



Date

Planning Department

Review Cover Sheet

TO:

FAX:

FOR:

Review of Drawings Submitted by:

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0
0
FAX: 0
PROJECT NUMBER: DE4716

Activity Data:

Record Number:	
Drawings received on:	14-Jan-98
Review completed on:	Date
Document Number:	
Revision:	0

Contacts:

District Manager:	
Installation Coordinator:	
Reviewed by:	Mitch Spiegel

Attachments:

Attachment One - Notes

Dear Sirs,

Thank you for the opportunity to review these plans. The purpose of this review is to assist in the development and completion of this project. This review covers only the architectural requirements of our equipment. The checklist outlines the correct and incorrect elements of the plans and those that can not be determined. The notes referenced within the checklist may be found on Attachment One. All boxes marked "N" should be addressed by the architect and the revised documents may be resubmitted for review. The Varian Documents referenced are found in the Installation Data Package. Our review does not check for compliance with building codes and other regulatory agency requirements. Verification of shielding adequacy must be provided by the Physicist of Record for the project.

We look forward to answering questions you might have in connection with this project.

Sincerely,

Mitch Spiegel
Project Manager

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Review Checklist - Appendix One

item comments

Silhouette Edition Clinac Review Notes

- 1 INFORMATION COULD NOT BE FOUND ON CONSTRUCTION DOCUMENTS
- 2 INFORMATION WAS "SHOWN" BUT NOT DIMENSIONED AND/OR SPECIFIED FOR LOCATION OR CONSTRUCTION.
- 3 VERIFY ALL SHIELDING AND ROOM PENETRATIONS WITH THE PHYSICIST OF RECORD.
- 4 VERIFY RIGGING PATH FROM UNLOADING POINT TO TREATMENT ROOMS.
- 5 NEED A NOTE
- 6 LOCATE ALL INSLAB PULLBOXES AND CONDUIT STUB-UPS
- 7 SHOW CONTROL EQUIPMENT
- 8 SHOW LOCATION DETAIL
- 9 SHOW INTERCONNECTION WIRING DIAGRAM
- 10
- 11
- 12

Silhouette Edition Clinac

Vault Configuration

Refer to Installation Data Package
Section Seven FOC = Face of Concrete

Notes:
Attach. 1

Drawing
Location

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Couch rotation clearance

<input type="checkbox"/>	Recommended	9'-6" clear or 10'-0" FOC			1102305
<input type="checkbox"/>	Acceptable	couch has obstruction OR load/unload not optimum			[7.25.0]
<input type="checkbox"/>	Unacceptable	less than 5'-10" clear			1102303
<input type="checkbox"/>	Cannot be determined				[7.23.0]

Gantry ceiling clearance

<input type="checkbox"/>	Recommended	at least 9'-0" clear			1102306
<input type="checkbox"/>	Acceptable	8'-8" clear			[7.26.0]
<input type="checkbox"/>	Unacceptable	less than 8'-8" clear			1102303
<input type="checkbox"/>	Cannot be determined				[7.23.0]

Isocenter to back wall distance

<input type="checkbox"/>	Recommended	9'-6" to Face of Concrete			1102305
<input type="checkbox"/>	Acceptable	9'-5" to Face of Concrete			[7.25.0]
<input type="checkbox"/>	Unacceptable	less than 9'-5" clear			1102303
<input type="checkbox"/>	Cannot be determined				[7.23.0]

Service clearances at Silhouette Cabinet

<input type="checkbox"/>	Recommended				1102305
<input type="checkbox"/>	Acceptable				[7.25.0]
<input type="checkbox"/>	Unacceptable				1102306
<input type="checkbox"/>	Cannot be determined				[7.26.0]

Entrance Door & Maze

<input type="checkbox"/>	Recommended	48" by 84" net opening - 72" net width passage			1102303
<input type="checkbox"/>	Acceptable	46" by 84" passage - accepted by Varian			[7.23.0]
<input type="checkbox"/>	Unacceptable	inadequate for rigging			1102304
<input type="checkbox"/>	Cannot be determined				[7.24.0]

Console Area

<input type="checkbox"/>	Recommended	adequate counter area			1102307
<input type="checkbox"/>	Acceptable	less than recommended			[7.27.0]
<input type="checkbox"/>	Unacceptable	inadequate working area			1102308
<input type="checkbox"/>	Cannot be determined				[7.28.0]

Isocenter

			Y	N	
<input type="checkbox"/>	Isocenter height identified - 4'-3" or 4'-1"				1102306
<input type="checkbox"/>	Isocenter located from two inside walls				[7.26.0]
					1102303

<i>Customer</i>		<i>Varian</i>	
Drawing		Doc No.	
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Treatment Room

Accessories and Supplies casework

	Notes	Y	N
Space for Varian-supplied Applicators			
Space for Varian-supplied Wedges			
Space for Varian-supplied FFDA's			
Space for Blocks			
Adequate linen/misc. storage space			
Sink and counter			

