

ATTACHMENT - REQUIRED STATE AGENCY FINDINGS

FINDINGS

C = Conforming

CA = Conditional

NC = Nonconforming

NA = Not Applicable

Decision Date: June 15, 2017

Findings Date: June 15, 2017

Project Analyst: Gloria C. Hale

Team Leader: Lisa Pittman

Project ID #: F-11339-17

Facility: Carolinas HealthCare System SouthPark

FID #: 110797

County: Mecklenburg

Applicants: The Charlotte-Mecklenburg Hospital Authority

Project: Replace existing CT scanner at the satellite ED

REVIEW CRITERIA FOR NEW INSTITUTIONAL HEALTH SERVICES

N.C.G.S. §131E-183(a) The Department shall review all applications utilizing the criteria outlined in this subsection and shall determine that an application is either consistent with or not in conflict with these criteria before a certificate of need for the proposed project shall be issued.

- (1) The proposed project shall be consistent with applicable policies and need determinations in the State Medical Facilities Plan, the need determination of which constitutes a determinative limitation on the provision of any health service, health service facility, health service facility beds, dialysis stations, operating rooms, or home health offices that may be approved.

C

The Charlotte-Mecklenburg Hospital Authority (CMHA) d/b/a Carolinas Medical Center (CMC) proposes to replace its existing 2005 Siemens Sensation 16-slice Computed Tomography (CT) scanner, located at Carolinas HealthCare System SouthPark Emergency Department (CHS SouthPark) in Charlotte, and install a Siemens SOMOTOM Force CT scanner in renovated space.

Need Determination

The proposed project does not involve the addition of any new health service facility beds, services or equipment for which there is a need determination in the 2017 State Medical Facilities Plan (SMFP). Therefore, there are no need determinations applicable to this review.

Policies

There is one policy in the 2017 SMFP applicable to this review, *Policy GEN-4: Energy Efficiency and Sustainability for Health Service Facilities*. *Policy GEN-4*, on page 33 of the 2017 SMFP, states:

“Any person proposing a capital expenditure greater than \$2 million to develop, replace, renovate or add to a health service facility pursuant to G.S. 131E-178 shall include in its certificate of need application a written statement describing the project’s plan to assure improved energy efficiency and water conservation.

In approving a certificate of need proposing an expenditure greater than \$5 million to develop, replace, renovate or add to a health service facility pursuant to G.S. 131E-178, Certificate of Need shall impose a condition requiring the applicant to develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest editions of the North Carolina State Building Codes. The plan must be consistent with the applicant’s representation in the written statement as described in paragraph one of Policy GEN-4.

Any person awarded a certificate of need for a project or an exemption from review pursuant to G.S. 131E-184 are required to submit a plan for energy efficiency and water conservation that conforms to the rules, codes and standards implemented by the Construction Section of the Division of Health Service Regulation. The plan must be consistent with the applicant’s representation in the written statement as described in paragraph one of Policy GEN-4. The plan shall not adversely affect patient or resident health, safety or infection control.”

The proposed capital expenditure for this project is greater than \$2 million, but less than \$5 million. In Section B.11, pages 27-28, and Section K.4, pages 76-77, the applicant states it will work with experienced architects, engineers, and others to ensure energy efficient systems are utilized. The applicant states, on page 28, that its design team will deliver the following:

- Meet or exceed the NC Building Code requirements,
- Utilize Leadership in Energy and Environment Design and Hospitals for a Health Environment Green Guide for HealthCare guidelines,
- Benchmark performance using the EPA Energy Star for Hospitals rating system for comparing performance across systems, and
- Upgrade plumbing fixtures as appropriate to maximize efficiency and life cycle benefits.

The applicant adequately demonstrates conformance with the requirements of *Policy GEN-4*.

Conclusion

In summary, the application is conforming to *Policy GEN-4*, therefore the application is conforming to this criterion.

- (2) Repealed effective July 1, 1987.
- (3) The applicant shall identify the population to be served by the proposed project, and shall demonstrate the need that this population has for the services proposed, and the extent to which all residents of the area, and, in particular, low income persons, racial and ethnic minorities, women, handicapped persons, the elderly, and other underserved groups are likely to have access to the services proposed.

C

The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas Medical Center (CMC) proposes to replace its existing 2005 Siemens Sensation 16-slice CT scanner, located at CHS SouthPark in Charlotte, and install a Siemens SOMATOM Force CT scanner in renovated space. CHS SouthPark is located at 6965 Fairview Road, Charlotte. The applicant states, in Section C.1, page 33, that it intends to lease a mobile CT scanner for approximately three months while minor renovations are being done to the existing CT scanner space.

