

North Carolina Department of Health and Human Services
Division of Health Service Regulation
Certificate of Need Section

2704 Mail Service Center • Raleigh, North Carolina 27699-2704
<http://www.ncdhhs.gov/dhsr/>

Drexdal Pratt, Director

Beverly Eaves Perdue, Governor
Albert A. Delia, Acting Secretary

Craig R. Smith, Section Chief
Phone: (919) 855-3873
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December 21, 2012

James C. Cullen, Director, Engineering Services
Lenoir Memorial Hospital
Post Office Box 1678
Kinston, North Carolina 28503-1678

Susan K. Hackney, Associate Attorney
K&L Gates LLP
430 Davis Drive, Suite 400
Morrisville, North Carolina 27560

No Review

Facility or Business: Lenoir Memorial Hospital
Project Description: Perform interventional cardiac catheterization procedures on existing equipment
County: Lenoir
FID #: 933304

Dear Mr. Cullen and Ms. Hackney:

The Certificate of Need Section (CON Section) received your letter of September 4, 2012 regarding the above referenced proposal to perform interventional (therapeutic) cardiac catheterization procedures in the Lenoir Memorial Hospital (LMH) cardiac catheterization lab without on-site open heart surgery back up. Based on the CON law **in effect on the date of this response to your request**, the proposal described in your correspondence is not governed by, and therefore, does not currently require a certificate of need.

The basis for this decision includes the following facts:

1. Between 7/1/1987 and 3/17/1993 CON law did not specifically regulate cardiac catheterization services.
2. During 1988 Lenoir Memorial Hospital constructed a cardiac catheterization lab.



3. The 1994 State Medical Facilities Plan (SMFP) shows that LMH has continuously provided cardiac catheterization services since 1990 which pre-dates the CON law governing cardiac catheterization services
4. In March 1993 the CON law was amended to specifically regulate cardiac catheterization services.

However, please note that if the CON law is subsequently amended such that the above referenced proposal would require a certificate of need, this determination does not authorize you to proceed to develop the above referenced proposal when the new law becomes effective.

Moreover, you need to contact the Construction Section and the Acute and Home Care Licensure and Certification Section of the Division of Health Service Regulation to determine if they have any requirements for development of the proposed project.

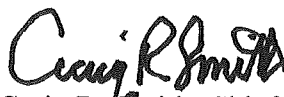
It should be noted that this determination is binding only for the facts represented by you. Consequently, if changes are made in the project or in the facts provided in your correspondence referenced above, a new determination as to whether a certificate of need is required would need to be made by the Certificate of Need Section. Changes in a project include, but are not limited to: (1) increases in the capital cost; (2) acquisition of medical equipment not included in the original cost estimate; (3) modifications in the design of the project; (4) change in location; and (5) any increase in the number of square feet to be constructed.

Please contact the CON Section if you have any questions. Also, in all future correspondence you should reference the Facility I.D. # (FID) if the facility is licensed.

Sincerely,



Jane Rhoe-Jones
Project Analyst



Craig R. Smith, Chief
Certificate of Need Section

cc: Medical Facilities Planning Section, DHSR
Acute and Home Care Licensure and Certification Section, DHSR
Construction Section, DHSR

rhoe-jones, jane e

From: rhoe-jones, jane e
Sent: Wednesday, November 28, 2012 2:17 PM
To: Smith, Craig
Subject: RE: misc. Lenoir only

Looked in the following SMFPs re: Lenoir Memorial Hospital cardiac cath services

84-88 = LMH not listed as a provider, other providers were.
89-93 = no data provided for any provider.
94 = LMH not listed as a provider, other providers were.
95 = LMH data from 1990 - 1993

From: Smith, Craig
Sent: Monday, November 26, 2012 3:53 PM
To: rhoe-jones, jane e
Subject: FW: misc. Lenoir only

Jane, could you try to research the history of cardiac cath services ant Lenoir. Thanks

Craig R. Smith

From: Hackney, Susan K. [mailto:susan.hackney@klgates.com]
Sent: Monday, November 19, 2012 5:56 PM
To: Smith, Craig
Subject: misc.

Craig,

Thanks for your call. I slipped out earlier than usual on Friday afternoon. I was calling for two reasons:

(1) In early September, Lenoir Memorial Hospital requested written confirmation that the cardiac cath lab is exempt from CON review. We were following up to see where that stands. Jane Rhoe-Jones had let our client know in early October that you would be following up on this.

(2) I also wanted to talk with you regarding when a CON is needed for inpatient psych services. I understand that a CON is needed for inpatient chemical dependency beds but was not certain if one is needed for an adolescent psychiatric residential treatment facility.

Let me know if there is someone else in the office that I should speak with regarding these issues.

Hope you are getting some rest this week! Have a great Thanksgiving.

Best,
Susan

11/28/2012



Susan K. Hackney
Associate Attorney
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Lewis
Mem. Hosp

Biplane Imaging

"Interventional Radiology," is the practice of using 3-dimensional images to plan and perform noninvasive surgery and to "intervene" in treating head, neck, spine, vessel and heart conditions that once would have required traditional open surgery. The foundation of this new area of practice is "biplane imaging." Interventional radiology represents a major medical breakthrough that is saving lives, and Riverside is the only local treatment facility with the on site technology and physician expertise to be able to offer this life saving treatment.

We specialize in interventional neuroradiology, the treatment of head, spine and neck conditions without the use of invasive traditional open surgery. By feeding tiny tools through a catheter inserted into your groin, doctors use the tools to treat life threatening conditions including blood clots and aneurysms.

The Role of Biplane Imaging in Interventional Radiology

The most advanced interventional medical imaging technology in the world is biplane imaging, a digital x-ray technology that uses two mounted rotating cameras, one on each side of you, to take simultaneous pictures. The cameras move front to back and side to side and produce an image quality that is capable of showing detailed vessel and soft tissue anatomy previously unavailable. The two sets of images are brought together on a computer screen to form a 3 dimensional portrait of the area your doctor wants to study.

Biplane imaging also allows doctors to follow the path of blood flow through your vessels and to create a "roadmap" for reaching and treating the precise location of disease or malformation. Also known as angiography, this process involves inserting a small catheter into an artery, a similar procedure to getting an IV. A small amount of dye that makes it easier to see the blood flow through your vessels is injected into the catheter. The biplane imaging cameras take detailed x-rays that are shown in real time on a monitor just a few feet from where your doctors watch it travel through your system. They are quickly able to determine if there are blockages or malformations such as aneurysms, and they are able to obtain a map of your vessels in order to determine the best route or means of reaching the target area to provide treatment. They are also able to determine a lot about your condition that will establish what treatment they should provide. Some conditions are unable to be treated through interventional methods and may require traditional surgery.

There are many types of interventional treatments that can be rendered using biplane imaging including coiling, carotid stenting, embolization, thrombolysis, vertebroplasty and vasospasm.

*Lenoir Mem Hosp
No Review*

Chronology:

- July 1987 – March 1993 Pre-dates CON for cardiac catheterization services
- 1988 Cardiac cath room was constructed
- 1988 – March 1993 Acquired and operated cardiac catheterization lab during this time period
- 1990 1994 SMFP shows LMH has continuously provided cardiac cath services since 1990

1994 SMFP

Table 8-A
SPECIALIZED CARDIAC SERVICES
CARDIAC CATHETERIZATION PROCEDURES
N. C. HOSPITALS, 1981-1992

Facility	1981		1982		1983		1984		1985		1986		1986		1987		1988		1989		1990		1991		1992						
	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.					
Carolinas Med. Ctr.	3368		4185		3617		4050		4518		3818		3480		4645		119		4851		6050		5200		250		5472		256		
N. C. Baptist	1564		1594		1785		1989		2256		2486		2948		2997		99		3129		3386		3122		122		3141		147		
Duke	1330		1427		1893		2273		2994		4566		5643		5665		239		6087		5012		202		235		4999		207		
UNC Hospitals	735		596		676		725		641		1030		1379		1366		123		1183		1288		129		158		1274		164		
Pitt County	333		410		475		504		925		1155		1621		2558		79		2307		3231		59		36		3781		24		
Mercy	1228		1162		1001		1084		935		1882		1344		1432		--		1716		1608		--		--		1915		--		
Wake Med. Ctr.	1063		1139		1835		2068		2554		3159		5875		4701		--		4236		2964		--		--		3167		--		
Moses Cone	716		697		1103		1435		1702		2494		3101		3025		--		2982		3356		--		--		4729		--		
Memorial Mission	629		781		959		1057		1621		1800		2187		2305		--		2364		2473		--		--		3571		--		
High Point	67		71		84		116		145		196		225		314		--		334		457		--		--		748		--		
Forsyth Memorial	--		--		196		349		398		864		1184		1758		--		2082		2105		--		--		2176		--		
Presbyterian	--		--		--		--		--		1028		1801		2345		--		3085		3354		--		--		2772		--		
Frye Regional	--		--		--		--		--		234		247		380		--		311		618		--		--		827		--		
Moore Regional	--		--		--		--		--		--		93		538		--		744		880		--		--		1058		--		
New Hanover	--		--		--		--		--		--		63		762		--		1368		1550		--		--		1637		--		
Cape Fear Valley	--		--		--		--		--		--		--		350		--		492		461		--		--		465		--		
Durham County	--		--		--		--		--		--		--		115		--		335		461		--		--		768		--		
Craven County	--		--		--		--		--		--		--		48		--		341		445		--		--		355		--		
Rex	--		--		--		--		--		--		--		250		--		1057		1393		--		--		1364		--		
Wesley Long	--		--		--		--		--		--		--		211		--		303		416		--		--		545		--		
Catawba	--		--		--		--		--		--		--		--		--		86		241		--		--		346		--		
Nash	--		--		--		--		--		--		--		--		--		44		412		--		--		377		--		
Iredell	--		--		--		--		--		--		--		--		--		--		344		--		--		500		--		
Wilson	--		--		--		--		--		--		--		--		--		--		246		--		--		414		--		
Davis	--		--		--		--		--		--		--		--		--		--		117		--		--		238		--		
Cabarrus	--		--		--		--		--		--		--		--		--		--		792		--		--		598		--		
Lenoir	--		--		--		--		--		--		--		--		--		--		216		--		--		321		--		
Rowan Memorial	--		--		--		--		--		--		--		--		--		--		--		--		--		238		--		
Southeastern Gen.	--		--		--		--		--		--		--		--		--		--		--		--		--		598		--		
Mobile Units	--		--		--		--		--		--		--		--		--		--		--		--		--		321		--		
TOTALS*	11033		12062		13624		15650		18689		568		24712		662		31191		560		35765		622		44236		682		47170		798

* Includes inpatient and outpatient procedures.
Source: Division of Facility Services Annual License Renewal Application.

1994 SMFP

Table 8-A
SPECIALIZED CARDIAC SERVICES
CARDIAC CATHETERIZATION PROCEDURES
N. C. HOSPITALS, 1983-1992

Facility	1981		1982		1983		1984		1985		1986		1987		1988		1989		1990		1991		1992	
	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.
Carolinas Med. Ctr.	3368	4185	3617	4050	4518	110	3818	98	3480	46	4645	119	4851	114	6060	162	5200	250	5472	256				
N. C. Baptist	1564	1594	1785	1989	2256	121	2486	99	2948	103	2997	99	3129	87	3386	130	3122	122	3141	147				
Duke	1330	1427	1893	2273	2994	185	4566	242	5643	239	5665	239	6087	245	5012	202	5124	235	4999	207				
UNC Hospitals	735	596	676	725	641	122	1030	95	1379	88	1366	123	1183	129	1288	129	1364	158	1274	164				
Pitt County	333	410	475	504	925	30	1155	128	1621	84	2558	79	2307	47	3231	59	3510	36	3781	24				
Mercy	1228	1162	1001	1084	935	-	1882	-	1344	-	1432	-	1716	-	1608	-	1787	-	1915	-				
Wake Med. Ctr.	1063	1139	1835	2068	2554	-	3159	-	5875	-	4701	-	4236	-	2964	-	3301	-	3187	-				
Moses Cone	716	697	1103	1435	1702	-	2494	-	3101	-	3025	-	2982	-	3356	-	3035	-	4729	-				
Memorial Mission	629	781	959	1057	1621	-	1800	-	2187	-	2305	-	2364	-	2473	-	2500	-	3571	-				
High Point	67	71	84	116	145	-	196	-	225	-	314	-	334	-	457	-	636	-	748	-				
Forsyth Memorial	-	-	-	-	398	-	864	-	1184	-	1758	-	2082	-	2105	-	2106	-	2176	-				
Presbyterian	-	-	-	-	-	-	1028	-	1801	-	2345	-	3085	-	3354	-	3216	-	2772	-				
Frye Regional	-	-	-	-	-	-	234	-	247	-	380	-	311	-	618	-	603	-	827	-				
Moore Regional	-	-	-	-	-	-	-	-	93	-	538	-	744	-	890	-	939	-	1058	-				
New Hanover	-	-	-	-	-	-	-	-	63	-	762	-	1368	-	1550	-	1800	-	1637	-				
Cape Fear Valley	-	-	-	-	-	-	-	-	-	-	350	-	492	-	461	-	431	-	465	-				
Durham County	-	-	-	-	-	-	-	-	-	-	115	-	335	-	461	-	707	-	768	-				
Durham County	-	-	-	-	-	-	-	-	-	-	48	-	341	-	445	-	444	-	355	-				
Craven County	-	-	-	-	-	-	-	-	-	-	48	-	1057	-	1393	-	1237	-	1364	-				
Rex	-	-	-	-	-	-	-	-	-	-	250	-	363	-	416	-	627	-	545	-				
Wesley Long	-	-	-	-	-	-	-	-	-	-	211	-	86	-	241	-	291	-	346	-				
Catawba	-	-	-	-	-	-	-	-	-	-	-	-	44	-	412	-	423	-	377	-				
Nash	-	-	-	-	-	-	-	-	-	-	-	-	-	-	344	-	1236	-	500	-				
Iredell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	246	-	321	-	414	-				
Wilson	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	-	238	-	238	-				
Davis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	792	-	636	-	598	-				
Cabarrus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	216	-	304	-	321	-				
Rowan Memorial	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	147	-	350	-				
Lenoir	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	215	-	585	-				
Rowan Memorial	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Southeastern Gen.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Mobile Units	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
TOTALS *	11033	12052	13624	15650	18689	568	24712	662	31191	560	35765	659	39497	622	44236	682	47170	801	51095	798				

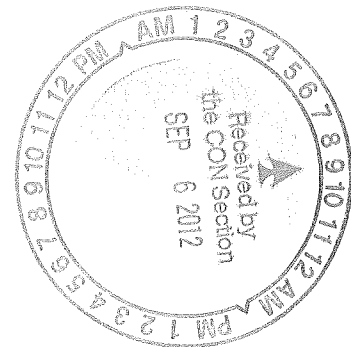
* Includes inpatient and outpatient procedures.
Source: Division of Facility Services Annual License Renewal Application.



Line

September 4, 2012

Ms. Jane Rhoe-Jones
Project Analyst, Certificate of Need Section
Division of Health Service Regulation
North Carolina Department of Health & Human Services
2704 Mail Service Center
Raleigh, NC 27696-2704



Re: Request for Confirmation of Exemption from CON
Lenoir Memorial Hospital/Lenoir County.FID#933304

Dear Ms. Rhoe-Jones:

Lenoir Memorial Hospital (LMH) acquired fixed cardiac catheterization equipment and provided cardiac catheterization services between July 1, 1987 and March 17, 1993, as documented in Table 9R on page 142 of the 2008 State Medical Facilities Plan (SMFP). Pursuant to the CON law in effect between July 1, 1987 through March 17, 1993, a certificate of need (CON) was not required *per se* to acquire cardiac catheterization equipment and LMH did not obtain a CON related to the acquisition and operation of the cardiac catheterization lab. Please note that comparable table (Table 9M) from 2012 SMFP does not pre-date 1993; however, it does show that Lenoir Memorial Hospital has continuously offered fixed cardiac catheterization services for the respective time frame covered in that report. The room currently used was constructed in 1988, and thus pre-dates March 1993 by several years. In fact, Table 8-A of the 1994 SMFP shows that Lenoir Memorial Hospital has provided cardiac catheterization services continuously since 1990. Thus, LMH believes that the CON Section does not have authority to regulate the use of LMH's cardiac catheterization equipment, including the use of its equipment to perform interventional (therapeutic) procedures without on-site open heart surgery back up, since LMH acquired cardiac catheterization equipment and began providing cardiac catheterization services without obtaining a certificate of need, consistent with CON law, and has continued to provide cardiac catheterization services since 1990. This interpretation is consistent with the CON Section's treatment of other hospitals in North Carolina as supported in Table 9P of the 2012 SMFP which shows that at least three hospitals, which began providing catheterization services in the 1987 to 1992 time period, performed interventional (therapeutic) procedures in

2010 without on site open heart surgery. Further, that number increased to six hospitals in 2011 as indicated in Table 9V of the draft 2013 SMFP. Please see the attached pages for the documentation described above.

This letter is to request written confirmation from the CON Section that LMH is not restricted by CON law from performing interventional (therapeutic) cardiac catheterization procedures in its cardiac catheterization lab without on-site open heart surgery back up.

If you have any questions, please do not hesitate to call me at 252-522-7041.

Regards,

A handwritten signature in cursive script that reads "James C. Cullen". The signature is written in black ink and is positioned below the "Regards," text.

