ul style="list-style-type: none"><li>• Figure 3-16, Removed post B</li><li>• Figure 3-17, Updated image and removed v2.2 note</li><li>• 3.5.6, Removed Welcome Desk</li><li>• Table 3-5, Removed RFID system, Surface camera, and Palm Scanner</li><li>• Figure 3-18, Removed post B</li><li>• Figure 3-19, Updated HVAC exclusion area</li><li>• Figure 3-20, Updated HVAC exclusion area</li><li>• 4.3, Removed install Interlock Box and Palm Scanner Cleat task</li><li>• Appendix Table 1, Removed Patient ID, Patient Setup, and Welcome Desk kits</li><li>• Appendix B, Removed</li></ul>	
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## 1 OVERVIEW

IDENTIFY is a setup verification, patient positioning, and motion management solution for radiotherapy and radiosurgery treatments. The IDENTIFY system can be configured for installation in radiation therapy treatment rooms (Treatment) and CT imaging rooms (Image). The IDENTIFY system consists of a Base package and depending on the system configuration IDENTIFY provides the following functionality.

- SGRS: Patient positioning before treatment and motion monitoring during treatment (treatment systems only)
- Respiratory Management for CT: Deep Inspiration Breath Hold (DIBH) coaching during CT Simulation (Imaging systems only)

IDENTIFY includes a central database server (ICS) that provides an interface to radiation Oncology Information Systems (ARIA® and Mosaic® only).

Verify the system configuration on the final sales order with the Varian Sales Representative or Varian PM.

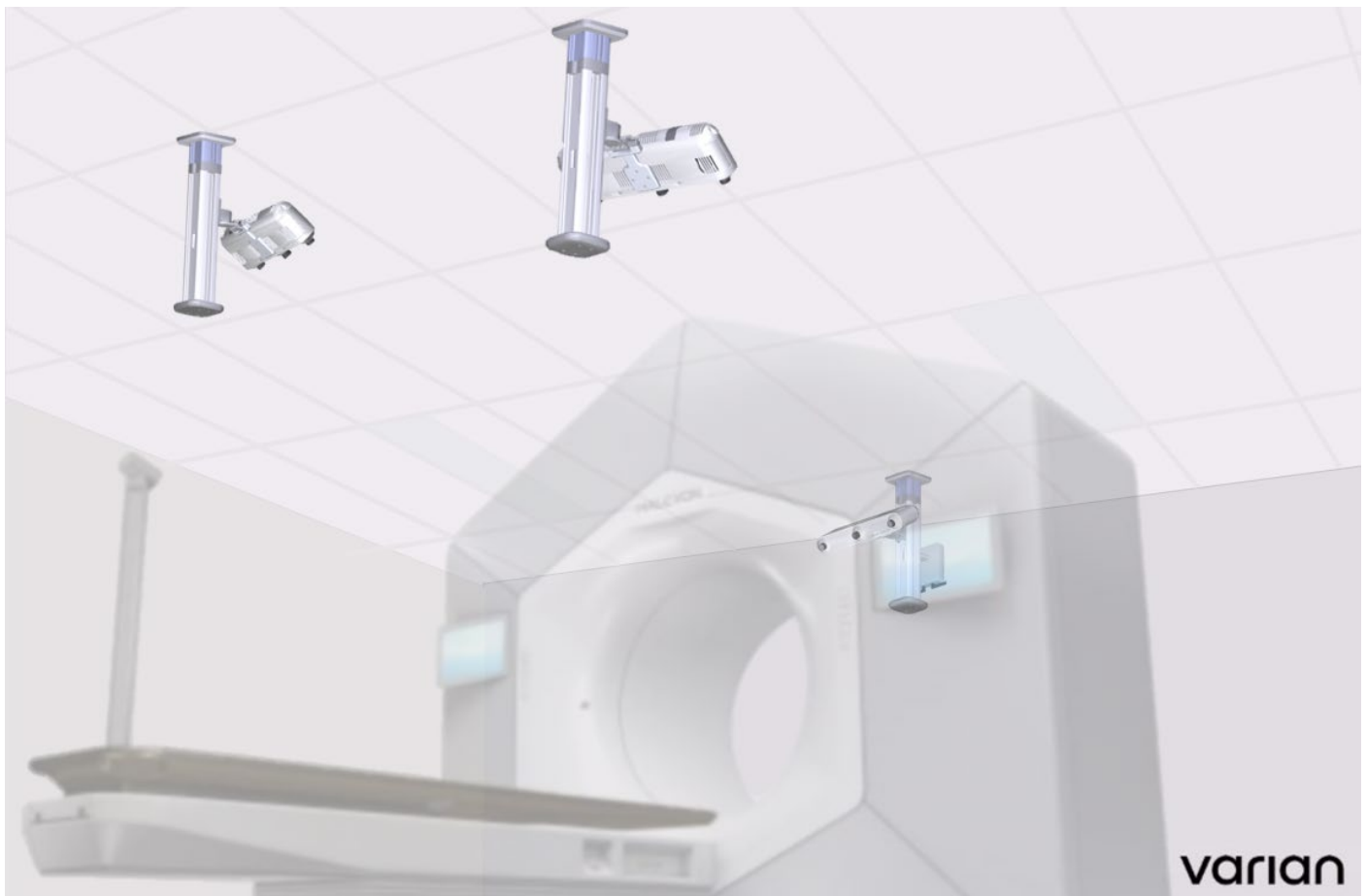


Figure 1-1 IDENTIFY Treatment SGRS System on a Halcyon



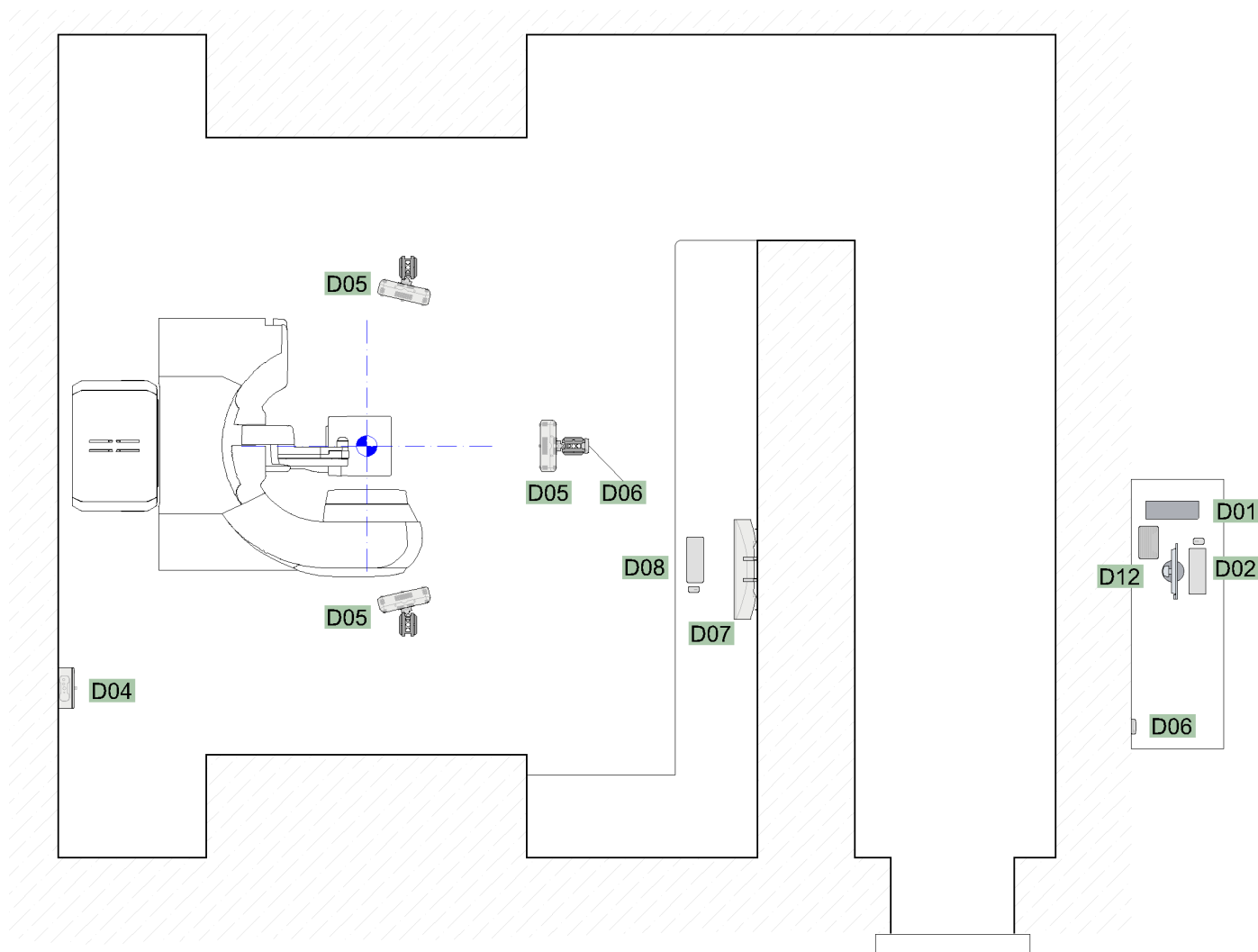


Figure 1-2 TrueBeam Treatment Room Layout

Table 1-1 IDENTIFY Components			
<b>D01</b>	IDENTIFY Room Workstation	<b>D07</b>	In-Room Monitor
<b>D02</b>	Console	<b>D08</b>	Keyboard and Mouse ( <i>treatment room</i> )
<b>D03</b>	Handheld Controllers ( <i>not shown</i> )	<b>D09</b>	Visual Coaching Device ( <i>not shown</i> )
<b>D04</b>	System Junction Box	<b>D10</b>	IDENTIFY Central Server ( <i>not shown</i> )
<b>D05</b>	SGRT Cameras ( <i>up to 3</i> )	<b>D11</b>	Windows Planning Tool Workstation ( <i>not shown</i> )
<b>D06</b>	Wireless Access Point (x2)	<b>D12</b>	Network Switch ( <i>MICAP Firewall</i> )



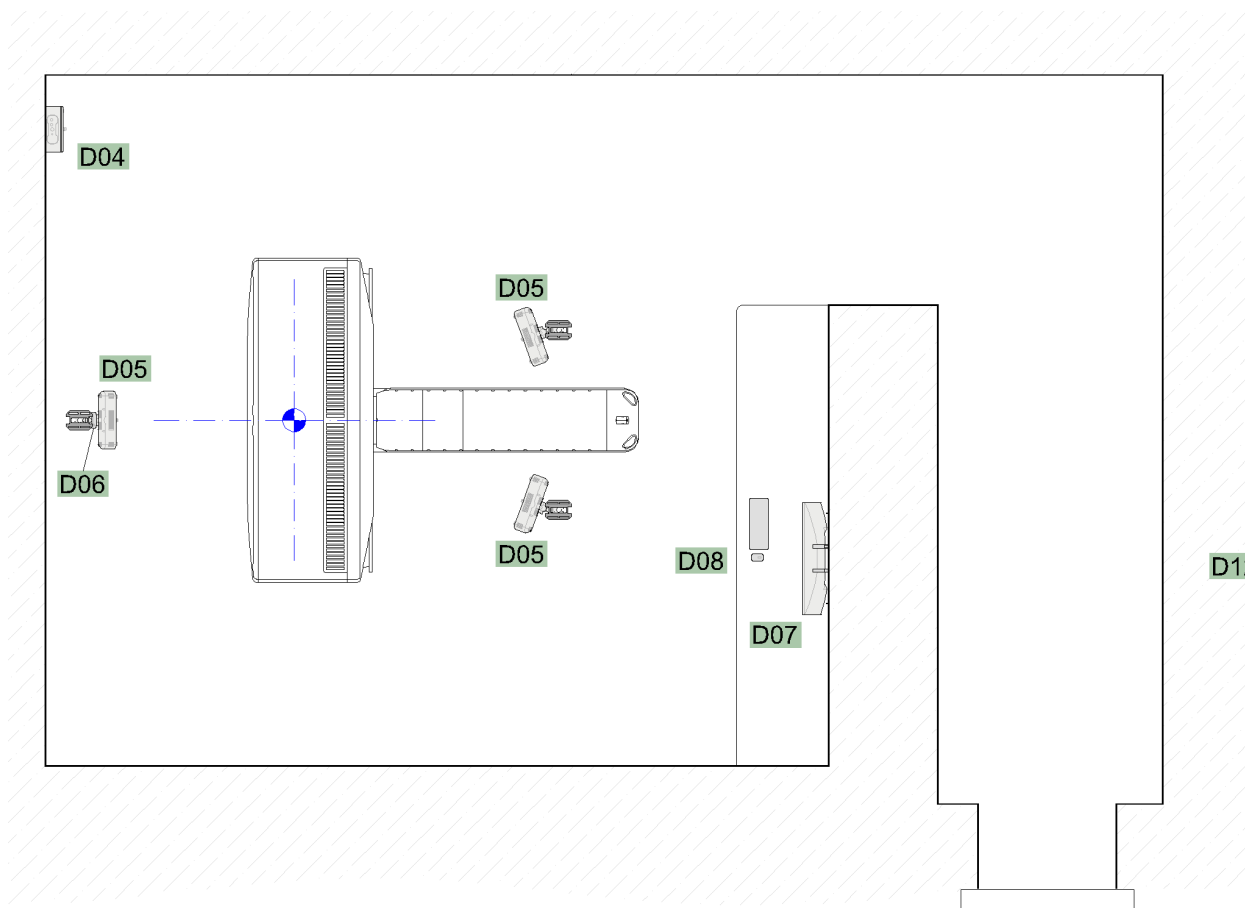


Figure 1-3 Halcyon Treatment Room Layout

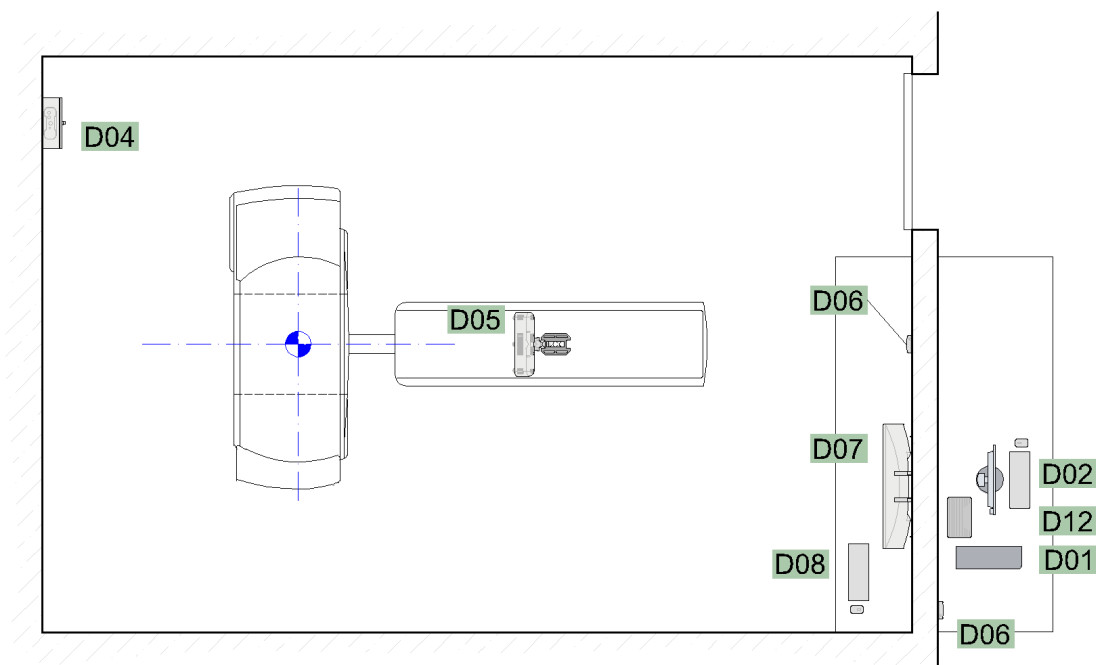


Figure 1-4 CT Imaging Room Layout

## 1.1 COMPATIBILITY



### NOTICE

Review the [2] IDENTIFY Customer Release Notes and the [3] IDENTIFY Couch Mount Compatibility Matrix, for compatibility.



### NOTICE

The IDENTIFY system is compatible with the following third-party systems:

- BrainLab ExacTrac and Dynamic systems.
- Elekta linear accelerators.

Review the [2] IDENTIFY Customer Release Notes for version compatibility.