Patient Origin

The 2017 SMFP does not define the service area for CT scanners, nor do the Criteria and Standards for CT Equipment (10A NCAC 14C .2300). However, the applicant indicates, in Section C.2, page 35, that historically, in calendar year (CY) 2016, over 85% of CHS SouthPark's CT patients were from Mecklenburg County. In addition, in Section C.2, page 36, the applicant projects that over 69% of CHS SouthPark's CT patients will be from Mecklenburg County in each of the first three operating years following project completion. Thus, the applicant's service area for the proposed replacement CT scanner at CHS SouthPark is Mecklenburg County. However, facilities may serve residents of counties not included in their service area.

In Section C.2, page 58, the applicant provides the historical patient origin for CT services provided at CHS SouthPark, as shown below:

**CHS SouthPark
 CT Services
 CY2016**

COUNTY	PERCENT OF PATIENTS
Mecklenburg	85.1%
Union	3.1%
York, SC	2.2%
Other*	9.5%
Total**	100.0%

*Includes other counties in North Carolina and other states, as stated by the applicant on page 35.

**Total may not foot due to rounding.

In Section C.2, page 36, the applicant provides the projected patient origin for CT services for the first three operating years following project completion, as shown in the table below:

**CHS SouthPark
 Projected Patient Origin, CT Services
 CY2019 through CY2021**

COUNTY	PERCENT OF TOTAL SCANS, OY1 (CY2019)	PERCENT OF TOTAL SCANS, OY2 (CY2020)	PERCENT OF TOTAL SCANS, OY3 (CY2021)
Mecklenburg	70.4%	69.3%	69.3%
York, SC	8.3%	8.7%	8.7%
Union	4.4%	4.5%	4.5%
Other*	16.9%	17.5%	17.5%
Total	100.0%	100.0%	100.0%

*Includes other counties in North Carolina and other states, as stated by the applicant on page 35.

On page 36-37, the applicant states its projected patient origin is based on historical CHS SouthPark CT services, shifting of outpatient cardiac CT scans from CMC to SouthPark, and shifting of outpatient cardiac CT scans from CHS Pineville to CHS SouthPark. The applicant states that the shifted CT scans are based on CY2016 patient origin for outpatient cardiac CT scans at CMC and CHS Pineville.

The applicant adequately identifies the population to be served.

Analysis of Need

In Section C.4, pages 38-44, the applicant discusses the factors which it states support the need for the proposed project, summarized as follows:

- The existing CT scanner was purchased in 2005 and thus, is at the end of its useful life and is not up to date with current technological advances (page 38);
- The replacement CT scanner will provide cardiac diagnostic testing, and measurements and assessments for cardiac-related treatment planning for additional cardiac procedures (pages 38-41);
- Clinically appropriate outpatient cardiac CT services will be consolidated at CHS SouthPark, thereby freeing up needed capacity of CT services at CHS Pineville and CMC (pages 41-43); and
- Replacing the CT scanner at CHS SouthPark with a state-of-the-art CT scanner will enable CHS to more effectively use its resources by utilizing the replacement CT scanner for outpatient cardiac CT scans during typical down times at the ED and will free up availability of the CT scanners at CMC and CHS Pineville for routine inpatient, other outpatient, or emergency scans (page 43).

Projected Utilization

In Section Q, the applicant provides historical and projected utilization of the existing CT scanner at CHS SouthPark, as illustrated in the table below.

**CHS SouthPark
 Historical and Projected CT Utilization**

	Prior Partial Fiscal Year 5/12/14 – 12/31/14	Prior Fiscal Year 1/01/15 – 12/31/15	Prior Fiscal Year 1/01/16 – 12/31/16	Prior Fiscal Year 1/01/17 – 12/31/17	Interim Fiscal Year* 1/01/18 – 12/31/18
# of Scans	1,168	2,773	2,926	2,985	3,751
# of HECT Units	1,824	4,393	4,666	4,761	6,082

*Replacement CT scanner is to be operational 4/16/18 and CHS SouthPark will lease a mobile CT scanner during renovations for the replacement CT scanner.

In Section Q, pages 1-8, the applicant provides its assumptions and methodology for projecting utilization for CT services at CHS SouthPark for the first three operating years upon project completion, summarized as follows:

Step 1:

The applicant provides the historical number of ED visits and CT scans at CHS SouthPark from CY2014 through CY2016, in Section Q, page 1, showing a growth rate for the period of 8.2% for ED visits and 5.5% for CT scans.