James C. Cullen, CHFM
Director, Engineering Services

Enclosures

Cc: Gary Black, CEO Lenoir Memorial Hospital

Gary Qualls, K & L Gates

Table 9R from 2008 SMFP

Table 9R: Adult Diagnostic Fixed Cardiac Catheterization Procedures by Facility* and Aggregate Cardiac Catheterization Totals

Facility	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2008
Alamance Regional	--	--	--	--	690	828	931	994	1,226	1,126	920	892	919	920	897
Albemarle Hospital	--	--	--	--	--	--	645	1,244	703	1,078	1,110	787	674	630	756
Cape Fear Valley	465	549	546	581	741	1,102	1,127	1,254	504	1,313	1,490	2,048	2,356	2,584	2,426
Cardiac Diag Ctr.-Wake	--	--	--	--	--	600	569	472	548	365	317	--	--	--	--
Carolinas Med. Ctr.	5,472	5,195	5,555	4,510	4,284	4,331	4,334	4,335	5,152	5,400	5,260	4,681	4,032	3,824	4,166
Catawba Valley	346	388	398	343	359	398	470	478	624	624	596	503	493	498	443
Cleveland Regional	--	211	670	146	390	418	556	615	561	579	629	700	417	597	457
CMC - Mercy	1,915	1,439	1,503	1,400	1,472	1,675	1,607	2,283	1,840	1,813	1,489	1,651	1,331	1,388	1,195
CMC-University	--	--	--	--	--	--	--	--	--	--	--	--	--	245	205
CMC - Union	--	--	98	350	484	469	570	760	687	822	705	723	753	788	779
Craven Regional	355	357	604	975	1,199	1,220	1,360	1,353	1,576	1,504	1,588	1,368	1,565	1,629	1,526
Davis Medical	238	215	215	216	251	241	348	412	421	448	405	342	370	446	363
Duke Health Raleigh	--	--	--	--	--	--	--	--	--	--	--	--	--	1288	202
Duke University	4,358	4,033	3,615	4,939	3,154	4,075	4,558	4,025	4,759	4,949	5,239	5,513	5,574	6,825	5,337
Durham Regional	768	631	765	582	755	823	904	937	724	551	823	835	873	1096	1019
Forsyth Medical Center	2,176	2,279	2,291	2,499	2,659	2,753	2,253	2,614	3,090	4,046	5,024	6,092	6,075	5,429	3,310
Frye Regional	827	1,213	1,329	1,938	1,855	1,963	1,996	2,063	2,348	2,643	2,489	2,664	2,624	2,736	3,078
Gaston Memorial	--	--	--	--	--	629	1,129	1,602	2,010	2,104	1,959	1,775	2,145	2,224	2,388
Haywood Reg.	--	--	--	--	--	110	176	140	169	263	213	239	167	301	208
High Point Reg.	748	939	1,127	1,451	1,413	1,550	1,960	1,946	1,985	1,860	2,070	2,123	2,181	2,032	1,997
Iredell Memorial	500	1,274	426	453	480	614	668	507	579	686	704	708	762	569	743
Johnston Memorial	--	--	--	--	--	--	--	--	--	--	--	--	--	1057	1032
Lake Norman Regional	--	--	--	--	--	--	--	--	--	--	--	--	--	204	211
Lenoir Memorial	321	321	346	382	460	539	542	596	533	580	616	650	366	555	408
Mission Hospitals	3,571	3,051	2,794	3,106	3,590	3,638	3,838	3,739	3,811	4,136	3,669	3,322	4,348	4,210	4,316
FirstHealth Moore	1,058	1,125	1,257	1,622	1,763	1,990	2,490	2,660	2,618	2,683	2,873	2,906	3,457	3,490	3,490
Moses Cone Health**	4,070	4,140	4,443	4,633	4,754	4,223	4,927	5,167	5,264	5,603	5,643	6,855	7,238	5,937	3,000
N. C. Baptist	3,141	2,772	2,667	3,525	2,543	2,898	2,779	2,679	2,548	2,295	2,103	2,134	2,076	2,004	1,782
Nash General	377	363	494	670	851	892	916	1,112	1,045	1,356	1,507	1,627	1,216	1,155	1,015
New Hanover Reg.	1,637	1,702	1,807	2,164	2,491	2,590	2,666	2,682	3,209	3,373	3,380	3,583	3,867	3,943	2,669
NorthEast Medical	598	743	1,077	1,243	1,426	1,067	955	1,037	1,206	1,391	1,284	1,333	1,629	1,374	1,008
Onslow Memorial	--	--	29	340	463	238	432	629	636	706	459	372	270	118	95
Pitt County	3,781	2,859	3,485	3,912	3,990	3,506	3,279	2,990	3,095	3,080	4,636	4,912	5,081	4,033	3,301
Presbyterian Hospital	2,772	3,004	3,095	3,322	3,492	3,516	3,537	3,200	2,229	2,359	2,568	2,562	2,137	2,248	2,168
Presbyterian-Matthews	--	--	--	--	--	--	--	--	--	531	515	528	468	461	500
Rex Hospital	1,364	1,507	1,625	1,690	1,912	2,078	2,365	2,416	3,141	3,254	2,846	2,207	2,041	1,923	2,086
Rowan Reg. Med. Ctr.	350	311	415	563	546	529	667	644	676	617	725	776	437	425	328
Southeastern Reg.	585	651	751	777	908	951	930	916	1,017	1,073	915	796	972	827	652
Stanly Memorial	--	150	192	249	272	255	264	234	235	170	288	312	251	144	138
UNC Hospitals	1,274	1,722	1,594	1,258	1,740	1,794	1,682	1,703	2,084	2,075	1,510	1,328	1,673	2,114	2,168
WakeMed	3,187	3,253	3,508	3,835	4,409	4,190	4,400	4,356	3,920	4,344	4,353	4,775	5,082	5,420	5,536
WakeMed Cary	--	--	--	--	--	--	--	--	--	--	--	--	--	498	401
Wayne Memorial	--	--	--	290	321	269	310	318	321	512	558	558	528	529	413
Wilkes Regional	--	--	--	--	--	--	179	166	161	69	97	78	107	70	46
Wilson Medical	414	288	365	435	519	535	483	466	455	502	553	678	606	653	571
Sub-Total															
Fixed Adult	46,027	46,685	49,086	53,819	56,636	59,498	64,002	65,744	67,710	72,883	74,128	76,136	77,161	79,641	68,829
Pediatric	798	644	488	645	730	630	580	557	543	634	634	734	594	664	760
Sub-Total															
Fixed Adult/Ped.	46,825	47,312	49,574	54,464	57,366	60,128	64,617	66,301	68,253	73,517	74,762	76,870	77,755	80,305	69,589
Mobile Units	2,582	3,243	3,583	3,346	3,477	3,672	3,140	3,432	5,172	4,779	4,406	4,291	3,048	4,357	4,967
Grand Total	49,407	50,555	53,157	57,810	60,843	63,800	67,757	69,733	73,425	78,296	79,168	81,161	82,803	84,662	74,556

Source: NC Division of Health Service Regulation Annual Hospital License Renewal Applications

*Includes inpatient and outpatient proc **Wesley Long Community Hospital's data through 1997 reported under Moses Cone Health

Table 9M from 2012 SMFP

Table 9M: Adult Diagnostic Fixed Cardiac Catheterization Procedures* by Facility and Aggregate Cardiac Catheterization Totals

Facility	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Alamance Regional	690	828	931	994	1,226	1,126	920	892	919	920	897	887	947	909	978
Albemarle Hospital	--	--	645	1,244	703	1,078	1,110	787	674	630	756	1,104	948	860	789
Caldwell Memorial	--	--	--	--	--	--	--	--	--	--	--	see mobile	587	331	190
Cape Fear Valley	741	1,102	1,127	1,254	504	1,313	1,490	2,048	2,356	2,584	2,426	1,150	1,606	1,815	1,637
Cardiovascular Diagnostic Center	--	--	--	--	--	--	--	--	--	--	--	--	--	992	970
Cardiac Diagnostic Center	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Wake	--	600	569	472	548	365	317	--	--	--	--	--	--	--	--
Carolina Medical Center	4,284	4,331	4,334	4,335	5,152	5,400	5,260	4,681	4,032	3,824	4,166	4,105	4,299	4,307	3,864
Catawba Valley	399	398	470	478	624	624	596	503	493	498	443	461	408	369	282
Cleveland Regional	390	418	556	615	561	579	629	700	417	597	457	425	390	396	333
CMC - Meriv	1,472	1,675	1,607	2,283	1,840	1,813	1,489	1,651	1,331	1,388	1,195	1,428	1,026	1,277	1,455
CMC-University	--	--	--	--	--	--	--	--	--	245	205	207	222	153	121
CMC - Union	484	469	570	760	687	822	705	723	753	788	779	619	413	379	489
CarolinaFiset Medical Center	1,199	1,220	1,360	1,353	1,576	1,504	1,588	1,368	1,565	1,629	1,526	1,421	1,329	1,429	1,570
Davis Medical	251	241	348	412	421	448	405	342	370	446	363	328	295	258	153
Duke Raleigh Hospital	--	--	--	--	--	--	--	--	--	1288	202	325	244	588	806
Duke University	3,154	4,075	4,558	4,025	4,759	4,949	5,239	5,513	5,574	6,825	5,337	3,700	4,220	3,577	3,803
Durham Regional	755	823	904	937	724	551	823	835	873	1096	1019	735	637	672	544
Forsyth Medical Center	2,659	2,753	2,253	2,614	3,090	4,046	5,024	6,092	6,075	5,429	3,910	3,435	2,811	2,876	2,541
Frye Regional	1,855	1,963	1,996	2,063	2,348	2,643	2,489	2,664	2,624	2,736	3,078	3,125	3,226	3,041	2,886
Gaston Memorial	--	629	1,129	1,602	2,010	2,104	1,959	1,775	2,145	2,224	2,388	2,147	2,243	2,281	2,035
Grace Hospital	--	--	--	--	--	--	--	--	--	--	--	see mobile	427	391	625
Greensboro Heart Center	--	--	--	--	--	--	--	--	--	--	--	see mobile	464	302	120
Halifax Regional Medical Center	--	--	--	--	--	--	--	--	--	--	--	--	--	83	95
Haywood Regional	--	110	176	140	169	263	213	239	167	301	208	286	151	171	276
High Point Regional	1,413	1,550	1,960	1,946	1,985	1,860	2,070	2,123	2,181	2,032	1,997	1,929	5,158	2,099	2,027
Iredell Memorial	480	614	668	507	579	686	704	708	762	569	743	466	445	571	617
Johnston Memorial	--	--	--	--	--	--	--	--	--	1057	1032	864	826	442	472
Lake Norman Regional	--	--	--	--	--	--	--	--	--	204	211	178	156	126	77
Lenoir Memorial	460	539	542	596	533	580	616	650	366	555	408	471	430	357	439
Margaret R. Pardee Memorial	--	--	--	--	--	--	--	--	--	--	--	see mobile	179	163	168
Mission Hospital	3,590	3,638	3,838	3,739	3,811	4,136	3,669	3,322	4,348	4,210	4,316	4,405	3,557	3,345	3,188

Table 9M: Adult Diagnostic Fixed Cardiac Catheterization Procedures* by Facility and Aggregate Cardiac Catheterization Totals

Facility	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FirstHealth Moore	1,763	1,990	2,490	2,660	2,618	2,683	2,873	2,906	3,457	3,490	3,490	3,294	3,364	3,559	3,408
Moses Cone Health**	4,754	4,223	4,927	5,167	5,264	5,603	5,643	6,855	7,238	5,937	3,000	2,945	2,964	2,772	2,736
N. C. Baptist	2,543	2,898	2,779	2,679	2,548	2,295	2,103	2,134	2,076	2,004	1,782	1,790	1,652	1,642	1,454
Nash General	851	892	916	1,112	1,045	1,356	1,507	1,627	1,216	1,155	1,015	967	882	754	709
New Hanover Regional	2,491	2,590	2,666	2,682	3,209	3,373	3,380	3,583	3,867	3,943	2,669	2,719	2,728	2,826	2,784
CMC-NorthEast	1,426	1,067	955	1,037	1,206	1,391	1,284	1,533	1,629	1,574	1,008	963	797	865	890
Onslow Memorial	463	238	432	629	636	706	459	372	270	118	95	104	29	45	16
Pitt County	3,990	3,506	3,279	2,990	3,095	3,080	4,636	4,912	5,081	4,033	3,301	3,467	2,428	2,654	2,828
Presbyterian Hospital	3,492	3,516	3,537	3,200	2,229	2,359	2,568	2,562	2,137	2,248	2,168	1,810	1,534	1,531	1,589
Presbyterian-Matthews	--	--	--	--	--	531	515	528	468	461	500	457	415	499	472
Randolph Hospital	--	--	--	--	--	--	--	--	--	--	--	see mobile	76	7	2
Rex Hospital	1,912	2,078	2,365	2,416	3,141	3,254	2,846	2,207	2,041	1,923	2,086	1,966	1,901	1,863	1,558
Rowan Regional Medical Center	546	529	667	644	676	617	725	776	437	425	328	362	436	384	408
Rutherford Hospital	--	--	--	--	--	--	--	--	--	--	--	see mobile	81	42	20
Southeastern Regional	908	951	930	916	1,017	1,073	915	796	972	827	652	957	830	813	598
Stanly Memorial	272	255	264	234	235	170	288	312	251	144	138	57	19	29	23
UNC Hospitals	1,740	1,794	1,682	1,703	2,084	2,075	1,510	1,328	1,673	2,114	2,168	1,995	1,859	1,758	1,886
WakeMed	4,409	4,190	4,400	4,356	3,920	4,344	4,353	4,775	5,082	5,420	5,536	5,262	5,410	5,402	5,702
WakeMed Cary	--	--	--	--	--	--	--	--	--	498	401	406	384	304	368
Watauga Medical Center	--	--	--	--	--	--	--	--	--	--	--	93	148	99	28
Wayne Memorial	321	269	310	318	321	512	558	558	528	529	413	346	293	362	258
Wilkes Regional	--	--	179	166	161	69	97	78	107	70	46	34	5	0	0
Wilmington Heart Center	--	--	--	--	--	--	--	--	--	--	--	see mobile	1,227	977	916
Wilson Medical	519	596	483	466	455	502	553	678	606	653	571	464	396	412	361
Sub Total	56,636	59,498	64,002	65,744	67,710	72,883	74,128	76,136	77,161	79,641	68,829	64,659	67,542	64,161	62,564
Fixed Adult	730	630	580	557	543	634	634	734	594	664	760	676	640	686	574
Pediatric	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fixed Adult/Ped.	57,366	60,128	64,617	66,301	68,253	73,517	74,762	76,870	77,755	80,305	69,589	65,335	68,182	64,847	63,138
Mobile Units	3,477	3,672	3,140	3,432	5,172	4,779	4,406	4,291	5,048	4,357	4,967	5,318	1,527	1,529	1,718
Grand Total	60,843	63,800	67,757	69,733	73,425	78,296	79,168	81,161	82,803	84,662	74,556	70,653	69,709	66,376	64,856

Source: North Carolina Division of Health Service Regulation Annual Hospital License Renewal Applications

* Includes inpatient and outpatient procedures

** Wesley Long Community Hospital's data through 1997 reported under Moses Cone Health

Table 8A from 1994 SMFP

Table 8-A
SPECIALIZED CARDIAC SERVICES
CARDIAC CATHETERIZATION PROCEDURES
N. C. HOSPITALS, 1981-1992

Facility	1981		1982		1983		1984		1985		1986		1987		1988		1989		1990		1991		1992	
	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.	Adult	Ped.
Carollinas Med. Ctr.	3388	4185	3617	4050	4518	110	3818	98	3480	48	4851	114	8060	182	5200	250	5472	258						
N. C. Baptist	1584	1594	1785	1989	2258	121	2485	99	2987	103	3129	87	3385	130	3122	122	3141	147						
Duke	1330	1427	1893	2273	2994	166	4686	242	5643	239	6087	245	5912	202	5124	235	4999	207						
UNC Hospitals	735	596	878	725	641	122	1090	95	1379	88	1388	129	1298	129	1364	158	1274	164						
Pitt County	333	410	475	584	925	30	1195	128	1621	84	2558	47	3231	59	3510	36	3781	24						
Mercy	1228	1162	1001	1084	935	1344	1432	1716	1608	1482	1688	1787	1815	1815	1815	1815	1815	1815						
Wake Med. Ctr.	1065	1199	1335	2088	2554	3199	3199	3775	3101	2982	4236	2984	3368	3035	3035	3035	3035	3035						
Moses Cone	716	687	1103	1495	1762	2494	1800	2187	3101	2982	2982	2473	2500	2500	2500	2500	2500	2500						
Memorial Mission	629	781	959	1057	1621	186	186	225	314	324	2364	457	2105	2105	2105	2105	2105	2105						
High Point	67	71	190	349	398	1028	864	1184	1184	2082	3085	3854	3854	3218	3218	2772	2772	2772						
Forsyth Memorial																								
Presbyterian																								
Frys Regional																								
Moore Regional																								
New Hanover																								
Cape Fear Valley																								
Durham County																								
Craven County																								
Rox																								
Wesley Long																								
Catawba																								
Nash																								
Iredell																								
Wilson																								
Davidson																								
Cabarrus																								
Lenoir																								
Rowan Memorial																								
Southeastern Gen.																								
Mobile Units																								
TOTALS *	11093	12082	13624	15650	18688	568	24712	862	31191	580	35765	622	44236	682	47170	801	51085	788						

* Includes inpatient and outpatient procedures.
Source: Division of Facility Services Annual License Renewal Application.