The IDENTIFY system is not approved for use on MRI systems.



### NOTICE

No IDENTIFY component should be mounted within 30cm [12"] of the primary beam, except for those specified within this guide.



### NOTICE

IDENTIFY uses infrared light during operation which might affect other systems installed in the treatment room. For safety reasons check the compatibility with other installed systems.



### NOTICE

Blue patient alignment lasers are not compatible. Red or Green lasers are preferred.



### WARNING

The SGRT camera uses a blue light classified as Group 1 to IEC/TR 62471-2:2009 or DIN EN 62471 1:2010.

See [3.9 Finishes](#) for optical compatibility recommendations.

## 1.2 REFERENCES

These support reference documents and other more detailed documents are available from the Varian Site Planning or your Varian PM.

- [1] Varian IDENTIFY Pre-Installation Checklist
- [2] IDENTIFY Customer Release Notes (CRN)
- [3] IDENTIFY Couch Mount Compatibility Matrix
- [4] Customer Integration Guide
- [5] Clinical Site Survey
- [6] Network Site Survey



## 2 VARIAN SYSTEM

The IDENTIFY system requires an IDENTIFY Central Server (ICS). The ICS can be a physical server (Varian-provided) or a virtual server (Customer-provided). For more information on the virtual server see the [2] IDENTIFY Customer Release Notes.

- ICS (physical)
- Network Switch (MICAP firewall), refer to [2.1.2](#)
- Console (monitor, keyboard, and mouse), refer to [2.1.3](#)



### NOTICE

**The ICS must be installed and configured before the main system installation.**

**Refer to the [4] Customer Integration Guide for the total number of v2.3 IDENTIFY systems one ICS can support.**



Figure 2-1 ICS

Table 2-1 ICS Weights and Sizes				
Description	kg	W x L x H (cm)	lb	W x L x H (in)
ICS	15.4	17.7 x 51.8 x 41.8	32	6 7/8" x 1'-7 1/8" x 1'-4 5/16"
Rack Mount Kit	5.5	n/a	12	n/a



*An optional rack mounting kit is available for the physical ICS to be installed into a Customer-provided server rack cabinet. Contact the Varian PM for ordering information.*



## 2.1 BASE SYSTEM COMPONENTS

The following are the Base System components for imaging and treatment systems.

- IDENTIFY Room Workstation (IRW)
- Network Switch (MICAP firewall)
- Console
- (2) Handheld Controllers
- (2) Wireless Access Points (WAP)
- In-Room Monitor (IRM)
- In-Room Keyboard and Mouse
- System Junction Box

### 2.1.1 IDENTIFY ROOM WORKSTATION (IRW)

Table 2-2 IRW Weights and Sizes				
Description	kg	W x L x H (cm)	lb	W x L x H (in)
IRW	15.4	17.7 x 51.8 x 41.8	32	6 7/8" x 1'-7 1/8" x 1'-4 5/16"



Figure 2-2 IRW

## 2.1.2 NETWORK SWITCH

A dedicated Network Switch is provided with each ICS and IRW.

Table 2-3 Network Switch Weights and Sizes				
Description	kg	W x L x H (cm)	lb	W x L x H (in)
Network Switch	1.98	32 x 19.1 x 3.5	4.38	12 1/2" x 7 1/2" x 1 1/2"



Figure 2-3 Network Switch

## 2.1.3 CONSOLE

Monitor, Keyboard, and Mouse

Table 2-4 Console Weights and Sizes				
Description	kg	W x L x H (cm)	lb	W x L x H (in)
Monitor	6.4	54 x 22 x (38 – 51)	14.1	21 1/2" x 8 1/2" x (15" – 20")
Keyboard (wired)	n/a	20 x 46.7 x 2.7	n/a	8" x 1'-6 1/2" x 1 1/8"
Mouse (wired)	n/a	7 x 11.7 x 3	n/a	2 3/4" x 4 5/8" x 1 1/4"

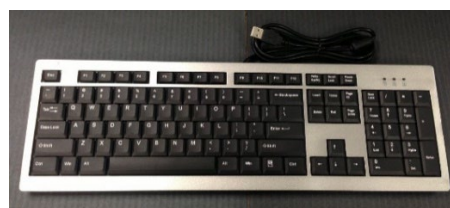


Figure 2-4 Monitor, Keyboard, and Mouse

## 2.1.4 HANDHELD CONTROLLERS

Two Handheld controller units with protective cases and charging cables are provided with each system.

Table 2-5 Handheld Weights and Sizes				
Description	kg	W x L x H (cm)	lb	W x L x H (in)
Handheld Controller	0.21	7.7 x 15.8 x 1.0	0.47	3" x 6 1/4" x 3/8"



Figure 2-5 Handheld

## 2.1.5 WIRELESS ACCESS POINT (WAP)

Two WAPs provide access to the handheld controllers. One WAP is installed in the treatment room and one in the control room. Automatic channel selection is applied to avoid interference with other WLAN systems but may be manually configured.

Table 2-6 WAP Weight		
Description	kg	lb
WAP	0.82	1.8

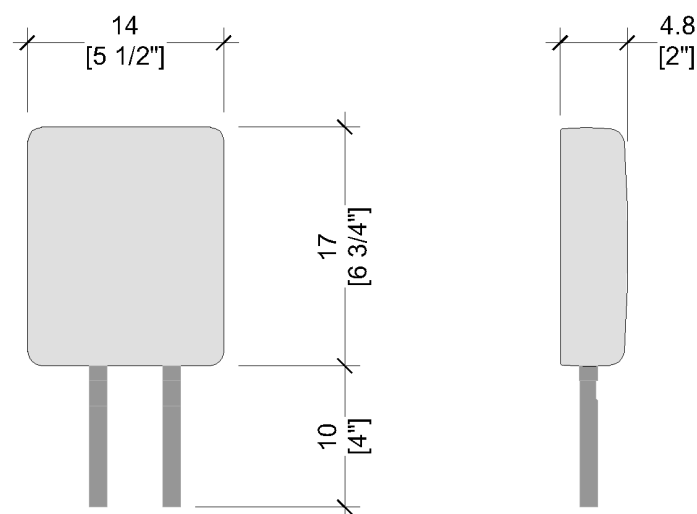


Figure 2-6 Wireless Access Point

## 2.1.6 IN-ROOM MONITOR

A large screen monitor with a wall-mounting bracket is provided with each system, refer to [2.4.1.3](#) for the wall bracket.

Table 2-7 IRM Weight		
Description	kg	lb
IRM	14.1	31

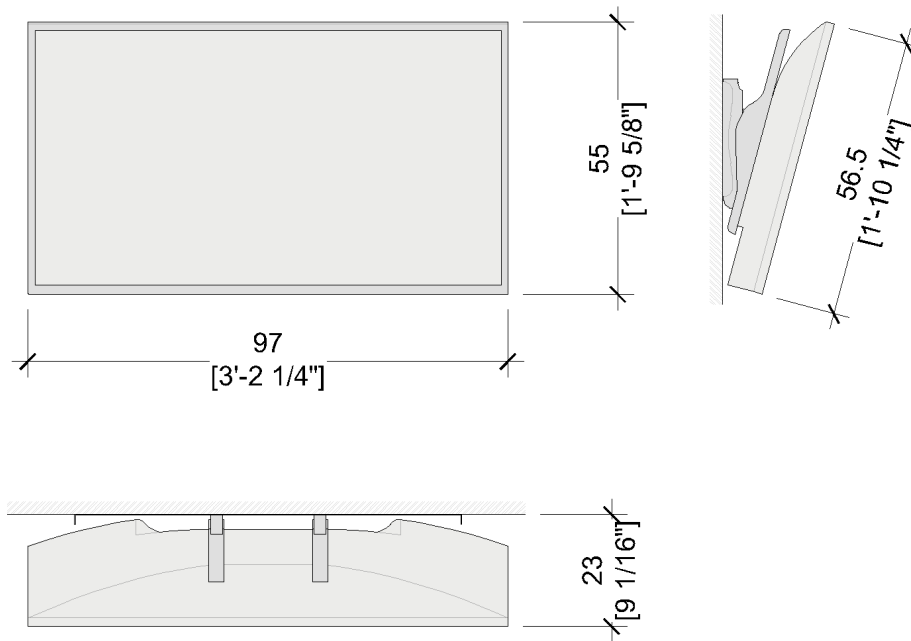


Figure 2-7 In-Room Monitor (Front, Side, and Plan)

## 2.1.7 IN-ROOM KEYBOARD AND MOUSE

Table 2-8 In-Room Keyboard and Mouse Sizes				
Description	kg	W x L x H (cm)	lb	W x L x H (in)
Keyboard (wireless)	n/a	20 x 46.7 x 2.7	n/a	1'-6 1/2" x 8" x 1 1/8"
Mouse (wireless)	n/a	7 x 11.7 x 3	n/a	2 3/4" x 4 5/8" x 1 1/4"



Figure 2-8 In-Room Keyboard and Mouse

## 2.1.8 SYSTEM JUNCTION BOX (SJB)

The SJB is a cable signal and power distribution center for the network switch, SGRT cameras, Surface Camera, RFID Antenna, WAPs, and Palm Scanner. The network switch, RFID reader, and camera power supply are mounted inside the SJB. The RFID reader will be installed separately by Varian.

Table 2-9 SJB Weight		
Description	kg	lb
SJB	16	35

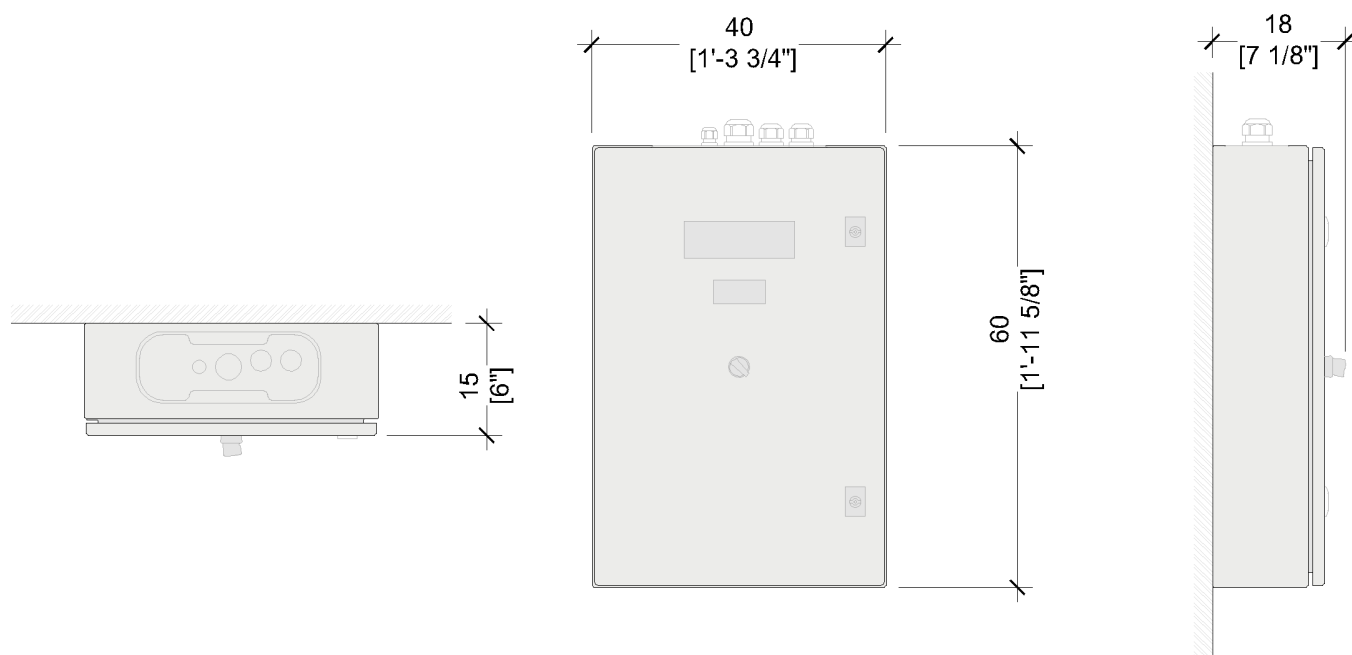


Figure 2-9 System Junction Box (Plan, Front, and Side)

## 2.2 SGRS SYSTEM (TREATMENT ONLY)

Provides surface-guided patient position monitoring for radiosurgery. The following components are included with SGRS:

- (3) SGRT Cameras
- Visual Coaching Device
- (3) GCX Posts – A, C1, and C2, refer to [2.4.2.1 GCX Mounting Plates and Posts](#)
- Planning Tool Workstation



## 2.2.1 SGRT CAMERAS

Provides surface-guided patient position monitoring.

Table 2-10 SGRT System Weight		
Description	kg	lb
SGRT Camera	2.8	6.2
GCX Post	16	35.3

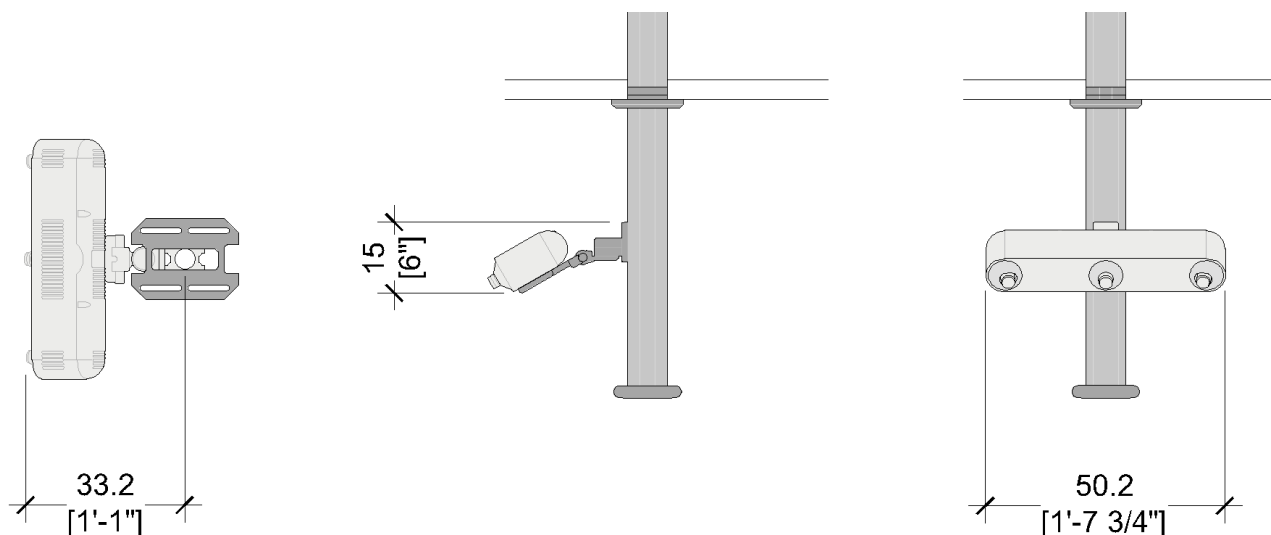


Figure 2-10 SGRT Camera (Plan, Side, and Front)

## 2.2.2 VISUAL COACHING DEVICE

The VCD is mounted to the treatment couch and assists the patient to maintain controlled breathing patterns. The VCD connects to the IRW via the WAP and includes an LCD screen, mounting arm, couch mount, and battery charging station.

Table 2-11 VCD Weights and Sizes				
Description	kg	W x L x H (cm)	lb	W x L x H (in)
LCD Screen	0.45	13.5 x 21.5 x 4.5	1.0	5 1/4" x 8 1/2" x 1 3/4"
Vertical Mounting Arm	0.6	3.5 Ø x (28 – 46)	1.35	1 3/8" Ø x (11" – 1'-6")
Horizontal Mounting Arm		2.5 Ø x (25 – 52)		1" Ø x (10" – 1'-8 1/2")
Couch Mount Base	0.75	60 x 18.5 x 13	1.65	1'-11 1/2" x 7 1/4" x 5"
Charging Station with Battery	0.32	9 x 7.3 x 10	0.7	3 1/2" x 3" x 4"



**Figure 2-11 VCD Couch Mount with LCD Screen**



*The VCD, Base, and Arm detach from the treatment couch.*

*Provide a minimum of 75cm W x 30cm H x 30cm D [1'-6" x 1'-0" x 1'-0"] for storage.*



**Figure 2-12 VCD Battery Pack and Charging Station**



*The VCD Charging Station can be located per the customer's preference in either the treatment room or control area.*

### 2.2.3 WINDOWS PLANNING TOOL (WPT) WORKSTATION

The WPT Workstation is used to prepare patient setups between initial setup and first re-setup.