	1102310 [7.30.0] 1102311 [7.31.0] 1102302 [7.22.0]
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Console

Control area casework

	Notes	Y	N
Counter Height <input type="checkbox"/> 3'-0" - 3'-4"			
38" deep counter			
Counter length for: <input type="checkbox"/> 3' Clinac <input type="checkbox"/> 2' OBI <input type="checkbox"/> 4' 4DTIC/ Gating			
Control Cabinets are spaced with in 15 feet of each other.			
Control monitors located with 8 feet of Control / Electronics cabinet			
Dedicated four plex outlets <input type="checkbox"/> 6 Clinac Control Equipment			
Clinac Electronics Cabinet Located to the left of the Control Cabinets			
Adequate clearance for Clinac Cabinet cooling			
Grommets for cables			
File or chart storage/Paper & supplies/Personal property			

	1102307 [7.27.0]
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Shielding - Review with Physicist

	Notes	Y	N
Physicist report included with drawings			

Experimental/Physics Access

	Notes	Y	N
Routing restricts secondary radiation			
Location verified with Physicist			

	1102316 [7.36.0]
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Primary beam shielding

	Notes	Y	N
<input type="checkbox"/> counterweight			
Proper alignment with isocenter	no requirements		
12" wider than beam at each side	no requirements		

	1102303 1100728
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Secondary shielding

	Notes	Y	N
location and placement of penetrations restrict secondary radiation			
Door shielding corresponds to Physicist report			
Wall and ceiling shielding correspond to Physicist report			

	1102303 1100728 [7.23.0]
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Pit Configuration

General

	Notes	Y	N
isocenter referenced to sides of pit			
Note: "Maintain level floor in 6'-0" radius of isocenter"			
Note: "Maintain level floor under Silhouette Cabinet (1/8" in 6'-0")"			
Rebar shown to avoid anchors			

	1102314 [7.34.]
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Pit construction

	Notes	Y	N
Pit size: 12'-2" LX 5'6" WX 12"D			
Slab thickness: 8" for anchors			
Seismic details (if required)			
Utility valves located and dimensioned at Clinac			

	1102314 [7.34.0]
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Customer	Varian
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Mechanical

H.V.A.C. Notes Y N

Ventilation at room for gantry and Silhouette cabinet			
Ventilation at console			

	1102319 [7.39.0]
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Cooling water Closed Loop system One-Pass Notes Y N

Shut-off Valve in secondary loop			
Domestic water back-up option	primary source		
Waste return back-up option	primary source		
Optional flow gauges on supply/return lines located near Clinac			
1" pipe at Clinac utility connection			
Valve at Clinac connection			

	1102319 [7.39.0]
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Compressed Air House System New Compressor Notes Y N

1/2" pipe to Clinac			
Air dryer indicated (Instrument Quality Air)			
Oil filter indicated (Instrument Quality Air)			
Valve at Clinac utility connection			

	1102319 [7.39.0]
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Final Connections

Plumbing By Customer By Varian Notes Y N

"Compressed air connections: Responsibility note"			
"Cooling water connections": Responsibility note			

	1102319 [7.39.0]
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Electrical

Power supply - Clinac Notes Y N

208VAC three phase- 60Hz(US)			
45 KVA supply capacity			
ground shown at supply transformer or power conditioner			
Power Conditioner if required			

	1102318 [7.38.0]
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Power supply - OBI/Trilogy Notes Y N

480VAC three phase- 60Hz(US)			
60 KVA supply capacity			
ground shown at supply transformer or power conditioner			
Power Conditioner if required			

	1102318 [7.38.0]
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Power panel - Clinac Notes Y N

Circuit breaker - GE # 2100CBB150A(US)			
UVR - GE 24VDC # TEDUXVERS	Included if above is used		
Start button	Included if above is used		
Bridge rectifier (24VDC, 0.5 amp)	Included if above is used		
115/24v (US) control transformer	Included if above is used		
1 amp fuse(US)	Included if above is used		
Main Circuit Breaker Located within 10 feet of console			
Note indicating 8 lin. ft of conductor to be coiled at Silhouette Cabinet			

	1102318 [7.38.0]
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<i>Customer</i>	<i>Varian</i>
Drawing Location	Doc No. [Page No.]

