

HEALTH SERVICES AND DEVELOPMENT AGENCY MEETING
MAY 25, 2016
APPLICATION SUMMARY

NAME OF PROJECT: Methodist Healthcare-Memphis Hospitals dba
Methodist University Hospital

PROJECT NUMBER: CN1602-009

ADDRESS: 1211-1265 Union Avenue
Memphis (Shelby County), TN 38104

LEGAL OWNER: Methodist Healthcare-Memphis Hospitals
1211 Union Avenue, Suite 700
Memphis (Shelby County), TN 38104

OPERATING ENTITY: Not Applicable

CONTACT PERSON: Carol Weidenhoffer
(901) 516-0679

DATE FILED: February 12, 2016

PROJECT COST: \$280,000,000.00

FINANCING: Cash Reserves of Methodist Le Bonheur Healthcare

PURPOSE FOR FILING: Hospital construction and renovation in excess of \$5.0 million; the addition of major medical equipment; and the relocation of a PET scanner

Methodist Healthcare-Memphis Hospital d/b/a Methodist University Hospital is seeking approval for the construction and renovation of 470,000 SF of space located at 1211-1285 Union Avenue, Memphis (Shelby County), TN. The project is the onsite replacement and modernization of the campus including the construction of a new patient tower and adjacent building to consolidate ambulatory services. The project does not involve changes to the applicant's 617 licensed acute care bed complement; however, 204 beds will be relocated to the new patient tower, and 28 medical-surgical beds will be converted to critical care beds. The project will add an intraoperative MRI (iMRI), a third linear accelerator to existing linear accelerator services, and relocate PET, CT, and infusion equipment and services from 1588 Union Avenue, Memphis, TN. The proposed

project does not include the initiation and discontinuation of any other health service.

SERVICE SPECIFIC CRITERIA AND STANDARD REVIEW

CONSTRUCTION, RENOVATION, EXPANSION, AND REPACEMENT OF HEALTH CARE INSTITUTIONS

1. **Any project that included the addition of Beds, Services, or Medical Equipment will be reviewed under the standards for those specific activities**

No new services or beds are being added to the applicant's licensed organization. However, the applicant is adding an additional MRI and LINAC unit. The additional medical equipment was reviewed under the standards for those specific activities and is included in this summary.

2. **For renovation or expansions of an existing licensed health care institution:**
 - a. **The applicant should demonstrate that there is an acceptable existing demand for the proposed project**

- *The applicant projects inpatient days will increase 4.4% from 213,748 in 2015 to 223,139 in Year One (2019).*
- *PET services are projected to increase from 2,283 cases in 2015 to 2,457 in 2019, a 7.6% increase.*
- *MRI procedures are projected to increase from 11,100 in 2015 to 11,979 in 2019, a 7.9% increase.*
- *Radiation Therapy will increase from 28,201 procedures in 2015 to 32,920 in Year One, a 16.7% increase.*

It appears that this criterion has been met.

- b. **The applicant should demonstrate that the existing physical plant's condition warrants major renovation or expansion**

The applicant provided detailed responses for these criteria on pages 21-28 of the application. Key highlights are provided below.

- *The Methodist University campus is landlocked with many buildings built in the 1950s and 1960s that currently houses direct care services.*

- The applicant evaluated the physical condition of each building on campus that included the evaluation of structural, mechanical, electrical components, age, presence of asbestos, and overall functionality.
- As a result of the evaluation, three buildings were designated to be in poor condition, five buildings in fair condition, and one building built in 2014 received the highest rating (good).
- Please refer to diagram 5 on page 27 of the application that includes the results of a color coded building condition assessment.

It appears that this criterion has been met.

MAGNETIC RESONANCE IMAGING SERVICES

1. Utilization Standards for non-Specialty MRI Units.

- a. An applicant proposing a new non-Specialty stationary MRI service should project a minimum of at least 2160 MRI procedures in the first year of service, building to a minimum of 2520 procedures per year by the second year of service, and building to a minimum of 2880 procedures per year by the third year of service and for every year thereafter.

This proposed project includes an iMRI which is a special-use MRI that that will be used by the applicant in the neurosurgery operating room. iMRI is advanced technology in medicine that bridges the specialties of surgery and radiology.

If approved, the projected utilization of the proposed iMRI unit is estimated at 166 procedures in Year 1 and 168 procedures in Year 2. The projected utilization of Methodist's additional one MRI service will be substantially below the standard for a new MRI unit during the first three years of service.

It appears that the applicant will not meet this criterion.

- b. An exception to the standard number of procedures may occur as new or improved technology and equipment or new diagnostic applications for MRI units are developed. An applicant must demonstrate that the proposed unit offers a unique and necessary technology for

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the provision of health care services in the proposed Service Area.

The applicant uses the iMRI for increased surgical success in brain tumor surgery, epilepsy surgery, intra-cranial cyst surgery, brain biopsy, catheter placement and intracranial vascular surgery. As the inoperative imaging of choice, iMRI affords the possibility of more accurate and complete resections while decreasing the risk of additional surgery and complications.

It appears that this criterion has been met.

2. Access to MRI Units. All applicants for any proposed new MRI Unit should document that the proposed location is accessible to approximately 75% of the Service Area's population. Applications that include non-Tennessee counties in their proposed Service Areas should provide evidence of the number of existing MRI units that service the non-Tennessee counties and the impact on MRI unit utilization in the non-Tennessee counties, including the specific location of those units located in the non-Tennessee counties, their utilization rates, and their capacity (if that data are available).

The Primary Service Areas (PSA) consists of Shelby County in Tennessee, DeSoto County in Mississippi, and Crittenden County in Arkansas. The majority (81%) of the PSA population resides in Shelby County.

It appears that this criterion has been met.

3. Economic Efficiencies. All applicants for any proposed new MRI Unit should document that alternate shared services and lower cost technology applications have been investigated and found less advantageous in terms of accessibility, availability, continuity, cost, and quality of care.

Alternate services and technologies were investigated but were not optimal.

It appears that the applicant meets this criterion.

4. Need Standard for non-Specialty MRI Units.

A need likely exists for one additional non-Specialty MRI unit in a Service Area when the combined average utilization of existing MRI service providers is at or above 80% of the total capacity of 3600 procedures, or 2880 procedures, during the most recent twelve-month period reflected in the provider medical equipment report maintained by the HSDA. The total capacity per MRI unit is based upon the following formula:

Stationary MRI Units: 1.20 procedures per hour x twelve hours per day x 5 days per week x 50 weeks per year = 3,600 procedures per year

Mobile MRI Units: Twelve (12) procedures per day x days per week in operation x 50 weeks per year. For each day of operation per week, the optimal efficiency is 480 procedures per year, or 80 percent of the total capacity of 600 procedures per year.

The combined average utilization of existing fixed MRI units in the primary service area was 2,770 in 2014. St. Jude has 4 units that averaged 2,094 procedures in 2014 that is used exclusively for research and treatment for children and other catastrophic diseases. Excluding St. Jude's MRI volumes and equipment from the market calculation, the average for MRI volumes per unit was 2,845 in 2014.

It appears that the applicant will not meet this criterion.

Note to Agency members: Criteria 5 and 6 are not included here since they are not applicable as they relate to specialty MRI units.

7. Patient Safety and Quality of Care. The applicant shall provide evidence that any proposed MRI Unit is safe and effective for its proposed use.

a. The United States Food and Drug Administration (FDA) must certify the proposed MRI Unit for clinical use.

The applicant provided documentation the proposed unit is approved by the Food and Drug Administration.

It appears that this criterion has been met.

- b. The applicant should demonstrate that the proposed MRI Procedures will be offered in a physical environment that conforms to applicable federal standards, manufacturer's specifications, and licensing agencies' requirements.

The applicant confirmed the additional MRI unit will conform to all requirements listed above.

It appears that this criterion has been met.

- c. The applicant should demonstrate how emergencies within the MRI Unit facility will be managed in conformity with accepted medical practice.

The applicant provided documentation how emergencies will be managed according to accepted medical practice.

It appears that this criterion has been met.

- d. The applicant should establish protocols that assure that all MRI Procedures performed are medically necessary and will not unnecessarily duplicate other services.

The applicant included protocols to assure MRI procedures are medically necessary.

It appears that this criterion has been met.

- e. An applicant proposing to acquire any MRI Unit or institute any MRI service, including Dedicated Breast and Extremity MRI Units, shall demonstrate that it meets or is prepared to meet the staffing recommendations and requirements set forth by the American College of Radiology, including staff education and training programs.

The applicant is accredited by the American College of Radiology.

It appears that this criterion has been met.

- f. All applicants shall commit to obtain accreditation from the Joint Commission, the American College of Radiology, or a comparable accreditation authority for MRI within two years following operation of the proposed MRI Unit.

The applicant is accredited by the Joint Commission.

It appears that this criterion has been met.

- g. All applicants should seek and document emergency transfer agreements with local area hospitals, as appropriate. An applicant's arrangements with its physician medical director must specify that said physician be an active member of the subject transfer agreement hospital medical staff.

No transfer agreement will be necessary; the proposed additional MRI will be located within an existing tertiary regional referral hospital.

It appears that this criterion has been met.

8. The applicant should provide assurances that it will submit data in a timely fashion as requested by the HSDA to maintain the HSDA Equipment Registry.

The applicant indicates data will be submitted to the HSDA Equipment Registry within the expected time frame.

It appears that this criterion has been met.

9. In light of Rule 0720-11.01, which lists the factors concerning need on which an application may be evaluated, and Principle No. 2 in the State Health Plan, "Every citizen should have reasonable access to health care," the HSDA may decide to give special consideration to an applicant:

- a. Who is offering the service in a medically underserved area as designated by the United States Health Resources and Services Administration; or

Not applicable.

- b. Who is a "safety net hospital" or a "children's hospital" as defined by the Bureau of TennCare Essential Access Hospital payment program; or

Not applicable.

- c. Who provides a written commitment of intention to contract with at least one TennCare MCO and, if providing adult services, to participate in the Medicare program; or

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Methodist is certified in both Medicare and TennCare/Medicaid and participates in both programs. Methodist contracts with all TennCare plans offered in the service area.

It appears that the applicant meets this criterion.

- d. Who is proposing to use the MRI unit for patients that typically require longer preparation and scanning times (e.g., pediatric, special needs, sedated, and contrast agent use patients). The applicant shall provide in its application information supporting the additional time required per scan and the impact on the need standard.

The applicant proposes to use the additional iMRI for brain tumor surgeries, epilepsy surgeries, intra-cranial cyst surgeries, brain biopsy, catheter placement and intracranial vascular surgeries. These types of surgeries typically require longer preparation and scanning times.

It appears that the applicant meets this criterion.

MEGAVOLTAGE RADIATION THERAPY SERVICES

Standards and Criteria

1. Utilization Standards for MRT Units.

a. Linear Accelerators not dedicated to performing SRT and/SBRT procedures:

- i. Full capacity of a Linear Accelerator MRT Unit is 8,736 procedures, developed from the following formula: 3.5 treatments per hour, times 48 hours (6 days of operation, 8 hours per day, or 5 days of operation, 9.6 hours per day), times 52 weeks.
- ii. Linear Accelerator Minimum Capacity: 6,000 procedures per Linear Accelerator MRT Unit annually, except as otherwise noted herein.
- iii. Linear Accelerator Optimal Capacity: 7,688 procedures per Linear Accelerator MRT Unit annually, based on a 12% average downtime per MRT unit during normal business hours annually.
- iv. An applicant proposing a new Linear Accelerator should project a minimum of at least 6000 MRT procedures in the first year of service in its Service

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Area, building to a minimum of 7,688 procedures per year by the third year of service and for every year thereafter.

The applicant projects 32,920 procedures provided by 5 linear accelerators in Year One (2019). The five LINAC units represent 3 units at Methodist University and 2 units at the West Cancer Center. The applicant will average 6,584 procedures per linear accelerator in Year One.

It appears that the applicant meets this criterion.

2. Need Standards for MRT Units.

- a. For Linear Accelerators not dedicated solely to performing SRT and/or SBRT procedures, need for a new Linear Accelerator in a proposed Service Area shall be demonstrated if the average annual number of Linear Accelerator procedures performed by existing Linear Accelerators in the proposed Service Area exceeds 6,000.

The combined 2014 average utilization of existing LINAC units in the primary service area was 5,385 per unit on 11 units. St. Jude has 2 units that averaged 2,262 procedures per unit in 2014 that is used exclusively for research and treatment for children and other catastrophic diseases. Excluding St. Jude's volumes and equipment from the market calculation, the average for LINAC volumes per unit was 6,079 in 2014 on 9 units.

It appears that the applicant meets this criterion.

3. Access to MRT Units.

- a. An MRT unit should be located at a site that allows reasonable access for residents of the proposed Service Area.
- b. An applicant for any proposed new Linear Accelerator should document that the proposed location of the Linear Accelerator is within a 45 minute drive time of the majority of the proposed Service Area's population.

More than 90% of the patients currently seeking Methodist LINAC services originate from the designated service area.

It appears that the applicant meets this criterion.

- c. Applications that include non-Tennessee counties in their proposed Service Areas should provide evidence of the number of existing MRT units that service the non-Tennessee counties and the impact on MRT unit utilization in the non-Tennessee counties, including the specific location of those units located in the non-Tennessee counties, their utilization rates, and their capacity (if that data are available).

The only MRT unit in the designated primary service area located outside of Tennessee is at Memorial Hospital-DeSoto (DeSoto County), Mississippi. The LINAC performed 8,399 procedures in 2014 almost 140% of the 6,000 minimum threshold procedure per unit standard.

The only MRT unit located in the secondary service area is at the Bethesda Cancer Center in Coahoma County, Mississippi. The unit in Coahoma performed approximately 2,400 procedures per year in 2012-2013. The 2014 volumes were not available.

It appears that the applicant meets this criterion.

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- 4. Economic Efficiencies. All applicants for any proposed new MRT Unit should document that lower cost technology applications have been investigated and found less advantageous in terms of accessibility, availability, continuity, cost, and quality of care.

The applicant investigated alternate services and technologies and found no lower cost alternative that delivers the accuracy and reliability of the selected LINAC.

It appears that the applicant meets this criterion.

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- 5. Separate Inventories for Linear Accelerators and for other MRT Units. A separate inventory shall be maintained by the HSDA for Linear Accelerators, for Proton Beam Therapy MRT Units, and, if data are available, for Linear Accelerators dedicated to SRT and/or SBRT procedures and other types of MRT Units.

The applicant states all data requested to maintain the Equipment Registry will be submitted within the expected time frame.

It appears that the applicant meets this criterion.

6. Patient Safety and Quality of Care. The applicant shall provide evidence that any proposed MRT Unit is safe and effective for its proposed use.

- a. The United States Food and Drug Administration (FDA) must certify the proposed MRT Unit for clinical use.

The applicant provided documentation of FDA certification.

It appears that the applicant meets this criterion.

- b. The applicant should demonstrate that the proposed MRT Units shall be housed in a physical environment that conforms to applicable federal standards, manufacturer's specifications, and licensing agencies' requirements.

The applicant provided an architect letter in Attachment 8B that confirms the physical environment will conform to the above requirements.

It appears that the applicant meets this criterion.

- c. The applicant should demonstrate how emergencies within the MRT Unit facility will be managed in conformity with accepted medical practice. Tennessee Open Meetings Act and/or Tennessee Open Records Act.

The applicant provided an overview of how emergencies within the MRT Unit facility will be managed.

It appears that the applicant meets this criterion.

- d. The applicant should establish protocols that assure that all MRT Procedures performed are medically necessary and will not unnecessarily duplicate other services.

The applicant has provided a system policy outlining the medical necessity guidelines to follow for diagnostic services.

It appears that the applicant meets this criterion.

- e. An applicant proposing to acquire any MRT Unit shall

demonstrate that it meets the staffing and quality assurance requirements of the American Society of Therapeutic Radiation and Oncology (ASTRO), the American College of Radiology (ACR), the American College of Radiation Oncology (ACRO) or a similar accrediting authority such as the National Cancer institute (CN1). Additionally, all applicants shall commit to obtain accreditation from ASTRO, ACR or a comparable accreditation authority for MRT Services within two years following initiation of the operation of the proposed MRT Unit.

Methodist University Hospital is fully accredited by the American College of Radiology. Methodist also meets the staffing and quality assurance requirements.

It appears that the applicant meets this criterion.

- f. All applicants should seek and document emergency transfer agreements with local area hospitals, as appropriate. An applicant's arrangements with its physician medical director must specify that said physician be an active member of the subject transfer agreement hospital medical staff.

The need for a transfer agreement is not applicable; the equipment will be located on the Methodist University campus. The physician medical director is an active member of the medical staff.

It appears that the applicant meets this criterion.

- g. All applicants should provide evidence of any onsite simulation and treatment planning services to support the volumes they project and any impact such services may have on volumes and treatment times.

The applicant has a dedicated CT simulator to support LINAC services.

It appears that the applicant meets this criterion.

7. The applicant should provide assurances that it will submit data in a timely fashion as requested by the HSDA to maintain the HSDA Equipment Registry.

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The applicant assures that all data requested will be submitted within the expected time frames.

It appears that the applicant meets this criterion.

8. In light of Rule 0720-11.0], which lists the factors concerning need on which an application may be evaluated, and Principle No. 2 in the State Health Plan, "Every citizen should have reasonable access to health care" the HSDA may decide to give special consideration to an applicant:

- a. Who is offering the service in a medically underserved area as designated by the United States Health Resources and Services Administration;

Not applicable.

- b. Who is a "safety net hospital" or a "children's hospital" as defined by the Bureau of TennCare Essential Access Hospital payment program; or

Not applicable.

- c. Who provides a written commitment of intention to contract with at least one TennCare MCO and, if providing adult services, to participate in the Medicare program.

Methodist is certified in both Medicare and TennCare/Medicaid and participates in both programs. Methodist contracts with all TennCare plans offered in the service area.

It appears that the applicant meets this criterion.

Staff Summary

The following information is a summary of the original application and all supplemental responses. Any staff comments or notes, if applicable, will be in bold italics.

Methodist University is the core teaching hospital for the University of Tennessee Health Science Center. Methodist University Hospital is Methodist Le Bonheur Healthcare's tertiary academic medical center located in the center of the primary service area in downtown Memphis (Shelby), TN.

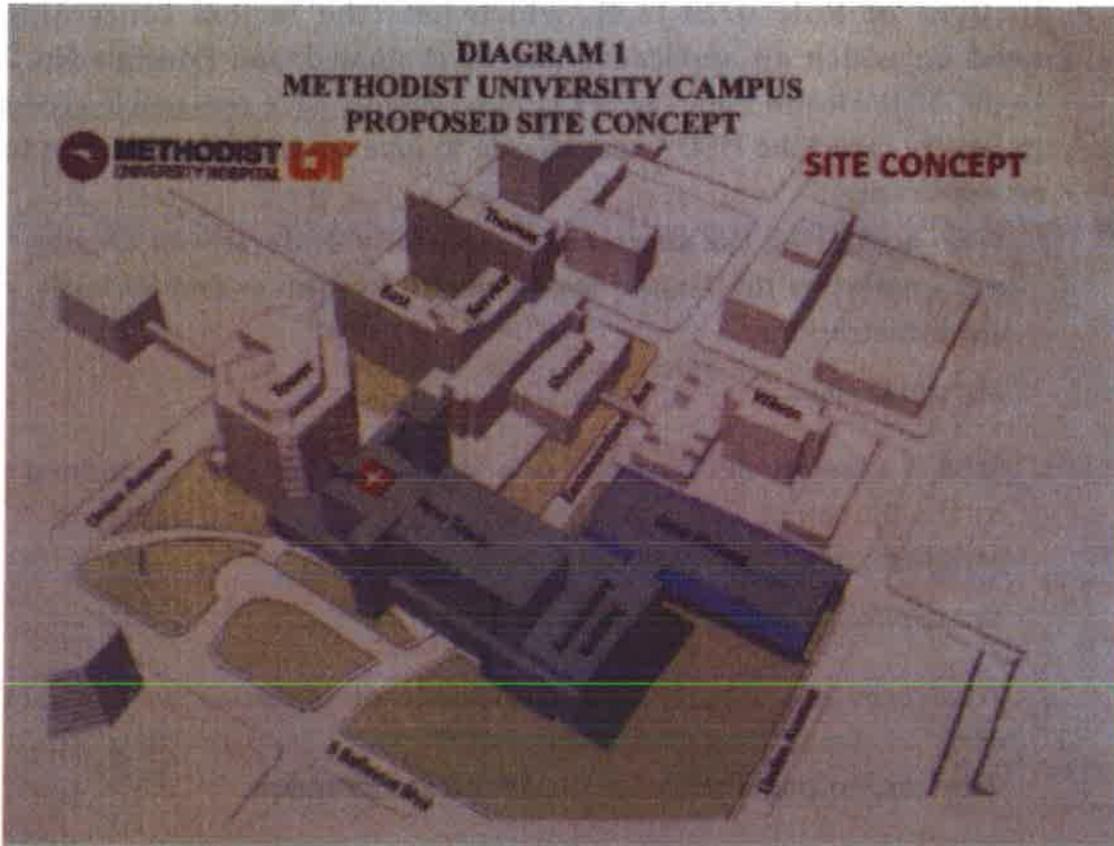
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The proposed project consists of 421,000 SF of new space and 49,000 SF of renovated space included in the execution of the master plan for Methodist University focusing on the relocation/consolidation of acute patient services. Please refer to the proposed site diagram below.



Source: CN1602-009, Page 8.

The following is a summary of the proposed service and equipment involved with this project.

Patient Tower-New Construction

- A ten story patient tower will be constructed on top of the existing emergency department and will include an adjacent ambulatory building.
- The applicant plans to reduce costs and waste through shared risks and rewards by using a team approach with an agreement between the owner, contractor, and architect for construction management.
- The facility will be designed as a green building and will reduce operating costs by using less energy and water.

Renovation

- Renovation includes 49,000 SF of space. The Behavioral Health unit in the Thomas Building will include 22,000 SF of renovation, the Laboratory in

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the Sherard Building will include 16,500 SF of renovation, and Support areas in the Thomas Building will include 10,500 SF in renovation.

- The older, outdated buildings will be recycled and refurbished for patient education, resident education, support services, and administrative functions.

Equipment

- A new interoperable MRI (iMRI) for the surgical suite, a replacement hybrid operating room system, and a third linear accelerator will be purchased.
- The PET and CT in the West Cancer Center will be relocated from the Methodist operated West Clinic located less than one mile away on Union Avenue.

Inpatient Hospital Beds

- The project will convert twenty-eight medical surgical beds to critical care beds.
- The current licensed beds (617) will not change as a result of the proposed project.
- Please refer to the Bed Complement Table on page 4 of the application for additional information.

Consolidation

- Acute beds as well as imaging and surgical services currently housed in the oldest building on campus will be relocated to the new tower.
- Upon completion the new patient tower will house 204 of the 617 licensed beds, surgery, imaging, and pharmacy services, and feature consolidated, enhanced clinical centers for excellence of the West Cancer Center and Methodist University Hospital Transplant Institute.
- Current multiple disjointed outpatient services will be consolidated into a newly constructed ambulatory building that will be located to the south of the new tower.

Demolition

- The Crews building located at the corner of Union Avenue and Bellevue Boulevard will be demolished in order to improve circulation around the campus as well as increase the visibility of the main hospital entrance.
- Please refer to Diagram 4 on page 25 Titled "Methodist University Campus Current Site Access and Circulation" for a map of the current campus.

This proposed project is the next phase of the master plan for the campus. Previous projects in the master plan include the following:

- **Methodist University Healthcare, CN1208-041A**, approved at the November 14, 2012 Agency meeting to replace the existing ED with a two-story building containing 92,992 square feet (SF) of newly constructed space and the renovation of 6,135 existing SF in the lobby and the establishment of connections to the main hospital. The ED opened in September 2014.
- **West Cancer Center-CN1310-043A**, approved at the February 26, 2014 Agency meeting for the establishment of a 109,285 square foot comprehensive cancer center to be operated as outpatient department of Methodist Healthcare. The proposed project is located on 9.63 acres at 7945 Wolf River Boulevard, Germantown (Shelby County), TN 38138. The project consolidated four freestanding sites owned by the Methodist and West clinic.

A detailed overview of the project is provided on pages 6-7 of the application. If approved, the applicant expects to complete all construction and renovation and open by January 2019.

Note to Agency members: *The applicant is requesting four years to complete this proposed project.*

Ownership

- Methodist Healthcare-Memphis Hospitals (Methodist) is a not-for-profit corporation that operates five Shelby County hospitals under a single license with a combined total of 1,583 licensed beds, of which 1,396 are presently staffed (source: Section A, Item 9, February 25, 2016 Supplemental Response).
- Methodist University Hospital is a wholly-owned subsidiary of a parent organization, Methodist Healthcare, which is a not-for-profit corporation with ownership and operating interests in healthcare facilities in West Tennessee and North Mississippi.

Facility Information

The following summarizes the construction of the 421,000 SF 10 story "New Tower" by each floor.

Hospital Floor	Current Unit Type	Number of Beds (Licensed)	Proposed Unit Type	Number of Beds (Licensed)
Thomas 2	M/S Medicine	24	Closed	0
Thomas 6	M/S Neuro	21	M/S Neuro	14
Thomas 7	M/S Surgical	22	Closed	0
Thomas 8	M/S Respiratory	19	M/S Respiratory	19
Thomas 10	M/S Transplant	15	Closed	0
Thomas 11	M/S Renal	18	Closed	0
Thomas 12	None	0	Psych	17
Thomas 13	M/S Medicine	21	Psych	17
East 2	M/S Surgical	14	M/S Surgical	14
East 4	ICU Medicine	8	Closed	0
East 5	M/S	48	Closed	0
East 6	M/S Neuro Stroke	20	M/S Neuro Stroke	20
East 7	ICU Transplant	8	Closed	0
East 9	M/S General	20	M/S General	20
East 10	M/S Transplant	20	Closed	0
Crews 2	M/S Cancer	23	Closed	0
Crews 4	M/S Cancer	10	Closed	0
Crews 4	M/S Cancer	12	Closed	0
Crews 8	Psych	34	Closed	0
Sherard	ICU-CV	16	Closed	0
Tower 4	ICU Medicine	16	ICU Medicine	16
Tower 4	ICU Surgical	8	ICU Surgical	8
Tower 4	ICU Neuro	16	ICU Neuro	16
Tower 5	M/S Cardiac	48	M/S Cardiac	48
Tower 6	M/S Cardiac/Gen	48	M/S Cardiac/Gen	48
Tower 7	M/S Cardiac	46	M/S Cardiac	46
Tower 8	M/S Medicine	48	M/S Medicine	48
Tower 9	M/S Neuro	44	M/S Neuro	44
New Tower 5	none	0	ICU	30
New Tower 6	none	0	ICU	30
New Tower 7	none	0	M/S	36
New Tower 8	none	0	M/S	36
New Tower 9	none	0	M/S	36
New Tower 10	none	0	M/S	36
Total		617		617

Source: CN1602-009 Supplemental #1.

Ground Floor

- The ground floor will house the 13,701 SF radiation oncology department.

1st Floor

- The 1st floor will consist of the remaining West Cancer Center outpatient services, to include the outpatient clinic, infusion center, and administrative support spaces.

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- Includes 48,244 SF of total space (23,622 SF for the Oncology Infusion Center, 23,622 SF for the Oncology Center Clinics, and 1,000 SF for a dock).

2nd Floor

- The 2nd floor will consist of 31,007 SF for a transplant outpatient clinic and 4,800 SF to dialysis clinic.
- A dedicated patient drop off will be available.

3rd Floor

- The 3rd floor will consist of a 78,266 SF consolidated department which will include 20 operating rooms with supporting Post Anesthesia Care Unit (PACU) beds, and prep/recovery beds.
- A 9,000 SF Pharmacy and 2,000 SF Café will also be located on the 3rd floor.

4th Floor

- The 4th floor will include a 21,000 SF diagnostic imaging department, a 20,000 SF sterile processing department, and 1,183 SF laboratory.

5th Floor

- The 5th floor will include a 31,000 SF 30 bed ICU unit for the Transplant Institute.

6th Floor

- The 6th floor will include a 31,000 SF 30 bed ICU unit for cancer center patients and other critical care patients.

7th-10th Floors

- Each floor will consist of 31,000 SF and contain 36 medical surgical beds.

Roof of the New Tower

- A helipad will be built on the roof of the New Tower.

A letter dated January 17, 2016 from Turner Construction Company, states the construction project will be designed and built to 2009 International Building Codes as well as 2010 AIA Guidelines for Design and Construction of Health Care Facilities.

Methodist University Hospital is a 617 bed acute care hospital. The Joint Annual Report for 2014 indicates MUH staffed 428 beds of its licensed 617 beds, for 50.8% licensed bed occupancy and 73.2% staffed bed occupancy.

The following provides the Department of Health's definition of the two bed categories pertaining to occupancy information provided in the Joint Annual Reports:

Licensed Beds - The maximum number of beds authorized by the appropriate state licensing (certifying) agency or regulated by a federal agency. This figure is broken down

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into adult and pediatric beds and licensed bassinets (neonatal intensive or intermediate care bassinets).

Staffed Beds - The total number of adult and pediatric beds set up, staffed and in use at the end of the reporting period. This number should be less than or equal to the number of licensed beds.

Need

Key highlights of the need for the project are summarized below.

- The campus of Methodist University Hospital needs restructuring, along with major renovation and modernization.
- Older buildings on campus built between 1950 and 1970 pose serious challenges for modern standards and technology.
- There is a need to redistribute medical-surgical beds to critical care to improve patient flow, wait times, and patient outcomes. In the past three years the applicant's critical care units have experienced occupancy rates consistently exceeding 80%.
- Inpatient and outpatient services are interspersed and spread across a complex of buildings spanning six blocks and approximately 19 acres which is the product of decades of incremental expansion.
- The proposed project is needed as part of a revised long term master plan to improve the consolidation, efficiency, flexibility, and organization of the campus infrastructure and services.
- The proposed project is needed so that Methodist University Hospital will continue to provide cutting-edge research and advanced clinical care and treatment to area patients in the most available state of the art facilities.

Service Area Demographics

Tennessee Primary Service Area

Shelby County is the primary service area of the proposed project. Highlights of the primary service are noted as follows:

- The total population of the Shelby County, Tennessee service area is estimated at 946,559 residents in calendar year (CY) 2015 increasing by approximately 2.0% to 966,405 in CY 2020.
- The overall statewide population is projected to grow by 3.7% from 2015 to 2020.
- The Age 65+ population of Shelby County is estimated at 112,613 residents in calendar year (CY) 2015 increasing by approximately 22% to 137,447 in CY 2020. The Age 65+ population statewide is expected to grow 16.0% during this time period.

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- The Age 65+ population of Shelby County is estimated to be 13.8% of the total population in 2020. This compares to 17.8% for the state overall.
- The latest 2016 percentage of the Shelby County population enrolled in the TennCare program is approximately 29%. The statewide enrollment proportion is 22.4%.

Tennessee Secondary Service Area

The Secondary service area consists of Tipton, Fayette, Lauderdale, Hardeman, Haywood, Dyer, and Madison Counties. Highlights of the Tennessee secondary service are noted as follows:

- The total 7 County population is estimated at 302,053 residents in calendar year (CY) 2015 increasing by approximately 1.2% to 305,593 in CY 2020.
- The latest 2016 percentage of the secondary service area population enrolled in the TennCare program is approximately 26.2%.

Arkansas Secondary Service Area

- The Arkansas secondary service area consists of St. Francis, Mississippi, Poinsett, Lee, Phillips, Craighead, and Cross Counties.
- The total 7 Arkansas County Secondary service area population is estimated at 246,929 residents in 2015 increasing by approximately 0.34% to 247,761 in CY 2020.

Mississippi Secondary Service Area

- The Mississippi secondary service area consists of Marshall, Tunica, Panola, Tate, and Coahoma Counties.
- The total 5 Mississippi County secondary service area population is estimated at 139,277 residents in 2015 decreasing by approximately 1.6% to 137,102 in CY 2020.

Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Office of Health Statistics and Market Expert, Claritas Data.

Applicant's Historical and Projected Utilization

The following table summarizes the inpatient utilization of acute hospitals in the applicant's Tennessee primary service area (Shelby County).

Tennessee Primary Service Area Historical Patient Days

	Actual 2012	Actual 2013	Actual 2014	% Change 12'-14'
Total Beds	3,844	3,844	3,844	
Staffed Beds	3,030	3,025	3,042	+0.40%
Patient Days	735,241	732,580	716,500	-2.6%
Staffed Occupancy	66.5%	66.3%	64.5%	
Licensed Occupancy	52.4%	52.2%	51.1%	

Source: CN1602-009

- In the proposed project's Tennessee primary service area, there are 11 adult acute care hospitals with a total of 3,844 licensed beds of which 78.8% were staffed (or 3,042 beds) in 2014.
- The chart above demonstrates patient days in Shelby County decreased from 735,241 patient days in 2012 to 716,500 in 2014 which calculates to a decrease of 2.6% collectively.
- Licensed and staffed occupancy remained relatively stable from 2012 to 2014.

The following table summarizes the utilization of MRI and Radiation Therapy providers in the applicant's primary service area (Shelby County, DeSoto County, MS and Crittenden County, AR).

Provider Summary, Applicant's TN County Service Area

Shelby (PSA)	2012 Scans	2013 Scans	2014 Scans	% Change '12-'14
MRI				
Shelby County PSA	110,884	108,506	110,787	-0.01%
Shelby County Scans per Unit	2,918	2,855	2,841	-7.4%
Shelby County w/o HOSP St. Jude	102,147	100,201	102,410	0.30%
Shelby County w/o HOSP St. Jude Scans per Unit	3,004	2,863	2,926	-2.6%
Linear Accelerator				
Shelby (PSA)	63,970	51,358	59,231	-7.4%
Shelby County Scans per Unit	5,815	4,669	5,385	-7.4%
Shelby County w/o HOSP St. Jude	59,365	47,602	54,707	-7.9%
Shelby County w/o HOSP St. Jude Scans per Unit	6,596	5,289	6,079	-7.8%

Source: CN1602-009, HSDA Equipment Registry

LINAC

- The combined average utilization per unit of existing LINAC units in the primary service area is 5,385 in 2014 on 11 units.
- St. Jude has 2 units that average 2,262 procedures per unit in 2014

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that is used exclusively for research and treatment for children and other catastrophic diseases.

- Excluding St. Jude's volumes and equipment from the market calculation, the average for LINAC volumes per unit was 6,079 in 2014 on 9 units.

MRI

- The combined average utilization of existing fixed MRI units in the primary service area was 2,841 in 2014.
- St. Jude has 4 units that averaged 2,094 procedures in 2014 that is used exclusively for research and treatment for children and other catastrophic diseases.
- Excluding St. Jude's MRI volumes and equipment from the market calculation, the average for MRI volumes per unit was 2,926 in 2014.

The following are the historical and projected medical/surgical, critical care, and psych inpatient days for the applicant.

Applicant's Historical and Projected Utilization

	Actual 2013	Actual 2014	Actual 2015	Projected Year 1 (2019)	Projected Year 2 (2020)	% Change 15'-19'
Total Patient Days	209,280	203,524	213,748	223,139	223,110	+4.4%
Medical/Surgical Patient Days	86,325	83,077	91,508	93,633	93,289	+4.4%
Critical Care Patient Days	22,212	22,797	23,570	26,329	26,232	+11.7%
Psych Patient Days	9,131	8,445	7,970	8,026	8,026	+0.74%

Source: CN1602-009

- The applicant projects total patient days will increase 4.4% from 213,748 in 2015 to 223,139 in Year One (2019).
- Critical Care will increase from 23,570 patient days in 2015 to 26,329 days in 2019, an 11.7% increase.
- Psych patient days will remain relatively unchanged from 7,950 patient days in 2015 to 8,026 patient days in 2019.

The following is the applicant's historical and projected utilization of the hospital's MRI, Radiation Therapy and PET services.

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Applicant's Historical and Projected Utilization

Service	2013	2014	2015	% Change '13-15'	2016 Projected	Year 1	Year 2
PET	2,665	2,730	2,283	-1.4%	2,316	2,457	2,494
MRI	10,524	11,130	11,100	5.5%	11,297	11,979	12,159
Radiation Therapy	21,611	24,739	28,201	30.4%	31,021	32,920	33,578

Source: CN1602-009

- PET services are projected to increase from 2,283 cases in 2015 to 2,457 in 2019 (Year One), a 7.6% increase.
- MRI procedures are projected to increase from 11,100 in 2015 to 11,979 in 2019, a 7.9% increase.
- Radiation Therapy will increase from 28,201 procedures in 2015 to 32,920 in Year One, a 16.7% increase.

Project Cost

Major costs are:

- The largest cost is allocated to construction costs for the new tower and renovation cost including contingency at approximately \$190,395,000 or 68% of the total project cost. Site preparation is \$6,750,000 and architectural and engineering fees are \$11,200,000.
- The next largest cost is \$50,900,000 for moveable equipment or 18.2% of total project cost.
- For other details on Project Cost, see the Project Cost Chart on page 40R of the application.
- The applicant expects the new construction cost to be \$366/SF. As reflected in HSDA records, this falls above the 3rd quartile for hospital construction of \$296.52/SF for projects previously approved between 2012 and 2014.
- The construction cost are higher than average for the following reasons: 1) escalation costs are built into the project. 2) the new patient tower spans an active road, 3) the new patient tower will connect to existing facilities at several locations.
- The cost for renovation to 49,000 SF of existing hospital space is approximately \$5,457,981 or \$111/SF. This falls slightly above the 1st quartile cost of \$110.98/ for projects previously approved between 2012 and 2014.

Historical Data Chart

- The applicant provided a Historical Data Chart for Methodist University Hospital in Supplemental 1 showing favorable net operating income (NOI) in the most recent 3 fiscal year periods. NOI was \$5,860,000 or approximately 0.35% of total gross revenue in FY2014 increasing to \$25,275,000 in FY 2015, or 1.35% of total gross revenue.

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- As noted in the Historical Data Chart for Memphis LeBonheur Healthcare provided on page 43 of the application, the company reported successive increases in favorable net operating income in each of the most recent three fiscal year periods: \$307,899,000 for 2013; \$1,629,000 for 2014; and \$144,399,000 for 2015.

Projected Data Chart

The Projected Data Chart for the hospital reflects \$2,301,926,000 in total gross revenue on 223,139 patient days during the first year of operation increasing by approximately 5.0% to \$2,417,801,000 on 223,110 patient days in Year 2. The Projected Data Chart reflects the following:

- Net operating income for the applicant will equal (\$7,839,000) or -0.34% of total gross revenue in Year One (2019) increasing by 28.3% to (\$5,618,000) in Year Two (2018).
- Net operating revenue after bad debt, charity care, and contractual adjustments is expected to reach \$551,963,000 in Year One and \$569,752,000 in Year Two representing approximately 24% of total gross revenue in Year One and 23.6% in Year Two.
- Total operating expenses averages approximately \$574,124,500 per year or 24.6% of total annual gross revenue. Of this amount, salaries and wages accounts for approximately 26.7% and Other Expenses 32.9%.
- Gross operating margin is expected to be -0.34% in Year One and -0.23% in Year Two.

Charges

The applicant states that there is no change to the existing charge structure as a result of the project. In Year One of the proposed project, the average charges are as follows:

- The proposed average gross charge per patient day is \$10,316 in 2019.
- The average deduction is \$7,842/day, producing an average net charge of \$2,474/day.

Medicare/TennCare Payor Mix

- The expected payor mix for the Methodist University Hospital in Year 1 includes 49% (\$1,109,105,000) for Medicare and 14% (\$311,280,000) for TennCare/Medicaid.
- Methodist Healthcare contracts with all TennCare MCOs in the service area: United Healthcare (AmeriChoice), BlueCare, and TennCare Select.

Financing

A February 19, 2016 letter from Chris McLean, Methodist Healthcare's Senior Vice President and Chief Financial Officer, confirms that Methodist Healthcare-Memphis Hospitals, the applicant's parent company, has sufficient cash reserves on hand at the corporate level to finance the proposed project.

Methodist Healthcare and Affiliates audited financial statements were provided with the application under the heading "Combined Financial Statements and Schedules-Methodist LeBonheur Healthcare and Affiliates". Review of the statements for the period ending December 31, 2014 reported \$130,129,000 for the period ending December 31, 2013, an increase from \$35,310,000 in cash and cash equivalents as of 12/31/13. With total current assets of \$1,187,084,000 and current liabilities of \$214,376,000 as of 12/31/14, it appears that the current ratio of the parent company was approximately 5.54 to 1.0.

Note: Current ratio is a measure of liquidity and is the ratio of current assets to current liabilities which measures the ability of an entity to cover its current liabilities with its existing current assets. A ratio of 1:1 would be required to have the minimum amount of assets needed to cover current liabilities.

Staffing

The staffing will not change as a result of the proposed project. The proposed staffing is displayed in the table below.

Methodist University Hospital Staffing

Position	Year 1 FTEs
Direct Patient Care	1,836
Support Services	395
Administration/ Management	55
TOTAL	2,286

Source: CN1602-009

Licensure/Accreditation

Methodist is licensed by the Tennessee Department of Health. Methodist is accredited by The Joint Commission up to thirty-six (36) months beginning April 20, 2013 for the 20 facilities in the Memphis area shown on pages 84 and 85 of the application. The Joint Commission conducted an unannounced full survey from April 15, 2013 through April 19, 2013. A letter dated June 11, 2013 from The Joint Commission recommends continued Medicare certification effective April 20, 2013.

The applicant has submitted the required information on corporate documentation and legal interest in the site. Staff will have a copy of these documents available for member

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reference at the meeting. Copies are also available for review at the Health Services and Development Agency office.

According to the Project Completion Forecast Chart, the applicant plans to complete the project by February 2020. The applicant is requesting an additional year to complete the proposed project. Should the Agency vote to approve this project, the CON would expire in **four** years.

CERTIFICATE OF NEED INFORMATION FOR THE APPLICANT:

There are no other Letters of Intent, pending or denied applications or outstanding Certificates of Need for this applicant.

Methodist Healthcare-Memphis Hospitals has financial interests in this project. Methodist Healthcare-Memphis Hospitals has no Letters of Intent or pending applications.

Denied Applications

West Clinic, CN1102-006D, had an application denied at the May 25, 2011 Agency meeting. The application was for the establishment of a single specialty ambulatory surgical treatment center (ASTC) limited to radiation therapy for use by only the physicians and patients of the West Clinic, initiate radiation therapy services and acquire a linear accelerator at 100 North Humphreys Blvd., Memphis, Tennessee. The estimated project cost was **\$8,375,057**. *Reason for Denial: The applicant did not establish the need for the additional linear accelerator; thus, the project did not contribute to the orderly development of healthcare.*

Outstanding Certificates of Need

Methodist South Hospital, CN1503-008A, has an outstanding Certificate of Need that will expire August 1, 2018. The CON was approved at the June 24, 2015 Agency meeting for the following: (a) the construction of a 12,020 square foot (SF) building addition to the existing 9,902 SF main ED; (b) the construction of a 704 SF corridor that will connect the new addition to the existing non-acute fast track area located in the medical office building; and (c) the renovation of the existing main ED for an expanded total of approximately 22,626 square feet. The estimated project cost is **\$8,741,870.00**. *Project Status: A May 3, 2016 project update indicates construction is approximately 40% complete. Major site work and structure has been completed and interior buildout will begin in the next few weeks. The project is still on time and under budget.*

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Methodist Healthcare-Memphis Hospital d/b/a West Cancer Center, CN1311-043A, has an outstanding Certificate of Need that will expire on April 1, 2017. The CON was approved at the February 26, 2014 Agency meeting for the establishment of a 109,285 square foot comprehensive cancer center to be operated as an outpatient department of Methodist Healthcare. The facility will be located on 9.63 acres at 7945 Wolf River Boulevard, Germantown (Shelby County), TN 38138. The project includes the relocation of a linear accelerator, positron emission tomography/computed tomography (PET/CT), magnetic resonance imaging (MRI) and computed tomography (CT) services and equipment, to replace MRI equipment, to acquire an additional linear accelerator and to establish ambulatory operating rooms. The estimated total project cost is **\$60,554,193.00**. *Project Status: The review of the April 1, 2016 Annual Project Report revealed the grand opening of the project was held on November 17, 2015. State inspections for the final phases of the project were conducted in March/April of 2016. The final Project Report is projected to be submitted in July 2016.*

Methodist Healthcare-dba Le Bonheur Children's Hospital, CN1311-042A, has a Certificate of Need that will expire on April 1, 2017. The CON was approved at the February 26, 2014 Agency meeting for the establishment of a pediatric center and to initiate and acquire magnetic resonance imaging (MRI) and computed tomography (CT) service and equipment. The facility will be located at 100 North Humphreys Boulevard, Memphis (Shelby County), TN and will be operated as an outpatient department of LeBonheur Children's Hospital. The estimated project cost is **\$26,798,857**. *Project Status: An Annual Progress Report dated April 4, 2016 indicated Phase II of the project began in December 2015 with an anticipated date of project completion of July 2016.*

CERTIFICATE OF NEED INFORMATION FOR OTHER SERVICE AREA FACILITIES:

There are no other Letters of Intent or denied applications for other entities proposing this type of service.

Pending

CAH Acquisition Company 11, LLC d/b/a Lauderdale Community Hospital CN1601-004, has a pending project to be heard at the May 25, 2016 Agency meeting. The application is for the replacement of an existing twenty-five (25) bed critical access hospital, which includes ten (10) swing beds; and 1.5T mobile magnetic resonance imaging (MRI) services. The estimated project cost is **\$20,262,987.00**.

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Outstanding Certificates of Need

Baptist Medical Group, CN1503-010A, has a Certificate of Need that will expire on September 1, 2017. The project was approved at the June 24, 2015 Agency meeting for the initiation of magnetic resonance imaging (MRI) services and is, in effect, a change in ownership and operational management of the existing MRI service approved in Memphis Rehab Associates, L.P. d/b/a Baptist Rehabilitation-Germantown, CN9812-084A (hospital). Other than the transfer of operation of the MRI service from the hospital to the applicant medical group, the project will not change the location of the existing MRI unit, add any new medical equipment or services requiring CON approval, or change the ownership of the land, building or the MRI unit since both the applicant and the hospital are wholly owned subsidiaries of Baptist Memorial Health Care Corporation. As confirmed by the applicant, Baptist Rehabilitation-Germantown will voluntarily surrender CN9812-084A once the MRI service is initiated by Baptist Medical Group. The estimated project cost is \$1,262,000. *Project Status: A project status received on February 2, 2016 indicated the project is complete and operational. A final project report is pending.*

St. Jude Children's Research Hospital CN1409-040A, has an outstanding Certificate of Need that will expire on February 2, 2018. It was approved at the December 17, 2014 Agency meeting for the construction of 54 inpatient acute care beds on three shelled floors (floors 3-5) of its Kay Research and Care Center located at 315 Danny Thomas Place, Memphis (Shelby County), Tennessee 38105. Fifty-two will be replacement beds and 2 will be new licensed beds. The estimated project cost is \$62,500,516. *Project status update: A progress report from a representative of St. Jude Children's Research Hospital dated May 6, 2016 notes the project's two final phases of construction has focused in the MRI and a CT area. The MRI area was completed in April 2016 and is awaiting Tennessee Department of Health clearance. The final CT area will be completed in July 2016, after which it also require TDH approval. They estimate having all areas approved and operational in late summer 2016.*

St. Jude Children's Research Hospital, CN1105-017A, has an outstanding Certificate of Need that will expire on October 1, 2017. It was approved at the July 27, 2011 Agency meeting to construct a new medical tower that will include a replacement Surgical Department and Intensive Care Unit (ICU). In the same structure, the hospital proposes to establish a proton beam therapy center for pediatric cancer treatment, to acquire major medical equipment (proton beam therapy equipment and related components), and to initiate inpatient and outpatient proton therapy services. It will be located within the St. Jude campus, next to the Chili's Care Center. The estimated project cost is \$184,279,326.00. *Project status update: A progress report from a representative of St. Jude Children's*

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Research Hospital dated May 6, 2016 notes the project became operational in November 2015, with one of its three projected vaults open for patient care; the other two will be completed only when patient volumes require. A final project report is expected to be filed in July 2016.

Regional One Health Imaging, CN1406-024AM, has an outstanding Certificate of Need that will expire on November 1, 2016. The project was approved at the September 24, 2014 Agency meeting for the establishment of an outpatient diagnostic center (ODC), the acquisition of magnetic resonance imaging (MRI) equipment and the initiation of MRI services in approximately 5,275 square feet of leased space on the first floor of an existing medical office building owned by ROH. The building is located on a 6 acre site at 6555 Quince Road in Memphis, Tennessee, approximately 17 miles southeast of the hospital campus in Memphis. In addition to MRI, the proposed ODC will provide computed tomography, mammography, X-Ray/Fluoroscopy, bone density and ultrasound services. The estimated project cost is \$5,345,900.00. *Note: At the September 2014 Agency meeting immediately after receiving approval to establish the ODC, a change of control from Regional One Health LLC to Shelby County Health Care Corporation d/b/a Regional One Health was approved so the facility could be operated as an outpatient department of the hospital in lieu of a free-stranding ODC. Project Status: The last Annual Progress Report dated November 5, 2015 indicated construction has not started.*

PLEASE REFER TO THE REPORT BY THE DEPARTMENT OF HEALTH, DIVISION OF HEALTH STATISTICS, FOR A DETAILED ANALYSIS OF THE STATUTORY CRITERIA OF NEED, ECONOMIC FEASIBILITY, AND CONTRIBUTION TO THE ORDERLY DEVELOPMENT OF HEALTH CARE IN THE AREA FOR THIS PROJECT. THAT REPORT IS ATTACHED TO THIS SUMMARY IMMEDIATELY FOLLOWING THE COLOR DIVIDER PAGE.

PME
(6/09/15)

LETTER OF INTENT



10/24/97 01:03

LETTER OF INTENT TENNESSEE HEALTH SERVICES AND DEVELOPMENT AGENCY

The Publication of Intent is to be published in the Commercial Appeal which is a newspaper of general circulation in Shelby County, Tennessee, on or before February 10, 2016 for one day.

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This is to provide official notice to the Health Services and Development Agency and all interested parties, in accordance with T.C.A. § 68-11-1601 et seq., and the Rules of the Health Services and Development Agency, that: Methodist Healthcare-Memphis Hospitals d/b/a Methodist University Hospital (a general hospital), owned and managed by Methodist Healthcare-Memphis Hospitals (a not for profit corporation), intends to file an application for a Certificate of Need for new construction and renovation of 470,000 SF of space at Methodist University Hospital, located at 1211-1265 Union Avenue, Memphis, TN 38104. The project is the onsite replacement and modernization of the campus, including the construction of a new patient tower and adjacent building to consolidate ambulatory services. There is no change to the 617 licensed beds, yet 28 medical-surgical beds will be converted to critical care beds, and 204 beds will be relocated to the new patient tower. The project will add an intraoperative MRI (iMRI), will add a third Linear Accelerator to existing Linear Accelerator services, and will relocate PET, CT and infusion equipment and services from 1588 Union Avenue. The project does not initiate or discontinue any other health service. The estimated project cost is \$280,000,000.

The anticipated date of filing the application is on or before February 15, 2016. The contact person for this project is Carol Weidenhoffer, Senior Director of Planning, Research and Development, who may be reached at: Methodist Healthcare, 1407 Union Avenue, Suite 300, Memphis, TN, 38104, 901-516-0679.

Carol Weidenhoffer
(Signature)

2/9/16
(Date)

Carol.Weidenhoffer@mlh.org
(E-mail Address)

=====

The Letter of Intent must be filed in triplicate and received between the first and the tenth day of the month. If the last day for filing is a Saturday, Sunday or State Holiday, filing must occur on the preceding business day. File this form at the following address:

**Health Services and Development Agency
Andrew Jackson Building, 9th Floor
502 Deaderick Street
Nashville, Tennessee 37243**

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The published Letter of Intent must contain the following statement pursuant to T.C.A. § 68-11-1607(c)(1). (A) Any health care institution wishing to oppose a Certificate of Need application must file a written notice with the Health Services and Development Agency no later than fifteen (15) days before the regularly scheduled Health Services and Development Agency meeting at which the application is originally scheduled; and (B) Any other person wishing to oppose the application must file written objection with the Health Services and Development Agency at or prior to the consideration of the application by the Agency.

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COPY

METHODIST
HEALTHCARE
MEMPHIS
HOSPITALS

CN1602-009

FEB 22 10 42 AM '16

**METHODIST HEALTHCARE—
MEMPHIS HOSPITALS**

**CERTIFICATE OF NEED APPLICATION
FOR ONSITE REPLACEMENT AND
MODERNIZATION OF THE
HOSPITAL CAMPUS**

MEMPHIS, SHELBY COUNTY

Filed February 2016

APR 12 10 40 AM '14

1. Name of Facility, Agency, or Institution

Methodist Healthcare-Memphis Hospitals d/b/a Methodist University Hospital

Name

1211 - 1265 Union Avenue

Address

Shelby

County

Memphis

City

TN

State

38104

Zip Code

2. Contact Person Available for Responses to Questions

Carol Weidenhoffer

Name

Corporate Director of Planning,
Research and Development

Title

Methodist Le Bonheur Healthcare

Company Name

Carol.Weidenhoffer@mlh.org

E-mail address

1407 Union Avenue, Suite 300

Street or Route

Memphis

City

TN

State

38104

Zip Code

Employee

Association with Owner

901-516-0679

Phone Number

901-516-0621

Fax Number

3. Owner of the Facility, Agency or Institution See Attachment A:3

Methodist Healthcare – Memphis Hospitals

Name

901-516-0791

Phone Number

1211 Union Avenue, Suite 700

Street or Route

Shelby

County

Memphis

City

TN

State

38104

Zip Code

4. Type of Ownership of Control (Check One) See Attachment A:4

A. Sole Proprietorship

B. Partnership

C. Limited Partnership

D. Corporation (For Profit)

E. Corporation (Not-for-Profit)

F. Governmental (State of TN
or Political Subdivision)

G. Joint Venture

H. Limited Liability Company

I. Other (Specify)

PUT ALL ATTACHMENTS AT THE BACK OF THE APPLICATION IN ORDER AND REFERENCE THE APPLICABLE ITEM NUMBER ON ALL ATTACHMENTS.

5. Name of Management/Operating Entity (If Applicable)

Not Applicable
Name

Street or Route

County

City

State

Zip Code

PUT ALL ATTACHMENTS AT THE END OF THE APPLICATION IN ORDER AND REFERENCE THE APPLICABLE ITEM NUMBER ON ALL ATTACHMENTS.

6. Legal Interest in the Site of the Institution See Attachment A:6

- A. Ownership X
- B. Option to Purchase _____
- C. Lease of _____ Years _____
- D. Option to Lease _____
- E. Other (Specify) _____

PUT ALL ATTACHMENTS AT THE BACK OF THE APPLICATION IN ORDER AND REFERENCE THE APPLICABLE ITEM NUMBER ON ALL ATTACHMENTS.

7. Type of Institution (Check as appropriate—more than one response may apply)

- A. Hospital (Specify) Acute X
- B. Ambulatory Surgical Treatment Center (ASTC), Multi-Specialty _____
- C. ASTC, Single Specialty _____
- D. Home Health Agency _____
- E. Hospice _____
- F. Mental Health Hospital _____
- G. Mental Health Residential Treatment Facility _____
- H. Mental Retardation Institutional Habilitation Facility (ICF/MR) _____
- I. Nursing Home _____
- J. Outpatient Diagnostic Center _____
- K. Recuperation Center _____
- L. Rehabilitation Facility _____
- M. Residential Hospice _____
- N. Non-Residential Methadone Facility _____
- O. Birthing Center _____
- P. Other Outpatient Facility (Specify) _____
- Q. Other Specify _____

8. Purpose of Review (Check as appropriate—more than one response may apply)

- A. New Institution _____
- B. Replacement/Existing Facility X
- C. Modification/Existing Facility X
- D. Initiation of Health Care Service as defined in TCA § 68-11-1607(4) (Specify) _____
- E. Discontinuance of OB Services _____
- F. Acquisition of Equipment LinAc/iMRI/ Hybrid OR X
- G. Change in Bed Complement [Please note the type of change by underlining the appropriate response: Increase, Decrease, Designation, Distribution, Conversion, Relocation] _____
- H. Change of Location _____
- I. Other (Specify) _____

9.

Bed Complement Data

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Please indicate current and proposed distribution and certification of facility beds.