- Console (Monitor, Keyboard, and Mouse) refer to [2.1.3](#) for specifications
- WPT Computer



### 2.2.3.1 WPT COMPUTER

Table 2-12 WPT Computer Sizes				
Description	kg	W x L x H (cm)	lb	W x L x H (in)
WPT Computer	5.3	9.3 x 29 x 29.2	11.6	3 3/4" x 11 7/16" x 11 1/2"



Figure 2-13 WPT Computer

## 2.3 RESPIRATORY MANAGEMENT (RM) FOR CT (IMAGING ONLY)

Provides respiration monitoring and management for the CT imaging system. The following components are included with RM for CT:

- (1) SGRT Camera
- Visual Coaching Device
- (1) GCX Post – A, refer to [2.4.2.1 GCX Mounting Plates and Posts](#)

Refer to [2.2.1 SGRT Cameras](#) and [2.2.2 Visual Coaching Device](#) for component information.

## 2.4 PRE-INSTALLATION KIT (PIK)

A PIK is provided with the base system and the following system configuration options listed in this section. The PIK consists of mounting brackets, plates, posts, and electrical components. These components will vary depending on the purchased options. The PIK items are boxed and labeled and may be shipped to the site separately or consolidated with the primary system based on local customs requirements. Verify shipping details with the Varian PM.

These Varian-supplied components must be installed per local code/regulations using Customer-provided and appropriately sized mounting hardware engineered to support the combined loads.

### 2.4.1 BASE SYSTEM PIK

#### 2.4.1.1 WAP COVERS

Refer to [2.1.5 Wireless Access Point \(WAP\)](#) component information.

#### 2.4.1.2 SYSTEM JUNCTION BOX

Refer to [2.1.8 System Junction Box](#) component information.



### 2.4.1.3 WALL BRACKET FOR IRM

Table 2-13 IRM Wall Bracket Weight		
Description	kg	lb
Wall Bracket	3.7	8.15

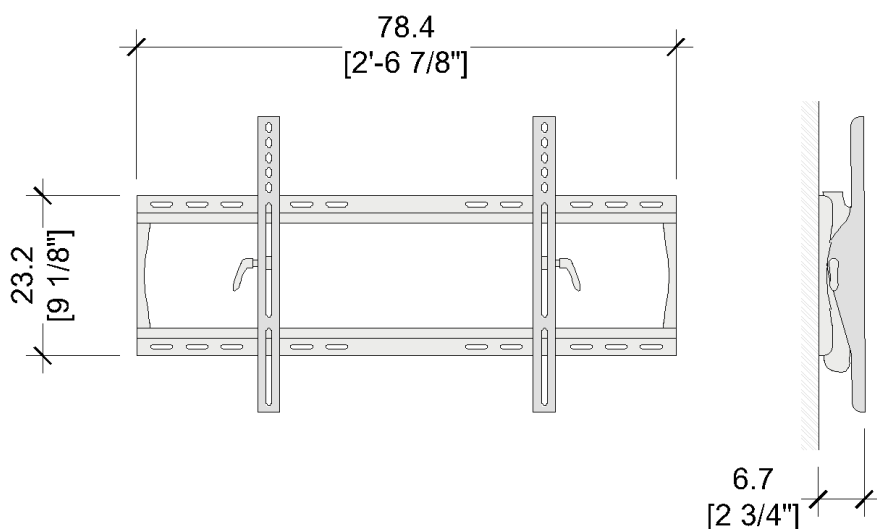


Figure 2-14 In-Room Monitor Wall Bracket

## 2.4.2 PATIENT SETUP, SGRS & RM FOR CT PIK

The PIKs for these IDENTIFY System options consist of GCX Posts and Ceiling Mounting Plates.

### 2.4.2.1 GCX MOUNTING PLATES AND POSTS

The GCX Mounting Plates and Posts are used for installing the ceiling-mounted components, refer to, [2.2 SGRS System \(treatment only\)](#), and [2.3 Respiratory Management \(RM\) for CT \(Imaging only\)](#) for the number of GCX posts for each IDENTIFY System option.

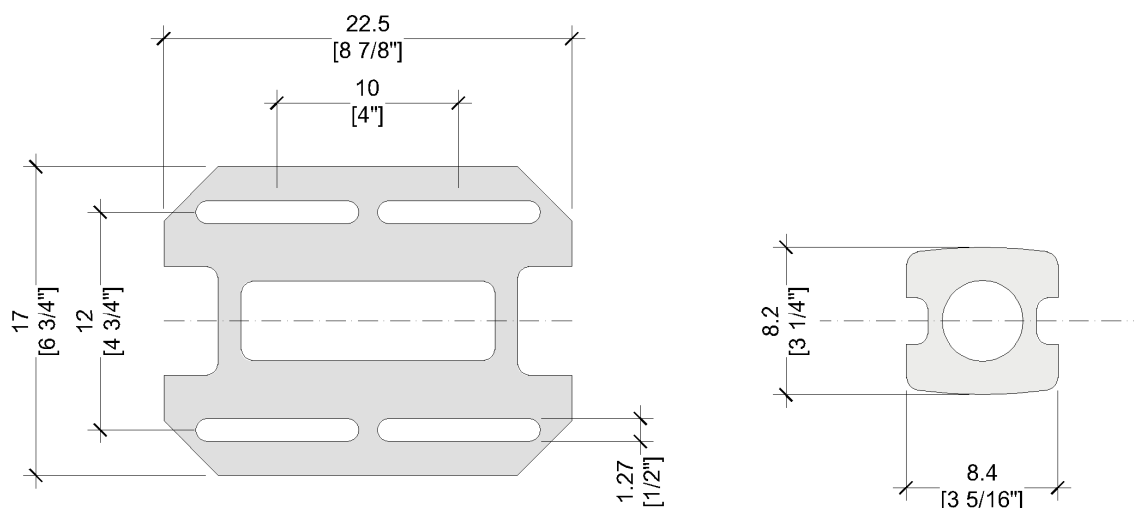


Figure 2-15 Ceiling Mounting Plate and Post

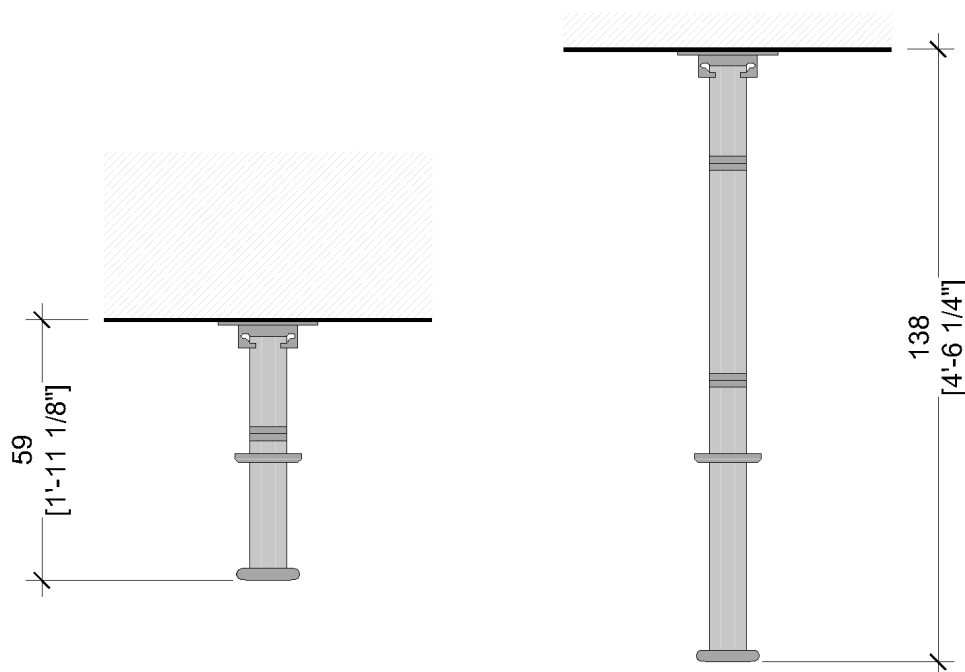


Figure 2-16 GCX Post (minimum and maximum)



The posts are configurable in approximately 15cm [6"] increments from the minimum to the maximum shown above. See [3.1 GCX Post Room Layouts](#) for installation positioning.

## 2.5 ACCESSORIES KITS

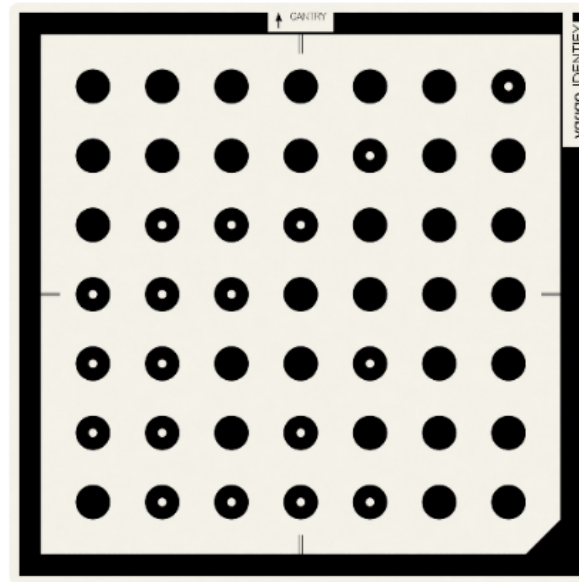
### 2.5.1 CALIBRATION TOOLS

The following IDENTIFY system options include specific calibration tools or phantoms. Verify your options with the final sales order.

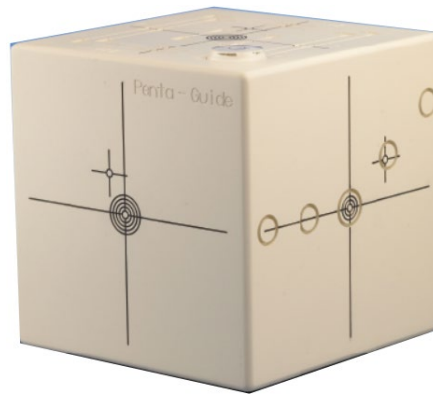
Table 2-14 System Options and Calibration Tools	
<b>SGRS</b>	SGRT Camera Calibration Tool Head Phantom <i>(not shown)</i> Modus Penta-Guide Phantom
<b>RM for CT</b>	SGRT Camera Calibration Tool

Table 2-15 Tool and Phantom Weights and Sizes				
Description	kg	W x L x H (cm)	lb	W x L x H (in)
SGRT Camera Calibration Tool	1.0	30 x 30 x 1.0	2.2	12" x 12" x 3/8"
White Polystyrene Head Phantom	0.5	15 x 32 x 20	1.1	6" x 12 5/8" x 8"
Modus Penta-Guide Phantom	5.0	16 x 16 x 16	11.0	6 1/4" x 6 1/4" x 6 1/4"





**Figure 2-17 SGRT Camera Calibration Tool**



**Figure 2-18 Modus Penta-Guide Phantom**

## 2.6 CABLES

This section provides the maximum cable length point-to-point connection between components for the Varian-supplied system cables for all IDENTIFY System options. Refer to [3.5.4 Cable Containment](#) for maximum containment lengths. Each site configuration may be different.

Table 2-16 IDENTIFY System Cables						
Cable Run	Cable Type	Cable Length	# of Cables	Cable Dia.	Start (From)	Finish (To)
A	Power 24VDC	15m [49']	1	3.61mm [5/32"]	D04 - SJB (24V Distribution)	D05 - SGRT Post A
B		15m [49']	1			D05 - SGRT Post C1 (SGRS only)
C		15m [49']	1			D05 - SGRT Post C2 (SGRS only)
D	CAT7	20m [65']	1	5.8mm [7/32"]	D04 - SJB (PoE Network Switch)	D06 - WAP (Treatment Room)
E		46m [150']	1			D06 - WAP (Control Area)
F	CAT7	1.5m [5']	1	5.8mm [7/32"]	D01 - IRW	D12 - Network Switch (IRW)
G		46m [150']	1			D05 - SGRT Post A
H		46m [150']	1			D05 - SGRT Post C1 (SGRS only)
I		46m [150']	1			D05 - SGRT Post C2 (SGRS only)
J		46m [150']	1			D04 - SJB (PoE Network Switch)
K		46m [150']	1			D07 - IRM
L		46m [150']	1			D08 - Wireless Keyboard/Mouse
M	HDMI, CAT7	15m [50']	2	6mm [1/4"]	D01 - IRW	D02 - Console
N	CAT7	1.5m [5']	1	5.8mm [7/32"]	D10 - ICS	D12 - Network Switch (ICS)
O		1.5m [5']	1		Hospital Network	D12 - Network Switch (IRW)
P		3m [10']	1			D12 - Network Switch (ICS)
Q	CAT5	5m [16']	1	5.8mm [7/32"]	Hospital Network	D11 - WPT Computer (SGRS only)



### 3 CUSTOMER REQUIREMENTS



#### NOTICE

It is the Customer's responsibility to:

Determine the quantity, size, and type of mounting hardware required for anchoring the Varian-provided components to the building and comply with all local, state, and national codes and regulations.

Ensure that any third-party devices, including but not limited to patient lifts and contrast injectors, do not come in contact with the IDENTIFY ceiling-mounted components.

Provide suitable wall backing support for all Varian wall-mounted components to ensure stability during their functional life.



#### WARNING

If seismic anchoring is required, it is the Customer's responsibility to provide a qualified structural engineer to determine the quantity, size, and type of mounting hardware required for seismically anchoring the Varian-provided components to the building. The Varian Planning Department or Varian PM can provide more information.

### 3.1 GCX POST ROOM LAYOUTS

There are multiple layout options for the IDENTIFY camera system. Each room option has specific GCX Post location requirements based on the purchased system options.

- Treatment Rooms (radiation therapy)
  - TrueBeam, VitalBeam, EDGE, and C-Series Accelerators, refer to [3.1.1](#)
  - Halcyon and ETHOS, refer to [3.1.2](#)
  - Elekta Accelerators, refer to [3.1.3](#)
- Imaging Rooms
  - CT Scanners, refer to [3.1.4](#)

Table 3-1 Sales Options, Camera Type, and Position

Sales Options	Camera Type	Post Position
SGRS	SGRT	A + C1 + C2
Respiratory Management for CT	SGRT	A



*The IDENTIFY system is also designed to fit into existing rooms, consideration should be given to existing utility services above the false ceiling that may prevent mounting the posts in the required positions.*







## NOTICE

The ceiling mounting structure must be vibration-free and accessible for service.

DO NOT mount to wood, gypsum board, light gauge steel framing, or suspended ceiling grid. Wood must NOT be part of the support structure.

The GCX ceiling mounting plate installation orientation is critical, refer to [Figure 3-1](#), [Figure 3-3](#), and [Figure 3-7](#).

Maintain a minimum clearance of 2cm [3/4"] from each post to any other building objects below the GCX ceiling mounting plate.



## WARNING

The customer must maintain a minimum clearance of 203cm [6'-8"] or greater from the finished floor to the ceiling-mounted equipment in a circulation or egress path.

