North Carolina Department of Health and Human Services
Division of Health Service Regulation

Pat McCrory
Governor

Richard O. Brajer
Secretary DHHS

Drexdal Pratt
Division Director

September 4, 2015

Denise M. Gunter
380 Knollwood Street, Suite 530
Winston-Salem, NC 27103

Exempt from Review – Replacement Equipment

Record #:	**1714**
Facility Name:	Novant Health Imaging-Maplewood
FID #:	051068
Business Name:	Novant Health, Inc.
Business #:	1341
Project Description:	Novant Health, Inc. to replace existing MRI scanner at Novant Health Imaging-Maplewood
County:	Forsyth

Dear Ms. Gunter:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that based on your letter of September 2, 2015, the above referenced proposal is exempt from certificate of need review in accordance with G.S 131E-184(a)(7). Therefore, you may proceed to acquire, without a certificate of need, the proposed MRI scanner to replace the existing Siemens Espree MRI scanner acquired pursuant to Project ID #G-7387-05 and located at 3155 Maplewood Ave, Winston-Salem, NC. This determination is based on your representations that the unit will be removed from North Carolina and will not be used again in the State without first obtaining a certificate of need.

Moreover, you need to contact the Agency's Construction and Acute and Home Care Licensure and Certification Sections to determine if they have any requirements for development of the proposed project.

It should be noted that the Agency's position is based solely on the facts represented by you and that any change in facts as represented would require further consideration by this office and a

separate determination. If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

Celia C. Inman
Project Analyst

Martha J. Frisone,
Assistant Chief, Certificate of Need

cc: Construction Section, DHSR
Assistant Chief, Healthcare Planning
Acute and Home Care Licensure and Certification Section, DHSR

Nelson Mullins

Nelson Mullins Riley & Scarborough LLP
Attorneys and Counselors at Law
380 Knollwood Street / Suite 530 / Winston-Salem, NC 27103
Tel: 336.774.3300 Fax: 336.774.3372
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Denise M. Gunter
Tel: 336.774.3322
Fax: 336.774.3372
denise.gunter@nelsonmullins.com

September 2, 2015

VIA HAND DELIVERY

Martha J. Frisone, Assistant Chief
Healthcare Planning and Certificate of Need Section
North Carolina Department of Health and Human Services
Division of Health Service Regulation
809 Ruggles Drive
Raleigh, North Carolina 27603

Re: Replacement Equipment Exemption Request
Novant Health, Inc. (Novant Health Imaging – Maplewood)
HSA II
Forsyth County

Dear Ms. Frisone:

On behalf of Novant Health, Inc. ("Novant") and in accordance with N.C. Gen. Stat. § 131E-184(a)(7), I am writing to notify the Department of Novant's intention to replace an existing MRI scanner currently in use at Novant Health Imaging – Maplewood ("NHI-Maplewood") with a new General Electric 3.0T MRI scanner.

NHI-Maplewood currently operates two fixed MRI scanners. The scanner that is the subject of this request is a Siemens Magnetom Espree 1.5T MRI scanner (the "Existing Scanner"). The Existing Scanner was acquired in 2007 pursuant to Project I.D. No. G-7387-05. *See* Exhibit A, the replacement equipment comparison form. Novant, the ultimate parent entity of NHI-Maplewood, intends to replace the Existing Scanner with a new General Electric Signa Pioneer 3.0T MRI scanner (the "Replacement Scanner"). Novant plans to install the Replacement Scanner at NHI-Maplewood in Winston-Salem. After the replacement is complete, NHI-Maplewood will have a total of two fixed MRI scanners, just as it does now. There will be no change in the overall inventory of fixed MRI scanners in Forsyth County as a

result of this project. Upon approval of this request, the Existing Scanner will be removed from NHI-Maplewood and will not be brought back into North Carolina without appropriate CON approval.

The total project costs, including the Replacement Scanner itself, and all costs essential to acquiring it and making it operational, are $1,918,007.12. *See* Exhibit B, the signed capital cost sheet. The quoted purchase price of the Replacement Scanner is $1,633,007.12[1] *See* Exhibit C, the equipment quote. Novant is not going to acquire the optional injector listed at $39,500 on page 19 of the quote. The construction cost of $285,000 includes construction, de-installation and removal of the Existing Scanner, installation of the Replacement Scanner, shielding and architect fees.

This proposal meets the definition of "replacement equipment" as set forth in N.C. Gen. Stat. § 131E-176(22a) because:

1. The cost of the equipment and the cost of all activities essential to acquiring and making operational the replacement equipment are less than $2 million; and
2. The sole purpose of this proposal is to replace comparable medical equipment currently in use, which will be sold or otherwise disposed of when replaced.

Further, this proposal meets the requirements of 10A NCAC 14C .0303(d) because:

- The Replacement Scanner has the same technology as the Existing Scanner although it may possess expanded capabilities due to technological improvements; and

- The Replacement Scanner is functionally similar and is used for the same diagnostic or treatment purposes as the Existing Scanner and is not used to provide a new health service; and

- The acquisition of the Replacement Scanner will not result in more than a 10% increase in patient charges or per procedure operating expenses within the first twelve months after the replacement equipment is acquired.

None of the exclusions in 10A NCAC 14C .0303(e) applies here.