Table 9P from 2012 SMFP

**Table 9P: Percutaneous Transluminal Coronary
Angioplasty (PTCA) Interventional Procedures**

Hospital	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Alamance Regional	143	103	99	123	163	140	120	201	179	240
Albemarle Hospital	--	--	--	63	31	--	--	--	--	--
Cape Fear Valley Medical Center	339	415	437	659	747	613	417	1,262	996	1,010
Carolinas Medical Center	1,724	1,784	2,509	1,999	1,791	1,847	1,817	1,756	1,706	1,851
CMC Mercy-Pineville	698	660	633	634	554	516	529	175	143	173
Catawba Valley Medical Center	98	61	92	79	92	86	119	85	103	93
CarolinaEast Medical Center	532	567	510	570	586	501	570	504	501	658
Duke Raleigh Hospital	--	--	--	--	--	--	18	10	104	92
Duke University Hospital	1,594	1,655	1,871	1,724	1,845	1,618	1,498	1,840	1,550	1,807
Durham Regional Hospital	374	375	364	217	78	293	237	281	281	287
First Health Moore Regional	1,207	1,284	1,422	1,671	1,759	1,880	1,845	1,439	1,584	1,620
Forsyth Medical Center	1,787	2,246	2,838	2,632	1,860	1,627	1,593	1,652	1,595	1,463
Frye Regional Medical Center	836	970	1,107	1,057	1,061	1,300	1,487	1,289	1,217	1,180
Gaston Memorial	613	1,170	990	1,233	778	837	719	832	795	740
Grace Hospital	--	--	--	--	--	--	--	--	1	97
High Point Regional Hospital	1,426	1,547	1,638	1,762	1,060	856	998	852	1,973	1,843
Iredell Memorial Hospital	--	--	--	--	--	--	--	--	139	108
Johnston Memorial Hospital	--	--	--	--	--	--	--	--	13	0
Mission Hospital	1,166	1,237	1,211	1,326	1,376	1,482	1,347	1,489	1,356	1,370
Moses Cone	1,789	1,808	1,944	1,855	1,712	1,850	1,546	1,303	1,298	1,443
N. C. Baptist Hospital	1,598	1,600	1,389	1,383	1,407	1,380	1,105	1,066	850	893
New Hanover Reg. Med. Center	1,242	1,318	1,217	1,571	1,846	1,889	1,983	2,110	2,119	2,204
CMC-Northeast Medical Center	433	411	629	597	686	719	631	705	687	770
Pitt County Memorial	1,637	1,838	2,101	2,124	1,807	1,481	1,611	1,398	1,380	1,456
Presbyterian Hospital	1,696	1,758	1,850	1,917	1,864	1,541	1,400	1,361	1,392	1,543
Presbyterian Hosp-Matthews	--	--	--	--	3	--	--	60	38	64
Rex Hospital	1,181	984	1,215	1,237	1,128	1,102	960	980	929	825
Rowan Reg. Med. Center	--	--	--	--	--	--	26	60	181	126
Southeastern Regional Medical Center	--	--	--	--	--	--	132	219	214	186
UNC Hospitals	327	488	536	549	674	632	733	836	795	866
WakeMed	2,685	3,011	3,427	3,787	3,751	3,521	3,654	3,944	3,832	3,952
WakeMed Cary	--	--	--	2	0	2	7	5	12	8
TOTAL	25,125	27,290	30,029	30,771	28,659	27,713	27,102	27,714	27,963	28,968

Source: Division of Health Service Regulation Annual License Renewal Application

Table 9V from 2013 SMFP

**Table 9V: Percutaneous Transluminal Coronary
Angioplasty (PTCA) Interventional Procedures**

Hospital	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Alamance Regional	103	99	123	163	140	120	201	179	240	170
Albemarle Health: A Vidant Partner in Health	--	--	63	31	--	--	--	--	--	--
Cape Fear Valley Medical Center	415	437	659	747	613	417	1,262	996	1,010	1,054
Carolinas Medical Center	1,784	2,509	1,999	1,791	1,847	1,817	1,756	1,706	1,851	1,628
CMC Meroy-Pineville	660	633	634	354	516	529	175	143	173	473
CMC-Union	--	--	--	--	--	--	--	--	--	42
Catawba Valley Medical Center	61	92	79	92	86	119	85	103	93	84
CarolinaEast Medical Center	567	510	570	586	501	570	504	501	658	787
Davis Regional										73
Duke Raleigh Hospital	--	--	--	--	--	18	10	104	92	126
Duke University Hospital	1,655	1,871	1,724	1,845	1,618	1,498	1,840	1,550	1,807	1,606
Durham Regional Hospital	375	364	217	78	293	237	281	281	287	284
First Health Moore Regional	1,284	1,422	1,671	1,739	1,880	1,845	1,439	1,584	1,620	1,379
Forsyth Medical Center	2,246	2,838	2,632	1,860	1,627	1,593	1,652	1,595	1,463	1,277
Frye Regional Medical Center	970	1,107	1,057	1,061	1,300	1,487	1,289	1,217	1,180	1,120
Gaston Memorial	1,170	990	1,233	778	837	719	832	795	740	609
Graco Hospital	--	--	--	--	--	--	--	1	97	52
High Point Regional Hospital	1,547	1,638	1,762	1,060	856	998	852	1,973	1,843	1,716
Iredell Memorial Hospital	--	--	--	--	--	--	--	139	108	324
Johnston Memorial Hospital	--	--	--	--	--	--	--	13	0	0
Mission Hospital	1,237	1,211	1,326	1,376	1,482	1,347	1,489	1,356	1,370	1,376
Moses Cone	1,808	1,944	1,855	1,712	1,850	1,546	1,303	1,298	1,443	1,351
N. C. Baptist Hospital	1,600	1,389	1,383	1,407	1,380	1,105	1,066	850	893	982
Nash General	--	--	--	--	--	--	--	--	--	134
New Hanover Reg. Med. Center	1,318	1,217	1,571	1,846	1,889	1,983	2,110	2,119	2,204	2,189
CMC-Northeast Medical Center	411	629	597	686	719	631	705	687	770	766
Presbyterian Hospital	1,758	1,850	1,917	1,864	1,541	1,400	1,361	1,392	1,543	1,231
Presbyterian Hosp. Matthews	--	--	--	3	--	--	60	38	64	131
Rex Hospital	984	1,215	1,237	1,128	1,102	960	980	929	825	820
Rowan Reg. Med. Center	--	--	--	--	--	26	60	181	126	222
Southeastern Regional Medical Center	--	--	--	--	--	132	219	214	186	341
UNC Hospitals	488	536	549	674	632	733	836	795	866	830
Vidant Medical Center (Pitt)	1,838	2,101	2,124	1,807	1,481	1,611	1,398	1,380	1,456	1,361
WakeMed	3,011	3,427	3,787	3,751	3,521	3,654	3,944	3,832	3,952	3,772
WakeMed Cary	--	--	2	0	2	7	5	12	8	6
Wilson Medical Center										73
TOTAL	27,290	30,029	30,771	28,639	27,713	27,102	27,714	27,963	28,968	28,389

Source: Division of Health Service Regulation Annual Hospital License Renewal Application

rhoe-jones, jane e

From: Smith, Craig
Sent: Monday, December 10, 2012 3:40 PM
To: rhoe-jones, jane e
Subject: FW: Lenoir Memorial Hospital
Follow Up Flag: Follow up
Due By: Tuesday, December 11, 2012 10:30 AM
Flag Status: Red
Attachments: KLGATES1.pdf; KLGATES2.pdf; KLGATES3.pdf

Jane, here is some material concerning Lenoir's request.

Craig R. Smith

From: Hackney, Susan K. [mailto:susan.hackney@klgates.com]
Sent: Monday, December 10, 2012 1:52 PM
To: Smith, Craig
Cc: Qualls, Gary
Subject: RE: Lenoir Memorial Hospital

Craig,

My client, Lenoir Memorial Hospital, provided the attached information in response to your request. Please let me know if there is anything else you need.

Best,
Susan



Susan K. Hackney
Associate Attorney
K&L Gates LLP
Research Triangle Park Office
430 Davis Drive, Suite 400
Morrisville, NC 27560
Phone: 919-466-1195
Fax: 919-516-2025
susan.hackney@klgates.com
www.klgates.com

12/11/2012

From: Smith, Craig [mailto:craig.smith@dhhs.nc.gov]
Sent: Friday, December 07, 2012 10:51 AM
To: Hackney, Susan K.
Subject: RE: Lenoir Memorial Hospital

Susan, we are looking into it on our end, Does your client have any historical documents that support its request?

Craig R. Smith

From: Hackney, Susan K. [mailto:susan.hackney@klgates.com]
Sent: Friday, December 07, 2012 8:26 AM
To: Smith, Craig
Cc: Qualls, Gary
Subject: Lenoir Memorial Hospital

Craig,

I hate to bug you but our client, Lenoir Memorial Hospital, is anxious to receive an answer to their Exemption Request so that they can work towards providing these services. The Exemption Request, which was filed in September, sought confirmation that Lenoir Memorial Hospital is not restricted by the CON Law from performing interventional (therapeutic) cardiac catheterization procedures. Please let me know if you need a copy of the information that was provided or if you need additional information. Thanks for your help with this Request.

Best,
Susan



Susan K. Hackney
Associate Attorney
K&L Gates LLP
Research Triangle Park Office
430 Davis Drive, Suite 400
Morrisville, NC 27560
Phone: 919-466-1195
Fax: 919-516-2025
susan.hackney@klgates.com
www.klgates.com

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12/11/2012



JAMES E. TODD, CHAIRMAN

L. DANIEL DUVAL, JR., F.A.C.H.E., PRESIDENT

December 19, 1986

Mr. Bill Warren
Department of Human Resources
Division of Facility Services
701 Barbour Drive
Raleigh, NC 27603-2008

Dear Mr. Warren:

SUBJECT: Renovation Project - Installation of an L/U-A Vascular
Procedure Room in Radiology

We will soon be starting the renovation project noted above.

Enclosed you will find the drawings and specifications on the project along with the UL listing information on the equipment for your approval.

If you have any questions, please call me at 919-522-7042.

Sincerely,

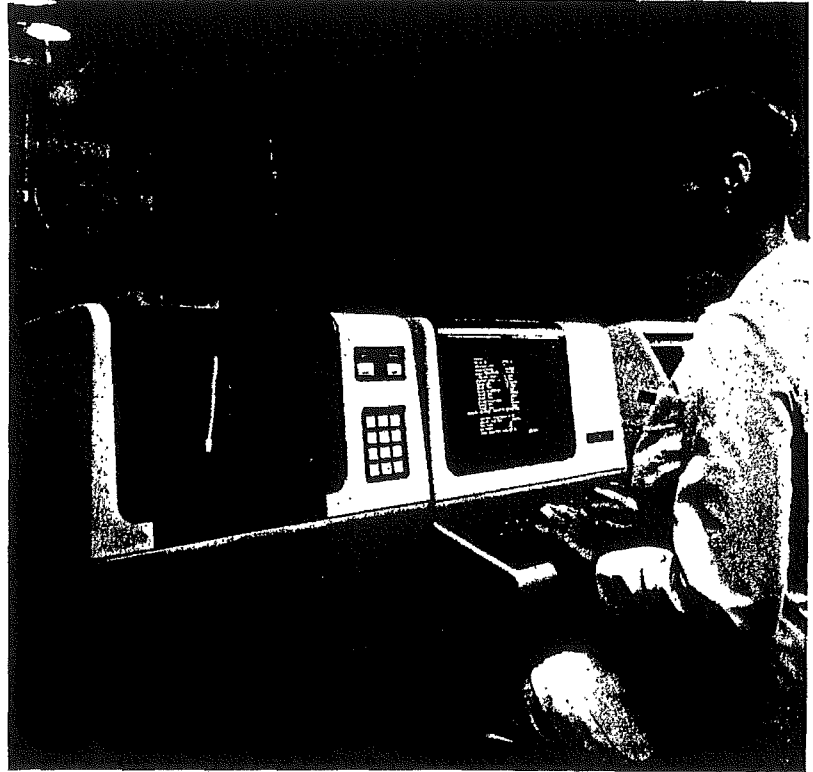
A handwritten signature in cursive script that reads "James W. Best, III".

James W. Best, III
Plant Engineer

JWB/jd
Enclosure
GE Specifications

APPLICATION

The Digital Fluoricon® 5000 system provides the capability to perform intravenous and intra-arterial angiographic procedures using a digital subtraction computational system.



Digital Fluoricon® 5000 System

PRODUCT DESCRIPTION

The Digital Fluoricon 5000 system components consist of:

- TV camera with 1000:1 signal-to-noise ratio.
- Digital/x-ray system interface which includes variable TV lens aperture to control brightness, and interfaces to a digital x-ray handswitch and power injector.
- Digital image processor which includes a digital video processor with eight full frame 512 x 512 x 12 bit image memories and a display controller with four full frame 512 x 512 x 12 bit image memories, two graphic planes and an alphanumeric plane.
- High-speed, high capacity digital disk which allows acquisition, subtraction and display of static images at rates up to 10 images/second, and acquisition, subtraction and display of dynamic images at rates up to 30 frames/second. Storage capacity of the digital disk is 1600 images.

- System controller terminal which displays acquisition protocols, listing of available protocols and fluoroscopic noise reduction filters (FNR). An alphanumeric keyboard allows editing of protocols, protocol selection and FNR filter selection.
- Operator's console which includes re-processing keys, alphanumeric keys for adding text to image, and multiformat camera controls.
- Multiformat camera capable of providing two image sizes for recording on 8" x 10", 11" x 14" or 14" x 17" transilluminated x-ray film.

PRODUCT FEATURES

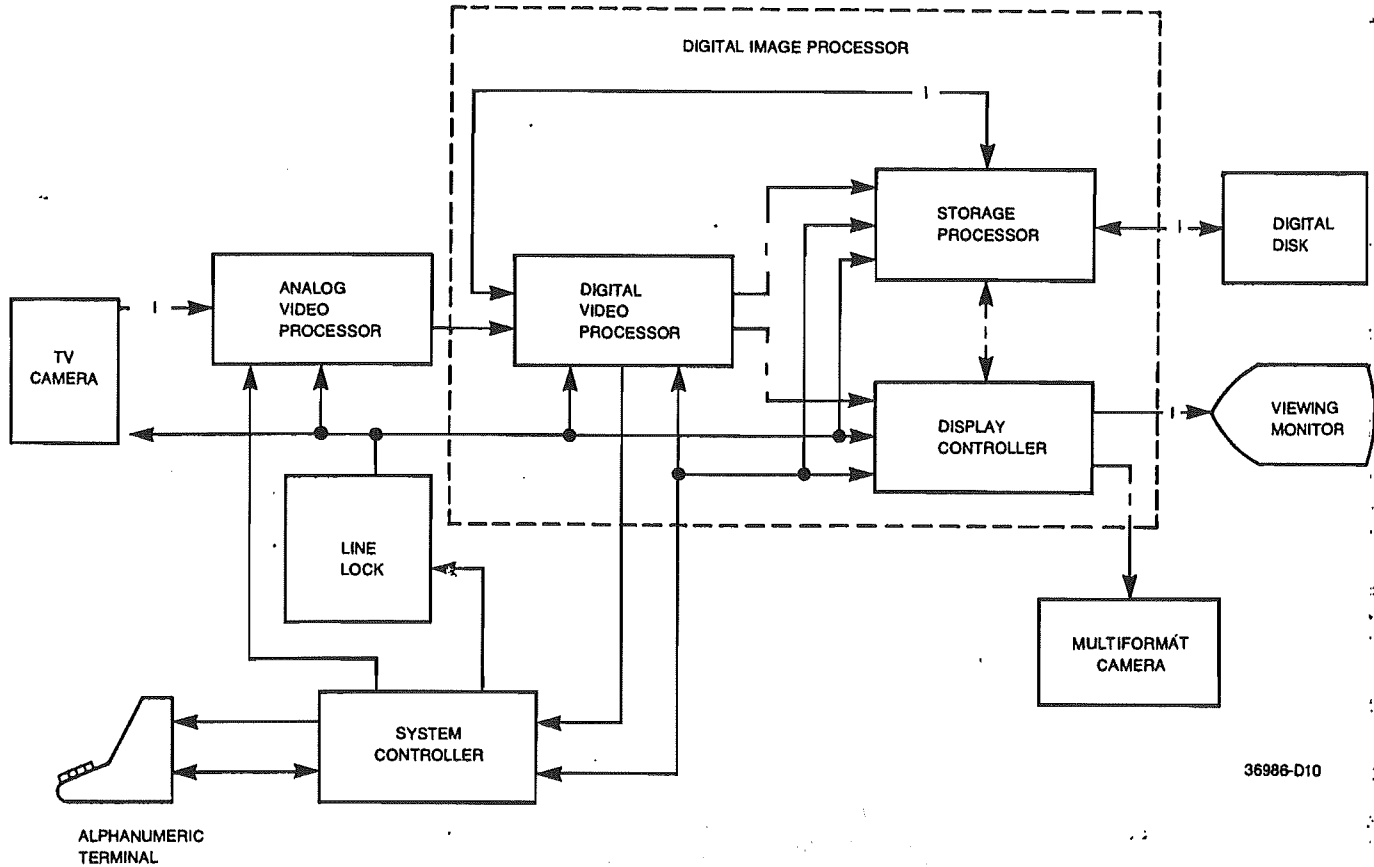
Acquisition Protocols:

- Ability to store up to 30 preprogrammed acquisition protocols.
- Ability to add, modify or delete protocols.
- Ability to vary the image acquisition rate at up to three different rates within the acquisition run.

Static Acquisition:

- Four selectable doses of 100, 250, 500 and 1000 μ R/exposure (measured at the image tube entrance plane).
- Ability to integrate up to 4 exposures per image during acquisition.
- Selectable acquisition rates from 0.2 to 10(8) images per second. Selectable mask image to run image delay from 1 to 45 seconds.
- Ability to trigger the x-ray exposure on the injection (primarily for IV procedures) or trigger the injection from the mask exposure (primarily for IA procedures).
- Ability to trigger injector by software control as initiated by the digital handswitch.
- Automatic x-ray technique calculation which provides a "tube rating chart" which calculates maximum run time based on selected protocol, kVp, mA, focal spot, and available heat units.
- Trial exposure capability performed at one-half the selected dose.

DIGITAL FLUORICON
60 HZ (50 HZ)



36986-D10

Digital Fluoricon 5000 Functional Block Diagram

- Automatic calculation and setting of the optimum TV aperture based on the trial exposure.
- Pulsed x-ray exposures at rates up to 10(8) images/second.
- Progressive TV camera readout with decoupling of exposure times from the TV frame rate, allowing exposure times down to 5 msec.
- Subtracted images are displayed on the monitor during acquisition, while un-subtracted images are stored on the digital disk.
- Ability to terminate image acquisition at any time, without waiting for completion of acquisition protocol.

Dynamic Acquisition:

- Ability to integrate from 1 to 32 frames to form the mask image.
- Ability to integrate up to 4 frames to form the run images.

- Variable image acquisition rates of 7.5 (6.25), 10 (8.33), 15 (12.5) and 30 (25) images/second.
- Ability to trigger x-ray exposure upon injection, or trigger the injection from the x-ray exposure.
- Selectable inject to mask or mask to inject delays from 0 to 45 seconds.
- Image acquisition consists of a single x-ray exposure with continuous, interlaced TV camera readout.
- Subtracted images are displayed on the monitor during acquisition while un-subtracted images are stored on the digital disk.

TECHNIQUE RANGES

Static Acquisition:

kV Range: 60 to 130 kVp
mA range/max. kW - 10 to 1250 mA/125 kW (MPX 125)

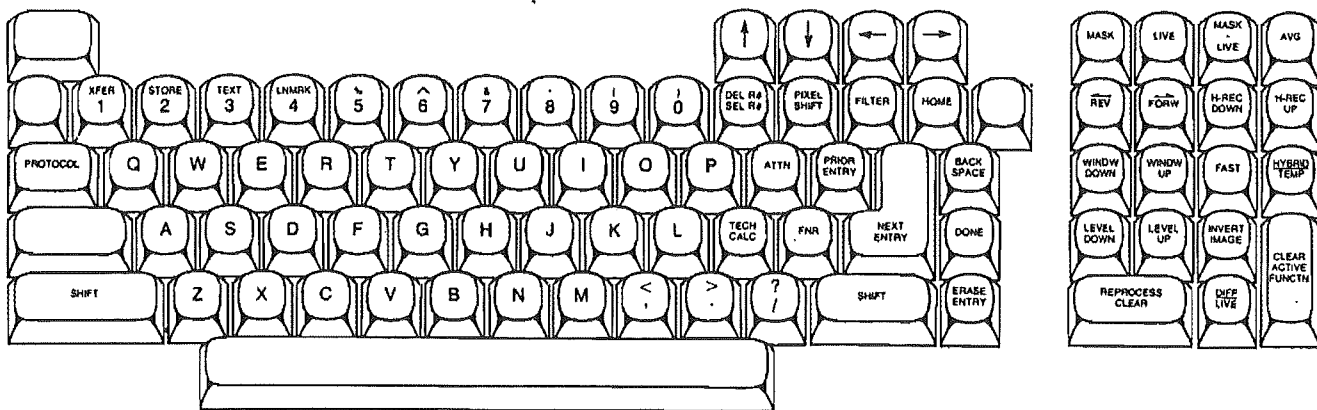
10 to 1000 mA/100 kW (MPX 100)
10 to 1000 mA/80 kW (MPX 80)
Exposure Time: 5 to 500 msec.