Step 1a:

On page 2, the applicant conservatively applies the projected Mecklenburg County population growth rate of 2.0% to project the number of ED visits at CHS SouthPark for CY2017 through CY2021.

The historical and projected number of ED visits are illustrated as follows:

**CHS SouthPark
 Historical and Projected ED Visits**

CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
5,618	13,919	15,067	15,372	15,684	16,001	16,325	16,656

Step 2:

On page 2, the applicant calculates the ratio of CT scans to ED visits at CHS SouthPark for CY2016, resulting in a ratio of 0.194. Next, the applicant calculates the ratio of HECT units to CT scans at CHS SouthPark for CY2016, resulting in a ratio of 1.595.

Step 3:

The applicant projects CT utilization related to ED visits at CHS SouthPark by multiplying the projected number of ED visits each year by the ratio of CT scans to ED visits. Next, the applicant projects the number of HECT units by multiplying the ratio of HECT units to CT scans by the number of CT scans projected each year. This is illustrated in the following table from page 2 of Section Q:

	CY2017	CY2018	CY2019	CY2020	CY2021
ED Visits	15,372	15,684	16,001	16,325	16,656
Ratio of CT Scans to ED Visits	0.194	0.194	0.194	0.194	0.194
CT Scans	2,985	3,046	3,107	3,170	3,235
Ratio of HECT Units to CT Scans	1.595	1.595	1.595	1.595	1.595
HECT Units	4,761	4,857	4,956	5,056	5,158

Step 4:

The applicant projects a shift of outpatient cardiac CT scans from CHS Pineville to CHS SouthPark, first determining historical and projected scheduled outpatient cardiac CT scans at CHS Pineville, as illustrated on pages 4-5. The applicant uses a conservative 2% growth rate to project outpatient cardiac CT scans from CY2017 through CY2021.

**CHS Pineville
 Historical and Projected Scheduled Outpatient Cardiac CT Scans**

CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
13	387	855	872	890	908	926	945

Step 5:

The applicant states, on page 5, that based on discussions with clinicians, administrators, and staff, 75% of scheduled, outpatient cardiac scans will shift from CHS Pineville to CHS SouthPark and that this shift will ramp up over time. This shift is illustrated as follows:

**CHS Pineville
 Estimated Shift of Scheduled Outpatient Cardiac CT Scans**

	CY2018	CY2019	CY2020	CY2021
Projected Scheduled Outpatient Cardiac CT Scans	890	908	926	945
Percent Shift to CHS SouthPark	75%	75%	75%	75%
Ramp up	80%	90%	100%	100%
# of Scheduled Outpatient Cardiac CT Scans	380*	613	695	709

*Applicant uses 71% of capacity to calculate number of scheduled outpatient cardiac CT scans that will be shifted based on an April 16, 2018 operational start date of the replacement CT scanner.

Step 6:

On pages 5-6, the applicant calculates the ratio of HECT units to CT scans at CHS Pineville in CY2016, resulting in a ratio of 1.736.

Step 6a:

On page 6, the applicant multiplies the ratio to the projected number of scheduled, outpatient cardiac CT scans that will shift to determine the number of HECT units projected at CHS SouthPark, illustrated as follows:

Projected Shift of HECT units from CHS Pineville to CHS SouthPark

	CY2018	CY2019	CY2020	CY2021
# of Scheduled Outpatient Cardiac CT Scans to Shift	380	613	695	709
Ratio of HECT Units to CT Scans	1.736	1.736	1.736	1.736
# of HECT Units to Shift	660	1,064	1,206	1,231

Step 7:

Similarly to CHS Pineville, the applicant projects a shift of outpatient cardiac CT scans from CMC to CHS SouthPark, first determining historical and projected scheduled outpatient cardiac CT scans at CMC, as illustrated on pages 4-5. The applicant uses a conservative 2% growth rate to project outpatient cardiac CT scans from CY2017 through CY2021, illustrated as follows:

**CMC
 Historical and Projected Scheduled Outpatient Cardiac CT Scans**

CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021
582	811	1,767	930	949	969	988	1,008

Step 8:

The applicant states, on page 5, that based on discussions with clinicians, administrators, and staff, 60% of scheduled, outpatient cardiac scans will shift from CMC to CHS SouthPark and this shift will ramp up over time, illustrated as follows:

**CMC
 Estimated Shift of Scheduled Outpatient Cardiac CT Scans**

	CY2018	CY2019	CY2020	CY2021
Projected Scheduled Outpatient Cardiac CT Scans	949	969	988	1,008
Percent Shift to CHS SouthPark	60%	60%	60%	60%
Ramp up	80%	90%	100%	100%
# of Scheduled Outpatient Cardiac CT Scans	325*	523	593	605

*Applicant uses 71% of capacity to calculate number of scheduled outpatient cardiac CT scans that will be shifted based on an April 16, 2018 operational start date of the replacement CT scanner.