	<u>Current Licensed</u>	<u>Beds *CON</u>	<u>Staffed Beds</u>	<u>Beds Proposed</u>	<u>TOTAL Beds at Completion</u>
A. Medical	511		366	-28	483
B. Surgical					
C. Long-Term Care Hospital					
D. Obstetrical					
E. ICU/CCU	72		72	+28	100
F. Neonatal					
G. Pediatric					
H. Adult Psychiatric	34		34		34
I. Geriatric Psychiatric					
J. Child/Adolescent Psychiatric					
K. Rehabilitation					
L. Nursing Facility (non-Medicaid Certified)					
M. Nursing Facility Level 1 (Medicaid only)					
N. Nursing Facility Level 2 (Medicare only)					
O. Nursing Facility Level 2 (dually certified Medicaid/Medicare)					
P. ICF/MR					
Q. Adult Chemical Dependency					
R. Child and Adolescent Chemical Dependency					
S. Swing Beds					
T. Mental Health Residential Treatment					
U. Residential Hospice					
TOTAL	617		472	0	617

*CON-Beds approved but not yet in service

10. Medicare Provider Number 44-0049
 Certification Type Acute Care Facility

11. Medicaid Provider Number 44-0049
 Certification Type Acute Care Facility

12. **If this is a new facility, will certification be sought for Medicare and/or Medicaid?**

The applicant, Methodist Healthcare—Memphis Hospitals, is a healthcare provider that operates five Shelby County hospitals under a single license. The system is certified for both Medicare and TennCare/Medicaid; and the system's acute care provider numbers cover all five hospitals—including Methodist University Hospital, which this application addresses.

13. **Identify all TennCare Managed Care Organizations/Behavioral Health Organizations (MCO's/BHO's) operating in the proposed service area. Will this project involve the treatment of TennCare participants? If the response to this item is yes, please identify all MCO's/BHO's with which the applicant has contracted or plans to contract. Discuss any out-of-network relationships in place with MCO's/BHO's in the area.**

The Tennessee MCO's/BHO's operating in the project service area are United Healthcare offering United Healthcare Community Plan and Dual Complete (a Special Needs Plan), Blue Cross Blue Shield offering Blue Care and TennCare Select, and Wellpoint offering Amerigroup Community Care plan. The service area for this project also includes counties in North Mississippi and Eastern Arkansas, where Medicaid is available.

All of Methodist Healthcare's hospitals treat TennCare participants under the system's TennCare contracts. Methodist Healthcare—Memphis Hospitals contracts with United Healthcare, Blue Cross Blue Shield, Wellpoint, and Medicaid providers in adjoining States.

NOTE: Section B is intended to give the applicant an opportunity to describe the project and to discuss the need that the applicant sees for the project. Section C addresses how the project relates to the Certificate of Need criteria of Need, Economic Feasibility, and the Contribution to the Orderly Development of Health Care. Discussions on how the application relates to the criteria should not take place in this section unless otherwise specified.

SECTION B: PROJECT DESCRIPTION

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Please answer all questions on 8 1/2" x 11" white paper, clearly typed and spaced, identified correctly and in the correct sequence. In answering, please type the question and the response. All exhibits and tables must be attached to the end of the application in correct sequence identifying the question(s) to which they refer. If a particular question does not apply to your project, indicate "Not Applicable (NA)" after that question.

I. Provide a brief executive summary of the project not to exceed two pages. Topics to be included in the executive summary are a brief description of proposed services and equipment, ownership structure, service area, need, existing resources, project cost, funding, financial feasibility and staffing.

Proposed Services and Equipment

- This is an onsite replacement and modernization project on the campus of Methodist University Hospital, the flagship hospital for Methodist Healthcare – Memphis Hospitals.
- The proposed project consisting of 421,000 square feet (sf) of new space and 49,000 sf of renovated space is the execution of the master plan for Methodist University focusing on the relocation/consolidation of acute patient care services.
- A ten-story patient tower with an adjacent ambulatory building is proposed to consolidate currently disjointed clinical services, improve operational efficiencies by centralizing support services, and upgrade clinical space for high quality, patient-centered care.
- All acute care beds as well as imaging and surgical services currently housed in the oldest buildings on campus will be relocated to the new tower. Upon completion the new patient tower will house 204 of the 617 licensed beds, surgery, imaging, and pharmacy services, and feature consolidated, enhanced clinical centers of excellence for the West Cancer Center and Methodist University Hospital Transplant Institute.
- The project will convert twenty-eight medical-surgical beds to critical care beds.
- Another key element of the project is the consolidation of multiple, currently disjointed outpatient services into a newly constructed ambulatory building that will be situated to the south of the new tower for integrated access to the clinical space.
- The older, outdated buildings will be recycled and refurbished for patient education, resident education, support services, and administrative functions.
- Equipment needs for this project include the purchase of a new interoperable MRI (iMRI) for the surgical suite, a replacement Hybrid operating room system, and a third linear accelerator. The PET and CT in the West Cancer Center will be relocated from the Methodist operated West Clinic on Union Avenue – less than one mile away.
- The proposed project also includes the demolition of the Crews building at the corner of Union Avenue and Bellevue Boulevard which will improve circulation around the campus as well as increase the visibility of the main hospital entrance.
- Methodist plans to use Integrated Project Delivery (IPD) implementation on this project. It is a team approach with an agreement between the owner, contractor and architect for construction management. This innovative model reduces costs and waste through shared risks and rewards.
- Similar to recent construction project led by Methodist, the facility will be designed as a green building and upon completion the team will pursue Leadership in Energy and Environmental Design (LEED) certification by the U.S. Green Building Council. The design proposal seeks to reduce operating costs by using less energy and water as well as reduce the impacts on the environment.

Ownership Structure

- The applicant, Methodist Healthcare–Memphis Hospitals (Methodist), is a not-for-profit corporation that operates five Shelby County hospitals under a single license. The applicant is a wholly-owned subsidiary of a broader parent organization, Methodist Healthcare, which is a not-for-profit corporation with ownership and operating interests in healthcare facilities in West Tennessee and North Mississippi. Attachment A:4 contains an organization chart, and information on the facilities owned in whole or in part by Methodist Healthcare.

Service Area

- The project primary service area includes Shelby, Fayette and Tipton counties in Tennessee, DeSoto County in Mississippi, and Crittenden County in Arkansas. The secondary service area includes Tipton, Fayette, Lauderdale, Hardeman, Haywood, Dyer, and Madison Counties in Tennessee, Marshall, Tunica, Panola, Tate, and Coahoma Counties in Mississippi, and St. Francis, Mississippi, Poinsett, Lee, Phillips, and Craighead Counties in Arkansas. Please note the quaternary services of the hospital such as transplant serve a broader area attracting patients from around that nation.

Need

- As the system's tertiary academic medical center, Methodist University Hospital, located in the downtown medical center, is well positioned to serve the expansive tri-state service area. Through the partnership with the University of Tennessee Health Science Center, Methodist helps train the next generation of medical professionals and brings cutting-edge research and treatment to area patients. Methodist University is committed to education and advancements in clinical care and as such is a vital organization to Methodist Healthcare, the downtown medical district and broader tri-state area.
- Methodist University brings together research, medicine, and innovation to treat incredibly complex medical cases and advance the practice of medicine. The regional and national growth—and the continuance of this growth—of associated programs have created more of a need for intensive medical capacity and state-of-the-art facilities.
- Over the last three years, the hospital's critical care units have experienced increasingly high occupancy rates consistently exceeding 80%. The redistribution of medical-surgical beds to critical care will improve patient flow, wait times, and patient experience.
- The current campus is the product of decades of incremental expansion, with both inpatient and outpatient services interspersed and spread across a complex of buildings spanning six blocks and almost nineteen acres. The campus needs restructuring, along with major renovation and modernization to meet twenty-first century standards. The older buildings on the campus – those built 1950-70 – pose serious challenges for today's clinical standards and state-of-the-art technology. Conditions in the older buildings are not conducive to Methodist's trademark patient and family centered care.
- Methodist completed a comprehensive assessment of the campus infrastructure and updated the master plan to meet long term vision for the hospital and health system. The physical plant alone warrants the need for the project. The planning priorities for the project focus on consolidation, efficiency, organization, improvements/upgrades, flexibility, and recycling an aging infrastructure.
- Methodist believes an investment in the future of Methodist University Hospital required a critical review of all clinical program priorities, inpatient capacity, outpatient services, support services, and the result is this plan for campus modernization.

Existing Resources

- In the project's Tennessee primary service area, there are eleven adult acute care hospitals (including Methodist University) with a total of 3,844 licensed beds of which almost 80% were staffed (or 3,042 beds) in 2014. The average daily census for the market in 2014 was 2,704 (or 70% occupancy). There were 125,256 inpatient discharges and 716,500 inpatient days during this period.

Project Cost, Funding, Feasibility

- The project cost of \$280,000,000 will be funded in cash by the applicant's parent, Methodist Healthcare. Methodist Healthcare is, and will remain, financially viable.

Staffing

- The project will not require the addition of FTEs.

II. Provide a detailed narrative of the project by addressing the following items as they relate to the proposal.

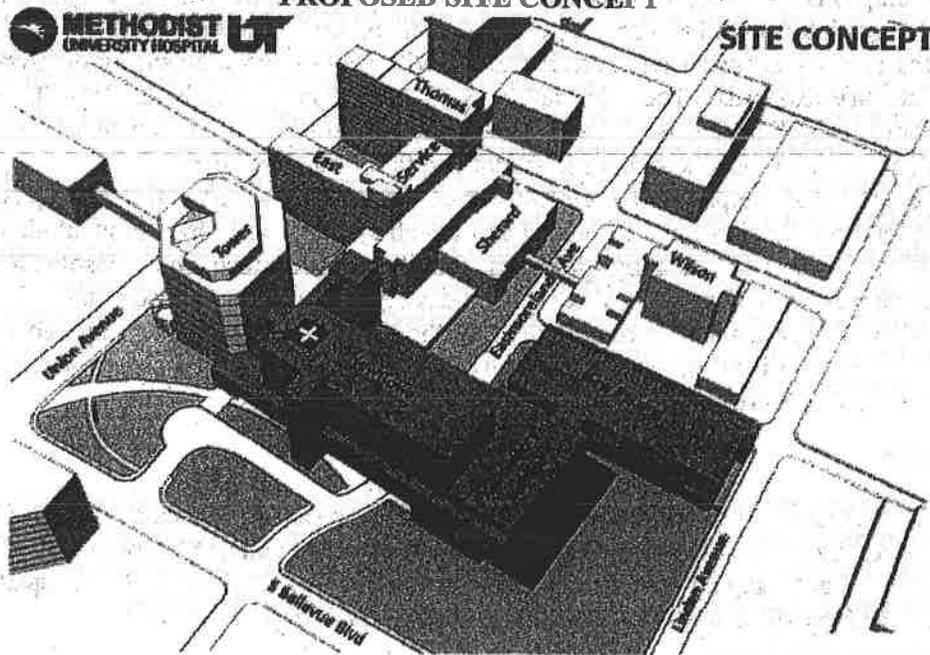
A. Describe the construction, modification and/or renovation of the facility (exclusive of major medical equipment covered by T.C.A. § 68-11-1601 et seq.) including square footage, major operational areas, room configuration, etc.

1. Overview of the Project

This is an onsite replacement and modernization project on the campus of Methodist University Hospital, the flagship hospital for Methodist Healthcare—Memphis Hospitals. Over the nine months, Methodist completed a comprehensive assessment of the campus infrastructure and updated the Master Plan to meet the long term vision for the hospital and health system. The proposed project consisting of approximately 421,000 sf of new space and 49,000 sf of renovated space is the execution of the master plan for Methodist University focusing on the relocation/consolidation of acute patient care services.

The construction consists of a new ten-story patient tower which will be built on top of existing Emergency Department (ED) and span over Eastmoreland Avenue. The base of the new tower across Eastmoreland extends into an existing parking area and is referred to in the application as the ambulatory building – given that it will house many outpatient services. See Diagram 1 below for the site concept.

**DIAGRAM 1
METHODIST UNIVERSITY CAMPUS
PROPOSED SITE CONCEPT**



The proposed new patient tower will consolidate currently disjointed clinical services, improve operational efficiencies by centralizing support services, and upgrade clinical space for high quality, patient-centered care. All acute care beds (medical-surgical and critical care) as well as imaging and surgical services will relocate from the oldest buildings on campus (East, Service, and Thomas also noted on diagram 1 above) to the new tower. The older, outdated buildings will be recycled and refurbished for patient education, resident education, support services, and administrative functions.

Another key feature of the project is the consolidation of multiple outpatient centers spread across the existing campus. The base of the new tower –or the ambulatory building– on the south side of Eastmoreland Avenue will serve as the new entrance for imaging, ambulatory surgery, transplant clinic, and cancer clinic services with integrated access to the new clinical space.

The proposed project also includes the demolition of the Crews building at the corner of Union Avenue and Bellevue which will improve circulation around the campus as well as increase the visibility of the main hospital entrance. Old cooling towers on Union Avenue between the existing patient tower and the East building are also slated for demolition with this project to open greenspace.

An existing parking garage on Eastmoreland will also be demolished to accommodate new patient tower. A new larger parking garage (noted in diagram 1 above as new parking) will be constructed for expanded parking capabilities. The construction of a parking garage does not require Certificate of Need approval and these costs for demolition of the old garage and construction of the new garage are not included in this project.

The project will entail 421,000 sf of new space and 49,000 sf of renovated space. The estimated total project costs are \$280,000,000.

If granted CON approval, the new tower and ambulatory building will be constructed and scheduled to open by January 2019 then renovations to back fill the older, existing buildings with support, administrative, and educational functions will be complete by May 2020. The projections in this application use calendar years 2019 and 2020 as the project's first two full years of operation given the inpatient and outpatient hospital services will be operational with the construction of the tower and ambulatory building. The applicant is requesting four years to complete this project.

2. Detailed Description of the Project

Changes in Bed Allocations

Table 1 below shows that the 617 total licensed beds operated by Methodist University will not change. Methodist plans to convert twenty-eight medical-surgical beds to critical care beds to meet the demands of the rising acuity and complexity of today's inpatients.

**TABLE 1
METHODIST UNIVERSITY HOSPITAL
PROPOSED ACUTE CARE BED CHANGES**

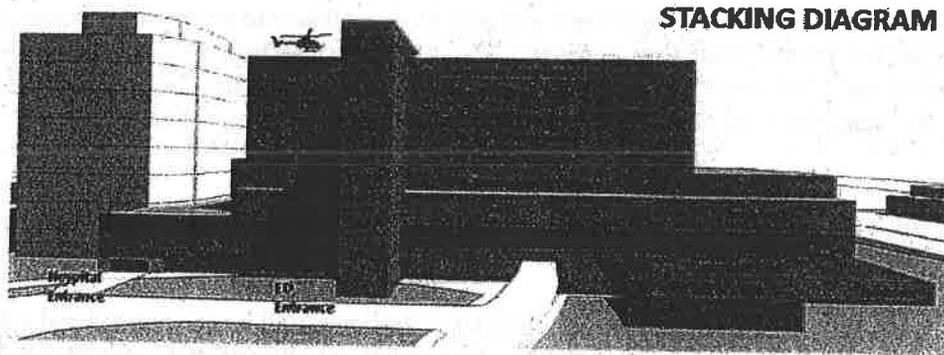
	Med-Surg	ICU/CCU	Psych	Total
Current Complement	511	80	34	617
Proposed Change	-28	+28	-	-
Proposed Complement	483	100	34	617

Square Footage Changes

The total square footage of the project is as follows; detailed data by department are shown on the Cost and Square Footage chart shown on pages 14. (The data excludes non-reviewable components of the campus such as existing medical office buildings and the planned parking garage.)

	<u>Square Feet</u>
Total Square Feet Renovated:	49,000
Total Square Feet New Construction:	421,000
Total Project Square Feet:	470,000
Total Square Feet to be Demolished:	129,408 (Crews)
Total Hospital Area, Before the Project:	1,366,697
Plus: New Construction	+ 421,000
Less: Demolition	- 129,408
Total Hospital Area, After the Project:	1,658,289

DIAGRAM 2
METHODIST UNIVERSITY CAMPUS
PROPOSED STACKING DIAGRAM



Please refer to Diagrams 2 for visual images of the proposed site plan and floor-by-floor summaries below.

Floor-by-Floor Summary of the Project

In the following narrative, "MUH Campus" refers to the existing hospital structure. The two new structures which will be constructed over the existing ED are the new ten-story tower and the ambulatory building located to the south of Eastmoreland. To keep it simple, the two new structures will be referred to as the "New Tower". Reference is also made to seven main sections of the MUH Campus, i.e., Crews, Tower, Link, East, Service, Sherard, and Thomas buildings. Floor plans and stacking diagrams are provided for easy reference.

Ground Level of the New Tower

As part of the goal for consolidation of outpatient cancer services, the ground level of the New Tower (located south of the existing ED and Eastmoreland) will house the radiation oncology therapy department. Radiation therapy currently is located in the basement level of the MUH Campus, Thomas building.

Level One of the New Tower

Level one (also located south of the existing ED and Eastmoreland) will consist of the remaining West Cancer Center outpatient services, to include the outpatient clinic, infusion center, and administrative support spaces. A dedicated entrance and patient drop-off for the cancer center will be provided with access from South Bellevue Boulevard. The existing infusion center is currently located off campus at the West Cancer Center at 1588 Union Avenue - less than a mile from the MUH Campus - which is and will be operated as a Methodist Memphis Hospitals hospital-based service.

Level Two of the New Tower

Level two will primarily consist of the consolidation of the Transplant Institute which will include the transplant outpatient clinic and Center for Advanced Liver Diseases (CALD). Collocated on this floor will be the dialysis clinic. These functions are currently located on level one of the Sherard building, but are currently not contiguous. A dedicated entrance and patient drop-off for the Transplant Institute will be provided with access from South Bellevue Boulevard.

Level Three of the New Tower

Level three will consist of the consolidated surgical department which will include the twenty operating rooms with supporting Post Anesthesia Care Unit (PACU) beds, and prep/recovery beds. The current surgical department is located on level three of the East and Service building. Also located on this level will be a consolidation of inpatient pharmacy services which are relocating from the ground level of Tower. Finally, a small café will be located on level three to provide additional amenities for outpatients, families, and visitors.

Level Four of the New Tower

Level four will consist of imaging services which are relocating from the Sherard building. The existing MRI suite located on the ground level of the Link building will be included in the relocation to the New Tower.

Level Five of the New Tower

This inpatient floor will contain 30 ICU beds for the Transplant Institute. Currently, the Transplant ICU is located on level seven of the East building.

Level Six of the New Tower

This inpatient floor will contain 30 ICU beds for Cancer Center patients and other critical care patients.

Level Seven – Ten of the New Tower

This inpatient floor will contain 36 medical-surgical beds each relocated from East, Sherard, and Thomas.

Roof of the New Tower

The helipad is currently on the roof of the ED. The new tower will be constructed on top of the existing ED, so the helipad will be relocated to the roof of the new patient tower.

See Attachments B:III (A) and B:IV for the Plot Plans and Floor Plans.

3. Project Costs and Funding Sources

Project Costs

The total cost of the project for CON purposes is \$280,000,000 which includes construction costs of \$197,145,000 (including \$6,750,000 site prep and \$18,245,000 contingency costs). The project costs will be funded by cash contributions from Methodist Healthcare, the parent company of the applicant.

Applicants with hospital projects (construction cost in excess of \$5 million) and other facility projects (construction cost in excess of \$2 million) should complete the Square Footage and Cost per Square Footage Chart. Utilizing the attached Chart, applicants with hospital projects should complete Parts A.-E. by identifying as applicable nursing units, ancillary areas, and support areas affected by this project. Provide the location of the unit/service within the existing facility along with current square footage, where, if any, the unit/service will relocate temporarily during construction and renovation, and then the location of the unit/service with proposed square footage. The total cost per square foot should provide a breakout between new construction and renovation cost per square foot. Other facility projects need only complete Parts B.-E. Please also discuss and justify the cost per square foot for this project.

Please also discuss and justify the cost per square foot for this project.

Total construction costs excluding site prep and construction contingency are \$172,150,000 (or \$366 PSF) with new construction costs of \$166,692,019 (or \$396 PSF) and renovation costs of \$5,457,981 (or \$111 PSF).

The costs of the project are higher than average due to the scope of the project yet reasonable as compared to similar renovations done throughout Methodist Healthcare over the last few years and on recently approved CON's.

**TABLE 2
COST PER SQUARE FOOT COMPARISON WITH APPROVED PROJECTS**

CON Name	Date Filed	Cost per Square Foot
Methodist South Hospital Renovate and Expand Emergency Department	Mar-15	\$ 209
Methodist Memphis Hospital Establish West Cancer Center	Nov-13	\$ 145
Le Bonheur Children's Hospital Establish Pediatric Outpatient Center	Nov-13	\$ 152
Campbell Clinic Surgery Center Construction & Renovation	Aug-12	\$ 244
The Regional Medical Center – The Med Hospital Construction & Renovation	Aug-12	\$ 225
Baptist Memorial Women's Hospital ED Construction & Renovation	Dec-12	\$ 238

Total construction costs are also higher when compared to the HSDA construction costs ranges. Renovation costs for the project are at the first quartile, yet new construction costs are above the third quartile. Please note that three years of escalation are costs built into the construction estimates given the project timeline which equate to roughly \$50 PSF. Other factors that increase the costs projections for this project are:

- the new patient tower spans an active road
- the new patient tower will connect to existing facilities at several locations
- the site is not a greenfield site yet is an onsite modernization project in a busy campus

See the cost per square foot comparisons below.

**TABLE 3
HOSPITAL CONSTRUCTION COST PER SQUARE FOOT
YEARS: 2012-2014**

	Renovated Construction	New Construction	Total Construction
1st Quartile	\$110.98/sq ft	\$224.09/sq ft	\$156.78/sq ft
Median	\$192.46/sq ft	\$259.66/sq ft	\$227.88/sq ft
3rd Quartile	\$297.82/sq ft	\$296.52/sq ft	\$298.66/sq ft

Source: CON approved applications for years 2012 through 2014

If the project involves none of the above, describe the development of the proposal.

Not Applicable.

- B. Identify the number and type of beds increased, decreased, converted, relocated, designated, and/or redistributed by this application. Describe the reasons for change in bed allocations and describe the impact the bed change will have on the existing services.**

The proposed changes in bed complement at Methodist University Hospital are described in detail in the Section B.II.A narrative immediately preceding this section. This redistribution from medical-surgical beds to intensive care beds will not add beds to the hospital or service area; it will not change the license of the applicant.

Methodist University is the core teaching hospital for University of Tennessee Health Science Center (UTHSC). The hospital's academic focus offers highly specialized services for complex diseases, illnesses, and injuries, develops technology, and carries out research to improve lives. The regional and national

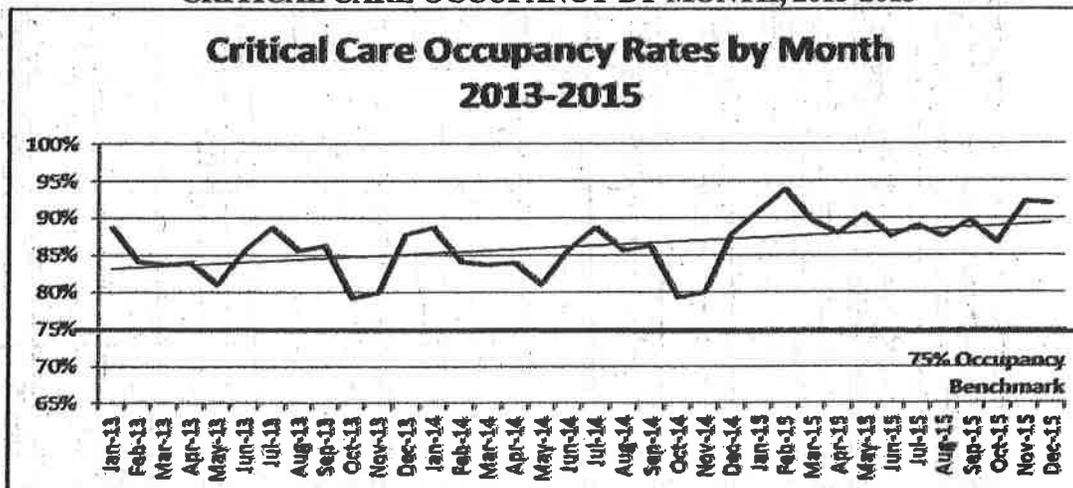
outreach of the academic programs is shifting the need for more intensive medical capacity and need for a state-of-the-art facility.

To remedy the Methodist plans to convert twenty-eight medical-surgical beds to critical care beds in the new patient tower. Over the last three years, the hospital's intensive care units have experienced increasingly high occupancy rates consistently exceeding 80%. This redistribution will improve patient flow, wait times, and patient experience with the addition of intensive care beds.

**METHODIST UNIVERSITY HOSPITAL
CRITICAL CARE OCCUPANCY BY YEAR, 2013-2015**

	2013	2014	2015
ICU Beds	72	72	72
Patient Days	22,212	22,797	23,570
Average Daily Census	60.9	62.5	64.6
Occupancy Rate	84.5%	86.7%	89.7%

**METHODIST UNIVERSITY
CRITICAL CARE OCCUPANCY BY MONTH, 2013-2015**



Square Footage Cost Per Square Footage Chart

A. Unit / Department	Existing Location	Existing SF	Temporary Location	Proposed Final		Proposed Final		Total	Total
				Final Location	Square Footage	Renovated	New		
GROUND FLOOR									
Radiation Therapy	Thomas Basement	13,701 SF		Ground New Tower	19,500 SF		19,500 SF	\$588 /sf	\$ 11,462
1ST FLOOR									
Oncology Infusion Center	Office			1st New Tower	23,622 SF		23,622 SF	\$34 /sf	\$ 8,128
Oncology Center Clinics	Office			1st New Tower	23,622 SF		23,622 SF	\$12 /sf	\$ 7,566
Desk				1st New Tower	1,000 SF		1,000 SF	\$24 /sf	\$ 254
2ND FLOOR									
Transplant Clinic	1st Steward	19,432 SF		2nd New Tower	31,007 SF		31,007 SF	\$12 /sf	\$ 9,669
Dialysis	1st Steward	5,084 SF		2nd New Tower	4,800 SF		4,800 SF	\$29 /sf	\$ 1,393
3RD FLOOR									
Surgery	1st & 3rd Service	\$2,746 SF		3rd New Tower	78,266 SF		78,266 SF	\$20 /sf	\$ 4,079
Pharmacy	Ground Tower	9,202 SF		3rd New Tower	9,000 SF		9,000 SF	\$36 /sf	\$ 3,290
Cafe				3rd New Tower	2,000 SF		2,000 SF	\$24 /sf	\$ 587
4TH FLOOR									
Laboratory				4th New Tower	1,183 SF		1,183 SF	\$48 /sf	\$ 571
Sterile Processing Department (shell)				4th New Tower	20,000 SF		20,000 SF	\$21 /sf	\$ 4,014
Diagnostic Imaging	4th Steward and Ground Link	22,975 SF		4th New Tower	21,000 SF		21,000 SF	\$47 /sf	\$ 9,936
5TH FLOOR									
30-Bed ICU	7th East	8,057 SF		5th New Tower	31,000 SF		31,000 SF	\$40 /sf	\$ 12,445
6TH FLOOR									
30-Bed ICU	2nd Steward	17,360 SF		6th New Tower	31,000 SF		31,000 SF	\$40 /sf	\$ 12,445
7TH - 10TH FLOORS									
36-Bed Med/Surg	Various	110,796 SF		7th-10th New Tower	124,000 SF		124,000 SF	\$38 /sf	\$ 44,447
RENOVATIONS									
Behavioral Health	8th Crews	14,895 SF		Thomas	22,000 SF		22,000 SF	\$89 /sf	\$ 1,965
Laboratory	6th Steward	16,500 SF		Steward	16,500 SF		16,500 SF	\$189 /sf	\$ 3,124
Support				Thomas	10,500 SF		10,500 SF	\$35 /sf	\$ 367
DEMOLITION									
SITEWORK									
									\$4,850.00
									\$1,900.00
									\$1,700,000.00

C. As the applicant, describe your need to provide the following health care services (if applicable to this application): The applicant is approved for Radiation Therapy/Linear Accelerator, Magnetic Resonance Imaging (MRI), and Positron Emission Tomography (PET) services and equipment already. The PET equipment will be relocated to this site, and the Linear Accelerator and iMRI are requests for additional units for existing services at this location.

1. Adult Psychiatric Services
2. Alcohol and Drug Treatment for Adolescents (exceeding 28 days)
3. Birthing Center
4. Burn Units
5. Cardiac Catheterization Services
6. Child and Adolescent Psychiatric Services
7. Extracorporeal Lithotripsy
8. Home Health Services
9. Hospice Services
10. Residential Hospice
11. ICF/MR Services
12. Long-term Care Services
13. Magnetic Resonance Imaging (MRI)
14. Mental Health Residential Treatment
15. Neonatal Intensive Care Unit
16. Non-Residential Methadone Treatment Centers
17. Open Heart Surgery
18. Positron Emission Tomography
19. Radiation Therapy/Linear Accelerator
20. Rehabilitation Services
21. Swing Beds

D. Describe the need to change location or replace an existing facility.

See the response to Section C under the responses to the Project-Specific Review Criteria: Construction, Renovation, Expansion, and Replacement of Health Care Institutions.

E. Describe the acquisition of any item of major medical equipment (as defined by the Agency Rules and the Statute) which exceeds a cost of \$1.5 million; and/or is a magnetic resonance imaging (MRI) scanner, positron emission tomography (PET) scanner, extracorporeal lithotripter and/or linear accelerator by responding to the following:

The Linear Accelerator, iMRI, and Hybrid Operating Room (OR) system proposed purchases are fixed units therefore #2 below is not applicable. The Hybrid OR system is a replacement of existing equipment. Neither #1 nor #2 is applicable for the PET since the unit is being relocated and is not a new purchase.

1. For fixed-site major medical equipment (not replacing existing equipment):

a. Describe the new equipment, including:

1. Total cost (As defined by Agency Rule).

Equipment Type	Equipment	Maintenance (4 years)	Total Cost
iMRI	\$ 3,959,767	\$ 705,180	\$ 4,664,947
Linear Accelerator	\$ 2,636,000	\$ 760,581	\$ 3,396,581
Hybrid Operating Room	\$ 1,972,443	\$ 375,300	\$ 2,347,743

2. Expected useful life of all major moveable equipment is 7 years

3. List of clinical applications to be provided;

LINEAR ACCELERATOR

"A linear accelerator (LINAC) is latest in radiation technology used for external beam radiation treatments for patients with cancer. The linear accelerator is used to treat all parts/organs of the body. It delivers high-energy x-rays to the region of the patient's tumor. These x-ray treatments can be designed in such a way that they destroy the cancer cells while sparing the surrounding normal tissue. The LINAC is used to treat all body sites, using conventional techniques, Intensity-Modulated Radiation Therapy (IMRT), Image Guided Radiation Therapy (IGRT), Stereotactic Radiosurgery (SRS) and Stereotactic Body Radio Therapy (SBRT)." (source: <http://www.radiologyinfo.org/en/info.cfm?pg=linac>).

The equipment is optimized for both radiotherapy and radiosurgery and can treat cancers almost anywhere in the body, including lung, breast, abdomen and head and neck cancers.

iMRI

"Magnetic resonance imaging (MRI) is a noninvasive medical test that physicians use to diagnose and treat medical conditions. MRI uses a powerful magnetic field, radio frequency pulses and a computer to produce detailed pictures of organs, soft tissues, bone and virtually all other internal body structures. MRI does not use ionizing radiation (x-rays). Detailed MR images allow physicians to evaluate various parts of the body and determine the presence of certain diseases. The images can then be examined on a computer monitor, transmitted electronically, printed or copied to a CD."

<http://www.radiologyinfo.org/en/info.cfm?pg=bodymr>

An intraoperative magnetic resonance imaging (iMRI) unit is used in the neurosurgery operating room. This equipment will be used to assist neurosurgeons in epilepsy surgeries and the resection of brain tumors. Without this technology, MRI testing must be done in the hospital's radiology department post-operatively. This delayed imaging could identify the further need for surgery and the patient will have to undergo a subsequent surgery. iMRI is bridges the specialties of surgery and radiology. With this technology, the precision and success of surgical treatment increase.

HYBRID OR SYSTEM

"A hybrid operating room is an OR equipped with a large fixed imaging system that supports high-quality interventional imaging and complex open and minimally invasive surgeries. A revolutionary alternative to conventional operating rooms, the hybrid OR allows physicians to perform procedures using real-time image guidance, and to assess effectiveness and manage perioperative complications, all in a single encounter." source: *ECRI Institute*

Hybrid operating rooms are currently used mainly in cardiac, vascular and neuro-surgery, but could be suitable for a number of other surgical disciplines.

4. Documentation of FDA approval.

Please see Attachment B-II (E)(4) FDA approvals

b. Provide current and proposed schedules of operations.

LINAC 7:30a – 4:30p Monday-Friday

iMRI and Hybrid OR system same as perioperative suite 7:00a – 5:00 p Monday-Friday

2. **For mobile major medical equipment: Not Applicable**
 - a. **List all sites that will be served;**
 - b. **Provide current and/or proposed schedule of operations;**
 - c. **Provide the lease or contract cost.**
 - d. **Provide the fair market value of the equipment; and**
 - e. **List the owner for the equipment.**

3. **Indicate applicant's legal interest in equipment (i.e., purchase, lease, etc.) In the case of equipment purchase include a quote and/or proposal from an equipment vendor, or in the case of an equipment lease provide a draft lease or contract that at least includes the term of the lease and the anticipated lease payments.**

Methodist proposes to purchase all major moveable equipment included in this project. See Attachment B:II (E)(3) for the quotes from the vendors.

III. (A) Attach a copy of the plot plan of the site on an 8 1/2" x 11" sheet of white paper which must include:

See Attachment B:III (A) for the plot plan.

1. **Size of site (in acres);**
2. **Location of structure on the site; and**
3. **Location of the proposed construction.**
4. **Names of streets, roads or highway that cross or border the site.**

Please note that the drawings do not need to be drawn to scale. Plot plans are required for all projects.

(B) Describe the relationship of the site to public transportation routes, if any, and to any highway or major road developments in the area. Describe the accessibility of the proposed site to patients/clients.

Methodist University Hospital is in the heart of the Memphis Medical Center. The hospital campus is located on Union Avenue, in downtown Memphis, within a few blocks of the Union Avenue exit from Interstate-240 (I-240) which makes it easily accessible for area patients via automobile and ambulance. Union Avenue runs east-west from the Mississippi River (in downtown Memphis) to Houston-Levee Road in Germantown, Tennessee (changing names to Walnut Grove as it runs through the city). I-240 loops around the city of Memphis with major junctions at I-40 (east-west highway that traverses the state of Tennessee and locally connects Arkansas and Tennessee), I-55 (north-south highway locally connecting Tennessee to Mississippi, northern Arkansas and Missouri), and State Route 385 (loops through East Memphis suburbs) as well as several US Highways including US-64/US-70/US-79, US-78 and US-72.

The Memphis Area Transit Authority (MATA) services this area with Route 34, which lists Methodist University Hospital as a major stop on the route. Please see Attachment B: III (B) for a copy of this public transportation route.

IV. Attach a floor plan drawing for the facility which includes legible labeling of patient care rooms (noting private or semi-private), ancillary areas, equipment areas, etc. on an 8 1/2" x 11" sheet of white paper.

NOTE: DO NOT SUBMIT BLUEPRINTS. Simple line drawings should be submitted and need not be drawn to scale.

See Attachment B:IV. for the floor plans.

V. For a Home Health Agency or Hospice, identify: Not applicable.

- 1. Existing service area by County;**
- 2. Proposed service area by County;**
- 3. A parent or primary service provider;**
- 4. Existing branches; and**
- 5. Proposed branches.**

SECTION C: GENERAL CRITERIA FOR CERTIFICATE OF NEED

In accordance with Tennessee Code Annotated § 68-11-1609(b), "no Certificate of Need shall be granted unless the action proposed in the application for such Certificate is necessary to provide needed health care in the area to be served, can be economically accomplished and maintained, and will contribute to the orderly development of health care." The three (3) criteria are further defined in Agency Rule 0720-4-.01. Further standards for guidance are provided in the state health plan (Guidelines for Growth), developed pursuant to Tennessee Code Annotated §68-11-1625.

The following questions are listed according to the three (3) criteria: (I) Need, (II) Economic Feasibility, and (III) Contribution to the Orderly Development of Health Care. Please respond to each question and provide underlying assumptions, data sources, and methodologies when appropriate. *Please type each question and its response on an 8 1/2" x 11" white paper.* All exhibits and tables must be attached to the end of the application in correct sequence identifying the question(s) to which they refer. If a question does not apply to your project, indicate "Not Applicable (NA)."

QUESTIONS

NEED

1. Describe the relationship of this proposal toward the implementation of the State Health Plan and Tennessee's Health: Guidelines for Growth.

The applicant's mission embodies the spirit of the Guidelines for Growth and the Five Principles to Achieve Better Health as outlined in the State Health Plan. Methodist Le Bonheur Healthcare's mission is to partner with its medical staffs and collaborate with its patients and families to be the leader in high quality, cost effective healthcare in all sectors of its service area. Its geographical distribution makes Methodist Healthcare the area provider with the largest number of entry points, and the most socio-economically diverse patient population. This project complies with the mission and the tenants of the State Health Plan and Guidelines for Growth.

Healthy Lives:

The purpose of the State Health Plan is to improve the health of Tennesseans.

Every person's health is the result of the interaction of individual behaviors, society, the environment, economic factors, and our genetic endowment. The State Health Plan serves to facilitate the collaboration of organizations and their ideas to help address health at these many levels.

This project will reshape Methodist University in a manner that contributes to the Health Lives principle by improving both access to health services and the quality of health services. A key component of this is that Methodist University will be better positioned to start care coordination further upstream in the care continuum, which will go a long ways toward combating the effects of the determinants of health described by the Healthy Lives Principle.

Access to Care:

Every citizen should have reasonable access to health care.

Many elements impact one's access to health care, including existing health status, employment, income, geography, and culture. The State Health Plan can provide standards for reasonable access, offer policy direction to improve access, and serve a coordinating role to expand health care access.

Methodist Healthcare has strategically placed and maintained hospitals and ambulatory facilities in all quadrants of Shelby County as part of its mission. University Hospital remained committed to the inner city and mission markets even as competitors and other healthcare resources followed the population shift to the east. The hospital is centrally located in the downtown Memphis Medical Center making it easily

accessible patients and families in the tristate area. In keeping with the mission, access to healthcare services is not restricted by existing health status, employment, income, geography, or culture.

Barriers to accessing health services lead to unmet health needs, delays in receiving appropriate care, an inability to get preventive services, and preventable hospitalizations. The project will remove physical barriers, enhance aesthetic elements, and promote operational efficiencies to greatly improve patients' access to high-quality and patient-centered tertiary and ambulatory services.

Economic Efficiencies:

The state's health care resources should be developed to address the needs of Tennesseans while encouraging competitive markets, economic efficiencies and the continued development of the state's health care system.

The State Health Plan should work to identify opportunities to improve the efficiency of the state's health care system and to encourage innovation and competition.

The newly designed campus will improve access to and the efficiency of health care services offered by Methodist University. Improved access to ambulatory services, particularly preventive services, will allow patients to enter the care continuum further upstream, at a more cost-effective and efficient point of care. From a health system perspective, the campus will be designed in a way that supports evidence-based practices and minimized unnecessary variation.

Quality of Care:

Every citizen should have confidence that the quality of health care is continually monitored and standards are adhered to by health care providers.

Health care providers are held to certain professional standards by the state's licensure system. Many health care stakeholders are working to improve their quality of care through adoption of best practices and data-driven evaluation.

Patient safety and quality are central areas of focus in Methodist hospitals. The framework for Methodist Healthcare's approach to systematic quality improvement includes the following dimensions: safe, timely, effective, efficient, equitable, patient-centered, accessible and sustainable. The current design of the Methodist University campus poses certain challenges. This project will improve upon all of the above-mentioned dimensions. The clinical staff will have more opportunity for collaboration across modalities and with physicians for improved quality care. The more efficient flow in the proposed facility has fewer touch points, facilitates improved communication and consolidates work zones for more efficient and timely care.

Methodist has adopted a patient and family centered culture. Associates are encouraged to truly partner with patients and families, not only to involve them in decisions about care, but also gain the benefit of their insights to better plan and deliver care. The core principles for culture are respect and dignity, information sharing, participation and collaboration. The improved hospital design coupled with employment of these principles, patients can achieve better outcomes, and the hospital can improve the care for patients

Health Care Workforce:

The state should support the development, recruitment, and retention of a sufficient and quality health care workforce.

The state should consider developing a comprehensive approach to ensure the existence of a sufficient, qualified health care workforce, taking into account issues regarding the number of providers at all levels and in all specialty and focus areas, the number of professionals in teaching positions, the capacity of medical, nursing, allied health and other educational institutions, state and federal laws and regulations impacting capacity programs, and funding.

Methodist University Hospital is the largest, most comprehensive hospital in the Methodist Healthcare system. It is a 617-bed facility located in the heart of the Memphis Medical Center.

As the major academic campus and principal teaching hospital of the UTHSC, it brings together research, medicine and innovation. This partnership supports multidisciplinary collaboration among doctors and clinical team members, leading to more advanced medical care for our patients.

Methodist University currently houses the latest technologies for diagnosis and treatment, including several centers that are unique in the Mid-South: Brain and Spine Institute, Transplant Institute, Head and Neck Surgery Center, Cardiovascular Institute, cancer services (in partnership with West Cancer Center), Methodist University Radiation Oncology Center, and thoracic surgery. All of which allow for an expansion of providers at many levels and with many specialties, people in teaching positions, and creates capacity for medical, nursing, allied health, and educational institutions. This project will also leverage the academic affiliation and support the development, recruitment, and retention of a quality workforce.

- a. Please provide a response to each criterion and standard in Certificate of Need Categories that are applicable to the proposed project. Do not provide responses to General Criteria and Standards (pages 6-9) here.

Project-Specific Review Criteria: Construction, Renovation, Expansion, and Replacement of Health Care Institutions

1. Any project that includes the addition of beds, services, or medical equipment will be reviewed under the standards for those specific activities.

Not applicable; no beds or services are being added to the applicant's licensed organization. The linear accelerator for this project is additional equipment for the existing Radiation Therapy program that has two linear accelerators currently. The iMRI is additional equipment for existing imaging program. The Hybrid OR system is a replacement for an existing unit. The PET for this project is the relocation of services and those criteria are included.

2. For relocation or replacement of an existing licensed healthcare institution:

Not applicable. This project is not a full replacement or relocation project

- a. The applicant should provide plans, which include costs for both renovation and relocation, demonstrating the strengths and weaknesses of each alternative.
- b. The applicant should demonstrate that there is acceptable existing and projected future demand for the proposed project.

3. For renovation or expansions of an existing licensed healthcare institution:

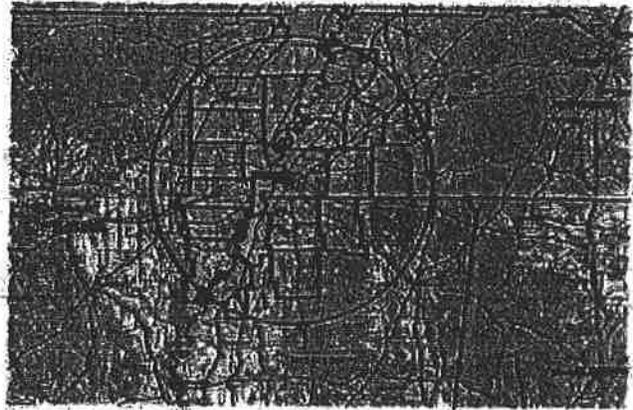
- a. The applicant should demonstrate that there is an acceptable existing demand for the proposed project.
- b. The applicant should demonstrate that the existing physical plant's condition warrants major renovation or expansion.

The applicant is presenting the detailed justification for this onsite replacement and modernization project in this section of the application. Both a. and b. above are responded to in the narrative and exhibits beginning below.

DEMAND FOR THE PROJECT

Methodist Le Bonheur Healthcare is an integrated, not-for-profit healthcare system based in Memphis, Tennessee, with locations and partners across the Mid-South. Methodist is one of Tennessee's largest healthcare providers, serving populations of diverse socio-economic status across a broad geographic service area spanning West Tennessee, North Mississippi, and East Arkansas. Methodist Healthcare's primary acute care organization, Methodist Healthcare-Memphis Hospitals, is the applicant for this CON. Methodist Healthcare-Memphis Hospital owns and operates five Shelby County hospitals under a single general hospital license. The largest of the facilities, Methodist University Hospital, is the focus of this application.

As the system's tertiary academic medical center, Methodist University Hospital, located in the downtown medical center, is well positioned to serve the expansive tri-state service area. Through the partnership with the University of Tennessee Health Science Center, Methodist helps train the next generation of medical professionals and brings cutting-edge research and treatment to area patients. Methodist University is committed to education and advancements in clinical care and as such is a vital organization to the downtown medical district and broader tri-state area.



Methodist remained loyal to the inner city and mission markets even as competitors and other healthcare resources followed the population-shift to the east. With this project, Methodist affirms an unwavering vision for the downtown market with plans to invest over \$280 million dollars in the health and well-being of all Memphians and surrounding counties.

As noted previously in the application, this proposal is an onsite replacement and modernization project of the campus of Methodist University Hospital. Methodist University was chartered by the Methodist Church in 1924 to provide high-quality, affordable healthcare in accordance with the church's mission and principles. The original 125-bed building was a single four-story structure located on this Union Avenue site. In the first year, the hospital treated a little over 3,100 patients.

More than 90 years later, Methodist University treats over 18,000 inpatients and 70,000 emergency patients annually. The campus grew with the population and healthcare demands of the inner city and surrounding region to 617 beds, twenty operating rooms, and fifty-six emergency room beds/bays. The current campus is expansive with both inpatient and outpatient services interspersed and spread across a complex of buildings spanning six blocks and almost nineteen acres. Expansion occurred over decades and the older buildings on the campus – those built 1950-70 – pose serious challenges for today's clinical standards and state-of-the-art technology. Conditions in the older buildings are not conducive to Methodist's trademark patient and family centered care. While outdated and not optimal for patient-direct clinical services and beds, the older buildings are better suited for the relocation of growing education, support, and academic functions.

Each addition and plan for growth for the Methodist University campus has been intentional, strategic, and well designed. However, healthcare delivery has changed so much since Methodist University was constructed that significant changes are now necessary. For the last decade, new technologies, care delivery methods, and payment models have shifted inpatient volumes to ambulatory settings. Financial pressures focusing on population health and reductions in readmissions and avoidable admissions are incentivizing providers to engage patients earlier with more accessible and coordinated care options. At the same time, the baby boomers are aging, chronic disease is more prevalent, and patients seen in hospital emergency rooms and inpatient settings are sicker requiring more complex treatment plans and high acuity centers of excellence such

as transplant, cancer, neurology and cardiovascular. The campus needs major renovation and modernization to meet twenty-first century standards. Over the last nine months, Methodist completed a comprehensive assessment of the campus infrastructure and updated the master plan to meet long term vision for the hospital and health system.

The planning priorities for the assessment are outlined below and details on findings and solutions follow as justification for this project:

- › Consolidate currently disjointed clinical services to support institute goals and operational efficiencies - Transplant, Cancer, Neurosciences, and Cardiovascular services
- › Improve ability for support services to efficiently service clinical areas
- › Improve provision of outpatient services to support patient convenience and efficiency
- › Enhance campus organization with better defined zoning, access points, and wayfinding
- › Provide space to accommodate additional capacity and to support changing care models – shift to outpatient status and higher acuity inpatients
- › Upgrade facilities to support high quality care, patient experience, ongoing physician recruitment, and medical education
- › Provide flexibility to accommodate a rapidly changing health care environment
- › Recycle aging infrastructure

Consolidate disjointed clinical services and improve efficiency of support services

As the system's tertiary referral center, Methodist University is a leader in specialized medicine for complex diseases, illnesses and injuries. Methodist University has one of the largest neurosciences programs in the country, has a regionally active cardiovascular center, is the region's comprehensive leader in adult cancer care through its partnership with West Cancer Center, and is home to the nationally recognized Methodist University Transplant Institute. These blue chip services are fragmented and spread throughout the oldest buildings on campus including Thomas wing which was built in 1966 and the Service and East wings which were built in 1958.

The fragmented clinical services hinder access to care, complicate patient navigation, and detract from a multi-disciplinary care approach. This project will consolidate disjointed transplant and oncology clinical services adjacent to imaging, lab, pharmacy, surgical, and inpatient units. Methodist believes an investment in the future of Methodist University Hospital required a critical review of all clinical program priorities, inpatient capacity, outpatient services, support services, and a look at the entire campus organization.

Transplant

The University of Tennessee (UT) has a long, rich history of solid organ transplantation. It has been forty years since the first kidney transplant was performed in Tennessee. UT became only the third Transplant program in the United States to perform a liver transplant in 1982. The UT program partnered with Methodist LeBonheur Healthcare in 2004 and formed the Methodist University Hospital Transplant Institute (MUHTI). More than 1,000 liver transplants and 1,000 kidney transplants have been performed at MUHTI and Le Bonheur Children's Hospital since 2006. MUHTI serves the highest percentage of minority patients in the country and has the only pediatric liver transplant program in the underserved Mid-South (TN, AR, and MS).

The experience of receiving a transplanted organ is unlike any other patient experience. Patients and their loved ones come to the Institute stressed and anxious. They are embarking on a lifelong journey with the transplant care team. From pre-transplant testing through the wait for an organ and then to life changing transplant surgery, the Institute serves as a home away from home. As patients return again and again for post-transplant medical, social, psychological and spiritual support, the importance of a comprehensive care center as a home becomes even more critical. That's why we are committed to completely re-thinking and re-doing the clinical space and campus that are the setting for this journey.

The Methodist University Hospital Transplant Institute is renowned worldwide with the most experience in steroid-free liver transplantation in the world. The Institute ranks among the top 10 liver transplant programs, the top 15 overall transplant programs in the nation, and has performed over 6,000 transplants. The care we provide our transplant patients is extraordinary, but the facility where those patients receive care is not. This shortcoming is particularly significant for transplant patients and their families who must visit repeatedly for pre-transplant testing, the transplant surgery itself, and lifelong post-surgical care. This enduring connection to the Transplant Institute makes it imperative that the facility be patient-and-family centered, focused in a warm and inviting space with integrated inpatient and outpatient service offerings in a single building.

Cancer

Over the last decade, the cancer care landscape has changed dramatically, with new advances and treatments, changes in reimbursement, and the continued threat of regulatory driven health care reform. These threats are occurring while the same provider community is facing a significant projected increase in the number of cancer patients due to an ever-aging population. This anticipated increase in cancer patients could cripple the current cancer delivery system. Methodist recently adopted a collaborative, integrated multidisciplinary strategy in the east market to resolve fragmentation. The West Cancer Center opened in November 2015 is exceeding expectations. Yet, a significant portion of cancer care delivery in the downtown market is still fragmented. Chemotherapeutic infusion, radiation oncology, cancer specific surgery, interventional radiology, and medical oncology services are still delivered in different locations with weak coordination of efforts and collaboration. This project will replicate the same integrated approach on the Methodist University Campus.

Cancer providers that clearly and efficiently develop and operationalize this approach will create higher standards of care, complex treatment options, better research opportunities and access to multi-phase clinical trials. This type of care program will increase patient's knowledge and care expectations by experiencing a system designed to reduce or eliminate disparate experiences of care. Many studies show that fragmented care delivery, i.e. patients treated by multiple providers at multiple locations, will not be able to provide an enhanced quality of care with the expected changes in reimbursement and the expected increase in patient volume.

From a planning perspective, a multidisciplinary cancer program is a complex and difficult challenge that calls for a strategic and collaborative approach. The Advisory Board Oncology Roundtable's 2007 Patient Experience Survey discovered that patients point to a multidisciplinary approach to cancer care as "the most valued service." Methodist's response to the challenge was in collaboration with The West Clinic and the UTHSC. In 2011, the West Clinic combined forces with Methodist and the UTHSC to transform cancer care in the Mid-South. The strengths and cultures of all three organizations are leveraged in the development of a fully integrated cancer program which will expand collaborative efforts in cancer research and education with a vision toward personalized precision cancer care.

Oncologists have always played the key role in cancer care, and no matter what, the success of a multidisciplinary program depends on the skills and competencies of the supporting care team. The West Clinic is the region's premier provider of cancer care and is a nationally-recognized leader in cancer research. Over the past thirty-three years West Clinic has built an expert team dedicated to excellence and compassionate care. The West Clinic currently has over thirty physicians in multidisciplinary specialties and multiple locations in Tennessee, Mississippi and Arkansas providing services to include medical oncology/hematology, gynecologic oncology, blood cell transplants, breast surgery, diagnostic and interventional radiology, metabolic bone disease/endocrinology, clinical psychology, pain and palliative care, radiation oncology, comprehensive breast center, nutritional counseling, ACORN research and the WINGS Cancer Foundation. The multi-disciplinary team includes pharmacists, nurses, clinical technicians, social workers and patient care coordinators/navigators. The full care team is committed to working collaboratively to ensure a seamless treatment program.

The specific mission of the applicant with regard to cancer is to develop an integrated comprehensive cancer care program will reduce the disparity between national cancer mortality rates and those of Shelby County. Such a program will allow for Methodist to prepare for the anticipated increase in cancer as the population ages. There are double digit growth rates for the Methodist service area in the next decade.

Methodist University Hospital's focus areas must not only include transplant and cancer but also neurosciences and cardiovascular services, in addition to being the primary community provider in the geography. Methodist University's presence in high priority programs will require improving adjacencies and addressing inadequate and inefficient space and equipment, both on the inpatient and outpatient side.

Improve outpatient services and enhance campus organization

As the outpatient market has grown with advances in technology, the move towards population health, and the industry shift from volume to value, hospital leaders have responded by expanding ambulatory services. Outpatient programs are a way to expand traditional areas of expertise and prevent costlier illnesses and complications later. There are currently over twenty outpatient access points on the Methodist University campus. With this project, the system will reorganize and streamline the ambulatory care delivery process.

As noted in Diagram 3 below, outpatient services (red dots) are currently scattered across the campus with multiple access points which makes wayfinding, parking, and movement around the hospital a challenge. Diagram 4 shows the multiple access points on all sides of the campus, complex circulation patterns with access off all major roadways surrounding the campus, and the lack of clear separation of patient/visitor, staff, and material flows.

**DIAGRAM 3
METHODIST UNIVERSITY CAMPUS
CURRENT STACKING DIAGRAM**

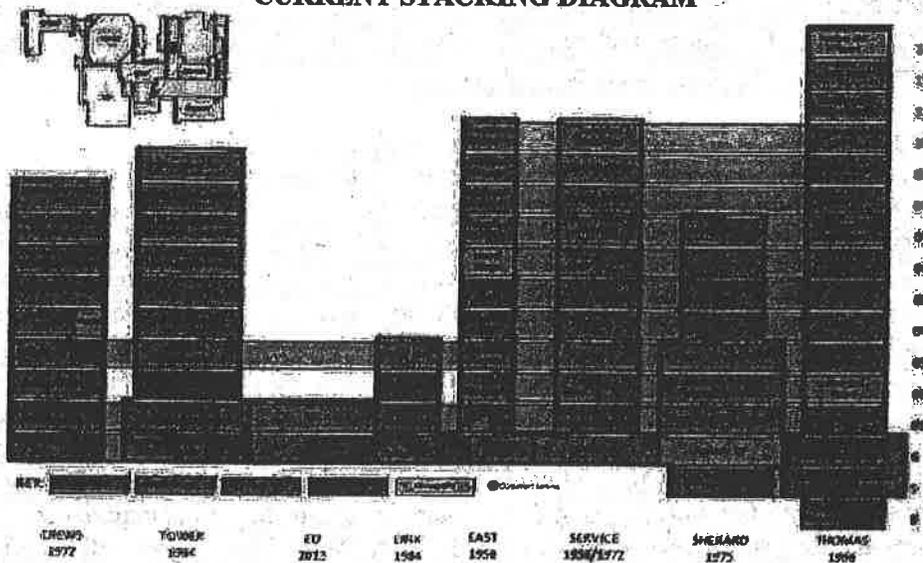


DIAGRAM 4
METHODIST UNIVERSITY CAMPUS
CURRENT SITE ACCESS AND CIRCULATION



The new ambulatory building will co-locate high traffic outpatient services such as imaging, ambulatory surgery, infusion, dialysis, and clinic space for transplant and oncology in a single building. The new construction provides a more accessible, concentrated presentation of outpatient services. The project will enhance campus organization with better defined zoning, access points, and wayfinding. The new ambulatory building will have direct access to parking and separate inpatient and outpatient flows with a new flexible design to accommodate a rapidly changing health care environment.

Upgrade facilities and provide space to support changing care models

Methodist is committed to creating an environment that values the individual differences and unique contributions of everyone touched by the organization. Rooted in the fact that no one knows patients better than their family and friends, Methodist encourages family participation in care and planning. The system's Family Partner Council is now a volunteer team of more than 150 former patients and caregivers that act as an advisory group and provide insights to help transform care delivery. While Methodist is known for embracing these concepts, the improvement of patient experience is endorsed by the Centers of Medicare and Medicaid Services (CMS). In 2015, CMS tied 1.5% of Medicare reimbursement to the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. The HCAHPS scoring is based on eight key issues: nurse and doctor communication, quietness, information about medications, discharge information, cleanliness, responsiveness, pain management, and transitions in care. On the Hospital Compare website, Methodist Healthcare currently has an overall (summary) rating of four stars in regards to patient experience, with the majority of the measures at a four-star level and the rest at a three-star level. This project will benefit patient experience across all domains but particularly areas like communication, cleanliness, and care transitions, where there's opportunity for improvement.