Dynamic Acquisition:

kV Range: 60 to 130 kVp
mA Range: 10 to 320 mA
Exposure Time: 200 msec. to 8 seconds (1600 mAs maximum)

REPROCESSING FEATURES

- Ability to review images within a run at rates up to 15 images/second in a continuous loop mode.
- Ability to vary the window and level display of the image.
- Ability to invert the image to display either "black bone" or "white bone" presentations.



Operator's Console Keyboard

- Ability to select an alternate mask and subtract all subsequent and previous images from the new mask.
- Ability to average from 1 to 64 images.
- Pixel re-registration capability which allows shifting of the mask image relative to the displayed image. Re-registration is allowed in horizontal and vertical directions in 1/8 pixel increments.
- Landmark display allows the addition of a portion of the mask image into the subtracted image to provide anatomical landmarks.
- Edge enhancement capability which provides three edge enhancement filters and the ability to vary the amount of enhancement on the image.
- Patient ID, patient name, run number, hospital name, date and acquisition parameters are automatically displayed on images.
- Image number, window, level, pixel shift parameters, filter parameters, landmark parameters may be automatically displayed. Selection of desired displays is performed during service setup.
- Ability to add text to the image. There are 26 lines containing 36 characters available for text.
- Ability to view an original image, before it has been reprocessed by averaging, landmark, pixel re-registration or filter functions. Pressing the "home" key allows assessment of original image and release of the "home" key returns the image to the reprocessed state.
- Ability to display unsubtracted images.
- Images that have been reprocessed with pixel re-registration, averaging, edge enhancement and/or text addition can be stored on the digital disk. Up to 100 images can be stored.

FLUOROSCOPIC NOISE REDUCTION

Provides temporal filtering during low dose (Fluoroscopic) operation.

- Three (low, medium, high) degrees of filtering are available.
- Resultant images may be recorded on video tape.

Compatibilities:

- L/U-A
 - MPX 80, 100, 125 phase 5 generators (hybrid is not compatible with MPX-80)
 - FL/L300 phase 2 or FL/L500 9" or 12" image intensifiers.
 - Recommended x-ray tube: MX 125, .3bg/.9g/1.0 10 deg.
- RFX/SFX
 - MPX 80, 100, 125 phase 5 generators (hybrid is not compatible with MPX-80)
 - FL/L300 phase 2 or FL/L500 9" or 12" image intensifiers.
 - Recommended x-ray tube: MX 100, .6/1.5, 12.5 deg.
- L/U-C
 - MPX 80, 100, 125 phase 5 generators.
 - FL/L300 phase 2 or FL/L500 image intensifiers.
 - Recommended x-ray tube: MX 100, .5g/.9g 6.5 deg.

OPTIONAL COMPONENTS

- Magnetic Tape Storage — Allows permanent storage of digital images on magnetic tape.
- Shared Room — Provides the ability to share the electronics cabinet, multi-format camera and operator's station with two General Electric vascular or R & F systems (see compatibility section). An optional second operator's station is also available.
- Hybrid dual energy imaging — the ability to acquire, display and store images employing a single dual energy exposure set per image. Images are acquired using progressive TV readout and low energy subtracted images are displayed during acquisition while both low and high energy unsubtracted images are stored on the digital disk. The hybrid reprocessing capability allows removal of soft tissue to minimize motion artifacts.

DF Electronics Cabinet

Heat Dissipation: 16,400 BTU/hr.
Weight: 1100 lbs. (489 kg)
Dimensions: 33" deep x 46" wide x 70" high (83.8 cm x 116.9 cm x 177.9 cm).

NOTE: Support legs extend out another 12" towards the front.

Voltage: 240 VAC
Current: 30 amp
Frequency: 60 Hz, ± 0.5 Hz or 50 Hz, ± 0.6 Hz
20 millihertz per second maximum rate of change.

All cables to Digital Fluoro Computer Cabinet are plug-ins at lower rear of cabinet.

Ambient Temperature:
— Operating: 59°F to 77°F
— Shipping: -40°F to 140°F

GENERAL ELECTRIC

TRADEMARK OF GENERAL ELECTRIC COMPANY U.S.A.

GENERAL ELECTRIC COMPANY MEDICAL SYSTEMS
MILWAUKEE, WISCONSIN 53201 U.S.A. TELEX 269679
COPENHAGEN • FRANKFURT • MADRID
TORONTO • LONDON

Peripherals to Digital Fluoro Computer Cabinet

Power Requirement: 4 amp, 117 VAC (50 or 60 Hz)

Heat Dissipation: 1640 BTU/Hr.

NOTE: All of these may not necessarily be in the same room as the Digital Fluoro Computer Cabinet. All peripherals are powered from the auxiliary power module (with the exception of magnetic tape, which is powered from the digital electronics cabinet).

Auxiliary Digital Fluoro System Power Module

NOTE: This supplies power to DF electronics cabinet and peripherals. Peripherals to the digital electronics cabinet, which are powered from the auxiliary power module, are switched by the digital electronics cabinet main power switch through the auxiliary power module.

Power Requirement: 10 kVa, 480 VAC (Tapped off one phase of 480 3-phase line) for 50 or 60 Hz.

Heat Dissipation: 3400 BTU/hr.

Weight: 300 lbs. (95.3 kg)

Dimensions: 17.4" deep x 22.4" wide x 36" high (44.1 cm x 56.9 cm x 91.4 cm).

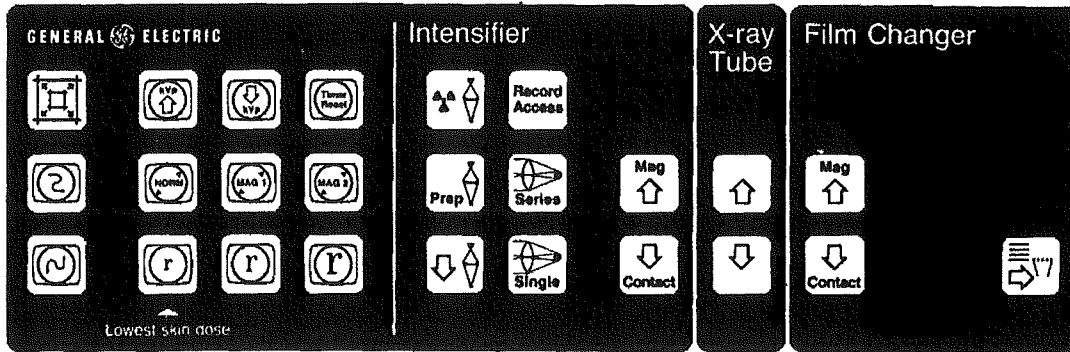
Ambient Temperature: 50°F — 113°F operating.

Relative Humidity: 80% maximum
Elevation: 8000 ft. maximum.

NOTE: Customer is to supply all grounds, and power wiring to auxiliary Digital Fluoro System Power Module from 3-phase line disconnect and from Digital Fluoro computer Cabinet. (Power line branch to be common to that serving the image system electronics cabinet.)

WARRANTY

The published Company warranty in effect at the date of shipment shall apply. Right reserved to make changes. During warranty, work will be performed by the company's service organization during normal business hours. Maintenance after normal business hours is available at an additional charge.



System Status Control

SPECIFICATIONS

Floor mounted isocentric unit consisting of L and U-arm assembly with interchangeable image intensifier and film changer.

#L-arm rotates on its vertical axis (+135°, -95° motorized limit set and the U-arm rotates ±100° motorized from a vertical position, allowing PA, lateral, oblique and hemi-axial views.

The L and U-arms permit up to 55° of cranial and caudal angulation of the film changer and imaging system depending on x-ray tube-to-tabletop distance used.

#SID range of 30.7 — 46.3" for film changer. Image Intensifier SID range of 27.8 — 55.4". 39.4" (100 cm) normal working SID, magnification and contact.

44" (112 cm) isocenter-to-floor distance.

Film changer magnification

- Isocentric 1.4X — 1.8X, PA and lateral
- Non-isocentric to approximately 2.6X, PA

- Non-isocentric to approximately 3X for lateral cerebral arteriography

Film changer contact at normal 39.4" (100 cm) SID non-isocentric, PA and lateral.

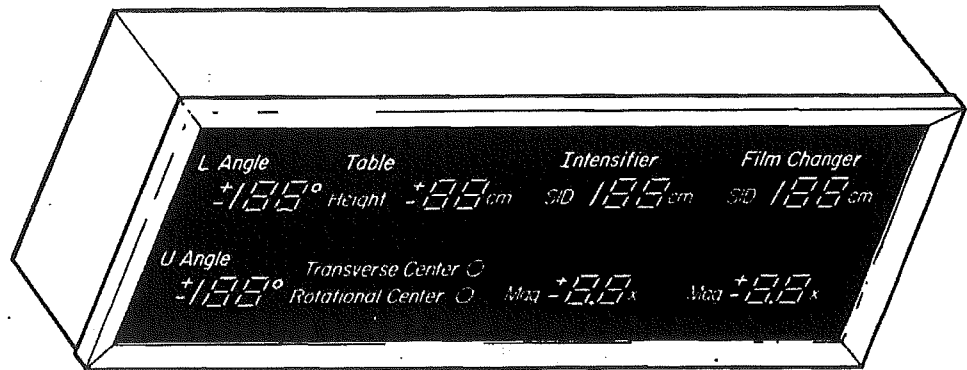
Synchronized x-ray tube and film changer movement provided to vary magnification at constant SID (nominally 39.4"/100 cm).

Independent movement of image intensifier, and x-ray tube.

#Motorized movement of intensifier, tube unit and changer may be manually overridden with approximately 15 lbs. of force.

Motorized image intensifier to film changer interchange in approximately 5 seconds with constant image plane height.

#Motorized L and U movement at 7.5°/second for the L-arm and 9°/second for the U-arm.



Digital Display

Designed for use with the Omega II Vascular Table with or without Stepper.

Biplane image intensifier compatibility with MLX.

Biplane film changer compatibility.

Optional Film Changer Interconnect Panel mounts in the table base to minimize floor draping of film changer interconnect cables and permits quick disconnect of the film changer. Compatible with single and biplane AOT-S or Puck Film Changers. One additional inter-connected cable per changer is required from the table base to changer.

L/U-A Control provides tableside control of image intensifier and film changer functions including motorized positioning and interchange of Intensifier and film changer. Indication of SID and magnification factors for film changer and intensifier geometry is provided via the separately mounted Digital Display Module.

#The Multi-Axis Operator Control attaches to the tabletop rails and provides control for the L and U-arm motions, tabletop lock releases and tabletop height. The Multi-Axis Operator Control features one hand control of all L and U-arm motions.

OPTIONAL COMPONENTS

Radiation Shield: Ceiling mounted, moveable radiation shield provides a significant reduction in radiation to the physicians eyes and thyroid.

Integrated Lateral Film Changer: Mounts within the "U" arm, provided with rotational controls — CW and CCW, Level Indicator, and approximately +3" (7.62 cm), -2" (5.08 cm) of vertical movement from isocenter.

RELATED PUBLICATIONS

Installation Manual SM B5080
Operating Manual OM B5080

STANDARD LISTING

B5080D Basic L/U-A

#MANDATORY RELATED ITEMS

B5007 Puck U D Film Changer
B5032 Omega II Angiographic Table

B5007 SEP Programmer
B5080 L/U-A Control
B5050 L/U Collimator
B5080 L/U Cable Suspension
B5080 L/U-A Installation Kit
B5080 Digital Display Module
B5031 Multi-Axis Operator Control
B5080 L/U-A Installation Kit

#OPTIONAL AND RELATED ITEMS

B5032 Omega II with Stepper
B5075AA Radiation Shield
B2056HB Suspension for Radiation Shield
B5080DA Radiation Shield Extension Arm for L/U-A
B5080AD Lateral Integral Film Changer Mount
#B5004E Puck U4-35 Film Changers

C2663EB Grid, focused, 12:1 Ratio for Film Changers

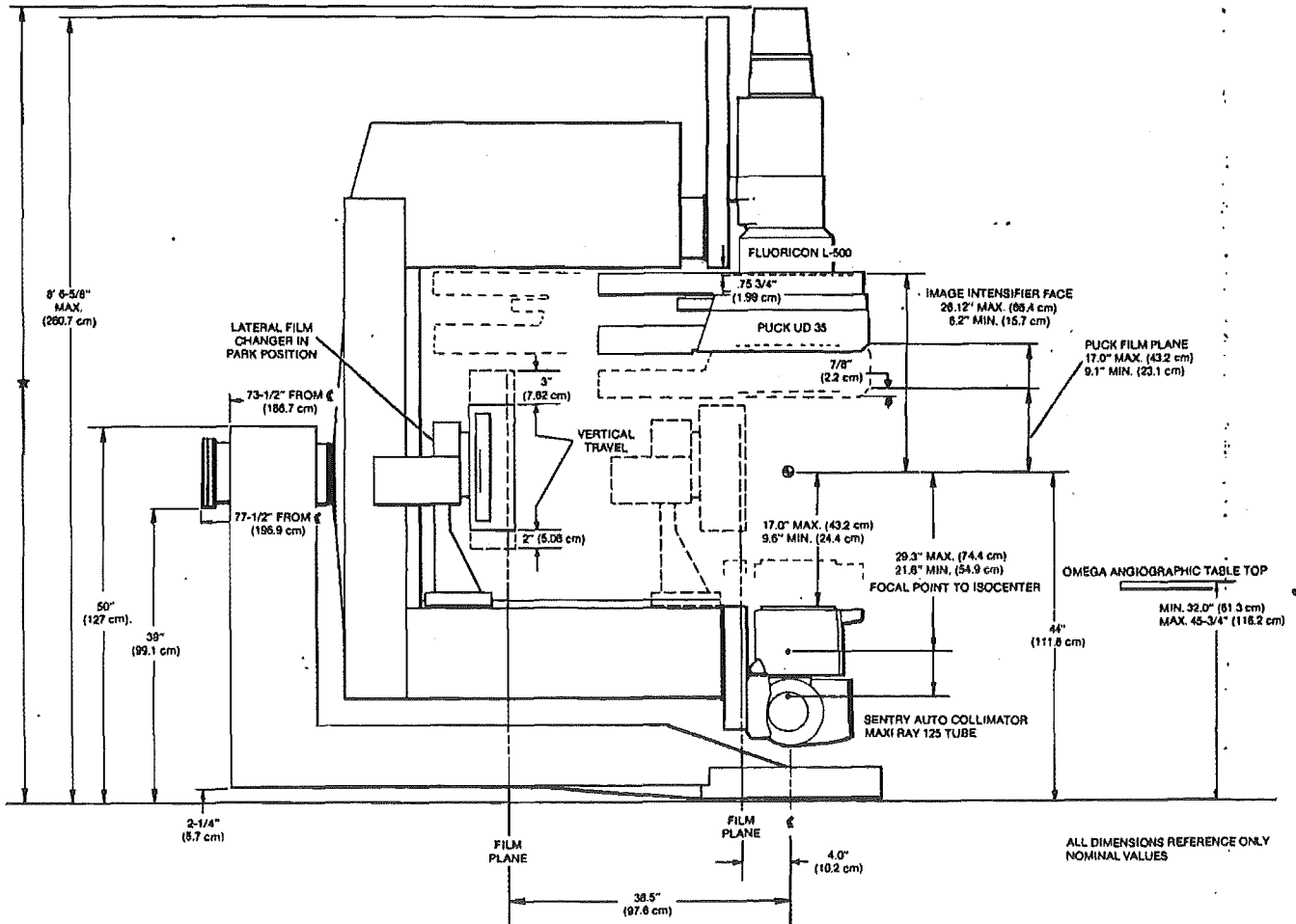
#B2054G XT Vascular Radiographic Suspension for Film Changer X-Ray Tube.

WARRANTY

The published Company warranty in effect on date of shipment shall apply. The Company reserves the right to make changes in the warranty without prior written notice.

REGULATORY CONFORMANCE

This product has been designed to meet applicable performance standards for diagnostic x-ray equipment as enunciated by the Department of Health and Human Services pursuant to the Radiation Control for Health and Safety Act.



SYSTEM POWER MODULE with Integral Line Circuit Breaker.

This module includes all of the above features plus an integral line circuit breaker with remote emergency trip feature. This minimizes the expense and delays usually associated with installing a separate line circuit breaker in the wall.

One remote trip push-button module is included with this option for installation adjacent to the control console. Additional safety trip push-button modules are available as a separate item.

Connection of the customer's branch feeder directly to the optional circuit breaker in the System Power Module is the responsibility of the customer.

POWER REQUIREMENTS

Maximum allowable transient voltage excursions: 2½% of rated line voltage at a maximum frequency of 10 times per hour.

All ratings and duty cycles of MPX 125 apply for ambient temperature between 50°F (10°C) and 100°F (38°C), average relative humidity not exceeding 95%, and altitude not exceeding 8000 feet (2.4 km).

STANDARD LISTINGS

- A0710BA Basic MPX Vascular Generator, with Super Acceleration Rotor Controller, 352-480-v, Three-Phase, 60-50 Hz.
- A0710C MPX 100 High Voltage Transformer.
- A0712C MPX 125 High Voltage Transformer.

REQUIRED APPLICATION GROUP

- A0710GA Vascular Application Group for (GE) Image Plane with or without Film Changer.

REQUIRED CONSOLE

- A8089CA Vascular 30 in. console for frontal plane of L/U-A systems.
- A8089CC Vascular 30 in. console for frontal plane of L/U-C systems and lateral plane of biplane fluoro L/U-A and L/U-C systems.
- A8089CB Vascular 15 in. console for single plane fluoro L/U-A or L/U-C systems with biplane filmchangers (30 in. frontal plane console is also required).

REQUIRED SYSTEM POWER MODULE

- A8091CG System Power Module without Line Power Circuit Breaker Three-Phase, 440-v, (nominal), 50/60-Hz. Select required Transformer Enclosure and Grill Panel.
- A8091CH System Power Module with 110 amp Line Power Circuit Breaker and Remote Safety Trip Push-button Unit, Three-Phase, 440-v, (nominal), 60-Hz. Select required Transformer Enclosure and Grill Panel.
- A8091AG System Power Module with 150 amp Line Power Circuit Breaker and Remote Safety Trip Push-button Unit, Three-Phase, 440-v (nominal), 50/60-Hz. Select required Transformer Enclosure and Grill Panel. For MPX 125 only.

- A8091AB MPX 100 Transformer Enclosure
- A8091AC MPX 125 Transformer Enclosure

OPTIONAL AND RELATED ITEMS

- A8091AD Grill Panel for Raceway Side Entry into System Power Module Cabinet
- A8091BD Grill Panel for Raceway Front Entry into System Power Module Cabinet
- A8091BB Seismic Kit for Compliance with Seismic State Codes. For MPX 100 only.
- A8091BC Seismic Kit for Compliance with Seismic State Codes. For MPX 125 only.
- A8091DD Additional Remote Safety Trip Pushbutton Unit.