Step 9:

On page 7, the applicant calculates the ratio of HECT units to CT scans at CMC in CY2016, resulting in a ratio of 1.740.

Step 9a:

On page 7, the applicant multiplies the ratio to the projected number of scheduled, outpatient cardiac CT scans that will shift to determine the number of HECT units projected at CHS SouthPark, illustrated as follows:

Projected Shift of HECT units from CMC to CHS SouthPark

	CY2018	CY2019	CY2020	CY2021
# of Scheduled Outpatient Cardiac CT Scans to Shift	325	523	593	605
Ratio of HECT Units to CT Scans	1.740	1.740	1.740	1.740
# of HECT Units to Shift	565	910	1,031	1,052

Step 10:

The applicant provides the total projected CT utilization at CHS SouthPark which includes CT scans expected from the existing ED service and from shifted scheduled outpatient CT scans expected from CHS Pineville and CMC, summarized as follows:

**CHS SouthPark
 Total Projected CT Utilization**

	CY2017	CY2018	CY2019	CY2020	CY2021
CT Scans at ED	2,985	3,046	3,107	3,170	3,235
CT Scans Shifted from CHS Pineville	N/A	380	613	695	709
CT Scans Shifted from CMC	N/A	325	523	593	605
Total # of CT Scans	2,985	3,751	4,243	4,458	4,548
# of HECT Units at ED	4,761	4,857	4,956	5,056	5,158
# of HECTS shifted from CHS Pineville	N/A	660	1,064	1,206	1,231
# of HECTS shifted from CMC	N/A	565	910	1,031	1,052
Total HECT Units	4,761	6,082	6,929	7,294	7,441

As shown in the table above, in the third operating year of the project, the proposed replacement CT scanner is projected to perform an average of 7,441 HECT units. Therefore, the applicant’s projected utilization is based on reasonable and adequately supported assumptions.

Access

The applicant states, in Section C.10, page 47, that it “*provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment.*” The applicant provides a copy of CHS’ Non-Discrimination policies in Exhibit C.10.

In addition, in Section L.1, page 82, the applicant states that 38.8% of CHS SouthPark’s ED-related CT scans and 53.1% of CHS SouthPark’s shifted cardiac CT scans will be reimbursed by Medicare or Medicaid in operating year two (OY2). Therefore, the applicant adequately demonstrates the extent to which all residents of the area, including underserved groups, are likely to have access to the services.

Conclusion

In summary, the applicant adequately identifies the population to be served; adequately demonstrates the need the population to be served has for the proposed services; and demonstrates the extent to which all residents of the area, including underserved groups, are likely to have access to the services. Therefore, the application is conforming to this criterion.

- (3a) In the case of a reduction or elimination of a service, including the relocation of a facility or a service, the applicant shall demonstrate that the needs of the population presently served will be met adequately by the proposed relocation or by alternative arrangements, and the effect of the reduction, elimination or relocation of the service on the ability of low income persons, racial and ethnic minorities, women, handicapped persons, and other underserved groups and the elderly to obtain needed health care.

NA

- (4) Where alternative methods of meeting the needs for the proposed project exist, the applicant shall demonstrate that the least costly or most effective alternative has been proposed.

CA

In Section E.2, pages 55-56, the applicant describes three alternatives it considered, summarized as follows:

- Maintain the Status Quo – the applicant states that the existing CT scanner is 12 years old and “*well past its useful life*” and does not have the latest technology. Therefore, the applicant concludes that this would not be a viable option and is not the most effective alternative.
- Replace the CT Scanner with Different Equipment – the applicant states that replacing the existing CT scanner with one with similar capabilities would not address the growing need for cardiac CT imaging and that it would not allow for shift of outpatient cardiac CT patients at CHS Pineville and CMC which would, in turn, free up CT capacity at those facilities for inpatient and ED scans. Therefore, this alternative is not the most effective alternative.
- Develop a CT Scanner with Cardiac CT Imaging Capabilities Elsewhere – the applicant states that it considered locating a new CT with cardiac imaging capabilities at other facilities such as CHS Pineville, CMC, or Carolinas Imaging Services – South Park, however all three facilities have scheduling constraints and therefore, would be less effective options. Therefore, this alternative is not the most effective alternative.