[1] As a not-for-profit entity, Novant Health is exempt from paying sales tax.

Based on the foregoing, Novant respectfully requests that the CON Section confirm in writing that the above-referenced proposal is exempt from CON review pursuant to N.C. Gen. Stat. § 131E-184(a)(7). As Novant would like to begin work on this project in the near future, we would be grateful for your written reply at your earliest opportunity.

Thank you for your time and attention.

Sincerely,

Denise M. Gunter

Denise M. Gunter

Enclosures

Exhibit A

EQUIPMENT COMPARISON – MR REPLACEMENT
NOVANT HEALTH IMAGING - MAPLEWOOD

	EXISTING EQUIPMENT	**REPLACEMENT EQUIPMENT**
Type of Equipment (List Each Component)	MRI Scanner	MRI Scanner
Manufacturer of Equipment	Siemens	General Electric
Tesla Rating for MRIs	1.5T	3.0T
Model Number	Espree	Signa Pioneer
Serial Number	30386	TBD
Provider's Method of Identifying Equipment	Serial Number	Serial Number
Specify if Mobile or Fixed	Fixed	Fixed
Mobile Trailer Serial Number/VIN #	N/A	N/A
Mobile Tractor Serial Number/VIN #	N/A	N/A
Date of Acquisition of Each Component	2007	2015
Does Provider Hold Title to Equipment or Have a Capital Lease?	Title	N/A
Specify if Equipment Was/Is New or Used When Acquired	New	New
Total Capital Cost of Project (Including Construction, etc.) <Use Attached Form>	$1,750,768	$1,918,007.12
Total Cost of Equipment	$	$1,633,007.12
Fair Market Value of Equipment	$350,000	Same
Net Purchase Price of Equipment	Same	Same
Locations Where Operated	3155 Maplewood Ave, Winston-Salem, NC	3155 Maplewood Ave, Winston-Salem, NC
Number Days In Use/To Be Used in N.C. Per Year	255	255
Percent of Change in Patient Charges (by Procedure)	NA	NA
Percent of Change in Per Procedure Operating Expenses (by Procedure)	NA	NA
Type of Procedures Currently Performed on Existing Equipment	General Outpatient MR Scans of the Body/ Extremities	General Outpatient MR Scans of the Body/ Extremities + MRA Carotid, Renal, Faster Acquisition Times
Type of Procedures New Equipment is Capable of Performing	General Outpatient MR Scans of the Body/ Extremities	General Outpatient MR Scans of the Body/ Extremities + MRA Carotid, Renal, Faster Acquisition Times

Exhibit B

PROJECT CAPITAL COST

Project Name: Novant Health Imaging – Maplewood 3T MRI Scanner Replacement
Proponent: Novant Health, Inc.

A.	**Site Costs**				
	(1)	Full purchase price of land		$ N/A	
		# Acres ____ Price per Acre $_____			
	(2)	Closing costs		$_____	
	(3)	Site Inspection and Survey		$_____	
	(4)	Legal fees and subsoil investigation		$_____	
	(5)	Site Preparation Costs [Include]			
		Soil Borings			
		Clearing and Grading			
		Roads and Parking			
		Sidewalks			
		Water and Sewer			
		Excavation and Backfill			
		Termite Treatment			
		Sub-Total Site Preparation Costs	$_____		
	(6)	Other (Specify)		$_____	
	(7)	**Sub-Total Site Costs**			$ _____
B.	**Construction Contract**				
	(8)	Cost of Materials [Include]			
		General Requirements			
		Concrete/Masonry			
		Woods/Doors & Windows/Finishes			
		Thermal & Moisture Protection			
		Equipment/Specialty Items			
		Mechanical/Electrical			
		Sub-Total Cost of Materials	$_____		
	(9)	Cost of Labor	$_____		
	(10)	Other	$_____		
	(11)	**Sub-Total Construction Contract**			**$285,000**
C.	**Miscellaneous Project Costs**				
	(12)	Building Purchase	$_____		
	(13)	Fixed Equipment Purchase/Lease	$1,633,007.12		
	(14)	Movable Equipment Purchase/Lease	$_____		
	(15)	Furniture	$_____		
	(16)	Landscaping	$_____		
	(17)	Consultant Fees			
		Architect/Engineering Fees	$_____		
		Legal Fees	$_____		
		Market Analysis	$_____		
		Other			
		Total Consultant Fees	$_____		
	(18)	Financing Costs			
		(e.g. Bond, Loan, etc.)	$Not Applicable		
	(19)	Interest During Construction	$Not Applicable		
	(20)	Other (Contingency)		$_____	
	(21)	**Sub-Total Miscellaneous**			**$1,633,007.12**
D.	**Total Capital Cost of Project (Sum A-C above)**				**$1,918,007.12**

I certify that to the best of my knowledge, the above construction related costs of the proposed project named above are complete and correct.

ERIC J. CERNILA REGISTERED ARCHITECT 7877 NORTH CAROLINA MATTHEWS, N.C.

(Signature of Licensed Architect or Engineer)

I assure that, to the best of my knowledge, the above estimates for the proposed project are complete and correct and that it is my intent to carry out the proposed project as described.