RELATED PUBLICATIONS

- Service Manual A0710/12B/FA
- Operating Manual Direction No. 14459

WARRANTY

The published Company warranty in effect on the date of shipment shall apply.

REGULATORY CONFORMANCE

This product has been designed to meet applicable performance standards for diagnostic x-ray equipment as enunciated by the Department of Health and Human Services pursuant to the Radiation Control for Health and Safety Act.

UL AND CSA LISTINGS

- UL Listed
- CSA Listed

ARCHITECTURAL REQUIREMENTS

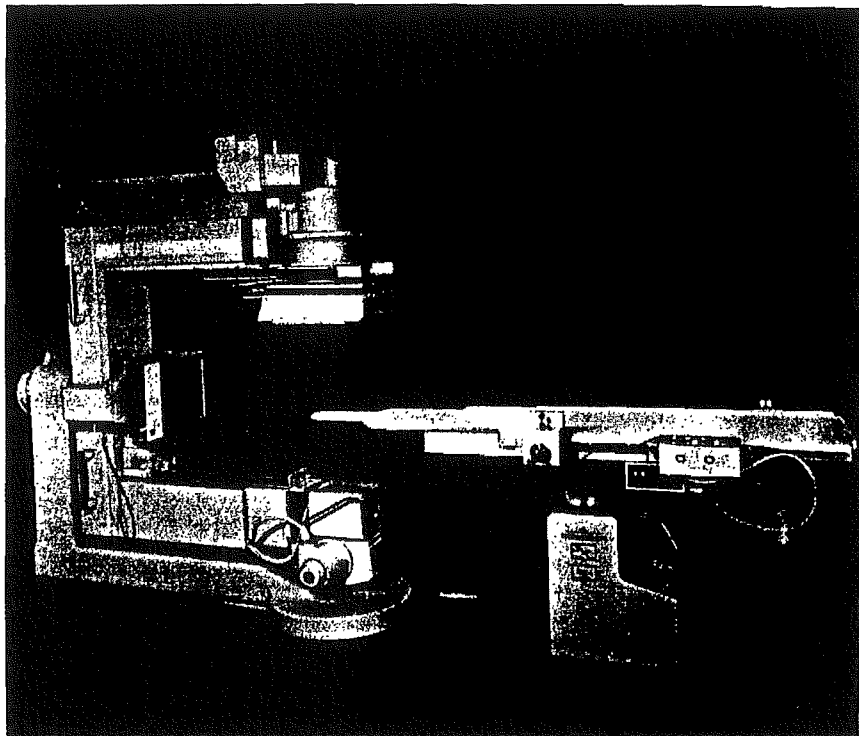
Note on conduit and raceways: Because most of the interconnections of the generator consist of pre-terminated cables, the use of raceways is recommended instead of conduits.

LINE VOLTAGE (VOLTS RMS)		MAX MOMENTARY LINE CURRENT DEMAND AMPS, RMS	
Nominal	Range	MPX-100	MPX-125
350	316-381	197	264
380	342-412	182	243
400	360-433	173	231
420	378-454	165	220
440	396-474	157	210
460	414-499	151	201
480	432-520	144	192

FOR WIRING REQUIREMENTS AND ROOM PLANNING, SEE PLANNING DIRECTION 14449A.

APPLICATION

The L/U-A™ Vascular Procedures System is a floor mounted U-arm designed for all general/cardio angiography, interventional radiology and other procedures requiring multi-axis positioning. Applicable for single-plane or biplane.



L/U-A™ System Shown with Omega II Stepping Table, Puck U and Puck UD Film Changers, X-Ray Tube, FL-L500 and Sentry III Collimator

FEATURES

- L and U-arm design allows multiple angulations of the central beam relative to a supine patient.
 - Rigid construction reduces vibration and deflection during viewing or recording modes.
 - Pre-positioning capability of the film changer allows the exposure geometry, either contact or magnification, to be selected prior to and during the fluoroscopic mode.
 - Optional integrated lateral film changer for convenient biplane operation.
- #* SID adjustment range with MX-125 tube of 30.7" — 46.3" for the film changer and 27.8" — 55.4" for both 9" and 12" image intensifiers includes a variable x-ray tube to isocenter distance which provides favorable geometry for large and small patients in all views using contact and magnification techniques.

- 48.5' (123.2 cm) U depth provides femoral coverage on a 6' 6" (198 cm) patient.
- Multi-axis operator control provides simple one hand operation of all L and U-arm motorized movements.
- System Status Control provides the option of physician or assistants' control. Status indication of image subsystem and film changer functions, including SID and magnification readouts on digital display.
- Synchronized x-ray tube and changer movement provided to vary magnification at a constant SID, normally 100 cm.
- Convenient digital display of L and U positions, table height from isocenter, intensifier and changer SID, and magnification readouts permit rapid set up and duplication of previously seen views.

- Counterbalanced design for tube, intensifier and film changer enables motorized and manual L and U-arm positioning allowing clinician or assistant to position system more rapidly and with more control than a strictly motorized unit would permit.

Equipment Compatibility

- Fluoricon® L500 Image Intensifier, 9 inch multifield image tube, 12 inch multifield image tube.
- 105 mm Photospot recording up to 12 FPS
- #— 35 mm Cine 90 FPS
- Maxiray™ 125 X-Ray Tube
- Maxiray 125 Hexafocus X-Ray Tube
- Sentry™ Collimator
- Omega II Vascular Table
- MPX® Generator
- Puck UD Film Changer, 35 x 35 cm
- Puck UD Lateral Film Changer, 35 x 35 cm

Microprocessor control of the generator includes but not limited to the following tasks:

- Calculation and display of mAs in relation to stored tube load curves for each type of tube in the system.
- Compensation for system load regulation at high mA settings.
- kVp boost compensation for extremely short exposures.
- Manipulation of space charge compensation via programmed curve points for each mA station.

POWER UNIT CABINET

This wall cabinet houses the following major components:

- High performance servo for kVp control and automatic line voltage compensation.
- Filament control to stabilize mA stations.
- SCR contacting module with electronic high speed pre-contacting feature arranged for either synchronous or asynchronous contacting modalities.
- Safety contactor in series with high-voltage transformer.
- Generator on-off line contactor.
- Fuses and electronic overload modules.
- Super-acceleration rotor controller (SARC).

SARC

- Provided standard with the generator and housed in the power cabinet.
- Contains protective circuits to prevent application of high voltage to x-ray tube under conditions of an open stator lead or loss of either accelerator or continuing run voltage. Also contains circuits to detect loss of one or two phases of the 3-phase power supply.
- The rotor controller is capable of accelerating a Maxiray 125 once each minute and a Maxiray 75 or 100 two (2) times per minute. Double this duty is permissible for five (5) minutes, provided it is followed by a 5 minute rest. Acceleration time delay from 0 to 10,000 rpm is 1.2 seconds for Maxiray 75 or Maxiray 100 tubes and 2.9 seconds for Maxiray 125 tubes.

GENERATOR RATINGS

The generator is used at full rating with contacting synchronous to line frequency unless rapid film exposures are required with interrogation time reduced to approximately one millisecond. In this case the ratings apply as shown for asynchronous operation in the following table:

MPX-125 Asynchronous Operation	
mA	kVp
1250	90
1000	100
800	110
640	115
500	120
200-400	125

MPX-125 Synchronous Operation	
mA	kVp
1250	100
1000	125
800	150

MPX-100 Asynchronous Operation	
mA	kVp
1000	80
800	90
640	100
500	110
400	115

MPX-100 Synchronous Operation	
mA	kVp
1000	100
800	125
640	150

HIGH-VOLTAGE TRANSFORMER

Consists of one container with high-voltage transformer, filament transformer, silicon rectifier assembly, high-voltage switch assembly, filter assembly and relay panel.

Transformer cores of high quality silicon steel.

Three pairs of cable wells are available for MPX 125, two pairs for MPX 100.

Solid-state rectification — Twelve silicon rectifiers provide improved efficiency by having significantly lower voltage drop than other high-voltage rectifiers. Silicon rectifiers have an operating life comparable to the life of the x-ray equipment; they require less space, and produce insignificant heat.

High-voltage rectification circuit — six phase, twelve pulse.

Synthetic film used for high-voltage coil insulation. Impervious to deterioration from oil. Entire transformer is oil insulated under vacuum with an oil which contains no polychlorinated biphenyls (PCB's).

Expansion chamber provides complete oil immersion of cable receptacles to prevent corona and consequent radio interference regardless of temperature.

Can withstand high-voltage test of 125 percent to maximum kVp for one minute.

Reinforced steel tank for maximum strength. Permits shipment with oil. Trim covers provide obstruction-free top.

SYSTEM POWER MODULE offers the following:

- Allows a single-point power entry for the entire x-ray system from one nominal 440 V three-phase power connection.
- Provides 115 V and 230 V, regulated and unregulated power, for subsystems.
- Provides circuit breaker protection in an enclosed panel for all branch circuits.
- Encloses the High-Voltage Transformer in an attractive cabinet fitted close to the wall and into a corner if necessary.
- Provides a raceway for cables up and over the high-voltage transformer.
- Provides an enclosure for a main line circuit breaker with magnetic safety trip feature to eliminate expensive construction costs and delay when these components are installed in a wall.
- Provides a method for integrating surface-mounted raceway systems, including a provision for front entrance of raceway when used in a corner.
- Provides attachments for the high-voltage transformer when sold in earthquake prone areas.

The upper portion of the cabinet is designed to integrate visually with the Generator Power Unit which is normally installed adjacent to the Power Module/High-Voltage Transformer package. An attractive extension cover which extends the full width of the System Power Module Cabinet is used to compensate for the additional depth of the H.V. transformer.

Radiographic mA Ratings Constant Load Values

10.0	50.0	250.
12.0	64.0	320.
16.0	80.0	400.
20.0	100.0	500.
25.0	125.0	640.
32.0	160.0	800.
40.0	200.0	* 1000.
		1250.

* 1000 mA maximum for MPX-100

Not all of the mA-values shown will be available on x-ray tubes designed for magnification, cine, and/or photospot exposures.

Fluoroscopic mA can be controlled from the MPX console. Average mA is displayed.

Focal Spot Size

If technic selection exceeds the mA ratings for the small focal spot, the large focal spot button will flash indicating that exposure will be withheld until that button has been depressed.

Milliampere Seconds

Radiography and Photospot mAs is controlled via 2-speed rocker switch. When mAs is varied, mA is held constant while the microprocessor varies time. As time increases, mAs increases until the tube focus limit level is reached. If mAs reaches the tube focus rating limit, the microcomputer automatically causes the mA to decrease by one step and exposure time is then recalculated.

Radiographic mAs Values

0.64	4.00	25.0	200.
0.80	5.00	32.0	250.
1.00	6.40	40.0	320.
1.25	8.00	50.0	400.
1.60	10.0	64.0	500.
2.00	12.5	80.0	640.
2.50	16.0	100.	* 800.
3.20	20.0	125.	1000.
		160.	1250.

* 800 mAs maximum for MPX-100

Exposure Time

The exposure time display is placed directly below the indication of mAs and directly above the rocker switch which varies mAs. In this manner those persons trained in setting kVp, mA and Time will use the mAs rocker switch to vary time because the microprocessor calculates Time almost instantaneously

as the quotient of mAs divided by the mA value. For cine mode this time display indicates the maximum number of seconds permissible in the cine recording run as calculated by the microprocessor using parameters of tube anode heat, kVp, mA, pulse width and frame rate.

Time values range from 1.0 millisecond to 8.00 seconds. Increments are 25% and decrements are 20%.

The pre-exposure value of time is retained post-exposure for non-AEC technics. With AEC exposures the time which is displayed prior to exposure is the tube protection time limit. The actual time of the AEC exposure is displayed following the exposure.

Exposure Time Values

Milliseconds		Seconds	
1.0	12.5	0.16	1.25
1.2	16.0	0.20	1.60
1.6	20.0	0.25	2.00
2.0	25.0	0.32	2.50
2.5	32.0	0.40	3.20
3.2	40.0	0.50	4.00
4.0	50.0	0.64	5.00
5.0	64.0	0.80	6.40
6.4	80.0	1.00	8.00
8.0	100.		
10.0	125.		

OTHER OPERATOR CONTROLS AND DISPLAYS

Generator Overload Reset Button — This button lights steadily if an overload occurs. No exposures can be made if this control is lit. Depressing the control will reset the generator.

Illuminated Displays

kVp, mAs, mA and Time displays are located in line vertically with the appropriate rocker switches. "Milli" is illuminated along with "Sec." for all exposure times of 125 msec. and below. The word "Max" appears above "mA" when the combination of kVp, mAs and mA results in a load to the x-ray tube focus which is between 80% and 100%. % Heat Units Remaining display indicates percent heat storage capacity remaining in x-ray tube anode.

Technic Overload — No exposure will occur when this display is lighted. Display will light if: (1) No function has been chosen or (2) The chosen mAs calculates more than the maximum of 8 seconds within the tube ratings, (3) X-ray tube rating is exceeded.

Ready — Indicates that an exposure sequence may be commenced.

Rotor On — Indicates the x-ray tube stator is energized. This signal remains on until the tube rotor is fully braked.

X-Ray On — Lights during x-ray generation in conjunction with the customary audible tone.

The following illuminated displays are provided as part of the MPX console designed for Vascular applications:

FLUORO kVp — Displays kVp selected for fluoro mode and VTR recording mode if provided.

FLUORO mA — Displays average fluoroscopic mA.

FLUORO TIME — Displays the time remaining from 5 min. total available fluoro time per setting.

The following panel controls are housed in the right half of the MPX console designed for Vascular applications:

Fluoro Panel

22 } Pushbuttons for selection of
16 } image tube field size.
12 }

kVp — Fluoro kVp Control

MASTER CONTROL CABINET

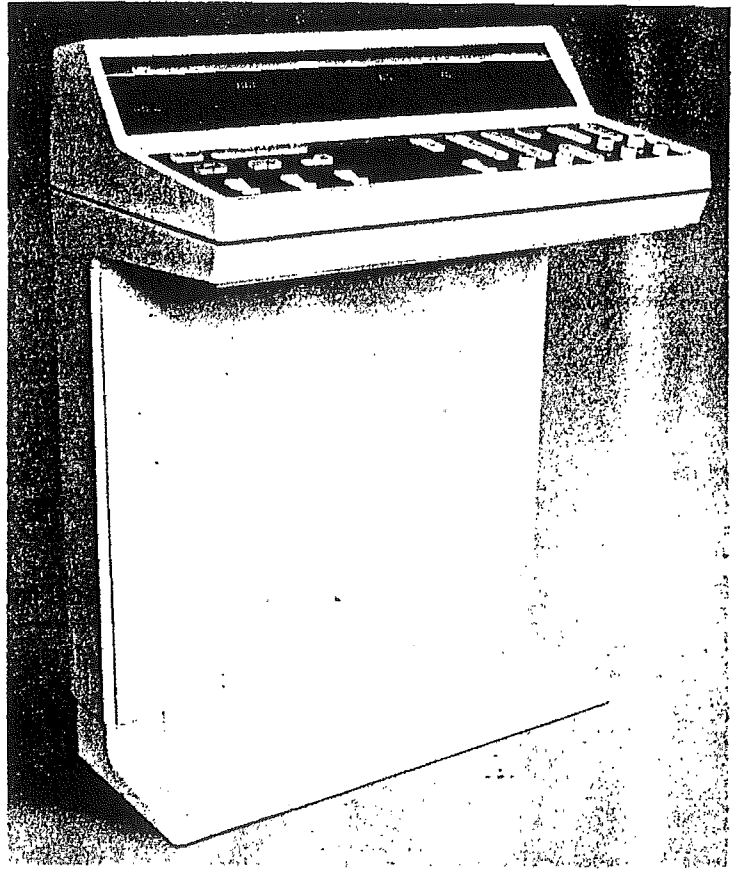
This wall cabinet houses the following major components:

- Microprocessor and associated CPU circuitry.
- Analog to digital and digital to analog input/output circuitry.
- Read-only memory for basic generator functions.
- Programmable solid-state memory for environmental and tube variables.
- Programmable solid-state memory for anatomical programming.
- Regulated AC and DC power supplies.
- Battery charging circuitry for solid-state memories.
- Envelope for optional subsystem input/output modules.
- AEC power and control circuitry.

Automatic Exposure Control circuitry for photospot imaging provides for inputs from photospot photometric detector. Switching times as short as 2 milliseconds with less than 15% variation in film density from film to film.

APPLICATION

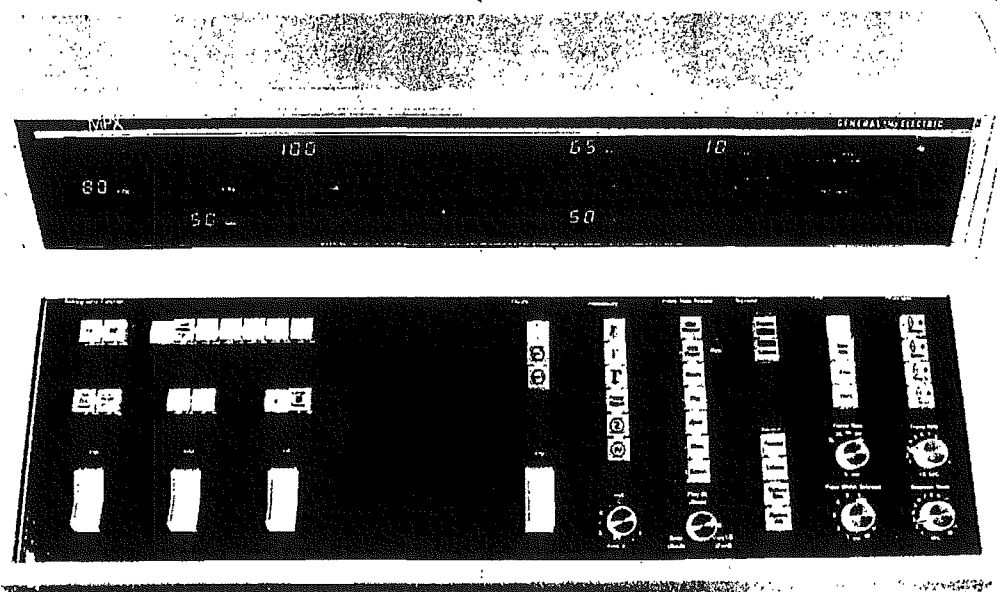
Microprocessor-based x-ray generating unit particularly suited for vascular applications including coronary angiography, cardiac catheterization, angiocardiology as well as visceral, cerebral, and peripheral angiography. Available modules encompass every sector of vascular x-ray applications. Designed for rapid installation in existing rooms as well as new buildings using either conduit or available surface mounted wall ducting and power distribution modules.