The outdated facilities on the Methodist University campus present challenges to the patient experience and the patient and family approach to care. Some of those challenges include 1) the restrictive size of patient rooms in the oldest buildings which do not provide adequate space for family members to engage with physicians and clinicians in the care plan, 2) the presence of shared showers in some nursing units in the Thomas and East buildings which is a dissatisfier for patients and families, and 3) the antiquated facility design that does not meet today's acoustic standards for noise control.

Additionally, the aging infrastructure creates inefficiencies in operations and presents barriers for twenty-first century technology. As an example, the limited space on nursing floors restricts the use of omniceil units, automated, secure medication cabinets. Omnicell units improve nursing and pharmacy workflow, minimize redundant data entry, and improve security and quality. There are complications to renovating the oldest buildings to adapt to newer technology due to column spacing and floor to ceiling heights. The proposed new construction will resolve these concerns and provide the necessary space for state-of-the art technology and modern healthcare.

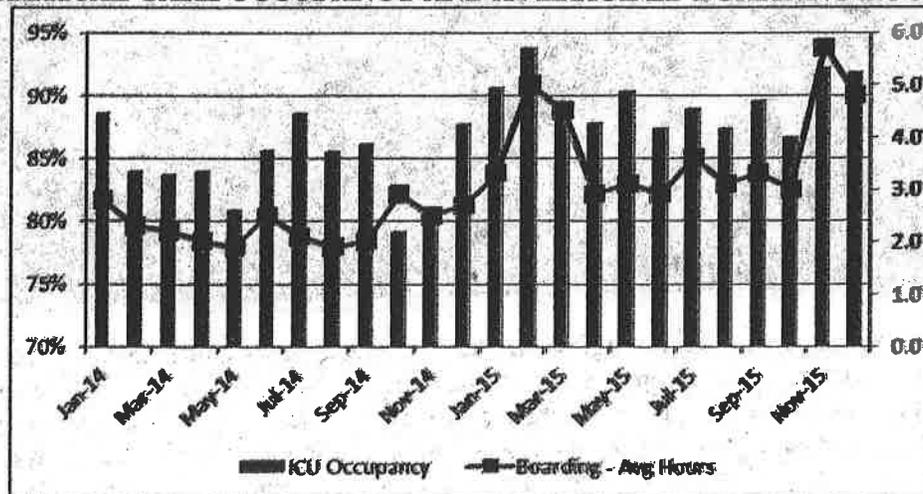
Methodist University is the core teaching hospital for University of Tennessee Health Science Center. The hospital's academic focus offers highly specialized services for complex diseases, illnesses, and injuries, develops technology, and carries out research to improve lives. The regional and national outreach of the academic programs is shifting the need for more intensive medical capacity and need for a state-of-the-art facility.

An internal study conducted on occupancy rates for a period during 2014-2015 for critical care beds, shows all units have the lowest rating due to high occupancy rates at 82% or higher against an industry benchmarks of 75%. See Table 4 below for summary results per critical care unit. Patient flow from the emergency department to the critical care units is delayed by the lack of beds. Methodist University has experienced a growth in number of patients being held in the emergency room as well as an increase in wait times. See Table 4 below denoting the correlated delays as critical care beds reach beyond optimal occupancy rate. Again, patient experience suffers along with the delays and inefficiencies related to lack of capacity.

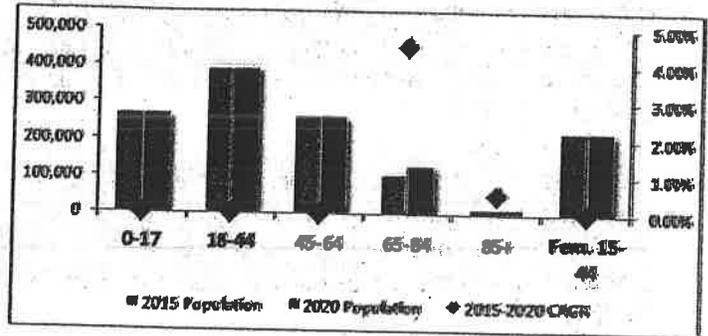
**TABLE 4
METHODIST UNIVERSITY
CRITICAL CARE OCCUPANCY AND AVERAGE ED BOARDING HOURS**

Category of Service	Cost Center	Unit	2014-15 Annualized ADC	Staffed Beds	Current Occupancy	Benchmark Occupancy		Inpatient Capacity Range	With Observation		
						Low	High		ADC	Occ.	Rating
ICU						70%	75%				
ICU	16097	Med/Surg ICU 4 East	6.72	8	84.0%	70%	75%		6.72	84.0%	
ICU	16121	Medical ICU	14.65	16	91.6%	70%	75%		14.65	91.6%	
ICU	16124	Surgical ICU	7.21	8	90.1%	70%	75%		7.22	90.3%	
ICU	16125	Neuro Critical Care	14.31	16	89.4%	70%	75%		14.33	89.6%	
CVS	16128	CV ICU 2 Sherard	13.86	16	86.6%	70%	75%		13.89	86.8%	
ICU	17136	7 East - Transplant ICU	6.63	8	82.9%	70%	75%		6.63	82.9%	

**TABLE 5
METHODIST UNIVERSITY
CRITICAL CARE OCCUPANCY AND AVERAGE ED BOARDING HOURS**



While the overall population is remaining fairly flat, the 65-84 age cohort is experiencing an annual growth rate over 4%; this will increase demand for services utilized by older populations. There are rising numbers of chronically ill patients in need of more intensive hospital services. Fortification of critical care resources supporting inpatient and subspecialty care programs in transplant, oncology, neurology, and cardiovascular is imperative for Methodist University Hospital as the system's academic tertiary flagship.

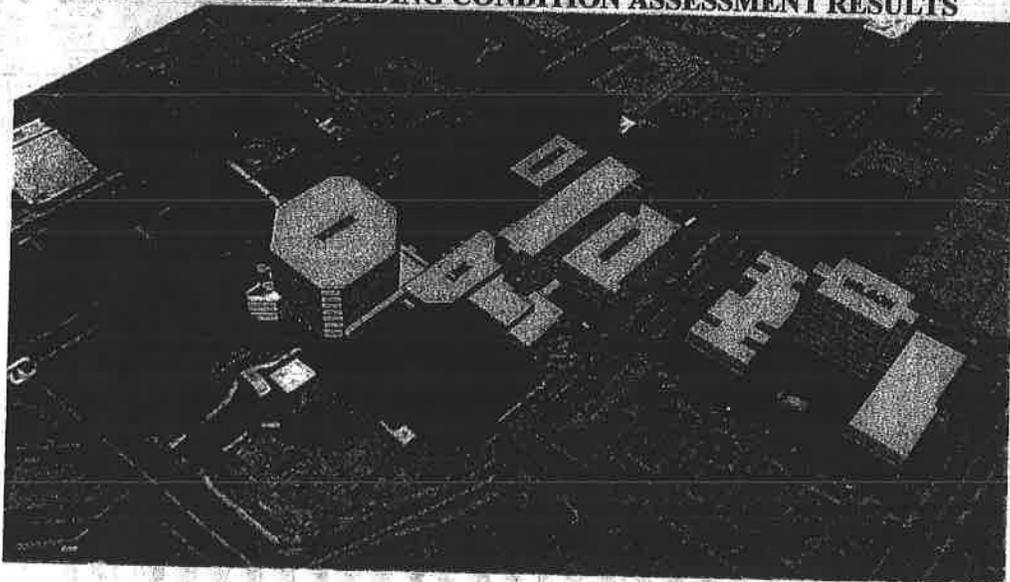


Recycle aging infrastructure and provide flexibility

The Methodist University campus is landlocked. Many buildings housing direct patient care services were built 50-60 years. As part of the master planning process, Methodist assessed the physical condition of each building on the main campus. The assessment included the evaluation of structural, mechanical, and electrical components as well as the age, presence of asbestos and overall functionality. The physical plant alone warrants the need for the project.

Please note in Diagram 5 below the findings of the assessment with the stop light colors representing good (green) to poor (red) conditions. The project proposes to relocate patient beds and acute care services from the Thomas and East buildings as well as Crews. The Crews building is also slated for demolition.

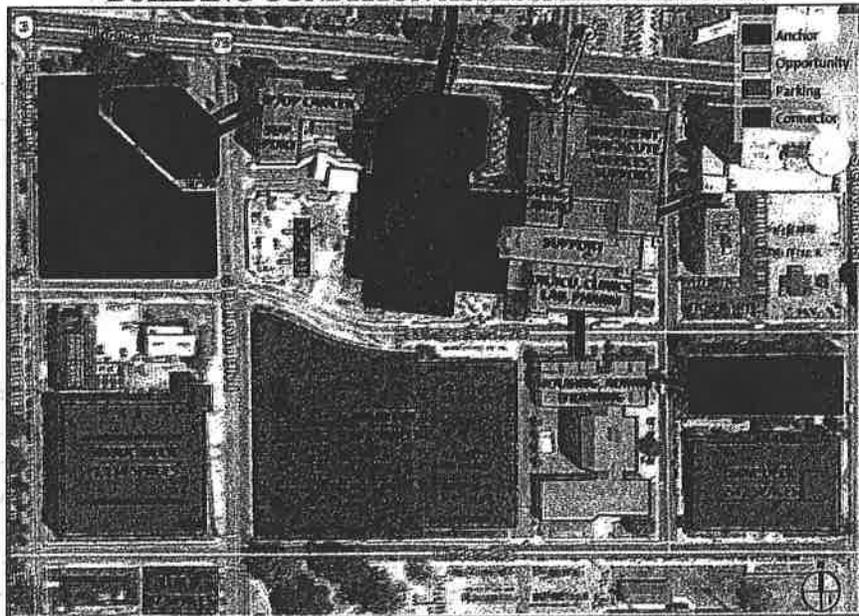
**DIAGRAM 5
METHODIST UNIVERSITY HOSPITAL
COLOR CODED BUILDING CONDITION ASSESSMENT RESULTS**



Another view of the campus developed during the master planning process and assessment of the building conditions, denotes the anchors of the campus as the existing patient tower, emergency department opened in 2014, the Link building, and adjacent medical professional offices. From a consumers perspective the two prime corners on Union Avenue are occupied by the lowest ranking buildings, Thomas and Crews. Please note in Diagram 6 below shows the building assessment. Plans call for future campus development to focus on the anchoring buildings. This project relocates direct patient care to the anchoring buildings and the new patient

tower to modernize the campus and establish a sustainable foundation for the system's academic medical center, Methodist University Hospital.

**DIAGRAM 6
METHODIST UNIVERSITY HOSPITAL
BUILDING CONDITION ASSESSMENT RESULTS**



Since inception, the system has remained affiliated with the United Methodist Church and steadfast in a faith which inspires service to patients and dedication to improving the health of our entire community. Methodist Healthcare is an integrated health care delivery system, dedicated to the art of healing through our faith-based commitment to minister to the whole person. Methodist remains committed to the patients and families in tri-state area and proposes to make this investment to provide accessible, efficient, and high quality services with the new a state-of-the-art facility.

Project-Specific Review Criteria: Position Emission Tomography

- 1. Applicants proposing a new stationary PET unit should project a minimum of at least 1,000 PET procedures in the first year of service, building to a minimum of 1,600 procedures per year by the second year of service and for every year thereafter.**

The application for mobile and stationary units should include projections of demographic patterns, including analysis of applicable population-based health status factors and estimated utilization by patient clinical diagnoses category (ICD-9).

For units with a combined utility, e.g., PET/CT units, only scans involving the PET function will count towards the minimum number of procedures.

Not Applicable; the project is a relocation and replacement of existing PET services. The original PET was approved under the former CON guidelines requiring 750 procedures in the first year.

2. All providers applying for a proposed new PET unit should document that the proposed location is accessible to approximately 75% of the service area's population.

Applications that include non-Tennessee counties in their proposed service areas should provide evidence of the number of existing PET units that service the non-Tennessee counties and the impact on PET unit utilization in the non-Tennessee counties, including the specific location of those units located in the non-Tennessee counties, their utilization rates, and their capacity.

Not Applicable; the project is a relocation and replacement of existing PET services.

3. All providers should document that alternate shared services and lower cost technology applications have been investigated and found less advantageous in terms of accessibility, availability, continuity, cost, and quality of care.

PET/CT imaging is a unique service that is not replicated by lower cost technology. The applicant currently owns and operates the PET, and this project is the relocation and replacement of the existing service within 1 mile of the current location.

The investigation of shared services and lower cost technology found no alternatives that were more advantageous in terms of accessibility, availability, continuity, cost, and quality of care. Methodist's existing PET service is an integral part of the comprehensive West Cancer program based at Methodist University Hospital, and is a vital part of the oncology resources in the Memphis Medical Center. In partnership with physician partners and staff, Methodist evaluated alternatives.

4. Any provider proposing a new mobile PET unit should demonstrate that it offers or has established referral agreements with providers that offer as a minimum, cancer treatment services, including radiation, medical and surgical oncology services.

Not Applicable; the project is a relocation and replacement of existing fixed PET services.

5. A need likely exists for one additional stationary PET unit in a service area when the combined average utilization of existing PET service providers is at or above 80% of the total capacity of 2,000 procedures during the most recent twelvemonth period reflected in the provider medical equipment report maintained by the HSDA. The total capacity per PET unit is based upon the following formula:

Stationary Units: Eight (8) procedures/day x 250 days/year = 2,000 procedures/year

Not Applicable; the project is a relocation and replacement of existing PET services.

6. The applicant should provide evidence that the PET unit is safe and effective for its proposed use.
- a. The United States Food and Drug Administration (FDA) must certify the proposed PET unit for clinical use.

See Attachment B:II (E)(E)(4) for FDA certification.
 - b. The applicant should demonstrate that the proposed PET procedures will be offered in a physical environment that conforms to applicable federal standards, manufacturer's specifications, and licensing agencies' requirements.

The architect consulted on this project confirms that the physical environment will conform to all applicable federal standards, manufacturer's specifications and licensing agencies' requirements. See Attachment C: Economic Feasibility (1)(d) for the architect's letter.

- c. The applicant should demonstrate how emergencies within the PET unit facility will be managed in conformity with accepted medical practice.**

The unit will be on the Methodist University Hospital campus. There are clinical technicians and emergency personnel on the premises trained in basic life support when the patient is being scanned. In the event of cardiac or respiratory arrest, trained clinical personnel will initiate basic life support while the patient is being emergently removed from the scan room, and then taken to be treated by appropriate physicians and clinicians.

- d. The applicant should establish protocols that assure that all clinical PET procedures performed are medically necessary and will not unnecessarily duplicate other services.**

There are established standard protocols in place for Methodist Healthcare to ensure all PET/CT procedures are medically necessary and will not unnecessarily duplicate other services. PET/CT procedures are typically performed to assess the possibility of infection or malignancy. Methodist has a dedicated team of nurses that precert all PET/CT scans through the various third party payers. The rigorous precert process ensures medical necessity and assures that the patient does not receive duplicative procedures. Additionally, all procedures require a physician's order just as all PET/CT scans require a precert. See Attachment 6 (d) for the System Policy outlining the guidelines for a physician order for all diagnostic services.

- e. The PET unit should be under the medical direction of a licensed physician. The applicant should provide documentation that attests to the nature and scope of the duties and responsibilities of the physician medical director. Clinical supervision and interpretation services must be provided by physicians who are licensed to practice medicine in the state of Tennessee and are board certified in Nuclear Medicine or Diagnostic Radiology. Licensure and oversight for the handling of medical isotopes and radiopharmaceuticals by the Tennessee Board of Pharmacy and/or the Tennessee Board of Medical Examiners—whichever is appropriate given the setting—is required. Those qualified physicians that provide interpretation services should have additional documented experience and training, credentialing, and/or board certification in the appropriate specialty and in the use and interpretation of PET procedures.**

The medical director for the PET/CT operations is Board Certified in Diagnostic Radiology - General and Nuclear Radiology - Subspecialty. See Attachment 6 (e)(1) for Medical Director's Curriculum Vitae and Attachment 6 (e)(2) for the documentation of the scope of the medical director's duties and responsibilities.

There is and will be a board certified radiologist experienced and trained in PET/CT imaging procedures to supervise staff and interpret studies. Current credentialed physicians will provide clinical supervision and interpretation services. All physicians are licensed to practice medicine in the state of Tennessee, are board certified in Nuclear Medicine or Diagnostic Radiology, and have appropriate licensure for handling medical isotopes and radiopharmaceuticals. The interpretation services will be provided by physicians with additional experience, credentialing, and/or board certification.

- f. All applicants should seek and document emergency transfer agreements with local area hospitals, as appropriate. An applicant's arrangements with its physician medical**

director must specify that said physician be an active member of the subject transfer agreement hospital medical staff.

The need for a transfer agreement is not applicable; the PET unit will be located on the Methodist University Hospital campus.

There is one medical staff for Methodist Healthcare – Memphis Hospitals, and the medical director is currently an active member of the medical staff

- 7. The applicant should provide assurances that it will submit data in a timely fashion as requested by the HSDA to maintain the HSDA Equipment Registry.**

Methodist assures the HSDA that all data requested to maintain the Equipment Registry will be submitted within the expected time frame.

- 8. In light of Rule 0720-4-.01 (1), which lists the factors concerning need on which an application may be evaluated, the HSDA may decide to give special consideration to an applicant:**
- a. Who is offering the service in a medically underserved area as designated by the United States Health Resources and Services Administration;**

Not Applicable.

- b. Who documents that the service area population experiences a prevalence, incidence and/or mortality from cancer, heart disease, neurological impairment or other clinical conditions applicable to PET unit services that is substantially higher than the State of Tennessee average;**

Not Applicable.

- c. Who is a “safety net hospital” or a “children’s hospital” as defined by the Bureau of TennCare Essential Access Hospital payment program and/or is a comprehensive cancer diagnosis and treatment program as designated by the Tennessee Department of Health and/or the Tennessee Comprehensive Cancer Control Coalition; or**

Not Applicable.

- d. Who provides a written commitment of intention to contract with at least one TennCare MCO and, if providing adult services, to participate in the Medicare program.**

Methodist is certified for both Medicare and TennCare/Medicaid and participates in both programs. Methodist Healthcare–Memphis Hospitals contracts with all three TennCare plans offered in the service area and with Medicaid in adjoining States. All hospitals including the hospital-based PET ambulatory services treat TennCare participants under the system’s TennCare contracts.

In comparison to other large counties across the State, Shelby County is the home to a disparate number of low-income or disabled Tennesseans seeking coverage from the state’s Medicaid program. Methodist is the largest healthcare providers of TennCare and is committed to these patients as reflected in the projections for this proposal.

- b. Applications that include a Change of Site for a health care institution, provide a response to General Criterion and Standards (4)(a-c)**

Not applicable. This project is not requesting a change of site.

2. Describe the relationship of this project to the applicant facility's long-range development plans, if any.

Methodist Le Bonheur Healthcare's mission is to partner with its medical staffs and collaborate with its patients and families to be the leader in high quality, cost effective healthcare in all sectors of the Greater Memphis-Shelby County service area. Methodist Healthcare has strategically placed and maintained hospital and ambulatory facilities in all quadrants of Shelby County as part of that mission, to provide multiple entry points to acute care for communities of varied social and economic characteristics. Methodist University Hospital is the system's tertiary academic medical center located in the center of the service area in downtown Memphis. The project is a reinvestment in the downtown academic presence with anchoring cancer and transplant centers of excellence. Methodist aims to leverage the partnership with UTHSC to improve the health of the overall community and raise the level of medical practice for adults and pediatrics.

The approval and completion of the project is key to the fulfillment of the system's long-term financial and strategic commitments to its service area.

3. Identify the proposed service area and justify the reasonableness of that proposed area. Submit a county level map including the State of Tennessee clearly marked to reflect the service area. Please submit the map on 8 1/2" x 11" sheet of white paper marked only with ink detectable by a standard photocopier (i.e., no highlighters, pencils, etc.).

The project primary service area includes Shelby, Fayette and Tipton counties in Tennessee, DeSoto County in Mississippi, and Crittenden County in Arkansas. The secondary service area includes Tipton, Fayette, Lauderdale, Hardeman, Haywood, Dyer, and Madison Counties in Tennessee, Marshall, Tunica, Panola, Tate, and Coahoma Counties in Mississippi, and St. Francis, Mississippi, Poinsett, Lee, Phillips, and Craighead Counties in Arkansas. See Attachment Section C: Need (3) for a county level service area map. This service area is deemed reasonable.

4. A. Describe the demographics of the population to be served by this proposal.

The primary service area includes Shelby County in Tennessee, Desoto County in Mississippi, and Crittenden County in Arkansas. The population of the primary service area is projected to approach 1.2 million people by 2020 which is a growth rate of 2% (over 27,000 people) over the next five years.

The secondary service area includes Tipton, Fayette, Lauderdale, Hardeman, Haywood, Dyer, and Madison Counties in Tennessee, Marshall, Tunica, Panola, Tate, and Coahoma Counties in Mississippi, and St. Francis, Mississippi, Poinsett, Lee, Phillips, and Craighead Counties in Arkansas. The population of the service area is projected to exceed 690,000 people by 2020 which is a growth rate of 0.32% (just over 2,000 people) over the next five years.

The total service area for this project is projected to exceed 1.8 million people by 2020 with a 2% overall growth rate. See Tables 6-9 for details of the population demographics. The secondary service area charts are split by state for readability.

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TABLE 6
PRIMARY SERVICE AREA AND SECONDARY SERVICE AREA TOTALS
2015–2020 POPULATION PROJECTIONS, BY COUNTY

Demographic Variable/ Geographic Area	Shelby County	DeSoto County	Crittenden County	Primary Service Area Total	Secondary Service Area Total	Total Service Area
Total Population-2015	946,637	168,989	48,531	1,164,157	688,259	1,852,416
Total Population-2020	966,405	177,125	47,633	1,191,163	690,456	1,881,619
Total Population-% change	2%	5%	-2%	2%	0%	2%
Age 65+ Population-2015	112,613	20,140	5,922	138,675	101,398	240,073
Age 65+ Population-2020	137,447	24,548	6,721	168,716	115,283	283,999
Age 65+ Population-% change	22%	22%	13%	22%	14%	18%
Age 65+ Population-% of Total – 2015	12%	12%	12%	12%	15%	13%
Median Household Income (2015)	\$46,250	\$58,505	\$37,751	n/a	n/a	n/a
TennCare Enrollees	272,076	n/a	n/a	272,076	79,252	351,328
TennCare Enrollees- % of Total Pop. (2015)	29%	n/a	n/a	n/a	n/a	n/a
Persons Below Poverty Level (2015)	196,900	16,561	12,764	226,225	152,264	378,489
Persons Below Poverty Level- % of Total Pop. (2015)	20.8%	9.8%	26.3%	19.4%	22.1%	20.4%
Source: Market Expert – Claritas Data, U.S. Census Bureau Poverty Estimates and TennCare Enrollment Data						

TABLE 7
SECONDARY SERVICE AREA IN TENNESSEE
2015–2020 POPULATION PROJECTIONS, BY COUNTY

Demographic Variable/ Geographic Area	Tipton TN	Fayette TN	Lauderdale TN	Hardeman TN	Haywood TN	Dyer TN	Madison TN
Total Population-2015	59,918	34,845	29,336	26,770	16,473	36,721	97,990
Total Population-2020	60,955	35,920	29,623	26,072	16,160	37,029	99,834
Total Population-% change	2%	3%	1%	-3%	-2%	1%	2%
Age 65+ Population-2015	7,993	5,899	4,151	4,324	2,641	6,076	14,574
Age 65+ Population-2020	9,513	6,906	4,744	4,745	2,995	6,934	16,847
Age 65+ Population-% change	19%	17%	14%	10%	13%	14%	16%
Age 65+ Population-% of Total – 2015	13%	17%	14%	16%	16%	17%	15%
Median Household Income (2015)	\$52,423	\$56,618	\$32,326	\$30,973	\$34,542	\$38,953	\$41,617
TennCare Enrollees	13,992	7,134	8,181	7,370	6,061	11,091	25,423
TennCare Enrollees- % of Total Pop. (2015)	23%	20%	28%	28%	37%	30%	26%
Persons Below Poverty Level (2015)	8,029	4,878	7,627	6,585	3,476	6,536	19,598
Persons Below Poverty Level- % of Total Pop. (2015)	13%	14%	26%	24.6%	21.1%	17.8%	20%
Source: Market Expert – Claritas Data, U.S. Census Bureau Poverty Estimates and TennCare Enrollment Data							

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TABLE 8
SECONDARY SERVICE AREA IN MISSISSIPPI
2015-2020 POPULATION PROJECTIONS, BY COUNTY

Demographic Variable/ Geographic Area	Marshall MS	Tunica MS	Panola MS	Tate MS	Coahoma MS
Total Population-2015	40,276	10,649	35,236	28,688	24,428
Total Population-2020	39,873	10,572	35,081	28,258	23,318
Total Population-% change	-1%	-1%	0%	-1%	-5%
Age 65+ Population-2015	6,029	1,196	5,109	4,282	3,239
Age 65+ Population-2020	6,891	1,414	5,808	4,843	3,498
Age 65+ Population-% change	14%	18%	14%	13%	8%
Age 65+ Population-% of Total – 2015	15%	11%	14%	15%	13%
Median Household Income (2015)	\$36,022	\$31,446	\$35,715	\$41,494	\$26,407
TennCare Enrollees	n/a	n/a	n/a	n/a	n/a
TennCare Enrollees- % of Total Pop. (2015)	n/a	n/a	n/a	n/a	n/a
Persons Below Poverty Level (2015)	8,941	3,227	8,915	5,307	9,331
Persons Below Poverty Level- % of Total Pop. (2015)	22.2%	30.3%	25.3%	18.5%	38.2%

Source: Market Expert – Claritas Data, U.S. Census Bureau Poverty Estimates and TennCare Enrollment Data

TABLE 9
SECONDARY SERVICE AREA IN ARKANSAS
2015-2020 POPULATION PROJECTIONS, BY COUNTY

Demographic Variable/ Geographic Area	St. Francis AR	Mississippi AR	Pointsett AR	Lee AR	Phillips AR	Craighead AR	Cross AR
Total Population-2015	27,788	43,472	24,401	9,176	20,316	104,828	16,948
Total Population-2020	26,591	41,672	24,057	8,787	18,967	111,005	16,682
Total Population-% change	-4%	-4%	-1%	-4%	-7%	6%	-2%
Age 65+ Population-2015	3,846	5,904	4,255	1,511	3,388	14,022	2,959
Age 65+ Population-2020	4,138	6,448	4,685	1,585	3,508	16,559	3,222
Age 65+ Population-% change	8%	9%	10%	5%	4%	18%	9%
Age 65+ Population-% of Total – 2015	14%	14%	17%	16%	17%	13%	17%
Median Household Income (2015)	\$30,873	\$36,428	\$32,089	\$25,034	\$26,737	\$41,393	\$38,085
TennCare Enrollees	n/a	n/a	n/a	n/a	n/a	n/a	n/a
TennCare Enrollees- % of Total Pop. (2015)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Persons Below Poverty Level (2015)	7,892	10,825	6,857	2,890	6,806	21,595	2,949
Persons Below Poverty Level- % of Total Pop. (2015)	28.4%	24.9%	28.1%	31.5%	33.5%	20.6%	17.4%

Source: Market Expert – Claritas Data, U.S. Census Bureau Poverty Estimates and TennCare Enrollment Data

Shelby County represents 81% of the 3-County primary service area, and 51% of the entire service area shown.

Over the next five years, there will be a dramatic increase in the area of residents aged 65 years and older. It is particularly significant that during this period, the area population aged 65 years and older--the group that most needs healthcare--will increase 22% or over 30,000.

B. Describe the special needs of the service area population, including health disparities, the accessibility to consumers, particularly the elderly, women, racial and ethnic minorities, and low-income groups. Document how the business plans of the facility will take into consideration the special needs of the service area population.

The special needs of the service area population significantly contribute to the projected volumes and planning for the project. The business plan takes into consideration the aging of the population, the large number/disperate mix of TennCare enrollees and the predominance of poor lifestyle throughout the service area.

Shelby County is one of the least healthy communities in the country, yet, one with significant health assets, providers and academic partners all well aligned with the MLH mission and vision. As a faith-based healthcare provider with an obligation to meet the community's healthcare needs, Methodist Healthcare views the tremendous needs in the community as opportunities.

As shown above, the population in the service area is projected to age with the baby boom generation with 22% growth in the Methodist service area projected for the next five years. The older age cohorts already account for 60% of the health care expenditures. Within this age group, chronic illness is prevalent. Such chronic medical conditions include heart disease, stroke, hypertension, diabetes, and cancer which all potentially require more intensive use of healthcare resources. Methodist University is well positioned to treat these community needs, yet has plans with this project to expand and advance these high-end services to reach more of the community in need.

The population identified by the project's service area is plagued by a predominance of disease and health risk factors.

- Tennessee has one of the highest heart disease mortality rates in the United States. Incidence of heart disease mortality is dramatically higher in the mid-south than in other regions. Death rates from heart disease (rate per 100,000 35+ 2007-2009 per CDC) in the Methodist service area is higher than state and national average with Tipton rates at 484.5, Fayette at 458.0 and Shelby at 450.0 as compared to Tennessee at 422.4 and the Nation at 359.1.
- There are similarly high mortality rates in stroke. Death rates from stroke (rate per 100,000 35+ 2007-2009 per CDC) in the Methodist service area is higher than state and national average with Tipton rates at 105.4, Fayette at 101.2 and Shelby even higher at 112.9 as compared to Tennessee at 98.9 and the Nation at 78.6.
- Based on recent data from the Center for Disease Control and Prevention (based on self-reported prevalence by State), the South has the highest prevalence of obesity (29.5%), followed by the Midwest (29.0%), the Northeast (25.3%) and the West (24.3%). Obesity-related conditions include heart disease, stroke, 2 diabetes and certain types of cancer. From Methodist's tristate service area, Mississippi ranks highest in the nation at 34.9%, Arkansas is in the top 10 at 30.9% and Tennessee is no longer in the top 10 at 29.2%. A dated report entitled "F as in Fat: How Obesity Threatens America's Future 2010" rated Tennessee as the 2nd highest state in the country in obesity (under different methodology. Under these criteria, the Memphis TN-AR-MS Metropolitan Statistical Area had an obesity rate of 35.8% as compared to the Tennessee rate of 31.7% and National median rate of 27.5%. These trends will continue with the growing numbers of people who do not get regular physical activity.

Shelby County claims the largest population of all 95 Tennessee counties with almost 950,000 residents; with that Shelby County also has the largest TennCare population. The number of enrollees is twice that of any other county in the state; 29% in the county is enrolled in TennCare. Methodist is committed providing healthcare services to these patients as reflected in the projections for this proposal.

5. Describe the existing or certified services, including approved but unimplemented CONs, of similar institutions in the service area. Include utilization and/or occupancy trends for each of the most recent three years of data available for this type of project. Be certain to list each institution and its utilization and/or occupancy individually. Inpatient bed projects must include the following data: admissions or discharges, patient days, and occupancy. Other projects should use the most appropriate measures, e.g., cases, procedures, visits, admissions, etc.

In the project's Tennessee primary service area, there are eleven adult acute care hospitals (including Methodist University) with a total of 3,844 licensed beds of which almost 80% were staffed (or 3,042 beds) in 2014. The average daily census for the market in 2014 was 2,704 (or 70% occupancy). There were 125,256 inpatient discharges and 716,500 inpatient days during this period.

**ADULT GENERAL HOSPITALS
TENNESSEE PRIMARY TN SERVICE AREA
UTILIZATION OF BEDS, 2012-2014**

	Methodist Germantown			Methodist South			Methodist North			Methodist University		
	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
Total Beds	309	309	309	156	156	156	246	246	246	617	617	617
Staffed Beds	309	309	309	144	144	143	207	224	222	416	416	428
Discharges	16,089	17,217	17,813	6,954	6,814	6,354	10,971	11,127	10,803	18,230	17,159	17,862
Pat. Days	73,419	77,483	78,586	29,938	29,324	24,700	62,286	61,923	57,517	120,042	117,668	114,319
ADC	276	292	297	113	111	93	234	234	217	451	444	431
Occupancy	89.3%	94.6%	96.0%	72.1%	70.9%	59.7%	95.2%	95.0%	88.2%	73.1%	72.0%	69.9%

	Baptist Memphis			Baptist Women's			Baptist Collierville			Regional One		
	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
Total Beds	706	706	706	140	140	140	81	81	81	631	631	631
Staffed Beds	573	545	547	140	140	140	81	81	81	294	303	309
Discharges	25,440	24,509	24,737	6,806	6,219	6,098	2,451	2,202	2,372	12,928	12,709	12,392
Pat. Days	170,707	163,128	155,576	27,052	25,016	24,154	9,655	8,474	9,352	90,277	91,539	87,930
ADC	642	616	587	102	94	91	36	32	35	339	345	332
Occupancy	90.9%	87.2%	83.2%	72.6%	67.4%	65.1%	44.8%	39.5%	43.6%	53.8%	54.7%	52.6%

	St. Francis Park			St. Francis Bartlett			Delta			Total TN PSA		
	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
Total Beds	519	519	519	196	196	196	243	243	243	3,844	3,844	3,844
Staffed Beds	500	494	494	196	196	196	170	173	173	3,030	3,025	3,042
Discharges	14,295	15,492	15,982	6,430	6,728	6,383	3,965	3,836	4,460	124,559	124,012	125,256
Pat. Days	85,557	87,370	88,021	33,137	31,786	31,118	33,171	38,869	45,227	735,241	732,580	716,500
ADC	322	330	332	125	120	117	125	147	171	2,764	2,764	2,704
Occupancy	62.0%	63.5%	64.0%	63.6%	61.2%	59.9%	51.3%	60.4%	70.2%	71.9%	71.9%	70.3%

6. Provide applicable utilization and/or occupancy statistics for your institution for each of the past three (3) years and the projected annual utilization for each of the two (2) years following completion of the project. Additionally, provide the details regarding the methodology used to project utilization. The methodology must include detailed calculations or documentation from referral sources, and identification of all assumptions.

**Methodist University Hospital
Actual and Projected Adjusted Patient Days
2013 - 2020**

	Actual 2013	Actual 2014	Actual 2015		Projected Year 1 2019	Projected Year 2 2020
Adjust Patient Days	209,280	203,524	213,748		223,139	223,110
Annual Change Rate		-2.75%	5.02%		4.40%*	0.00%
*Change Rate between 2015 and 2019 shows the four year change which equals a very conservative 1.1% year over year growth.						

Methodology Assumptions:

- This is a replacement project so projections are conservative following normal course of business and budgeted utilization.
- Adjusted patient days are projected for historical and projected financial statements. Adjusted Patient Days are calculated based on the ratio of gross outpatient revenue to inpatient revenue per inpatient day. The result, which represents the number of patient days attributable to outpatient services, is added to the number of inpatient days.

$$(\text{Gross Outpatient Revenue} / (\text{Gross Inpatient Revenue} / \text{Inpatient Days})) = \text{Outpatient Days}$$

$$\text{Outpatient Days} + \text{Inpatient Days} = \text{Adjusted Patient Days}$$

- Historical adjusted patient days are calculated based on gross inpatient and outpatient revenue and actual patient days per our historical financial statements.
- Projected adjusted patient day are calculated based on the project's projected gross inpatient and outpatient revenue and projected patient days. Patient days are assumed to increase five percent from 2015 to 2019 and 2020 patient days remaining flat. An annual four percent rate increase is assumed for gross inpatient and outpatient revenues.
- See table below for in patient days chart for historical and projected.

Methodist University Hospital
Actual and Projected Adjusted Patient Days by Inpatient Bed Type
2013-2020

	Actual	Actual	Actual	Yr 1 Projected	Yr 2 Projected
	2013	2014	2015	2019	2020
Total Beds	617	617	617	617	617
Patient Days **	117,668	114,319	123,048	127,988	127,547
ADC	322.4	313.2	337.1	350.7	349.4
Occupancy	52.2%	50.8%	54.6%	56.8%	56.5%
23 Hour Observation Days	7,290	10,497	8,725	9,259	9,303
ADC	20.0	28.8	23.9	25.4	25.4
Occupancy	3.2%	4.6%	3.9%	4.1%	4.1%
Adj Total Pat Days w/ 23 Hr Obs	124,958	124,816	131,773	137,247	136,850
Adj Total ADC w/ 23 Hr Obs	342.4	341.0	361.0	376.0	374.9
Adj Total Occupancy w/ 23 Hr Obs	55.5%	55.4%	58.5%	60.9%	60.6%
Medical/Surgical Beds	511	511	511	483	483
Patient Days	86,325	83,077	91,508	93,633	93,289
ADC	236.5	227.6	250.7	256.5	254.9
Occupancy	46.3%	44.5%	49.1%	53.1%	52.8%
23 Hour Observation Days	7,290	10,497	8,725	9,259	9,303
ADC	20.0	28.8	23.9	25.4	25.4
Occupancy	3.9%	5.6%	4.7%	5.3%	5.3%
Adj M/S Pat Days w/ 23 Hr Obs	93,615	93,574	100,233	102,892	102,592
Adj M/S ADC w/ 23 Hr Obs	256.5	255.7	274.6	281.9	281.1
Adj M/S Occupancy w/ 23 Hr Obs	50.2%	50.2%	53.7%	58.4%	58.0%
Critical Care Beds	72	72	72	100	100
Patient Days	22,212	22,797	23,570	26,329	26,232
ADC	60.9	62.5	64.6	72.1	71.7
Occupancy	84.5%	86.7%	89.7%	72.1%	71.7%
Psych Beds	34	34	34	34	34
Patient Days	9,131	8,445	7,970	8,026	8,026
ADC	25.0	23.1	21.8	22.0	21.9
Occupancy	73.6%	68.0%	64.2%	64.7%	64.5%

ECONOMIC FEASIBILITY

1. Provide the cost of the project by completing the Project Costs Chart on the following page. Justify the cost of the project.

- All projects should have a project cost of at least \$3,000 on Line F. (Minimum CON Filing Fee). CON filing fee should be calculated from Line D. (See Application Instructions for Filing Fee)

The CON filing fee calculated from Line D of the Project Costs Chart is \$45,000; therefore a check for this amount accompanies the application.

- The cost of any lease should be based on fair market value or the total amount of the lease payments over the initial term of the lease, whichever is greater.

Not Applicable.

- The cost for fixed and moveable equipment includes, but is not necessarily limited to, maintenance agreements covering the expected useful life of the equipment; federal, state, and local taxes and other government assessments; and installation charges, excluding capital expenditures for physical plant renovation or in-wall shielding, which should be included under construction costs or incorporated in a facility lease.

Equipment Type	Equipment	Maintenance (4 years)	Total Cost
iMRI	\$ 3,959,767	\$ 705,180	\$ 4,664,947
Linear Accelerator	\$ 2,636,000	\$ 760,581	\$ 3,396,581
Hybrid Operating Room	\$ 1,972,443	\$ 375,300	\$ 2,347,743

- For projects that include new construction, modification, and/or renovation; documentation must be provided from a contractor and/or architect that support the estimated construction costs

A letter from the architect follows as Attachment C: Economic Feasibility (1)(d).

2. Identify the funding sources for this project.

Please check the applicable item(s) below and briefly summarize how the project will be financed. (Documentation for the type of funding **MUST** be inserted at the end of the application, in the correct alpha/numeric order and identified as Attachment C, Economic Feasibility-2.)

	A. Commercial loan—Letter from lending institution or guarantor stating favorable initial contact, proposed loan amount, expected interest rates, anticipated term of the loan, and any restrictions or conditions;
	B. Tax-exempt bonds—Copy of preliminary resolution or a letter from the issuing authority stating favorable initial contact and a conditional agreement from an underwriter or investment banker to proceed with the issuance;
	C. General obligation bonds—Copy of resolution from issuing authority or minutes from the appropriate meeting.
	D. Grants—Notification of intent form for grant application or notice of grant award; or
X	E. Cash Reserves—Appropriate documentation from Chief Financial Officer.
	F. Other—Identify and document funding from all other sources.
Methodist Healthcare is prepared to fund the project cost with cash reserves. See the attached letter from the Chief Financial Officer. Attachment C: Economic Feasibility (2)	

3. Discuss and document the reasonableness of the proposed project costs. If applicable, compare the cost per square foot of construction to similar projects recently approved by the Health Services and Development Agency.

Total construction costs excluding site prep and construction contingency are \$172,150,000 (or \$366 PSF) with new construction costs of \$166,692,019 (or \$396 PSF) and renovation costs of \$5,457,981 (or \$111 PSF).

The costs of the project are higher than average due to the scope of the project yet reasonable as compared to similar renovations done throughout Methodist Healthcare over the last few years and on recently approved CON's.

**TABLE 2
COST PER SQUARE FOOT COMPARISON WITH APPROVED PROJECTS**

CON Name	Date Filed	Cost per Square Foot
Methodist South Hospital Renovate and Expand Emergency Department	Mar-15	\$ 209
Methodist Memphis Hospital Establish West Cancer Center	Nov-13	\$ 145
Le Bonheur Children's Hospital Establish Pediatric Outpatient Center	Nov-13	\$ 152
Campbell Clinic Surgery Center Construction & Renovation	Aug-12	\$ 244
The Regional Medical Center – The Med Hospital Construction & Renovation	Aug-12	\$ 225
Baptist Memorial Women's Hospital ED Construction & Renovation	Dec-12	\$ 238

Total construction costs are also higher when compared to the HSDA construction costs ranges. Renovation costs for the project are at the first quartile, yet new construction costs are above the third quartile. Please note that three years of escalation are costs built into the construction estimates given the project timeline which equate to roughly \$50 PSF. Other factors that increase the costs projections for this project are:

- the new patient tower spans an active road
- the new patient tower will connect to existing facilities at several locations
- the site is not a greenfield site yet is an onsite modernization project in a busy campus

See the cost per square foot comparisons below.

TABLE 3
HOSPITAL CONSTRUCTION COST PER SQUARE FOOT
YEARS: 2012-2014

	Renovated Construction	New Construction	Total Construction
1st Quartile	\$110.98/sq ft	\$224.09/sq ft	\$156.78/sq ft
Median	\$192.46/sq ft	\$259.66/sq ft	\$227.88/sq ft
3rd Quartile	\$297.82/sq ft	\$296.52/sq ft	\$298.66/sq ft

Source: CON approved applications for years 2012 through 2014

4. **Complete Historical and Projected Data Charts on the following two pages—Do not modify the Charts provided or submit Chart substitutions!** Historical Data Chart represents revenue and expense information for the last *three (3)* years for which complete data is available for the institution. Projected Data Chart requests information for the two (2) years following the completion of this proposal. Projected Data Chart should reflect revenue and expense projections for the *Proposal Only* (i.e., if the application is for additional beds, include anticipated revenue from the proposed beds only, not from all beds in the facility).

Following this page are the Historic Data Chart for Methodist Le Bonheur Healthcare, and a Projected Data Chart for Methodist University Hospital.

5. **Please identify the project's average gross charge, average deduction from operating revenue, and average net charge.**

The average gross charge and deduction amounts shown as a percent of adjusted patient days are below for 2019, the first year of operations.

Average Gross Charge	\$	10,316
Average Deduction		7,842
Average Net Charge	\$	2,474

February 25, 2016

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HISTORICAL DATA CHART**Methodist University Hospital**

Give information for the last *three (3)* years for which complete data are available for the facility or agency. The fiscal year begins in January (Month).

	Year <u>2013</u>	Year <u>2014</u>	Year <u>2015</u>
A. Utilization Data (Specify unit of measure)			
Adjusted Patient Days	<u>209,281</u>	<u>203,523</u>	<u>213,747</u>
B. Revenue from Services to Patients		(in thousands)	
1. Inpatient Services	\$ <u>906,782</u>	\$ <u>941,802</u>	\$ <u>1,058,001</u>
2. Outpatient Services	<u>600,674</u>	<u>663,985</u>	<u>674,912</u>
3. Emergency Services	<u>54,019</u>	<u>59,021</u>	<u>90,990</u>
4. Other Operating Revenue	<u>19,545</u>	<u>19,502</u>	<u>45,956</u>
Gross Operating Revenue	\$ <u>1,581,020</u>	\$ <u>1,684,310</u>	\$ <u>1,869,858</u>
C. Deductions from Gross Operating Revenue			
1. Contractual Adjustments	\$ <u>980,117</u>	\$ <u>1,071,820</u>	\$ <u>1,186,601</u>
2. Provision for Charity Care	<u>152,563</u>	<u>156,455</u>	<u>157,759</u>
3. Provisions for Bad Debt	<u>45,997</u>	<u>43,673</u>	<u>45,881</u>
Total Deductions	\$ <u>1,178,677</u>	\$ <u>1,271,948</u>	\$ <u>1,390,241</u>
NET OPERATING REVENUE	\$ <u>402,343</u>	\$ <u>412,362</u>	\$ <u>479,617</u>
Operating Expenses			
1. Salaries and Wages	\$ <u>125,793</u>	\$ <u>123,888</u>	\$ <u>132,746</u>
2. Physician's Salaries and Wages	<u>3,173</u>	<u>3,275</u>	<u>3,430</u>
3. Supplies	<u>113,069</u>	<u>115,234</u>	<u>143,068</u>
4. Taxes	<u>439</u>	<u>468</u>	<u>429</u>
5. Depreciation	<u>14,713</u>	<u>15,703</u>	<u>18,094</u>
6. Rent	<u>403</u>	<u>404</u>	<u>412</u>
7. Interest, other than Capital	<u>0</u>	<u>0</u>	<u>0</u>
8. Management Fees	<u>1,265</u>	<u>963</u>	<u>925</u>
a) Fees to Affiliates			
b) Fees to Non-Affiliates	<u>0</u>	<u>0</u>	<u>0</u>
9. Other Expenses	<u>138,701</u>	<u>149,461</u>	<u>159,233</u>
Total Operating Expenses	\$ <u>397,557</u>	\$ <u>409,396</u>	\$ <u>458,335</u>
E. Other Revenue (Expenses) – Net	\$ <u>6,739</u>	\$ <u>5,449</u>	\$ <u>6,206</u>
NET OPERATING INCOME (LOSS)	\$ <u>11,525</u>	\$ <u>8,415</u>	\$ <u>27,488</u>
F. Capital Expenditures			
1. Retirement of Principal	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>
2. Interest	<u>2,896</u>	<u>2,555</u>	<u>2,213</u>
Total Capital Expenditures	\$ <u>2,896</u>	\$ <u>2,555</u>	\$ <u>2,213</u>
NET OPERATING INCOME (LOSS)			
LESS CAPITAL EXPENDITURES	\$ <u>8,629</u>	\$ <u>5,860</u>	\$ <u>25,275</u>

Other Operating Revenue:

Cafeteria
Drugs
Telephone rental
Vending
Office Rental
Ground
Transportation
Fix Wing
Grants
United Way Grants
Misc. Income

Other Expenses:

Benefits
Repairs and Maintenance
Professional Fees
Contract Services
Accounting/Auditing Fees
Legal/Consulting
Fee
Advertising
Dues and Subscriptions
Education/ Travel
Utilities
Insurance
Food services
Laundry Services
Print Shop
Telephone
Transcription
Academic Support
Contributions
License/Accreditations Fees
Postage/Freight
Procurement Card Exp

Other Revenue/Expenses:

Capital Campaign Funding
Interest Income
Gain/Loss on Disposal of PPE

HISTORICAL DATA CHART**Methodist LeBonheur Healthcare**

Give information for the last *three (3)* years for which complete data are available for the facility or agency. The fiscal year begins in January (Month).

	Year <u>2013</u>	Year <u>2014</u>	Year <u>2015</u>
A. Utilization Data (Specify unit of measure)			
Adjusted Patient Days	<u>719,580</u>	<u>741,515</u>	<u>760,677</u>
B. Revenue from Services to Patients		(in thousands)	
1. Inpatient Services	\$ <u>2,699,155</u>	\$ <u>2,754,329</u>	\$ <u>2,999,684</u>
2. Outpatient Services	<u>2,476,668</u>	<u>2,826,784</u>	<u>2,970,661</u>
3. Emergency Services	<u>313,851</u>	<u>366,834</u>	<u>378,666</u>
4. Other Operating Revenue (Attachment C: Historical Chart)	<u>77,123</u>	<u>100,345</u>	<u>136,301</u>
Gross Operating Revenue	\$ <u>5,566,797</u>	\$ <u>6,048,292</u>	\$ <u>6,485,312</u>
C. Deductions from Gross Operating Revenue			
1. Contractual Adjustments	\$ <u>3,485,935</u>	\$ <u>3,848,401</u>	\$ <u>4,103,811</u>
2. Provision for Charity Care	<u>348,997</u>	<u>377,105</u>	<u>361,519</u>
3. Provisions for Bad Debt	<u>154,172</u>	<u>155,627</u>	<u>163,510</u>
Total Deductions	\$ <u>3,989,104</u>	\$ <u>4,381,133</u>	\$ <u>4,628,840</u>
NET OPERATING REVENUE	\$ <u>1,577,693</u>	<u>1,667,159</u>	<u>1,856,472</u>
Operating Expenses			
1. Salaries and Wages	\$ <u>575,773</u>	\$ <u>596,539</u>	\$ <u>659,660</u>
2. Physician's Salaries and Wages	<u>41,322</u>	<u>66,862</u>	<u>51,219</u>
3. Supplies	<u>335,111</u>	<u>340,428</u>	<u>384,238</u>
4. Taxes	<u>1,715</u>	<u>2,179</u>	<u>2,224</u>
5. Depreciation	<u>89,112</u>	<u>102,845</u>	<u>106,017</u>
6. Rent	<u>15,494</u>	<u>17,432</u>	<u>17,211</u>
7. Interest, other than Capital			
8. Management Fees			
a) Fees to Affiliates	<u>3,329</u>	<u>3,852</u>	<u>3,784</u>
b) Fees to Non-Affiliates	<u>4,461</u>	<u>4,570</u>	<u>4,389</u>
9. Other Expenses (Attachment C: Historical Chart)	<u>433,434</u>	<u>449,956</u>	<u>492,005</u>
Total Operating Expenses	\$ <u>1,499,751</u>	\$ <u>1,584,663</u>	\$ <u>1,720,747</u>
E. Other Revenue (Expenses) – Net	\$ <u>255,431</u>	\$ <u>(54,069)</u>	\$ <u>34,163</u>
NET OPERATING INCOME (LOSS)	\$ <u>333,373</u>	<u>28,427</u>	<u>169,888</u>
F. Capital Expenditures			
1. Retirement of Principal	\$ <u>-</u>	\$ <u>-</u>	\$ <u>-</u>
2. Interest	<u>25,874</u>	<u>26,798</u>	<u>25,489</u>
Total Capital Expenditures	\$ <u>25,874</u>	\$ <u>26,798</u>	\$ <u>25,489</u>
NET OPERATING INCOME (LOSS)	\$ <u>333,373</u>	<u>28,427</u>	<u>169,888</u>
LESS CAPITAL EXPENDITURES	\$ <u>307,499</u>	<u>1,629</u>	<u>144,399</u>

PROJECTED DATA CHART

Methodist Healthcare-University Hospital

Give information for the two (2) years following the completion of this proposal. The fiscal year begins in January (Month).

	Year	<u>2019</u>	Year	<u>2020</u>
A. Utilization Data (Adjusted Patient Days)		<u>223,139</u>		<u>223,110</u>
B. Revenue from Services to Patients		(in thousands)		
1. Inpatient Services	\$	<u>1,281,950</u>	\$	<u>1,343,456</u>
2. Outpatient Services		<u>879,220</u>		<u>928,057</u>
3. Emergency Services		<u>80,328</u>		<u>85,041</u>
4. Other Operating Revenue (Attachment C: Projected Chart)		<u>60,428</u>		<u>61,247</u>
	Gross Operating Revenue	\$ <u>2,301,926</u>	\$	<u>2,417,801</u>
C. Deductions from Gross Operating Revenue				
1. Contractual Adjustments	\$	<u>1,521,388</u>	\$	<u>1,610,084</u>
2. Provision for Charity Care		<u>187,826</u>		<u>195,555</u>
3. Provisions for Bad Debt		<u>40,749</u>		<u>42,409</u>
	Total Deductions	\$ <u>1,749,963</u>	\$	<u>1,848,048</u>
NET OPERATING REVENUE		\$ <u>551,963</u>		<u>569,752</u>
D. Operating Expenses				
1. Salaries and Wages	\$	<u>151,728</u>	\$	<u>154,935</u>
2. Physician's Salaries and Wages		<u>3,741</u>		<u>3,819</u>
3. Supplies		<u>180,175</u>		<u>187,499</u>
4. Taxes		<u>96</u>		<u>96</u>
5. Depreciation		<u>43,441</u>		<u>43,099</u>
6. Rent		<u>-</u>		<u>-</u>
7. Interest, other than Capital		<u>-</u>		<u>-</u>
8. Management Fees		<u>1,009</u>		<u>1,029</u>
	a.) Fees to Affiliates	<u>-</u>		<u>-</u>
	a.) Fees to Non-Affiliates	<u>-</u>		<u>-</u>
8. Other Expenses	(Attachment C: Projected Chart)	<u>186,007</u>		<u>191,576</u>
	Total Operating Expenses	\$ <u>566,197</u>	\$	<u>582,052</u>
E. Other Revenue (Expenses) -- Net	\$	<u>6,395</u>	\$	<u>6,681</u>
NET OPERATING INCOME (LOSS)	\$	<u>(7,839)</u>	\$	<u>(5,618)</u>
F. Capital Expenditures				
1. Retirement of Principal		<u>-</u>		<u>-</u>
2. Interest		<u>1,724</u>		<u>1,644</u>
	Total Capital Expenditures	\$ <u>1,724</u>	\$	<u>1,644</u>
NET OPERATING INCOME (LOSS)				
LESS CAPITAL EXPENDITURES	\$	<u>(9,563)</u>	\$	<u>(7,262)</u>

6. A. Please provide the current and proposed charge schedules for the proposal. Discuss any adjustment to current charges that will result from the implementation of the proposal. Additionally, describe the anticipated revenue from the proposed project and the impact on existing patient charges.

There will be no change to the existing room and bed charge structure as a result of this project, yet there will be normal unrelated rate increases over the next several years. See the current charges below.

Charge/Procedure	Current Rate
ROOM AND BED	
MED-SURG PRIVATE R&B	\$ 1,399
PYSCH PRIVATE R&B	\$ 1,147
PYSCH SEMI-PRIVATE R&B	\$ 1,117
ICU/CCU R&B	\$ 2,492
CVICU -R&B	\$ 2,933

- B. Compare the proposed charges to those of similar facilities in the service area/adjoining service areas, or to proposed charges of projected recently approved by the Health Services and Development Agency. If applicable, compare the proposed charges of the project to the current Medicare allowable fee schedule by common procedure terminology (CPT) code(s).

Based upon the review, the proposed charges are reasonable and comparable to other facilities in the service area. There will be no impact to the charge structure due to this project. The table below shows the comparison of charges based on data from the Federal Fiscal yearend 2014 American Hospital Directory (AHD) for area hospitals.

**METHODIST SERVICE AREA
CHARGE COMPARISON**

Facility	Average Gross Charge	Average Payment
Methodist University	\$44,043	\$12,695
Baptist Memorial Memphis	\$53,589	\$12,363
St. Francis Memphis	\$77,778	\$11,444
St. Francis Bartlett	\$63,320	\$9,313
Regional One	\$101,286	\$30,685
Source: American Hospital Directory - Medicare IPPS claims data are for federal fiscal year ending 09/30/2014 - Inpatient Utilization Statistics		

7. Discuss how projected utilization rates will be sufficient to maintain cost-effectiveness.

The proposed project will improve operational efficiency on the Methodist University campus. Methodist Le Bonheur Healthcare will remain financially viable.

The most successful healthcare organizations must not only deliver high-quality care, but also do so with minimum waste. Cost controls are increasingly part of the quality conversation in healthcare, and the systematic identification and elimination of waste while maintaining or improving quality is imperative for

future success. Methodist Le Bonheur Healthcare remains committed to providing sustainable, high-quality care. To do so going forward, we are compelled to focus on enhancing the entire experience of care for patients, while managing the costs of delivering that care.

8. Discuss how financial viability will be ensured within two years; and demonstrate the availability of sufficient cash flow until financial viability is achieved.

All cash is held at the corporate level, see the attached Methodist Le Bonheur Healthcare December 2015 Balance Sheet (Attachment C: Economic Feasibility (10)) for the financial viability of the health system. The projections in this application show the system will remain viable although there are moderate losses in the first years of operation as a result of additional depreciation. Methodist University Hospital is an integral part of Methodist Healthcare-Memphis Hospitals with 617 of the total 1,583 licensed beds. As the system's flagship academic medical center, this investment is essential for long term viability and sustainability of the campus and system.