### 3.1.1 TRUEBEAM, EDGE, AND C-SERIES GCX POST LOCATIONS

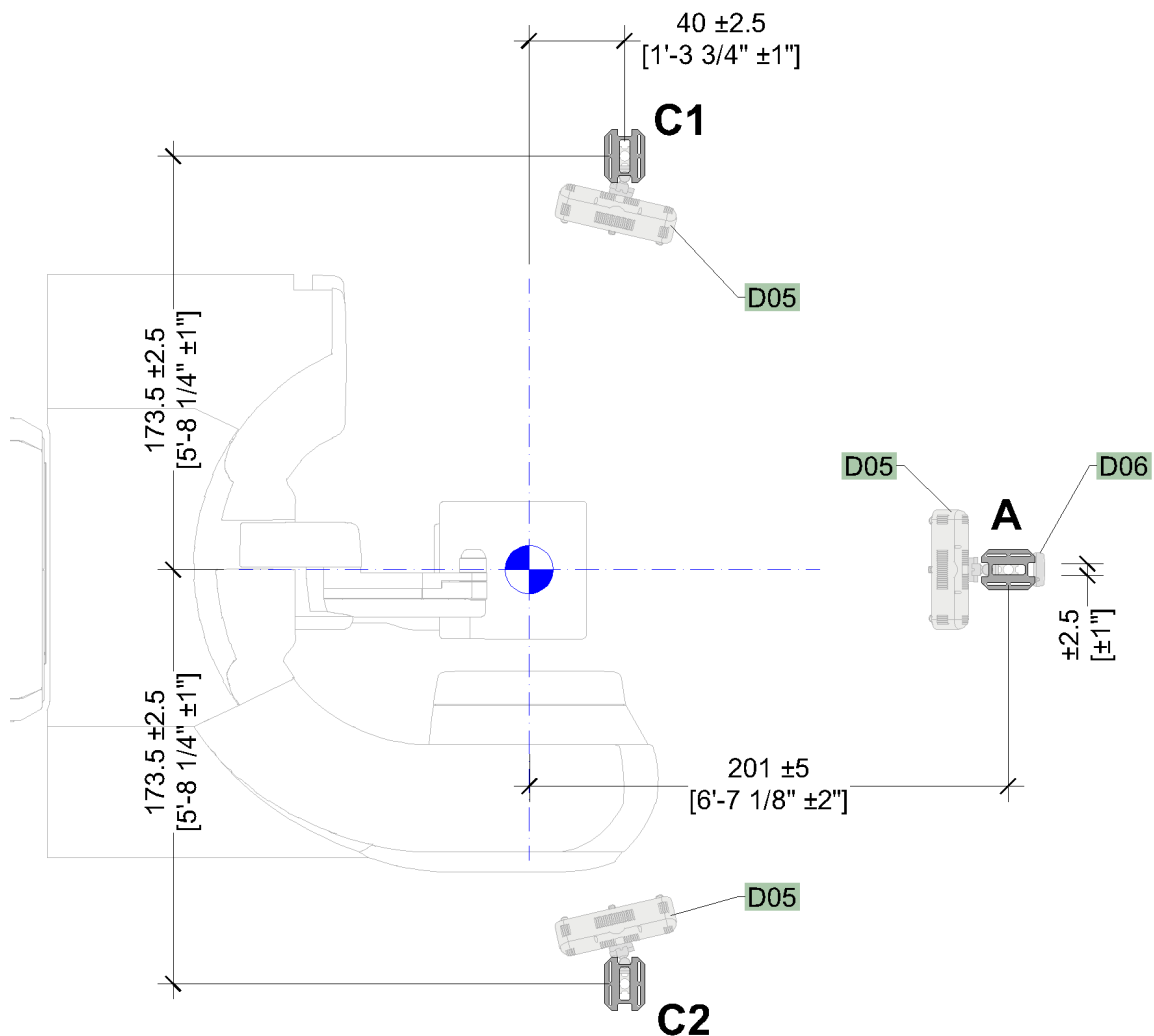


Figure 3-1 TrueBeam GCX Ceiling Plate Positions



On TrueBeam and EDGE systems the Optical Imager camera post, if present, will be utilized for Post A.



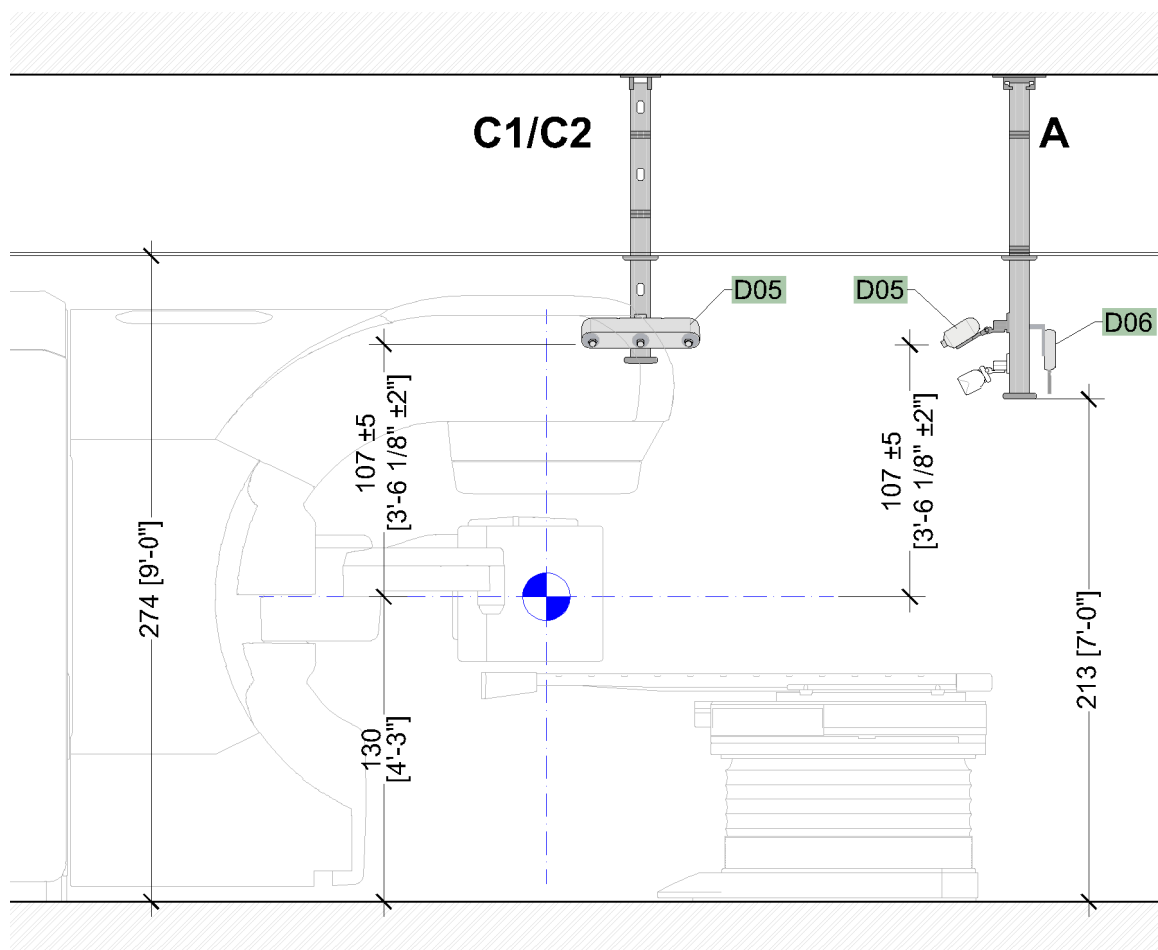


Figure 3-2 TrueBeam Device and Post Elevations

### 3.1.2 HALCYON AND ETHOS GCX POST LOCATIONS



#### NOTICE

Post position dimensions are from the machine Isocenter, not the patient/laser setup Isocenter.



A wall mount option is available for treatment rooms that cannot meet the minimum isocenter to rear wall clearance required to install the GCX Ceiling Post “C1” shown in [Figure 3-3](#). The wall mount option can be installed in rooms with an isocenter to mounting structure distance down to 179.5cm [5'-10 5/8"], the Varian Planning Department or Varian PM can provide more information.