Vascular Control Console

FEATURES

- MPX 125: 125 kW constant load output, 12 pulse rectified, rated as follows:
 - 1250 mA at 100 kVp
 - 1000 mA at 125 kVp
 - 800 mA at 150 kVp
- MPX 100: 100 kW constant load output, 12 pulse rectified, rated as follows:
 - 1000 mA at 100 kVp
 - 800 mA at 125 kVp
 - 640 mA at 150 kVp
- Automatic line voltage compensation.
- Timed exposures as short as 1.0 millisecond.
- mAs values as low as 0.64 mAs.
- Microprocessor-controlled display of technic parameters.
- Exposure time always displayed.
- % Heat Units Remaining display indicates percent heat storage capacity remaining in x-ray tube.
- Warning light operates between 80 and 100% of tube focus kW rating.
- Exposure contactor designed for maximum radiographic exposure times at high frame rates. Millisecond interrogation may be connected at installation to provide asynchronous contacting up to 12 exposures per second with photo-spot camera. Nominal one millisecond interrogation time when used with rapid film changer.
- Grid controlled cine permits pulse widths as short as 25 microseconds for filming neonates at kVp values which are radiation conservative.
- System Power Module permits one point power connection and in-room power distribution load center.



Vascular Control Console — Shown with Control Modules for Cine, Photospot, VTR and Biplane Options

SPECIFICATIONS

Consists of:

High-Voltage Transformer

Power Unit

Master Control Cabinet

Preterminated Interconnect Cabling (excludes single conductor power and ground cables).

... requires selection of appropriate vascular application group which consists of: Operator console with technic displays, computer encoder, computer decoder, and input/output networks for image receptor devices.

CONTROLS

System Power

On-off pushbuttons control the generator power contactor. An independent power disconnection means must be provided by the customer for incoming power. This requirement may also be accomplished with the line circuit breaker equipped System Power Module with remote magnetic trip.

Kilovoltage Peak

Radiographic and Photospot Kilovoltage is controlled by pressing a 2-speed rocker switch. kVp changes in one kVp increments. Fast selection rate is 20 kVp/sec and slow selection rate is 2 kVp/sec. The amount of switch depression selects rate of change either increasing or decreasing the kVp.

Fluoroscopic and VTR Kilovoltage selection is displayed on the MPX console and on the TV monitor when the optional Video Injection Module is ordered.

Fluoro/VTR kVp Settings:

60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120 kVp

Milliamperage

Radiography and photospot mA is controlled by a rocker switch which increases mA in 25% increments and decreases mA in 20% increments. While mA is varied, mAs remain constant.

When the tube current selected is in excess of 80%, but not more than 100% of the x-ray tube focus rating at the selected kVp and mAs, a light indicator marked "MAX" will be lighted over the "mA" indicator. Selection of a technic in excess of 100% will cause the mA to be automatically reduced and the exposure time extended and displayed accordingly. Sixteen values of mA are available for the small focus and eight values of mA for the large focus.

GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY
MEDICAL SYSTEMS GROUP

QUOTATION NO: 330 607 020Q

CONTRACT NO: 330607020

DATE: July 24, 1986

TO: James Parsons

ADDRESS: Lenoir Memorial Hospital
100 Airport Road
P.O. Drawer 1678
Kinston, North Carolina 28501

General Electric Company is pleased to submit the following quotation to:

Provide all materials and labor necessary to perform the renovations described in the attached work scope for Project No. 330 607 020 dated 7/23/86 to prepare the room for the installation of the quoted G.E. special procedures equipment, as illustrated in the accompanying drawing, for the sum of fifty-five thousand, three hundred and no/100 (\$55,300.00) dollars.

Jimmy
Here is the quote from GE on renovations. This was for biplane system. We are going to get the single plane, therefore the cost will be less. Tim & some other people are suppose to be here this week from GE. When they arrive I give you a call.

James

GENERAL ELECTRIC COMPANY
MEDICAL SYSTEMS GROUP

By: 

Robert E. Beardsley

Title: Carolinas District Service Mgr.

Address: 3440 Lakemont Blvd.

P.O. Box 814

Fort Mill, S.C. 29715

Telephone: 803-548-5548

NOTICE: This quotation is void unless accepted within 30 days from date hereof and is subject to change upon notice prior to acceptance. This quotation and any contract based thereon is not assignable without the prior express written permission of Company.

GENERAL ELECTRIC

**GENERAL ELECTRIC COMPANY
MEDICAL SYSTEMS GROUP**

CONTRACT NO: 330607020

FIRM PRICE CONTRACT I

THIS CONTRACT entered into this 24 day of July 19 86, by and between GENERAL ELECTRIC COMPANY, a New York corporation, acting by and through its Medical Systems Group (hereinafter referred to as Company) and Lenoir Memorial Hospital (hereinafter referred to as Owner).

In consideration of the mutual promises hereinafter set forth, the parties hereto agree as follows:

ARTICLE I — SCOPE OF WORK

Company will, subject to the terms and conditions of the Contract, as defined in General Conditions — Firm Price Contract I (SSD-16), attached hereto and made a part hereof, renovate existing space in Owner's building located at 100 Airport Road, Kinston, N. C. 28501

(hereinafter called the "Site") in accordance with the Work Scope Definition and configured as shown in the Drawings referenced therein. The Work Scope Definition dated 7/23/86, for Project No. 330607020, attached hereto and made a part hereof, defines the renovation to be performed by Company (hereinafter called the "Work"). The Supplementary Conditions, dated N/A, attached to and made a part hereof, modify the terms of the Contract.

ARTICLE II — COMPLETION

Company agrees that the Work (including preparation of working drawings and construction) shall be commenced as soon as practical after execution of the Contract by Owner and Company, and Work shall proceed to Substantial Completion consistent with good construction practices. The words "Substantial Completion" shall mean that stage of completion when the Work at the Site is available for beneficial occupancy or use by Owner.

ARTICLE III — CONTRACT PRICE

The consideration (hereinafter referred to as Contract Price) to be paid by Owner to Company for the performance of the Work is the sum of fifty-five thousand, three hundred and no/100 Dollars (\$ 55,300.00), subject to additions and deductions as herein provided. The Contract Price specified above includes any present sales, use, excise and similar tax (legally enacted as of the effective date of the Contract) with respect to the materials or services provided herein and incorporated into real property improvements of Owner. In the event that Owner provides Company with a tax exemption certificate acceptable to taxing authorities at the time of Owner's execution of this Contract, the Contract Price shall be reduced by an amount equal to the savings, if any, resulting from the use of such tax exemption certificate. The Contract Price does not include any amount for present or future sales, use, excise and similar taxes as may be applicable to tangible personal property provided hereunder and Owner shall pay the amount of any such taxes.

ARTICLE IV — PAYMENT

Once each month Company shall submit an invoice covering ninety percent (90%) of the value of labor and materials incorporated in the Work during the preceding month. Such invoiced amount shall be due and payable by Owner upon Owner's receipt of the invoice.

Final payment of remaining amounts due shall be due and payable to Company by Owner at the time of Substantial Completion of the Work and upon submission by Company to Owner of an invoice therefor.

ARTICLE V — CHANGES AND EXTRA WORK

Owner may at any time request in writing changes in the Work. If such requested changes materially affect the Contract Price or the time required for performance of the Work, Company will advise Owner in writing of any required changes in the Contract Price and the time of completion. If Company and Owner agree on such changes in the Work and adjustment in the Contract Price and the time of completion, this Contract shall be modified accordingly by written amendment signed by duly authorized representatives of Owner and Company.

ARTICLE VI — EFFECTIVE DATE

This Agreement shall become effective and in force on and as of the date first set forth above.

IN WITNESS WHEREOF, Owner and Company have executed this Contract through their duly authorized representatives.

GENERAL ELECTRIC COMPANY
MEDICAL SYSTEMS GROUP.

OWNER: _____

By: _____

By: _____
(Authorized Signature)

Title: Carolinas District Service Manager

Date: July 24, 1986

Date: _____

GENERAL CONDITIONS

- 1. TERMS, CONDITIONS AND PRECEDENCE:** Seller (hereinafter referred to as Contractor) shall furnish and install all materials, tools, labor, superintendence and services necessary to perform and complete all work required by the Contract, as herein defined, (hereinafter referred to as the Work) subject to the terms and conditions contained in the following documents (herein collectively referred to as the Contract): (1) Supplementary Conditions, if any; (2) The face of Company's purchase order issued to Contractor and continuation sheets; (3) General Conditions (Form F1503-A); (4) Terms and conditions on the reverse side of the purchase order; (5) Instruction to Bidders, if any; (6) Company's Work Scope Definition, if any; (7) Company's specifications specified in or attached to the Contract; (8) Company's plans and drawings specified in or attached to the Contract; (9) Bid Proposal form, if any; and (10) Construction Schedule. In the event of conflict, the order of precedence shall be in the order the documents are listed above.

Contractor agrees to be bound by and comply with the Contract. No other terms and conditions except those specified in the Contract shall be binding upon Buyer (hereinafter referred to as Company) unless added to the Contract by written amendment signed by authorized representatives of Company and Contractor. The term "Owner" when used in the Contract means Company's customer for the Work.

- 2. SCOPE:** Unless otherwise specifically stated, Contractor shall furnish all materials, tools, equipment, labor, superintendence and services necessary to perform and complete the Work called for in the Contract. Work reasonably inferable from either the drawings or specifications although omitted from one or the other, shall be considered as part of the Contract. Contractor shall be responsible for checking the accuracy of the drawings and specifications, and shall in no event "scale" drawings to obtain dimensions. In the event of question as to the meaning of drawings and specifications, Company's decisions shall be final and binding.

- 3. CHANGES, OMISSIONS AND ADDITIONAL WORK:** No alterations shall be made in the Work except upon the written order of Company. Company, without invalidating the Contract, may at anytime, by written order, make changes in the Work, omit certain portions of the Work and/or require the performance of additional work. All such work shall be executed under the terms and conditions of the Contract. If such changes, omissions and/or additions shall materially affect the amount of the Work, or the time required for its performance, or shall increase or decrease the cost of the Work to Contractor, an equitable adjustment in the Contract price shall be made in accordance with one of the following methods selected by Company.

(a.) As authorized and approved by Company in advance, actual net cost to Contractor for direct labor employed on such changed, omitted or additional work. Actual net cost to Contractor of all direct labor is defined as hourly wages plus actual payroll taxes and fringe benefits paid by Contractor under labor contracts, if any, plus an amount for overhead and profit which shall be determined by the formula set forth below.

(b.) As authorized and approved by Company in advance, actual net cost to Contractor of its subcontractor's work. This cost shall be fully detailed by its subcontractor and shall be broken down to indicate actual net cost for direct labor employed on such changed, omitted or additional work, in the same manner as in (a.) above, plus actual direct material and equipment rental costs, and overhead and profit percentages for its subcontractor, plus an amount for Contractor's overhead and profit which shall be determined by the formula set forth below.

(c.) As authorized and approved by Company in advance, actual direct material and equipment set-up and rental costs paid by Contractor to vendors, plus an amount for Contractor's overhead and profit which shall be determined by the formula set forth below.

(d.) As authorized and approved by Company in advance, actual set-up and rental charges (which include overhead and profit) for equipment furnished directly by Contractor. Such set-up and rental charges shall be based upon standard charges for set-up and rental of similar equipment which prevail in the location of the Work.

(e.) A firm price amount acceptable to Contractor and Company.

Prior to the award of any subcontract for additional or omitted work, Contractor agrees to obtain from its subcontractor, and submit for Company's approval, such subcontractor's percentage adders for field overhead and general home office overhead and profit for added or omitted work. If any extra, different or additional work is executed by Contractor, without previous written order by Company, Company will be under no obligation to pay for such unauthorized work.

Contractor shall attach to all invoices relating to work provided in accordance with (a.), (b.), (c.) or (d.) above: (i) copies of actual invoices from vendors and subcontractors for labor, materials and equipment rental provided for such additional work, and (ii) a worksheet indicating how costs, including overhead and profit, were calculated for labor, materials and equipment provided directly by Contractor and labor, materials and equipment rentals provided by vendors or subcontractors of Contractor for such changed, omitted or additional work.

All Contractor's and its subcontractor's records relating to work added or omitted under (a.), (b.) and (c.) above shall be available for Company's review at reasonable times.

In accordance with the above, the following percentages shall be multiplied by the actual net cost of the following work elements and the product of this multiplication shall be added to or subtracted from the Contract price. This amount shall represent Contractor's fees for overhead and profit for changed, omitted or additional work.

- a. * percent (%) for actual net costs of Contractor's own direct labor.
- b. * percent (%) for actual net costs for direct labor, materials and equipment rentals paid by Contractor to subcontractors.
- c. * percent (%) for actual net direct material and equipment rental costs (including set-up charges) paid by Contractor to Contractor's vendors.

*These percentages are to be specified on Contractor's Bid Proposal.

- 4. SCHEDULE:** Contractor shall submit his detailed schedule for construction progress (Construction Schedule) to Company with the bid documents. Said Construction Schedule shall be a part of the Contract. Contractor shall measure and report to Company the actual progress of the Work against the Construction Schedule, including any extra work or changes in the Work that Company and Contractor have agreed upon. If Contractor's Work progress falls behind the schedule specified in the Construction Schedule, for reasons within his control, he shall immediately take, and cause his subcontractors to take, such action as may be necessary to remedy the delay.

- 5. OVERTIME WORK:** If the Work fails to progress according to the Construction Schedule, for reasons within Contractor's control, including any modifications thereto that Contractor and Company have agreed upon, Contractor shall work whatever additional time over the regular working hours as may be required to meet the scheduled completion date or dates without increase in the Contract price.

- 6. QUALITY OF WORK:** All Work shall be done in a workmanlike manner by workers skilled in their respective trades, and all materials furnished by Contractor shall be new and of standard grade and quality, unless otherwise specified. Should any questions arise as to the acceptability of a particular material or equipment to be provided by Contractor, Company shall make the final determination. Performance data or other information on materials and equipment called for in the specifications or drawings shall be submitted to Company in a timely manner consistent with the Construction Schedule.

- 7. RULES AT SITE OF WORK:** Contractor shall observe, and require its employees and subcontractors, material suppliers and their employees to comply with all regulations and rules of Owner and Company in effect at the site of the Work regarding employment, passes, badges, smoking, fire prevention and conduct at the site of the Work and accessways thereto. Contractor shall take all necessary precautions for the safety of persons on, about or adjacent to the site of Work, and shall erect and properly maintain at all times, as required by job conditions, all necessary safeguards for the protection of the workers and the public; shall post danger signs warning against hazards; and shall not load or permit any part of the Work to be loaded so as to endanger the safety of persons or the Work. Contractor shall keep the job site and adjoining premises clean of rubbish caused by him or his subcontractors, and at the completion of Work shall remove all rubbish, tools, equipment, surplus material and temporary structures and installations, leaving the premises clean and ready for use. Contractor shall receive, pile, store and handle all materials, equipment and other items incorporated or to be incorporated in the Work, including all items furnished by Company or Owner, in a careful and prudent manner and shall protect them against loss and damage from every source. Contractor shall provide a competent superintendent who is authorized to act for him and has been approved by Company. Such superintendent shall be at the project site at all times when Work is being performed.

- 8. COMPLIANCE WITH LAWS, RULES AND REGULATIONS:** Contractor shall comply with all federal, state and local laws, ordinances, rules and regulations relating to the Work or the conduct thereof, as now exist or are enacted hereafter, including but not limited to, the provisions of all social security or unemployment insurance laws, applicable worker compensation laws, the Occupational Safety and Health Act (OSHA), and laws related to non-segregated facilities, equal employment opportunity (including the seven paragraphs appearing in Section 202 of Executive Order 11246, as amended), and shall give all required notices to public authorities and provide all permits necessary for carrying on the Work.

Contractor hereby represents and warrants that it and its subcontractors are and will remain throughout the duration of the Contract duly registered and fully licensed to perform the Work at the Project Location.

- 9. INDEMNITY:** Contractor shall defend, indemnify and save Company harmless from and against all losses, liabilities, expenses and other damages of every nature and description (including attorneys' fees) arising out of or resulting from the Work under this Contract except where such losses, liabilities, expenses or damages are proximately and solely caused by Company's negligence and are determined by a court of competent jurisdiction to be a legal liability of Company.

- 10. INSURANCE:** Prior to commencing the Work and without limiting any of the other obligations or liabilities of Contractor, Contractor shall provide and maintain, until Work is completed and accepted by Company, the minimum insurance as follows:

- Workers' Compensation, including coverage under Longshoremen's and Harbor Workers' Act where applicable, providing the coverage necessary to meet statutory requirements.
- Employers' Liability with a minimum coverage of \$500,000 each occurrence.
- Comprehensive General Liability, including Contractors' Protective and Contractual Liability coverage, with a minimum combined single limit of \$1,000,000 for bodily injury and property damage. Contractual liability coverage shall be in accordance with the agreement(s) between Company and Contractor.
- Comprehensive Automobile Liability covering all owned, hired, and non-owned automotive equipment used by or with the permission of the Contractor (including the loading and unloading thereof), with a minimum combined single limit of \$500,000 for bodily injury and property damage.

- All Risk Installation Floater (including risks in transit if required) covering the Work to be performed under this Contract, as well as all materials, equipment and supplies furnished by others to become a part of the Work in an amount sufficient to cover the entire Work, as well as all materials, equipment, supplies, etc., handled or installed by Contractor.

All insurance required by the Contract shall be with companies and on forms satisfactory to Company and no such insurance shall be deemed to be in effect until such time as satisfactory certificates thereof are delivered to Company, containing therein provisions requiring the insurance carriers to notify Company in writing at the address shown on Company's purchase order at least thirty (30) days prior to any expiration or termination thereof. Insurance policies required under the Contract, excluding Workers' Compensation and Employers' Liability, shall name Company and Owner as additional insureds thereunder, and shall not contain an asbestos or pollution exclusion.

- 11. WARRANTY:** Contractor warrants to Company and Owner that the Work will be performed in a competent manner and will be free from all defects and will conform to the Contract. Contractor shall promptly, at its sole cost and expense, correct all defects or non-conformities in the Work which occur or appear within one year from the date of Substantial Completion regardless of any prior use or occupancy of all or any part thereof. In addition, Contractor shall require, at a minimum, the above stated warranties in writing from its material and equipment suppliers, manufacturers and subcontractors and require its subcontractors include these warranties in all lower tier subcontracts which they may enter into relative to the Work. Contractor's warranties shall be deemed to include all such warranties. All guarantees and warranties from material and equipment suppliers and manufacturers and from subcontractors shall run in favor of Company and Owner.
- 12. LIENS:** Contractor agrees to satisfy immediately any lien or encumbrance which because of any act or default of Contractor, is filed against Owner's premises at which Work is being performed, and to indemnify and save Owner and Company harmless from any and all loss, damage or expense (including attorney's fees) arising therefrom. Contractor shall submit with final invoice, an executed Release From Contractor (SSD-44).
- 13. PAYMENT:** If the Work extends beyond one month, monthly progress payments will be made within thirty (30) days after receipt of invoice for that portion of Work accepted by Company less previous payments and any retention that may apply. Final payment, including any retention, or sole payment (if the Work is scheduled to be Substantially Completed within thirty (30) days of commencement) will be made within thirty (30) days of Substantial Completion of Work; acceptance of Work by Company; receipt of certificates of inspection required under permits or regulations governing the Work; and receipt of invoice, Contractor executed Release From Contractor (SSD-44) and written Warranty from Contractor.
- 14. NON-ASSIGNMENT:** Assignment of the Contract or of any interest therein or of any payment due or to become due hereunder shall be void, and Contractor shall not sublet any part of Work hereunder, unless such assignment or subletting is with Company's prior written consent.