9. Discuss the project's participation in state and federal revenue programs including a description of the extent to which Medicare, TennCare/Medicaid, and medically indigent patients will be served by the project. In addition, report the estimated dollar amount of revenue and percentage of total project revenue anticipated from each of TennCare, Medicare, or other state and federal sources for the proposal's first year of operation.

Methodist University Hospital currently serves the Medicare, TennCare, and medically indigent populations. The estimated payer mix for 2019, the first full year of operation, is shown below.

Payor	Revenue (In Thousands)	% of Total Revenue
Medicare	\$ 1,109,105	49%
TennCare/Medicaid	\$ 311,280	14%
Self-Pay	\$231,762	10%
Commercial/Other	\$ 589,352	26%
Total	\$2,241,498	100%

10. Provide copies of the balance sheet and income statement from the most recent reporting period of the institution and the most recent audited financial statements with accompanying notes, if applicable. For new projects, provide financial information for the corporation, partnership, or principal parties involved with the project. Copies must be inserted at the end of the application, in the correct alpha-numeric order and labeled as Attachment C, Economic Feasibility-10.

Audited financials and cash are held at the corporate level, therefore, please see the attached most recent audited financials for Methodist Healthcare. Also, a balance sheet and income statement for the period ending December 31, 2015 for Methodist Le Bonheur Healthcare are included. See Attachment C: Economic Feasibility (10).

11. Describe all alternatives to this project which were considered and discuss the advantages and disadvantages of each alternative including but not limited to:

- a. A discussion regarding the availability of less costly, more effective, and/or more efficient alternative methods of providing the benefits intended by the proposal. If development of such alternatives is not practicable, the applicant should justify why not; including reasons as to why they were rejected.

- b. The applicant should document that consideration has been given to alternatives to new construction, e.g., modernization or sharing arrangements. It should be documented that superior alternatives have been implemented to the maximum extent practicable.

Response to a. and b. above:

Methodist Healthcare evaluated the health care services, community benefits, and cost effectiveness of construction alternatives during the planning of the project. One option was to renovate existing patient care floors and support areas. The age and condition of the existing hospital buildings are not optimal for in-place renovations. As previously mentioned in the application, the outdated buildings present renovation challenges with the spacing and the floor-to-ceiling heights for twenty-first century healthcare and technology.

**DIAGRAM 5
METHODIST UNIVERSITY HOSPITAL
COLOR CODED BUILDING CONDITION ASSESSMENT RESULTS**



Additionally, Methodist University's presence in high priority programs requires improving adjacencies and addressing inadequate and inefficient space and equipment, both on the inpatient and outpatient side. This alternative could not solve those problems with existing buildings. The campus plan assessment reveals the most viable option is to renovate and modernize the facility as proposed in this application.

CONTRIBUTION TO THE ORDERLY DEVELOPMENT OF HEALTH CARE

- 1. List all existing health care providers (e.g., hospitals, nursing homes, home care organizations, etc.), managed care organizations, alliances, and/or networks with which the applicant currently has or plans to have contractual and/or working relationships, e.g., transfer agreements, contractual agreements for health services.**

Methodist Healthcare has working relationships with the following physician groups:

- The West Clinic
- UT Medical Group, Inc.
- UT Le Bonheur Pediatric Specialists
- Campbell Clinic Orthopaedics
- Pediatric Anesthesiologists PA
- Pediatric Emergency Specialists PC
- Semmes-Murphey Neurologic and Spine Institute
- Methodist Primary and Specialty Care Groups (See Attachment A:4 for Organizational Chart)

The Methodist Healthcare-Memphis Hospitals' license includes five hospitals:

- Methodist Healthcare-University Hospital
- Methodist Healthcare-South Hospital
- Methodist Healthcare-North Hospital
- Methodist Healthcare-Le Bonheur Germantown Hospital
- Le Bonheur Children's Hospital

Additionally, Methodist Healthcare owns and operates Methodist Alliance Services, a comprehensive home care company, and a wide array of other ambulatory services such as minor medical and urgent care centers, outpatient diagnostic centers and ambulatory surgery centers.

Methodist Healthcare is part of the University Medical Center Alliance which also includes the University of Tennessee and the Memphis Regional Medical Center (The Med). The goal of this council is to support the quality of care, patient safety and efficiency across all three institutions.

There are also agreements with the Mid-South Tissue Bank, the Mid-South Transplant Foundation, and PhyAmerica.

A list of managed care contracts is attached in Attachment C: Orderly Development (1).

- 2. Describe the positive and/or negative effects of the proposal on the health care system. Please be sure to discuss any instances of duplication or competition arising from your proposal including a description of the effect the proposal will have on the utilization rates of existing providers in the service area of the project.**

The proposed project will have a positive impact on the Shelby County health care community. The project does not propose to increase the applicant's market share. The project is for renovation and modernization to the campus to improve patient flow, efficiencies, and patient satisfaction.

- 3. Provide the current and/or anticipated staffing pattern for all employees providing patient care for the project. This can be reported using FTEs for these positions. Additionally, please compare the clinical staff salaries in the proposal to prevailing wage patterns in the service area as published by the Tennessee Department of Labor & Workforce Development and/or other documented sources.**

The project will not require the addition of FTEs. There will be no change in staffing patterns.

4. **Discuss the availability of and accessibility to human resources required by the proposal, including adequate professional staff, as per the Department of Health, the Department of Mental Health and Developmental Disabilities, and/or the Division of Mental Retardation Services licensing requirements.**

The project will not require the addition of FTEs. There will be no change in staffing patterns.

5. **Verify that the applicant has reviewed and understands all licensing certification as required by the State of Tennessee for medical/clinical staff. These include, without limitation, regulations concerning physician supervision, credentialing, admission privileges, quality assurance policies and programs, utilization review policies and programs, record keeping, and staff education.**

The applicant so verifies. Methodist University Hospital reviewed and meets all the State requirements for physician supervision, credentialing, admission privileges, and quality assurance policies and programs, utilization review policies and programs, record keeping and staff education.

6. **Discuss your health care institution's participation in the training of students in the areas of medicine, nursing, social work, etc. (e.g., internships, residencies, etc.).**

Methodist Healthcare has clinical affiliation agreements with multiple colleges including over twenty for nursing, thirty for rehabilitation service professionals (physical therapy, speech therapy, and audiology), three for pharmacy, and almost twenty for other allied health professionals including paramedics, laboratory, respiratory therapy, radiation therapy technicians. There are approximately 1400 students annually participating in these programs.

Methodist participates very heavily in the training of students from various medical disciplines. Since relationships exist with most of the schools in Memphis, most of the students have also been trained academically in this region. The three primary disciplines that participate in the training of students at Methodist are medicine, nursing and psychosocial services.

In the area of medicine, there are many different specialties represented in the interns and residents who train at Methodist – there are more than twenty different specialties. Likewise, since there are several nursing schools in the area, Methodist is very active in the training of future nurses. These nurses come from several types of programs, which include Bachelor's Degrees, Associate Degrees, Licensed Practical Nurse programs and Diploma programs. Methodist participates in training of students from the following schools:

Methodist Healthcare
University of Memphis
Baptist Health System
Southwest Tennessee Community College

University of Tennessee
Northwest Mississippi Jr. College
Regional Medical Center
Tennessee Centers of Technology

7. (a) **Please verify, as applicable, that the applicant has reviewed and understands the licensure requirements of the Department of Health, the Department of Mental Health and Developmental Disabilities, the Division of Mental Retardation Services, and/or any applicable Medicare requirements.**

Methodist University Hospital has reviewed these, and meets all applicable requirements of the Department of Health. Other departments are not involved with this facility.

- (b) **Provide the name of the entity from which the applicant has received or will receive licensure, certification, and/or accreditation.**

Licensure:

The general hospital license held by Methodist Healthcare-Memphis Hospitals d/b/a Methodist University Hospital is from the Tennessee Department of Health, Board for Licensing Health Care Facilities.

Accreditation:

The accreditation agency for Methodist University Hospital is the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), from whom the hospital has full accreditation.

- (c) **If an existing institution, please describe the current standing with any licensing, certifying, or accrediting agency. Provide a copy of the current license of the facility.**

Methodist University Hospital is in good standing with the Department of Health, the Healthcare Facility Licensing Board, and JCAHO. (See Attachment C: Orderly Development (7)(c))

- (d) **For existing licensed providers, document that all deficiencies (if any) cited in the last licensure certification and inspection have been addressed through an approved plan of correction. Please include a copy of the most recent licensure/certification inspection with an approved plan of correction.**

Documentation regarding deficiencies and approved plan of correction in our licensure is attached. See Attachment C: Orderly Development (7)(d)(1) and C: Orderly Development (7)(d)(2).

8. **Document and explain any final orders or judgments entered in any state or country by a licensing agency or court against professional licenses held by the applicant or any entities or persons with more than a 5% ownership interest in the applicant. Such information is to be provided for licenses regardless of whether such license is currently held.**

None

9. **Identify and explain any final civil or criminal judgments for fraud or theft against any person or entity with more than a 5% ownership interest in the project.**

None

10. **If the proposal is approved, please discuss whether the applicant will provide the Tennessee Health Services and Development Agency and/or the reviewing agency information concerning the number of patients treated, the number and type of procedures performed, and other data as required.**

Should this application be approved, Methodist University Hospital will provide the Tennessee Health Services and Development Agency and/or the reviewing agency information concerning the number of patients treated, the number and type of procedures performed, and other data as required.

PROOF OF PUBLICATION

Attach the full page of the newspaper in which the notice of intent appeared with the mast and dateline intact or submit a publication affidavit from the newspaper as proof of the publication of the letter of intent.

The full page of the Commercial Appeal newspaper in which the Notice of Intent appeared is attached as Attachment C: Proof of Publication.

DEVELOPMENT SCHEDULE

Tennessee Code Annotated § 68-11-1609(c) provides that a Certificate of Need is valid for a period not to exceed three (3) years (for hospital projects) or two (2) years (for all other projects) from the date of its issuance and after such time shall expire; provided, that the Agency may, in granting the Certificate of Need, allow longer periods of validity for Certificates of Need for good cause shown. Subsequent to granting the Certificate of Need, the Agency may extend a Certificate of Need for a period upon application and good cause shown, accompanied by a non-refundable reasonable filing fee, as prescribed by rule. A Certificate of Need which has been extended shall expire at the end of the extended time period. The decision whether to grant such an extension is within the sole discretion of the Agency, and is not subject to review, reconsideration, or appeal.

1. Please complete the Project Completion Forecast Chart on the next page. If the project will be completed in multiple phases, please identify the anticipated completion date for each phase.

See the Project Completion Forecast Chart on the following page. The applicant anticipates that the project will be fully completed by November 2019 which is beyond the standard time allowed, i.e. three years from the date of receiving the CON. There will be three phases of this project. The first includes the new construction of the patient tower and ambulatory building. This phase is proposed to be complete by December 2018 with the newly constructed beds and services in operation January 2019. The further renovation of the existing buildings will not be complete until May 2019 and the demolition will not be complete until November 2019.

2. If the response to the preceding question indicates that the applicant does not anticipate completing the project within the period of validity as defined in the preceding paragraph, please state below any request for an extended schedule and document the "good cause" for such an extension.

As noted above the construction of the new patient tower and ambulatory building as well as the renovations of existing buildings is scheduled to be complete by May 2019 which would fall within the three year timeframe, yet the demolition and final phases will continue through the end of the year.

The extended schedule is in part due to the following:

- The new patient tower spans an active road
- The new patient tower will connect to existing facilities at several locations
- The site is not a greenfield site yet is an onsite modernization project in a busy campus

PROJECT COMPLETION FORECAST CHART

Enter the Agency projected Initial Decision date, as published in T.C.A. § 68-11-1609(c): June 2016

Assuming the CON approval becomes the final agency action on that date; indicate the number of days from the above agency decision date to each phase of the completion forecast.

<u>Phase</u>	<u>DAYS REQUIRED</u>	<u>Anticipated Date (MONTH/YEAR)</u>
1. Architectural and engineering contract signed	-	<u>June 2016</u>
2. Construction documents approved by the Tennessee Department of Health	<u>180</u>	<u>November 2016</u>
3. Construction contract signed	<u>180</u>	<u>November 2016</u>
4. Building permit secured	<u>180</u>	<u>November 2016</u>
5. Site preparation completed	<u>210</u>	<u>December 2016</u>
6. Building construction commenced	<u>210</u>	<u>December 2016</u>
7. Construction 40% complete	<u>470</u>	<u>September 2017</u>
8. Construction 80% complete	<u>810</u>	<u>August 2018</u>
9. Construction 100% complete (approved for occupancy)	New 930 Renov 1080 Demo 1260	<u>December 2018</u> <u>May 2019</u> <u>November 2019</u>
10. *Issuance of license	<u>New 960</u>	<u>January 2019</u>
11. *Initiation of service	<u>New 960</u>	<u>January 2019</u>
12. Final Architectural Certification of Payment	<u>1320</u>	<u>January 2020</u>
13. Final Project Report Form (HF0055)	<u>1350</u>	<u>February 2020</u>

* For projects that do NOT involve construction or renovation: Please complete items 10 and 11 only.

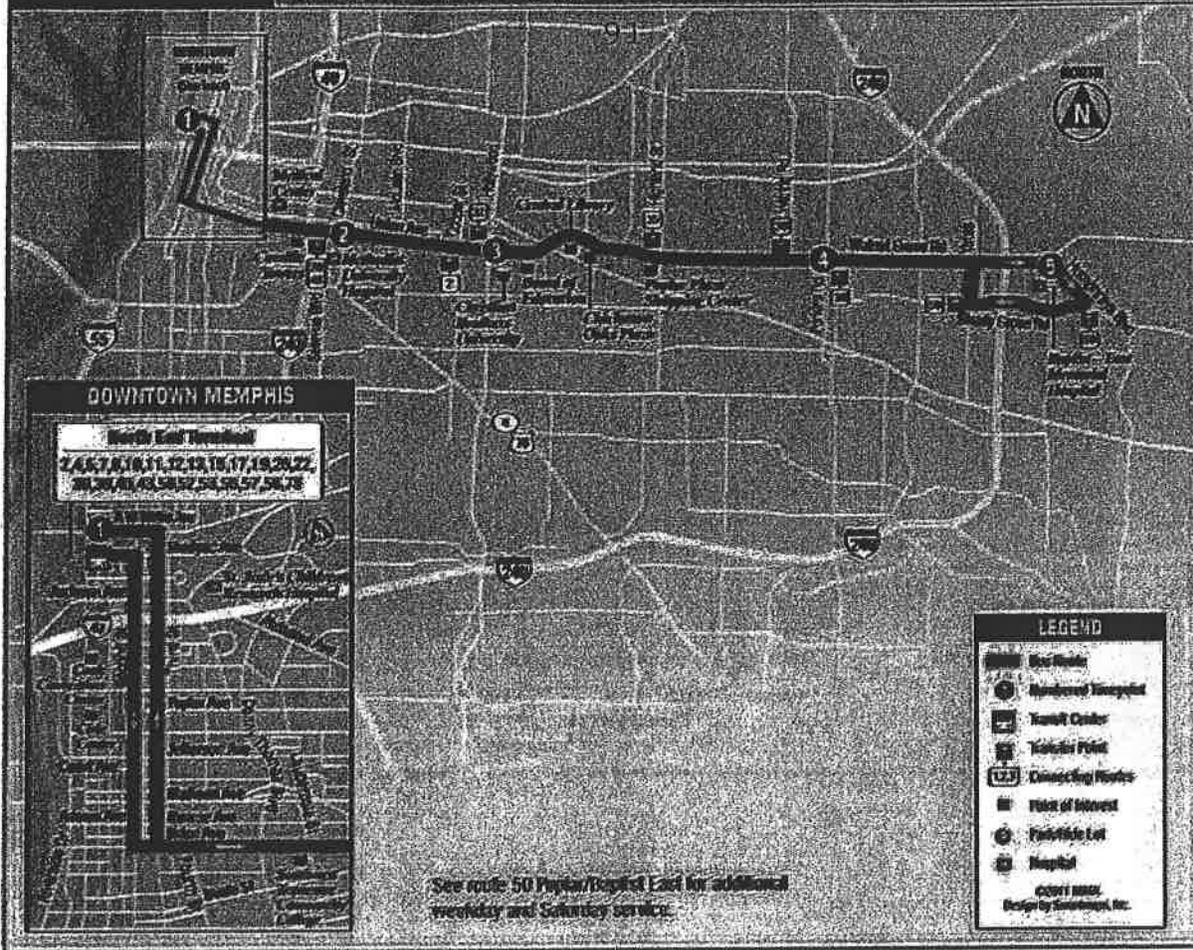
Note: If litigation occurs, the completion forecast will be adjusted at the time of the final

B: III (A) Plot Plan

B: III (B)
Road Maps and Public Transportation Route

Route 34

Walnut Grove



MONDAY - FRIDAY • OUTBOUND FROM DOWNTOWN

	1 North End Terminal	2 Union Ave at Cleveland St	3 Union Ave at Hollywood	4 Walnut Grove at Perkins Rd	5 Humphreys Blvd at Walnut Grove
AM	6:54	8:07	8:17	8:27	8:40
	6:40	8:33	7:03	7:13	7:26
	7:31	7:44	7:54	8:04	8:17
	8:17	8:30	8:40	8:50	9:03
	9:06	9:21	9:31	9:41	9:54
PM	10:45	10:58	11:08	11:18	11:31
	12:25	12:38	12:48	12:58	1:11
	2:06	2:18	2:28	2:38	2:51
	2:58	3:03	3:13	3:23	3:36
	3:42	3:55	4:05	4:15	4:28
	4:28	4:41	4:51	5:01	5:14
	5:19	5:32	5:42	5:52	6:05

MONDAY - FRIDAY • INBOUND TO DOWNTOWN

	5 Humphreys Blvd at Walnut Grove	4 Walnut Grove at Perkins Rd	3 Union Ave at Hollywood	2 Union Ave at Cleveland St	1 North End Terminal
AM	6:43	6:58	7:08	7:18	7:31
	7:29	7:44	7:54	8:04	8:17
	8:20	8:35	8:45	8:55	9:08
	9:06	9:21	9:31	9:41	9:54
	9:57	10:12	10:22	10:32	10:45
PM	11:24	11:49	11:59	12:09	12:25
	1:14	1:29	1:39	1:49	2:06
	2:54	3:09	3:19	3:29	3:42
	3:40	3:55	4:05	4:15	4:28
	4:31	4:46	1304:56	5:06	5:19
	5:17	5:32	5:42	5:52	6:05

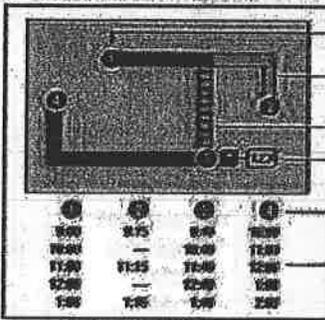
SATURDAY • OUTBOUND FROM DOWNTOWN

	① North End Terminal	② Union Ave at Cleveland St	③ Union Ave at Hollywood	④ Walnut Grove at Perkins Rd	⑤ Humphreys Blvd at Walnut Grove
AM	6:00	6:13	6:23	6:33	6:46
	7:36	7:51	8:01	8:11	8:24
	9:15	9:28	9:38	9:48	10:01
	10:52	11:05	11:15	11:25	11:38
PM	12:30	12:43	12:53	1:03	1:16
	2:10	2:23	2:33	2:43	2:56
	3:47	4:00	4:10	4:20	4:33
	5:25	5:38	5:48	5:58	6:11

SATURDAY • INBOUND TO DOWNTOWN

	⑤ Humphreys Blvd at Walnut Grove	④ Walnut Grove at Perkins Rd	③ Union Ave at Hollywood	② Union Ave at Cleveland St	① North End Terminal
AM	6:50	7:05	7:15	7:25	7:38
	8:27	8:42	8:52	9:02	9:15
	10:04	10:19	10:29	10:39	10:52
	11:41	11:56	12:06	12:16	12:29
PM	1:16	1:34	1:44	1:54	2:07
	2:59	3:14	3:24	3:34	3:47
	4:36	4:51	5:01	5:11	5:24

INSTRUCTIONS



- ① The bus stops at this location at listed times. Look for the column of times below the matching symbol in the schedule.
- ② Only certain trips operate along this portion of the route. See the schedule for trips that provide service here.
- ③ The bus operates express along this portion of the route.
- ④ Transfer point. Shows where this bus intersects with other routes that are available for transfer.
- ⑤ The bus stops at the times listed below the numbered symbol. Light times are A.M.; bold times are P.M.
- The timetable shows when the bus is scheduled to depart. Actual departure times may vary and depend upon traffic and weather conditions. Arrive at the bus stop about 5 minutes early to avoid missing the bus.

MATA FARES

FARE TYPE	EFFECTIVE JANUARY 4, 2010
Adult Base Fare	\$1.80
City Student Base Fare	\$1.80
County Student Base Fare	\$1.40
Seniors & Individuals with Disabilities	\$1.75
Express Base Fare	\$2.10
* MATA ID REQUIRED.	

ZONE 1 FARE
Base Fare Plus Additional Zone Fare
(See Route Map for Zone Boundaries)
\$3.75

WALK-A-LIKE PASSES

Daily Passes	\$3.25
7-Day Passes	\$15.00
31-Day Express Passes	\$30.00
Student Daily Passes	\$2.80
Student 7-Day Passes	\$12.00
Student 31-Day Passes	\$40.00
Senior/Disabled Daily Passes	\$1.50
Senior/Disabled 7-Day Passes	\$7.50
Senior/Disabled 31-Day Passes	\$24.00
Senior/Disabled 31-Day Express Passes	\$30.00

* MATA ID REQUIRED. Students in grades 1-12, seniors and people with disabilities must have a valid MATA ID to receive the passes at a reduced price. Two forms of identification must be presented to obtain ID at MATA's Customer Service Center. (A photo ID card is a valid form of identification.)
Route schedules may be subject to change without notice.

MATA INFORMATION

- Admission Way Transit Center
3321 American Way (901) 724-0382
- North End Terminal
444 N. Main Street (901) 624-3134
- MATA Administrative Offices**
1370 Lave Road (901) 724-7100
Route and Schedule Information (901) 874-6282
Lost and Found (901) 624-8194
Complaints, Comments, Complaints (901) 624-0175
Main Street Trolley (901) 674-2840
MATA's Information (901) 724-7177
TTY Hearing and Speech Impaired (901) 624-8017
Large print schedules are available upon request.

Visit us at www.matatransit.com

ROUTE

34



Walnut Grove

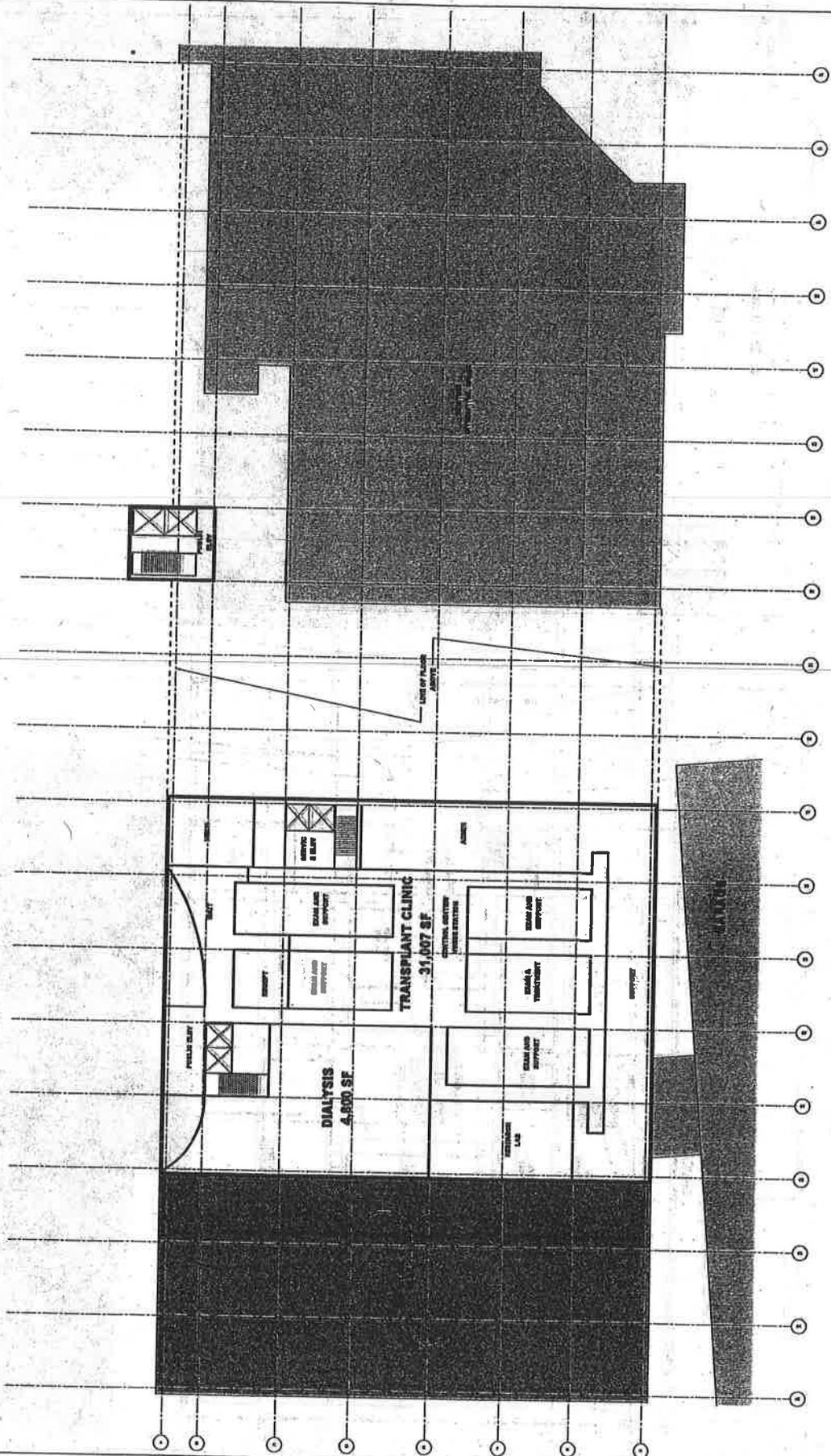
SERVING

- Baptist East Hospital
- Central Library
- Methodist University Hospital
- Southwest TN Community College
- University of Tennessee
- Medical Center
- Downtown Memphis
- North End Terminal

(901) 274-6282

www.matatransit.com

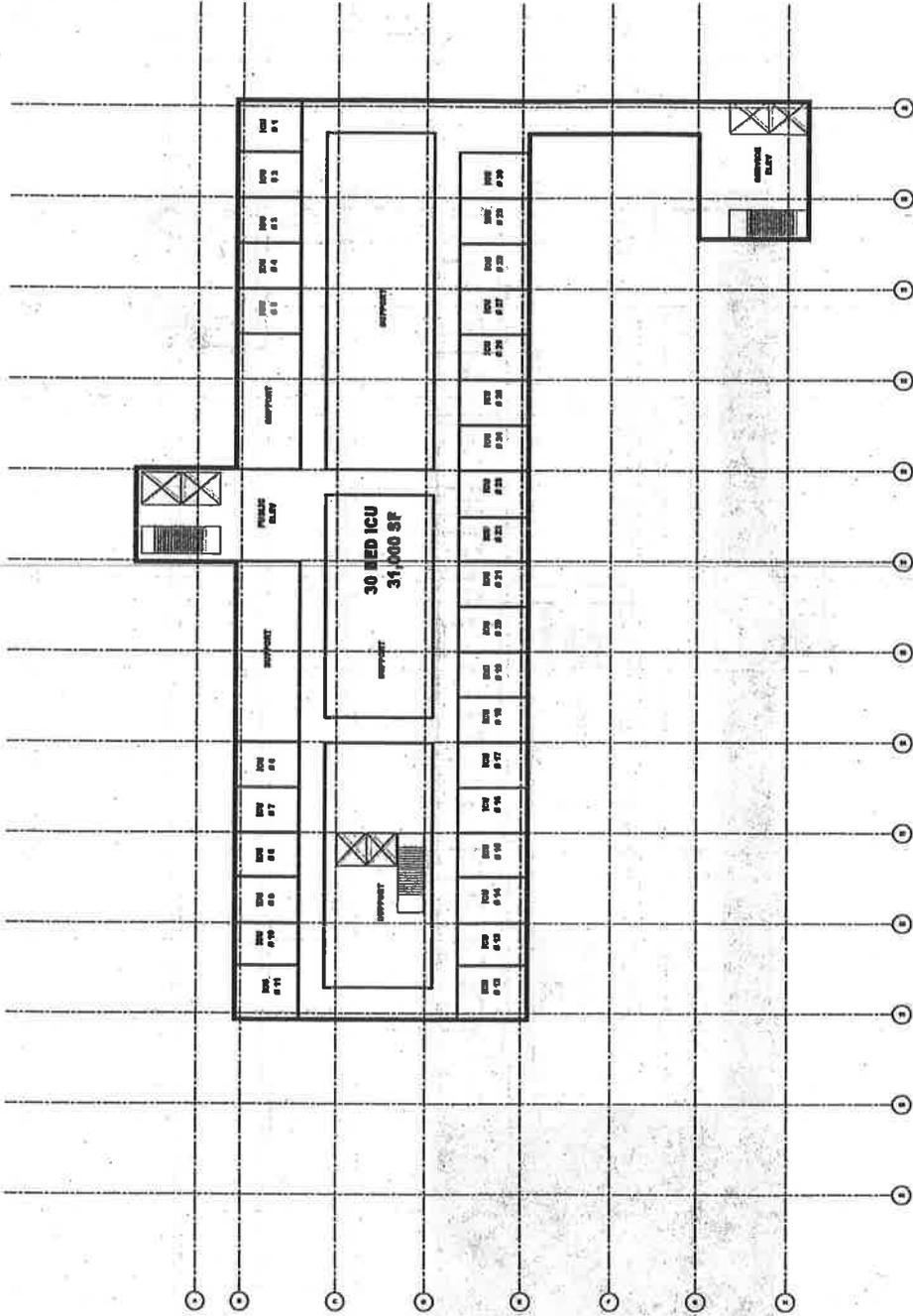
B: IV Floor Plans



LEVEL 02
 N

DRAFT

LEVEL 06
N

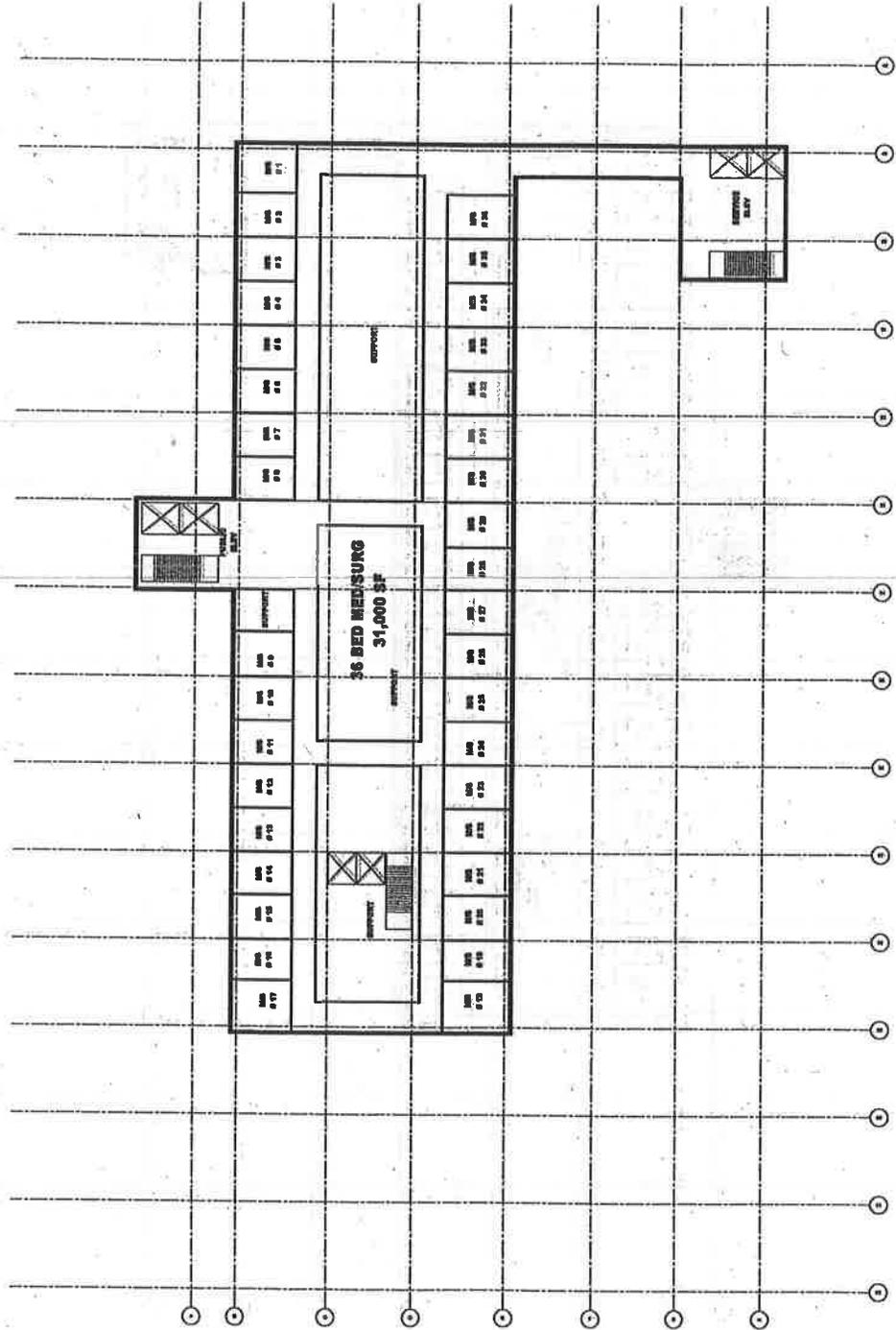


DRAFT



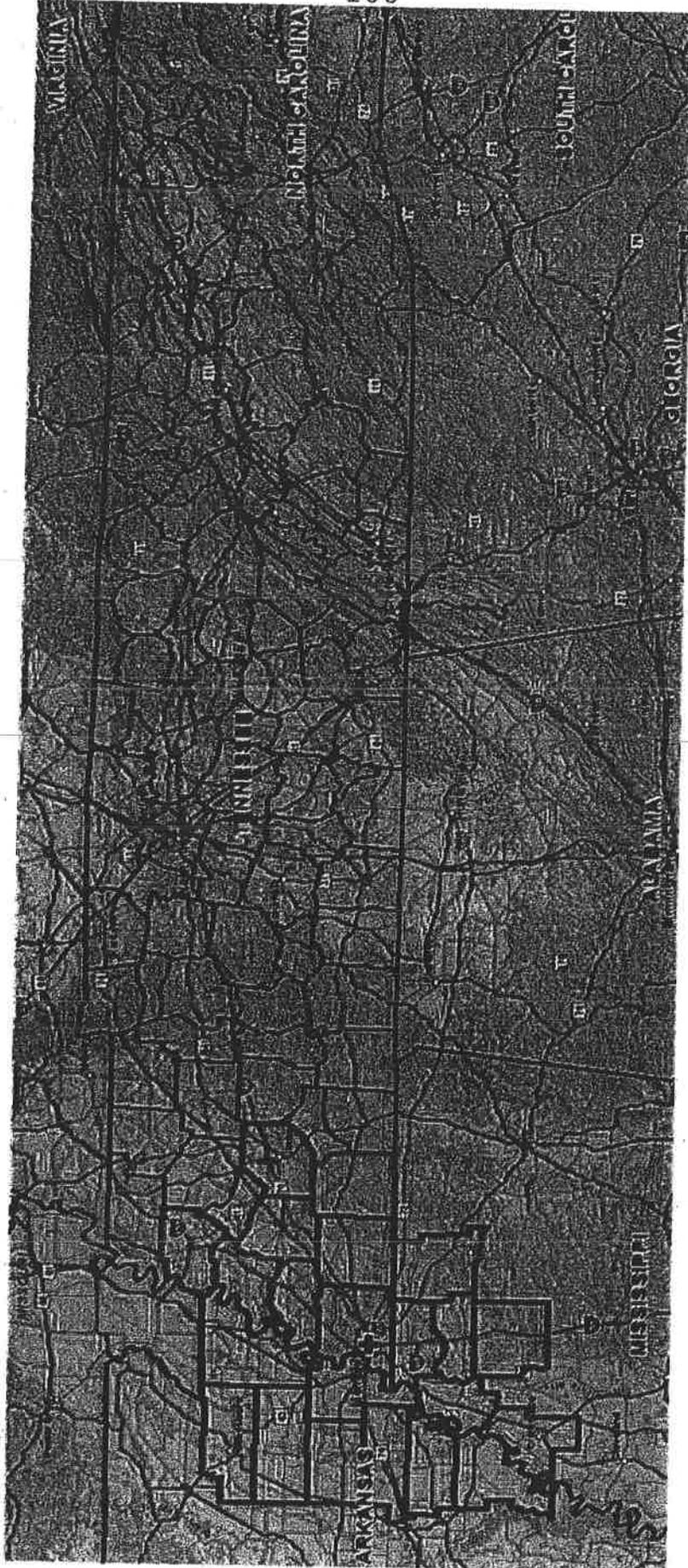
LEVEL 10

A1.10



C: Need (3) Service Area Maps

Service Area Map



C: Economic Feasibility (1) (d)
Documentation of Construction Cost Estimate

February 25, 2016**406 pm**

Turner

Turner Construction Company
5300 Virginia Way
Brentwood, TN 37027
phone: 615-231-6300
fax: 615-231-6301

January 17, 2016

Methodist University Hospital
Attn: Mr. Richard Kelley
1265 Union Ave
Memphis, TN 38104

**RE: MUH Campus Master Plan - Estimate
Methodist University Hospital**

To Whom It May Concern:

We have prepared a current cost estimate on the Methodist University Hospital located in Memphis, TN. We have reviewed the program and believe that this representation of the scope for this project based on current market conditions, historical data, and schematic architect's documents at this stage will be sufficient for this project. Turner Construction as the Nation's largest Healthcare builder has completed hundreds of projects similar in scope. We have used this historic cost database as a basis of our estimate. Some Tennessee projects that we have used for comparison are the Cookeville Regional Medical Center new patient tower and Vanderbilt Children's Hospital expansion schedule to start this year. We have also looked at 5 other project that are similar in size and scope that we have completed in the last 5 years across the United States. We have included escalation based on our experience and what the market is forecasting until this project begins. The following is our estimated cost:

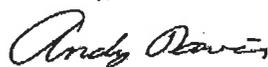
Sitework - \$4,850,000
Building Demolition - \$1,900,000
Building Construction - \$172,150,000

The above includes 3% escalation until the project begins construction.

Working with HKS Inc., this facility will be designed and built to 2009 International Building Code plus City of Memphis and Shelby County amendments as well as 2010 AIA Guidelines for Design and Construction of Health Care Facilities.

Should you have any questions or need any clarifications regarding this information above, please feel free to contact me.

Sincerely,



Andy Davis
Project Executive
Turner Construction

CC: Chuck Lane (MUH), Marty Keith (MUH), Dave Rosenbaum (MLH), Tom Briggs (HKS)

**C: Economic Feasibility
Project Cost Charts**

Equipment >\$50,000	Qty	Unit Cost	Equipment Cost
iMRI systems	1	3,959,767	3,959,767
Linear Accelerator	1	2,636,000	2,636,000
Optimize Hybrid OR Imaging	1	1,972,443	1,972,443
Skytron Surgical Lighting System	1	135,910	135,910
Maclab Hybrid OR	1	229,494	229,494
Hybrid Suite	1	230,000	230,000
Injector	1	25,000	25,000
Navigation System Allocation	1	500,000	500,000
Chemistry Analyzer	2	500,000	1,000,000
Hematology Analyzers	2	500,000	1,000,000
Automated DNA Extractor	2	500,000	1,000,000
PCR Equipment Allocation	2	500,000	1,000,000
Blood Irradiator	1	500,000	500,000
R&F Room	2	350,000	700,000
Pharmacy Carousel	3	250,000	750,000
Automated Chemistry Line	1	250,000	250,000
Automated Hematology Line	1	250,000	250,000
Immunoassay Analyzer	2	250,000	500,000
Serology Analyzer	2	250,000	500,000
Electrophoresis Analyzer	2	250,000	500,000
Cellvision Analyzer	1	250,000	250,000
Coagulation Analyzer	2	250,000	500,000
Flow Cytometer	2	250,000	500,000
iMRI Systems-Surgical Instruments	1	150,000	150,000
Anaerobic Chamber	1	150,000	150,000
Urine Analyzer	2	100,000	200,000
Dispensor, Medication	10	80,000	800,000
Centralized RO	1	60,000	60,000
Critical Care Patient Bed	30	55,000	1,650,000
Perfusion Pumps	6	50,000	300,000
OR Integration System Allocation	20	50,000	1,000,000
Video Tower Allocation	15	50,000	750,000
MRI Contrast Injector	2	50,000	100,000
Stress Test Treadmill	1	50,000	50,000
Hot Lab Hood	2	50,000	100,000
Blood Culture Analyzer	8	50,000	400,000
			\$ 24,598,614

C: Economic Feasibility (2)
Documentation of Availability of Funding

February 25, 2016**406 pm**

February 19, 2016

Melanie Hill
Executive Director
Tennessee Health Services and Development Agency
Andrew Jackson Building
502 Deaderick Street, 9th Floor
Nashville, TN 37243

Dear Ms. Hill:

This is to certify that Methodist Le Bonheur Healthcare has adequate financial resources for the Methodist Healthcare – University Hospital Onsite Replacement and Modernization project.

The applicant, Methodist Healthcare–Memphis Hospitals, is a not-for-profit corporation that operates five Shelby County hospitals under a single license. The applicant is a wholly-owned subsidiary of a broader parent organization, Methodist Le Bonheur Healthcare, which is a not-for-profit corporation with ownership and operating interests in multiple other healthcare facilities of several types in West Tennessee and North Mississippi.

The capital cost of the project is estimated at \$280,000,000. Cash is held at the corporate level. Methodist Le Bonheur Healthcare has available cash balances to commit to this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris McLean", is written over a faint, larger version of the same signature.

Chris McLean
Executive Vice President and Chief Financial Officer

**C: Economic Feasibility
Historical Chart**

OTHER REVENUE AND EXPENSES**Other Operating Revenue:**

Cafeteria
 Drugs
 Telephone rental
 Vending
 Office Rental
 Ground Transportation
 Fix Wing
 Grants
 United Way Grants
 Misc. Income

Other Expenses:

Benefits
 Repairs and Maintenance
 Professional Fees
 Contract Services
 Accounting/Auditing Fees
 Legal/Consulting Fee
 Advertising
 Dues and Subscriptions
 Education/ Travel
 Utilities
 Insurance
 Food services
 Laundry Services
 Print Shop
 Telephone
 Transcription
 Academic Support
 Contributions
 License/Accreditations Fees
 Postage/Freight
 Procurement Card Exp

Other Revenue/Expenses:

Capital Campaign Funding
 Interest Income
 Gain/Loss on Disposal of PPE

Project Data Chart**Other Operating Revenue:**

Cafeteria
 Drugs
 Gift Shop
 Telephone
 Vending
 Shared Svc
 Tuition/Student Fees
 Office Rentals
 Parking
 340b Program
 HealthSouth
 Trauma Fund
 Rental Income
 Transp (ground & fixed wing)
 Gamma Knife
 Grants
 Other

C: Economic Feasibility Projected Chart

Projected Data Chart- Other Expenses

	Year 1 2019	Year 2 2020
1 340b Program	\$ 24,434	\$ 24,554
2 Clinical Trials	\$ 564	\$ 581
3 Drugs	\$ 32,500	\$ 33,150
4 Gamma Knife	\$ 148	\$ 148
5 Grants	\$ 35	\$ 35
6 HealthSouth	\$ 649	\$ 649
7 Office Rentals	\$ 1,082	\$ 1,093
8 Rental Income	\$ 91	\$ 92
9 Tuition/Student Fees	\$ 269	\$ 274
10 Vending	\$ 143	\$ 146
11 Other	\$ 513	\$ 525
Total Other Revenue	\$ 60,428	\$ 61,247

Projected Data Chart- Other Expenses

	Year 1 2019	Year 2 2020
1 Professional Fees	\$ 19,539	\$ 19,796
2 Contract Svcs and Maint. Contracts	\$ 29,431	\$ 29,827
3 Support from Other Departments*	\$ 69,909	\$ 75,678
4 Repairs and Utilities	\$ 15,957	\$ 16,633
5 Interest Expense	\$ 1,723	\$ 1,644
6 All Other Dept. not Otherwise Assigned	\$ 49,448	\$ 47,998
Total Other Expenses	\$ 186,007	\$ 191,576

*Corp Allocation + Phys Margin

C: Economic Feasibility (10)
Financial Statements

METHODIST LE BONHEUR HEALTHCARE**BALANCE SHEET**

UNAUDITED (\$000's)

DECEMBER, 2015**CURRENT****MONTH****ASSETS:****CURRENT ASSETS:****CASH & TEMPORARY INVESTMENTS:**

UNRESTRICTED 968,233

RESTRICTED 22,304**TOTAL CASH & TEMPORARY INVESTMENTS** 990,537**ACCOUNTS RECEIVABLE:**

PATIENT 825,157

ALLOW FOR DBTFUL ACCTS & CONTR ADJ 608,806

NET PATIENT ACCOUNTS RECEIVABLE 216,351

MEDICARE / MEDICAID PROGRAMS 0

PLEDGE CAMPAIGN 3,161

OTHER 30,487**TOTAL ACCOUNTS RECEIVABLE** 249,999

INVENTORIES 30,548

PREPAID EXP & OTHER CURRENT ASSETS 10,808

ASSETS LIMITED TO USE-CURRENT PORTION 650

TOTAL CURRENT ASSETS 1,282,542

ASSETS LIMIT TO USE-LESS CURR PORTION 36,485

PROPERTY PLANT & EQUIPMENT-NET 932,838

UNAMORTIZED DEBT ISSUE COSTS 10,708

SWAPS MARKET VALUE 0

PLEDGE CAMPAIGN-LONG TERM 4,861

OTHER ASSETS 36,279**TOTAL ASSETS** 2,303,713**LIABILITIES AND NET ASSETS:****CURRENT LIABILITIES:**

ACCOUNTS PAYABLE 112,598

ACCRUED PAYROLL & PAYROLL TAXES 30,268

ACCRUED PTO 38,242

ACCRUED SELF INSURANCE COST 15,685

ACCRUED INTEREST 4,452

OTHER ACCRUED EXPENSES 3,618

MEDICARE / MEDICAID PROGRAMS 100

LONG TERM DEBT-CURRENT PORTION	17,046
TOTAL CURRENT LIABILITIES	<u>222,009</u>
LONG TERM DEBT LESS CURRENT PORTION	551,528
ACCRUED PENSION LIABILITY	112,841
HPL LONG TERM RESERVE	11,210
SWAPS MARKET VALUE	68,773
OTHER LONG TERM LIABILITIES	4,247
MINORITY INTEREST	2,190
TOTAL LIABILITIES	<u>972,798</u>
NET ASSETS:	
UNRESTRICTED	1,305,124
TEMPORARILY RESTRICTED	22,150
PERMANENTLY RESTRICTED	3,641
TOTAL NET ASSETS	<u>1,330,915</u>
TOTAL LIABILITIES AND NET ASSETS	<u>2,303,713</u>

METHODIST LE BONHEUR HEALTHCARE
INCOME STATEMENT
UNAUDITED (\$000's)
DECEMBER, 2015

Revenues

Gross patient service revenues	\$ 6,349,011
Deductions from revenue	<u>4,628,840</u>
Net patient service revenues	1,720,171
Other Operating Revenue	136,301
Other Non-Operating Revenue	(5,232)
Total revenues	<u>1,851,240</u>

Expenses

Salaries and benefits	876,744
Supplies and other	737,976
Depreciation and amortization	106,027
Interest	17,185
Other	<u>31,091</u>
Total expenses	<u>1,706,841</u>

Net Income \$ 144,399



METHODIST LE BONHEUR HEALTHCARE AND AFFILIATES

Combined Financial Statements

December 31, 2014 and 2013

(With Independent Auditors' Report Thereon)



KPMG LLP
 Triad Centre III
 Suite 450
 6070 Poplar Avenue
 Memphis, TN 38119-3901

Independent Auditors' Report

The Board of Directors
 Methodist Le Bonheur Healthcare:

We have audited the accompanying combined financial statements of Methodist Le Bonheur Healthcare and Affiliates (the System), which comprise the combined balance sheets as of December 31, 2014 and 2013, and the related combined statements of operations, changes in net assets, and cash flows for the years then ended, and the related notes to the combined financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these combined financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of combined financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these combined financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the combined financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combined financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the combined financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the combined financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the combined financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

***Opinion***

In our opinion, the combined financial statements referred to above present fairly in all material respects, the financial position of Methodist Le Bonheur Healthcare and Affiliates as of December 31, 2014 and 2013, and the results of their operations and their cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

KPMG LLP

Memphis, Tennessee
April 30, 2015

METHODIST LE BONHEUR HEALTHCARE AND AFFILIATES

Combined Balance Sheets

December 31, 2014 and 2013

(In thousands)

Assets	2014	2013
Current assets:		
Cash and cash equivalents	\$ 130,129	35,310
Investments	780,462	778,974
Assets limited as to use – current portion	766	962
Net patient accounts receivable	214,034	210,819
Other current assets	61,693	57,374
Total current assets	1,187,084	1,083,439
Assets limited as to use, less current portion	36,897	39,495
Property and equipment, net	901,383	901,227
Other assets	59,036	60,639
Total assets	\$ 2,184,400	2,084,800
Liabilities and Net Assets		
Current liabilities:		
Accounts payable	\$ 53,585	65,912
Accrued expenses and other current liabilities	101,698	93,486
Due to third-party payors	43,629	13,551
Long-term debt – current portion	15,464	15,637
Total current liabilities	214,376	188,586
Long-term debt, less current portion	568,599	584,454
Estimated professional and general liability costs	18,511	17,304
Accrued pension cost	118,512	49,328
Other long-term liabilities	73,927	55,694
Total liabilities	993,925	895,366
Net assets:		
Unrestricted	1,159,676	1,158,133
Temporarily restricted	24,597	23,103
Permanently restricted	3,704	3,504
Total net assets attributable to Methodist Le Bonheur Healthcare	1,187,977	1,184,740
Noncontrolling interests	2,498	4,694
Total net assets	1,190,475	1,189,434
Commitments and contingencies		
Total liabilities and net assets	\$ 2,184,400	2,084,800

See accompanying notes to combined financial statements.

METHODIST LE BONHEUR HEALTHCARE AND AFFILIATES

Combined Statements of Operations

Years ended December 31, 2014 and 2013

(In thousands)

	<u>2014</u>	<u>2013</u>
Unrestricted revenues and other support:		
Net patient service revenue	\$ 1,721,566	1,653,966
Provision for uncollectible accounts	(155,629)	(154,171)
Net patient service revenue less provision for uncollectible accounts	<u>1,565,937</u>	<u>1,499,795</u>
Other revenue	87,499	69,719
Net assets released from restrictions used for operations	<u>12,154</u>	<u>12,781</u>
Total unrestricted revenues and other support	<u>1,665,590</u>	<u>1,582,295</u>
Expenses:		
Salaries and benefits	817,920	773,377
Supplies and other	661,492	634,842
Depreciation and amortization	102,826	89,108
Interest	<u>26,798</u>	<u>25,874</u>
Total expenses	<u>1,609,036</u>	<u>1,523,201</u>
Operating income	<u>56,554</u>	<u>59,094</u>
Nonoperating gains (losses):		
Investment income, net	36,555	40,979
Change in fair value of interest rate swaps	(20,524)	33,256
Unrealized gain on trading securities, net	5,653	39,536
Impairment of land	<u>(882)</u>	<u>—</u>
Total nonoperating gains, net	<u>20,802</u>	<u>113,771</u>
Revenues, gains and other support in excess of expenses and losses, before noncontrolling interests	<u>77,356</u>	<u>172,865</u>
Noncontrolling interests	<u>(1,548)</u>	<u>(1,646)</u>
Revenues, gains and other support in excess of expenses and losses	<u>75,808</u>	<u>171,219</u>
Other changes in unrestricted net assets:		
Accrued pension cost adjustments	(75,385)	133,080
Other	—	42
Net assets released from restrictions used for capital purposes	<u>1,120</u>	<u>1,653</u>
Increase in unrestricted net assets	<u>\$ 1,543</u>	<u>305,994</u>

See accompanying notes to combined financial statements.

METHODIST LE BONHEUR HEALTHCARE AND AFFILIATES

Combined Statements of Changes in Net Assets

Years ended December 31, 2014 and 2013

(In thousands)

	Unrestricted	Temporarily restricted	Permanently restricted	Noncontrolling interests	Total
Balances at December 31, 2012	\$ 852,139	20,282	3,351	4,722	880,494
Revenues, gains and other support in excess of expenses and losses	171,219	—	—	1,646	172,865
Distributions to minority shareholders	—	—	—	(1,674)	(1,674)
Accrued pension cost adjustments	133,080	—	—	—	133,080
Other	42	—	—	—	42
Donor-restricted gifts, grants, and bequests	—	16,432	153	—	16,585
Investment income, net	—	823	—	—	823
Net assets released from restrictions used for operations	—	(12,781)	—	—	(12,781)
Net assets released from restrictions used for capital purposes	1,653	(1,653)	—	—	—
Change in net assets	305,994	2,821	153	(28)	308,940
Balances at December 31, 2013	1,158,133	23,103	3,504	4,694	1,189,434
Revenues, gains and other support in excess of expenses and losses	75,808	—	—	1,548	77,356
Distributions to minority shareholders	—	—	—	(3,744)	(3,744)
Accrued pension cost adjustments	(75,385)	—	—	—	(75,385)
Donor-restricted gifts, grants, and bequests	—	14,138	200	—	14,338
Investment income, net	—	630	—	—	630
Net assets released from restrictions used for operations	—	(12,154)	—	—	(12,154)
Net assets released from restrictions used for capital purposes	1,120	(1,120)	—	—	—
Change in net assets	1,543	1,494	200	(2,196)	1,041
Balances at December 31, 2014	\$ 1,159,676	24,597	3,704	2,498	1,190,475

See accompanying notes to combined financial statements.

METHODIST LE BONHEUR HEALTHCARE AND AFFILIATES

Combined Statements of Cash Flows

Years ended December 31, 2014 and 2013

(In thousands)

	<u>2014</u>	<u>2013</u>
Cash flows from operating activities:		
Change in net assets	\$ 1,041	308,940
Adjustments to reconcile change in net assets to net cash provided by operating activities, net of effects of acquisitions:		
Depreciation and amortization	102,826	89,108
Unrealized and realized gains on trading securities, net	(17,856)	(56,177)
Change in fair value of interest rate swaps	20,524	(33,256)
Provision for uncollectible accounts	155,629	154,171
Restricted contributions and investment income	(993)	(1,142)
Equity in net income (loss) of equity investees	4,238	(1,668)
Impairment of land	882	—
Gain on disposal of property and equipment	(127)	45
Accrued pension cost adjustments	75,385	(133,080)
Changes in operating assets and liabilities:		
Accounts receivable	(158,844)	(174,888)
Other current assets	(4,195)	(7,708)
Other assets	(4,085)	(5,091)
Accounts payable, accrued expenses and due to third-party payors	30,559	6,114
Other long-term liabilities, estimated professional and general liability costs and accrued pension costs	(7,285)	(22,770)
Net cash provided by operating activities	<u>197,699</u>	<u>122,598</u>
Cash flows from investing activities:		
Capital expenditures	(108,093)	(166,824)
Proceeds from sales of property and equipment	967	245
Sales of investments and assets limited as to use	1,283,430	1,422,011
Purchases of investments and assets limited as to use	(1,264,268)	(1,397,359)
Purchase of businesses	(624)	(2,521)
Net cash used in investing activities	<u>(88,588)</u>	<u>(144,448)</u>
Cash flows from financing activities:		
Proceeds from issuance of long-term debt	423	—
Repayment of long-term debt	(15,708)	(15,659)
Restricted contributions and investment income	993	1,142
Net cash used in financing activities	<u>(14,292)</u>	<u>(14,517)</u>
Net increase (decrease) in cash and cash equivalents	94,819	(36,367)
Cash and cash equivalents at beginning of year	<u>35,310</u>	<u>71,677</u>
Cash and cash equivalents at end of year	\$ <u>130,129</u>	<u>35,310</u>

See accompanying notes to combined financial statements.

C: Orderly Development (1)
List of Managed Care Contracts

SCHEDULE N - HEALTH CARE PLANS ACCEPTED*

The Health Consumer Right-to-Know Act of 1998 which was signed by Governor Sunquist in May, 1998 requires hospitals to report to the Department of Health "health care plans accepted by the hospital" as well as a variety of information that is included in earlier schedules of the Joint Annual Report. In order to allow the Joint Annual Report to meet the entire reporting requirement described in this act, please list all health insurance plans with which you currently - as of the last day of this reporting period - have a valid contract. List each plan separately not just the name of the company. For example, if you have contracts to provide services to individuals enrolled in Blue Choice and Blue Preferred, list both plans and do not only list Blue Cross & Blue Shield of Tennessee.