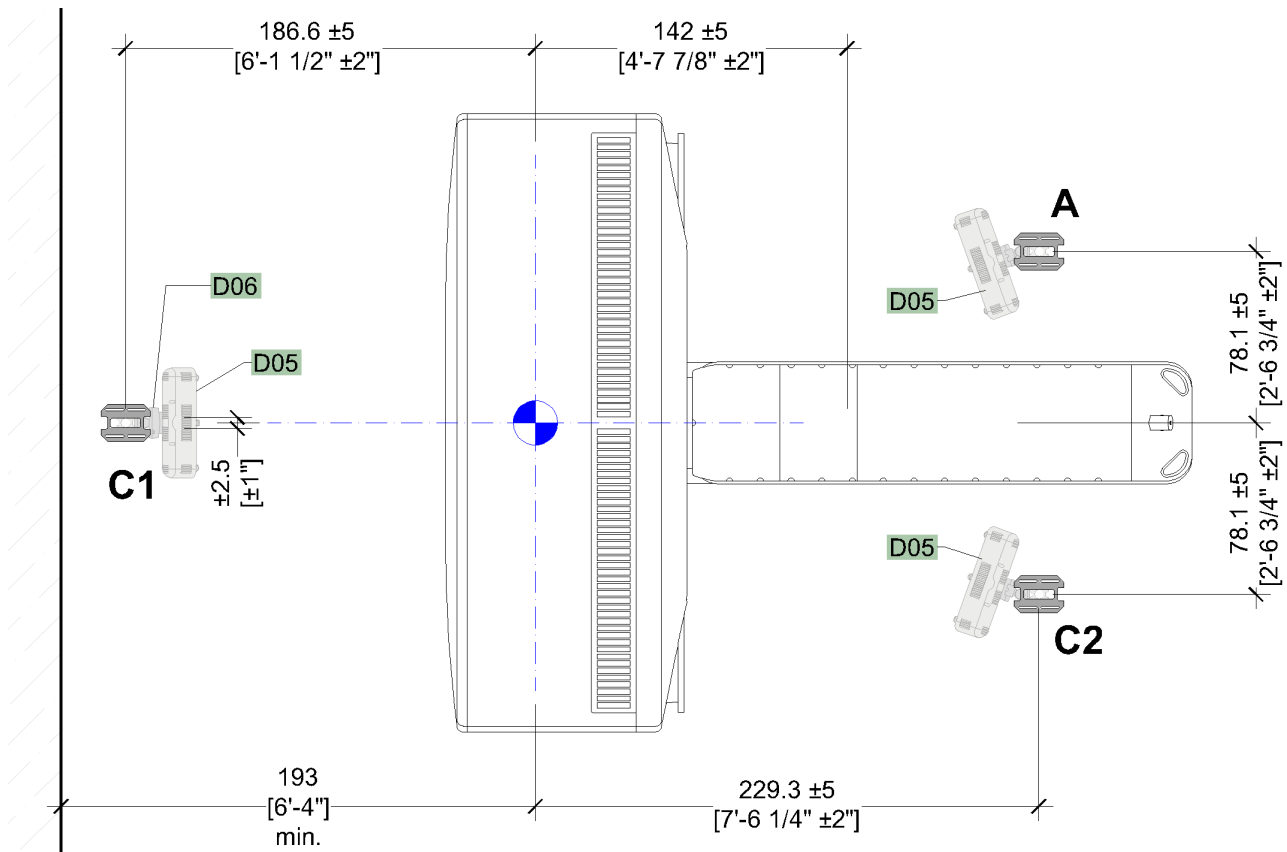


Figure 3-3 Halcyon GCX Ceiling Plate Positions

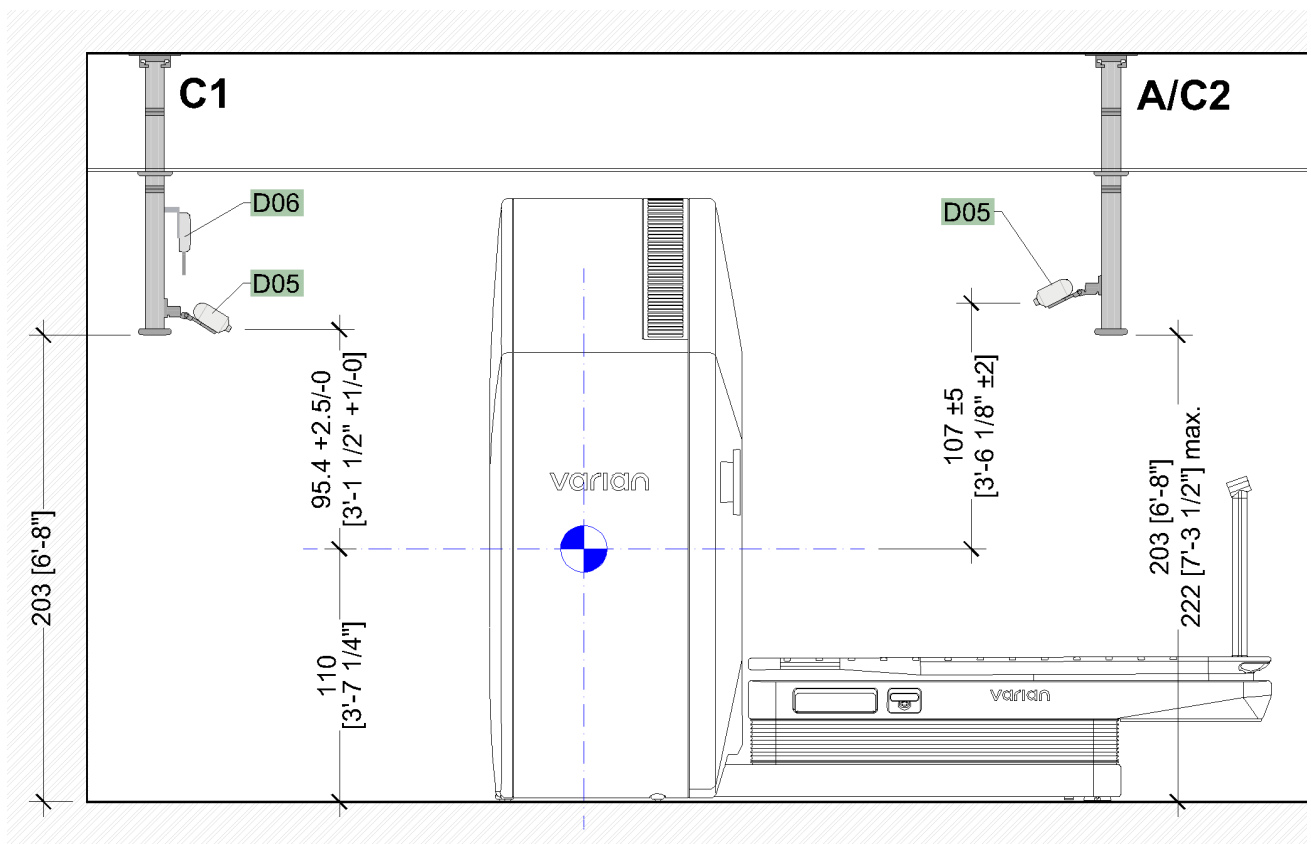


Figure 3-4 Halcyon Device and Post Elevations

### 3.1.3 ELEKTA GCX POST LOCATIONS

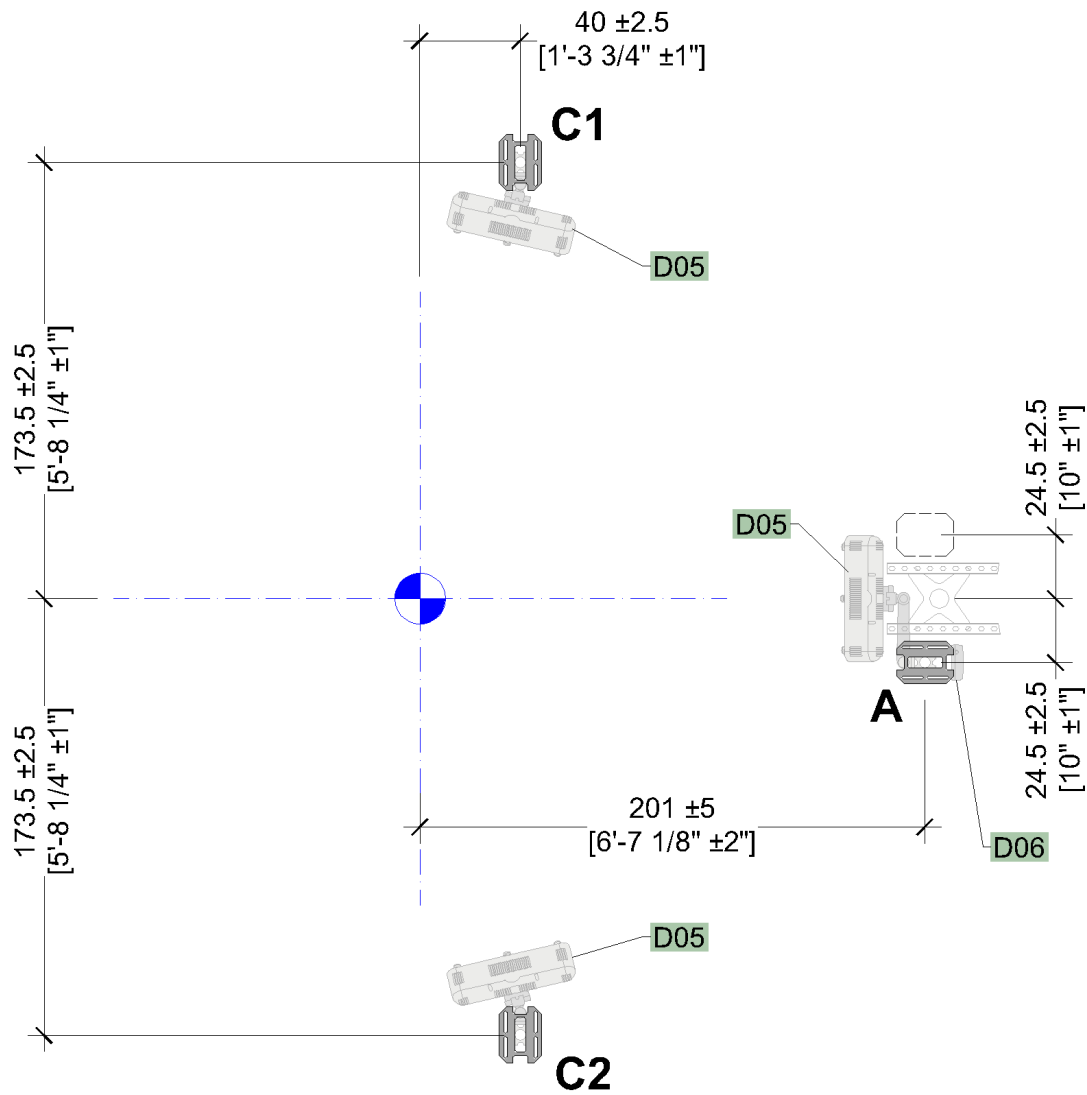
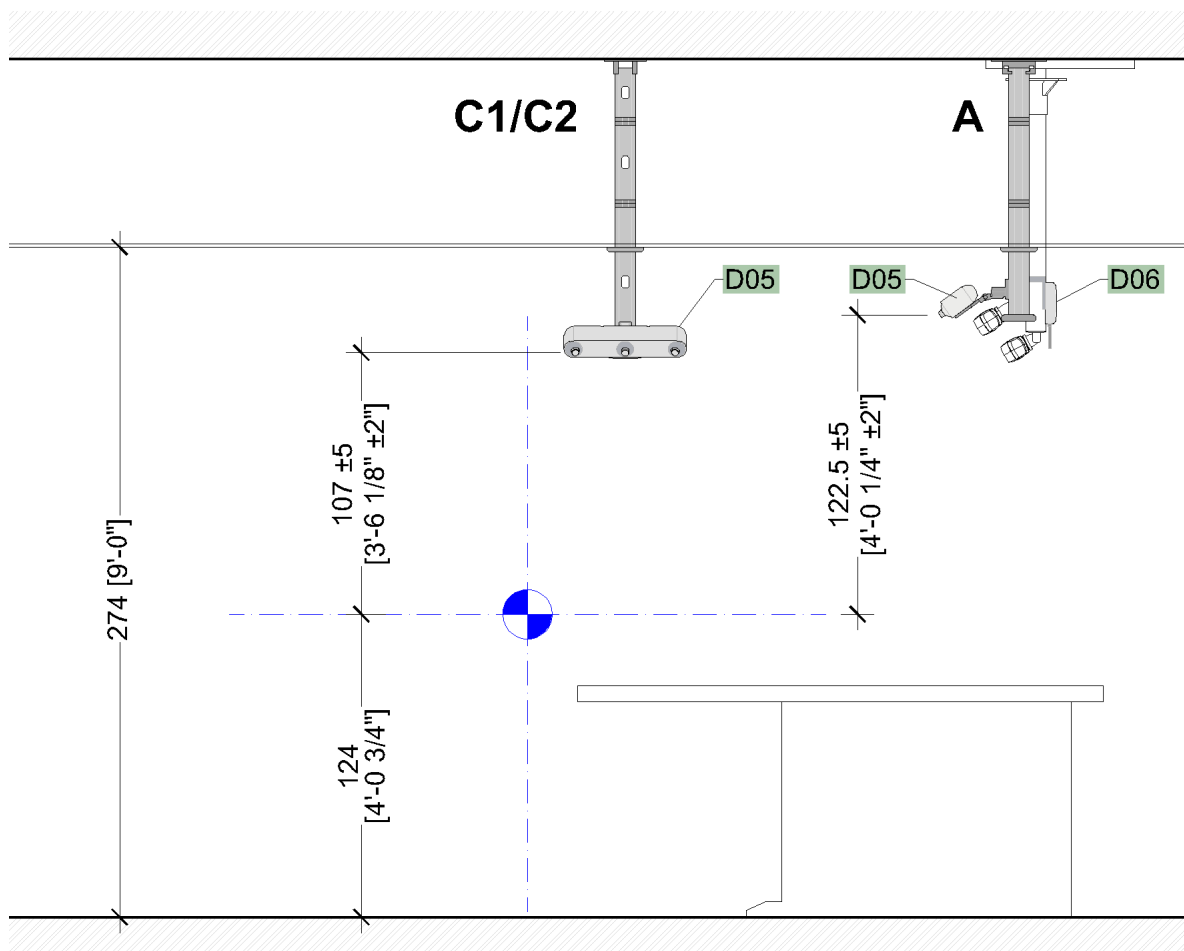


Figure 3-5 Elekta GCX Ceiling Plate Positions



*The GCX Post A may be located on either side of the Elekta tracking camera mounting post.*





**Figure 3-6 Elekta Device and Post Elevations**

The maximum GCX post height above the finished floor

- Post A – 244cm [8'-0"]
- Post C1/C2 – 228cm [7'-6"]



*The Elekta mounting post and tracking cameras are shown for reference only.*



### 3.1.4 CT IMAGING GCX POST LOCATIONS



#### NOTICE

Post position dimensions are from the machine Isocenter, not the patient/laser setup Isocenter.

CT Isocenter heights vary per manufacturer.

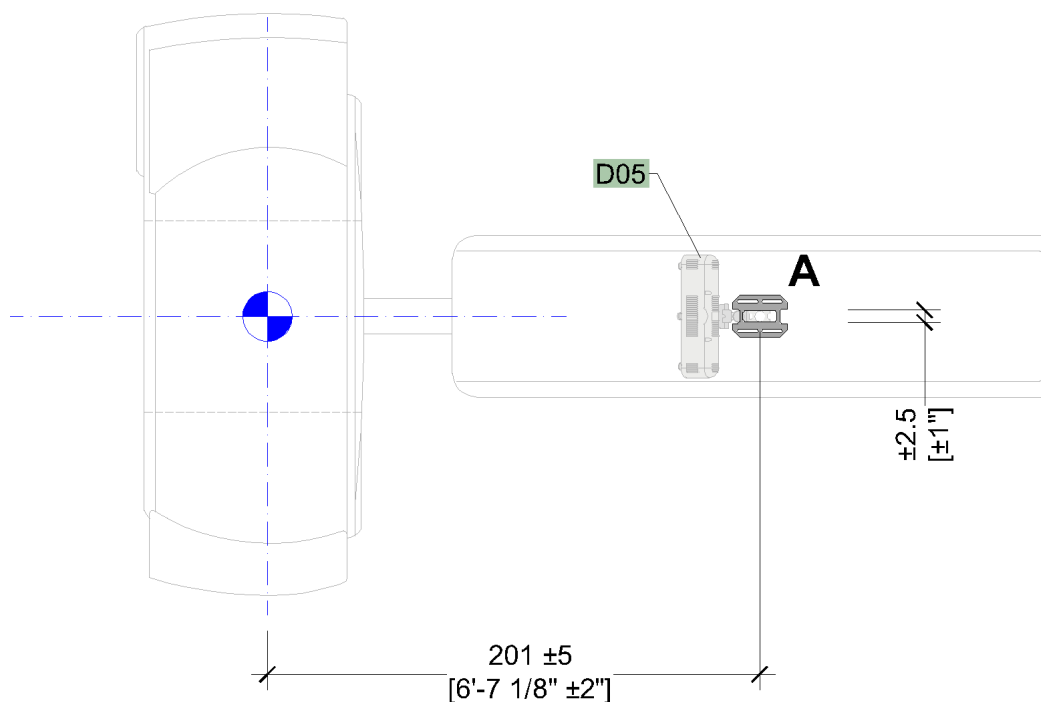


Figure 3-7 GCX Ceiling Plate Positions

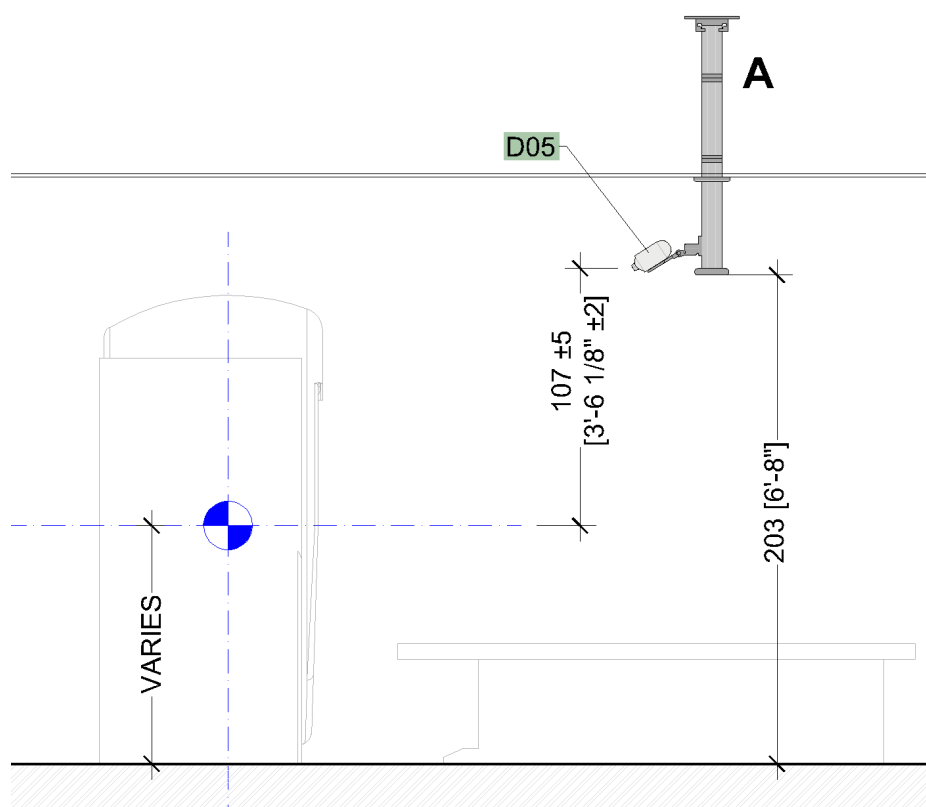


Figure 3-8 Device and Post Elevation



## 3.2 TREATMENT AND IMAGING ROOM

### 3.2.1 SYSTEM JUNCTION BOX

- Install the System Junction Box at a standing height from the finished floor for accessibility.
- Provide a minimum of 100cm [3'-0"] clear floor space in front of the System Junction Box.
- Allow enough space for the System Junction Box door to fully open to 90 degrees.
- The System Junction Box may be recessed or flush-mounted.

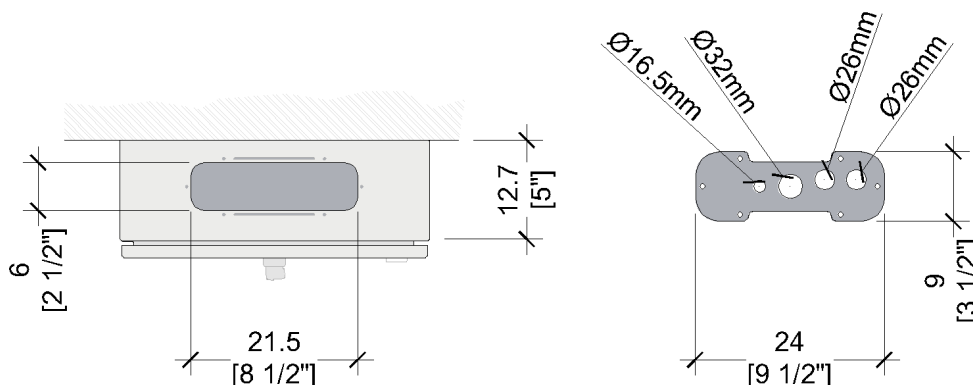


Figure 3-9 System Junction Box and Gland Plate



#### NOTICE

**Modification of the gland plate to meet local code is acceptable. Any alterations outside of the gland plate are not allowed and may warrant the replacement of the SJB, causing delays and additional expenses.**

### 3.2.2 WAP

The treatment room WAP is typically mounted on the GCX Post listed below, using a supplied bracket. In some instances, the treatment room WAP may be mounted on another GCX Post or wall-mounted.

- TrueBeam Post **A**
- Halcyon Post **C1**
- CT may be mounted to Post **A** or wall mounted



#### NOTICE

**When wall mounted:**

**In a Halcyon treatment and CT imaging room, the WAP must have a direct line of sight into the bore.**

**The WAP must be installed below the false ceiling.**

### 3.2.3 IRM

The In-Room Monitor is wall-mounted in the treatment room.



*The ideal location is on the sagittal wall close to the foot of the couch. Other acceptable locations, in order of preference, are the left wall or right wall forward of the primary beam when facing the rear wall.*



### 3.3 CONTROL AREA

A typical control area setup is shown below, component positioning may vary based on site-specific conditions, consult with the Customer on the desired layout, and if additional storage space is required.

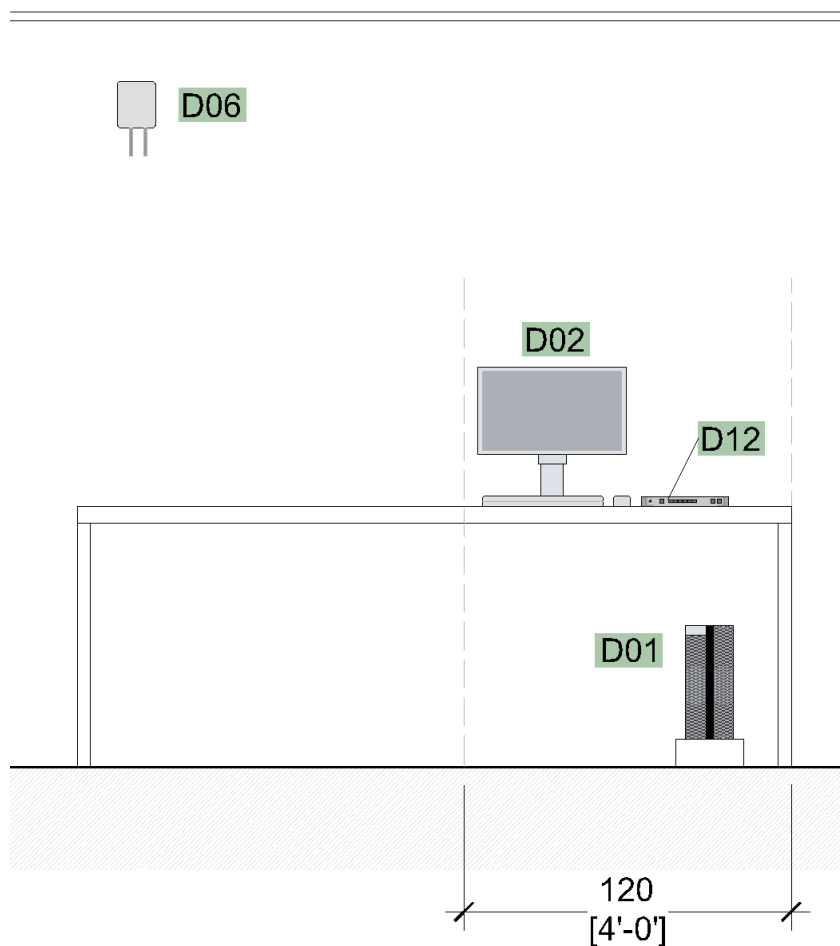


Figure 3-10 Typical Control Console Layout

#### 3.3.1 IDENTIFY ROOM WORKSTATION

- Install the IRW near the Console, refer to [Table 2-16](#) (cable R) for length limitation.
- Install the Network Switch near the IRW, refer to [Table 2-16](#) (cable K) for the length limitation.
- Provide a minimum of 100cm [3'-0"] cable service loop at the rear of the IRW.
- Provide a minimum of a 10cm [4"] high platform if installed under the countertop, to prevent damage.
- Maintain a minimum of 8cm [3"] air and cable space at the sides, top, and rear.

#### 3.3.2 WAP

The control area WAP must be wall-mounted below the false ceiling.



## 3.4 WPT WORKSTATION

The WPT Workstation can be located per the Customer's preference, typically in a planning office.