- 15. TERMINATION:** Should Contractor at any time after notice fail or refuse to perform Contractor's obligations hereunder fully and promptly, or should Contractor make a general assignment for the benefit of its creditors, or should a receiver of any property of Contractor be appointed, or should a petition be filed either by or against Contractor in any proceeding under the bankruptcy or insolvency laws, Company may terminate the Contract, forthwith by notice in writing and take possession of all materials, tools, and appliances and complete or have completed the Work to be performed by Contractor hereunder at Contractor's expense.

- 16. PROJECT MEETINGS:** Project meetings shall be held once a week, or more frequently if required, and at such times as may be designated by Company. Contractor and its subcontractors, when requested, shall attend these meetings. If Contractor does not attend said meeting, Contractor shall send a representative with the authority to act on Contractor's behalf.

- 17. SUBSTANTIAL COMPLETION:** Substantial Completion shall exist when the Work, in the opinion of Company, is complete in accordance with the Contract, so that the Owner can beneficially occupy or utilize the Work for the use for which it was intended.

- 18. ASBESTOS:** In the event that prior or subsequent to commencement of the on-site Work, either party hereto or any of their employees, agents or subcontractors discover or suspect that asbestos materials are located within the Project Location or ancillary areas which Contractor or its subcontractors may occupy during the course of Work, the discovering party shall immediately advise the other party of such condition and any on-site Work shall cease. Owner shall test the suspected materials for asbestos.

In the event such tests indicate a level of asbestos which requires its removal or special precautions, Owner, at its expense, shall immediately remove the asbestos materials or take such precautions as required by regulations governing such materials. Company and Contractor shall delay their on-site Work until Owner has completed removal of the asbestos materials and/or taken such precautions as required by all laws and regulations that may apply.

- 19. TITLE AND RISK OF LOSS:** Title of the Work covered by an application for payment will pass to Company upon issuance of such payment by Company. It is expressly understood and agreed, however, that passage of title shall not be construed by Contractor as a release from Contractor's responsibility to fully carry out its Contract obligations. Risk of loss of the Work shall pass to Company upon Substantial Completion.

- 20. ENTIRE AGREEMENT:** The Contract comprises the entire agreement between the parties respecting the subject matter thereof, and any promise, condition or understanding not incorporated therein shall not be binding upon either party. Company's failure to enforce at any time, or from time to time, any provision of the Contract shall not be construed as a waiver thereof.

WORK SCOPE DEFINITION

ITEM

DESCRIPTION

DIVISION 1 - SPECIAL REQUIREMENTS

Project Location to be kept "broom clean" on a daily basis and cleaned with a commercial vacuum cleaner at completion of the Work.

Areas adjoining the Project Location will be occupied during the removal and construction process. Contractor shall coordinate its removal and construction work so that Owner's use and occupancy of areas adjacent to the Project Location are not impaired.

Removal to be performed after _____ am/pm but not before _____ am/pm.

Dumpster (furnished by Contractor) must be located adjacent to Project Location.

Temporary partition for dust protection will be installed at doors to corridor.

DIVISION 2 - SITE WORK

Removal

Remove Partition(s):
(Excludes Firewalls and Loadbearing Walls) As designated in control and exam rooms.

Remove Ceiling(s) In Rooms Exam

Remove Overhead Equipment Support Existing G.E. supports.

Remove Flooring & Base In Rooms _____

WORK SCOPE DEFINITION

<u>ITEM</u>	<u>DESCRIPTION</u>
<u>DIVISION 2 - SITE WORK (Contd.)</u>	
<u>Removal</u>	(in control area)
<input checked="" type="checkbox"/> Remove Door(s) & Frame(s) (Excludes Fire Doors)	<u>2ea</u> Each to Owner's Storage ____ Each to be reinstalled
<input checked="" type="checkbox"/> Remove Window(s) & Frame(s)	<u>1ea</u> (view window) Each to Owner's Storage
____ Remove Cabinetry/Shelving	_____
<input checked="" type="checkbox"/> Remove Light Fixture(s)	<u>In exam room</u>
____ Remove Receptacle(s)	_____
____ Remove Switch/Dimmer(s)	_____
____ Remove Breaker(s)	_____
____ Remove Power Feeder(s)	_____
____ Remove Existing Plumbing Fixtures, Cap Off Supply Lines:	_____ _____ _____
____ Remove Air Conditioning Diffusers and Grills	_____ _____
____ Remove Other	_____

DIVISION 3 - CONCRETE

- ____ Perform miscellaneous excavation and concrete work necessary for filling of existing electrical floor duct openings and HVAC equipment pads (if placement area requires reinforcement to support HVAC equipment).

DIVISION 4 - MASONRY

- ____ Provide concrete masonry units, including necessary steel or masonry lintels and plates, for masonry walls indicated in Division 9.

WORK SCOPE DEFINITION

<u>ITEM</u>	<u>DESCRIPTION</u>
<u>DIVISION 5 - METALS</u>	
<input type="checkbox"/> Modifications to Existing Overhead Equipment Support(s) (Must meet seismic requirements imposed by governing jurisdictions).	<input type="checkbox"/> Unistrut <input type="checkbox"/> Steelwork
<input type="checkbox"/> New Wall Equipment Support(s) (Must meet seismic requirements imposed by governing jurisdictions).	<input type="checkbox"/> Blocking <input type="checkbox"/> Unistrut <input type="checkbox"/> Steelwork
<input checked="" type="checkbox"/> New Overhead Equipment Support(s) (Must meet seismic requirements imposed by governing jurisdictions). Designed to comply with specifications of manufacturer's technical direction or product data sheets for the product being supported.	<input checked="" type="checkbox"/> Unistrut (for Biplane Lab) <input type="checkbox"/> Steelwork See G.E. drawings

DIVISION 6 - WOOD AND PLASTICS

Carpentry and Cabinet Work

<input type="checkbox"/> New Cabinetry and Shelving with 3/4" thick flush overlay doors, 3/4" plywood shelves, and countertops with general purpose grade plastic laminate.	<input type="checkbox"/> Each Wood Shelving L x D
	<input type="checkbox"/> Each Wood Shelving L x D
	<input type="checkbox"/> Each Countertop L x D
	<input type="checkbox"/> Each Countertop L x D
	<input type="checkbox"/> Each Wall Cabinet L x H x D
	<input type="checkbox"/> Each Wall Cabinet L x H x D
	<input type="checkbox"/> Each Base Cabinet L x H x D

WORK SCOPE DEFINITION

ITEM

DESCRIPTION

DIVISION 6 - WOOD AND PLASTICS (Contd.)

Carpentry and Cabinet Work

___ Each Base Cabinet
 L x H x D
 ___ Each Other _____

___ Other _____

DIVISION 7 - MOISTURE PROTECTION

___ Cut and patch, as required, existing roofing for installation of new air conditioning equipment supports and other roof penetrations required for the Work. All patches shall be water tight and completed in a manner consistent with recommendations of manufacturer's of existing roofing system.

DIVISION 8 - DOORS, WINDOWS AND GLASS

Door(s) and Frame(s)

x New Door(s) and Frame(s)
 (See Division 13 for lead thickness)

___ Each Door Lead Lined
 H x W
 ___ Each Door Lead Lined
 H x W
 1 Each Door Solid Core Wood
 7'0" H x 3'0" W
 ___ Each Door Solid Core Wood
 H x W
 1 Each Other sliding glass
 ___ Each Other _____

x New Window(s) and Frame(s)
 (See Division 13 for lead equivalent thickness)

___ Each Window H x W
 with 1/4" thick safety glass
 1 Each Window - Lead Lined
 3'0" H x 5'0" W with leaded glass

WORK SCOPE DEFINITION

<u>ITEM</u>	<u>DESCRIPTION</u>
<u>DIVISION 9 - FINISHES</u>	
<u>Partition(s)/Wall(s)</u>	
<u> X</u> New Partition(s)/Wall(s)	<u> 40</u> Linear feet of Gypsum Board on 25 ga. Steel Studs — Linear feet of Gypsum Board on Furring Strips — Linear feet of Masonry w/ Gypsum Board on Furring Strips <u> 20</u> Linear feet of above wall with lead lining (see Division 13 for lead thickness and height)
<u>Ceiling(s)</u>	
<u> X</u> New Ceiling(s)	— Square feet of 2' x 2' Acoustical Lay-in <u> 400</u> Square feet of 2' x 4' Acoustical Lay-in — Square feet of Gypsum Board — Square feet of Other _____
<u>Floor Covering</u>	
— New Floor Covering (See Division 10 for access flooring)	— Square feet of Vinyl Composition Tile (VCT) — Square feet of Carpet — Square feet of Sheet Vinyl Flooring — Square feet of Other _____
<u>Wall Covering</u>	
<u> X</u> New Wall Covering(s)	<u>1000</u> Square feet of Paint — Square feet of Vinyl Wall Covering — Square feet of Other _____

WORK SCOPE DEFINITION

<u>ITEM</u>	<u>DESCRIPTION</u>
<u>DIVISION 9 - FINISHES (Contd)</u>	
<u>Miscellaneous</u>	
<input checked="" type="checkbox"/> Patch and Repair Walls	<u>As required in all areas</u>
<input type="checkbox"/> Each Corner Guard(s)	
<input type="checkbox"/> Hallway Rail(s) _____	Linear Feet
<input type="checkbox"/> Each Mirror(s) _____	H x _____ W
<input type="checkbox"/> Each Lockers	
<input type="checkbox"/> Other _____	
<input type="checkbox"/> Other _____	

DIVISION 10 - SPECIALTIES

<input checked="" type="checkbox"/> New Access Flooring	<u>40'</u> Square feet of access flooring system <u>6"</u> high, designed for <u>250</u> psf uniform load and 1000 psi concentrated load. Provide one (1) panel lifter. Recommended manufacturers: - G-H Products Inc. Dallas, TX - Floor Systems Livingston, NJ
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DIVISION 11 - EQUIPMENT (Not Used)

DIVISION 12 - FURNISHINGS (Not Used)

DIVISION 13 - SPECIAL CONSTRUCTION

Radiation Protection

<input type="checkbox"/> New Door(s) & Frame(s)	See Division 8 for quantity and size. They shall consist of 1/8" lead unless otherwise specified on referenced Owner's physicist's design (see Page 1).
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WORK SCOPE DEFINITION

ITEM

DESCRIPTION

DIVISION 13 - SPECIAL CONSTRUCTION (Contd.)

Radiation Protection (Contd.)

New Window(s) & Frame(s)

See Division 8 for quantity and size. They shall consist of 2.0mm lead eq. leaded glass and 1/8" lead lined frame unless otherwise specified on referenced Owner's physicist's design (see page 1).

Lead Backed Gypsum Wallboard
As required and specified by Hospital physicist.

See Division 9 for number of linear feet of wall. They shall consist of 1/8" lead lined to 7'-0" above finished floor, unless otherwise specified on referenced Owner's physicist's design (see page 1).

DIVISION 14 - CONVEYING SYSTEMS (Not Used)

DIVISION 15 - MECHANICAL

Plumbing

New Fixture(s)

Each Sink " x " x "

Each Toilet

Each Lavatory

HVAC

New duct or re-route existing duct so as to avoid interference with new light fixtures, electrical raceway, or overhead support steel, then rebalance.

To Rooms exam

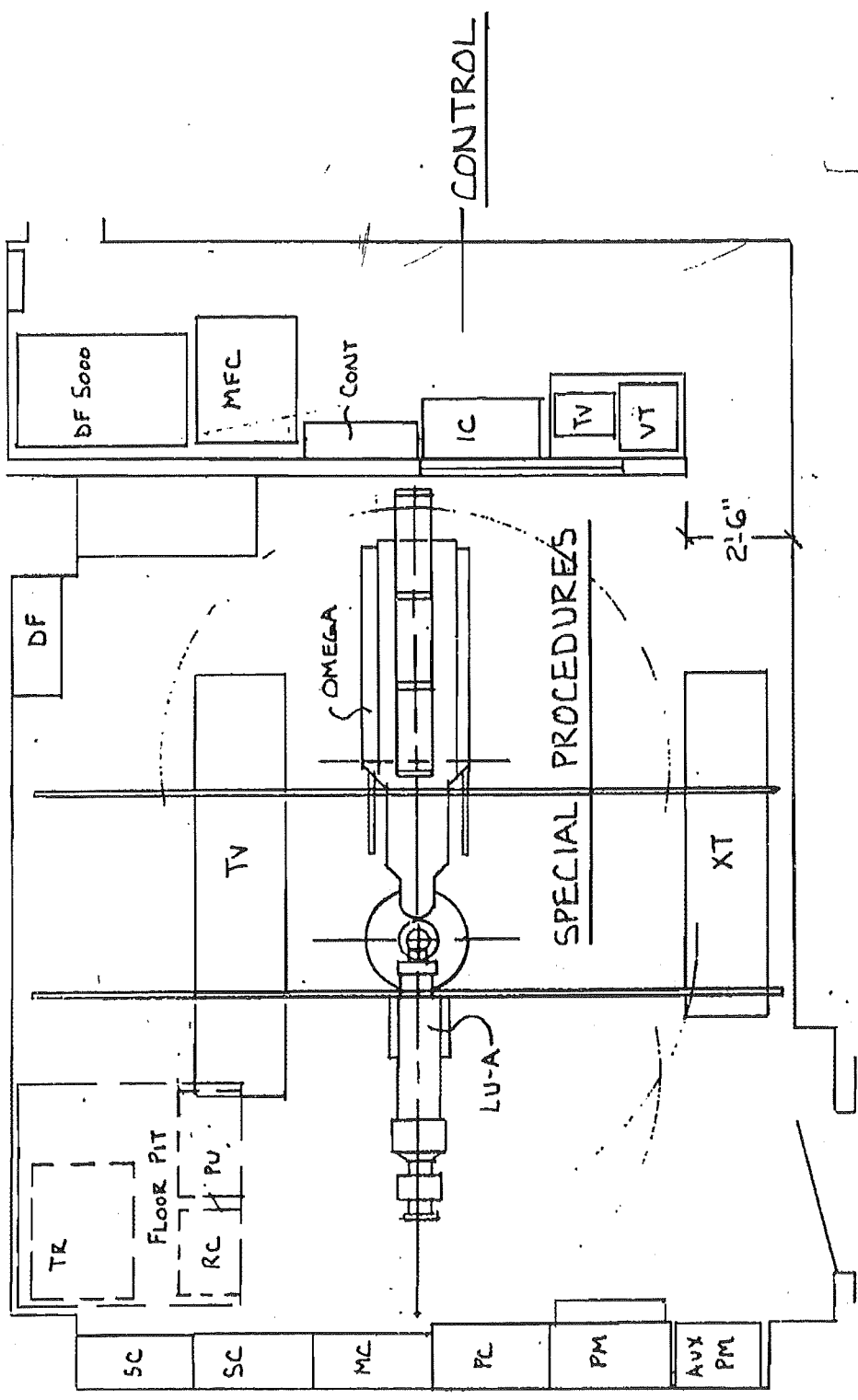
New Diffuser(s)

Each supply diffusers
 Each return diffusers

WORK SCOPE DEFINITION

<u>ITEM</u>	<u>DESCRIPTION</u>
<u>DIVISION 16 - ELECTRICAL (Contd.)</u>	
<u>Power Feeder(s)</u>	
<input checked="" type="checkbox"/> Extend Existing Power Feeder(s)	<u>As specified on G.E. drawings</u>
<input type="checkbox"/> New Power Feeder(s)	<input type="checkbox"/> Linear Feet 480V, 3 Phase <input type="checkbox"/> Linear Feet 208V, 1 Phase
<input type="checkbox"/> New Circuit Breaker/Enclosure	<input type="checkbox"/> Each 480V, 3 Phase, _____ Amps <input type="checkbox"/> Each 208V, 1 Phase, _____ Amps
<u>Special Systems</u>	
<input checked="" type="checkbox"/> Electrical ductwork (Square D RWT or equal), conduit, boxes and wire as described and configured on referenced drawing to interconnect diagnostic equipment except diagnostic equipment interface cables normally provided under an equipment contract	
<input type="checkbox"/> Each P.A. Speaker(s)	
<input type="checkbox"/> Each Smoke Detector	
<input type="checkbox"/> Each CCTV Camera w/Monitor	
<input type="checkbox"/> Each _____	
<input type="checkbox"/> Each _____	

yes



GENERAL ELECTRIC
 MEDICAL SYSTEMS • MILWAUKEE, WISCONSIN
 DIAGNOSTIC EQUIPMENT PLANNING SERVICES

Scheme No: 1
 Room No:
 Drawn By: MLC Date: 7-25-86
 Approved By:

Project: **LENOIR MEMORIAL HOSPITAL**
 KINSTON, NC

PRELIMINARY PLAN
 3/4" = 1'-0"

GENERAL ELECTRIC
MEDICAL SYSTEMS
3440 Lakemont Blvd.
P. O. Box 814
Fort Mill, S. C. 29715

Date 10/2/86 Job No.

Attention: HANS SKUDVIG

RE: LENOIR MEM'L HOSP
KINSTON, NC

TO: DEPT. DESIGN & PLANNING
MF 480

DWGS
BY
10/24/86
IN
DISTRICT
OFFICE



WE ARE SENDING YOU:

Attached Under separate

VIA First Class

Prints

Details

Typical

VIA Special Delivery

Copies

Specifications

Other

DESCRIPTION: FINAL DWG REQUEST LU-A (SOLD ORDER - PDD TO FOLLOW WHEN AVAILABLE)

THESE ARE TRANSMITTED as checked below:

For approval

Approved as submitted

Return copies for approval

For your use

Approved as noted

Submit copies for distribution

As requested

Returned for corrections

Return corrected prints

Remarks: HANS,

OUR DWGS WILL BE USED AS CONSTRUCTION PLANS FOR BIDDING PURPOSES. PLEASE REVIEW EXISTING FILE AND ALL NEW INFO. DIMENSIONS AND EQUIPMENT LOCATIONS WILL BE CRITICAL. THIS JOB IS SCHEDULED TO TRANSFER THIS YEAR.