Plans:

Ace Pump	United Healthcare
American Healthcare Alliance	United Healthcare Americhoice (TennCare)
AR BCBS Exchange	United Healthcare Secure Horizons (Medicare Advantage)
AR BCBS First Source	United Healthcare SNP
AR BCBS True Blue PPO	
AR BCBS Health Advantage HMO	
AR BCBS MedPak (Medicare Advantage)	
Arkansas Higher Education Consortium	
Arkansas Managed Care Organization	
Arkansas State Police	
Assurant Health	
BCBSTN BlueCare/TennCare Select	
BCBSTN Medicare Advantage	
BCBSTN Network E - Exchange	
BCBSTN Network P	
BCBSTN Network S	
Cigna HMO	
Cigna PPO	
Cigna Managed Care (Flex)	
Cigna Exclusive PPO	
Cigna Exchange	
City of Dyersburg	
CorVel Corporation - Work Comp	
HealthSCOPE Benefits Inc	
HealthSpring (Medicare Advantage HMO)	
Macnolia Health Plan - MS CAN	
Methodist LeBonheur Health Care	
Municipal Health Benefit Fund	
North Mississippi Health Link Inc	
North Mississippi Health Service Employee Health Plan	
NovaNet Inc	
NovaNet Work Comp	
Prime Health Services Inc - Work Comp	
Razorback Concrete	
SHARP PHO	

C: Orderly Development (7) (d) (1)
TDH Licensure Survey and Plan of Correction

FEB 22 2008



STATE OF TENNESSEE
DEPARTMENT OF HEALTH
WEST TENNESSEE HEALTH CARE FACILITIES
7618 AIRWAYS BOULEVARD
JACKSON, TENNESSEE 38001-3203

February 13, 2008

Ms. Peggy Troy, Administrator
Memphis Healthcare Memphis Hospitals
1211 Union Avenue, Ste 700
Memphis, TN 38104

RE: Licensure Surveys

Dear Ms. Troy:

On January 17, 2008, licensure surveys were completed at your facility. Your plans of correction for these surveys have been received and were found to be acceptable.

Thank you for the consideration shown during this survey.

Sincerely,

Celia S. Kelley
Celia Skelley, MEd, RN
Public Health Nurse Consultant 2

CES/TJW

FEB -4 2008



STATE OF TENNESSEE
DEPARTMENT OF HEALTH
WEST TENNESSEE HEALTH CARE FACILITIES
7810 AIRWAYS BOULEVARD
JACKSON, TENNESSEE 38301-3203

January 29, 2008

Ms. Peggy Troy, Administrator
Methodist Healthcare Memphis Hospitals
1211 Union Avenue, Ste 700
Memphis, TN 38104

RE: Licensure Surveys

Dear Ms. Troy:

Enclosed is the statement of deficiencies for the licensure surveys completed at your facility on January 17, 2008. Based upon 1200-8-1, you are asked to submit an acceptable plan of correction for achieving compliance with completion dates and signature within ten (10) days from the date of this letter.

Please address each deficiency separately with positive and specific statements advising this office of a plan of correction that includes acceptable time schedule, which will lead to the correction of the cited deficiencies. Enter on the right side of the State Form, opposite the deficiencies, your planned action to correct the deficiencies and the expected completion date. The completion date can be no longer than 45 days from the day of survey. Before the plan can be considered "acceptable," it must be signed and dated by the administrator.

Your plan of correction must contain the following:

- > How the deficiency will be corrected;
- > How the facility will prevent the same deficiency from recurring;
- > The date the deficiency will be corrected;
- > How ongoing compliance will be monitored.

Please be advised that under the disclosure of survey information provisions, the Statement of Deficiencies will be available to the public.

If assistance is needed, please feel free to call me at 731-421-5113.

Sincerely,

Celia Skelley, MSN, RN
Public Health Consultant Nurse 2

CS/TW

STATEMENT OF DEFICIENCIES AND PLAN OF CORRECTION		(X1) PROVIDER/SUPPLIER/CLIA IDENTIFICATION NUMBER: TNP531100	(X2) MULTIPLE CONSTRUCTION: A. BUILDING _____ B. WING _____	(X3) DATE SURVEY COMPLETED 01/27/2008
NAME OF PROVIDER OR SUPPLIER METHODIST HEALTHCARE MEMPHIS HOSPT		STREET ADDRESS, CITY, STATE, ZIP CODE 1265 UNION AVE SUITE 700 MEMPHIS, TN 38104		
(X4) ID PREFIX TAG	SUMMARY STATEMENT OF DEFICIENCIES (EACH DEFICIENCY MUST BE PRECEDED BY FULL REGULATORY OR LSC IDENTIFYING INFORMATION)	ID PREFIX TAG	PROVIDER'S PLAN OF CORRECTION (EACH CORRECTIVE ACTION SHOULD BE CROSS-REFERENCED TO THE APPROPRIATE DEFICIENCY)	(X5) COMPLETE DATE
H 732	1200-B-1-.06 (9)(b) Basic Hospital Functions (9) Food and Dietetic Services. (b) The hospital must designate a person to serve as the food and dietetic services director with responsibility for the daily management of the dietary services. The food and dietetic services director shall be: 1. A dietitian; or 2. A graduate of a dietetic technician or dietetic assistant training program, correspondence or classroom, approved by the American Dietetic Association; or 3. A graduate of a state-approved course that provided ninety (90) or more hours of classroom instruction in food service supervision and has experience as a food service supervisor in a health care institution with consultation from a qualified dietitian. This Rule is not met as evidenced by: Based on review of the hospital's food service contract of licensure regulations, of personnel files and interviews it was determined the facility failed to meet licensure qualification requirements for 3 of 5 facility Food Service Directors (Facility # 1, 2, and 3) under the hospital license and to follow these State Hospital Regulations. The findings included: 1. Review of the hospital contract for dietary services revealed the following documentation under Article 4 - Compliance with laws: *4.1 Compliance. (The food service contract	H 732	Basic Hospital Functions Qualified Intelim Food and Nutrition Services Director has been named for Methodist Le Bonheur Children's Medical Center, Methodist North Hospital and Methodist South Hospital. The Food and Nutrition Services Director job description has been revised to require one of the following: 1) a dietitian; or 2) a graduate of a dietetic technician or dietetic assistant training program, correspondence or classroom, approved by the American Dietetic Association; or 3) a graduate of a state-approved course that provided ninety (90) or more hours of classroom instruction in food service supervision and has experience as a food service supervisor in a health care institution with consultation from a qualified dietitian. Food and Nutrition Services Director positions have been posted and recruitment will continue to permanently fill the positions.	02/29/08

Division of Health Care Facilities

TITLE

(Date) DATE

LABORATORY DIRECTOR'S OR PROVIDER/SUPPLIER REPRESENTATIVE'S SIGNATURE

STATE FORM

01/31/11

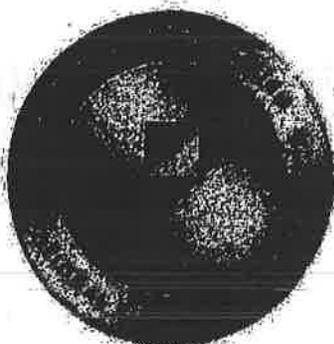
11-Contractual Form 1 of 2

STATEMENT OF DEFICIENCIES AND PLAN OF CORRECTION		(X1) PROVIDER/SUPPLIER/CLIA IDENTIFICATION NUMBER: TNP831408	(X2) MULTIPLE CONSTRUCTION: A. BUILDING: _____ B. WING: _____	(X3) DATE SURVEY COMPLETED 01/17/2008
NAME OF PROVIDER OR SUPPLIER METHODIST HEALTHCARE MEMPHIS HOSPIT		STREET ADDRESS, CITY, STATE, ZIP CODE 1255 UNION AVE SUITE 700 MEMPHIS, TN 38104		
DEFICIT PREFIX NO.	SUMMARY STATEMENT OF DEFICIENCY (EACH DEFICIENCY MUST BE PRECEDED BY FULL REGULATORY OR LSC IDENTIFYING INFORMATION)	IF PREFIX TAG	PROVIDER'S PLAN OF CORRECTION (EACH CORRECTIVE ACTION SHOULD BE CROSS-REFERENCED TO THE APPROPRIATE DEFICIENCY)	IFSI COMPLETE DATE
H-732	Continued From page 1 company and the System agree to comply with all applicable laws, rules and regulations". 2. Review of personnel files for the Food Services Directors at Facilities 1, 2 and 3, failed to show they met the licensure regulations for a food service director. During an interview on 1/14/08, at 10:30 AM, the Food Service Director for Facility #1 confirmed he/she did not have the qualifications to meet the licensure regulation. During an interview on 1/15/08, at 9:30 AM, the Food Service Director for Facility #2 confirmed he/she did not have the qualifications to meet the licensure regulation. During an interview on 1/16/08, at 1:30 PM, the Hospital Clinical Risk Management Director was unable to provide documentation that the Food Service Directors from Facility 1, 2 or 3 met these Licensure Regulations.	H 732	Continued from page 1 A check off sheet will be utilized to ensure that before an individual is offered a position as Food and Nutrition Director at any facility in Methodist Le Bonheur Healthcare, the above qualifications are met and one of the following is provided to the HR Recruiter and/or Regional Director of Operations: 1) Copy of CDR Registered Dietitian card, or 2) Copy of CDR Registered Dietetic Technician card, or 3) Copy of certificate of graduation from a state approved GDM class. There will be three (3) required levels of approval for each candidate that is chosen for the food and dietetic services director position at Methodist Le Bonheur Healthcare: 1) Regional Director of Operations with Morrison 2) Regional Vice President with Morrison 3) Methodist Le Bonheur Healthcare Facility Administrative Liaison or the Methodist Le Bonheur Healthcare Facility Human Resource Director. The dietary department will be included in the quarterly Human Resource Department audit. The facility liaison Director at each facility will review the personnel files on an annual basis and at time of new hire.	

C: Orderly Development (7) (d) (2)
JCAHO Accreditation and Survey Summary

Methodist Healthcare Memphis Hospitals Memphis, TN

has been Accredited by



The Joint Commission

Which has surveyed this organization and found it to meet the requirements for the

Hospital Accreditation Program

April 20, 2013

Accreditation is customarily valid for up to 36 months.


Rebecca P. Parker, MD
Chair, Board of Commissioners

Organization ID #: 7574
Print/Reprint Date: 06/19/13


Mark R. Chassin, MD, FACP, MPP, MPH
President

The Joint Commission is an independent, not-for-profit, national body that oversees the safety and quality of health care and other services provided in accredited organizations. Information about accredited organizations may be provided directly to The Joint Commission at 1-800-994-6610. Information regarding accreditation and the accreditation performance of individual organizations can be obtained through The Joint Commission's web site at www.jointcommission.org.



This reproduction of the original accreditation certificate has been issued for use in regulatory/payer agency verification of accreditation by The Joint Commission. Please consult Quality Check on The Joint Commission's website to confirm the organization's current accreditation status and for a listing of its organization's locations of care.



June 11, 2013

Re: # 7874

CCN: #440049

Program: Hospital

Accreditation Expiration Date: April 20, 2016

Gary S. Shorb
 President/CEO
 Methodist Healthcare Memphis Hospitals
 1211 Union Avenue
 Memphis, Tennessee 38104

Dear Mr. Shorb:

This letter confirms that your April 15, 2013 - April 19, 2013 unannounced full resurvey was conducted for the purposes of assessing compliance with the Medicare conditions for hospitals through The Joint Commission's deemed status survey process.

Based upon the submission of your evidence of standards compliance on June 03, 2013 and June 04, 2013, the areas of deficiency listed below have been removed. The Joint Commission is granting your organization an accreditation decision of Accredited with an effective date of April 20, 2013. We congratulate you on your effective resolution of these deficiencies.

§482.11 Compliance with Federal, State and Local Laws
 §482.13 Patient's Rights
 §482.25 Pharmaceutical Services
 §482.41 Physical Environment
 §482.51 Surgical Services

The Joint Commission is also recommending your organization for continued Medicare certification effective April 20, 2013. Please note that the Centers for Medicare and Medicaid Services (CMS) Regional Office (RO) makes the final determination regarding your Medicare participation and the effective date of participation in accordance with the regulations at 42 CFR 489.13. Your organization is encouraged to share a copy of this Medicare recommendation letter with your State Survey Agency.

This recommendation applies to the following location(s):

Breast Diagnostic Center - Germantown
 7945 Wolf River Blvd., Germantown, TN, 38138

Cardiovascular Outpatient Diagnostic Center
 7460 Wolf River Blvd., Germantown, TN, 38138

www.jointcommission.org

Headquarters
 One Renaissance Boulevard
 Oakbrook Terrace, IL 60181
 630 792 5000 Voice



Le Bonheur Children's Hospital
848 Adams, Memphis, TN, 38103

Le Bonheur Children's Hospital Audiology
7945 Wolf River Blvd., Germantown, TN, 38138

Le Bonheur Cordova Urgent Care
8035 Club Parkway, Cordova, TN, 38018

Le Bonheur East Diagnostic Center
806 Estate Place, Memphis, TN, 38120

Le Bonheur Urgent Care at Hacks Cross
8071 Winchester Rd., Ste. 2, Memphis, TN, 38125

Le Bonheur Urgent Care East
806 Estate Place, Memphis, TN, 38120

Methodist Comprehensive Wound Healing Center
1251 Wesley Drive, Suite 107, Memphis, TN, 38116

Methodist Diagnostic Center Germantown
1377 South Germantown Rd., Germantown, TN, 38138

Methodist Germantown Radiation Oncology Center
1381 South Germantown Rd., Germantown, TN, 38138

Methodist Healthcare Outpatient Services
100 North Humphreys Blvd., Memphis, TN, 38120

Methodist Healthcare Outpatient Services
1588 Union, Memphis, TN, 38104

Methodist Healthcare Outpatient Services
240 Grandview Drive, Brighton, TN, 38011

Methodist Le Bonheur Germantown Hospital
7691 Poplar Avenue, Germantown, TN, 38138

Methodist North Hospital
3960 New Covington Pike, Memphis, TN, 38128

Methodist Sleep Disorders Center
5050 Poplar Suite 300, Memphis, TN, 38114

www.jointcommission.org

Headquarters
One Renaissance Boulevard
Oakbrook Terrace, IL 60151
630 792 5000 Voice



Methodist South Hospital
1300 Wesley Drive, Memphis, TN, 38116

Methodist University Hospital
1265 Union Avenue, Memphis, TN, 38104

MHMH GI Lab - Southwind
3725 Champion Hills Drive, Memphis, TN, 38125

Midtown Diagnostic Center
1801 Union Ave, Memphis, TN, 38104

North Comprehensive Wound Healing Center
3950 New Covington Pike, Memphis, TN, 38128

We direct your attention to some important Joint Commission policies. First, your Medicare report is publicly accessible as required by the Joint Commission's agreement with the Centers for Medicare and Medicaid Services. Second, Joint Commission policy requires that you inform us of any changes in the name or ownership of your organization, or health care services you provide.

Sincerely,

Mark G. Pelletier, RN, MS
Chief Operating Officer
Division of Accreditation and Certification Operations

cc: CMS/Central Office/Survey & Certification Group/Division of Acute Care Services
CMS/Regional Office 4 /Survey and Certification Staff

Supplemental #1 -COPY-

Methodist Healthcare
Memphis Hospitals

CN1602-009

**METHODIST HEALTHCARE—
MEMPHIS HOSPITALS**

**SUPPLEMENTAL RESPONSE
CN1602-009**

**ONSITE REPLACEMENT AND
MODERNIZATION OF THE
METHODIST UNIVERSITY
HOSPITAL CAMPUS**

MEMPHIS, SHELBY COUNTY

Filed February 2016

February 25, 2016**406 pm****1. Section A, Item 9 (Bed Complement)**

As noted, the applicant's owner Methodist Healthcare-Memphis Hospitals, owns five primary hospitals in Shelby County that operate under the 1,583 bed combined license of Methodist University Hospital issued by the Tennessee Department of Health.

Please also provide a bed complement table with breakout of beds by service for the 1,583 total combined licensed beds of Methodist University Hospital.

In your response, please complete the table below.

Please see the charts below for the Methodist Healthcare-Memphis Hospital licensed and staffed beds by site and by site by service.

Methodist University Hospital-Main and Satellite Campuses

Hospital	Address	Distance from Main hospital campus	Licensed Beds	Staffed Beds	CON Approved and unimplemented beds
Methodist University	1211-1265 Union Ave Memphis, TN 38104	0	617	472	0
Methodist Germantown	7691 Poplar Ave Germantown, TN 38138	12.9	309	309	0
Methodist North	3960 New Covington Pike Memphis, TN 38128	12.6	246	222	0
Methodist South	1300 Wesley Drive Memphis, TN 38116	8.2	156	143	0
LeBonheur Children's	848 Adams Memphis, TN 38103	1.2	255	250	0
Total		NA	1,583	1,396	0

**Methodist University Hospital-Main and Satellite Campuses
Current Licensed and Staffed Beds by Service Type**

Licensed / Staffed Beds	Med-Surg Adult	Med-Surg Peds	ICU/CCU (incl peds)	Obstetrics	NICU	Psych	Total
	Licensed Beds / Staffed Beds						
Methodist University	511 / 366	0 / 0	72 / 72	0 / 0	0 / 0	34 / 34	617 / 472
Methodist Germantown	195 / 195	12 / 12	32 / 32	46 / 46	24 / 24	0 / 0	309 / 309
Methodist North	210 / 186	0 / 0	36 / 36	0 / 0	0 / 0	0 / 0	246 / 222
Methodist South	120 / 107	0 / 0	16 / 16	14 / 14	6 / 6	0 / 0	156 / 143
LeBonheur Children's	0 / 0	159 / 156	36 / 34	0 / 0	60 / 60	0 / 0	255 / 250
Total	1036 / 854	171 / 168	192 / 190	60 / 60	90 / 90	34 / 34	1583/1396

February 25, 2016

2. Section B, Project Description, Item I (Executive Summary) 4:06 pm
The description of the onsite replacement and modernization project on the campus of Methodist University Hospital is noted.

Please briefly describe the relationship, if any, this project has to other recently CON approved Methodist Healthcare-Memphis Hospitals projects such as Methodist University Hospital, CN1208-041A for the replacement and relocation of the applicant's ED and the West Cancer Center, CN1311-043A for the construction of a comprehensive cancer center to be operated as an outpatient department under the applicant's license.

Methodist Le Bonheur Healthcare's mission is to partner with its medical staffs and collaborate with its patients and families to be the leader in high quality, cost effective healthcare in all sectors of the Greater Memphis-Shelby County service area. Methodist Healthcare has strategically placed and maintained hospitals and ambulatory facilities in all quadrants of Shelby County as part of that mission, to provide multiple entry points to acute care for communities of varied social and economic characteristics. Methodist University Hospital is the system's tertiary academic medical center located in the center of the service area in downtown Memphis. This campus renovation project and the Methodist University ED project (CN1208-041A) are both investments in the downtown academic presence.

The projects are related. The proposed project is the next phase of the master plan for the campus. The new Methodist University ED opened in September 2014, and ED volumes have increased slightly more than original projections. With the increase in volumes, there have also been higher levels of acuity for patients admitted through the ED which has driven the need for more critical care beds. Patient flow from the ED to the critical care units is delayed by the lack of beds. As noted in the application, Methodist University has experienced a growth in number of patients being held in the ED as well as an increase in wait times. Again, patient experience suffers along with the delays and inefficiencies related to lack of capacity.

Methodist University is the core teaching hospital for University of Tennessee Health Science Center. The hospital's academic focus offers highly specialized services for complex diseases, illnesses, and injuries, develops technology, and carries out research to improve lives. The regional and national outreach of the academic programs is shifting the need for more intensive medical capacity and need for a state-of-the-art facility. The proposed project converts medical-surgical beds to critical care beds and addresses other patient flow issues with the relocation and consolidation of services in the new patient tower.

The West Cancer Center project CN1311-043A is also related to the proposed project. The integration of cancer care and the process of multidisciplinary patient care is the most progressive and successive clinical method to fight cancer for patients. The development of the West Cancer Center sites - this project in downtown Memphis and the new comprehensive center that just opened in Germantown - is a continued pursuit by Methodist Le Bonheur Healthcare to allow patients to fight on at home. The need for patients to travel or leave home to access clinical trials, state-of-the-art care medicines, state-of-the-art radiation oncology care, and true multidisciplinary care will be eliminated with the integrated cancer projects

The integrated cancer facilities within the new Methodist University Hospital campus will be complimentary and integrated with the West Cancer Center in east Shelby County in Germantown, Tennessee. Patients,

February 25, 2016

regardless of geography and or demographics will receive ~~400~~ same oncology care throughout the county and surrounding tristate area. Not just the same care by individual physician providers but the same care by the entire Methodist system. Access will increase for patients all across the service area.

Both sites will have integrated operations and a single patient EMR specialized just for oncology patients. Any new presenting patients will go through an integrated tumor / conference board treatment planning process, and then, if necessary referred to a multidisciplinary clinic where the patients sees multiple providers in one setting to discuss and set the oncology treatment plan. This includes; medical, surgical, radiation, and care support services. The comprehensive delivery of cancer care services improves the cancer journey for the patient and their family.

In your response, please also provide a brief update of the 2 projects and the expected date of project completion.

The Methodist University Hospital ED Replacement and Relocation project (CN1208-041A) was opened September 2014. As noted in the Final Project Report that was filed July 2015, there were final change orders that continued through May 2015. Please see Attachment 2 for the Final Report that was filed.

The West Cancer Center in Germantown, Tennessee (CN1311-043A) celebrated the grand opening of the new comprehensive center on November 17, 2015. The integrated services in the new center were opened for operation in December 2015. There is a final State inspection being scheduled for the last phase of the renovations. If the State can inspect in March or April, then final paper work will wrap up in May and June. The Final Project Report is expected to be filed by July 2016.

3. Section B, Project Description, Item II.A and II.E

Item II.A - The Square Footage Chart is noted. To complement the description and chart pertaining to the proposed patient care units in the New Tower as well as the location of all inpatient beds on the campus, please complete the table below.

February 25, 2016

Hospital Floor	Current Unit Type	Number of Beds (Licensed /Staffed)	# Rooms Private, Semi-Pvt, Other	Proposed Unit Type	Number of Beds (Licensed /Staffed)	# Rooms Private, Semi-Pvt, Other
Thomas 2	M/S Medicine	24 / 21	Private		Relocate	
Thomas 6	M/S Neuro	21 / 0	Private	M/S Neuro	14 / 0 7 relocate (6 ICU & 1 M/S)	Private
Thomas 7	M/S Surgical	22 / 0	Private		Relocate Convert to ICU	
Thomas 8	M/S Respiratory	19 / 0	Private	M/S Respiratory	19 / 0	Private
Thomas 10	M/S Transplant	15 / 15	Private		Relocate	
Thomas 11	M/S Renal	18 / 18	Private		Relocate	
Thomas 13	M/S Medicine	21 / 21	Private		Relocate	
East 2	M/S Surgical	14 / 0	Private	M/S Surgical	14 / 0	Private
East 4	ICU Medicine	8 / 8	Private		Relocate	Private
East 5	M/S	18 / 0	Private	M/S	18 / 0	Private
East 6	M/S Neuro Stroke	20 / 0	Private	M/S Neuro Stroke	20 / 0	Private
East 7	ICU Transplant	8 / 8	Private		Relocate	
East 9	M/S General	20 / 0	Private	M/S General	20 / 0	Private
East 10	M/S Transplant	20 / 16	Private		Relocate	
Crews 2	M/S Cancer	23 / 23	Private		Relocate	
Crews 4	M/S Cancer	10 / 10	Private		Relocate	
Crews 4	M/S Cancer	12 / 12	Private		Relocate	
Crews 8	Psych	34 / 34	Private	Thomas 12 & 13	34	Private
Sherard 2	ICU-CV	16 / 16	Private		Relocate	
Tower 4	ICU Medicine	16 / 16	Private	ICU Medicine	16 / 16	Private
Tower 4	ICU Surgical	8 / 8	Private	ICU Surgical	8 / 8	Private
Tower 4	ICU Neuro	16 / 16	Private	ICU Neuro	16 / 16	Private
Tower 5	M/S Cardiac	48 / 48	Private	M/S Cardiac	48 / 48	Private
Tower 6	M/S Cardiac/Gen	48 / 46	Private	M/S Cardiac/Gen	48 / 46	Private
Tower 7	M/S Cardiac	46 / 46	Private	M/S Cardiac	46 / 46	Private
Tower 8	M/S Medicine	48 / 46	Private	M/S Medicine	48 / 46	Private
Tower 9	M/S Neuro	44 / 44	Private	M/S Neuro	44 / 24	Private
New Tower 5	ICU	New			30 / 30	Private
New Tower 6	ICU	New			30 / 30	Private
New Tower 7	M/S	New			36 / 36	Private
New Tower 8	M/S	New			36 / 36	Private
New Tower 9	M/S	New			36 / 36	Private
New Tower 10	M/S	New			36 / 36	Private
Total		617/472			617/ 488	

**HSDA staff was unsure whether or not Security Hold Rooms are included in the project? Please confirm.*

With respect to the design of the patient rooms, what is the AIA recommended patient room size for the hospital and how does it compare to existing room sizes of the hospital?

The AIA recommended patient room size is 325 square feet (sf). The patient rooms on the current Methodist University campus range from 180 sf to 250 sf. The proposed new patient tower will consist of larger rooms between 300-325 sf.

Based on the SF Chart and comments on page 8 regarding areas to be renovated, it appears 10% of the 470,000 total SF construction project involve

February 25, 2016

renovations to existing areas. Please briefly summarize 406 identifying the areas to be renovated and overriding rationale for same.

Methodist University proposes to relocate the majority of direct patient care services including nursing units from the oldest buildings on campus - Thomas, East and Sherard - to the new patient tower. The master plan identified the need to vacate this space in the older buildings and retain it for future growth for academic and research functions. As plans are developed, Methodist will submit all requests for CON approval if needed.

There are a few floors in these buildings which will be renovated as part of this project including the space for the relocation of Psych beds to 12 and 13 Thomas (22,000 sf) from Crews - which is slated to be demolished. The Lab will also be relocated to 3 Sherard in renovated space (16,500 sf). Then there is 10,500 sf of space needed for administrative/support functions which are relocating to 10 Thomas.

The applicant states on page 8 that the older buildings will be recycled and refurbished for patient education, resident education, support services and administrative functions. In addition to buildings that will be demolished, are there any older buildings that will be vacated and reserved for future plans? Please clarify.

The next response will cover both questions.

If this project were approved and a CON application was subsequently filed for additional beds at a later date, based on the design of the proposed facility, how disruptive would future expansion be to the operations of the facility?

As discussed in the application, Methodist assessed the physical condition of each building on the main campus as part of the master planning process. The assessment included the evaluation of structural, mechanical, and electrical components as well as the age, presence of asbestos and overall functionality. The physical plant alone warrants the need for the project.

In this view which was included in the application, the assessment of the building conditions shows the two prime corners on Union Avenue are occupied by the lowest ranking buildings, Thomas and Crews. Long term plans call for future campus development to focus on the anchoring buildings. This project relocates direct patient care to the anchoring buildings and the new patient tower to modernize the campus and establish a sustainable foundation for the system's academic medical center, Methodist University Hospital.



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This additional image shows potential plans for ambulatory growth on the west side of the campus across from the main and ED entrances (shown in red box) as well as a viable site for another patient tower parallel to the new patient tower proposed with this project. The oldest buildings on the east side of campus (highlighted with the large blue box) are marked as a redevelopment zone. The master plans were designed to minimize disruption to patient care and facility operations while planning for sustainability. These are longer term options which will follow CON guidelines and requirements as needed.



Item II.E (Major Medical Equipment)

Number of Existing units before and after project completion (1.a) - In addition to the detailed description on pages 14 and 15, please also briefly summarize the changes to the applicant's MRI, and Linear Accelerator and PET/CT equipment inventory by identifying the number of units as of 02/01/2016 and at project completion (Year 1 of project). Please show the inventory in the table below.

Methodist University Hospital Major Medical Equipment Inventory*

Medical Equipment Units	Methodist University		Methodist Germantown		Methodist North		Methodist South		LeBonheur Children's	
	Now	Year1	Now	Year1	Now	Year1	Now	Year1	Now	Year1
Linear Accelerator	2	3	0	0	0	0	0	0	0	0
MRI ¹	3	4	2	2	2	2	1	1	3	4
PET/CT ²	0	1	0	0	0	0	0	0	0	0
Total	5	8	2	2	2	2	1	1	3	4

¹ Le Bonheur Children's Hospital has two MRIs and one iMRI for a total of three at the hospital campus downtown. The Le Bonheur Outpatient Center (CN1311-042A) which will be an outpatient department of the hospital is expected to open in 2016 with an approved MRI for pediatric scans. This center is over 10 miles away from campus in the eastern part of the county.

Methodist University is proposing to add an iMRI to the existing service line for use in the OR.

² The Methodist hospital-based PET/CT is currently located in the West Clinic on Union Avenue. The unit at West Clinic on Union will relocate to the Methodist University Campus. See the additional chart below for West Cancer Center below to clarify

**Note: for each hospital, please identify #Existing/#at Completion)*

The chart for West Cancer Center equipment is also included since this is all Methodist hospital-based equipment.

Medical Equipment Units	West Cancer Center Germantown		West Clinic Downtown (Union Ave)	
	Now	Year1	Now	Year1
Linear Accelerator	2	2	0	0
MRI	1	1	0	0
PET/CT ¹	1	1	1	0
Total	4	4	1	0

¹ The PET/CT at West on Union will relocate Methodist University as part of this project.

Medical Equipment Purchase Costs (3) - The table showing the vendor quotes for the base cost of the units with service agreement costs is noted. Review of the documentation in the attachment revealed that none of the quotes will be effective on the hearing of the application by the HSDA Board Members in May 2016. Please revise or provide an addendum to extend the effective dates through May 2016.

Additionally, there appears to be no documentation that confirms the quotes for the service agreement costs of the 3.0 Tesla MRI unit and the Elekta Radiation Therapy unit. Please document in the form of an addendum to the quotes or a letter from the vendors that identifies the term and cost of the service agreements.

Please see the revised chart from the filed application below for reference. Please see Attachment 3A for revised quotes from vendors with extended effective dates and service agreements for supporting documentation.

Also, please note that as Methodist works with vendors to negotiate prices that costs may decrease. This is already the case for the Linear Accelerator. See revised pages and schedules due to the reduction in vendor price from \$2,636,000 to \$2,400,000. See Attachment 3B for the revised pages for the filed application. Project costs remain the same since these are estimates for major moveable equipment and the savings will be equipment contingency.

Equipment Type	Equipment	Maintenance (4 years)	^{406 pm} Total Cost
iMRI	\$ 3,959,767	\$ 705,180	\$ 4,664,947
Linear Accelerator	\$ 2,400,000	\$ 950,727	\$ 3,350,727
Hybrid Operating Room	\$ 1,972,443	\$ 375,300	\$ 2,347,743

4. Section C, Need, Item 1 (Project Specific Criteria)

The responses to the criteria for the PET unit that will be relocated as a part of the project are noted. However, since the applicant plans to add an MRI unit and a radiation therapy unit that will increase the inventory of same in the service area, HSDA staff requests that responses to the criteria for MRI and Radiation Therapy be submitted as a part of the application. All current project specific criteria adopted in the State Health Plan may be found on the HSDA website.

Please see Attachments 4A and 4B for the MRI and Radiation Therapy Criteria and responses.

5. Section C, Need, Item 3 and 4.B

Item 3 - The applicant's multi-state service area is noted. Please illustrate the patient origin for the most recent 12-month calendar year period by completing the table below.

Service Area County	2016 Population	2015 Patient Days	As a % of total patient days	Cumulative %
Shelby	949,178	79,561	64.6%	64.6%
Tipton	65,680	1,903	1.5%	66.1%
Fayette	42,805	864	0.7%	66.8%
Lauderdale	27,188	461	0.5%	67.3%
Hardeman	26,164	406	0.5%	67.8%
Haywood	18,019	280	0.4%	68.2%
Dyer	38,301	609	0.3%	68.5%
Madison	100,337	598	0.2%	68.7%
Other TN Counties		2,476	2.0%	70.7%
Sub-total - Tennessee		87,158	70.7%	70.7%
Sub-Total-Other States		36,063	29.3%	100.0%
Total		123,221	100.0%	

Source: 2016 Population data from Department of Health for Tennessee counties in the service area and internal Methodist data

Item 4B - please identify the incidence rates for heart disease and cancer in the TN Counties noted in the table above.

One of the major priorities of this project is to consolidate currently disjointed clinical services so as to provide an even higher standard of care for our patients. Cancer services, in particular, will be augmented by the establishment of a West Cancer Center on the Methodist University campus. This will be of tremendous benefit to our service area, where the need for cancer services is very evident. In regards to the Tennessee counties within this service area, most counties have an "All Cancers" incidence rate higher than both the state and national averages.

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Moreover, with the exception of one county, all of these counties have a racial disparity in terms of cancer mortality, where black patients are dying at much higher rates than white patients. The Methodist University campus is located in an area where racial minorities comprise the majority of the population. Thus this project will provide unprecedented access to high-quality services, like the expanded radiation therapy services and the addition of an iMRI, for example, which will go a long way toward narrowing this racial disparity.

**ALL CANCERS INCIDENCE AND DEATH RATES, 2008-2012
METHODIST UNIVERSITY - TENNESSEE SERVICE AREA**

Region	Age-Adjusted Incidence Rate (Cases per 100,000)			Age-Adjusted Death Rates (Deaths per 100,000)		
	All	Ages < 65	65+	All	White (including Hispanic)	Black (including Hispanic)
Dyer County, TN	469.3	220.5	1,704.5	183.0	178.6	234.4
Fayette County, TN	477.7	262.9	1,913.3	179.5	155.4	260.0
Hardeman County, TN	512.9	251.7	2,060.6	210.9	190.8	249.1
Haywood County, TN	476.7	226.4	2,053.6	197.8	181.9	222.9
Lauderdale County, TN	476.2	252.4	2,088.2	224.6	233.5	211.0
Madison County, TN	463.2	226.7	1,866.6	180.1	166.1	222.2
Shelby County, TN	472.7	263.6	2,016.1	204.3	174.1	248.9
Tipton County, TN	498.6	243.0	2,154.7	210.3	205.7	235.0
Tennessee	475.3	240.5	2,043.2	193.2	189.0	234.6
United States	465.8	225.2	2,033.8	171.2	170.9	202.0

Source: National Cancer Institute - State Cancer Profiles 2008-2012
Note: Red highlights denote rates above national rates.

Cardiovascular services and critical services will improve with this project as the surgical and diagnostic services are expanded and consolidated in the new patient tower. The prevalence of heart disease in the Medicare populations in the Tennessee service area is higher than national averages for all but one county. High blood pressure and obesity are risk factors that influence the high prevalence of cardiovascular disease. See the charts below.

**HEART DISEASE, HIGH BLOOD PRESSURE AND RISK FACTORS
 MEDICARE POPULATION, 2012
 METHODIST UNIVERSITY - TENNESSEE SERVICE AREA**

	Percent with Heart Disease	Percent with High Blood Pressure	Percent Adults with BMI > 30.0 (Obese)
Total Report Area	29.97%	60.62%	33.90%
Dyer County, TN	36.30%	68.94%	35.40%
Fayette County, TN	31.68%	60.89%	32.60%
Hardeman County, TN	35.84%	66.72%	38.80%
Haywood County, TN	35.43%	66.73%	41.40%
Lauderdale County, TN	35.04%	65.94%	38.10%
Madison County, TN	34.12%	65.22%	36.50%
Shelby County, TN	27.77%	58.42%	33.20%
Tipton County, TN	33.84%	61.78%	33.50%
Tennessee	29.22%	58.14%	32.10%
United States	28.55%	55.49%	27.10%
Data Source: Centers for Medicare and Medicaid Services. 2012			

6. **Section C, Need, Item 5 (Service Area Provider Utilization - MRI and Radiation Therapy Services)**
 The inpatient utilization of service area acute care providers is noted. Please also summarize the utilization of MRI and Radiation Therapy providers by completing tables for each service similar to the table provided below.

February 25, 2016**Provider Summary, Applicant's TN County Service Area****MRI Summary**

County	#Units by Provider Type*	2012 Scans	2013 Scans*	2014 Scans*	% Change '12-'14
Shelby (PSA)	HOSP	70,173	68,880	69,161	-1.4%
	PO	27,064	26,351	26,897	-0.6%
	RPO	6,538	6,737	6,505	-0.5%
	H-Imaging	3,331	2,688	3,680	10.5%
	ODC	2,214	2,563	2,889	30.5%
	ASTC/ODC	1,564	1,287	1,655	5.8%
Shelby County (PSA)		110,884	108,506	110,787	-0.1%
Shelby County Scans per Unit		2,918	2,855	2,841	
Shelby County w/o HOSP St Jude		102,147	100,201	102,410	0.3%
Shelby County w/o HOSP St Jude Scans per Unit		3,004	2,863	2,926	
TN Counties in SSA ((7))	HOSP-Fixed	15,536	14,639	13,205	-15.0%
	PO	7,626	7,552	8,364	9.7%
	HODC	7,027	6,491	7,090	0.9%
	ODC	6,781	8,835	10,676	57.4%
	HOSP-Mobile	389	292	314	-19.3%
TN Counties (SSA)		37,359	37,809	39,649	6.1%
TN Counties Scans per Unit		2,874	2,908	3,050	6.1%
TN Counties w/o HOSP Mobile		36,970	37,517	39,335	6.4%
TN Counties w/o HOSP Mobile Scans per Unit		3,081	3,126	3,278	6.4%

**Provider Summary, Applicant's TN County Service Area
Radiation Therapy/Linear Accelerator Summary**

County	#Units by Provider Type*	2012 Scans	2013 Scans*	2014 Scans*	% Change '12-'14
Shelby (PSA)	HOSP	56,360	51,351	54,584	-3.2%
	ASTC	7,610	6,963	4,647	-38.9%
Shelby County (PSA)		63,970	58,314	59,231	-7.4%
Shelby County Scans per Unit		5,815	5,301	5,385	-7.4%
Shelby County w/o HOSP St Jude		59,365	54,558	54,707	-7.8%
Shelby County w/o HOSP St Jude Scans per Unit		6,596	6,062	6,079	-7.8%
TN Counties in SSA ((7))	HOSP	14,985	13,195	-	-100.0%
	HRAD	-	-	14,175	n/a
	RAD	9,338	9,298	6,726	-28.0%
TN Counties (SSA)		24,323	22,493	20,901	-14.1%
TN Counties Scans per Unit		4,865	4,499	4,180	-14.1%

*Note: Provider type can be abbreviated using the following legend: H (hospital); HOPD (hospital outpatient department); ODC (outpatient diagnostic center); PO (private medical practice); RPO (radiologist physician office). Please check with Alecia Craighead, Stat III, for assistance with data available from the HSDA Equipment Registry

February 25, 2016**406 pm****7. Section C, Need, Item 6**

The tables on pages 37 and 38 showing the historical and inpatient utilization of the hospital are noted. Since completion of the replacement ED approved in CN1208-041A, please include the historical & projected utilization of ED visits for the periods indicated in the response (2013 through 2020). In your response, please briefly identify the percentage of total admissions generated through the Emergency Department for the hospital's most recent calendar year period and Year 1 of the project.

Please see the historical and projected ED visits below. Currently, approximately 89% of total admissions are generated through the ED.

	Actual JAR 2012	Actual JAR 2013	Actual JAR 2014	Actual F/S 2015	Proj 2019 Year 1	Proj 2020 Year 2
MUH ED Visits	60,902	62,587	64,724	66,954	67,692	67,354

Please also provide the utilization of the hospital's MRI, Radiation Therapy and PET services by completing the table below.

Applicant's Historical and Projected Utilization

Service	2013	2014	2015	% Change '13-15'	2016 Projected	Year 1	Year 2
PET-MUH and West	2,665	2,730	2,283	-1.4%	2,317	2,457	2,494
MRI	10,524	11,130	11,100	5.5%	11,297	11,979	12,159
Radiation Therapy-MUH & West	21,611	24,739	28,201	30.4%	31,021	32,920	33,578

Source: Tennessee Medical Equipment Registry as of 8/2015 and internal data

Note: The PET in Midtown was relocated and replaced per CN1111-047A from a freestanding Methodist site to the West Clinic on Union Avenue in Midtown as a Methodist hospital-based service in 2013. The Methodist University and West volumes are combined in the chart for simplicity. The PET at the new West Cancer Center was out of service for part of 2015 as it was relocated.

8. Section C, Economic Feasibility, Item 1 (Project Costs Chart)

The Chart is noted.

Line A.6 - The contingency cost calculates to approximately 10.6% of the construction cost. Please explain the methodology used to determine same. How does this cost compare to the applicant's experience with other recently CON approved projects involving major new construction?

Contingency costs are calculated in this project as they are in prior applications at approximately 10% of a combined total of construction and site preparation costs - this project is 10.2% based on construction estimates. Experience has shown that 10% is a reasonable construction contingency.

Line A.8 - As requested previously, please identify the amounts included in for the PET and MRI service maintenance costs and document with a valid vendor quote.

See Attachment 3A for Vendor quotes and service agreements.

The total cost before CON filing fee appears to calculate to \$279,955,000 in lieu of the \$275,955,000 shown in the chart. Please recheck the total provided. If in error, please revise and submit as replacement page labeled 40-R.

See Attachment 8A for a revised project cost which will correct the typo for total cost before the CON filing fee.

The January 17, 2016 letter from the construction contractor is noted. Please identify the name(s) of the primary building and safety codes, AIA guidelines, etc. that will apply to this type of major hospital construction.

Please see the revised letter as Attachment 8B.

9. **Section C, Economic Feasibility, Item 2 (Funding)**

The funding from cash reserves by Methodist Healthcare-Memphis Hospitals with confirmation provided in the February 10, 2016 letter from Mr. McLean, Executive Vice President and CFO is noted. Review of the unaudited Balance Sheet for December 2015 revealed a balance in cash and temporary investments of \$990,537,000. Based on funding by the parent organization for recent CON approved projects since 2012 totaling approximately \$120 million, are cash reserves sufficient to support the proposed \$280 million project going forward? Please briefly discuss.

Cash reserves are sufficient to support the proposed project. The \$120M is made up of four projects, one of which is the Methodist University ED Relocation and Renovation project that has been fully funded. The remaining three projects, totaling nearly \$90M have been 65% funded, with \$30M remaining. There will be an excess of over \$960M in cash reserves upon completion of the projects which is sufficient to absorb the proposed project.

10. **Section C Economic Feasibility Item 4 (Historical and Projected Data Charts)**

Historical Data Chart - The chart for Methodist LeBonheur Healthcare appears to apply to the applicant's owner, Methodist Healthcare-Memphis Hospitals. Please clarify.

The Historical Data Chart in the filed application is Methodist Le Bonheur Healthcare. In review of the filed application, the applicant is refiled the funding letter from the CFO to clarify that capital is held at the system or corporate level which is Methodist Le Bonheur Healthcare. See Attachment 10A for the revised letter.

Review of the chart for the parent organization revealed a decrease of approximately 53% from FY 2013 - FY 2015. Please briefly describe the factors that explain the significant decrease during the most recent 3 year fiscal period.

The decrease in Other Revenue / Expense is the main factor that caused a decrease of approximately 53% in net operating income from 2013 to 2015. This balance includes pension liability, interest income, unrealized gains/losses, endowments, and other non-operating revenue/expense. The most significant change was a decrease in the pension liability with similar decreases in interest income and unrealized gains. These changes are all a result of interest rate changes as well as a decline in equity market performance and are not reflective of our healthcare margin. Note the system healthcare margin saw an increase of 74% from 2013 to 2015.

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Other Revenue	2013	2015	406 pm difference
Pension Liability	\$133,080,000	\$5,671,000	\$127,409,000
Interest Income	\$80,516,000	\$8,304,000	\$72,212,000
Unrealized Gain	\$33,256,000	\$1,012,000	\$32,244,000

Financial Category	2013	2015	Change in Healthcare Margin
Net Operating Revenue	\$1,577,693,000	\$1,856,472,000	
Total Operating Expenses	\$1,499,751,000	\$1,720,747,000	
Healthcare Margin	\$77,942,000	\$135,725,000	74%

Please provide a Historical Data Chart that illustrates the financial performance of Methodist University Hospital.

Please see Attachment 10B for the Historical Data Chart.

Projected Data Chart - Please complete the table below.

Historical and Projected Financial Performance

Financial Measure	2015*	Year 1 2019
Adjusted Patient Days	213,747	223,139
Gross Operating Revenue	\$1,869,858,000	\$2,301,926,000
Average Gross Charge	\$8,748	\$10,316
Net Operating Revenue	\$479,617,000	\$551,963,000
Operating Expenses	\$458,335,000	\$556,197,000
Other Revenue	\$6,206,000	\$6,395,000
Net Operating Income	\$27,488,000	(\$7,839,000)
Capital Interest	\$2,213,000	\$1,724,000
Net Operating Income (Loss) Less Capital Expenditures	\$25,275,000	(\$9,563,000)
NOI as a % of Gross Operating Revenue	1.5%	(0.34%)

11. Section C, Economic Feasibility, Item 6.A and 6.B (Charges) and Item 9 (Payor mix)

Charges- The room and bed charges for the hospital are noted. Please identify the average gross charge, average deduction from charges and average net charge for both the MRI and Radiation Therapy services in Year 1 of the project. Please also compare the Year 1 projected charges for the services to the following:

- HSDA 1st, median & 3rd quartile range of charges
- Medicare allowable charges by primary CPT code

Please see current iMRI and Radiation Therapy charges below. There will be no change to the existing charge structure as a result of this project, yet there will be normal unrelated rate increases over the next several years. The Medicare Allowable rates shown below are Payment Rates. The iMRI will be inpatient and paid as a case rate therefore the rate is not shown.

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	CPT Code	406 pm Current Rate	Medicare Payment Rate
iMRI			
INTRAOPERABLE BRAIN MRI	70557	\$5,491	Case Rate
INTRAOPERABLE BRAIN MRI	70559	\$5,491	Case Rate
Radiation Therapy/ Linear Accelerator			
SBRT TX DELIVERY >=1 LESION W/IMAGE GUID	77373	\$5,616	\$1,541
INTENSITY MODULATED RADIATION TX DLVR SIMPLE	77385	\$2,713	\$466
INTENSITY MODULATED RADIATION TX DLVR COMPLEX	77386	\$2,714	\$466
RADIATION TREATMENT DELIVERY 1 MEV >= SIMPLE	77402	\$693	\$102
RADIATION TREATMENT DELIVERY >=1 MEV INTERMEDIATE	77407	\$731	\$102
RADIATION TREATMENT DELIVERY >=1 MEV COMPLEX	77412	\$725	\$179

Based upon the review, the proposed charges are reasonable and comparable to other facilities in the service area. Methodist University Linear Accelerator and MRI charges for 2014 are comparable to similar acute facilities in the Shelby County market. The linear accelerator average charge per procedure is between the median and 3rd quartile. The MRI charge per procedure is slightly higher than the 3rd quartile. There will be no impact to the charge structure due to this project

**Gross Charges per Procedure/Treatment
Shelby County Comparisons, 2014**

Facility	MRI	LINAC
Methodist University	\$3,883	\$1,451
Baptist Memorial	\$2,749	\$998
St Francis Memphis	\$4,883	\$1,841

**Gross Charges per Procedure/Treatment
By Quartiles
YEAR = 2014**

Equipment Type	1st Quartile	Median	3rd Quartile
Linear Accelerator	\$914.77	\$1,118.02	\$1,645.78
MRI	\$1,632.60	\$2,229.43	\$3,677.84

Source: Medical Equipment Registry - 8/10/2015

Payor Mix - The total gross revenue shown in the table is \$2,241,498 in lieu of the \$2,301,926 shown in the Projected Data Chart on page 44. Please clarify. If in error, please revise the table and submit as replacement page 46-R.

The total gross revenue shown in the chart is gross patient revenue of \$2,241,498. The other operating revenue is not payor related and is therefore omitted from the payor chart. Please see the charts from the filed application below.

February 25, 2016**2019 Projected Revenue for Project Data ~~406 pm~~**

Revenue from Services to Patients	(in thousands)
Inpatient Services	\$ 1,281,950
Outpatient Services	879,220
Emergency Services	80,328
Subtotal Patient Revenue	\$ 2,241,498
Other Operating Revenue	60,428
Gross Operating Revenue	\$ 2,301,926

2019 Projected Revenue by Payor

Payor	Revenue (In Thousands)	% of Total Revenue
Medicare	\$ 1,109,105	49%
TennCare/Medicaid	\$ 311,280	14%
Self-Pay	\$231,762	10%
Commercial/Other	\$ 589,352	26%
Total	\$2,241,498	100%

12. Section C, Contribution to the Orderly Development of Health Care, Item 3 (Staffing)

The response indicates no changes are planned to the hospital's current staffing. Please provide a table that illustrates the existing direct patient care, clinical support, administration and management staffing complement in Full Time Equivalents for the hospital.

	Projected 2016 FTEs
Direct Patient Care	1,836
Support Services	395
Administration/Management	55
Total FTEs	2,286

Will the project favorably impact growth of the hospital's physician medical staff? Please clarify and illustrate by completing the table below.

Methodist Healthcare has over 1800 credentialed physicians on staff. The state-of-the-art technology and clinical space planned with this project will favorably impact growth of the medical staff. The planned growth is noted in the chart below.

There plans to recruit the following specialties by Year 1 as the tertiary, academic centers are consolidated and expanded. Plus two additional Oncology Surgeons and two additional Oncologists by Year 2.

Medical Specialty	Year 1
Chief of Cardiology	1
Cardiologist	2
Cardiovascular Surgeon	1
Cardiac Fellows\	2
Chief of Pathology	1
Critical Care Medicine	2
Transplant Surgeon	1
Nephrologist	1
Oncology Surgeon	3
Oncologist	5
Genetic Counselor	2
Radiation Oncologist	2
Physicist	4
Total	27

ADDITIONAL INFORMATION FROM APPLICANT:

Please see Letters of Support for the project in Attachment 13

ATTACHMENT 2
FINAL REPORT
METHODIST UNIVERSITY
CN1208-041A
ED REPLACEMENT AND RELOCATION



**TENNESSEE HEALTH SERVICES AND DEVELOPMENT AGENCY
FINAL PROJECT REPORT**

Please TYPE or PRINT legibly.

Certificate of Need No. **CN1208-041**

Project Name: **Methodist University Hospital - Replace Emergency Department**

Owner: **Methodist Healthcare - Memphis Hospitals** Contact: **Carol Weidenhoffer**

Description: **Replacement of ED on Methodist University Hospital campus. Construct 93,000 sq ft of new space and renovate 0,200 sq ft of existing, and replace CT unit.**

Total Bed Complement Before Addition **N/A**
Total Bed Complement

What was the Final Completion Date (opened for public use)? **September 2014**

Was the project completed as certified? YES NO
(If not, describe any changes, deletions, and/or additions on additional sheets.)

COST FACTORS		Original Cost Projection	Final Project Cost
A.	Construction and equipment acquired by purchase:		
1.	Architectural and Engineering Fees	\$ 1,878,441	\$ 1,813,620
2.	Legal, Administrative (Excluding CON Filing Fee), Consultant Fees	\$ 80,000	\$ 44,150
3.	Acquisition of Site		
4.	Preparation of Site	\$ 5,026,250	\$ 623,254
5.	Construction Costs	\$ 20,019,635	\$ 26,490,919
6.	Contingency Fund	\$ 2,753,231	
7.	Fixed Equipment (Not included in Construction Contract)	\$ 1,083,928	
8.	Moveable Equipment (List all equipment over \$50,000)	\$ 1,402,500	\$ 1,345,502
9.	Other (Specify) Relocate Doctors and West Occupants	\$ 1,200,000	\$ 323,262
	Subtotal	\$ 33,443,985	\$ 30,649,705
B.	Acquisition by gift, donation, or lease:		
1.	Facility (inclusive of building and land)		
2.	Building only		
3.	Land only		
4.	Equipment (Specify)		
5.	Other (Specify)		
	Subtotal		
C.	Financing Costs and Fees:		
1.	Interim Financing		
2.	Underwriting Costs		
3.	Reserve for One Year's Debt Service		
4.	Other (Specify)		
	Subtotal		

SUPPLEMENTAL #1

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- D. Estimated Project Cost (A+B+C)
- E. CON Filing Fee
- F. Total Estimated Project Cost (D&E)

\$ 33,443,985	406 pm	\$ 30,649,705
\$ 45,000		\$ 45,000
\$ 33,488,985		\$ 30,694,705

FINAL COST \$ 30,694,705

FINAL FILING FEE \$ N/A

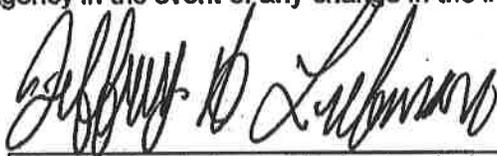
If the final project cost is an overrun of the estimated project cost, describe in detail all increases in final costs from those originally projected.

Not Applicable. The project did not have a cost overrun.
 For clarification: The ED opened September 2014 but there were final change orders that were part of the project that continued through April/May 2015.

The Final Filing Fee to be assessed on any cost overrun is to be computed at the rate current at the time the project was certified. Below is the outline of the rates from January 1994 through the present.

PERIOD	INITIAL FILING FEE	FINAL FILING FEE	FINAL FILING FEE
January 30, 1994 through Present	\$2.25/\$1,000	\$3,000--\$45,000	\$2.25/\$1,000 Total filing fee (Initial plus final) not to exceed \$45,000.

I hereby certify that this information is true to the best of my knowledge, information, and belief, and that supplemental written notification will be filed with the Tennessee Health Services and Development Agency in the event of any change in the information given in this report.



Chief Operating Officer

7/17/15

Date

HF-0055

Revised 1/05 - All forms prior to this date are obsolete.

**ATTACHMENT 3B
REVISED EQUIPMENT CHARTS
AND PAGES**

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Equipment > \$50,000	Qty	Unit Cost	Total Cost	Maintenance	Total Equipment
iMRI systems	1	3,959,767	3,959,767	705,180	4,664,947
Linear Accelerator	1	2,400,000	2,400,000	950,727	3,350,727
Optimize Hybrid OR Imaging Program	1	1,972,443	1,972,443	375,300	2,347,743
Skytron Surgical Lighting System	1	135,910	135,910		135,910
Maclab Hybrid OR	1	229,494	229,494		229,494
Hybrid Suite	1	230,000	230,000		230,000
Injector	1	25,000	25,000		25,000
Navigation System Allocation	1	500,000	500,000		500,000
Chemistry Analyzer	2	500,000	1,000,000		1,000,000
Hematology Analyzers	2	500,000	1,000,000		1,000,000
Automated DNA Extractor	2	500,000	1,000,000		1,000,000
PCR Equipment Allocation	2	500,000	1,000,000		1,000,000
Blood Irradiator	1	500,000	500,000		500,000
R&F Room	2	350,000	700,000		700,000
Pharmacy Carousel	3	250,000	750,000		750,000
Automated Chemistry Line	1	250,000	250,000		250,000
Automated Hematology Line	1	250,000	250,000		250,000
Immunoassay Analyzer	2	250,000	500,000		500,000
Serology Analyzer	2	250,000	500,000		500,000
Electrophoresis Analyzer	2	250,000	500,000		500,000
Cellvision Analyzer	1	250,000	250,000		250,000
Coagulation Analyzer	2	250,000	500,000		500,000
Flow Cytometer	2	250,000	500,000		500,000
iMRI Systems Surgical Instruments	1	150,000	150,000		150,000
Anaerobic Chamber	1	150,000	150,000		150,000
Urine Analyzer	2	100,000	200,000		200,000
Dispenser, Medication	10	80,000	800,000		800,000
Centralized RO	1	60,000	60,000		60,000
Critical Care Patient Bed	30	55,000	1,650,000		1,650,000
Perfusion Pumps	6	50,000	300,000		300,000
OR Integration System Allocation	20	50,000	1,000,000		1,000,000
Video Tower Allocation	15	50,000	750,000		750,000
MRI Contrast Injector	2	50,000	100,000		100,000
Stress Test Treadmill	1	50,000	50,000		50,000
Hot Lab Hood	2	50,000	100,000		100,000
Blood Culture Analyzer	8	50,000	400,000		400,000
			24,362,614	2,031,207	26,393,821

ATTACHMENT 4A
MRI CRITERIA

Project-Specific Review Criteria: Magnetic Resonance Imaging (MRI) Services**1. Utilization Standards for non-Specialty MRI Units.**

- a. An applicant proposing a new non-Specialty stationary MRI unit should project a minimum of at least 2160 MRI procedures in the first year of service, building to a minimum of 2520 procedures per year by the second year of service, and building to a minimum of 2880 procedures per year by the third year of service and for every year thereafter.