- Locate the WPT Computer within 120cm [4'-0"] of the WPT Console.
- Maintain a minimum of 8cm [3"] air and cable space at the sides, top, and rear.
- If installed on the floor, provide a minimum of a 10cm [4"] high platform to prevent damage.

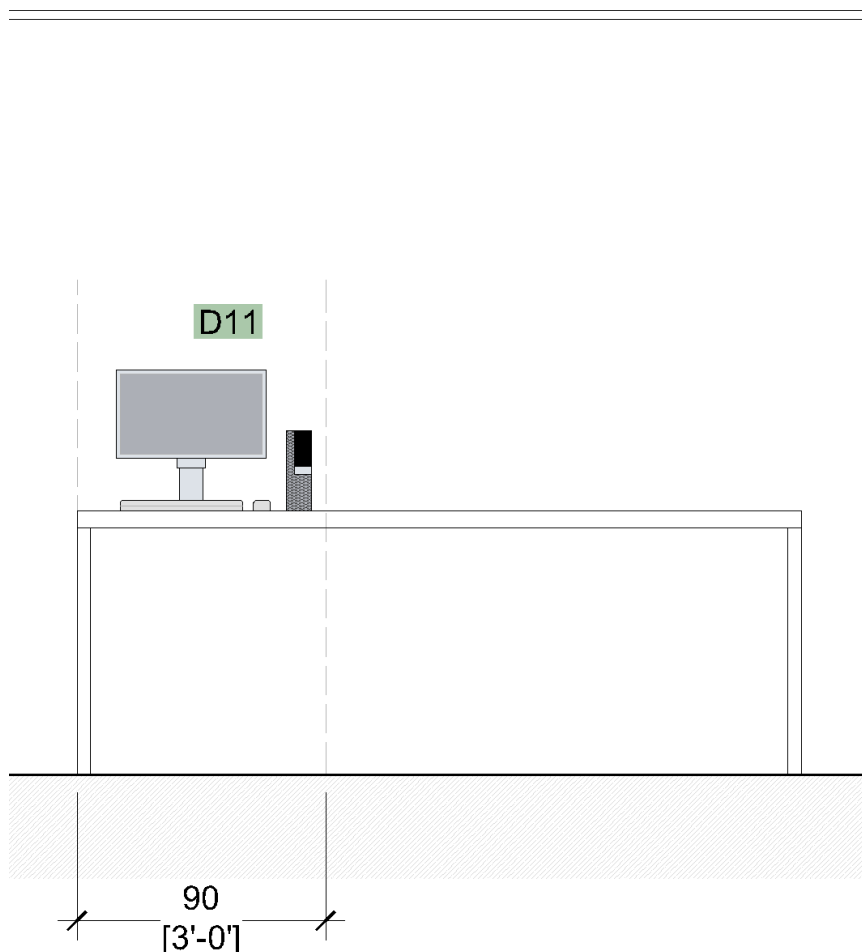


Figure 3-11 WPT Workstation

## 3.5 ELECTRICAL

### 3.5.1 POWER REQUIREMENTS

Table 3-2 System Power Requirements	
Input Voltage	100-240VAC, 3-wire (1-Phase, Neutral, and Ground)
System Loads	<ul style="list-style-type: none"><li>• System Junction Box – <b>450VA</b> (450W maximum, includes the network switch &amp; RFID)</li><li>• IRW and Monitor – <b>950W</b></li><li>• Physical ICS and Monitor – <b>950W</b></li><li>• In-Room Monitor – <b>120W</b></li><li>• WPT Workstation – <b>300W</b></li><li>• Network Switch (IRW) – <b>25W</b></li><li>• Network Switch (ICS) – <b>25W</b></li><li>• HDMI Converter PSU – <b>10W</b></li></ul>
Line Voltage Regulation	±10% maximum. This is the maximum allowable steady-state deviation from nominal Value selected. Sinusoidal with less than 5% total harmonic distortion
Input Frequency	50 or 60 Hz ±3 Hz
Mandatory Grounding	<a href="#">Dedicated Grounding Requirements</a>

### 3.5.2 POWER DISTRIBUTION

The System Junction Box contains a 24VDC medical-grade power supply which is used to power peripheral devices. All system cables coming from the System Junction Box are 24V, network PoE, and signal cables.

### 3.5.3 COMPONENT POWER

All power outlets should be within 60cm [24"] of the component they are supplying. Each circuit must be sized to meet local code and system requirements in [Table 3-2](#).

#### Control Area

- (1) Standard power outlet for the IRW (**D01**).
- (1) Standard power outlet, for the Monitor (**D02**).
- (1) Standard power outlet, for the IRW Network Switch (**D12**).
- (1) Standard power outlet, for the HDMI to Ethernet converter PSU.

#### Treatment Room

- Single-phase (L, N, & G), 14A maximum, wired directly to the IDENTIFY SJB (**D04**).
- (1) Standard power outlet, for the IRM (**D07**), beside the upper portion of the wall bracket.
- (1) Standard power outlet, for the VCD Charging Station, may be located in the Control Area.



#### WARNING

The circuit breaker for the System Junction Box power supply must have lockout/tagout capability for safety and isolation during service.



### Physical IDENTIFY Central Server

- (1) Standard power outlet for the ICS (**D10**).
- (1) Standard power outlet, for the Monitor.
- (1) Standard power outlet, for the ICS Network Switch (**D12**).

### WPT Workstation

- (1) Standard power outlet for the Computer.
- (1) Standard power outlet, for the Monitor.

## 3.5.4 CABLE CONTAINMENT



### NOTICE

**The customer is responsible for ensuring that the cable installation meets applicable local codes and requirements.**

**This might affect the choice of cable routes, number of conduits/ducts, specifications of mains power and data cables, and the choice of installation locations of system components.**

**The customer shall provide conduits or raceway ducts for all system cables, as described in this section.**

**The Varian system cables are not plenum-rated.**

- All conduits shall be smooth-walled.
- All conduits that are routed underground shall be dry and watertight.
- All conduits must be terminated with insulating bushings or a similar means to protect cables from abrasion.
- All conduits should be provided with a pull string or cord.
- Provide a minimum conduit bend radius of six times the diameter.
- Conduit bends shall not exceed 270 degrees per cable run.
- Route all room penetrations as perpendicular to the isocenter as possible to avoid radiation scatter leakage and verify all penetrations with the Physicist of Record.
- Allowance should be made for the storage of excess cable, refer to [Table 2-16 IDENTIFY System Cables](#) for cable lengths.




*The cable containment route must be shorter than the maximum cable length and provide a minimum of 275cm [9'-0"] at each end for connection and service unless otherwise noted.*

*These are the minimum sizes required to contain the cables. Other options to consolidate cable runs are acceptable to achieve these system interconnections in existing or new installations, the Varian Planning Department can provide more information on these alternatives*



Table 3-3 Minimum Recommended Containment Sizes						
Cable Run	Cable Type	Start (From)	Finish (To)	Conduit Run	Minimum Conduit Size Ø	Maximum Run Length
A	Power 24VDC	D04 – SJB (24V Distribution)	D05 - SGRT Post A	14 10	32mm [1 1/4"] 25mm [1"]	12m [40']
B			D05 - SGRT Post C1 (RT, only)	14 08	32mm [1 1/4"] 25mm [1"]	12m [40']
C			D05 - SGRT Post C2 (RT, only)	14 09	32mm [1 1/4"] 25mm [1"]	12m [40']
D	CAT7	D04 – SJB (PoE Network Switch)	D06 - WAP (Treatment Room)	13 11	32mm [1 1/4"] 25mm [1"]	17m [56']
E			D06 - WAP (Control Area)	13 04 02 12	32mm [1 1/4"] 25mm [1"] 38mm [1 1/2"] 25mm [1"]	44m [144']
F*	CAT7	D01 - IRW	D12 - Network Switch (IRW)	N/A	N/A	1.5m [5']
G			D05 - SGRT Post A	02 06	38mm [1 1/2"] 25mm [1"]	40m [132']
H			D05 - SGRT Post C1 (RT, only)	02 07	38mm [1 1/2"] 25mm [1"]	40m [132']
I			D05 - SGRT Post C2 (RT, only)	02 05	38mm [1 1/2"] 25mm [1"]	40m [132']
J			D04 – SJB (PoE Network Switch)	01 04 13	38mm [1 1/2"] 25mm [1"] 32mm [1 1/4"]	40m [132']
K	CAT7	D01 - IRW (via 1m HDMI to Ethernet)	D07 - In-Room Monitor (via Ethernet to HDMI direct)	01 03	38mm [1 1/2"] 25mm [1"]	44m [144']
L		D01 - IRW (via 1.2m USB to Ethernet)	D08 - Keyboard/Mouse (via Ethernet to USB direct)	01 03	38mm [1 1/2"] 25mm [1"]	44m [144']
M*	HDMI, CAT7	D01 - IRW	D02 - Console	N/A	N/A	12m [40']
N*	CAT7	D10 - ICS	D12 - Network Switch (ICS)	N/A	N/A	1.5m [5']
O*		Hospital Network	D12 - Network Switch (IRW)	N/A	N/A	3m [10']
P*			D12 - Network Switch (ICS)	N/A	N/A	3m [10']
Q*	CAT5		D11 - WPT Computer (SGRS, only)	N/A	N/A	5m [16']
S	1-Phase (L, N, G)	Hospital Mains Power	D04 - SJB	15	per Code	N/A

\* Not shown in [Figure 3-12](#), [Figure 3-13](#), and [Figure 3-14](#)

 Customer Wiring



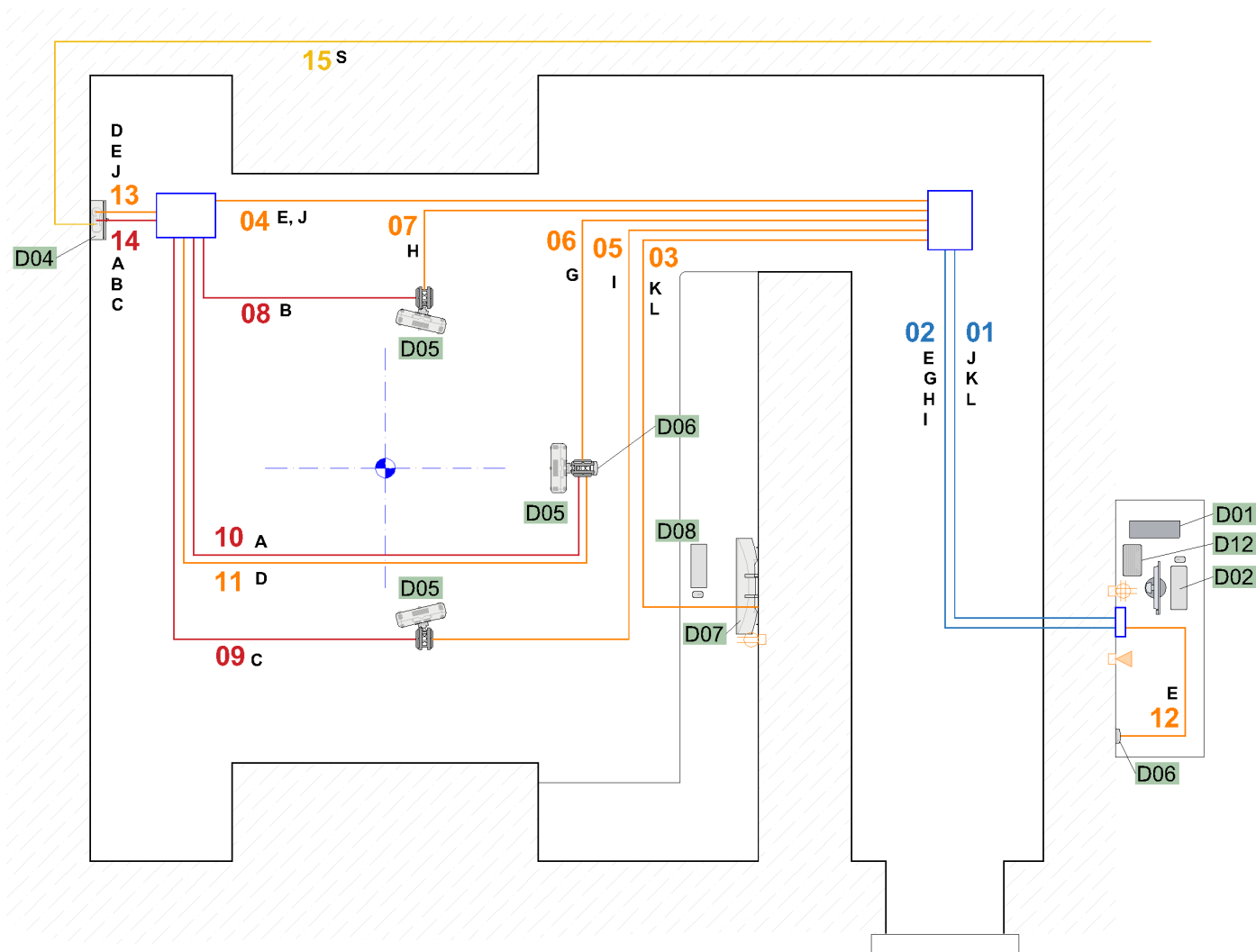


Figure 3-12 TrueBeam Style Cable Containment Diagram



Overhead system cables may need to be consolidated above the false ceiling in a Customer-provided and -sized transition and excess cable storage pull box or tray before dropping down to the SJB (D05).