THANKS, Jim Reynolds
Installation Specialist

COPIES TO:

JIM BEST c/o LENOIR MEM'L HOSP
Hospital
PO BOX 1678
100 AIRPORT RD
KINSTON, NC 28501

TOM ZWIRBLIA
Contractor - G & SERV REP

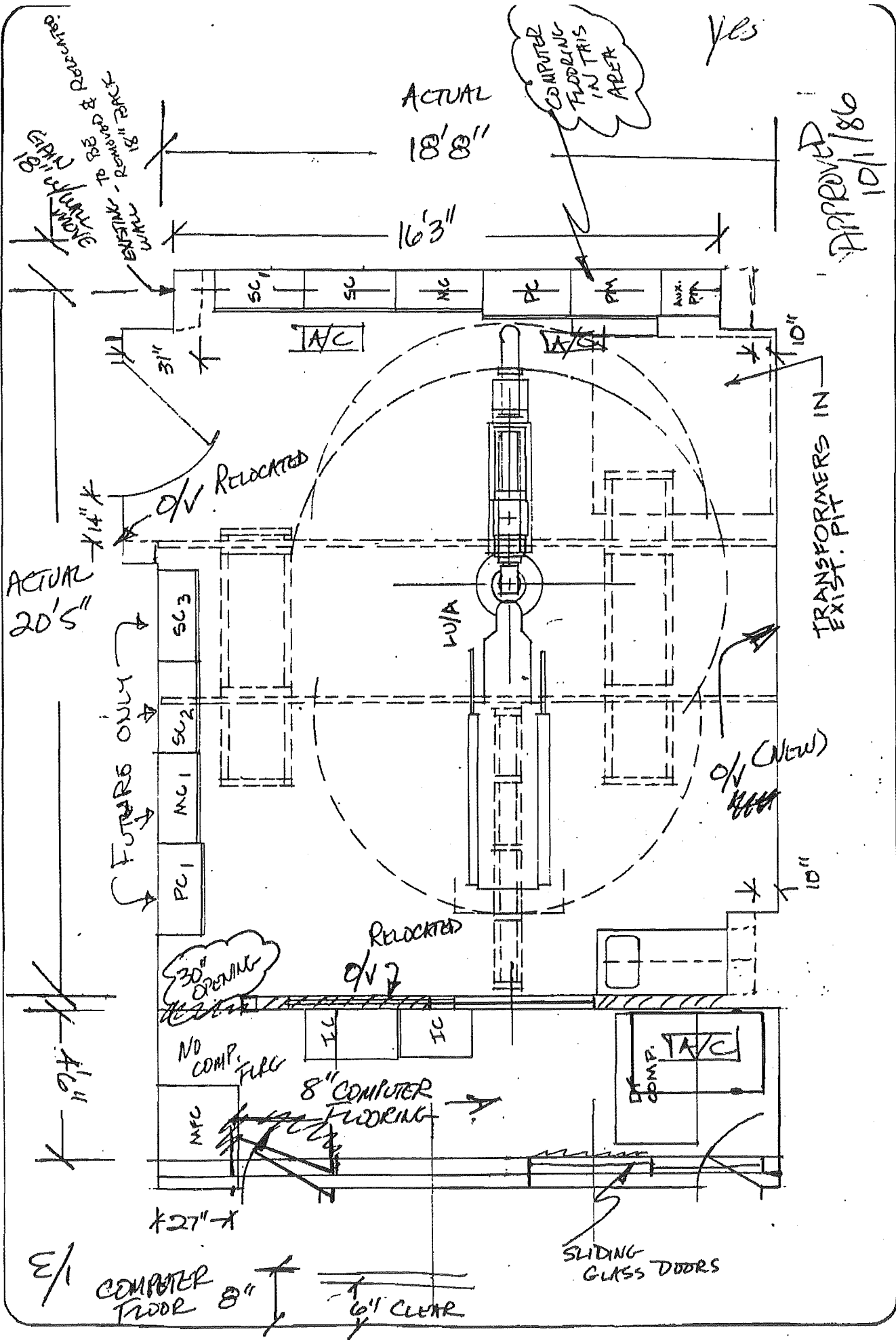
TERRY WOODS
Service Supervisor

LOU DEPETERS
Unit Manager

BOB BEARDSLEY
District Service Manager

WAYNE BROOME
Architect
Sales Representative

TOM PERRY
District Sales Manager



COMPUTER FLOORING IN THIS AREA

yes

APPROVED
10/1/86

GENERAL ELECTRIC
MEDICAL SYSTEMS • MILWAUKEE, WISCONSIN
DIAGNOSTIC EQUIPMENT PLANNING SERVICES

Scheme No: A
Room No: LVA
Drawn By: KLS Date: 6/28/86
Approved By:

Project:
LENOIR MEMORIAL HOSPITAL
KINGSTON, NORTH CAROLINA

SPECIFY ABSOLUTE MINIMUM CEILING HT REQ'D

TRANSFORMERS IN EXIST. PIT

O/V (New)

Relocated

30" OPENING

NO COMP. FILE

8" COMPUTER FLOORING

COMP. FILE

SLIDING GLASS DOORS

COMPUTER FLOOR 8"

6" CLEAR

FUTURE ONLY

ACTUAL 20'5"

O/V Relocated

EXISTING 18" W/UTILITY

18" SPACE
TO BE
CONVERTED & RELOCATED

ACTUAL 18'8"

16'3"

14"

10"

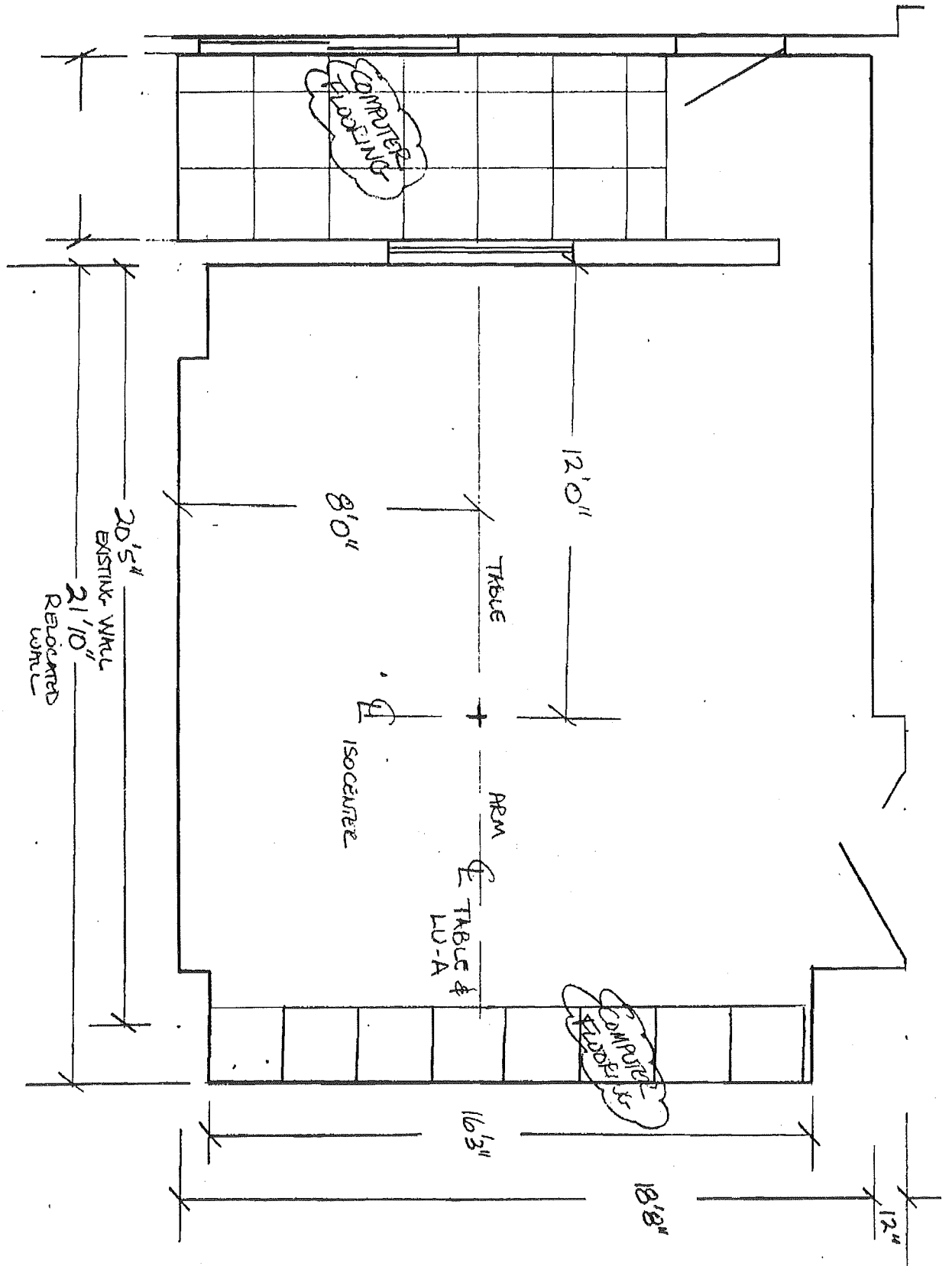
10"

14"

27"

1/3

KINSTON, NC
10/2/86 GTR

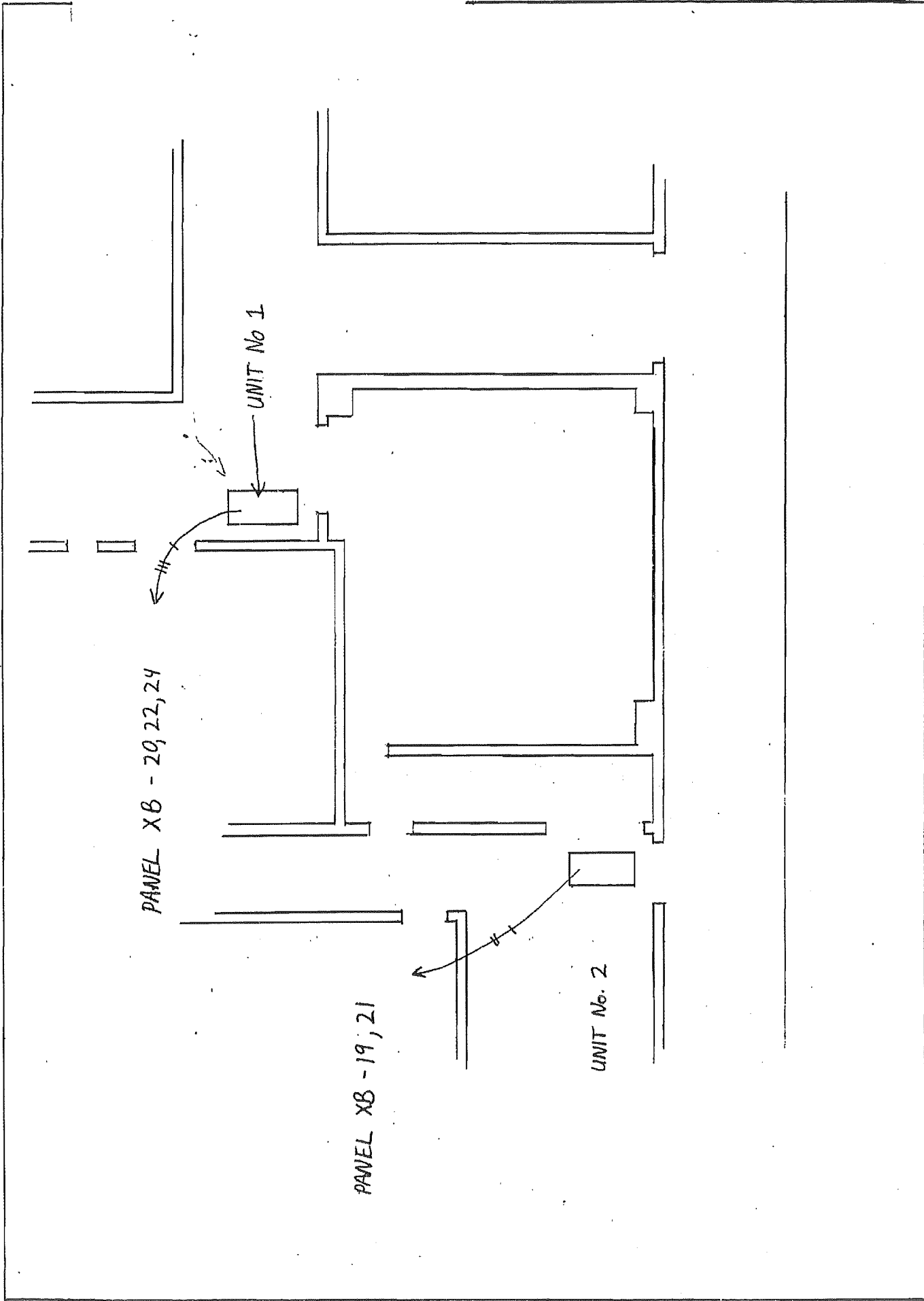


20
15

KINSTON, NC
10/2/84

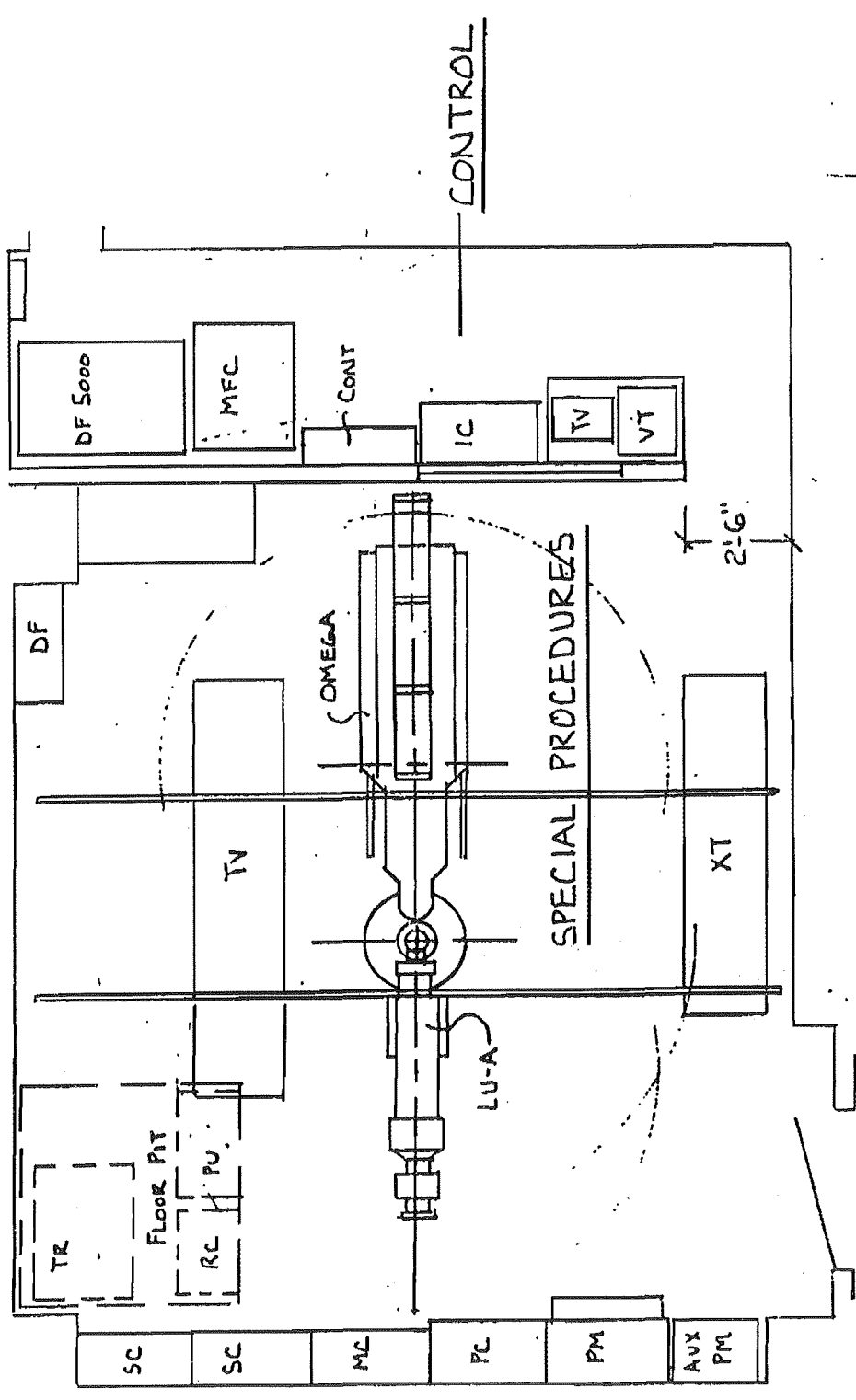
CONSTRUCTION NOTES FOR LU-A

- MOVE EXISTING WALL OUT APPROXIMATELY 18" TO COINCIDE W/ EXISTING DOORWAY IN HALL - EXISTING FIRE ALARM PULL TO BE RELOCATED INTO NEW WALL - WALL TO BE LEADLINED IN ACCORDANCE W/ HOSP'S PHYSICIST - O/V OUTLET TO BE REMOVED AND RELOCATED
- DEMOLISH EXISTING WING WALL AND WALL SEPARATING CONTROL ROOM AND TOILET FROM STORAGE ROOM IN CENTER OF NEW CONTROL AREA
- INSTALL NEW 3' X 5' VIEW WINDOWS AS SHOWN - REMOVE AND RELOCATE EXISTING O/V OUTLET
- INSTALL COMPUTER FLOORING IN CONTROL ROOM AS SHOWN AND ALONG EQUIPMENT WALL AS SHOWN - FINISHED FLOOR TO TOP OF COMP. FLRG TO BE 8" - EXISTING DOOR TO BE MODIFIED TO SWING INTO CONTROL AREA IF REQUIRED
- ANY ADD'L A/C TO BE SPECIFIED BY HOSP PER BTU LOADING ON GE DWGS
- PLAN ROOM FOR FUTURE BIPLANE RAD
- SPECIFY ABSOLUTE MIN CEILING HT REQ'D



LENOIR MEMORIAL HOSP.	DRAWN: JB	SCALE: 1/8" = 1'-0"	DATE: 12-11-86	PROJECT NO.: 86-07088	DRAWING NO.: E 3
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100



PRELIMINARY
PLAN

2 1/4" = 1'-0"

Project:
LENOIR MEMORIAL
HOSPITAL
KINSTON, NC

Scheme No: |
Room No:
Drawn By: MLC Date: 7-25-86
Approved By:

GENERAL ELECTRIC
MEDICAL SYSTEMS • MILWAUKEE, WISCONSIN
DIAGNOSTIC EQUIPMENT PLANNING SERVICES