(Proponent – signature of officer)

GC, Member, Atty-in-Fact

(Title of officer)

Exhibit C

GE Healthcare

Date: 08-24-2015
Quote #: PR8-C52176
Version #: 1

Forsyth Radiological Associates
3155 Maplewood Ave
Winston Salem NC 27103-3903

Attn: Chris Murphy
3480 Preston Ridge Rd Ste 600
Alpharetta
GA 30005-5462

Customer Number : 1-24BFRM
Quotation Expiration Date: 11-22-2015

The terms of the Master Purchasing Agreement, Strategic Alliance Agreement or GPO Agreement referenced below as the Governing Agreement shall govern this Quotation. No additional or different terms shall apply unless agreed to in writing by authorized representatives of both parties.

Governing Agreement:	Novation
Terms of Delivery:	FOB Destination
Billing Terms:	80% delivery / 20% Installation
Payment Terms:	NET 30
Total Quote Net Selling Price:	$1,633,007.12

INDICATE FORM OF PAYMENT:

If "GE HFS Loan" or "GE HFS Lease" is NOT selected at the time of signature, then you may NOT elect to seek financing with GE Healthcare Financial Services (GE HFS) to fund this arrangement after shipment.

____Cash/Third Party Loan

____GE HFS Lease

____GE HFS Loan

____Third Party Lease (please identify financing company)

By signing below, each party certifies that it has not made any handwritten modifications. Manual changes or mark-ups on this Agreement (except signatures in the signature blocks and an indication in the form of payment section below) will be void.

Each party has caused this agreement to be executed by its duly authorized representative as of the date set forth below.

CUSTOMER

_____ _____

Authorized Customer Signature Date

_____ _____

Print Name Print Title

_____

Purchase Order Number (if applicable)

GE HEALTHCARE

Scott Ramsey 08-24-2015

Signature Date

Product Sales Specialist

Email: Floyd.Ramsey@med.ge.com
Office: +1 919 621 1657
Mobile: 919-621-1657
Fax: 919-869-1618

GE Healthcare

Date: 08-24-2015
Quote #: PR8-C52176
Version #: 1

Total Quote Selling Price	**$1,633,007.12**
Trade-In and Other Credits	$0.00
Total Quote Net Selling Price	**$1,633,007.12**

To Accept this Quotation

Please sign and return this Quotation together with your Purchase Order To:
Floyd Ramsey
Office: +1 919 621 1657
Mobile: 919-621-1657
Email: Floyd.Ramsey@med.ge.com
Fax: 919-869-1618

Payment Instructions

Please **Remit** Payment for invoices associated with this quotation to:
GE Healthcare
P.O. Box 96483
Chicago, IL 60693

To Accept This Quotation

- Please sign the quote and any included attachments (where requested).
- If requested, please indicate, your form of payment.
- If you include the purchase order, please make sure it references the following information
  - The correct Quote number and version number above
  - The correct Remit To information as indicated in **"Payment Instructions"** above
  - The correct SHIP TO site name and address
  - The correct BILL TO site name and address
  - The correct Total Quote Net Selling Price as indicated above

GE Healthcare

Date: 08-24-2015
Quote #: PR8-C52176
Version #: 1

08-24-2015

GPO Agreement Reference Information

Customer:	Chris Murphy
Contract Number:	CE0351, XR14,22,53,11013,11031,11041,11051,2011
Start Date:	
End Date:	11/30/2016
Billing Terms:	80% delivery / 20% Installation
Payment Terms:	NET 30
Shipping Terms:	FOB Destination

NOTICE REGARDING MAGNETIC RESONANCE ("MR") PRODUCTS. This notice applies only to the following GE Healthcare products: MR: Discovery MR750, Discovery MR750w, Discovery MR450 and Optima MR450w. GE Healthcare has reclassified several advanced software tools and associated documentation to a GE Healthcare Technical Service Technology package that GE Healthcare feels will bring greater value and interest to our customers. GE Healthcare will continue to provide trained Customer employees with access to the GE Healthcare Technical Service Technology package under a separate agreement. GE Healthcare will continue to provide customers and their third party service providers with access to software tools and associated documentation in order to perform basic service on the CT, MR and NM products listed above upon a request for registration for such access. This will allow GE Healthcare to react faster to the future service needs of GE Healthcare customers. If you have any questions, you can contact your sales Service Specialist.

This product offering is made per the terms and conditions of Novation/GE Healthcare GPO Agreement # XR0053 (MR).

For access to the applicable Novation Agreement and Contract Summary, please login to the Novation Marketplace website. If you require assistance or are experiencing issues please contact one of the following for support:

Novation Customer Service (888) 7-NOVATE NOVCustomerService@novationco.com

Web Site Technical Support (800) 327-8116 NovationTechSupport@novationco.com

GE Healthcare

Date: 08-24-2015
Quote #: PR8-C52176
Version #: 1

Item No.	Qty	Description
		SIGNA Pioneer 3.0T
	1	**SIGNA Pioneer 3.0T**
1	1	SIGNA Pioneer 3.0T MR System - EN Platform

The SIGNA Pioneer 3.0T MR system is designed with pioneering technology to maximize your productivity and ROI while delivering unmatched patient comfort, uncompromised clinical performance and streamlined workflow.