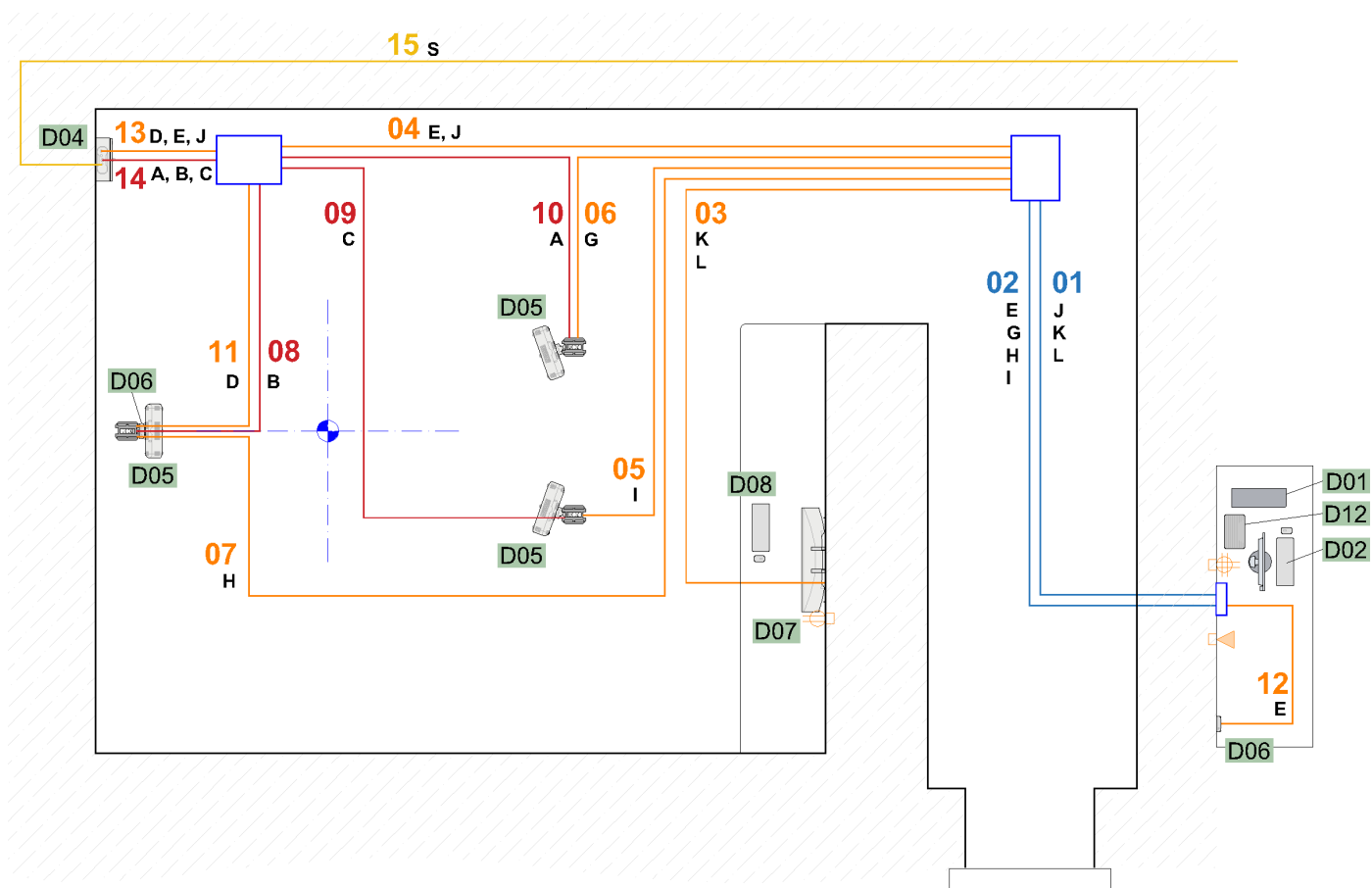


Figure 3-13 Halcyon Style Cable Containment Diagram

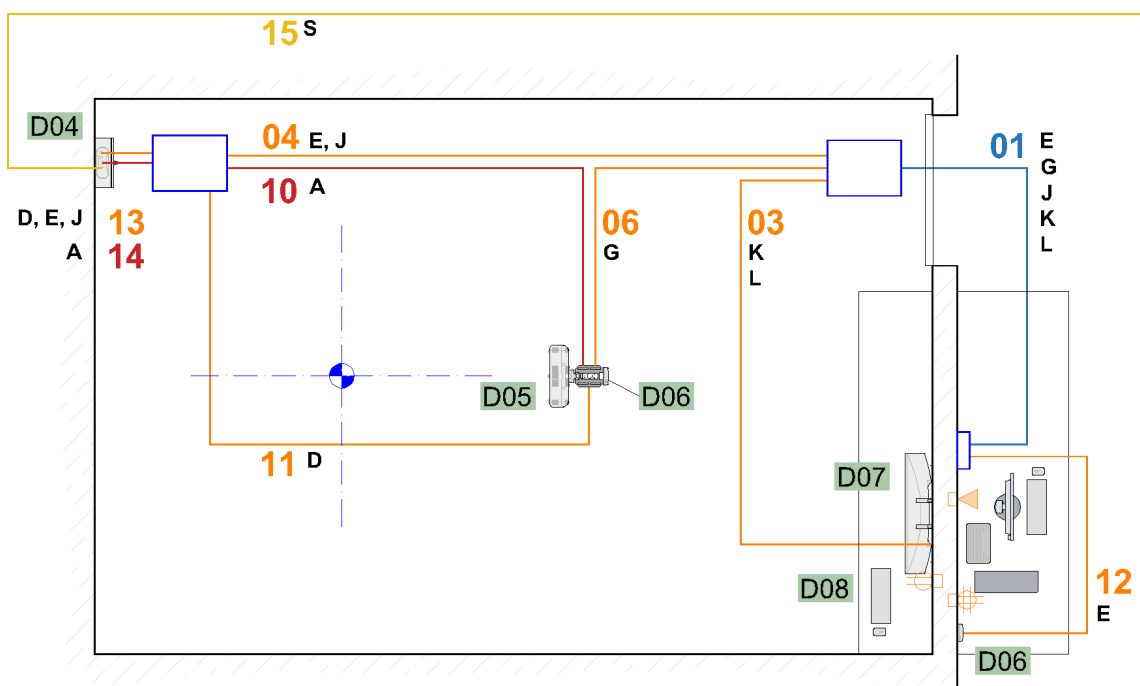


Figure 3-14 CT Imaging Cable Containment Diagram

### 3.5.5 DEDICATED GROUNDING REQUIREMENTS

The IDENTIFY system requires a Ground/Protective Earth (G/PE) circuit. This circuit provides grounding for all metal parts that a user may contact. Install the ground conductor devices listed below to an earth reference bar and then to the facility's main ground through the Hospital Grid System.



#### CAUTION

The G/PE conductor must meet or exceed local code requirements but must not be smaller than 4 mm<sup>2</sup> [12 AWG].

Do not ground to water supply piping.

- (1) G/PE conductor(s) to the bottom segment of each camera post (**A**, **C1**, and **C2**)
- (1) G/PE conductor to the In-Room Monitor Wall Bracket (**D07**)
- (1) G/PE conductor to the System Junction Box (**D04**)

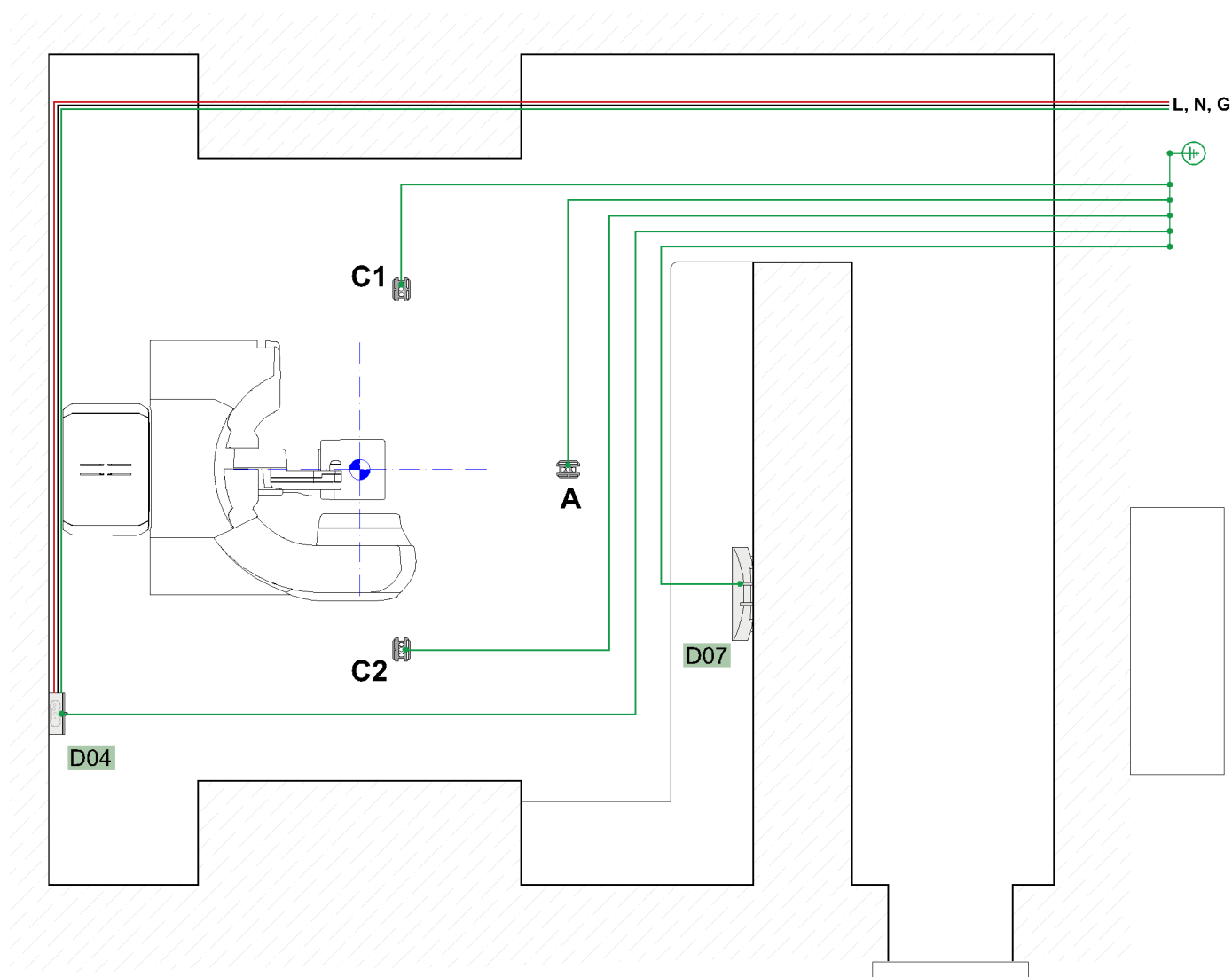


Figure 3-15 TrueBeam Style G/PE Conductor Diagram



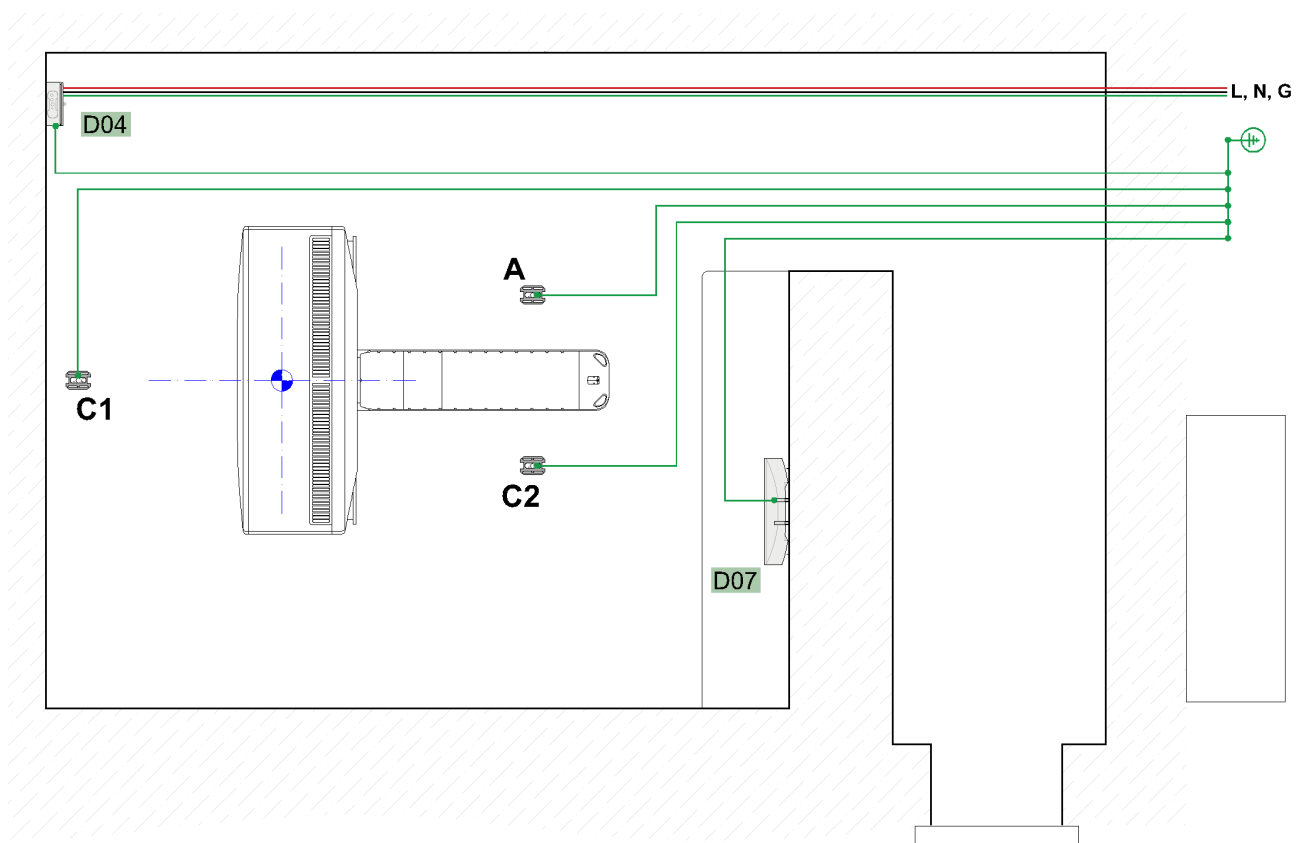


Figure 3-16 Halcyon Style G/PE Conductor Diagram

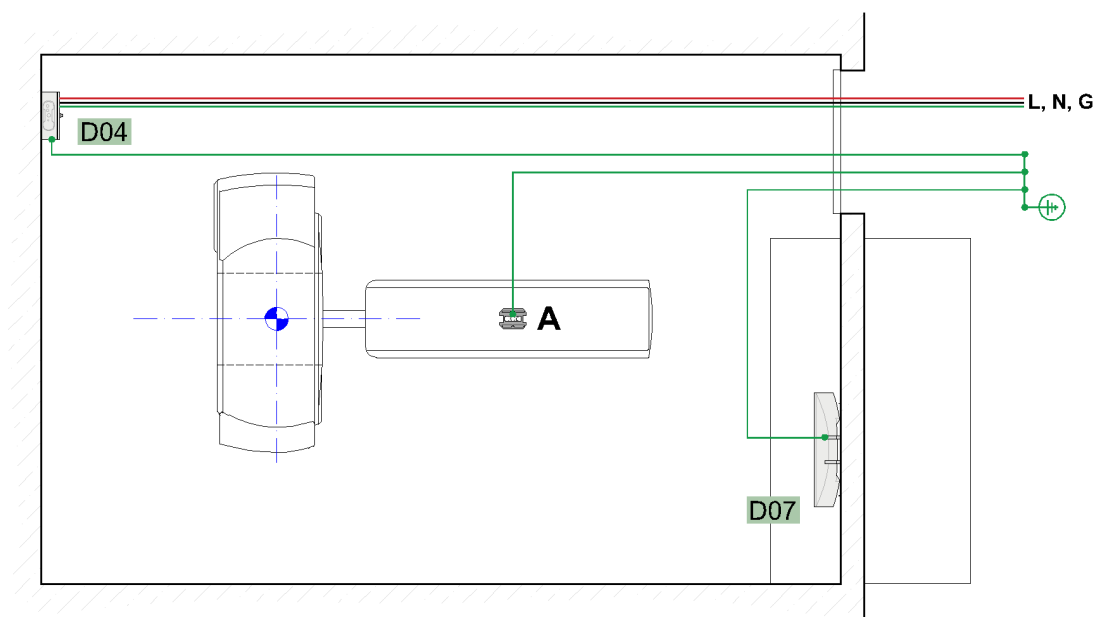


Figure 3-17 CT Imaging G/PE Conductor Diagram



### 3.5.6 NETWORK

The IT NETWORK connection allows the IDENTIFY system to communicate with treatment delivery systems, and their hospital or clinic oncology information systems.

#### General Requirements

- Cat 5e cable (minimum), CAT 6 (recommended).
- Bandwidth 100Mbps, full duplex 100BASE-T (minimum), 1Gbit/s or higher (recommended).
- The RJ-45 jack must meet TIA/EIA-568-A wiring pattern.
- Varian recommends isolating the Oncology domain from the Enterprise Network.

#### Requirements for the IRW (one required for each system)

- (1) Network outlet next to the IRW (**D01**)
- The IRW requires a fixed IP address.

#### Requirements for the ICS

- (1) Network outlet next to the ICS (**D10**).
- It must be visible from each IRW.
- The ICS requires a fixed IP address.

#### Requirements for the WPT Workstation

- (1) Network outlet next to the WPT Computer (**D11**)
- The WPT Workstation requires a fixed IP address.



Connection to IT Networks including other equipment could result in previously unidentified risks to patients, operators, or third parties. The Customer should identify, analyze, evaluate, and control these risks. Changes to the IT Network could introduce new risks that require additional analysis. Changes to the IT Network include changes in network configuration, the connection of additional items, disconnection of items, the update of equipment, and the upgrade of equipment.

The [4] Customer Integration Guide provides the information needed to prepare the customer's network to integrate IDENTIFY.