The criteria do not seem appropriate or applicable. The project is for an iMRI which is a special-use MRI that is used in the operating room. A part of this proposal is the addition of an intraoperative magnetic resonance imaging (iMRI) unit for use in the neurosurgery operating room. This equipment will be used to assist neurosurgeons in the resection of brain tumors initially. Without this technology, MRI testing must be done in the hospital's radiology department post-operatively. This delayed imaging could identify the further need for surgery and the patient will have to undergo a subsequent surgery. iMRI is advanced technology in medicine that bridges the specialties of surgery and radiology. With this technology, the precision and success of surgical treatment of epilepsy and brain tumor removal increase.

Le Bonheur Children's Hospital, part of the Methodist Healthcare-Memphis Hospitals currently operates an iMRI. In 2014, they performed 92 iMRIs and 122 last year. Their experience shows that about 50% of brain tumor resections receive an iMRI scan. Projections for the project assume 50% of current brain tumor surgeries (322 surgeries) will receive a scan. MRIs are projected with minimal growth of 1.5% through Year 2 as are iMRIs from Year 1 to Year 2.

**TABLE 1
PROJECTED MRI UTILIZATION**

	2013	2014	2015		Year 1 2019	Year 2 2020
MRI Procedures	9,803	10,524	11,130		11,813	11,990
iMRI Procedures	0	0	0		166	168
Total Procedures	9,803	10,524	11,130		11,979	12,159

- b. Providers proposing a new non-Specialty mobile MRI unit should project a minimum of at least 360 mobile MRI procedures in the first year of service per day of operation per week, building to an annual minimum of 420 procedures per day of operation per week by the second year of service, and building to a minimum of 480 procedures per day of operation per week by the third year of service and for every year thereafter.

Not applicable; applicant is proposing fixed equipment.

- c. **An exception to the standard number of procedures may occur as new or improved technology and equipment or new diagnostic applications for MRI units are developed. An applicant must demonstrate that the proposed unit offers a unique and necessary technology for the provision of health care services in the Service Area.**

Methodist University hosts a busy surgical brain tumor program performing over 300 annually. With the main goal of brain tumor surgery being to maximize resection while preserving function, Methodist continues to implement the most current surgical assistive technology.

Intraoperative imaging can provide the updated information to maintain accurate navigation during surgery. Currently, the practice to confirm that a complete resection has been accomplished and to ensure no unrecognized complication has arisen is to close the surgical field, transfer the patient to ICU and complete an MRI the following day. If any tumor remains, or there are complications noted, the neurosurgeon may take the patient back for re-operation. The use of intraoperative imaging allows this confirmation to be completed prior to closing of the original surgery and thus avoiding the risk of additional surgery.

As the intraoperative imaging of choice, iMRI affords the possibility of more accurate and complete resections while decreasing the risk of additional surgery and complications. While iMRI primarily serves a very unique purpose, patient population and limited volume, it allows for increased surgical success and therefore increased length of survival for patients with brain tumors.

Just as iMRI is pivotal in brain tumor surgery, it may also be utilized for epilepsy surgery, intra-cranial cyst surgery, brain biopsy, catheter placement and intra-cranial vascular surgery.

- d. **Mobile MRI units shall not be subject to the need standard in paragraph 1 b if fewer than 150 days of service per year are provided at a given location. However, the applicant must demonstrate that existing services in the applicant's service area are not adequate and/or that there are special circumstances that require these additional services.**

Not applicable; applicant is proposing fixed equipment.

- e. **Hybrid MRI units. The HSDA may evaluate a CON application for an MRI "hybrid" Unit (an MRI Unit that is combined/utilized with another medical equipment such as a megavoltage radiation therapy unit or a positron emissions tomography unit) based on the primary purposes of the Unit.**

Not applicable; applicant is not proposing "hybrid" equipment.

2. **Access to MRI Units. All applicants for any proposed new MRI Unit should document that the proposed location is accessible to approximately 75% of the Service Area's population. Applications that include non-Tennessee counties in their proposed Service Areas should provide evidence of the number of existing MRI units that service the non-**

Tennessee counties and the impact on MRI unit utilization in the non-Tennessee counties, including the specific location of those units located in the non-Tennessee counties, their utilization rates, and their capacity (if that data are available).

This is special-use equipment that will be used for brain tumor surgeries. The 45-minute drive time does not seem appropriate for such high acuity surgeries.

Yet, as noted in the application, the project primary service area includes Shelby County, TN, DeSoto County, MS and Crittenden County, AR.

The majority (81%) of the population in the Methodist service area is in Shelby County. See Table 2 below for the 2015 population analysis by county. Also, please see the drive time map in Figure 1. The 45-minute drive time radius for the Methodist MRI services at Methodist University Hospital covers all of Shelby County and the majority of DeSoto and Crittenden counties.

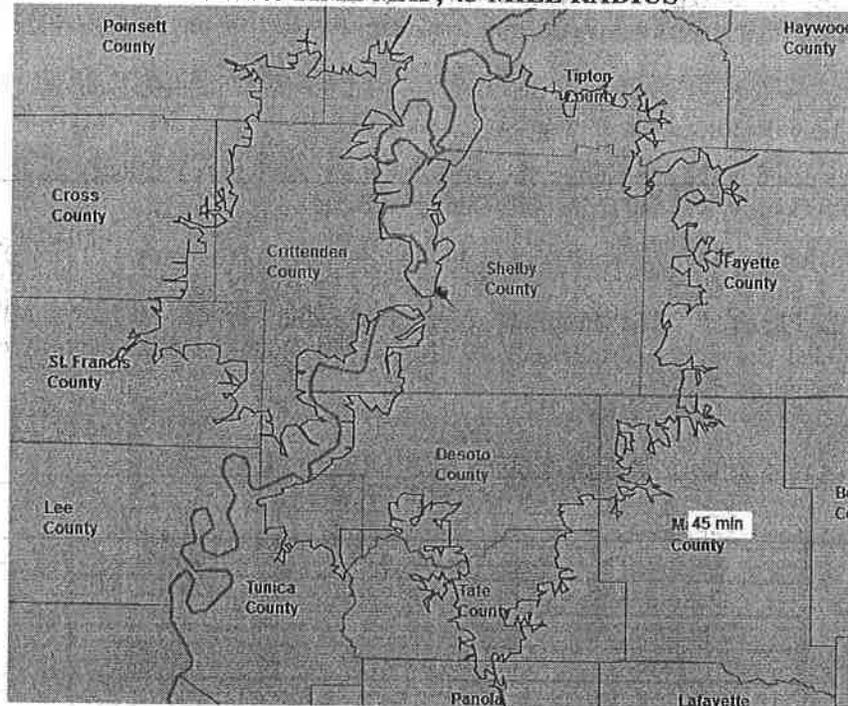
**TABLE 2
POPULATION BY COUNTY, 2015
METHODIST SERVICE AREA**

Service Area	Population	% of Total
Shelby, TN	946,637	81%
DeSoto, MS	168,989	15%
Crittenden, AR	48,531	4%
Total	1,164,157	100%
Source: Truven Healthcare Analytics- Market Expert		

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**FIGURE 1
DRIVE TIME MAP, 45-MILE RADIUS**



3. **Economic Efficiencies.** All applicants for any proposed new MRI Unit should document that alternate shared services and lower cost technology applications have been investigated and found less advantageous in terms of accessibility, availability, continuity, cost, and quality of care.

Alternate services and technologies were investigated. The current practice of performing the MRI post-surgery is not optimal. As noted in the response to 1.c. above, the iMRI affords the possibility of more accurate and complete resections while decreasing the risk of additional surgery and complications.

4. **Need Standard for non-Specialty MRI Units.**

A need likely exists for one additional non-Specialty MRI unit in a Service Area when the combined average utilization of existing MRI service providers is at or above 80% of the total capacity of 3600 procedures, or 2880 procedures, during the most recent twelve-month period reflected in the provider medical equipment report maintained by the HSDA. The total capacity per MRI unit is based upon the following formula:

Stationary MRI Units: 1.20 procedures per hour x twelve hours per day x 5 days per week x 50 weeks per year = 3,600 procedures per year

Mobile MRI Units: Twelve (12) procedures per day x days per week in operation x 50 weeks per year. For each day of operation per week, the optimal efficiency is 480 procedures per year, or 80 percent of the total capacity of 600 procedures per year.

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The combined average utilization of existing fixed MRI units in the service area is 2,770 in 2014. Yet, St. Jude Children's Research Hospital is an internationally recognized center of excellence dedicated to research and treatment for children with cancer and other catastrophic diseases. St. Jude is caring for a unique population of patients. Excluding St. Jude's volumes and equipment from the market calculation, the average for MRI volumes per fixed unit is 2,845 in 2014 which is at the threshold.

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**TABLE 3
UTILIZATION OF MRI EQUIPMENT 2012-2014**

Fixed Equipment	2012		2013		2014	
	Proc	# of Units	Proc	# of Units	Proc	# of Units
Hospital-Based Equipment (HOSP)						
Baptist Memorial Hospital - Collierville	1,734	1	1,593	1	1,753	1
Baptist Memorial Hospital - Memphis	11,913	3	11,280	3	10,701	3
Baptist Memorial Hospital - Women	N/A	N/A	72	1	251	1
Baptist Rehabilitation - Germantown	1,596	1	1,212	1	1,107	1
Delta Medical Center	787	1	674	1	983	1
Le Bonheur Children's Medical Center *	5,289	2	5,260	2	5,340	2
Methodist Healthcare - Germantown Hospital	6,557	2	6,892	2	6,904	2
Methodist Healthcare - South Hospital	4,139	1	4,090	1	3,487	1
Methodist Healthcare-North Hospital	6,092	2	6,003	2	6,415	2
Methodist Healthcare-University Hospital	9,803	3	10,524	3	11,130	3
Regional Medical Center /Medical Center MRI	4,491	1	4,131	1	4,109	1
St. Francis Hospital	5,393	3	5,326	3	5,045	3
St. Francis Hospital - Bartlett	3,642	2	3,518	2	3,559	2
St. Jude Children's Research Hospital	8,737	4	8,305	3	8,377	4
Methodist Healthcare - Olive Branch Hospital	N/A	N/A	54	1	1,551	1
Baptist Memorial Hospital - DeSoto	7,388	3	7,021	3	N/A	N/A
Non-Hospital-Based Equipment						
Baptist Rehabilitation - Germantown (Briarcrest)	650	1	613	1	492	1
Campbell Clinic - Union (1st year 2010)	2,155	1	2,539	1	2,738	1
Campbell Clinic	6,321	1	5,547	1	5,923	1
Diagnostic Imaging PC - Memphis	6,538	1	6,737	1	6,505	1
MSK Group PC - New Covington Pike	3,140	1	3,013	1	3,034	1
MSK Group PC - Briarcrest **	4,489	-	4,637	-	4,439	-
Neurology Clinic, PC	3,160	1	3,312	1	2,577	1
Outpatient Diagnostic Center of Memphis	2,214	1	2,563	1	2,889	1
Park Avenue Diagnostic Center	2,681	2	2,075	2	3,188	2
Semmes-Murphey Clinic (Humphreys Blvd)	6,490	2	6,277	2	6,879	2
Wesley Neurology Clinic, P.C. **	1,309	-	1,026	-	1,307	-
West Clinic, P.C	1,564	1	1,287	1	1,655	1
Methodist Diagnostic Center - Olive Branch	2,054	1	1,601	1	n/a	n/a
Methodist Diagnostic Center - Southaven	2,340	1	2,418	1	n/a	n/a
DeSoto Imaging Specialists	3,141	1	3,562	1	n/a	n/a
Subtotal Fixed Equipment	125,807	44	123,162	45	110,787	40
Average Procedures per Unit	2,859		2,737		2,770	

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Subtotal Fixed Equipment without St. Jude	117,070	40	114,8577	42	102,410	36
Average Procedures per Unit without St. Jude	2,927		2,735		2,845	
Source: Medical Equipment Registry (as of 8/10/2015) and Mississippi State Health Plan 2014-2015						
*Note: Le Bonheur Children's Hospital has two standard pediatric MRIs and an iMRI which is used specifically for neurosurgery. Volumes for the iMRI are excluded.						
** Note: Baptist Rehab Briarcrest equipment is shared with MSK Group Briarcrest and Neurology Clinic PC equipment is shared with Wesley Neurology Clinic, therefore the number of units is not listed to truly reflect the number of MRIs in the service area.						

Please see an update on Le Bonheur Children's Hospital project (CN1311-042A) at 100 N. Humphreys is currently in the middle of Phase II construction with expectations of being complete this summer – July or August 2016. Phase I, which includes clinical and lobby space, are currently occupied and in use.

5. Need Standards for Specialty MRI Units

All of question 5 is not applicable; applicant is not proposing one of these noted Specialty MRI units. The unit is a special-use MRI as noted throughout this response.

a. Dedicated fixed or mobile Breast MRI Unit. An applicant proposing to acquire a dedicated fixed or mobile breast MRI unit shall not receive a CON to use the MRI unit for non-dedicated purposes and shall demonstrate that annual utilization of the proposed MRI unit in the third year of operation is projected to be at least 1,600 MRI procedures (.80 times the total capacity of 1 procedure per hour times 40 hours per week times 50 weeks per year), and that:

1. It has an existing and ongoing working relationship with a breast-imaging radiologist or radiology proactive group that has experience interpreting breast images provided by mammography, ultrasound, and MRI unit equipment, and that is trained to interpret images produced by an MRI unit configured exclusively for mammographic studies;
2. Its existing mammography equipment, breast ultrasound equipment, and the proposed dedicated breast MRI unit is in compliance with the federal Mammography Quality Standards Act;
3. It is part of an existing healthcare system that provides comprehensive cancer care, including radiation oncology, medical oncology, surgical oncology and an established breast cancer treatment program that is based in the proposed service area.
4. It has an existing relationship with an established collaborative team for the treatment of breast cancer that includes radiologists, pathologists, radiation oncologists, hematologist/oncologists, surgeons, obstetricians/gynecologists, and primary care providers.

b. Dedicated fixed or mobile Extremity MRI Unit. An applicant proposing to institute a Dedicated fixed or mobile Extremity MRI Unit shall provide documentation of the total capacity of the proposed MRI Unit based on the number of days of operation each week, the number of days to be operated each year, the number of hours to be operated each day, and the average number of MRI procedures the unit is capable

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of performing each hour. The applicant shall then demonstrate that annual utilization of the proposed MRI Unit in the third year of operation is reasonably projected to be at least 80 per cent of the total capacity. Non-specialty MRI procedures shall not be performed on a Dedicated fixed or mobile Extremity MRI Unit and a CON granted for this use should so state on its face.

- c. Dedicated fixed or mobile Multi-position MRI Unit. An applicant proposing to institute a Dedicated fixed or mobile Multi-position MRI Unit shall provide documentation of the total capacity of the proposed MRI Unit based on the number of days of operation each week, the number of days to be operated each year, the number of hours to be operated each day, and the average number of MRI procedures the unit is capable of performing each hour. The applicant shall then demonstrate that annual utilization of the proposed MRI Unit in the third year of operation is reasonably projected to be at least 80 per cent of the total capacity. Non-specialty MRI procedures shall not be performed on a Dedicated fixed or mobile Multi-position MRI Unit and a CON granted for this use should so state on its face.

6. Separate Inventories for Specialty MRI Units and non-Specialty MRI Units. If data permits, Breast, Extremity, and Multi-position MRI Units shall not be counted in the inventory of non-Specialty fixed or mobile MRI Units, and an inventory for each category of Specialty MRI Unit shall be counted and maintained separately. None of the Specialty MRI Units may be replaced with non-Specialty MRI fixed or mobile MRI Units and a Certificate of Need granted for any of these Specialty MRI Units shall have included on its face a statement to that effect. A non-Specialty fixed or mobile MRI Unit for which a CON is granted for Specialty MRI Unit purpose use-only shall be counted in the specific Specialty MRI Unit inventory and shall also have stated on the face of its Certificate of Need that it may not be used for non-Specialty MRI purposes.

Not applicable; applicant is not proposing one of the Specialty MRI units as listed above. This is a special-use MRI for operating room use as described in this response.

7. Patient Safety and Quality of Care. The applicant shall provide evidence that any proposed MRI Unit is safe and effective for its proposed use.

- a. The United States Food and Drug Administration (FDA) must certify the proposed MRI Unit for clinical use.

See Attachment 4A-1 for FDA certification.

- b. The applicant should demonstrate that the proposed MRI Procedures will be offered in a physical environment that conforms to applicable federal standards, manufacturer's specifications, and licensing agencies' requirements.

The architect consulted on this project confirms that the physical environment will conform to all applicable federal standards, manufacturer's specifications and licensing agencies' requirements. See Attachment 8B for the revised architect's letter.

- c. The applicant should demonstrate how emergencies within the MRI Unit facility will be managed in conformity with accepted medical practice.

The unit will be on the Methodist University Hospital campus. There are clinical technicians and emergency personnel on the premises trained in basic life support when the patient is being scanned. In the event of cardiac or respiratory arrest, trained clinical personnel will initiate basic life support while the patient is being emergently removed from the scan room, and then taken to be treated by appropriate physicians and clinicians.

- d. **The applicant should establish protocols that assure that all MRI Procedures performed are medically necessary and will not unnecessarily duplicate other services.**

There are established standard protocols in place for Methodist to ensure all MRI procedures are medically necessary and will not unnecessarily duplicate other services. All MRI procedures are required to have a physician's written order that defines the medical necessity. All orders will be reviewed to ensure that there is no unnecessary duplication of services. Methodist has a dedicated team of nurses that precertify all MRI procedures through the various third party payers. The rigorous precert process ensures medical necessity and assures that the patient does not receive duplicative procedures. See Attachment 4C for the System Policy outlining the guidelines for a physician order for all diagnostic services.

- e. **An applicant proposing to acquire any MRI Unit or institute any MRI service, including Dedicated Breast and Extremity MRI Units, shall demonstrate that it meets or is prepared to meet the staffing recommendations and requirements set forth by the American College of Radiology, or a comparable accreditation authority for MRI within two years following operation of the proposed MRI Unit.**

Methodist University Hospital is fully accredited by the American College of Radiology (ACR). Methodist meets the staffing and quality assurance requirements.

- f. **All applicants shall commit to obtain accreditation from the Joint Commission, the American College of Radiology, or a comparable accreditation authority for MRI within two years following operation of the proposed MRI Unit.**

Methodist University Hospital is fully accredited by the Joint Commission.

- g. **All applicants should seek and document emergency transfer agreements with local area hospitals, as appropriate. An applicant's arrangements with its physician medical director must specify that said physician be an active member of the subject transfer agreement hospital medical staff.**

The need for a transfer agreement is not applicable; the equipment will be located on the Methodist University Hospital campus.

The physician medical director is an active member of the medical staff. See Attachment Section Services 4A-2 for current medical director's CV.

8. **The applicant should provide assurances that it will submit data in a timely fashion as requested by the HSDA to maintain the HSDA Equipment Registry.**

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Methodist assures the HSDA that all data requested to maintain the Equipment Registry will be submitted within the expected time frame.

9. In light of Rule 0720-11.01, which lists the factors concerning need on which an application may be evaluated, and Principle No. 2 in the State Health Plan, "Every citizen should have reasonable access to health care," the HSDA may decide to give special consideration to an applicant:

a. Who is offering the service in a medically underserved area as designated by the United States Health Resources and Services Administration;

Not applicable.

b. Who is a "safety net hospital" or a "children's hospital" as defined by the Bureau of TennCare Essential Access Hospital payment program; or

Not applicable.

c. Who provides a written commitment of intention to contract with at least one TennCare MCO and, if providing adult services, to participate in the Medicare program.

Methodist is certified for both Medicare and TennCare/Medicaid and participates in both programs. Methodist contracts with all of the TennCare plans offered in the service area and with Medicaid in adjoining States. All Methodist hospitals treat TennCare participants under the system's TennCare contracts.

In comparison to other large counties across the State, Shelby County is the home to a disparate number of low-income families seeking coverage from the state's Medicaid program. Methodist is one of the largest health care providers of TennCare in the State and is committed to these patients as reflected in the projections for this proposal.

d. Who is proposing to use the MRI unit for patients that typically require longer preparation and scanning times (e.g. pediatric, special needs, sedated, and contrast agent use patients). The applicant shall provide in its application information supporting the additional time required per scan and the impact on the need standard.

See response to 1.c. above for the description of the special-use of the iMRI.

**ATTACHMENT 4A-2
MEDICAL DIRECTOR CV
iMRI**

L. Madison Michael II, M.D., F.A.C.S

Semmes-Murphey Neurologic and Spine Institute

The University of Tennessee Health Sciences Center • Department of Neurosurgery

6325 Humphreys Boulevard • Memphis, TN 38120 • (901) 522-7700

Home: 2941 Robin Road • Memphis, TN 38111 • (901) 458-8011 • mmichael@semmes-murphey.com

Education:

B.S., University of the South, Sewanee, TN
September 1988 – May 1992

M.D., University of Tennessee Health Sciences Center, Memphis, TN
August 1994 – May 1998

Postdoctoral Training:

Internship and Residency

Surgical Internship

University of Tennessee Health Sciences Center, Memphis, TN
Department of General Surgery
June 23, 1998 – June 30, 1999

Resident in Neurosurgery

University of Tennessee Health Sciences Center, Memphis, Memphis, TN
Department of Neurosurgery
July 1, 1999 – June 30, 2004
Special interest in Skull Base Tumors, Complex Spinal Surgery

Clinical Fellowship

North Bristol NHS Trust

Frenchay Hospital, Frenchay, England
Department of Neurosurgery
July 1, 2004 – June 30, 2005

International fellowship in Skull Base Tumors, Complex Spine Surgery

Licensure and Certification:

2005 Tennessee Medical License
2005 American Board of Neurological Surgery, Candidate Member
2007 Mississippi Medical License
2009 American Board of Neurosurgery Diplomate
2010 Fellow, American College of Surgery

Academic Appointments:

2003 Lecturer in Neuroanatomy, University of Tennessee Medical School, Memphis,

- Tennessee
- 2004 Clinical Lecturer, North Bristol NHS Medical School, England
 - 2005 Assistant Professor, University of Tennessee Department of Neurosurgery, Memphis, Tennessee
 - 2005 Attending Neurosurgeon, Semmes-Murphey Neurologic and Spine Clinic, Memphis, Tennessee
 - 2005 Attending Neurosurgeon, Veterans Administration Hospital, Memphis, Tennessee
 - 2006 Academic Mentor, Medical Ethics Course, University of the South, Sewanee, Tennessee
 - 2007 Faculty, Molecular Neurosurgery Research Program, Memphis, Tennessee
 - 2008 Attending Neurosurgeon, LeBonheur Children's Hospital, Memphis, Tennessee
 - 2009 Director of Cranial Base Surgery, Methodist Neuroscience Institute
 - 2009 Director of Neurosurgical Research, Methodist Neuroscience Institute
 - 2009 Medical Director, Methodist Neuroscience Institute
 - 2009 Executive Director, Memphis Regional Brain Tumor Center

Community Service:

- 1989-1992 Sewanee Volunteer Fire Department, Sewanee, Tennessee
- 1990-1992 Big Brother Program, Sewanee, Tennessee
- 2007-Present Rotary Club International, Member
- 2007 Guest Speaker, Student Leadership Conference, Sewanee, Tennessee
- 2007-Present Volunteer Faculty, Church Health Center, Memphis, Tennessee
- 2008-Present Team neurosurgeon, University of Memphis Athletics Department
- 2008-Present Team neurosurgeon, Rhodes College Athletics Department
- 2008-Present Team neurosurgeon, Memphis Grizzlies Basketball Team

Hospital Appointments:

- 2005 Methodist University Hospital, Memphis, Tennessee
- 2005 The Regional Medical Center, Memphis, Tennessee
- 2005 Baptist Memorial Hospital, Memphis, Tennessee
- 2005 The Veterans Administration Hospital
- 2008 LeBonheur Children's Hospital

Professional Committees:

- 1996-1998 Medical Student Executive Committee Member
- 2003 Resident Delegate, Council of State Neurosurgeons
- 2005-2007 Semmes-Murphey Clinic Peer Review Committee
- 2005 Methodist University Hospital H*Works OR Task Force
- 2006 Methodist University Hospital Intensive Care Unit Committee
- 2006 Scientific Committee, Fifth Annual International Neuro-Oncology Update, Memphis, Tennessee
- 2006-Present Moderator, Memphis Regional Brain Tumor Conference, Memphis, Tennessee
- 2006-2007 Methodist University Neuroscience Institute Executive Council, Member

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2007-Present	Chair, Methodist University Hospital Neurosurgical Intensive Care Unit Committee
2007	Methodist University Hospital Operating Room Committee
2007	Moderator, Memphis Regional Brain Tumor Conference, Memphis, Tennessee
2007	Moderator, Southern Neurosurgical Society Meeting, Sea Island, Georgia
2007-Present	Member, Semmes-Murphey Clinic Ambulatory Surgery Center Committee
2007-2009	Member, Semmes-Murphey Clinic Quality Improvement Committee
2007-Present	Member, Alpha Omega Alpha Selection Committee
2009-Present	Chair, Semmes-Murphey Clinic Quality Improvement Committee
2009	Assistant Residency Program Director, University of Tennessee Department of Neurosurgery
2009	Site Director, UTHSC Neurosurgery Residency Training Program, Methodist University Hospital location
2010	Assistant Secretary, Board of Governors, Semmes-Murphey Neurologic and Spine Center
2010	Member, Methodist Hospital Credentialing Committee
2010	Advisor, Central Nervous System Cancers, National Comprehensive Cancer Network

Professional Societies:

2005-Present	American Association of Neurological Surgeons, Member
2005-Present	Congress of Neurological Surgeons, Member
2005-Present	American Medical Association, Member
2005-Present	North American Skull Base Society, Member
2005-Present	Tennessee Neurosurgical Society, Member
2005-Present	Memphis and Shelby County Medical Society, Member
2006-Present	American College of Surgeons, Provisional Member
2009-Present	Society of NeuroOncology, Active Member

Course Instructor:

2003-2004	Minimal Access Spinal Technology, Memphis, Tennessee Course involving the use of minimally invasive spinal procedures (Metrx, Sextant).
2003-2008	North American Skull Base Society Residency Workshop, Memphis, Tennessee, Neurosurgical and Otolaryngology resident workshop with emphasis on skull base anatomy/approaches.
2007	Neurosurgical Workshop, Middle Fossa Approach, Neurosurgical Department, National Almenara Hospital, Lima, Peru.
2008-Present	University of Tennessee Skull Base Resident Workshop, Memphis, Tennessee
2008-2009	DLIF instructor, Medtronic Corporation, Memphis, Tennessee.
2008-2009	TLIF instructor, Medtronic Corporation, Memphis, Tennessee.
2010	North American Skull Base Society Residency Workshop, New Orleans, Louisiana, Neurosurgical and Otolaryngology resident workshop with emphasis on skull base anatomy/approaches.

Awards:

1988-1992	Snowden Academic Scholarship, Sewanee, Tennessee
1988-1992	Bell Academic Scholarship, Sewanee, Tennessee
1989-1992	Red Ribbon Leadership Society, Sewanee, Tennessee
1989-1992	Highlanders Society, Sewanee, Tennessee
1990-1992	Order of the Gownsmen Academic Society, Sewanee, Tennessee
1992	Order of the Silver Spoon, Sewanee, Tennessee
1997	93rd percentile on National Medical Board Examination
1998	Alpha Omega Alpha Honor Society
1998	Imhotep Leadership Society
1998	Graduated High Honors from University of Tennessee Medical School
1999	Passed Neurosurgery Boards Part I as PGY-2 (NS-1)
2002	Receiver of the R. L. DeSaussure Award for Neurosurgical Research
2004	Chief Resident of Neurosurgical Service, University of Tennessee Department of Neurosurgery
2010	Matthew Wood Neurosurgical Teaching Award, University of Tennessee Department of Neurosurgery

Clinical Studies:

1. Cervical Arthroplasty using the SpinalMotion Kineflex C Cervical Artificial Disc. (CLOSED)
2. Memphis Regional Brain Tumor Center, Clinical Protocol MHIRB # 2006-032, A Phase I/II Trial of Maximal Resection, Local Radiation Boost with Concomitant Temozolomide, Followed by External Radiation Therapy with Concomitant Temozolomide for the Treatment of Newly Diagnosed Glioblastoma Multiforme. (CLOSED)
3. Memphis Regional Brain Tumor Center, Clinical Protocol, A Phase I/II Trial of Maximal Resection, Radiation Therapy Delivered Via the GliaSite[®] Delivery System with Concomitant Temozolomide Followed by Temozolomide for the Treatment of Newly Diagnosed Glioblastoma Multiforme. (CLOSED)
4. Memphis Regional Brain Tumor Center, Clinical Protocol, A Phase II Study of Gliadel, Concomitant Temozolomide and Radiation, Followed by metronomic therapy with Temozolomide for newly diagnosed malignant high grade glioma. (CLOSED)
5. Molecular Neurosurgery Research Program, Genomic profiling of central nervous system tumors. (CLOSED)
6. Molecular Neurosurgery Research Program, Genomic profiling of pathological disc material. (CLOSED)
7. Assessment of Nerve Health after Lumbar Decompression Surgery Using Intraoperative Evoked EMG. (CLOSED)
8. Fusion rates between INFUSE Bone Graft/PEEK Interbody Spacer/Anterior Cervical Plate and Allograft/Anterior Cervical Plate.
9. Memphis Regional Brain Tumor Center, Clinical Protocol MHIRB # 2007-050, A Phase II, Multicenter, Exploratory Study, Evaluating the

Treatment Effect of Surgery Plus Gliadel Wafer in Patients with Metastatic Brain Cancer. (CLOSED)

10. Memphis Regional Brain Tumor Center, Clinical Protocol MHIRB # 2007-036, Treatment Satisfaction Survey for Brain Tumor Patients and Their Caregivers. (CLOSED)
11. Memphis Regional Brain Tumor Center, Clinical Protocol MHIRB # 2008-038, Cilengitide for subjects with newly diagnosed glioblastoma multiforme and methylated MGMT gene promoter - a multicenter, open-label, controlled phase III study, testing cilengitide in combination with standard treatment (temozolomide with concomitant radiation therapy, followed by temozolomide maintenance therapy) versus standard treatment alone". (CENTRIC)
12. Memphis Regional Brain Tumor Center, Clinical Protocol MHIRB # 2008-034, BIBW 2992 with or without daily temozolomide in the treatment of patients with recurrent malignant glioma.
13. Memphis Regional Brain Tumor Center, Clinical Protocol MHIRB # 2007-048, Survey of brain tumor patients about use of the internet for medical information and decision making. (CLOSED)

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1. Von Hippel-Lindau Disease, Grand Rounds, Department of Neurosurgery, Barrow Neurological Institute, Phoenix, Arizona, 1997.
2. Post-Traumatic Seizures, Trauma Grand Rounds, Department of Surgery, University of Tennessee at Memphis, Memphis, Tennessee 2000.
3. Acute Spinal Cord Injury in Athletes, Trauma Grand Rounds, Department of Surgery, University of Tennessee at Memphis, Memphis, Tennessee 2000.
4. Ankylosing Spondylitis, Grand Rounds, Department of Neurosurgery, University of Tennessee at Memphis, Memphis, Tennessee 2000.
5. Maxillofacial and Scalp Injury in Neurotrauma Patients, Trauma Grand Rounds, Department of Surgery, University of Tennessee at Memphis, Memphis, Tennessee 2001.
6. Acute Spinal Cord Injury, Trauma Grand Rounds, Department of Surgery, University of Tennessee at Memphis, Memphis, Tennessee 2001.
7. Nonvestibular Schwannomas of the Brain, Society of University Neurosurgeons Meeting, Portland, Oregon 2001.
8. Nonvestibular Schwannomas of the Brain, Society of University Neurosurgeons Meeting, Southern Neurosurgical Society, Savannah, Georgia 2002.
9. The Treatment of Advanced Sinonasal Malignancies with Pre-Operative Intra-Arterial Cisplatin and Concurrent Radiation, Tennessee Neurosurgical Society, Nashville, Tennessee 2004.

10. The Treatment of Advanced Sinonasal Malignancies with Pre-Operative Intra-Arterial Cisplatin and Concurrent Radiation, Southern Neurosurgical Society, Orlando, Florida, 2003.
11. Skull Base Approaches, University of Tennessee Skull Base Symposium, Memphis, Tennessee, 2003.
12. Sinonasal Malignancies: Current Management Options, Neurosciences Grand Rounds, Frenchay Hospital, North Bristol NHS Trust, Frenchay, England, 2004.
13. Anticoagulation in Neurosurgery, Neurosurgery Grand Rounds, Frenchay Hospital, North Bristol NHS Trust, Frenchay, England, 2005.
14. Lymphocytic Hypophysitis (with Rick Nelson, FRCS), Seventh Clinicopathological English Conference on Pituitary Disease, The Royal College of Physicians, London, England, 2005.
15. Neurosurgical Emergencies, Department of Internal Medicine Grand Rounds, Memphis, Tennessee, 2005.
16. Somatosensory Pathways, Department of Neurosurgery Grand Rounds, Memphis, Tennessee, 2005.
17. Neurosurgery in the United Kingdom, Methodist Neuroscience Institute Grand Rounds, Memphis, Tennessee, 2005.
18. British Medicine, Clinical Update in Medicine, Beaver Creek, Colorado, 2006.
19. Balloon Kyphoplasty for Pathological Vertebral Fractures, Methodist University Tumor Board, Memphis, Tennessee, 2006.
20. Brain Tumors, Memphis Regional Brain Tumor Conference, Memphis, Tennessee, 2006.
21. Subarachnoid Hemorrhage, Neurosurgery Education Symposium, Methodist University Hospital, Memphis, Tennessee, 2006.
22. Cranial Base Surgery – The Future, Tennessee Neurosurgical Society, Chattanooga, Tennessee, 2006.
23. Cranial Base Surgery – The Past, Present, and Future, Fifth Annual International Neuro-Oncology Update, Memphis, Tennessee, 2006.
24. Cerebellopontine Angle Tumors, University of Tennessee Department of Neurosurgery Grand Rounds, Memphis, Tennessee, 2006.
25. Current Management of Sinonasal Malignancies, 60th anniversary of the Neurosurgical Department of the National Almenara Hospital, Lima, Peru, 2007.
26. Middle Fossa Approach, 60th anniversary of the Neurosurgical Department of the National Almenara Hospital, Lima, Peru, 2007.
27. Neurosurgery and the Emergency Room Physician: What I need to know, Department of Internal Medicine Grand Rounds, Memphis, Tennessee, 2007.
28. The Far Lateral Approach to the Cranial Base – Indications, Results, and Myths, Chattanooga, Tennessee, 2007.

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30. The Future of Methodist University Hospital, Methodist Hospital, 2007.
31. Brain Tumors, University of Tennessee Department of Internal Medicine, Grand Rounds, 2007.
32. Acoustic Neuromas, Grand Rounds, University of Tennessee Department of Neurosurgery Grand Rounds, Memphis, Tennessee, 2007.
33. Facial Pain, Semmes-Murphey Clinic Public Seminar, Memphis, Tennessee, 2008.
34. Thoracolumbar Trauma, Grand Rounds, University of Tennessee Department of Neurosurgery Grand Rounds, Memphis, Tennessee, 2008.
35. Minimally Invasive Spinal Surgery, Grand Rounds, University of Tennessee Department of Neurosurgery Grand Rounds, Memphis, Tennessee, 2008.
36. Anterolateral Corridor Approaches, University of Tennessee Department of Neurosurgery Resident Workshop, Memphis, Tennessee, 2008.
37. The Extended Unilateral Maxillotomy – The University of Tennessee Experience, Tennessee Neurosurgical Society, Nashville, Tennessee, 2008.
38. Nonvestibular Schwannomas, University of Tennessee Department of Neurosurgery Grand Rounds, Memphis, Tennessee, 2009.
39. Neurosurgical Emergencies, Department of Internal Medicine Grand Rounds, Memphis, Tennessee, 2009.
40. Pituitary Adenomas, Semmes-Murphey Clinic Public Seminar, Memphis, Tennessee, 2008.
41. A Prospective Evaluation and Literature Review of Levetiracetam Use In Patients with Brain Tumors and Seizures, Allen K. Sills, L. Madison Michael II, Justin Usery, Christopher Finch, 2009 Joint Meeting of the Society for Neuro-Oncology and the AANS/CNS Section on Tumors, New Orleans, Louisiana, 2009.
42. Radiation Therapy for Pituitary Adenomas, Hamilton Eye Institute Neuro-Ophthalmology Update, Memphis, Tennessee, 2009.
43. Occipitocervical Fusion Techniques, University of Tennessee Department of Neurosurgery Spinal Seminar, Memphis, Tennessee, 2009.
44. Craniofacial Approach for Removal of Esthesioneuroblastoma, 95th Annual Clinical Congress of American College of Surgeons, Chicago, IL, 2009.
45. The Evolution of Cranial Base Surgery, Methodist Cancer Institute, Memphis, Tennessee, 2009.
46. The Classification of Brain Tumors, Department of Internal Medicine Grand Rounds, Memphis, Tennessee, 2010.
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2. Julius Fernandez, L. Madison Michael II, Claudio A. Feler. Sacral Tip Granuloma following Spinal Cord Stimulator Implantation: Case Report, *Journal of Neuromodulation* 2003; 6(4) 225-228.
3. L. Madison Michael II, Jon H. Robertson. Glomus Jugulare Tumors: Historical Overview of the Management of Disease, *Neurosurgical Focus* 2004; 17(2):1-5.
4. L. Madison Michael II, Jeffrey A. Sorenson, Sandeep Samant, Jon H. Robertson. The Treatment of Advanced Sinonasal Malignancies with Pre-Operative Intra-Arterial Cisplatin and Concurrent Radiation, *Journal of Neuro-Oncology*, 2005; 72(1): 67-75.
5. L. Madison Michael II, Tim Moss, Hugh B. Coakham. Malignant Transformation of Posterior Fossa Epidermoid Cyst, *British Journal of Neurosurgery*, 2005.
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2. L. Madison Michael II, Jon H. Robertson. Jugular Foramen Tumors, Chapter in *Posterior Fossa*, Nanda, A, Ed. Thieme Publisher, New York, NY 2008.

Posters:

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2. Robert Laster, L. Madison Michael II. Cranial Nerve Lesions, American College of Radiology Annual Meeting, 2004.
3. Winston Ally, April Hurdle, L. Madison Michael II, Allen Sills, Carli Nesheiwat, Chris Finch. Use of hypertonic saline in surgical patients with brain tumors to treat cerebral edema, Society of Critical Care Medicine Annual Meeting, Miami Beach, Florida, 2010.

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2. Methodist University Hospital Neurosurgeon's Research Efforts Hopefully Will Improve Patient Outcomes One Day, Methodist LeBonheur Healthcare One Vision Newsletter, October 2007.
3. Craniofacial Approach for Esthesioneuroblastoma, Channel 5 Healthcast, 2009.
4. Awake Craniotomy, Channel 5 Healthcast, 2009.
5. Removal of a giant skull base tumor in an Iraqi patient, Channel 5 Healthcast, 2009.
6. Removal of a Colloid Cyst in famous opera singer, Channel 5 News, 2009.
7. Physician profile, Memphis Medical News, 2010.

**ATTACHMENT 4B
RADIATION THERAPY
CRITERIA**

February 25, 2016**406 pm****Project-Specific Review Criteria: Megavoltage Radiation Therapy Services****1. Utilization Standards for MRT Units.**

- a. **Linear Accelerators not dedicated to performing SRT and/or SBRT procedures.**
 - i. **Full capacity of a Linear Accelerator MRT unit is 8,736 procedures, developed from the following formula: 3.5 treatments per hour, times 48 hours (6 days of operation, 8 hours per day, or 5 days of operation, 9.6 hours per day), times 52 weeks.**
 - ii. **Linear Accelerator Minimum Capacity: 6,000 procedures per Linear Accelerator MRT Unit annually, except as otherwise noted herein.**
 - iii. **Linear Accelerator Optimal Capacity: 7,688 procedures per Linear Accelerator MRT Unit annually, based on 12% average downtime per MRT units during normal business hours annually.**
 - iv. **An applicant proposing a new Linear Accelerator should project a minimum of at least 6000 MRT procedures in the first year of service, building to a minimum of 7,688 procedures per year by the third year of service and for every year thereafter.**

Methodist based projections for the Linear Accelerator (LINAC) equipment on historical volumes and forecasted volumes are assumed to be 2% annually through Year 2. Projections meet the minimum requirements. See Tables 1 for the projections.

**TABLE 1
LINAC PROJECTIONS**

	2013	2014	2015		Year 1 2019	Year 2 2020
Methodist University	2	2	2		3	3
West Cancer Center	1	1	1		2	2
# of Linear Accelerators	3	3	3*		5	5
Procedures / Volumes						
Methodist University	11,742	13,442	15,323		17,887	18,245
West Cancer Center	9,869	11,297	12,878		15,033	15,333
Total	21,611	24,739	28,201		32,920	33,578
Procedures / Volumes per Unit						
Methodist University	5,871	6,721	7,662		5,962	6,082
West Cancer Center	4,934	5,649	6,439		7,516	7,667
Total	7,204	8,246	9,400		6,584	6,716
Note: Added approved Linear Accelerator CN1311-043A in December 2015						

- b. **For Linear Accelerators dedicated to performing only SRT procedures, full capacity is 500 annual procedures.
Not Applicable**
- c. **For Linear Accelerators dedicated to performing only SRT procedures, full capacity is 850 annual procedures.
Not Applicable**
- d. **An exception to the standard number of procedures may occur as new or improved technology and equipment or new diagnostic applications for Linear**

Accelerators develop. An applicant must demonstrate that the proposed Linear Accelerator offers a unique and necessary technology for the provision of health care services in the proposed Service Area.

Not Applicable

- e. **Proton Beam MRT Units. As of the date of the approval and adoption of these Standards and Criteria, insufficient data are available to enable detailed utilization standard to be developed for Proton Beam MRT Units.**

Not Applicable

2. Need Standards for MRT Units.

- a. **For Linear Accelerators not dedicated solely to performing SRT and/SBRT procedures, need for a new Linear Accelerator in a proposed Service Area shall be demonstrated if the average annual number of Linear Accelerator procedures performed by existing Linear Accelerators in the proposed Service Area exceeds 6,000.**

The service area is described in detail in #3. Radiation Therapy is primarily an outpatient service and is therefore defined separately from the larger project. The primary service area for LINAC services includes Shelby, Fayette and Tipton counties in Tennessee, Crittenden County, Arkansas, and DeSoto County, Mississippi.

The combined average utilization of existing LINAC units in the primary service area is 5,385 in 2014 for all providers based on the Medical Equipment Registry data. Yet, St. Jude Children's Research Hospital is an internationally recognized pediatric hospital dedicated to research and treatment for children with cancer and other catastrophic diseases. St. Jude is caring for a unique population of patients. Excluding St. Jude's volumes and equipment from the market calculation, the average for LINAC volumes per unit is 6,079 in 2014 which is above the 6,000 threshold.

The volumes from the larger project's secondary Tennessee and Mississippi service area are noted below for informational purpose. There was no Arkansas data available. See Tables 2 and 3 for LINAC market utilization.

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**TABLE 2
METHODIST LINAC PRIMARY SERVICE AREA
LINAC EQUIPMENT AND UTILIZATION, 2012-2014**

Facility Type	Facility	2012		2013		2014	
		Procs	# of Units	Procs	# of Units	Procs	# of Units
HOSP	Methodist Healthcare	23,756	3	21,611	3	24,739	3
HOSP	Baptist Memorial Hospital-Memphis	11,052	2	10,111	2	10,590	2
ASTC	Baptist Memorial Hospital-Tipton/Germantown	7,610	1	6,963	1	4,647	1
HOSP	St. Francis Hospital – Park	6,795	2	7,480	2	6,332	2
HOSP	St. Jude Children’s Research Hospital	4,605	2	3,756	2	4,524	2
HOSP	Baptist Memorial Hospital – DeSoto	10,152	1	8,393	1	8,399	1
Total Procedures		63,970	11	51,358	11	59,231	11
Average Procedures per Unit		5,815		4,669		5,385	
Total Procedures without St. Jude		59,365	9	47,602	9	54,707	9
Average Procedures per Unit without St. Jude		6,596		5,289		6,079	
Source: 2012-14 TN HSDA - State Equipment Registry; and 2013-2015 MS DOH - State Health Plan and MS Hospital Report							
Note: Primary Service Area includes Shelby County, TN, DeSoto County, MS and Crittenden County, AR.							

**TABLE 3
METHODIST UNIVERSITY SECONDARY TN AND MS SERVICE AREA
LINAC EQUIPMENT AND UTILIZATION, 2012-2014**

Facility Type	Facility	2012		2013		2014	
		Procs	# of Units	Procs	# of Units	Procs	# of Units
RAD	Dyersburg Radiation Oncology Center	4,663	1	4,362	1	3,501	1
RAD	Baptist Memorial Hospital-Memphis	4,675	1	4,936	1	3,225	1
HOSP	Jackson-Madison County General Hospital	14,985	3	13,195	3	-	-
HRAD	Kirkland Cancer Center (formerly Jackson-Madison equipment)	-	-	-	-	14,175	3
Free-standing Clinic	Bethesda Cancer Center (Clarksdale, MS)	2,477	1	2,412	1	n/a	n/a
Total Procedures		26,800	6	24,905	6	20,910	5
Average Procedures per Unit		4,467		4,151		4,180	
Source: 2012-14 TN HSDA - State Equipment Registry; and 2013-2015 MS DOH - State Health Plan and MS Hospital Report							
Note: There is no radiation therapy noted in Lauderdale, Hardeman or Haywood counties in TN or Tunica, Panola, Tate or Marshall counties in MS. There were no Arkansas data available.							

- b. For Linear Accelerators dedicated to performing only SRT, need in a proposed Service Area shall be demonstrated if the average annual number of MRT Procedures performed by existing Linear Accelerators dedicated to performing only SRT procedures in a proposed Service Area exceeds 300, based on a full capacity of 500 procedures.
Not Applicable
- c. For Linear Accelerators dedicated to performing only SRT/SBRT, need in a proposed Service Area shall be demonstrated if the average annual number of MRT Procedures performed by existing Linear Accelerators dedicated to performing only SRT/SBRT procedures in a proposed Service Area exceeds 510, based on a full capacity of 850 procedures.
Not Applicable
- d. Need for a new Proton Beam MRT Unit: Due to the high cost and extensive service areas that are anticipated to be required for these MRT Units, an applicant proposing a new Proton Beam MRT Unit shall provide information regarding the utilization and service areas of existing or planned Proton Beam MRT Units' utilization and services areas (including those that have received a CON), if they provide MRT services in the proposed Service Area and if that data are available, and the impact its application if granted, would have on those other Proton Beam MRT Units.
Not Applicable

3. Access to MRT Units.

- a. An MRT unit should be located at a site that allows reasonable access for residents of the proposed Service Area.

The proposed LINAC will supplement the Methodist units already operating on the Methodist University campus. More than 90% of the patients currently seeking Methodist LINAC services (including Methodist University Hospital and West Cancer Center in Germantown) originate from the designated service area. The designated primary service area includes Shelby, Tipton and Fayette counties in Tennessee, DeSoto County, Mississippi, and Crittenden County, Arkansas. The unit will be located in a site that is accessible and convenient for patients. See Table 4 below for detailed volumes.

TABLE 4
2014 METHODIST LINAC PROCEDURES BY COUNTY

Service Area	Procedures	% of Total
Shelby, TN	18,789	76%
Desoto, MS	1,705	7%
Tipton, TN	908	4%
Fayette, TN	791	3%
Crittenden, AR	515	2%
Subtotal	22,708	92%
Other MS Counties	1,038	4%
Other TN Counties	417	2%
Other AR Counties	408	2%
Out-of-area	168	1%
Total	24,739	100%
Source: 2014 TN HSDA - State Equipment Registry		

- b. An applicant for any proposed new Linear Accelerator should document that the proposed location of the Linear Accelerator is within a 45 minute drive time of the majority of the proposed Service Area's population.

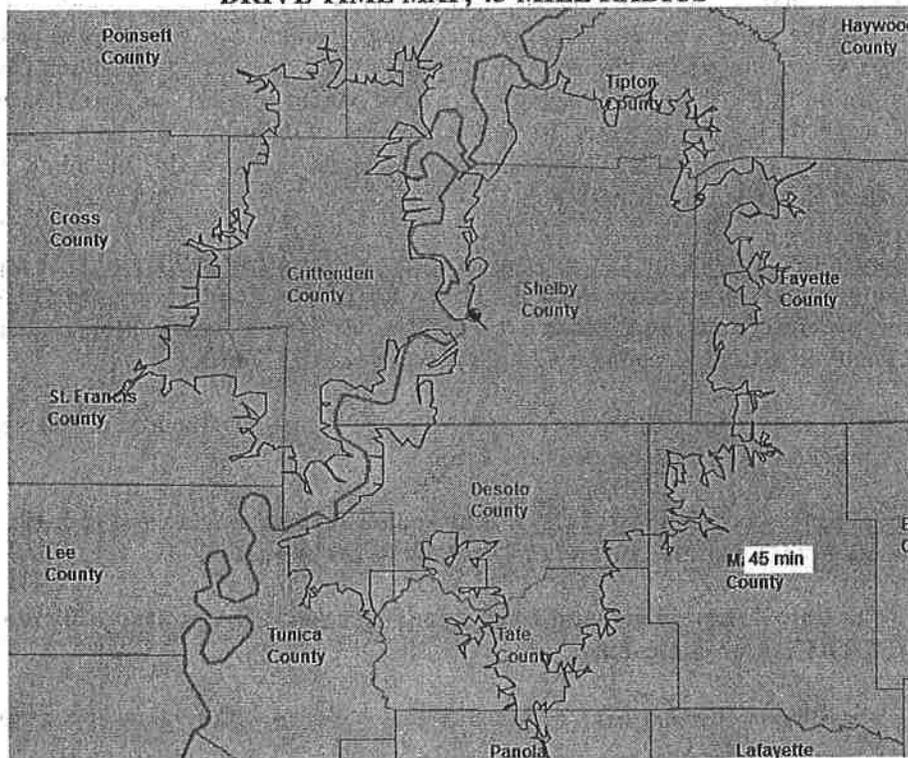
As noted in the application, the project primary service area includes Shelby County, TN, DeSoto County, MS and Crittenden County, AR. The primary project service will be the service area for this outpatient-dominant equipment. Based on the 2014 Medical Equipment Registry, 82% of the Methodist linear accelerator volumes are from this three-county primary service area.

The majority (75%) of the population in the Methodist service area is in Shelby County. See Table 5 below for the 2015 population analysis by county. Also, please see the drive time map in Figure 1. The 45-minute drive time radius for the Methodist LINAC services at Methodist University Hospital and the West Cancer Center covers all of Shelby County and the majority of DeSoto and Crittenden counties which accounts for more than 90% of the defined service area - the majority of the population.

**TABLE 5
POPULATION BY COUNTY, 2015
METHODIST SERVICE AREA**

Service Area	Population	% of Total
Shelby, TN	946,637	75%
DeSoto, MS	168,989	13%
Tipton, TN	59,918	5%
Crittenden, AR	48,531	4%
Fayette, TN	34,845	3%
Total	1,258,920	100%
Source: Truven Healthcare Analytics- Market Expert		

**FIGURE 1
DRIVE TIME MAP, 45-MILE RADIUS**



- c. **Applications that include non-Tennessee counties in their proposed Service Areas should provide evidence of the number of existing MRT units that service the non-Tennessee counties and the impact on MRT unit utilization in the non-Tennessee counties, including the specific location of those units located in the non-Tennessee counties, their utilization rates, and their capacity (if that data are available).**

The only existing MRT unit in the designated primary service area that is located outside of Tennessee is in DeSoto County, Mississippi. As noted in Table 2 above, the LINAC unit is performing 8,399 in 2014 which is well above (almost 140%) the

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minimum threshold of 6,000 procedures per unit. The unit is located at the Baptist Memorial Hospital-DeSoto.

There is a LINAC located at the Bethesda Cancer Center in Coahoma County in Mississippi which is in the secondary service area for the larger project, yet is not the primary service area for LINAC services. The unit in Coahoma is performing approximately 2,400 procedures per year in 2012-2013 – the 2014 volumes were not available.

4. **Economic Efficiencies.** All applicants for any proposed new MRT Unit should document that lower costs technology application have been investigated and found less advantageous in terms of accessibility, availability, continuity, cost, and quality of care.

Alternate services and technologies were investigated. However, there was no lower cost alternative that delivers the accuracy and reliability of the selected LINAC. The machine pinpoints the cancerous cells with real-time imaging and allows providers to precisely target tumors while minimizing the amount of healthy cells exposed to radiation. The speed and localization of the real-time imaging offers more patient comfort and less chance the patient will move during the treatments. The equipment is optimized for both radiotherapy and radiosurgery and can treat cancers almost anywhere in the body, including lung, breast, abdomen and head and neck cancers.

5. **Separate Inventories for Linear Accelerators and for other MRT Units.** A separate inventory shall be maintained by the HSDA for Linear Accelerators, for Proton Beam Therapy MRT Units, and if data are available, for Linear Accelerators dedicated to SRT and/or SBRT procedures and other types of MRT Units.

Methodist assures the HSDA that all data requested to maintain the Equipment Registry will be submitted within the expected time frame.

6. **Patient Safety and Quality of Care.** The applicant shall provide evidence that any proposed MRT Unit is safe and effective for its proposed use.
- a. **The United States Food and Drug Administration (FDA) must certify the proposed MRT Unit for clinical use.**

See Attachment 4B-1 FDA certification that was filed with original application.

- b. **The applicant should demonstrate that the proposed MRT Units shall be housed in a physical environment that conforms to applicable federal standards, manufacturer's specifications, and licensing agencies' requirements.**

The architect consulted on this project confirms that the physical environment will conform to all applicable federal standards, manufacturer's specifications and licensing agencies' requirements. See Attachment 8B for the architect letter.

- c. **The applicant should demonstrate how emergencies within the MRT Unit facility will be managed in conformity with accepted medical practice.**

The unit will be on the Methodist University Hospital campus. There are clinical technicians and emergency personnel on the premises trained in basic life support when the patient is being scanned. In the event of cardiac or respiratory arrest, trained clinical personnel will initiate basic life support while the patient is being emergently removed from the scan room, and then taken to be treated by appropriate physicians and clinicians.

- d. The applicant should establish protocols that assure that all MRT Procedures performed are medically necessary and will not unnecessarily duplicate other services.**

There are established standard protocols in place for Methodist to ensure all LINAC procedures are medically necessary and will not unnecessarily duplicate other services. All LINAC procedures are required to have a physician's written order that defines the medical necessity. All orders will be reviewed to ensure that there is no unnecessary duplication of services. Methodist has a dedicated team of nurses that precertify all LINAC procedures through the various third party payers. The rigorous precert process ensures medical necessity and assures that the patient does not receive duplicative procedures. See Attachment 4C for the System Policy outlining the guidelines for a physician order for all diagnostic services.

- e. An applicant proposing to acquire any MRT Unit shall demonstrate that it meets the staffing and quality assurance requirements of the American Society of Therapeutic Radiation and Oncology (ASTRO), the American College of Radiology (ACR), The American College of Radiation Oncology (ACRO) or a similar accrediting authority such as the National Cancer Institute (CND). Additionally, all applicants shall commit to obtain accreditation from ASTRO, ACR or a comparable accreditation authority for MRT Services within two years following instigation of the operation of the proposed MRT Unit.**

Methodist University Hospital is fully accredited by the American College of Radiology (ACR). Methodist meets the staffing and quality assurance requirements.

- f. All applicants should seek and document emergency transfer agreements with local area hospitals, as appropriate. An applicant's arrangements with its physician medical director must specify that said physician be an active member of the subject transfer agreement hospital medical staff.**

The need for a transfer agreement is not applicable; the equipment will be located on the Methodist University Hospital campus.

The physician medical director is an active member of the medical staff. See Attachment 4B-2 for current medical director's CV.

- g. All applicants should provide evidence of any onsite simulation and treatment planning services to support the volumes they project and any impact such services may have on volumes and treatment times.**

There is a dedicated CT simulator to support the LINAC services at Methodist University. The CT simulator will support projected volumes. The CT simulator has sufficient capacity to support the volumes and cause no delay in treatment times.

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7. **The applicant should provide assurances that it will submit data in a timely fashion as requested by the HSDA to maintain the HSDA Equipment Registry.**

Methodist assures the HSDA that all data requested to maintain the Equipment Registry will be submitted within the expected time frame.

8. **In light of Rule 0720-11.01, which lists the factors concerning need on which an application may be evaluated, and Principle No. 2 in the State Health Plan, “Every citizen should have reasonable access to health care,” the HSDA may decide to give special consideration to an applicant:**

- a. **Who is offering the service in a medically underserved area as designated by the United States Health Resources and Services Administration;**
Not applicable
- b. **Who is a “safety net hospital” or a “children’s hospital” as defined by the Bureau of TennCare Essential Access Hospital payment program; or**
Not applicable
- c. **Who provides a written commitment of intention to contract with at least one TennCare MCO and, if providing adult services, to participate in the Medicare program.**

Methodist is certified for both Medicare and TennCare/Medicaid and participates in both programs. Methodist contracts with all of the TennCare plans offered in the service area and with Medicaid in adjoining States. All Methodist hospitals treat TennCare participants under the system’s TennCare contracts.