The EN configuration includes the system electronics, operating software, imaging software, post-processing software and RF coil suite:

- 97 channel Total Digital Imaging Receive Technology
- Digital Surround Technology
- Ultra-High Efficiency Gradient System
- Quiet Technology (Acoustic Reduction Technology)
- Auto Protocol Optimization
- Multi-Drive Transmit & PERFORM 2.0
- Computing Platform & DICOM
- Comfort Plus Patient Table
- TDI Coil Suite
- Volume Reconstruction Engine
- Computing Platform and DICOM
- Express 2.0 Workflow
- ScanTools and EN Tools

Total Digital Imaging: The SIGNA Pioneer Total Digital Imaging RF architecture delivers 97 channels standard in every SIGNA Pioneer system. This pioneering technology delivers images with greater clarity and up to 25% increased SNR. TDI has three fundamental components:

- Direct Digital Interface (DDI) employs an independent analog-to-digital converter to digitize inputs from each of 97 RF channels. Every input is captured and every signal digitized to deliver high quality 3.0T images.
- Digital Surround Technology (DST) delivers the capability to simultaneously acquire MR signal from the integrated body coil and the surface coil. By combining the digital signal from surface coil elements with the signal from the integrated RF body coil, the superior SNR and sensitivity of the high-density surface coils are combined with the superior homogeneity and deeper signal penetration of the integrated RF Body Coil.

Item No.	Qty	Description

This results in richer, higher quality spine and body images.

• Digital Micro Switching (DMS) technology represents a revolutionary advance in RF coil design by replacing analog blocking circuits with advanced Micro Electro-Mechanical System (MEMS) based blocking circuits enabling a coil design that supports ultrafast coil switching times for further expansion of zero TE imaging capabilities.

Ultra High Efficiency Gradient System: The SIGNA Pioneer gradient coil is 2x more efficient than previous gradient coil designs (i.e. the pioneer gradient coil requires half the amount of current required by previous designs to generate the same gradient field). This eco-friendly design enables the gradients to deliver superior performance while significantly reducing power consumption. Further, the SIGNA Pioneer gradient driver includes Intelligent Gradient Control (IGC) technology which employs a digital control system that utilizes predictive models of the electrical and thermal characteristics of the gradient coil to maximize the performance of the gradient system to deliver exceptional clinical performance.

Quiet Technology: The SIGNA Pioneer system features Acoustic Reduction Technology (ART) that delivers an enhanced patient experience by significantly reducing noise levels (up to 99% reduction in sound pressure). Acoustic reduction is achieved through:

• Gradient & RF coil isolation
• Acoustic dampening material
• Vibro-acoustic isolation
• Gradient waveform optimization

RF Transmit Technology: The SIGNA Pioneer integrates an innovative RF transmit architecture designed to enhance overall image uniformity, and a multi-faceted SAR optimization system.

The MultiDrive RF architecture adjusts/optimizes the phase and amplitude of each RF amplifier output channel that is applied to the 4-port drive whole-body RF transmit coil to enhance RF uniformity and signal homogeneity regardless of patient size and body habitus.

PERFORM 2.0 combines RF body coil design, optimized pulse sequences, detailed predictive SAR modeling during prescription, and real-time SAR feedback and correction during scanning to help ensure high performance across all applications, tailored for each patient.

Item No.	Qty	Description

Computing Platform: The Intel Xeon Nehalem Dual Core Processor computing platform utilizes a parallel, multi-processor design to enable simultaneous scanning, reconstruction, filming, post-processing, archiving, and networking. The keyboard assembly integrates an intercom speaker, microphone, volume controls, and emergency stop switch. Start scan, pause scan, stop scan and table advanced to center hot keys are also included.

- 32GB DDR3 Memory
- 3 x 300GB SAS disk subsystem
- 24" flat panel LCD with 1920x1200 resolution
- Single tower configuration
- DVD interchange

DICOM: The SIGNA Pioneer generates MR Image, Secondary Capture, Structured Report, and Gray Scale Softcopy Presentation State DICOM objects. The DICOM networking supports both send and query retrieve as well as send with storage commit to integrate with PACS archive. Please refer to the DICOM Compliance Statement for SIGNA Pioneer for further details.

Comfort Plus Patient Table: The SIGNA Pioneer offers a fully integrated Comfort Plus patient table (also known as TDI patient table), which features the embedded TDI Posterior Array, to help improve exam efficiency, and patient comfort. The Comfort Plus patient table can be lowered to very low heights to facilitate transfer of wheelchair patients. The cradle width has also been increased by 30% from previous generations to enable a more comfortable experience for patients.

- Maximum patient weight for scanning: 550 lbs
- Maximum patient weight mobile: 550 lbs
- Maximum patient weight for lift: 550 lbs
- Automated vertical and longitudinal power drive
- Fast longitudinal speed: 17 cm/sec
- Slow longitudinal speed: 1.9 cm/sec
- IntelliTouch & laser land-marking
- Laser alignment land-marking

TDI Coil Suite - EN Coil Package: The Total Digital Imaging Suite of coils are designed to enhance patient comfort and image quality while simplifying workflow. The EN Coil Package includes:

- T/R Body Coil
- TDI Posterior Array

GE Healthcare

Date: 08-24-2015
Quote #: PR8-C52176
Version #: 1

Item No.	Qty	Description

• TDI Head Neck Unit
• Anterior Array

The TDI Posterior Array is the first coil to include the Digital Micro Switch. The Integrated Posterior Array is symmetrically positioned within the patient supporting cradle, and coil connection ports are located at both ends of the table. This design enables all components of the TDI Coil Suite to support either patient orientation and enable a more comfortable patient position. designed to provide optimal element geometry for each targeted anatomy by using different element geometries for the cervical-to-thoracic spine transition, thoracic and lumbar spine, and the body.
• Elements: 32
• Length: 120.5 cm; Width: 48.6cm
• S/I coverage: 113cm head-first or feet-first
• Parallel imaging in all three scan planes
• Head-first or feet-first positioning

The TDI Posterior Array is designed to be used in conjunction with the TDI Head Neck Unit, the 3.0T Anterior Array, and the GEM Flex Coils. The TDI PA is invisible to additional surface coils when they are placed directly on top of the surface.

The TDI HNU consists of 3 imaging components: a head base-plate, an anterior neuro-vascular face-array, and the open face adapter. The open-face design provides a patient-friendly feel. The base plate may be used with the open face adaptor to accommodate cervical spine exams in large or claustrophobic patients or for patients with intubation. Improved access and patient comfort may be achieved through elevation of the superior end of the coil.
• Elements: up to 29 combined with PA and AA
• Length: 53 cm; Width: 35 cm
• Height with NV Array: 35 cm
• Height with Cervical Array: 32.6 cm
• Height with Open Array: 25.9 cm
• S/I coverage: up to 50 cm with PA and AA
• Parallel imaging in all three scan planes

The Anterior Array facilitates chest, abdomen, pelvis, and cardiac imaging. The GEM AA is lightweight, thin and flexible, and pre-formed to conform to the patient's size and shape. With 54 cm of S/I coverage, the GEM AA permits upper abdomen and pelvis imaging without repositioning the coil.

Item No.	Qty	Description

- Elements: up to 36 combined with PA
- Length: 55.6 cm; Width: 67.4 cm
- S/I coverage: 54 cm
- R/L coverage: up to the full 50 cm FOV
- Parallel imaging in all three scan planes
- Head-first or feet-first positioning

Express Workflow 2.0: Streamlined workflow on SIGNA Pioneer starts in the magnet room with the dual touch-screen In Room Displays enable interaction with the host computer from the magnet room. The user has direct control or selection of:

- Display of patient name, ID, study description
- Display and entry of patient weight
- Display and entry of patient orientation and position
- Cardiac gating waveform display
- EKG lead confirmation with gating control
- Respiratory waveform display
- IntelliTouch Landmarking
- AutoStart
- Display of coil connection and status
- Display of table location and scan time
- Screen saver

Express Exam enables complete control of protocols for prescription, archiving, searching, and sharing. Protocols are organized into two libraries – GE authored and Site authored – and Protocol Notes allow customized notes to be saved with each protocol. ProtoCopy enables a complete exam protocol, from either a library or previous exam, to be shared with a mouse click, and the Modality Worklist provides an automated method of linking exam and protocol information for a patient directly from a DICOM Worklist server.

The Workflow Manager controls the execution of scan prescription, acquisition, processing, viewing and networking and may automate these steps, when requested by the user. Auto Coil Prescription automatically selects the optimum subset of elements for scanning, and AutoStart automatically starts the first acquisition as soon as the technologist exits the magnet room.

Item No.	Qty	Description

Processing steps are automatically completed with Inline Processing once the data have been reconstructed and the images saved into the database. For certain tasks, the user must accept the results or complete additional steps prior to saving the images. These automatic Inline Processing steps can be saved into the Protocol Library.

Inline Viewing allows the user to conveniently view, compare, and analyze images from the Scan Desktop by selecting the desired series from the Workflow Manager.

ScanTools: ScanTools and the EN clinical package deliver an expansive portfolio of advanced applications, imaging options, and visualization tools packaged with the system operating software to provide extensive clinical capability and enhanced productivity.

Advanced Neuro Applications:

- PROPELLER 3.0 motion robust radial FSE
- PROPELLER 3.0 FSE-based diffusion imaging
- Spin Echo & Fast Spin Echo Suites
- T1-FLAIR & T2-FLAIR Suite
- Gradient Echo & Fast GRE Suites
- Spoiled Gradient Echo & Fast SPGR Suites
- Echo Planar, EPI FLAIR & fMRI EPI Suites
- EchoPlus with RTFA diffusion imaging
- DWI Prep for diffusion imaging
- 3D FIESTA & 3D FIESTA-C steady-state imaging
- 3D BRAVO IR-prepped fast SPGR imaging
- 3D COSMIC modified steady-state imaging
- 2D/3D MERGE multi-echo recombined GRE imaging
- PROBE PRESS & STEAM single voxel spectroscopy
- BrainSTAT GVF parametric maps

Advanced Spine & MSK Applications:

- PROPELLER 3.0 motion-robust radial FSE
- Spin Echo & Fast Spin Echo Suites
- Gradient Echo & Fast GRE Suites
- 3D COSMIC modified steady-state imaging

Item No.	Qty	Description

- 2D/3D MERGE multi-echo recombined GRE imaging
- High Bandwidth FSE artifact reduction
- Spectral Spatial Fat Suppression

Advanced Body Applications:

- Auto Navigators pencil-beam diaphragm tracker
- PROPELLER 3.0 motion robust radial FSE
- Spin Echo & Fast Spin Echo Suites
- Gradient Echo & Fast GRE Suites
- 3D LAVA T1 DCE imaging with Turbo ARC
- 2D/3D Dual Echo Fat-Water Imaging
- 3D FRFSE MRCP & HYDRO imaging
- Enhanced SSFSE single-shot FSE imaging
- 2D FS FIESTA steady-state imaging
- Multi-phase DynaPlan
- SmartPrep automated bolus detection
- Fluoro Trigger real-time bolus monitoring
- Respiratory Compensation, Gating & Triggering
- iDrivePro & iDrivePro Plus real-time imaging
- SPECIAL IR Fat Saturation
- Auto Protocol Optimization

Advanced Vascular Applications:

- Auto Navigators pencil-beam diaphragm tracker
- 2D/3D Time-Of-Flight & 2D Gated Time-of-Flight
- 2D/3D Phase Contrast & Phase Contrast Cine
- SmartPrep automated bolus detection
- Fluoro Trigger real-time bolus monitoring
- Magnetization Transfer& Flow Compensation
- Peripheral & EKG Gating & Triggering
- Respiratory Compensation, Gating & Triggering

Advanced Cardiac Applications:

- Double-Triple IR-FSE with spectral fat suppression

Item No.	Qty	Description

- FastCine FGRE-based, gated multi-phase imaging
- 2D FIESTA Cine steady-state, gated multi-phase imaging
- 3D FS FIESTA steady-state coronary imaging
- iDrivePro Plus real-time inter-active imaging
- Blood Suppression
- Cardiac Navigator diaphragm tracker
- Cardiac Compensation, Gating & Triggering
- Respiratory Compensation, Gating & Triggering
- Cine Paging (128 images/4 windows @ 30fps)

Advanced Imaging Tools:

- ARC & Turbo ARC data-based parallel acceleration
- ASSET 3.0 image-based parallel acceleration
- Real Time Field Adjustment for DWI
- DWI Prep for diffusion imaging
- Chemical Shift Direction Selection
- 2D/3D GradWarp compensation
- Acoustic Reduction Technology
- IR Prep, DE Prep & T2 Prep
- Full Echo Train & Tailored RF
- Spectral Spatial Fat Suppression
- SPECIAL IR Fat Suppression
- ASPIR Fat Suppression
- Matrix ZIP 512 & ZIP 1024
- 3D Slice 2X ZIP & 4X ZIP
- Square Pixel & Rectangular FOV
- No Phase Wrap & No Frequency Wrap
- Extended Dynamic Range

Advanced Processing & Display:

- Inline Viewing & Inline Processing
- Image Fusion & Image Pasting
- SCIC & PURE surface coil intensity correction
- Multi-planar Volume Reformat

Item No.	Qty	Description
		• Interactive Vascular Reformat • ClariView Image Filtering • Compare Mode & Reference Image • Cine Paging (128 images/4 windows @ 30fps) Advanced FuncTool Analysis: • ADC maps & eADC mapping • Correlation Coefficient analysis • NEI Negative Enhancement Integral analysis • MTE Mean Time To Enhance analysis • Positive Enhancement Integral analysis • Signal Enhancement Ratio analysis • Maximum Slope Increase analysis • Maximum Difference Function analysis • Difference Function analysis
2	1	SIGNA Pioneer Standard Service Package
3	1	Main Disconnect Panel The Main Disconnect Panel safeguards the MR system's critical electrical components, by providing complete power distribution and emergency-off control.
4	1	Operator's Console Table Wide table designed specifically for the color LCD monitor and keyboard.
5	1	Breast Expert Package • VIBRANT • 8-channel Breast Array VIBRANT (Volume Imaged BReast AssessmeNT) is a fast, high resolution T1 weighted imaging sequence and application optimized for evaluation of breast tissue. VIBRANT uses GE exclusive technology and parallel imaging acceleration to quickly acquire multi-phase data without compromising spatial resolution. This 3D gradient echo technique, optimized for sagittal or axial acquisitions, uses an optimized inversion pulse and dual-shimming technology that yields enhanced image contrast and robust, uniform, bilateral fat suppression. Auto subtraction of the first dataset is also available to further background suppression. For enhanced speed, VIBRANT is compatible with both ASSET and ARC parallel imaging with acceleration factors up to