## 3.6 ENVIRONMENTAL SPECIFICATIONS

Table 3-4 Environmental Specifications		
Condition	Metric	Imperial
Maximum Altitude	2000 m	6562 ft
Ambient Temperature	16° to 27°C	60° to 80°F
Allowable Tolerance from Calibration Temperature	± 5° C	± 9° F
Relative Humidity	30% to 75%, Non-condensing	

### 3.6.1 VENTILATION

Table 3-5 Treatment Room Heat Loads		
Description	W	BTU/Hr
(D07) - IDENTIFY In-Room Monitor	50	170
(D05) - SGRT Camera x 3	60	204
(D04) - System Junction Box	300	1024
(D06) - WAP	20	68

Table 3-6 Control Room Heat Loads		
Description	W	BTU/Hr
(D01) - IRW & Monitor	200	682
(D12) - Network Switch	25	85
(D06) - WAP	20	68

Table 3-7 Server Room Heat Loads		
Description	W	BTU/Hr
(D10) - ICS & Monitor	200	682
(D12) - Network Switch	25	85

Table 3-8 WPT Workstation Heat Loads		
Description	W	BTU/Hr
(D11) - WPT Workstation	50	171

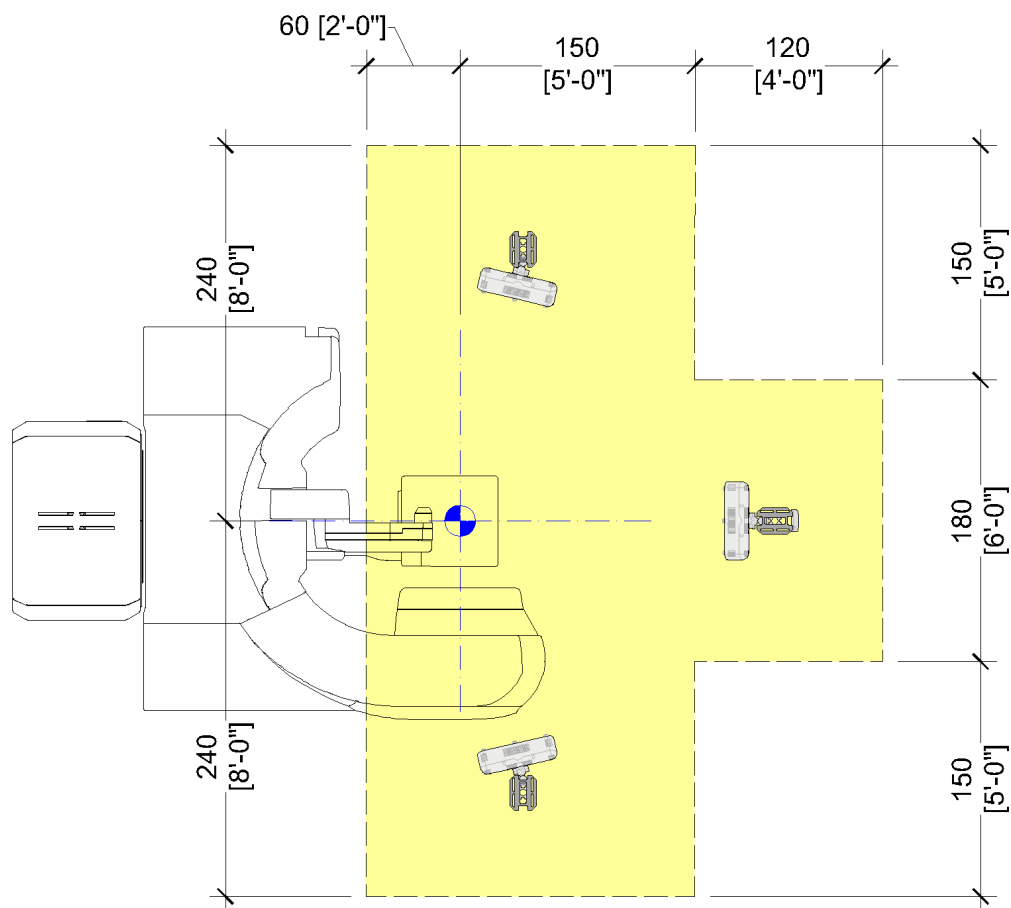


#### NOTICE

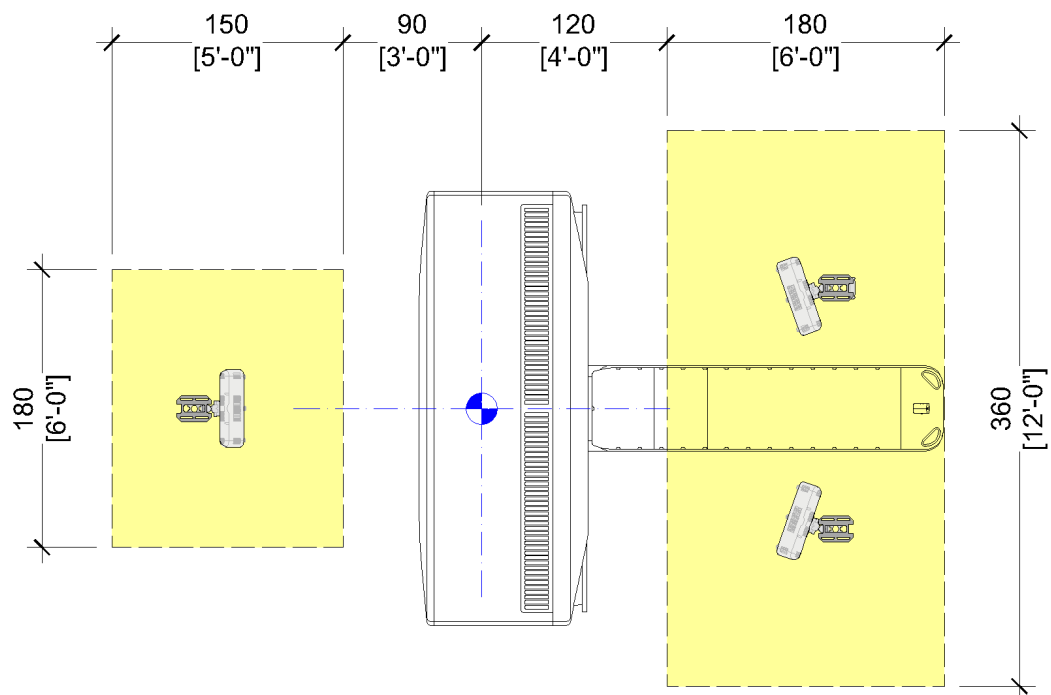
To assist with the thermal stability of the IDENTIFY System, HVAC supply vents must be placed a minimum of 60cm [24"] away from the edges of the SGRT and Surface Cameras, see [Figure 3-18](#), [Figure 3-19](#), and [Figure 3-20](#).

It may also be required to redirect the airflow away from the cameras.





**Figure 3-18 TrueBeam HVAC Supply Exclusion Area**



**Figure 3-19 Halcyon HVAC Supply Exclusion Area**

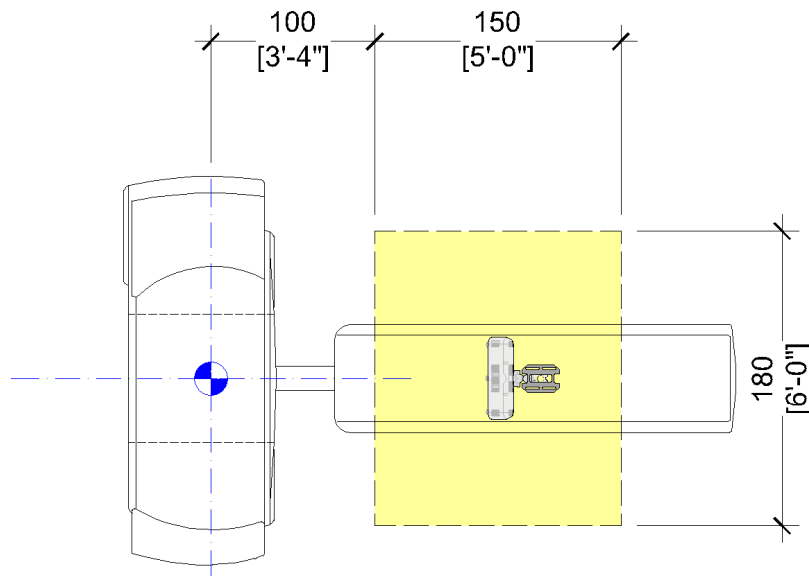


Figure 3-20 CT Imaging HVAC Supply Exclusion Area

### 3.7 VIBRATION



#### NOTICE

Consideration should be given to selected locations where local equipment could cause excessive vibration. Contact your Varian Site Planner for more information on assessing site-specific situations. If additional structures need to be built above the ceiling grid to support the post, then their construction method and quality should be such as to minimize vibration and instability. All structures should be designed by a competent and suitably qualified engineer.

### 3.8 LIGHTING

The IDENTIFY system is designed to be used with uniform, soft, indirect lighting with a continuous wavelength spectrum. Lighting should be consistent, and some level of ambient lighting should be present at all times.



#### NOTICE

**Avoid any light source at or above 1000 lux**

**Avoid any light source directed at the couch at or above 600 lux**

**Avoid light sources with inductive ballasts – may cause issues due to the slow flicker rates.**

**Avoid light sources focused directly on the Setup or SGRT cameras**

**Avoid light sources that are directed at the treatment couch**

**Avoid light sources emitting blue wavelengths**

- Primarily blue or blue-hued LEDs
- Blue lasers



## 3.9 FINISHES

The IDENTIFY system is an optical technology, consideration should be given to the reflectivity of surfaces. Matte or satin room finishes are recommended.

### 3.9.1 FLOORING

The IDENTIFY system contains electronic components that are sensitive to electrostatic discharge (ESD). Floor finishes used in the treatment room and control area should have “Anti-Static” properties that meet local and national codes.

### 3.9.2 CEILING

There is no finished ceiling type specification. However, experience has shown the benefit of a 60cm x 120cm [24” x 48”] or 60cm x 60cm [24” x 24”] lay-in acoustical ceiling tile. Among its benefits are easy access to above-ceiling structures/systems and cables, low repair and modification cost, acoustical attenuation, and the aesthetic benefits of using modern ceiling grids and tiles.

### 3.9.3 ACCESSORIES

It's recommended that custom cabinetry be built to store accessories for the system such as calibration plates. Refer to your Varian PM and verify requirements and storage preferences with the Customer.



#### NOTICE

**In smaller rooms, RFID shielding may need to be added to the cabinetry or storage location of accessories to screen the RFID tags from the IDENTIFY RFID antenna. This can be achieved with RF shielding blankets, RF curtains, RF paint, or sheet metal.**



## 4 PROJECT MANAGEMENT

### 4.1 RESPONSIBILITIES

All pre-installation dates for Varian deliverables and milestones are scheduled by the Varian PM, based on an agreement between the Customer and the Varian PM and communications with Varian Planning and Sales. The Varian PM will communicate regularly with the Customer throughout all phases of the project.

The Varian PM is available to help answer questions during the construction phase and typically will perform a Pre-Installation site inspection approximately 2 weeks before the install date to verify 100% completion as defined by the [1] Varian IDENTIFY Pre-Installation Checklist.

**Table 4-1 Sample Project Schedule**

Task (Estimated Days)		...															...	...
Place Order	X																	
Design / Construction (varies)																		
PIK Delivery and Installation																		
ICS Installation																		
Pre-Installation Inspection																		
IDENTIFY Delivery																		
Cable Installation																		
Hardware Installation & Power Up																		
Software Installation																		
Calibration & Acceptance																		
On-Site Training																		



= Critical STOP/GO Inspections



= Varian Install dates to suit Customer program



= Work by others

### 4.2 OBJECTIVES

The items listed below must be completed before the Final Inspection can be performed by Varian and the equipment is released for delivery. Varian's installation timeline is based on these items being completed. The complete [1] Varian IDENTIFY Pre-Installation Checklist can be provided by the Varian PM on request.

- Completed Network and Clinical Site Surveys
- The treatment room and control areas are finished to a clinical standard and are dust-free with no other construction trades having access.
- All PIK items including the System Junction Box are installed.
- IDENTIFY Central Server is installed and remote access is available.
- A live hospital network (internet access) with the Record and Verify system is available.
- All electrical requirements are completed including live permanent power, cable containment, and power outlets.
- Flooring and casework have been completed or prepared as previously agreed.



## 4.3 PIK INSTALLATION

Sub Project No.	1	This document's primary purpose is to provide an overview of the roles and responsibilities of Varian and the Customers appointed contractors during the installation. It should be read in conjunction with the PPG-ID. If you have any doubts, then ask the Varian PM for clarification.	
Task Name	PIK Installation		
Task Overview	Receiving and installing the items within the PIK		
Prerequisites	<ul style="list-style-type: none"><li>• Schedule a delivery date</li><li>• Additional camera post support structures built, if required.</li><li>• Ceiling height defined</li><li>• Site-specific plans available for component locations</li><li>• Cable containment installed</li></ul>		
Responsibilities	Task	Varian	Customer
	Schedule a delivery date for PIK	X	X
	Install IDENTIFY System Junction Box		X
	Install mains power outlets per PPG-ID		X
	Install camera ceiling mounting plates and posts		X
	Install system cables	X	
	Connect Interlock Box to RJB/door circuit (treatment systems only)		X
	Install Monitor Wall Bracket		X
	Install WAP covers		X
	Connect the dedicated ground/protective earth system per PPG-ID		X
	Test earth continuity to local code/regulation.		X
	Dispose of PIK packing		X
Duration	4 Days		
Customer Supplied Resources & Materials	Electrical contractor. Customer IT to set up ICS and test connectivity. Sockets and cables as required to meet local code. Suitable fixings for wall and ceiling mounts		
Results	IDENTIFY PIK components installed. Power outlets installed and live.		
Acceptance	Inspected by PM using the checklist		



## 4.4 IDENTIFY CENTRAL SERVER INSTALLATION

Sub Project No.	2	This document's primary purpose is to provide an overview of the roles and responsibilities of Varian and the Customers appointed contractors during the installation. It should be read in conjunction with the PPG-ID. If you have any doubts, then ask the Varian PM for clarification.		
Task Name	IDENTIFY Central Server Installation			
Task Overview	Installing the physical ICS or Setup a virtual ICS			
Prerequisites	<ul style="list-style-type: none"><li>• Schedule delivery date</li><li>• Network connection available</li><li>• [6] Network Site Survey before the ICS installation</li><li>• [5] Clinical Site Survey before the ICS installation</li></ul>			
Responsibilities	Task	Varian	Customer	
	Organize delivery date for HW (if required)	X	X	
	Install ICS (Virtual or Physical)		X	
	Establish remote connection	X	X	
	HL7 Configuration	X		
	ICS Configuration	X		
Duration	1 Day			
Customer Supplied Resources & Materials	Customer IT to set up ICS and test connectivity.			
Results	ICS installed with remote access			
Acceptance	IPA			





## 4.5 IDENTIFY INSTALLATION

Sub Project No.	3	This document's primary purpose is to provide an overview of the roles and responsibilities of Varian and the Customers appointed contractors during the installation. It should be read in conjunction with the PPG-ID. If you have any doubts, then ask the Varian PM for clarification.		
Task Name	IDENTIFY System Installation			
Task Overview	Install and calibrate the IDENTIFY system			
Prerequisites	<ul style="list-style-type: none"><li>• All PIK components are installed</li><li>• All containment is available</li><li>• All power outlets are installed, tested, and live.</li><li>• The ICS is installed and accessible remotely.</li><li>• Delivery has been taken for the IDENTIFY System</li></ul>			
Responsibilities	Task	Varian	Customer	
	Install GCX posts to ceiling mounting plates		X	
	Install cameras and peripherals.	X		
	Install IRW and peripherals	X		
	Establish a connection, IRW to ICS	X	X	
	Replace ceiling tiles		X	
	Calibration	X		
	Acceptance	X	X	
Duration	~5 to 8 Days			
Customer Supplied Resources & Materials	IT connection to the hospital network or Virtual ICS Physicist for acceptance Users for training			
Results	Accepted system			
Acceptance	Acceptance document IPA-ID			



## APPENDIX A SHIPPING INFORMATION

Appendix Table 1 Shipping Weights and Sizes					
Kit No.	Kit Description	Metric		Imperial	
		Weight (kg)	L x W x H (cm)	Weight (lb)	L x W x H (in)
P1032926	Base Kit	95	120 x 80 x 92	209	47.3 x 31.5 x 36.3
P1033221	Base Pre-Install Kit	54	80 x 60 x 73	118.8	31.5 x 23.7 x 28.8
P1032925	Network Infrastructure (ICS) Kit	61	81 x 64 x 91	134.2	31.9 x 25.2 x 35.9
P1032927	SGRS Kit (Surface Guided)	60	120 x 80 x 74	132	47.3 x 31.5 x 29.2
P1033224	SGRS Pre-Install Kit	96	120 x 80 x 92	211.2	47.3 x 31.5 x 36.3
P1053869	Windows Planning Tool Kit	30	71 x 66 x 60	66	28 x 26 x 23.6
P1035384	Modus Pentaguide	7	33 x 33 x 32	15.4	13 x 13 x 12.6
P1032970	Respiratory Management Kit	30	80 x 60 x 73	66	31.5 x 23.7 x 28.8
P1033227	Respiratory Management Pre-Install Kit	35	120 x 80 x 36	77	47.3 x 31.5 x 14.2



Verify the final sales order with the Varian PM for the type and quantity of kits to be shipped.

Appendix Table 2 Environmental Conditions for Storage		
Condition	Metric	Imperial
Maximum Altitude	4572m	15,000 ft
Ambient Temperature	0° to 50°C	32° to 122°F
Relative Humidity	20% to 80%, Non-condensing	