In comparison to other large counties across the State, Shelby County is the home to a disparate number of low-income families seeking coverage from the state’s Medicaid program. Methodist is one of the largest health care providers of TennCare in the State and is committed to these patients as reflected in the projections for this proposal.

**ATTACHMENT 4B-2
MEDICAL DIRECTOR CV
RADIATION THERAPY**

February 25, 2016**Maulik T. Ballo, M.D.**

Curriculum Vitae

West Cancer Center, 7945 Wolf River Blvd • Germantown, TN 38138
 Office phone: 901-683-0055 • E-Mail: mballo@westclinic.com

Methodist University Hospital, Department of Radiation Oncology
 1265 Union Ave • Memphis TN 38104
 Office Phone: 901-516-7367

Present Title and Affiliations**Academic Appointment**

Professor and Chairman, Department of Radiation Oncology, The University of Tennessee Health Science Center, Memphis, TN

Administrative Appointments

Medical Director, Radiation Oncology, The West Clinic Radiation Oncology Group, Memphis, TN
 Director, Radiation Oncology, The University of Tennessee West Cancer Center, Memphis, TN

Education**Degree-Granting Education**

Oberlin College, Oberlin, OH, BA, 7/1987 to 6/1991, Biochemistry
 Case Western Reserve University School of Medicine, Cleveland, OH, MD, 7/1991 to 6/1995, Medicine

Postgraduate Training

Clinical Internship, Mt. Sinai Medical Center, Cleveland, OH, Richard Ach, M.D., 7/1995-7/1996
 Clinical Residency, The University of Texas MD Anderson Cancer Center, Houston, TX, Alan Pollack, M.D., 7/1996-7/2000

Credentials**Board Certification**

American Board of Radiology, Radiation Oncology, 47202. Granted: 5/2000, Recertified: 4/2010.

Licensures (Active)

Tennessee Medical License, TN, 50791, 5/31/17
 Mississippi Medical License, MS, 23819, 5/13/15
 Ohio Medical License, OH, 35071913B, 7/1/2017
 Texas Medical Board, TX, L0014, 2/28/2016

Academic Experience

Assistant Professor, Department of Radiation Oncology, Division of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX, 7/2000-8/2005
Adjunct Assistant Professor -SHS, Radiation Therapy, Department of Radiation Oncology, Division of Radiation Oncology, The University of Texas MD Anderson Cancer Center School of Health Sciences, Houston, TX, 9/2003-present

Associate Professor, Department of Radiation Oncology, Division of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX, 9/2005–8/2011

Professor, Department of Radiation Oncology, Division of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX, 9/2011–12/2013

Professor and Chairman, Department of Radiation Oncology, The University of Tennessee Health Science Center, Memphis, TN, 1/2014

Administrative Experience

Deputy Residency Director, Department of Radiation Oncology, Division of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX, 2000–2006

Clinical Medical Director, Department of Radiation Oncology, Division of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX, 2006–2008

Associate Medical Director, Regional Care Centers, The University of Texas MD Anderson Cancer Center, Houston, TX, 2009–2011

Service Chief - Radiation Oncology Outreach Program, Department of Radiation Oncology, Division of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX, 2011–2013

Medical Director - Radiation Oncology, The West Clinic Radiation Oncology Group, Memphis, TN, 2014 - Present

Director - Radiation Oncology, The University of Tennessee West Cancer Center, Memphis, TN, 2014 - Present

Other Appointments and Responsibilities

Local and National Committee Activities

Member, American College of Radiology (ACR) Committee on Residency Training in Radiation Oncology (Commission on Education), American College of Radiology, Houston, TX, 2003–2004

Member, Radiation Therapy Oncology Group (RTOG) Image Guided Radiotherapy Committee, 2006–2007

Member, American Society for Therapeutic Radiology and Oncology Education Committee of the Education Council, 2006–2009

Member, American Society for Therapeutic Radiology and Oncology (ASTRO) Government Relations NIH Subcommittee of the Government Relations Council, 2006–2011

Committee Member, American College of Surgeons Oncology Group (ASCOG), 2006–2006

Member, CHRISTUS St. John's Hospital Cancer Committee, Nassau Bay, TX, 2007–2013

Member, Medical Executive Committee, CHRISTUS St. John's Hospital, Nassau Bay, TX, 2012–2013

Institutional Committee Activities

Member, Radiation Oncology Training Committee, 1999–2000

Member, Clinical Computing Advisory Group (CCAG), 2001

Member, Institutional Review Board Sub-Committee, 2002

- Member, Electronic Chart Committee, 2002–2008**
- Selection Committee Member, Geneva and James Briscoe Physician Assistant Award for Excellence, Houston, TX, 2003**
- Member, Physics Residency Training Program Committee, 2003–2005**
- Representative, UT M. D. Anderson Cancer Center Department of Radiation Oncology Faculty Senate, 2003–2006**
- Participant, UT M.D. Anderson Cancer Center Department of Orthopedic Oncology in the Division of Surgery for Chair Search, 2005**
- Board Member, Board of Directors to M. D. Anderson Physicians Network, 2008–2010**
- Member, Regional Care Center Accelerated Partial Breast Irradiation Working Group, 2009–2013**
- Member, Regional Care Center Research Working Group, 2009–2013**

Honors and Awards

- Alpha Omega Alpha, Honor Medical Society, 1995
- Ivan E. Shalit prize for Excellence in Patient Care, 1995
- Anderson Associates Travel Grant Award, 1998
- First Prize Gilbert H. Fletcher Award, Gilbert H. Fletcher Society, 1998
- First Prize Gilbert H. Fletcher Award, Gilbert H. Fletcher Society, 1999
- Excellence in Cancer Patient Education Award, Cancer Patient Education Network, 2011

Publications/Presentations

Peer-Reviewed Original Research Articles

1. **Ballo MT, Zagars GK, Pisters P, Pollack A.** The role of radiation therapy in the management of dermatofibrosarcoma protuberans. *Int J Radiat Oncol Biol Phys* 1998;40(4):823-7.
2. **Ballo MT, Garden AS, El-Naggar AK, Gillenwater AM, Morrison WH, Goepfert H, Ang KK.** Radiation therapy for early stage (T1-T2) sarcomatoid carcinoma of true vocal cords: outcomes and patterns of failure. *Laryngoscope* 1998;108(5):760-3.
3. **Ballo MT, Zagars GK, Pollack A.** Radiation therapy in the management of desmoid tumors. *Int J Radiat Oncol Biol Phys* 1998;42(5):1007-14.
4. **Ballo MT, Zagars GK, Pollack A, Pisters PW, Pollack RA.** Desmoid tumor: prognostic factors and outcome after surgery, radiation therapy, or combined surgery and radiation therapy. *J Clin Oncol* 1999;17(1):158-67.
5. **Ballo MT, Strom EA, Prost H, Singletary SE, Theriault RL, Buchholz TA, McNeese MD.** Local-regional control of recurrent breast carcinoma after mastectomy: does hyperfractionated accelerated radiotherapy improve local control? *Int J Radiat Oncol Biol Phys* 1999;44(1):105-12.
6. **Cormier JN, Patel SR, Herzog CE, Ballo MT, Burgess MA, Feig BW, Hunt KK, Raney RB, Zagars GK, Benjamin RS, Pisters PW.** Concurrent ifosfamide-based chemotherapy and irradiation. Analysis of treatment-related toxicity in 43 patients with sarcoma. *Cancer* 2001;92(6):1550-5.
7. **Callister MD, Ballo MT, Pisters PW, Patel SR, Feig BW, Pollock RE, Benjamin RS, Zagars GK.** Epithelioid sarcoma: results of conservative surgery and radiotherapy. *Int J Radiat Oncol Biol Phys* 2001;51(2):384-91.
8. **Ballo MT, Zagars GK, Pisters PW, Feig BW, Patel SR, von Eschenbach AC.** Spermatic cord sarcoma: outcome, patterns of failure and management. *J Urol* 2001;166(4):1306-10.
9. **Crane CH, Janjan NA, Evans DB, Wolff RA, Ballo MT, Milas L, Mason K, Charnsangavej C, Pisters PW, Lee JE, Lenzi R, Vauthey JN, Wong A, Phan T, Nguyen Q, Abbruzzese JL.** Toxicity and

- efficacy of concurrent gemcitabine and radiotherapy for locally advanced pancreatic cancer. *Int J Pancreatol* 2001;29(1):9-18.
10. Porter GA, Cantor SB, Ahmad SA, Lenert JT, Ballo MT, Hunt KK, Feig BW, Patel SR, Benjamin RS, Pollock RE, Pisters PW. Cost-effectiveness of staging computed tomography of the chest in patients with T2 soft tissue sarcomas. *Cancer* 2002;94(1):197-204.
 11. Ahmad SA, Patel SR, Ballo MT, Baker TP, Yasko AW, Wang X, Feig BW, Hunt KK, Lin PP, Weber KL, Chen LL, Zagars GK, Pollock RE, Benjamin RS, Pisters PW. Extrasosseous osteosarcoma: response to treatment and long-term outcome. *J Clin Oncol* 2002;20(2):521-7.
 12. Janjan N, Crane C, Delclos M, Ballo M. Brachytherapy for locally recurrent soft-tissue sarcoma. *Am J Clin Oncol* 2002;25(1):9-15.
 13. Ballo MT, Strom EA, Zagars GK, Bedikian AY, Prieto VG, Mansfield PF, Lee JE, Gershenwald JE, Ross MI. Adjuvant irradiation for axillary metastases from malignant melanoma. *Int J Radiat Oncol Biol Phys* 2002;52(4):964-72.
 14. Crane CH, Abbruzzese JL, Evans DB, Wolff RA, Ballo MT, Delclos M, Milas L, Mason K, Charnsangavej C, Pisters PW, Lee JE, Lenzi R, Vauthey JN, Wong AB, Phan T, Nguyen Q, Janjan NA. Is the therapeutic index better with gemcitabine-based chemoradiation than with 5-fluorouracil-based chemoradiation in locally advanced pancreatic cancer? *Int J Radiat Oncol Biol Phys* 2002;52(5):1293-302.
 15. Little DJ, Ballo MT, Zagars GK, Pisters PW, Patel SR, El-Naggar AK, Garden AS, Benjamin RS. Adult rhabdomyosarcoma: outcome following multimodality treatment. *Cancer* 2002;95(2):377-88.
 16. Pisters PW, Ballo MT, Patel SR. Preoperative chemoradiation treatment strategies for localized sarcoma. *Ann Surg Oncol* 2002;9(6):535-42.
 17. Ballo MT, Gershenwald JE, Zagars GK, Lee JE, Mansfield PF, Strom EA, Bedikian AY, Kim KB, Papadopoulos NE, Prieto VG, Ross MI. Sphincter-sparing local excision and adjuvant radiation for anal-rectal melanoma. *J Clin Oncol* 2002;20(23):4555-8.
 18. Hung A, Crane C, Delclos M, Ballo M, Ajani J, Lin E, Feig B, Skibber J, Janjan N. Cisplatin-based combined modality therapy for anal carcinoma: a wider therapeutic index. *Cancer* 2003;97(5):1195-202.
 19. Ballo MT, Bonnen MD, Garden AS, Myers JN, Gershenwald JE, Zagars GK, Schechter NR, Morrison WH, Ross MI, Kian Ang K. Adjuvant irradiation for cervical lymph node metastases from melanoma. *Cancer* 2003;97(7):1789-96.
 20. Zagars GK, Ballo MT, Pisters PW, Pollock RE, Patel SR, Benjamin RS, Evans HL. Prognostic factors for patients with localized soft-tissue sarcoma treated with conservation surgery and radiation therapy: an analysis of 225 patients. *Cancer* 2003;97(10):2530-43.
 21. Zagars GK, Ballo MT. Sequencing radiotherapy for soft tissue sarcoma when re-resection is planned. *Int J Radiat Oncol Biol Phys* 2003;56(1):21-7.
 22. Zagars GK, Ballo MT, Pisters PW, Pollock RE, Patel SR, Benjamin RS. Surgical margins and re-resection in the management of patients with soft tissue sarcoma using conservative surgery and radiation therapy. *Cancer* 2003;97(10):2544-53.
 23. Zagars GK, Ballo MT, Pisters PW, Pollock RE, Patel SR, Benjamin RS. Preoperative vs. postoperative radiation therapy for soft tissue sarcoma: a retrospective comparative evaluation of disease outcome. *Int J Radiat Oncol Biol Phys* 2003;56(2):482-8.
 24. Zagars GK, Ballo MT. Significance of dose in postoperative radiotherapy for soft tissue sarcoma. *Int J Radiat Oncol Biol Phys* 2003;56(2):473-81.
 25. Pisters PW, Ballo MT, Fenstermacher MJ, Feig BW, Hunt KK, Raymond KA, Burgess MA, Zagars GK, Pollock RE, Benjamin RS, Patel SR. Phase I trial of preoperative concurrent doxorubicin and radiation therapy, surgical resection, and intraoperative electron-beam radiation therapy for patients with localized retroperitoneal sarcoma. *J Clin Oncol* 2003;21(16):3092-7.
 26. Caudell JJ, Ballo MT, Zagars GK, Lewis VO, Weber KL, Lin PP, Marco RA, El-Naggar AK, Benjamin RS, Yasko AW. Radiotherapy in the management of giant cell tumor of bone. *Int J Radiat Oncol Biol Phys* 2003;57(1):158-65.
 27. Zagars GK, Ballo MT, Pisters PW, Pollock RE, Patel SR, Benjamin RS. Prognostic factors for disease-specific survival after first relapse of soft-tissue sarcoma: analysis of 402 patients with

- disease relapse after initial conservative surgery and radiotherapy. *Int J Radiat Oncol Biol Phys* 2003;57(3):739-47.
28. Court LE, Dong L, Taylor N, **Ballo M**, Kitamura K, Lee A, O'Daniel J, White R, Cheung R, Kuban D. Inter and Intra-User Variability in CT-Guided Prostate Localization. *Int J Radiat Oncol Biol Phys* 57(2 Suppl):S332-333, 2003.
 29. **Ballo MT**, Zagars GK, Cormier JN, Feig BW, Patel SR, Pisters PW. The Length of Time Between Surgery and Post-Operative Radiotherapy and Local Control for Soft Tissue Sarcoma. *Int J Radiat Oncol Biol Phys* 2003;57(2 Suppl):S254.
 30. Bonnen MD, **Ballo MT**, Myers JN, Garden AS, Diaz EM, Gershenwald JE, Morrison WH, Lee JE, Oswald MJ, Ross MI, Ang KK. Elective radiotherapy provides regional control for patients with cutaneous melanoma of the head and neck. *Cancer* 2004;100(2):383-9.
 31. Zagars GK, **Ballo MT**, Lee AK, Strom SS. Mortality after cure of testicular seminoma. *J Clin Oncol* 2004;22(4):640-7.
 32. Kim KB, Sanguino AM, Hodges C, Papadopoulos NE, Eton O, Camacho LH, Broemeling LD, Johnson MM, **Ballo MT**, Ross MI, Gershenwald JE, Lee JE, Mansfield PF, Prieto VG, Bedikian AY. Biochemotherapy in patients with metastatic anorectal mucosal melanoma. *Cancer* 2004;100(7):1478-83.
 33. **Ballo MT**, Zagars GK, Cormier JN, Hunt KK, Feig BW, Patel SR, Pisters PW. Interval between surgery and radiotherapy: effect on local control of soft tissue sarcoma. *Int J Radiat Oncol Biol Phys* 2004;58(5):1461-7.
 34. Cormier JN, **Ballo MT**. Functional outcome after treatment of lower extremity soft tissue sarcoma: what should we tell our patients? *Ann Surg Oncol* 2004;11(5):453-4.
 35. Court LE, Dong L, Taylor N, **Ballo M**, Kitamura K, Lee AK, O'Daniel J, White RA, Cheung R, Kuban D. Evaluation of a contour-alignment technique for CT-guided prostate radiotherapy: an intra- and interobserver study. *Int J Radiat Oncol Biol Phys* 2004;59(2):412-8.
 36. Pisters PW, Patel SR, Prieto VG, Thall PF, Lewis VO, Feig BW, Hunt KK, Yasko AW, Lin PP, Jacobson MG, Burgess MA, Pollock RE, Zagars GK, Benjamin RS, **Ballo MT**. Phase I trial of preoperative doxorubicin-based concurrent chemoradiation and surgical resection for localized extremity and body wall soft tissue sarcomas. *J Clin Oncol* 2004;22(16):3375-80.
 37. **Ballo MT**, Zagars GK, Gershenwald JE, Lee JE, Mansfield PF, Kim KB, Camacho LH, Hwu P, Ross MI. A critical assessment of adjuvant radiotherapy for inguinal lymph node metastases from melanoma. *Ann Surg Oncol* 2004;11(12):1079-84.
 38. **Ballo MT**, Garden AS, Myers JN, Lee JE, Diaz EM, Sturgis EM, Morrison WH, Gershenwald JE, Ross MI, Weber RS, Ang KK. Melanoma metastatic to cervical lymph nodes: Can radiotherapy replace formal dissection after local excision of nodal disease? *Head Neck* 2005;27(8):718-21.
 39. Vorburger SA, Xing Y, Hunt KK, Lakin GE, Benjamin RS, Feig BW, Pisters PW, **Ballo MT**, Chen L, Trent J, Burgess M, Patel S, Pollock RE, Cormier JN. Angiosarcoma of the breast. *Cancer* 2005;104(12):2682-8.
 40. **Ballo MT**, Ross MI, Cormier JN, Myers JN, Lee JE, Gershenwald JE, Hwu P, Zagars GK. Combined-modality therapy for patients with regional nodal metastases from melanoma. *Int J Radiat Oncol Biol Phys* 2006;64(1):106-13.
 41. Pawlik TM, Ross MI, Prieto VG, **Ballo MT**, Johnson MM, Mansfield PF, Lee JE, Cormier JN, Gershenwald JE. Assessment of the role of sentinel lymph node biopsy for primary cutaneous desmoplastic melanoma. *Cancer* 2006;106(4):900-6.
 42. Beddar AS, Krishnan S, Briere TM, Wang X, Delclos ME, **Ballo MT**, Das P, Gould S, Horton JL, Crane CH. The optimization of dose delivery for intraoperative high-dose-rate radiation therapy using curved HAM applicators. *Radiother Oncol* 2006;78:207-12.
 43. Pawlik TM, Pisters PW, Mikula L, Feig BW, Hunt KK, Cormier JN, **Ballo MT**, Catton CN, Jones JJ, O'Sullivan B, Pollock RE, Swallow CJ. Long-term results of two prospective trials of preoperative external beam radiotherapy for localized intermediate- or high-grade retroperitoneal soft tissue sarcoma. *Ann Surg Oncol* 2006;13:508-17.
 44. Tseng JF, **Ballo MT**, Langstein HN, Wayne JD, Cormier JN, Hunt KK, Feig BW, Yasko AW, Lewis VO, Lin PP, Cannon CP, Zagars GK, Pollock RE, Pisters PW. The effect of preoperative

- radiotherapy and reconstructive surgery on wound complications after resection of extremity soft-tissue sarcomas. *Ann Surg Oncol* 2006;13:1209-15.
45. Cannon CP, Ballo MT, Zagars GK, Mirza AN, Lin PP, Lewis VO, Yasko AW, Benjamin RS, Pisters PW. Complications of combined modality treatment of primary lower extremity soft-tissue sarcomas. *Cancer* 2006;107:2455-61.
 46. Ballo MT, Zagars GK, Pollock RE, Benjamin RS, Feig BW, Cormier JN, Hunt KK, Patel SR, Trent JC, Beddar S, Pisters PW. Retroperitoneal soft tissue sarcoma: an analysis of radiation and surgical treatment. *Int J Radiat Oncol Biol Phys* 2007;67:158-163.
 47. Lin PP, Pino ED, Normand AN, Deavers MT, Cannon CP, Ballo MT, Pisters PW, Pollock RE, Lewis VO, Zagars GK, Yasko AW. Periosteal margin in soft-tissue sarcoma. *Cancer* 2007;109:598-602.
 48. Torres MA, Ballo MT, Butler CE, Feig BW, Cormier JN, Lewis VO, Pollock RE, Pisters PW, Zagars GK. Management of locally recurrent soft-tissue sarcoma after prior surgery and radiation therapy. *Int J Radiat Oncol Biol Phys* 2007;67:1124-9.
 49. Lev D, Kotilingam D, Wei C, Ballo MT, Zagars GK, Pisters PW, Lazar AA, Patel SR, Benjamin RS, Pollock RE. Optimizing treatment of desmoid tumors. *J Clin Oncol* 2007;25:1785-91.
 50. Harb WJ, Luna MA, Patel SR, Ballo MT, Roberts DB, Sturgis EM. Survival in patients with synovial sarcoma of the head and neck: association with tumor location, size, and extension. *Head Neck* 2007;29:731-40.
 51. Pisters PW, Pollock RE, Lewis VO, Yasko AW, Cormier JN, Respondek PM, Feig BW, Hunt KK, Lin PP, Zagars G, Wei C, Ballo MT. Long-term results of prospective trial of surgery alone with selective use of radiation for patients with T1 extremity and trunk soft tissue sarcomas. *Ann Surg* 2007;246:675-81; discussion 681-2, 10/2007.
 52. Guadagnolo BA, Zagars GK, Ballo MT, Patel SR, Lewis VO, Pisters PW, Benjamin RS, Pollock RE. Long-term outcomes for synovial sarcoma treated with conservation surgery and radiotherapy. *Int J Radiat Oncol Biol Phys* 2007;69:1173-80.
 53. Lev D, Kotilingam D, Wei C, Ballo MT, Zagars GK, Pisters PW, Lazar AA, Patel SR, Benjamin RS, Pollock RE. Evolving patterns of desmoid tumor. *J Clin Oncol* 2007;25:1785-1791.
 54. Guadagnolo BA, Zagars GK, Ballo MT, Patel SR, Lewis VO, Pisters PWT, Benjamin RS, Pollock RE. Long-term outcomes for synovial sarcoma treated with conservation surgery and radiation therapy. *Int J Radiat Oncol Biol Phys* 2007;69:1173-1180.
 55. Pisters PWT, Pollock RE, Yasko AW, Lewis VO, Cormier JN, Respondek PM, Feig BW, Hunt KK, Lin PP, Zagars G, Wei C, Ballo MT. Long-term results of a prospective trial of surgery alone with selective use of radiation treatment for patients with T1 extremity and trunk soft tissue sarcomas. *Ann Surg* 2007;246:675-682.
 56. Torres MA, Ballo MT, Butler CE, Feig BW, Cormier JN, Lewis VO, Pollock RE, Pisters PWT, Zagars GK. Treatment for isolated local recurrence of soft tissue sarcoma arising in a previously irradiated field. *Int J Radiat Oncol Biol Phys* 2007;67:1124-1129.
 57. Heller L, Ballo MT, Cormier JN, Oates SD, Butler CE. Staged reconstruction for resection wounds in sarcoma patients treated with brachytherapy. *Ann Plast Surg* 2008;60:58-63.
 58. Guadagnolo BA, Zagars GK, Ballo MT, Patel SR, Lewis VO, Benjamin RS, Pollock RE. Excellent local control rates and distinctive patterns of failure in myxoid liposarcoma treated with conservation surgery and radiotherapy. *Int J Radiat Oncol Biol Phys* 2008;70:760-5, 3/2008.
 59. Guadagnolo BA, Zagars GK, Ballo MT. Long-term outcomes for desmoid tumors treated with radiation therapy. *Int J Radiat Oncol Biol Phys* 2008;71:441-7.
 60. Guadagnolo BA, Zagars GK, Ballo MT, Strom SS, Pollock RE, Benjamin RS. Mortality after cure of soft-tissue sarcoma treated with conservation surgery and radiotherapy. *Cancer* 2008;113:411-8.
 61. Hsu A, Frank SJ, Ballo MT, Garden AS, Morrison WH, Rosenthal DI, Hatf E, Esmali B. Postoperative adjuvant external-beam radiation therapy for cancers of the eyelid and conjunctiva. *Ophthalm Plast Reconstr Surg* 2008;24:444-9.
 62. Bartell HL, Bedikian AY, Papadopoulos NE, Dett TK, Ballo MT, Myers JN, Hwu P, Kim KB. Biochemotherapy in patients with advanced head and neck mucosal melanoma. *Head Neck* 2008;30:1592-8.

63. **Ballo MT**, Postma KE, Washington CM, Buchholz TA, Cox JD. Development of a successful outreach program at M. D. Anderson Cancer Center: a global perspective. *J Am Coll Radiol* 2008;5:1170-3.
64. Davis EC, **Ballo MT**, Luna MA, Patel SR, Roberts DB, Nong X, Sturgis EM. Liposarcoma of the head and neck: The University of Texas M. D. Anderson Cancer Center experience. *Head Neck* 2009;31:28-36.
65. Beadle BM, Guadagnolo BA, **Ballo MT**, Lee JE, Gershenwald JE, Cormier JN, Mansfield PF, Ross MI, Zagars GK. Radiation therapy field extent for adjuvant treatment of axillary metastases from malignant melanoma. *Int J Radiat Oncol Biol Phys* 2009;73:1376-82.
66. Agrawal S, Kane JM, Guadagnolo BA, Kraybill WG, **Ballo MT**. The benefits of adjuvant radiation therapy after therapeutic lymphadenectomy for clinically advanced, high-risk, lymph node-metastatic melanoma. *Cancer* 2009;115:5836-44.
67. Gifford KA, Nelson CL, Kirsner SM, Kisling KD, **Ballo MT**, Bloom ES. On the feasibility of treating to a 1.5 cm PTV with a commercial single-entry hybrid applicator in APBI breast brachytherapy. *J Contemp Brachyther* 2012;4:29-33.
68. Gifford KA, Pacha O, Hebert AA, Nelsen CL, Kirsner SM, **Ballo MT**, Bloom ES. A new paradigm for calculating skin dose. *Brachytherapy* 2013;12:114-9.
69. **Ballo MT**, Chronowski GM, Schlembach PJ, Bloom ES, Arzu IY, Kuban DA. Prospective peer review quality assurance for outpatient radiation therapy. *Pract Radiat Oncol*. 2014;4(5):279-84.
70. Davidson S, Kirsner S, Mason B, Kisling K, Barrett RD, Bonetati A, **Ballo MT**. Dosimetric impact of setup accuracy for an electron breast boost technique. *Pract Radiat Oncol*. 2015 *In Press*.

Invited Articles

1. **Ballo MT**, Ang KK. Radiation therapy for malignant melanoma. *Surg Clin North Am* 83(2):323-42, 4/2003.
2. **Ballo MT**, Zagars GK. Radiation therapy for soft tissue sarcoma. *Surg Oncol Clin N Am* 12(2):449-67, vii, 4/2003.
3. **Ballo MT**, Lee AK. Current results of brachytherapy for soft tissue sarcoma. *Curr Opin Oncol* 15(4):313-8, 7/2003.
4. **Ballo MT**, Ang KK. Radiotherapy for cutaneous malignant melanoma: rationale and indications. *Oncology (Williston Park)* 18(1):99-107; discussion 107-10, 113-4, 1/2004.

Editorials

1. **Ballo MT**, Pollack A, Zagars GK. Controversies in the Management of Stage I Seminoma. *Oncology* 1998;12:1217-1221.
2. **Ballo MT**, Pisters PWT. Commentary on: Improving breast cancer quality of care with the use of patient navigators [*Am Surg*. 2010;76:1043-1046]. *Breast Disease: A Yearbook Quarterly* 2011;22:256-257.
3. **Ballo MT**, Reed VK. Commentary on: Accelerated partial breast irradiation with interstitial implants: risk factors associated with increased local recurrence [*Int J Radiat Oncol Biol Phys*. 2011;80:1458-1463]. *Breast Disease: A Yearbook Quarterly* 2012;23:85.
4. **Ballo MT**, Reed VK. Commentary on: Psychosocial group intervention for patients with primary breast cancer: a randomized trial [*Eur J Cancer*. 2011;47:1363-1372]. *Breast Diseases: A Year Book Quarterly*. 2012;23:230.

Abstracts (last 10 years)

1. **Ballo MT**. Melanoma metastatic to cervical lymph nodes: Can radiotherapy replace formal lymph node dissection after wide local excision? Annual Meeting of the American Society for Therapeutic Radiology and Oncology, Atlanta, GA, 2004.
2. **Ballo MT**. Mortality after apparent cure of patient with soft tissue sarcoma. Annual Meeting of the Connective Tissue, Montreal, Canada, 2004.

3. **Ballo MT.** Complications of Combined Modality Treatment of Primary Lower Extremity Soft Tissue Sarcomas. Connective Tissue Oncology Society 11th Annual Meeting, Boca Raton, FL, 2005.
4. **Ballo MT.** The Periosteal Margin in Soft Tissue Sarcomas. Connective Tissue Oncology Society 11th Annual Meeting, Boca Raton, FL, 2005.
5. **Ballo MT.** Therapeutic Lymphadenectomy Alone Versus Adjuvant Radiotherapy for Regional Nodal Metastases from Melanoma. American Society of Clinical Oncology 44th Annual Meeting, Chicago, IL, 2008.
6. **Ballo MT.** A Peer Review Program for Outpatient Radiotherapy. Annual Meeting of the American Society for Therapeutic Radiology and Oncology, San Diego, CA, 2010.
7. Bolukbasi Y, Selek U, Saglam Y, Kataria A, Unal Z, Alpan VZ, Kirsner S, **Ballo MT.** Breath hold irradiation technique for left sided breast cancer significantly reduces cardiac radiation exposure. Annual Meeting of the European Society for Radiotherapy and Oncology, Barcelona, Spain, 2012.
8. Selek U, Bolukbasi Y, Saglam Y, Alpan V, Kirsner S, **Ballo MT.** Volumetric Arc Therapy Seems More Promising To Spare Organ At Risk In Adjuvant Postoperative Radiotherapy For Pancreas Adenocarcinoma In Comparison To Step And Shoot Intensity Modulated Radiotherapy. Annual Meeting of the American Society for Radiation Oncology, Boston, MA, 2012.

Book Chapters

1. **Ballo MT.** Radiation Therapy for Soft Tissue Sarcoma. In: Atlas of Cancer, 1. Lippincott Williams & Wilkins: Philadelphia, PA, 360-363, 2002.
2. **Ballo MT, Shadle K, Pollack A.** Radiotherapy in the Management of Seminoma. In: Atlas of Genitourinary Oncology, 1. W. B. Saunders Company: Philadelphia, PA, 205-216, 2002.
3. Janjan NA, Delclos ME, **Ballo MT, Crane CH.** Palliative Care. In: Radiation Oncology. Rationale, Technique, Results. 8. Mosby: St. Louis, MO, 954-986, 2003.
4. Janjan NA, **Ballo MT, Delclos ME, Crane CH.** The Anal Region. In: Radiation Oncology. Rationale, Technique, Results. 8. Mosby: St. Louis, MO, 537-556, 2003.
5. Janjan NA, Delclos ME, **Ballo MT, Crane CH.** The Colon and Rectum. In: Radiation Oncology. Rationale, Technique, Results. 8. Mosby: St. Louis, MO, 497-536, 2003.
6. **Ballo MT, Zagars GK.** The Soft Tissue. In: Radiation Oncology. Rationale, Technique, Results, 8. Mosby: St. Louis, MO., 884-911, 2003.
7. **Ballo MT, Ross Ml.** Anal Melanoma. In: Clinical Scenarios in Surgical Oncology. Lippincott Williams & Wilkins: Philadelphia, PA, 173-177, 2005.
8. **Ballo MT, Ang KA.** Malignant Melanoma. In: Clinical Radiation Oncology, 2. Elsevier, Churchill Livingstone: Philadelphia, PA, 865-977, 2007.
9. **Ballo MT.** Radiation Therapy for Soft Tissue Sarcoma. In: Atlas of Cancer, 2. Lippincott Williams & Wilkins: Philadelphia, PA, 360-363, 2008.
10. **Ballo MT, Zagars GK.** Soft Tissue Sarcoma. In: Advanced Therapy in Surgical Oncology, 1. BC Decker Inc., Hamilton: Ontario, Canada, 684-691, 2008.
11. McGovern SL, **Ballo MT.** Radiation Oncology in Skin Cancer Treatment. In: Skin Cancer Management, A Practical Approach, 1. Springer: New York, NY, 259-271, 2010.
12. **Ballo MT, Zagars Gk.** The Soft Tissue. In: Radiation Oncology. Rationale, Technique, Results. 8. Mosby: St. Louis, MO, 884-911, 2010.
13. **Ballo, MT, Ang KK.** Malignant Melanoma. In: Clinical Radiation Oncology, 3rd. Ed(s) LL Gunderson & JE Tepper. Elsevier: Philadelphia, 771-782, anticipated 2014.

Research Experience

Protocols (Funded)

Principal Investigator, A pilot phase II study of pre-operative radiation therapy and thalidomide for low grade primary soft tissue sarcoma or preoperative MAID/thalidomide/radiation therapy for high/intermediate grade primary soft tissue sarcoma of the extremity or body wall, RTOG 0330, 2004.

Protocols (Unfunded)

Principal Investigator, Image guided radiotherapy to analyze reproducibility of our lateral decubitus breast boost technique, MDACC 2011-0706, 2011.

Teaching Experience**Organization of Conferences/Symposia (Include chairing session)**

Rad Onc 2002, MD Anderson Department of Radiation Oncology, Houston, TX, Chair, 2002

Rad Onc 2004, MD Anderson Department of Radiation Oncology, Houston, TX, Chair, 2004

Texas Radiological Society, Radiation Oncology Section, Houston, TX, Vice Chair, 2013

Texas Radiological Society, Radiation Oncology Section, Houston, TX, Chair, 2014

Member of Editorial Review Board

Guest Editor, Breast Diseases: A Yearbook Quarterly, 2011-present

Journal Reviewer

Reviewer, American Journal of Clinical Oncology, 2014-present

Reviewer, International Journal of Radiation Oncology, Biology, Physics, 2000-present

Reviewer, Cancer, 2002-present

Reviewer, International Journal of Cancer, 2002-present

Reviewer, British Journal of Cancer, 2003-present

Reviewer, Radiotherapy and Oncology, 2003-present

Reviewer, Journal of Clinical Oncology, 2008-present

Reviewer, European Journal of Surgical Oncology, 2010-present

Reviewer, Lancet Oncology, 2011-present

Reviewer, Case Reports in Medicine, 2012-present

Reviewer, Head and Neck, 2008-present

Manuals, Teaching Aids, Other Teaching Publications

Ballo MT. Radiotherapy Review for the National Boards: A Comprehensive Guide for Residents.

Formal Teaching Courses Taught

Lecturer, Malignant Melanoma for Radiation Oncology Residents. Yearly, 2000-2007

Lecturer, Soft Tissue Sarcoma for Radiotherapists. Yearly, 2000-present

Lecturer, Basic Introduction to Radiation Oncology to 4th year medical students rotating on Hematology/Oncology Rotation. 2005-2008

Lecturer, Soft Tissue Sarcoma for Baylor Radiation Oncology Residents. Yearly, 2007-present

Lecturer, Introduction to Radiation Oncology for St John's Nurses, CHRISTUS St. John's. 2012

Presentations at National or International Conferences (Invited)

1. The Role of Radiation in Treatment of Melanoma, Asheville, NC, 2002
2. The Role of Radiation in Treatment of Soft Tissue Sarcoma, Asheville, NC, 2002

3. Novel Forms of Radiation Therapy, Association of Physician Assistants in Oncology, Austin, TX, 2003
4. The Role of Intraoperative Radiotherapy for Recurrent Rectal Cancer, Advances and Controversies in Clinical Oncology, Steamboat Springs, CO, 2003
5. Management of Patients with a Positive Sentinel Lymph Node from Malignant melanoma, Advances and Controversies in Clinical Oncology, Steamboat Springs, CO, 2004
6. Radiotherapy for patient with soft tissue sarcoma: who gets XRT and who needs it?, Advances and Controversies in Clinical Oncology, Park City, UT, 2005
7. Complications of Combined Surgery and Radiation Therapy of Primary Lower Extremity Soft Tissue Sarcomas, Western Orthopedic Association 70th Annual Meeting, Santa Fe, NM, 2006
8. Resection and Brachytherapy for Recurrent Soft Tissue Sarcoma Arising in a Previously Irradiated Field., American Brachytherapy Society Meeting, San Francisco, CA, 2006
9. Treatment of Soft Tissue Sarcomas Abutting Bone, Musculoskeletal Tumor Society Annual Meeting, Key West, FL, 2006
10. An Introduction to Radiation Oncology, Amarillo Cancer Programs Consortium, Amarillo, TX, 2007
11. Education Session on the Management of Patients with Soft Tissue Sarcoma, American Society for Therapeutic Radiology and Oncology, Los Angeles, CA, 2007
12. Education Session on the Management of Patients with Soft Tissue Sarcoma, American Society for Therapeutic Radiology and Oncology, Boston, MA, 2008
13. Discussant for the Plenary Session Abstract Presentation, American Society for Therapeutic Radiology and Oncology, Chicago, IL, 2009

Affiliations/Memberships

National and International

- Alpha Omega Alpha Honor Medical Society, Menlo Park CA, Member, 1996-present
- American College of Radiation Oncology, Bethesda, MD, Member, 1996-2000
- Connective Tissue Oncology Society, Alexandria, VA, Member, 2000-2007
- International Society of Intraoperative Radiation Therapy, Houston, TX, Member, 2000-2005
- American Society for Therapeutic Radiology and Oncology, Fairfax, VA, Member, 1996-present
- American College of Radiology, Reston, VA, Member, 2000-present,
- American Society of Clinical Oncologists, Alexandria, VA, Member, 2000-present

Local/State

- Gilbert H. Fletcher Society, Houston, TX, Active Member, 2000-present
- Texas Radiological Society, Austin, TX, Member, 2000-present
- Harris County Medical Society, Houston, TX, Active Member, 2001-present
- Texas Medical Association, Austin, TX, Member, 2001-present

**ATTACHMENT 13
LETTERS OF SUPPORT**



Methodist
University Hospital
Transplant Institute

THE UNIVERSITY of
TENNESSEE
HEALTH SCIENCE CENTER

February 18, 2016

Melanie M. Hill
Executive Director
Tennessee Health Services and Development Agency
Andrew Jackson State Office Building, Ninth Floor
502 Deaderick Street
Nashville, TN 37243

Dear Ms. Hill:

I am writing this letter in support of the proposed Methodist University Hospital Certificate of Need application which has been filed with your agency. I am the Program Director of the Methodist University Hospital Transplant Institute and Professor of Surgery at the University of Tennessee Health Science Center in Memphis, TN.

The UT program partnered with Methodist Le Bonheur Healthcare in 2004 and formed the Methodist University Hospital Transplant Institute (MUHTI). More than 1,000 liver transplants and 1,000 kidney transplants have been performed at MUHTI and Le Bonheur Children's Hospital since 2006. MUHTI serves the highest percentage of minority patients in the country and has the only pediatric liver transplant program in the underserved Mid-South (TN, AR, and MS). MUHTI is renowned for the most experience in steroid-free liver transplantation in the world. The Institute ranks among the top 10 liver transplant programs, the top 15 overall transplant programs in the nation, and has performed over 6,000 transplants.

The experience of receiving a transplanted organ is unlike any other patient experience. Patients embark on a lifelong journey with the transplant care team. From pre-transplant testing through the wait for an organ and then to life changing transplant surgery, the Institute serves as a home away from home. As patients return again and again for post-transplant medical, social, psychological and spiritual support, the importance of a comprehensive care center as a home becomes even more critical. This enduring connection to the Transplant Institute makes it imperative that the facility provide integrated inpatient and outpatient services offerings in a single building.

This care we provide our transplant patients is extraordinary, but the facility where those patients receive care is not. Currently, our Institute is spread over several buildings on campus. This causes not only stress on patients and families navigating the many steps in the Transplant process, but also taxes the efficiency of our care model. On behalf of our patients, families, staff and physicians, I ask that you strongly consider the application before you.

Thank you for your consideration on this matter.

Sincerely,

James B. Goren, MD, FACS
Program Director, Chief of Transplantation
Professor of Surgery

1231 Union Avenue • Suite 340 • Memphis, Tennessee 38104 • 901-518-9183 • Toll Free 1-866-805-7710
www.methodisthealth.org/transplant



The University of Tennessee

WEST

Institute for Cancer Research

February 18, 2016

Ms. Melanie M. Hill
Executive Director
Tennessee Health Services and Development Agency
Andrew Jackson State Office Building, Ninth Floor
502 Deaderick Street
Nashville, Tennessee 37243

Dear Ms. Hill:

I write to you in support of the proposed Methodist University Hospital Certificate of Need application which has been filed with your agency. As the Executive Director of West Cancer Center, I can attest to historic growth for our organizations, as we continue to expand our services and facilities.

This letter is written with great enthusiasm to ask for your support from the Tennessee Health Services and Development Agency. Collaboration has been the igniting force for our partnership with Methodist Healthcare, as we embarked collectively and steadfastly on a mission to combine the foremost experts in patient care, research and education in order to provide the best possible cancer treatment for patients both here in Memphis and across the United States.

Upon approval of this project we will march forward with continued enhancement of oncology services to our entire community, specifically in the downtown Memphis region where we will care for many underserved and uninsured. No longer will patients have to visit multiple office locations for the often complex interventions needed for their cancer treatment. Much like our East Memphis Campus, they can see their entire team of expert physicians, all in a single visit on the Methodist University Campus. The net result is a collaborative environment that will foster our comprehensive approach to treatment and transform the delivery of oncology care in the Mid-South.

I thank you for your serious consideration this application rightfully deserves.

Sincerely,

Lee S. Schwartzberg, M.D., F.A.C.P.
Executive Director

February 25, 2016

406 pm



The University of Tennessee

WEST

Institute for Cancer Research

February 18, 2016

Ms. Melanie M. Hill
Executive Director
Tennessee Health Services and Development Agency
Andrew Jackson State Office Building, Ninth Floor
502 Deaderick Street
Nashville, Tennessee 37243

Dear Ms. Hill:

I am writing this letter in support of the proposed Methodist University Hospital Certificate of Need application which has been filed with your agency. As the Chief Executive Officer of the University of Tennessee West Cancer Center, it is with great enthusiasm that we write this support letter to the Tennessee Health Services and Development Agency. West Cancer Center represents over 50 cancer-focused physician providers in Memphis and the Mid-South community.

We are taking steps to assure that all cancer patients – no matter their socioeconomic background – have access to the life-saving resources and exceptional care provided by our world-class physicians and faculty. The approval of this project will allow for this continued enhancement of oncology services to our entire community, specifically in the downtown Memphis region. The project will provide West Cancer Center with the ability to add additional access points to our community members, as well as, provide for growth as we prepare ourselves for the predicted increase in cancer incidence rates over the next 5 – 7 years.

This project, not only prepares us for that well documented need, but also allows us to integrate our services into one site. The delivery of multidisciplinary care within one cancer center is the best way to treat cancer patients in our community. Patients will no longer have to go to many sites to receive care for this terrible disease. The approval of this application is imperative for us to continue our mission and face our fight against cancer for our community and the mid-south region.

Thank you for your consideration of this application which will positively affect the outcomes of many cancer patients and their caregivers for years to come.

Sincerely,

Erich A. Mounce
Chief Executive Officer



The University of Tennessee

WEST

Institute for Cancer Research

February 18, 2016

Ms. Melanie M. Hill
Executive Director
Tennessee Health Services and Development Agency
Andrew Jackson State Office Building, Ninth Floor
502 Deaderick Street
Nashville, Tennessee 37243

Dear Ms. Hill:

Please accept my letter of support for the proposed Methodist University Hospital Certificate of Need application recently filed with your agency. As the Department Chair of the Radiation Oncology Division of West Cancer Center, it is with sincere optimism that we write this support letter to the Tennessee Health Services and Development Agency.

All of the major advances in the field of Radiation Oncology have been directed at personalizing the way radiation is delivered. With our proposed West Cancer Center Campus at Methodist University, we will have the opportunity to provide "side-by-side" care for our patients through the ease of collaboration with other faculty members working within the system.

Radiation Oncologists are an integral part of so many of our patient's multi-disciplinary team -- working together with Medical Oncologists and Surgical Oncologists to develop treatment protocols that personalize the care that is prescribed. This only leads to better outcomes for our patients.

Many of the patients we currently treat at Methodist University have so many barriers to care. By providing this "side-by-side" protocol, we can vastly increase the chances for our patient's survival, and ease many burdens on their caregivers.

I sincerely thank you for your consideration of this application which will positively affect the outcomes of many cancer patients and their caregivers.

Respectfully yours,

Matthew Ballo M.D., F.A.C.R.
Department Chair, Radiation Oncology

FEB 25 2016



Neurosurgery

Jon H. Robertson, M.D.
 Michael S. Muhlbauer, M.D.
 Kevin T. Foley, M.D.
 Maurice M. Smith, M.D.
 Stephanie L. Einhaus, M.D.
 Rodney G. Ollinger, M.D.
 Frederick A. Boop, M.D.
 Jeffrey M. Sorenson, M.D.
 Kenan Arnautovic, M.D., Ph.D.
 L. Madison Michael, II, M.D.
 Julius Fernandez, M.D.
 Adam S. Arthur, M.D., M.P.H.
 Jason A. Weaver, M.D.
 Daniel A. Holt, M.D., M.P.H.
 Todd E. Fountain, M.D.
 Paul Klimo, Jr., M.D., M.P.H.
 John D. Brophy, M.D.
 LaVerne R. Lovell, M.D.
 Raul J. Cardenas, M.D.

Pediatric Neurosurgery

Michael S. Muhlbauer, M.D.
 Stephanie L. Einhaus, M.D.
 Frederick A. Boop, M.D.
 Paul Klimo, Jr., M.D., M.P.H.

Endovascular Neurosurgery

Adam S. Arthur, M.D., M.P.H.
 S. David Morris, M.D.
 Daniel A. Holt, M.D., M.P.H.
 Lucas Eljovitch, M.D.
 Robert E. Laster, M.D.

Stroke & Critical Care Neurology

Lucas Eljovitch, M.D.

Neurology

Lance J. Wright, M.D.
 Felyu Chen, M.D., Ph.D.
 Lucas Eljovitch, M.D.
 Vishad Kumar, M.D.
 Debashis Biswas, M.D.

Anesthesiology, Pain Management

Samuel C. Polk, M.D.
 Autry J. Parker, M.D.

Physical Medicine & Rehabilitation

Manuel F. Carro, M.D.
 Samuel C. Polk, M.D.

Neuropsychology

L. Keith Atkins, Ph.D., ABPP-CN
 Susan McChesney Atkins, Ph.D.,
 ABPP-CN
 Brandon C. Baughman, Ph.D., ABPP-
 CN

February 18, 2016

Melanie M. Hill
 Executive Director
 Tennessee Health Services and Development Agency
 Andrew Jackson State Office Building, Ninth Floor
 502 Deaderick Street
 Nashville, TN 37243

Dear Ms. Hill:

I am writing this letter in support of the proposed Methodist University Hospital Certificate of Need application, which has been filed with your agency. My name is L. Madison Michael II, MD. I am currently Chief of Neurosurgery at Methodist-University Hospital. In addition, I am Associate Professor and Program Director of the Neurosurgery Residency program here at the University of Tennessee and a member of the Semmes-Murphey Clinic.

Our department delivers the general and subspecialty neurosurgical care for the hospital. Neurological critical care and endovascular services also fall under our control. Because of the academic affiliation of Methodist with the University of Tennessee, we have been able to develop a comprehensive Neuroscience Institute that provides exceptional care, produces original research, and educates the next generation of physicians.

Our efforts at maximizing efficiency have been stifled by the physical layout of the hospital. Utilizing a tower concept, we will be able to consolidate our entire service line in one location. As health-care providers, this is the ideal working space. The results of this effort will improve the services we offer, resulting in streamlined work-flow and improved patient care.

Methodist University Hospital has demonstrated a commitment to excellence and improvement every step of the way. Their support of adding an intraoperative MRI scanner to the campus is a clear example of this. Technological advancements, along with vertical integration of our service line, will change the way we practice neurosurgery and allow us to establish a world-class institute of excellence.

Thank you for your consideration on this matter. We hope to see approval of this project.

Sincerely,

L. Madison Michael II, MD, FAANS, FACS
 Associate Professor and Residency Program Director

AFFIDAVIT

FEB 25 16 PM 406

STATE OF TENNESSEE

COUNTY OF Shelby

NAME OF FACILITY: Methodist University Hospital

I, Jeffrey H. Liebman, after first being duly sworn, state under oath that I am the applicant named in this Certificate of Need application or the lawful agent thereof, that I have reviewed all of the supplemental information submitted herewith, and that it is true, accurate, and complete.

Jeffrey H. Liebman
Signature/Title

Jeffrey H. Liebman
CEO, Methodist University Hospital
SVP, Methodist Healthcare

Sworn to and subscribed before me, a Notary Public, this the 23 day of FEBRUARY, 2016, witness my hand at office in the County of Shelby, State of Tennessee.

Debra D. Savage
NOTARY PUBLIC

My commission expires September 30, 2017.



ORIGINAL

SUPPLEMENTAL-2

**Methodist HealthCare Memphis
Hospital**

CN1602-009

216

SUPPLEMENTAL #2

TRAUGER & TUKE
ATTORNEYS AT LAW
THE SOUTHERN TURF BUILDING
222 FOURTH AVENUE NORTH
NASHVILLE, TENNESSEE 37219-2117
TELEPHONE (615) 256-8585
TELECOPIER (615) 256-7444

February 29, 2016
1:16 pm

February 29, 2016

VIA HAND DELIVERY

Ms. Melanie Hill
Executive Director
State of Tennessee
Health Services & Development Agency
502 Deaderick Street, 9th Floor
Nashville, TN 37243

RE: Methodist Healthcare-Methodist Hospitals d/b/a
Methodist University Hospital Certificate of Need Application
For Onsite Replacement and Modernization of the Hospital Campus

Dear Ms. Hill,

Enclosed please find a Supplemental Response #2, in triplicate, to be filed on behalf of my client Methodist Healthcare-Methodist Hospitals d/b/a Methodist University Hospital. Please date stamp the additional enclosed copy of the Response and return it to me.

Thank you for your assistance.

Very truly yours,


Byron R. Trauger

BRT:kmm

Enclosures

cc: Carol Weidenhoffer (via email)

**METHODIST HEALTHCARE—
MEMPHIS HOSPITALS**

**SUPPLEMENTAL RESPONSE #2
CN1602-009**

**ONSITE REPLACEMENT AND
MODERNIZATION OF THE
METHODIST UNIVERSITY
HOSPITAL CAMPUS**

MEMPHIS, SHELBY COUNTY

Filed February 2016

February 29, 2016**1:16 pm****1. Section C, Need, Item 1 (Project Specific Criteria) and Section C, Need, Item 5 (Service Area Provider Utilization – MRI and Radiation Therapy Services)**

Item 1 - The responses to the project specific criteria are noted. With respect to Table 1 in Attachment 4A (MRI) of the supplemental response, it would be helpful to provide an additional table that shows the combined inventory and utilization of the MRI services operating on all campuses under Methodist University Hospital's license.

UTILIZATION OF MRI EQUIPMENT 2012-2014

	2012		2013		2014	
	Proc	# of Units	Proc	# of Units	Proc	# of Units
Fixed Equipment						
Hospital-Based Equipment (HOSP)						
Le Bonheur Children's Hospital *	5,289	2	5,260	2	5,340	2
Methodist Healthcare - Germantown Hospital	6,557	2	6,892	2	6,904	2
Methodist Healthcare - South Hospital	4,139	1	4,090	1	3,487	1
Methodist Healthcare - North Hospital	6,092	2	6,003	2	6,415	2
Methodist Healthcare - University Hospital	9,803	3	10,524	3	11,130	3
Off-Campus Equipment						
West Clinic, P.C (ASTC/ODC)	1,564	1	1,287	1	1,655	1
Subtotal MRI	33,444	11	34,056	11	34,931	11
Le Bonheur Children's Hospital iMRI	68	1	73	1	92	1
Total MRI including iMRI	33,512	12	34,129	12	35,023	12

Source: Medical Equipment Registry (as of 8/10/2015)

*Note: Le Bonheur Children's Hospital has two standard pediatric MRIs and an iMRI which is used specifically for neurosurgery. Volumes for the iMRI are excluded in top of the chart and shown separately.

The MRI at West Clinic in Germantown is not on a hospital campus but is hospital-based equipment and owned and operated under the Methodist Healthcare-Memphis Hospitals license.

As mentioned previously, Le Bonheur Children's Hospital, part of the Methodist Healthcare-Memphis Hospitals, currently operates an iMRI. See the historical volumes above for this special use equipment at Le Bonheur. An iMRI is a special-use MRI that is used in the operating room. Similar to the Le Bonheur iMRI, this proposal is for an intraoperative magnetic resonance imaging (iMRI) unit for use in the neurosurgery operating room. This equipment will be used to assist neurosurgeons in the resection of brain tumors initially. Without this technology, MRI testing must be done in the hospital's radiology department post-operatively. This delayed imaging could identify the further need for surgery and the patient will have to undergo a subsequent surgery. iMRI is advanced technology in medicine that bridges the specialties of surgery and radiology. With this technology, the precision and success of surgical treatment of epilepsy and brain tumor removal increase.

Item 5 - The tables requested for purposes of providing a summary of the utilization of MRI and Radiation Therapy providers is noted. In the interest of consistency with Table 3 in Attachment 4A (MRI) and Table 2/ Table 3 in Attachment 4B (Radiation

Therapy), please revise the table by including a count of the number of units for each provider. An example is shown in the table below.

February 29, 2016
1:16 pm

**Provider Summary, Applicant's TN County Service Area
MRI Summary**

County	#Units by Provider Type*	2012 Scans	2013 Scans*	2014 Scans*	% Change '12-'14
Shelby (PSA)	HOSP (26 then 27 in 2013-4)	70,173	68,880	69,161	-1.4%
	PO (6)	27,064	26,351	26,897	-0.6%
	RPO (1)	6,538	6,737	6,505	-0.5%
	H-Imaging (3)	3,331	2,688	3,680	10.5%
	ODC (1)	2,214	2,563	2,889	30.5%
	ASTC/ODC (1)	1,564	1,287	1,655	5.8%
Shelby County (PSA)		110,884	108,506	110,787	-0.1%
Shelby County Scans per Unit		2,918	2,782	2,841	
Shelby County w/o HOSP St Jude		102,147	100,201	102,410	0.3%
Shelby County w/o HOSP St Jude Scans per Unit		3,004	2,863	2,926	
TN Counties in SSA ((7))	HOSP-Fixed (5)	15,536	14,639	13,205	-15.0%
	PO (3)	7,626	7,552	8,364	9.7%
	HODC (3)	7,027	6,491	7,090	0.9%
	ODC (1)	6,781	8,835	10,676	57.4%
	HOSP-Mobile (1)	389	292	314	-19.3%
TN Counties (SSA)		37,359	37,809	39,649	6.1%
TN Counties Scans per Unit		2,874	2,908	3,050	6.1%
TN Counties w/o HOSP Mobile (1 mobile unit)		36,970	37,517	39,335	6.4%
TN Counties w/o HOSP Mobile Scans per Unit		3,081	3,126	3,278	6.4%

Please note a correction from the previous chart filed for Shelby County 2013 scans per unit to 2,782. There was a typo in the previous chart which this corrects and adds the counts of equipment. The second subtotal for the Tennessee PSA excludes the 4 units at St. Jude.

**Provider Summary, Applicant's TN County Service Area
Radiation Therapy/Linear Accelerator Summary**

County	#Units by Provider Type*	2012 Scans	2013 Scans*	2014 Scans*	% Change '12-'14
Shelby (PSA)	HOSP (10)	56,360	51,351	54,584	-3.2%
	ASTC (1)	7,610	6,963	4,647	-38.9%
Shelby County (PSA)		63,970	58,314	59,231	-7.4%
Shelby County Scans per Unit		5,815	5,301	5,385	-7.4%
Shelby County w/o HOSP St Jude		59,365	54,558	54,707	-7.8%
Shelby County w/o HOSP St Jude Scans per Unit		6,596	6,062	6,079	-7.8%
TN Counties in SSA ((7))	HOSP (3)	14,985	13,195	-	-100.0%
	HRAD (3)	-	-	14,175	n/a
	RAD (2)	9,338	9,298	6,726	-28.0%
TN Counties (SSA)		24,323	22,493	20,901	-14.1%
TN Counties Scans per Unit		4,865	4,499	4,180	-14.1%

The second subtotal for the Tennessee PSA excludes the 2 units at St. Jude.