Item No.	Qty	Description
		four. As a result, VIBRANT enables reliable, high quality breast imaging. For improved tissue contrast, VIBRANT is compatible with Flex imaging (sold separately). VIBRANT Flex acquisition will provide a water-only, fat-only, in-phase and out of phase data sets in a single acquisition and produce images with significantly reduced chemical shift and susceptibility artifacts. This is critical for evaluation of the axilla and chest wall. The 8-channel Breast Array generates high-definition MR breast images on 3.0T MR systems. Optimized for use with ASSET and VIBRANT for up to 3X acceleration, this 8-element phased-array coil helps ensure excellent temporal and spatial resolution, patient after patient. The array is also compatible with Fast Spin Echo, Fast Gradient Echo, and Diffusion Imaging sequences. It provides uncompromised lateral and medial access. This collector contains a set of MR compatible biopsy grids that are compatible with this coil.
6	1	FOCUS FOCUS delivers a highly efficient method for increasing the resolution in Single Shot DW EPI sequences. The outcome delivers robust high resolution results while removing artifacts typically induced from motion, image backfolding or unsuppressed tissue. In addition, with the higher efficiency of the application, the reduced field of view imaging leads to a reduction in blurring that translates into an overall improvement to the image quality result. The sequence utilizes 2D selective excitation pulses in DW-EPI acquisitions to limit the prescribed phase encoded field of view at both 1.5T and 3.0T field strengths.
7	1	3.0T GEM Flex Suite, Premium - P Connector The GEM Flex Suite is a versatile set of high density 16-channel receive coils designed to give high quality images in a wide range of applications. The high degree of flexibility was achieved by removing all non-essential electronics to an external interface assembly, ensuring reduced weight on the patient and better conformance to the anatomy. The high degree of flexibility is particularly advantageous when imaging patients that do not fit the constraints of rigid coils, improving patient and technologist experience, and enabling most exams to be completed with the same level of image quality expected from dedicated coils. This extended set includes all three sizes of coils, Small, Medium, and Large, and a knee stabilization fixture that is designed for compatibility with the flat GEM table. They cover a broad range of muscular skeletal applications, including hand, wrist, elbow, shoulder, hip (unilateral and bilateral), knee, ankle, and foot. In addition, the

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		coils' versatility has been shown in a range of general purpose applications that include head, neck, and spine exams. This suite of flex coils is compatible with the MR750w + GEM with the flat table top. It is not compatible with the MR750 and MR750w systems configured with the standard curved table top. Includes: • 3.0T GEM Flex Coils - Small, Medium, and Large Arrays. • 3.0T GEM Flex Interface Module 16-channel Fixed, P-Connector. • GEM Flex Knee Stabilization fixture for flat table. • GEM Flex GP Strap and Interface Module Cover. • GEM Flex Cable Take-up Pad and General Purpose Stabilization Pad.
8	1	Flex Positioner The Flex Positioner is a multipurpose support for a broad range of exams including foot, ankle, forefoot, knee, and head. A dedicated forefoot attachment allows the flex array elements to be wrapped tightly around the foot, yielding improved image quality. A repositionable support pad in the foot and ankle attachment allows for selection of a 90 degree position, or a relaxed position of the ankle. The pads and straps included with the stabilizer facilitate rapid setup and allow for flexibility in how the anatomy is secured.
9	1	GE Optima MR450w Heat Exchangers - 49kW (20 Tons) Cooling for your GE Healthcare MR system has never been so easy. GE Healthcare has partnered with the Glen Dimplex Group, a world leader in cooling systems, to offer heat exchangers designed to meet the needs of your Discovery MR System. Now you can look to GE Healthcare for your entire MR purchase and support. This heat exchanger is highly reliable and the only unit verified to perform with the new platform of GE Healthcare MR systems. As part of your integrated GE Healthcare solution, you'll work with a single contact throughout the whole installation. A Project Manager of Installation will help with building layout, room designs, delivery and installation - every step until your system is ready to scan. Our team will work seamlessly with architects, contractors and your internal team to help ensure timely, cost-effective completion. Once your cooling system is running, you'll get fast, highly-skilled service support managed through GE Healthcare - with the same quality and response time you expect from your MR system. FEATURES AND BENEFITS

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- Designed to provide stable fully dedicated cooling for your MR system's needs
- Water/glycol outdoor-air-cooled heat exchangers to support your highest exam volumes and your full range of diagnostic procedures
- Redundant fluid pumps with automatic switchover let you keep operating with no loss of cooling even if one pump goes down
- Quad compressor, dual tandem refrigeration circuit design saves on energy while your system smoothly transitions through the 10% to 100% heat load capacity cycles of patient scanning and idling
- Quiet operation between patient exams and overnight - ideal for facilities in residential areas
- Comes with installation support, installation visits, preventative maintenance visit and 1 full year of parts and labor warranty
- Installation support includes: support through GE's Project Manager of Install, GE's Design Center, technical support from the Glen Dimplex company, two (2) installation visits
- Comprehensive and quality service rapidly delivered through our CARES service solution
- 65 gallons of 100% glycol concentrate for complete system filling and diluting
- Wall mounted remote display panel provides the ability to monitor the system's operation and indicates possible system errors
- Filter kit with flow meter helps to ensure purity of water prior to entry to the MR system
- Highly recommended that Vibration Isolation Spring Kit (E8911CJ) be added for systems that will be roof top mounted

SPECIFICATIONS

- Net Cooling Capacity: 49 kW / 20 Ton
- Maximum Coolant Flow: 35 gpm (132 l/m)
- Coolant Outlet Temperature: 48 F (8.9 C)
- Coolant Temp Stability: E 1.8 F (E1.0 C)
- Max Coolant Pressure : 70 Psi (4.8 Bar)
- Refrigerant: R407C
- Ambient Temp Range: -20 to 120 F (-30 to 50 C)
- Condenser Air Flow (Approx): 18,000 Cfm
- Tank Capacity: 100 gal (378 l)
- Flow Meter Range: 4-40 gpm
- Filters: 50 micron cartridge filters