Pull boxes

Notes Y N

Access Method	bottom			side			top			Notes	Y	N
	W	L	D	W	L	D	W	L	D			
Base Frame	12"	24"	10"	12"	24"	22"						
Console	18"	12"	6"	18"	12"	6"						

	1102316 [7.36.0]
	1102315 [7.35.0]

Conduit

Notes Y N

Base to Console	three each 4" dia.				
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	1102316 [7.36.0]
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Facility Connections

Relay Junction Box	(12"x12"x6")			
Two 2" conduits from Relay Junction box to Silhouette Cabinet				
One 1/2" conduit from Relay Junction box to On Board Imager Warning lights				
2" conduit from power panel to Silhouette Cabinet				
2" conduit from OBI/Trilogy power panel to Silhouette Cabinet				

	1102316 [7.36.0]
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In Room Monitor

Notes Y N

2" Conduit with outlet boxes from control area to treatment room			
Bracket/Mounting detail for In Room Monitor			

	1102313 [7.33.0]
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Operating and Safety Devices

Conduit routing for required devices

Notes Y N

Warning lights to Silhouette Cabinet via relay junction box.			
Door interlocks to Silhouette Cabinet via relay junction box			
Emergency-off switches to Silhouette Cabinet via relay junction box			
Room lights to relay junction box			
Laser positioning lights to relay junction box			

	C-Series 1102318 [7.38.0]
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Control relay

Notes Y N

Potter Brumfield - PRD11DG0 - in relay junction box			
Room lights controlled by relay			
Lasers controlled by relay			
On Board Imager warning lights controlled by relay			

	1102318 [7.38.0]
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Device locations

Notes Y N

Warning light over entrance door			
Warning lights visible from all points in room			
12 volt and 120 volt Door interlocks			
Door activators, if required			
Emergency-off type: Manual reset - normally closed			
Emergency-off located outside of primary beam path			
Convenience outlet for each laser positioning light			
Radiation Monitor and Detector (Customer option)			
Adequate quantity and location of Room lights			
Setup lights located on both sides of couch			
Setup lights dimmable and independent of room lights			

	1102317 [7.37.0]
	1102302 [7.22.0]
	1102318 [7.38.0]

Customer	Varian
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Lasers supplied by Varian supplied by Customer

	Notes	Y	N
Overhead laser beam port at Isocenter			
Side lasers beam port shown at Isocenter height			
Adequate clearance in laser recesses			
Side lasers protected from bumping, if not recessed			
7'-6" minimum height to sagittal laser beam port			

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Service provisions

	Notes	Y	N
Duplex outlet near Silhouette Cabinet			

	1102317 [7.37.0]
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Console convenience items

	Notes	Y	N
Remote Diagnostics phone outlet			
VARiS Network data outlet			
MLC Network data outlet			
Telephone outlet			
Dimmable console area lighting			

	1102307 [7.27.0]
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Patient intercom provisions by Varian (option)

	Notes	Y	N
Microphone located near couch			
Signal cable conduit to console			

	1102317 [7.37.0]
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CCTV provisions camera(s) by Varian (option)

	Notes	Y	N
Proper location of camera(s)			
Power outlets for camera(s) (120v system only)			
Video cable conduit to console			

	1102312 [7.32.0] 1102317
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Final Connections

Electrical By Customer By Varian

	Notes	Y	N
"Power connection made:" Responsibility note	1,5		
"Signal connections made:" Responsibility note	1,5		
"Varian-supplied cables pulled:" Responsibility note	1,5		

	1102318 [7.38.0]
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Finishes

Floor

	Notes	Y	N
"Install finished floor after equipment is rigged" note	1,5		
Anti-static floor covering specified control console	1,5		
Anti-static floor covering specified treatment room	1,5		

	1102314 [7.34.1]
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Rigging By Customer By Varian

	Notes	Y	N
Proper clearances from unloading area to treatment room	1,4		
Rigging clearances require 4-piece breakdown of Clinac	1,4		
"Install finished floor after equipment is rigged" note	1,4		
150 sq. feet secure storage area available during installation note	1,4		

	1102304 [7.24.0]
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Respiratory Gating

Refer to Installation Data Package
Gating Section FOC = Face of Concrete

Notes:
Attach. 1

Customer

Varian

Drawing
Location

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[Page No.]

Treatment Room

Camera Position

	Notes	Y	N
30 degrees right or left of Isocenter (Plan)			
40 degrees up from Isocenter			
Camera positioned between 6 and 14 feet from Isocenter			
Camera bracket	Wall		
	Ceiling		
Camera bracket construction detailed			

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G1.0
G7.0

Electrical

	Notes	Y	N
1" conduit from camera power supply to Gating Equipment Console			
Standard computer signal cable outlet at each end of conduit			
Note: Conduit length not to exceed 75'-0"			

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G1.0
G7.1

Power

	Notes	Y	N
Grounded 120V. 60HZ. Power receptical for Camera power supply			
Power receptical located with in 12" of Camera power supply			
Standard wall switch for camera power supply receptical			

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G1.0
G7.1

Console

Control area casework

	Notes	Y	N
Gating Workstation located on Control counter			
20 Amp dedicated quad receptical			
Grommets for cables			

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G1.0
G2.0

Notes

	Notes	Y	N
Mounting of Camera power supply by Customer/Contractor			
Mounting of Camera support Bracket by Customer/Contractor			
"Varian-supplied cables pulled:" Responsibility note			

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G1.0
G2.0

CT Simulator

	Notes	Y	N
Customer supplied wall mount for Gating camera Support Assembly			
Customer supplied Curtain rail for Gating Camera cable support			

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1.5.0