SUPPLEMENTAL #2**February 29, 2016**

**Note: Provider type can be abbreviated using the following legend: H (hospital); HOPD (hospital outpatient department); ODC (outpatient diagnostic center); PO (private medical practice); RPO (radiologist physician office). Please check with Alecia Craighead, Stat III, for assistance with data available from the HSDA Equipment Registry*

2. Section C, Need, Item 6

The table showing the utilization of the hospital's MRI, Radiation Therapy and PET services is noted.

With respect to MRI, it appears that the utilization specific to the 3 MRI units on the applicant's main campus was provided in the table. Please complete the table below showing the historical and projected MRI utilization of Methodist University Hospital's main campus and the combined utilization of the MRI service operating under the hospital's consolidated license.

Service	2013	2014	2015 Preliminary	% Change '13-15'	2016 Projected	Year 1	Year 2
MRI (main University Campus)	10,524	11,130	11,100	5.5%	11,297	11,979	12,159
MRI (satellite locations)	23,605	23,893	23,610	0.0%	n/a	n/a	n/a
MRI (combined University and satellite locations)	34,129	35,023	34,710	1.7%	n/a	n/a	n/a

Source: Tennessee Medical Equipment Registry as of 8/2015 and internal data

Note: Satellite locations include Methodist North, Methodist South, Methodist Le Bonheur Germantown, Le Bonheur Children's Hospital and West Cancer Center (off-campus, hospital-based equipment)

Also, includes the Le Bonheur iMRI with volumes noted in #1 above and 122 iMRI procedures performed in 2015 as noted in earlier responses.

Per previous conversation, the projected volumes were calculated for the project-only equipment in 2016 and through Year 1 and Year 2 so are shown as n/a-not applicable.

February 29, 2016

1:16 pm

AFFIDAVIT

STATE OF TENNESSEE

COUNTY OF Shelby

NAME OF FACILITY: Methodist University Hospital

I, Jeffrey H. Liebman, after first being duly sworn, state under oath that I am the applicant named in this Certificate of Need application or the lawful agent thereof, that I have reviewed all of the supplemental information submitted herewith, and that it is true, accurate, and complete.

Jeffrey H. Liebman CEO
Signature/Title

Sworn to and subscribed before me, a Notary Public, this the 29th day of February, 2016, witness my hand at office in the County of Shelby, State of Tennessee.

Martha A. Curry
NOTARY PUBLIC

My commission expires 11/2, 2019.

HF-0043

Revised 7/02





FEB 10 10:16 AM 2016

February 9, 2016

Melanie Hill
Executive Director
State of Tennessee
Health Services and Development Agency
Andrew Jackson Building
502 Deaderick Street, 9th Floor
Nashville, TN 37243

Dear Ms. Hill:

Methodist Healthcare, centered in Shelby County, is one of Tennessee's largest healthcare providers. Methodist Healthcare's principal acute care subsidiary organization is Methodist Healthcare--Memphis Hospitals that owns and operates five Shelby County hospitals. Methodist University Hospital is the tertiary, academic medical center located in the heart of the Memphis medical center. Methodist University is filing a Certificate of Need for the onsite replacement and modernization of the hospital campus.

Enclosed in triplicate is our Letter of Intent for this project. The Publication of Intent for this project will be filed in the Commercial Appeal on February 10, 2016. The anticipated filing date for the application is February 12, 2016. Please let us know if you have any questions or need additional information.

Sincerely,

A handwritten signature in blue ink that reads "Carol Weidenhoffer".

Carol Weidenhoffer
Senior Director of Planning, Research and Development



HEALTH SERVICES AND DEVELOPMENT AGENCY

LETTER OF INTENT TENNESSEE HEALTH SERVICES AND DEVELOPMENT AGENCY

The Publication of Intent is to be published in the Commercial Appeal which is a newspaper of general circulation in Shelby County, Tennessee, on or before February 10, 2016 for one day.

=====

This is to provide official notice to the Health Services and Development Agency and all interested parties, in accordance with T.C.A. § 68-11-1601 et seq., and the Rules of the Health Services and Development Agency, that: Methodist Healthcare-Memphis Hospitals d/b/a Methodist University Hospital (a general hospital), owned and managed by Methodist Healthcare-Memphis Hospitals (a not for profit corporation), intends to file an application for a Certificate of Need for new construction and renovation of 470,000 SF of space at Methodist University Hospital, located at 1211-1265 Union Avenue, Memphis, TN 38104. The project is the onsite replacement and modernization of the campus including the construction of a new patient tower and adjacent building to consolidate ambulatory services. There is no change to the 617 licensed beds, yet 28 medical-surgical beds will be converted to critical care beds, and 204 beds will be relocated to the new patient tower. The project will add an intraoperative MRI (iMRI), will add a third Linear Accelerator to existing Linear Accelerator services, and will relocate PET, CT and infusion equipment and services from 1588 Union Avenue. The project does not initiate or discontinue any other health service. The estimated project cost is \$280,000,000.

The anticipated date of filing the application is on or before February 15, 2016. The contact person for this project is Carol Weidenhoffer, Senior Director of Planning, Research and Development, who may be reached at: Methodist Healthcare, 1407 Union Avenue, Suite 300, Memphis, TN, 38104, 901-516-0679.

Carol Weidenhoffer
(Signature)

2/9/16
(Date)

Carol.Weidenhoffer@mlh.org
(E-mail Address)

=====

The Letter of Intent must be filed in triplicate and received between the first and the tenth day of the month. If the last day for filing is a Saturday, Sunday or State Holiday, filing must occur on the preceding business day. File this form at the following address:

**Health Services and Development Agency
Andrew Jackson Building, 9th Floor
502 Deaderick Street
Nashville, Tennessee 37243**

=====

The published Letter of Intent must contain the following statement pursuant to T.C.A. § 68-11-1607(c)(1). (A) Any health care institution wishing to oppose a Certificate of Need application must file a written notice with the Health Services and Development Agency no later than fifteen (15) days before the regularly scheduled Health Services and Development Agency meeting at which the application is originally scheduled; and (B) Any other person wishing to oppose the application must file written objection with the Health Services and Development Agency at or prior to the consideration of the application by the Agency.

=====



Shelby County Board of Commissioners

REGINALD MILTON

Commissioner
District 10

April 18, 2016

Melanie M. Hill

Executive Director

Tennessee Health Services and Development Agency

Andrew Jackson State Office Building, Ninth Floor

502 Deaderick Street

Nashville, TN 37243

Dear Ms. Hill:

I'm writing in support of Methodist University Hospital's certificate of need request. This is the flagship hospital for the Methodist Le Bonheur Healthcare system, centrally located in the Memphis medical district, easily accessible for patients and families in Shelby County and the tristate area of Tennessee, Arkansas and Mississippi to receive exceptional quality care. As an academic medical center and a tertiary care and referral center, Methodist University Hospital has one of the largest neurosciences programs in the country, and its cancer center, in partnership with the West Cancer Center, is working toward designation by the National Cancer Institute to become a model for the nation. Methodist University Hospital also has a nationally-recognized Transplant Institute specializing in solid organ transplants of the kidney, liver and pancreas.

VASCO A. SMITH, JR. COUNTY ADMINISTRATION BUILDING

160 North Main Street, Suite 600 • Memphis, TN 38103 • 901-222-1000 • Fax 901-222-1002

email: reginald.milton@shelbycountyttn.gov



Shelby County Board of Commissioners

REGINALD MILTON
Commissioner
District 10

Although the hospital provides excellent medical services the current state of the campus is the product of decades of incremental expansion, with fragmented buildings spanning six blocks. Many buildings housing direct patient care services were built nearly 60 years ago. The modernization of this campus will restructure and consolidate critical clinical services to help improve the patient experience and enhance access to high-quality health care.

This project will total \$280 million dollars. It's a two-fold investment in the community in that it will provide state of the art healthcare facilities while also creating more job opportunities. As the Shelby County commissioner representing Methodist University hospital this is a project I can strongly support. I respectfully urge you to honor Methodist's request and grant a certificate of need for the modernization of their flagship hospital campus.

Sincerely,

Reginald Milton

Shelby County Commissioner

District 10

SUPPORT LETTER(S)

Methodist Healthcare Memphis Hospital

CN1602-009

TRAUGER & TUKE
ATTORNEYS AT LAW
THE SOUTHERN TURF BUILDING
222 FOURTH AVENUE NORTH
NASHVILLE, TENNESSEE 37219-2117
TELEPHONE (615) 256-8585
TELECOPIER (615) 256-7444

May 12, 2016

VIA HAND DELIVERY

Ms. Melanie Hill
Executive Director
Tennessee Health Services
& Development Agency
Andrew Jackson Building, 9th Floor
502 Deaderick Street
Nashville, TN 37243

RE: Letters of Support CN1602-009 Methodist Healthcare –
Memphis Hospitals dba Methodist University Hospital

Dear Ms. Hill:

Enclosed please find additional letters of support to be filed on behalf of my client, Methodist Healthcare. Included in this filing are four (4) sets of five (5) support letters as follows:

Sherrye Crone, RN, Senior Director	Sutherland Cardiology Clinic
Frederick M. Azar, MD, Chief of Staff	Campbell Clinic Orthopaedics
David Stern, MD	UT Health Science Center College of Medicine
Dr. Edmund Ford, Jr., Memphis City Counsel, District 6	City of Memphis
Reginald Milton, Shelby County Commissioner, District 10	Shelby County Board of Commissioners

Please date stamp the extra copy and return it to me.

Thank you for your assistance.

Very truly yours,


Byron R. Trauger

BRT/kmn

Enclosures

cc: Carol Weidenhoffer

Javed Abdullah, MD

Steven L. Akins, MD, FACC

Shadwan F. Alsaifwah, MD, FACC*

Keith G. Anderson, MD, FACC*

Eduardo V. Basco, MD, FACC

Brian J. Borkowski, MD, FACC

Ajay Dalal, MD, FACC*

Beverly W. Danley, MD, FACC*

Claro Diaz, MD, FACC*

Dwight A. Dishmon, MD, FACC*

Bela B. Hackman, MD, FACC

Jack T. Hopkins, Jr, MD, FACC*

Uzoma N. Ibebuogu, MD, FACC*

Sunil K. Jha, MBBS, MD, FACC*

Rajesh Kabra, MD, FHRS*

Rami N. Khouzani, MD, FACC*

James T. Litzow, MD, FACC*

Matthew R. Lyons, MD, FACC

Michael McDonald, MD, FACC

Maureen A. Smithers, MD, FACC*

Matthew Smolin, MD, FACC

James J. Stamper, MD, FACC*

David G. Stewart, MD, FACC

Galen Van Wyhe, MD, FACC

Parampreet Vidwan, MD, FACC

Andrew T. Watson, MD, FACC

Timothy Woods, MD, FACC

Lisa J. Young, MD, FACC*



February 18, 2016

Melanie M. Hill
Executive Director
Tennessee Health Services and Development Agency
Andrew Jackson State Office Building, Ninth Floor
502 Deaderick Street
Nashville, TN 37243

Dear Ms. Hill:

I am writing this letter in support of the proposed Methodist University Hospital Certificate of Need application which has been filed with your agency. As the Senior Director of Sutherland Cardiology, it is with great enthusiasm that we write this letter of support to the Tennessee Health Services and Development Agency. Sutherland Cardiology represents over 25 cardiology-focused physicians and 15 mid-level providers in Memphis and the Mid-South community.

Sutherland Cardiology's partnership with Methodist Healthcare has allowed us to collectively provide excellent patient care, research and education, and the best possible treatment for cardiac patients both in Memphis and the surrounding areas.

Upon approval of this project, we will continue to collaboratively enhance the cardiac services of our community.

I sincerely thank you for your consideration on this matter which will positively affect the outcomes of many cardiac patients.

Sincerely,

Sherrye Crone, RN
Senior Director, Sutherland Cardiology Clinic

J. Charles Lock, MSA, Executive Director

* Professor, University of Tennessee
Health Science Center

www.sutherlandclinic.com

7460 Wolf River Boulevard
Germantown, TN 38138
901.763.0200

3950 New Covington Pike, Ste. 220
Memphis, TN 38128
901.763.0200

1211 Union Avenue
Memphis, TN 38104
901.763.0200

1251 Wesley Drive, Ste. 153
Memphis, TN 38116
901.763.0200

4250 Bethel Road, 5th Floor
Olive Branch, MS 38654
901.763.0200



April 13, 2016

Frederick M. Azar, M.D.
Chief of Staff

Melanie M. Hill
Executive Director
Tennessee Health Services and Development Agency
Andrew Jackson State Office Building, Ninth Floor
502 Deaderick Street
Nashville, TN 37243

Dear Ms. Hill:

I am writing this letter in support of the proposed Methodist University Hospital Certificate of Need application which has been filed with your agency. As the Chief of Staff at Campbell Clinic, a nationally recognized leader in the field of orthopaedics, our 50+ providers support this application.

The Methodist University Hospital campus is a flagship campus in our community and has been an integral part of the long-standing relationship between Methodist and Campbell Clinic. Campbell Clinic physicians are the primary providers of orthopaedic care at Methodist University Hospital.

Methodist University Hospital is centrally located in the downtown Memphis medical center, making it easily accessible for our patients in the MidSouth region. The proposed project will allow Campbell Clinic to continue to provide unsurpassed patient care to our patients at this facility. Methodist is also committed to education through its partnership with the University of Tennessee Health Science Center. Campbell Clinic serves as the residency department for orthopaedics at UT. Along with Methodist, we are training the next generation of orthopaedists and bringing cutting-edge research and treatment to MidSouth patients. Having such a facility as Methodist is proposing in their application would afford Campbell Clinic physicians, residents and patients continued high-quality health care.

Campbell Clinic looks forward to continuing to serve the community's musculoskeletal needs in collaboration with Methodist University Hospital and is pleased to support this application. Thank you for your consideration on this matter.

Sincerely,

Frederick M. Azar, M.D.

April 13, 2016

Office of the Executive Dean
Memphis, Knoxville, Chattanooga Campuses
910 Madison Avenue, Suite 1002
Memphis, TN 38163

Melanie M. Hill
Executive Director
Tennessee Health Services and Development Agency
Andrew Jackson State Office Building, Ninth Floor
502 Deaderick Street
Nashville, TN 37243

Re: MUH Certificate of Need (CON)

Dear Ms. Hill:

I am writing this letter on behalf of the proposed Methodist University Hospital Certificate of Need application which has been filed with your agency. As Executive Dean and Vice-Chancellor for Clinical Affairs for the University of Tennessee's College of Medicine and the University of Tennessee Health Sciences Center, I fully support Methodist's commitment to providing enhanced medical care in Memphis and the Mid-South.

The flagship hospital has several high priority services that are fragmented throughout the campus and housed in some of the oldest buildings. Services include:

- one of the largest neurosciences programs in the U.S.,
- one of the largest regional transfer centers for acute cardiovascular and stroke patients,
- the nationally recognized Methodist University Transplant Institute, and
- the Mid-South's comprehensive leader in adult cancer care through its partnership with West Cancer Center and the University of Tennessee.

There are currently more than twenty outpatient access points on the Methodist University Hospital campus. The proposed project will restructure the campus and consolidate clinical services to help improve the patient experience and enhance Methodist University Hospital's ability to provide outstanding clinical care.

The current campus is the product of decades of incremental expansion, with both inpatient and outpatient services interspersed across a complex of buildings spanning six blocks and almost nineteen acres. Many buildings housing direct patient care services were built nearly 60 years ago. This project will improve the Methodist University Hospital campus in ways that greatly benefit the citizens of Memphis and Shelby County, as well as the Mid-South for complex care.

Thank you for your consideration on this matter.

Sincerely,



David Stern, MD
Robert Kaplan Executive Dean, College of Medicine
Vice Chancellor for Clinical Affairs
The University of Tennessee Health Science Center



EDMUND H. FORD, JR.
Councilman - District 6

CITY COUNCIL

TENNESSEE

April 21, 2016

Melanie M. Hill
Executive Director
Tennessee Health Services and Development Agency
Andrew Jackson State Office Building, Ninth Floor
502 Deaderick Street
Nashville, TN 37243

Dear Ms. Hill:

A never-give-up people, Memphians are constantly striving to make Memphis better. We face situations that are unique to our city, but these situations present excellent opportunities for positive growth and change. Methodist University Hospital is located in the heart of Memphis and has faithfully served the residents of the inner city and surrounding areas since it opened in 1924. As the flagship hospital of the Methodist Healthcare system and in partnership with the University of Tennessee Health Science Center, Methodist University is committed to education and advancements in clinical care. The hospital has several high priority services and nationally recognized programs that are housed in some of the oldest buildings on the property.

Methodist University hospital is in need of modernization as the current campus is the product of decades of incremental expansion, with both inpatient and outpatient services interspersed across six blocks of complex buildings and almost nineteen acres. I support Methodist's vision to construct a new state-of-the-art patient tower and outpatient building while repurposing the vacated areas for administrative, education, and support space. This project will restructure the campus and consolidate clinical services to help improve the patient experience.

The total project investment is \$280 million. This investment in the community will not only strengthen our healthcare delivery system but also create job opportunities thereby improving the overall health of our community. We value the cooperation it takes to make our city an even better place to work and live. We are committed to its steadfast progress.

I commend Methodist Healthcare for its commitment to the Medical Center and the residents of Memphis and I support their request for a certificate of need for this project.

Respectfully,

Dr. Edmund Ford, Jr.
Memphis City Council
District 6



Shelby County Board of Commissioners

REGINALD MILTON

Commissioner

District 10

May 6, 2016

Melanie M. Hill

Executive Director

Tennessee Health Services and Development Agency

Andrew Jackson State Office Building, Ninth Floor

502 Deaderick Street

Nashville, TN 37243

Dear Ms. Hill:

I'm writing in support of Methodist University Hospital's certificate of need request. This is the flagship hospital for the Methodist Le Bonheur Healthcare system, centrally located in the Memphis medical district, easily accessible for patients and families in Shelby County and the tristate area of Tennessee, Arkansas and Mississippi to receive exceptional quality care. As an academic medical center and a tertiary care and referral center, Methodist University Hospital has one of the largest neurosciences programs in the country, and its cancer center, in partnership with the West Cancer Center, is working toward designation by the National Cancer Institute to become a model for the nation. Methodist University Hospital also has a nationally-recognized Transplant Institute specializing in solid organ transplants of the kidney, liver and pancreas.

VASCO A. SMITH, JR. COUNTY ADMINISTRATION BUILDING

160 North Main Street, Suite 600 • Memphis, TN 38103 • 901-222-1000 • Fax 901-222-1002

email: reginald.milton@shelbycountyttn.gov



Shelby County Board of Commissioners

REGINALD MILTON

Commissioner

District 10

Although the hospital provides excellent medical services the current state of the campus is the product of decades of incremental expansion, with fragmented buildings spanning six blocks. Many buildings housing direct patient care services were built nearly 60 years ago. The modernization of this campus will restructure and consolidate critical clinical services to help improve the patient experience and enhance access to high-quality health care.

This project will total \$280 million dollars. It's a two-fold investment in the community in that it will provide state of the art healthcare facilities while also creating more job opportunities. As the Shelby County commissioner representing Methodist University hospital this is a project I can strongly support. I respectfully urge you to honor Methodist's request and grant a certificate of need for the modernization of their flagship hospital campus.

Sincerely,

Reginald Milton

Shelby County Commissioner

District 10

VASCO A. SMITH, JR. COUNTY ADMINISTRATION BUILDING

160 North Main Street, Suite 600 • Memphis, TN 38103 • 901-222-1000 • Fax 901-222-1002

email: reginald.milton@shelbycountyttn.gov

**CERTIFICATE OF NEED
REVIEWED BY THE DEPARTMENT OF HEALTH
DIVISION OF POLICY, PLANNING AND ASSESSMENT
615-741-1954**

DATE: April, 30, 2016

APPLICANT: Methodist Healthcare-Memphis Hospitals
d/b/a Methodist University Hospital
1211-1265 Union Avenue
Memphis, Tennessee38104

CONTACT PERSON: Carol Weidenhoffer
1407 Union Avenue, Suite 300
Memphis, Tennessee 38104

COST: \$280,000,000

In accordance with Section 68-11-1608(a) of the Tennessee Health Services and Planning Act of 2002, the Tennessee Department of Health, Division of Policy, Planning, and Assessment, reviewed this certificate of need application for financial impact, TennCare participation, compliance with *Tennessee's State Health Plan*, and verified certain data. Additional clarification or comment relative to the application is provided, as applicable, under the heading "Note to Agency Members."

SUMMARY:

Methodist Healthcare-Memphis Hospitals d/b/a Methodist University Hospital, seeks Certificate of Need (CON) approval for new construction and renovation of 470,000 square feet of space at Methodist University Hospital, located at 1211-1265 Union Avenues, Memphis, Tennessee 38104.

The project is the onsite replacement and modernization of the campus including the construction of a new patient tower and adjacent building to consolidate ambulatory services. There will be no change to the 617 licensed beds, yet 28 medical/surgical beds will be converted to critical care beds, and 204 beds will be relocated to the new patient tower.

The project will add an intraoperative MRI (iMRI), add a third linear accelerator to the existing linear accelerator services, and will relocate PET, CT, and infusion equipment and services from 1588 Union Avenue. The project does not initiate or discontinue any other health service.

The total cost for new construction is \$166,692,019 or \$396 per square foot, and renovation total cost is \$5,457,981 or \$111 per square foot.

Methodist Healthcare-Memphis Hospitals is a not-for-profit corporation that operates five Shelby County hospitals under a single license. The applicant is a wholly-owned subsidiary of a broader organization, Methodist Healthcare, which is a not-for-profit corporation with ownership and operating interests in healthcare facilities in West Tennessee and North Mississippi. Attachment A.4 contains an organization chart, and information on the facilities owned in whole or part by Methodist Healthcare.

The total estimated project cost is \$280,000,000 and will be funded through cash reserves by the applicant's parent, Methodist Healthcare.

GENERAL CRITERIA FOR CERTIFICATE OF NEED

The applicant responded to all of the general criteria for Certificate of Need as set forth in the document *Tennessee’s State Health Plan*.

NEED:

The applicant’s Tennessee service area includes Dyer, Fayette, Hardeman, Haywood, Lauderdale, Madison, Shelby, and Tipton counties.

County	2016 Population	2020 Population	% of Increase/ (Decrease)
Dyer	39,306	39,607	0.8%
Fayette	44,637	48,510	8.7%
Hardeman	27,283	27,278	0.0%
Haywood	18,410	18,128	-1.5%
Lauderdale	28,658	28,930	0.9%
Madison	103,234	106,352	3.0%
Shelby	959,361	981,022	2.3%
Tipton	67,250	71,196	5.9%
Total	1,288,139	1,321,023	2.6%

Tennessee Population Projections 2000-2020, 2015 Revised UTCBER, Tennessee Department of Health

Methodist University Hospital is the system’s tertiary academic medical center located in downtown Memphis. Through their partnership with the University Of Tennessee Health Science Center, Methodist helps train medical professionals and brings cutting-edge research and treatment to area patients. Methodist University Hospital brings research, medicine, and innovation to treat complex medical cases and advance the practice of medicine.

The applicant intends to replace and modernize Methodist University Hospital, the flagship hospital for Methodist Healthcare-Memphis Hospitals. The project consists of 421,000 square feet of new space and 49,000 square feet of renovated space in the execution of a master plan for Methodist University focusing on relocation and consolidation of acute care patient services. A ten story tower with an adjacent ambulatory building is proposed to consolidate the currently disjointed clinical services, improve operational efficiencies by centralizing support services, and upgrade clinical space for high quality patient centered care. All acute care beds as well as imaging and surgical services currently housed in the oldest buildings on the campus will be relocated to the new tower.

Upon completion, the new patient tower will house 204 of the 617 licensed beds, surgery, imaging, and pharmacy services; and will feature consolidated, enhanced clinical centers of excellence for the West Cancer Center and Methodist University Hospital Transplant Institute. The project will also convert 28 medical/surgical beds to critical beds.

The project will include the consolidation of multiple outpatient services into a newly constructed ambulatory building that will be placed south of the new tower for integrated access to clinical space. The project will add an intraoperative MRI (iMRI), add a third linear accelerator to the existing linear accelerator services, and will relocate PET, CT, and infusion equipment and services from 1588 Union Avenue.

The remaining old and outdated buildings will be refurbished for patient education, resident education, support services, and administrative services.

Methodist University Hospital critical care units have experienced increasingly high occupancy rates consistently exceeding 80% over the last few years. By redistributing medical surgical beds to critical care beds the applicant hopes to improve patient flow, wait times, and patient experience.

The current campus is a result of decades on incremental expansion, with inpatient and outpatient services intermingled across a complex of buildings that occupy six blocks and almost nineteen acres. The older buildings on campus were built between 1950 and 1970 and conditions are not suitable for today's state-of-the-art technology. Additionally, conditions in these building do not represent Methodist's trademark patient and family centered care.

The project includes the demolition of the Crews building at the corner of Union Avenue and Bellevue Boulevard that will improve circulation around the campus as well as increase the visibility of the main hospital entrance.

Methodist Healthcare-Memphis Hospitals have strategically placed and maintained hospitals and ambulatory facilities in all areas of the Greater Memphis area. This project and Methodist University ED project (CN1208-041A) are investments in the downtown academic presence. Additionally, The West Cancer Cent project (CN1311-043A) is also related to this project. The integration of cancer care and the process of multidisciplinary patient care is the most progressive and successive clinical method to fight cancer for patients. The development of the West Cancer Center sites-this project in downtown Memphis, and the new comprehensive center that just opened in Germantown, is a continued pursuit by Methodist Le Bonheur Healthcare to allow patients to fight on at home.

The applicant states an internal study conducted on occupancy rate for a period during 2014-2015 for critical care beds, had occupancy rates of 82% or higher against an industry rate of 75%.

Methodist Healthcare-Memphis Hospitals 2014

Facility	Licensed Beds	Staffed Beds	Licensed Occupancy	Staffed Occupancy
Methodist Healthcare-Memphis Hospitals	617	428	50.8%	73.2%

Source: *Joint Annual Report of Hospitals 2014*, Division of Health Statistics, Tennessee Department of Health

The applicant provided the utilization for MRI equipment in their service area in Supplemental 1 from the HSDA Equipment Registry and Mississippi State Health Plan. The total number of MRI units excluding St. Jude is 36; averaging 2,845 procedures per unit in 2014.

Methodist Healthcare Memphis Hospitals MRI Utilization 2014

Facility	Units	Procedures
Methodist Healthcare-Memphis Hospitals	12	35,023

In 2014, Methodist Healthcare-Memphis Hospital's 12 MRIs averaged 2,918 procedures per unit.

The total number of linear accelerators in the primary service area excluding St. Jude is 9, averaging 6,079 procedures in 2014. The secondary service area has 5 linear accelerators averaging 4,180 procedures.

Methodist Healthcare Memphis Linear Accelerator Utilization 2014

Facility	Units	Procedures
Methodist Healthcare-Memphis Hospitals	3	24,739

TENNCARE/MEDICARE ACCESS:

The applicant participates in both the Medicare and TennCare programs. The applicant contracts with United Healthcare Community Plan, BlueCare and TennCare Select, and Amerigroup Community Care Plan.

Methodist Healthcare-Memphis Hospitals projects year one Medicare revenues of \$1,281,950,000 or 49% of total gross revenues and TennCare/Medicaid revenues of \$311,280,000 or 14% of total gross revenues.

ECONOMIC FACTORS/FINANCIAL FEASIBILITY:

The Department of Health, Division of Policy, Planning, and Assessment have reviewed the Project Costs Chart, the Historical Data Chart, and the Projected Data Chart to determine if they are mathematically accurate and if the projections are based on the applicant’s anticipated level of utilization. The location of these charts may be found in the following specific locations in the Certificate of Need Application or the Supplemental material:

Project Costs Chart: The Project Costs Chart is located on page 40 of the application. The total estimated project cost is \$280,000,000.

Historical Data Chart: The Historical Data Chart is located in Supplemental 1. The applicant reported 209,281, 203,523, and 213,747 patient days in 2013, 2014, and 2015 with net operating revenues of \$8,629,000 \$5,860,000 and \$25,275,000 each year, respectively.

Projected Data Chart: The Projected Data Chart is located on page 44 of the application. The applicant projects 223,139 and 223,110 in years one and two with net operating revenues of (\$9,563,000) and (\$7,262,000) each year respectively.

Historical and Projected Financial Performance

Financial Measure	2015	Year 1
Adjusted Patient Days	213,747	223,139
Gross Operating Revenue	\$1,869,858,000	\$2,301,926,000
Average Gross Charge	\$8,748	\$10,316
Net Operating Revenue	\$479,617,000	\$551,963,000
Operating Expenses	\$458,617,000	\$556,197,000
Other Revenue	\$6,206,000	\$6,395,000
Net Operating Income	\$27,488,000	(\$7,839,000)
Capital Interest	\$2,213,000	\$1,724,000
Net Operating Income (Loss) Less Capital Expenditures	\$25,275,000	(\$9,563,000)
NOI as a % of Operating Revenue	1.5%	(0.34%)

Service Area Charge Comparison

Facility	Average Gross Charge	Average Payment
Methodist University Hospital	\$44,043	\$12,695
Baptist Memorial Memphis	\$53,589	\$12,363
St. Francis Memphis	\$77,778	\$11,444
St. Francis Bartlett	\$63,320	\$9,313
Regional One	\$101,286	\$30,685

Source: American Hospital Directory-Medicare IPPS Claims data 09/30/2014

**Gross Charges for Procedure/Treatment
MRI/LINAC**

Facility	MRI	LINAC
Methodist University Hospital	\$3,883	\$1,451
Baptist Memorial Memphis	\$2,740	\$998
St. Francis Memphis	\$4,883	\$1,841

**Gross Charges per Procedure/Treatment
By Quartile**

Facility	1 st Quartile	Median	3 rd Quartile
Linear Accelerator	\$914.77	\$1,118.02	\$1,645.78
MRI	\$1,632.60	\$2,229.43	\$3,677.84

HSDA Equipment Registry-8/10/2015

Methodist Healthcare evaluated alternatives including renovating existing patient care floors and support areas. The age and condition of the existing buildings were deemed inadequate for in-place renovations. Methodist University presence in high priority programs requires improving adjacencies and addressing inadequate an inefficient space and equipment for inpatient and outpatient programs. The only alternative was to renovate and modernize as proposed in this application.

CONTRIBUTION TO THE ORDERLY DEVELOPMENT OF HEALTHCARE:

The applicant provides a listing of all facilities, contractual and/or working relationships, transfer agreements, and physician groups on page 48 of the application.

The applicant believes the project will have a positive impact on the Shelby County health care community. This project is for renovation and modernization and does not increase market share.

The applicant will not require the addition of FTEs for this project. Currently, Methodist University Hospital has 1,836 FTE direct care staff, 395 FTE Support service staff, and 55 FTE administration/management staff.

Methodist Healthcare has clinical affiliation agreements with multiple colleges for nursing, rehabilitation, pharmacy, and other allied health professionals. Methodist University Hospital offers a site for clinical training. There are 1,400 students participating in these programs annually at Methodist Healthcare.

Methodist Hospital System is licensed by the Tennessee Department of Health, Board for Licensing Healthcare Facilities and accredited by The Joint Commission.

SPECIFIC CRITERIA FOR CERTIFICATE OF NEED

The applicant responded to all relevant specific criteria for Certificate of Need as set forth in the document *Tennessee's State Health Plan*.

**CONSTRUCTION, RENOVATION, EXPANSION, AND REPLACEMENT
OF
HEALTH CARE INSTITUTIONS**

1. Any project that includes the addition of beds, services, or medical equipment will be reviewed under the standards for those specific activities.

Not applicable.

2. For relocation or replacement of an existing licensed health care institution:
 - a. The applicant should provide plans which include costs for both renovation and relocation, demonstrating the strengths and weaknesses of each alternative.

- b. The applicant should demonstrate that there is an acceptable existing or projected future demand for the proposed project.

Not applicable.

3. For renovation or expansions of an existing licensed health care institution:

- a. The applicant should demonstrate that there is an acceptable existing demand for the proposed project.

Methodist University Hospital critical care units have experienced increasingly high occupancy rates consistently exceeding 80% over the last few years. By redistributing medical surgical beds to critical care beds the applicant hopes to improve patient flow, wait times, and patient experience.

- b. The applicant should demonstrate that the existing physical plant's condition warrants major renovation or expansion.

Methodist University Hospital critical care units have experienced increasingly high occupancy rates consistently exceeding 80% over the last few years. By redistributing medical surgical beds to critical care beds the applicant hopes to improve patient flow, wait times, and patient experience.

The current campus is a result of decades on incremental expansion, with inpatient and outpatient services intermingled across a complex of buildings that occupy six blocks and almost nineteen acres. The older buildings on campus were built between 1950 and 1970 and conditions are not suitable for today's state-of-the-art technology. Additionally, conditions in these building do not represent Methodist's trademark patient and family centered care.

STATE HEALTH PLAN

CERTIFICATE OF NEED STANDARDS AND CRITERIA

FOR

MAGNETIC RESONANCE IMAGING SERVICES

The Health Services and Development Agency (HSDA) may consider the following standards and criteria for applications seeking to provide Magnetic Resonance Imaging (MRI) services. Existing providers of MRI services are not affected by these standards and criteria unless they take an action that requires a new certificate of need (CON) for MRI services.

These standards and criteria are effective immediately as of December 21, 2011, the date of approval and adoption by the Governor of the State Health Plan changes for 2011. Applications to provide MRI services that were deemed complete by HSDA prior to this date shall be considered under the Guidelines for Growth, 2000 Edition.

Standards and Criteria

1. Utilization Standards for non-Specialty MRI Units.

- a. An applicant proposing a new non-Specialty stationary MRI service should project a minimum of at least 2160 MRI procedures in the first year of service, building to a minimum of 2520 procedures per year by the second year of service, and building to a minimum of 2880 procedures per year by the third year of service and for every year thereafter.

The applicant states this criterion does not seem appropriate or applicable. The project is for an iMRI which is a special use MRI that is used in the operating room. A part of this proposal is the addition of an iMRI unit for use in the neurosurgery operating room. The equipment will be used to assist neurosurgeons in the resection of brain tumors initially. iMRI is advanced technology in medicine that bridges the specialties of surgery and radiology

The applicant project 166 iMRI procedures in year one and 168 iMRI procedures in year two of the project.

Le Bonheur Children's Hospital currently operates an iMRI. In 2014, they performed 92 iMRIs and 122 in 2015. Their experience shows that about 50% of brain tumor resections receive an iMRI scan.

- b. Providers proposing a new non-Specialty mobile MRI service should project a minimum of at least 360 mobile MRI procedures in the first year of service per day of operation per week, building to an annual minimum of 420 procedures per day of operation per week by the second year of service, and building to a minimum of 480 procedures per day of operation per week by the third year of service and for every year thereafter.

Not applicable.

- c. An exception to the standard number of procedures may occur as new or improved technology and equipment or new diagnostic applications for MRI units are developed. An applicant must demonstrate that the proposed

unit offers a unique and necessary technology for the provision of health care services in the Service Area.

Methodist performs over 300 brain tumor surgeries a year. The main goal of brain tumor surgery is to maximize resection while preserving function. Methodist continues to implement the most current surgical assistive technology. iMRI affords the possibility of more accurate and complete resections while decreasing the risk of additional surgery and complications. iMRI serves a very unique purpose. It allows for increased surgical success and therefore increased length of survival for patients with brain tumors.

iMRI may also be utilized for epilepsy surgery, intra-cranial cyst surgery, brain biopsy, catheter placement, and intra-cranial vascular surgery.

- d. Mobile MRI units shall not be subject to the need standard in paragraph 1 b if fewer than 150 days of service per year are provided at a given location. However, the applicant must demonstrate that existing services in the applicant's Service Area are not adequate and/or that there are special circumstances that require these additional services.

Not applicable.

- e. Hybrid MRI Units. The HSDA may evaluate a CON application for an MRI "hybrid" Unit (an MRI Unit that is combined/utilized with an other medical equipment such as a megavoltage radiation therapy unit or a positron emission tomography unit) based on the primary purposes of the Unit.

Not applicable.

- 2. Access to MRI Units. All applicants for any proposed new MRI Unit should document that the proposed location is accessible to approximately 75% of the Service Area's population. Applications that include non-Tennessee counties in their proposed Service Areas should provide evidence of the number of existing MRI units that service the non-Tennessee counties and the impact on MRI unit utilization in the non-Tennessee counties, including the specific location of those units located in the non-Tennessee counties, their utilization rates, and their capacity (if that data are available).

This is special-use equipment that will be used for brain tumor surgeries. The primary service area is Shelby County which constitutes 81% of the applicant's

service area. The 45 drive time radius covers all of Shelby County and the majority of DeSoto and Crittenden counties in Mississippi.

3. Economic Efficiencies. All applicants for any proposed new MRI Unit should document that alternate shared services and lower cost technology applications have been investigated and found less advantageous in terms of accessibility, availability, continuity, cost, and quality of care.

Alternate services and technologies were investigated. The current practice of performing MRI after surgery is not optimal. iMRI affords the possibility of more accurate and complete resections while decreasing the risk of additional surgery and complications.

4. Need Standard for non-Specialty MRI Units.

A need likely exists for one additional non-Specialty MRI unit in a Service Area when the combined average utilization of existing MRI service providers is at or above 80% of the total capacity of 3,600 procedures, or 2,880 procedures, during the most recent twelve-month period reflected in the provider medical equipment report maintained by the HSDA. The total capacity per MRI unit is based upon the following formula:

Stationary MRI Units: 1.20 procedures per hour x twelve hours per day x 5 days per week x 50 weeks per year = 3,600 procedures per year

Mobile MRI Units: Twelve (12) procedures per day x days per week in operation x 50 weeks per year. For each day of operation per week, the optimal efficiency is 480 procedures per year, or 80 percent of the total capacity of 600 procedures per year.

The total number of MRI units excluding St. Jude in Shelby County is 39; averaging 3,004, 2,863, 2,936 procedures per unit in 2012 (38 Units), 2013, and 2014.

Primary Service Area

Facility	2012 Scans	2013 Scans	2014 Scans	% Change
Hosp (26 then 27 in 2013-2014)	70,173	68,880	69,161	-1.4%
PO (6)	27,064	26,351	26,897	-0.6%
RPO (1)	6,538	6,737	6,505	-0.5%
H-Imaging (3)	3,331	2,688	3,680	10.5%
ODC (1)	2,214	2,563	2,889	30.5%
ASTC/ODC (1)	1,564	1,287	1,655	5.8%
Shelby County PSA	110,884	108,506	110,787	-0.1%

Shelby County Scan per Unit	2,918	2,782	2,841	0.3%
Total w/o St. Jude	102,147	100,201	102,410	0.3%
Average w/o St. Jude	3,004	2,863	2,926	

Provider Summary

Secondary Service Area

Facility	2012 Scans	2013 Scans	2014 Scans	% Change
Hosp Fixed (5)	15,536	14,639	13,205	-15.0%
PO (3)	7,626	7,552	8,364	9.7%
HODC (3)	7,027	6,491	7,090	0.9%
ODC (1)	6,781	8,835	10,676	57.4%
Hosp-Mobile (1)	389	292	314	-19.3%
TN Counties(SSA	37,359	37,809	39,649	6.1%
TN Counties scans per Unit	2,874	2,908	3,050	6.1%
TN Counties(SSA) w/o Mobile	36,970	37,517	39,335	6.4%
TN Counties scans per Unit w/o Mobile	3,081	3,126	3,278	6.4%

Provider Summary

5. Need Standards for Specialty MRI Units.

- a. Dedicated fixed or mobile Breast MRI Unit. An applicant proposing to acquire a dedicated fixed or mobile breast MRI unit shall not receive a CON to use the MRI unit for non-dedicated purposes and shall demonstrate that annual utilization of the proposed MRI unit in the third year of operation is projected to be at least 1,600 MRI procedures (.80 times the total capacity of 1 procedure per hour times 40 hours per week times 50 weeks per year), and that:
 1. It has an existing and ongoing working relationship with a breast-imaging radiologist or radiology proactive group that has experience interpreting breast images provided by mammography, ultrasound, and MRI unit equipment, and that is trained to interpret images produced by an MRI unit configured exclusively for mammographic studies;

2. Its existing mammography equipment, breast ultrasound equipment, and the proposed dedicated breast MRI unit are in compliance with the federal Mammography Quality Standards Act;
 3. It is part of or has a formal affiliation with an existing healthcare system that provides comprehensive cancer care, including radiation oncology, medical oncology, surgical oncology and an established breast cancer treatment program that is based in the proposed service area.
 4. It has an existing relationship with an established collaborative team for the treatment of breast cancer that includes radiologists, pathologists, radiation oncologists, hematologist/oncologists, surgeons, obstetricians/gynecologists, and primary care providers.
- b. Dedicated fixed or mobile Extremity MRI Unit. An applicant proposing to institute a Dedicated fixed or mobile Extremity MRI Unit shall provide documentation of the total capacity of the proposed MRI Unit based on the number of days of operation each week, the number of days to be operated each year, the number of hours to be operated each day, and the average number of MRI procedures the unit is capable of performing each hour. The applicant shall then demonstrate that annual utilization of the proposed MRI Unit in the third year of operation is reasonably projected to be at least 80 per cent of the total capacity. Non-specialty MRI procedures shall not be performed on a Dedicated fixed or mobile Extremity MRI Unit and a CON granted for this use should so state on its face.
- c. Dedicated fixed or mobile Multi-position MRI Unit. An applicant proposing to institute a Dedicated fixed or mobile Multi-position MRI Unit shall provide documentation of the total capacity of the proposed MRI Unit based on the number of days of operation each week, the number of days to be operated each year, the number of hours to be operated each day, and the average number of MRI procedures the unit is capable of performing each hour. The applicant shall then demonstrate that annual utilization of the proposed MRI Unit in the third year of operation is reasonably projected to be at least 80 per cent of the total capacity. Non-specialty MRI procedures shall not be performed on a Dedicated fixed or mobile Multi-position MRI Unit and a CON granted for this use should so state on its face.

All of question 5 is not applicable.

6. Separate Inventories for Specialty MRI Units and non-Specialty MRI Units. If data availability permits, Breast, Extremity, and Multi-position MRI Units shall not be counted in the inventory of non-Specialty fixed or mobile MRI Units, and an inventory for each category of Specialty MRI Unit shall be counted and maintained separately. None of the Specialty MRI Units may be replaced with non-Specialty MRI fixed or mobile MRI Units and a Certificate of Need granted for any of these Specialty MRI Units shall have included on its face a statement to that effect. A non-Specialty fixed or mobile MRI Unit for which a CON is granted for Specialty MRI Unit purpose use-only shall be counted in the specific Specialty MRI Unit inventory and shall also have stated on the face of its Certificate of Need that it may not be used for non-Specialty MRI purposes.

The applicant is not proposing a specialty MRI unit as listed above.

7. Patient Safety and Quality of Care. The applicant shall provide evidence that any proposed MRI Unit is safe and effective for its proposed use.
 - a. The United States Food and Drug Administration (FDA) must certify the proposed MRI Unit for clinical use.

FDA certification is provided in Attachment 4A-1.

- b. The applicant should demonstrate that the proposed MRI Procedures will be offered in a physical environment that conforms to applicable federal standards, manufacturer's specifications, and licensing agencies' requirements.

The project architect provided in Attachment 8B attesting that the physical environment conforms to all applicable standards, specifications and licensing agency requirements.

- c. The applicant should demonstrate how emergencies within the MRI Unit facility will be managed in conformity with accepted medical practice.

The unit will be on the Methodist University campus. There are clinical technicians and emergency personnel on the premises. In the event of cardiac or respiratory arrest, trained staff will initiate basic life support while the patient is emergently remove and taken to be treated by appropriate physicians and clinicians.

- d. The applicant should establish protocols that assure that all MRI Procedures performed are medically necessary and will not unnecessarily duplicate other services.

Methodist University has established standards in place to ensure all MRI procedures are medically necessary and will not be unnecessarily duplicate other services.

- e. An applicant proposing to acquire any MRI Unit or institute any MRI service, including Dedicated Breast and Extremity MRI Units, shall demonstrate that it meets or is prepared to meet the staffing recommendations and requirements set forth by the American College of Radiology, including staff education and training programs.

The applicant is accredited by American College of Radiology.

- f. All applicants shall commit to obtain accreditation from the Joint Commission, the American College of Radiology, or a comparable accreditation authority for MRI within two years following operation of the proposed MRI Unit.

Methodist University Hospital is fully accredited by the Joint Commission.

- g. All applicants should seek and document emergency transfer agreements with local area hospitals, as appropriate. An applicant's arrangements with its physician medical director must specify that said physician be an active member of the subject transfer agreement hospital medical staff.

The need for a transfer agreement is not necessary as unit is located on the campus of Methodist University Hospital.

8. The applicant should provide assurances that it will submit data in a timely fashion as requested by the HSDA to maintain the HSDA Equipment Registry.

The applicant agrees to comply with this criterion.

9. In light of Rule 0720-11.01, which lists the factors concerning need on which an application may be evaluated, and Principle No. 2 in the State Health Plan, "Every citizen should have reasonable access to health care." the HSDA may decide to give special consideration to an applicant:

- a. Who is offering the service in a medically underserved area as designated by the United States Health Resources and Services Administration;

Not applicable.

- b. Who is a “safety net hospital” or a “children’s hospital” as defined by the Bureau of TennCare Essential Access Hospital payment program; or

Not applicable.

- c. Who provides a written commitment of intention to contract with at least one TennCare MCO and, if providing adult services, to participate in the Medicare program; or

Methodist is certified for both Medicare and TennCare/Medicaid and participates in both programs.

- d. Who is proposing to use the MRI unit for patients that typically require longer preparation and scanning times (e.g., pediatric, special needs, sedated, and contrast agent use patients). The applicant shall provide in its application information supporting the additional time required per scan and the impact on the need standard.

See answer to 1.c.

STATE HEALTH PLAN
CERTIFICATE OF NEED STANDARDS AND
CRITERIA

FOR

MEGAVOLTAGE RADIATION THERAPY SERVICES

The Health Services and Development Agency (HSDA) may consider the following standards and criteria for applications seeking to provide Megavoltage Radiation Therapy (MRT) Services. Existing providers of MRT services are not affected by these standards and criteria unless they take an action that requires a new certificate of need (CON) for MRT services.

These standards and criteria are effective immediately as of December 21, 2011, the date of approval and adoption by the Governor of the State Health Plan changes for 2011.

Applications to provide MRT services that were deemed complete by HSDA prior to this date shall be considered under the Guidelines for Growth, 2000 Edition.

Standards and Criteria

1. Utilization Standards for MRT Units.

a. Linear Accelerators not dedicated to performing SRT and/or SBRT procedures:

- i. **Full capacity of a Linear Accelerator** MRT Unit is 8,736 procedures, developed from the following formula: 3.5 treatments per hour, times 48 hours (6 days of operation, 8 hours per day, or 5 days of operation, 9.6 hours per day), times 52 weeks.
- ii. **Linear Accelerator Minimum Capacity:** 6,000 procedures per Linear Accelerator MRT Unit annually, except as otherwise noted herein.
- iii. **Linear Accelerator Optimal Capacity:** 7,688 procedures per Linear Accelerator MRT Unit annually, based on a 12% average downtime per MRT unit during normal business hours annually.
- iv. An applicant proposing a new Linear Accelerator should project a minimum of at least 6000 MRT procedures in the first year of service in its Service Area, building to a minimum of 7,688 procedures per year by the third year of service and for every year thereafter.

Linac Projections

Facility	2013	2014	2015	Year 1	Year 2
Methodist University	2	2	2	3	3
West Cancer Center	1	1	1	2	2
# of Linear Accelerators	3	3	3	5	5
Procedures/Volumes					
Methodist University	11,742	13,442	15,323	17,887	18,245
West Cancer Center	9,869	11,297	12,878	15,033	15,333
Total	21,611	24,739	28,201	33,5787	33,578
Procedures/Volumes per Unit					
Methodist University	5,871	6,721	7,662	5,692	6,082
West Cancer Center	4,934	5,649	6,439	7,516	7,667
Total	7,204	8,246	9,400	6,584	6,716

Primary Service Area LINAC Utilization

Facility	2012		2013		2014	
	Procedures	# of Units	Procedures	# of Units	Procedures	# of Units
Methodist Healthcare	23,756	3	21,611	3	24,739	3
Baptist Memorial Hospital Memphis	11,052	2	10,111	2	10,590	2
Baptist Memorial-ASTC Tipton/Germantown	7,610	1	6,963	1	4,647	1
St. Francis Hospital Park	6,795	2	74,80	2	6,332	2
St. Jude Children's Research Hospital	4,605	2	3,756	2	4,524	2
Baptist Memorial-DeSoto	10,152	1	8,393	1	8,399	1
Total Procedures	63,970	11	51,358	11	59,231	11
Total w/o St. Jude	5,815		4,669		5,385	
Average w/o St. Jude	6,596		5,289		6,079	

HSDA Equipment Registry

Secondary Service Area Utilization

Facility	2012		2013		2014	
	Procedures	# of Units	Procedures	# of Units	Procedures	# of Units
Dyersburg Radiation Oncology Center	4,663	1	4,362	1	3,501	1
Baptist Memorial Hospital-Memphis Radiation	4,675	1	4,936	1	3,225	1
Jackson-Madison County General Hospital Radiation	14,985	3	13,195	3	-	-
Kirkland Cancer Center Former Madison Equipment	-	-	-	-	14,175	3
Bethesda Cancer Center Clarksdale, MS	2,477	1	2,412	1	n/a	n/s
Total Procedures	26,800	6	24,905	6	20,910	5
Average Procedures per Unit	4,467		4,151		4,180	

HSDA Equipment Registry

- b. For Linear Accelerators dedicated to performing only SRT procedures, full capacity is 500 annual procedures.

Not applicable.

- c. For Linear Accelerators dedicated to performing only SRT/SBRT procedures, full capacity is 850 annual procedures.

Not applicable.

- d. An exception to the standard number of procedures may occur as new or improved technology and equipment or new diagnostic applications for Linear Accelerators develop. An applicant must demonstrate that the

proposed Linear Accelerator offers a unique and necessary technology for the provision of health care services in the proposed Service Area.

Not applicable.

- e. Proton Beam MRT Units. As of the date of the approval and adoption of these Standards and Criteria, insufficient data are available to enable detailed utilization standards to be developed for Proton Beam MRT Units.

Not applicable.

2. Need Standards for MRT Units.

- a. For Linear Accelerators not dedicated solely to performing SRT and/or SBRT procedures, need for a new Linear Accelerator in a proposed Service Area shall be demonstrated if the average annual number of Linear Accelerator procedures performed by existing Linear Accelerators in the proposed Service Area exceeds 6,000.

The combined average utilization for the primary service area was 5,385 in 2014. Yet, St. Jude Children’s Research Hospital is an internationally recognized pediatric hospital dedicated to research and treatment of children with cancer and other catastrophic diseases. Excluding St. Jude’s volumes and equipment from the market due to their unique population of patients, the average for LINAC volumes per unit was 6,079 in 2014.

3. Access to MRT Units.

- a. An MRT unit should be located at a site that allows reasonable access for residents of the proposed Service Area.

The applicant’s Tennessee service area includes Dyer, Fayette, Hardeman, Haywood, Lauderdale, Madison, Shelby, and Tipton counties.

County	2016 Population	2020 Population	% of Increase/ (Decrease)
<i>Dyer</i>	<i>39,306</i>	<i>39,607</i>	<i>0.8%</i>
<i>Fayette</i>	<i>44,637</i>	<i>48,510</i>	<i>8.7%</i>
<i>Hardeman</i>	<i>27,283</i>	<i>27,278</i>	<i>0.0%</i>
<i>Haywood</i>	<i>18,410</i>	<i>18,128</i>	<i>-1.5%</i>
<i>Lauderdale</i>	<i>28,658</i>	<i>28,930</i>	<i>0.9%</i>
<i>Madison</i>	<i>103,234</i>	<i>106,352</i>	<i>3.0%</i>
<i>Shelby</i>	<i>959,361</i>	<i>981,022</i>	<i>2.3%</i>
<i>Tipton</i>	<i>67,250</i>	<i>71,196</i>	<i>5.9%</i>
Total	1,288,139	1,321,023	2.6%

Tennessee Population Projections 2000-2020, 2015 Revised UTCBER, Tennessee Department of Health

The applicant also serves patients in Arkansas and Mississippi.

The proposed LINAC will supplement the Methodist units already operating on the Methodist University campus. More than 90% of the patients currently seeking LINAC services originate from the designated service area. The primary service area is Shelby, Tipton, and Layette counties in Tennessee, DeSoto County in Mississippi, and Crittenden County Arkansas.

- b. An applicant for any proposed new Linear Accelerator should document that the proposed location of the Linear Accelerator is within a 45 minute drive time of the majority of the proposed Service Area's population.

Based on the 2014 HSDA equipment registry, the 82% of the volumes from Methodist LINAC are from the three county primary service area; and 90% of the population in the defined service area is within a 45 minute drive.

- c. Applications that include non-Tennessee counties in their proposed Service Areas should provide evidence of the number of existing MRT units that service the non-Tennessee counties and the impact on MRT unit utilization in the non-Tennessee counties, including the specific location of those units located in the non-Tennessee counties, their utilization rates, and their capacity (if that data are available).

The only existing MRT in the primary service area is at Baptist Memorial Hospital-DeSoto County, MS., and performed 8,399 procedures (140% of the threshold).

Bethesda Cancer Center in Coahoma County, MS in the secondary service area performed 2,400 procedures in 2012-2013.

4. Economic Efficiencies. All applicants for any proposed new MRT Unit should document that lower cost technology applications have been investigated and found less advantageous in terms of accessibility, availability, continuity, cost, and quality of care.

Alternate services and technologies were investigated. There was no lower cost Alternative that delivers the accuracy and reliability of the selected LINAC.

5. Separate Inventories for Linear Accelerators and for other MRT Units. A separate inventory shall be maintained by the HSDA for Linear Accelerators, for Proton Beam Therapy MRT Units, and, if data are available, for Linear Accelerators dedicated to SRT and/or SBRT procedures and other types of MRT Units.

Methodist assures HSDA that all data requested to maintain the equipment registry will be submitted within the expected time frame.

6. Patient Safety and Quality of Care. The applicant shall provide evidence that any proposed MRT Unit is safe and effective for its proposed use.

- a. The United States Food and Drug Administration (FDA) must certify the proposed MRT Unit for clinical use.

See Attachment 4B-1 FDA certification in the original application.

- b. The applicant should demonstrate that the proposed MRT Units shall be housed in a physical environment that conforms to applicable federal standards, manufacturer's specifications, and licensing agencies' requirements.

The project architect provided in Attachment 8B attesting that the physical environment conforms to all applicable standards, specifications and licensing agency requirements.

- c. The applicant should demonstrate how emergencies within the MRT Unit facility will be managed in conformity with accepted medical practice. Tennessee Open Meetings Act and/or Tennessee Open Records Act.

The unit will be on the Methodist University campus. There are clinical technicians and emergency personnel on the premises. In the event of cardiac or respiratory arrest, trained staff will initiate basic life support while the patient is emergently remove and taken to be treated by appropriate physicians and clinicians.

- d. The applicant should establish protocols that assure that all MRT Procedures performed are medically necessary and will not unnecessarily duplicate other services.

Methodist University has established standards in place to ensure all MRT procedures are medically necessary and will not be unnecessarily duplicate other services.

- e. An applicant proposing to acquire any MRT Unit shall demonstrate that it meets the staffing and quality assurance requirements of the American Society of Therapeutic Radiation and Oncology (ASTRO), the American College of Radiology (ACR), the American College of Radiation Oncology (ACRO) or a similar accrediting authority such as the National Cancer Institute (CNI). Additionally, all applicants shall commit to obtain accreditation from ASTRO, ACR or a comparable accreditation authority for

MRT Services within two years following initiation of the operation of the proposed MRT Unit.

Methodist University Hospital is fully accredited by the Joint Commission.

- f. All applicants should seek and document emergency transfer agreements with local area hospitals, as appropriate. An applicant's arrangements with its physician medical director must specify that said physician be an active member of the subject transfer agreement hospital medical staff.

The need for a transfer agreement is not necessary as unit is located on the campus of Methodist University Hospital.

- g. All applicants should provide evidence of any onsite simulation and treatment planning services to support the volumes they project and any impact such services may have on volumes and treatment times.

There is a dedicated CT simulator to support the LINAC at Methodist University.

- 7. The applicant should provide assurances that it will submit data in a timely fashion as requested by the HSDA to maintain the HSDA Equipment Registry.

The applicant agrees to comply with this criterion.

- 8. In light of Rule 0720-11.01, which lists the factors concerning need on which an application may be evaluated, and Principle No. 2 in the State Health Plan, "Every citizen should have reasonable access to health care," the HSDA may decide to give special consideration to an applicant:

- a. Who is offering the service in a medically underserved area as designated by the United States Health Resources and Services Administration;

Not applicable.

- b. Who is a "safety net hospital" or a "children's hospital" as defined by the Bureau of TennCare Essential Access Hospital payment program; or

Not applicable.

- c. Who provides a written commitment of intention to contract with at least one TennCare MCO and, if providing adult services, to participate in the Medicare program.

The applicant participates in both Medicare and TennCare/Medicaid.