Item No.	Qty	Description
		• Supply Voltage: 460v / 3 phase / 60 Hz • Coolant Connections: 2" NPTF • Overall Size (L x W x H) 44" x 136" x 84.5" COMPATIBILITY: • GE Optima MR450w 1.5T MR System NOTES: • Item is NON-RETURNABLE and NON-REFUNDABLE
10	1	Magnacoustics Genesis ULTRA Communication & Music System The Magnacoustics Genesis ULTRA is the only MRI Communication & Music System to interface directly with GE's MRI hardware and software. This allows software driven Auto Voice Commands from GE's computer to be delivered directly into the patient's ears for breath-hold sequences. This same interface allows the Technologist to talk directly to the patient through the console Mic even while the scan is in progress. The Genesis ULTRA also features an exclusive Patient Ready Signal. By simply depressing a small button on the handheld control an audible and visual signal is transmitted to the Technologist indicating the patient's readiness for the scan to begin. This simple step streamlines the breath-hold exam which amounts to approximately 30% of all exams. Patient Handheld Volume and Media Selection Controls with Voice Feedback interface with an FM/AM stereo, CD player, and iPod interface. This distracts even the most apprehensive of your patients by allowing them to be in control of their own environment. Additionally, the Auto Gain feature automatically raises and lowers the volume level for the patient based on the Sound Pressure Level of the MRI. Magnacoustics also provides the only patented 8-driver transducer that provides the highest sound directly to the patients ears with the MagnaLink Headset System. This patented system includes a stethoscope-style headset with the MagnaPlug (replaceable earplug) that provides 29dB of attenuation and complies with GE Healthcare MR Safety Guide Operator Manual. The Genesis ULTRA's See-In-the-Dark GUI Electroluminescent Backlit Technologist Control Unit enhances operation in the normally low-lit MRI environment allowing the Technologist to operate the entire system with the touch of a button. The Genesis ULTRA includes an integral interface for fMRI with built-in input for audio stimulation and output for responses...E
11	1	700 VA Partial System UPS - MR Tested with all MR system computers, the 700VA Partial System UPS provides reliable, clean, consistent power for the data processing portion of the MR imaging system.

Item No.	Qty	Description
		The use of the double conversion UPS enables the MR system data processing portion electronics to operate when there is a power anomaly or total power loss. Valuable data and the system operating software are protected, if there is an extended outage the UPS allows for an orderly shutdown of the system. FEATURES/BENEFITS • True double-conversion, online technology provides reliable operation and uninterrupted glitch free power • Automatic frequency selection eases startup, i.e., 50 or 60 Hz compatible • Integral Electronic Static Bypass switch means zero transfer time • Improves user productivity, system reliability, reduces service costs and increases system uptime • Advanced Battery Management (ABM) software monitors / indicates battery health and improves battery service life SPECIFICATIONS • Dimensions (H x W x D): 9.09" x 6.3" x 13.9" • Weight: 26 lbs. • Input Voltage Range: Single Phase 80-138 V • Input Frequency Range: 47-70 Hz • Rating: 700 VA / 630 W COMPATIBILITY • MR Systems NOTES • This is a partial system UPS - it covers only the computer, not the entire MR imaging system. After a power event portions of the system will have to be reset before operation can resume • Customer is responsible for rigging and arranging for installation with a certified electrician • ITEM IS NON-RETURNABLE AND NON-REFUNDABLE
12	1	Physician's Chair with Padded Arms Physician's chair has padded arms for comfort and comes in a charcoal gray color that blends with any environment. Chair adjusts from 16.75 in. to 21 in. (42.5 cm x 53.3cm) and is only for use in the MR Control Room. Weighs 45 lbs.
13	1	TiP Discovery and Optima Family Training 10 Days Onsite Plus 10 Hrs TVA

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The TiP Training Choices program is designed for CURRENT GE customers WITHOUT HDx experience who purchase a Discovery or Optima system. Training is delivered onsite at the customer's facility and instructs students in start-up operation of the system and introduces participants to the system design, workflow, new options and clinical applications included. Extended TVA support ensures learners maintain performance over the long term.

This training program must be scheduled and completed within 36 months after the date of product delivery.

Quote Summary:

Total Quote Net Selling Price **$1,633,007.12**

(Quoted prices do not reflect state and local taxes if applicable. Total Net Selling Price Includes Trade In allowance, if applicable.)

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Options

(These items are not included in the total quotation amount)

Item No.	Qty	Description	Ext Sell Price	
		SIGNA Pioneer 3.0T		
14	1	Medrad Spectris Solaris EP MR Injection System Medrad Spectris Solaris EP MR injector for use use in all MR scanner field strengths up to and including 3.0T. Optimized touch-screen for fewer keystrokes, KVO (keep vein open) allows patient to be prepared before beginning the scan. Larger 115 ml saline syringe for longer KVO or multiple flushes. Includes cables and starter kit...E NOTE: GE is responsible for unpacking, assembly, and installation of equipment. Medrad will be available for technical assistance by phone at (412)767-2400. An additional charge will apply for on-site installation assistance. Medrad will be responsible for operational checkout, final calibration, in-service of the equipment, and initial applications training. Please contact the local Medrad office two weeks in advance of installation.	$39,500.00	X_____

(Quoted prices do not reflect state and local taxes if applicable. Total Net Selling Price Includes Trade In allowance, if applicable.)