The applicant states, on page 56, that due to the peak hours of the ED at CHS SouthPark, which are early morning and late evenings, cardiac CT scans can be scheduled more easily

during the day while not interfering with the needs of the ED. Therefore, the applicant states, on page 56,

“The project as proposed represents a more effective alternative to expanding convenient access to cardiac CT imaging and offering some relief to capacity constraints at CMC and CHS Pineville than would replacing the CIS [Carolinas Imaging Services – South Park] scanner.”

Furthermore, the application is conforming to all other applicable statutory review criteria and thus, is approvable. An application that cannot be approved cannot be an effective alternative.

In summary, the applicant adequately demonstrates that the proposed alternative is the most effective or least costly alternative to meet the need identified. The application is conforming to this criterion and approved subject to the following conditions.

- 1. The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas Medical Center shall materially comply with all representations made in the certificate of need application.**
 - 2. The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas Medical Center shall acquire no more than one CT scanner to replace the existing 16-slice Siemens Sensation at CHS SouthPark for a total of no more than one CT scanner upon completion of this project.**
 - 3. The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas Medical Center shall not acquire, as part of this project, any equipment that is not included in the project’s proposed capital expenditure in Section Q of the application and that would otherwise require a certificate of need.**
 - 4. The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas Medical Center shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Healthcare Planning and Certificate of Need Section in writing prior to issuance of the certificate of need.**
- (5) Financial and operational projections for the project shall demonstrate the availability of funds for capital and operating needs as well as the immediate and long-term financial feasibility of the proposal, based upon reasonable projections of the costs of and charges for providing health services by the person proposing the service.

C

In Section Q, the applicant projects the total capital cost for the project will be \$2,606,934. The proposed capital cost consists of the following:

Capital Cost Category	Total
Construction/Renovation Contracts	\$347,000
Architect/ Engineering Fees	\$29,500
Medical Equipment	\$2,022,970
Non-Medical Equipment	\$83,500
Consultant Fees	\$58,100
Other, inc. contingency	\$65,864
Total Capital Cost	\$2,606,934

In Section F.3, page 60, the applicant states that there are no start-up or initial operating expenses, as this is not a new service.

Availability of Funds

In Section F.2, page 59, the applicant states that the project will be financed with the accumulated reserves or owner's equity of The CMHA d/b/a Carolinas HealthCare System (CHS). Exhibit F.2 contains an April 17, 2017 letter signed by the Executive Vice President and Chief Financial Officer for CHS, which states:

“As the Chief Financial Officer for The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas HealthCare System, I am responsible for the financial operations of Carolinas Medical Center and I am very familiar with the organization's financial position. The capital expenditure amount associated with this project is estimated to be \$2,606,934. There are no start-up costs related to this project.

Carolinas HealthCare System will fund the capital cost from existing accumulated cash reserves. This expenditure will not impact any other capital projects currently underway or planned at this time.”

Exhibit F.2 contains the most recent audited financial statements for The CMHA d/b/a CHS for the years ending December 31, 2015 and December 31, 2014. The balance sheet indicates that as of December 31, 2015, CHS had \$7,506,429,000 in total assets, \$173,812,000 in cash and cash equivalents, and \$3,648,789,000 in net assets (total assets less total liabilities). The applicant adequately demonstrates the availability of sufficient funds for the capital needs of the project.

Financial Feasibility

In Section Q, the applicant states that the allowable average charges per treatment will remain the same for each payment source. The allowable average charges for OY1, OY2 and OY3 are \$3,621, \$3,730 and \$3,842. The projected average reimbursement rates, however, vary by payor source each operating year, illustrated as follows:

Projected Average Reimbursement by Payor

Payor	In-Center Charge OY1	In-Center Charge OY2	In-Center Charge OY3
Self Pay/Indigent/Charity	\$44	\$45	\$46
Commercial Insurance	\$1,265	\$1,303	\$1,342
Medicare	\$354	\$365	\$376
Medicaid	\$659	\$678	\$699
Other	\$133	\$137	\$141

The applicant provides pro forma financial statements for the first three operating years of the project following completion of the project in Section Q. In Form F.4, the applicant projects that revenues will exceed operating costs in each of the first three operating years of the project, as shown in the table below:

CHS SouthPark

CT SERVICES	OY1 (CY 2019)	OY2 (CY 2020)	OY3 (CY 2021)
Number of Scans	4,243	4,458	4,548
Total Gross Revenues (Charges)	\$14,868,364	\$16,046,820	\$16,863,039
Deductions from Gross Revenues	\$9,246,970	\$10,044,130	\$10,555,023
Total Net Revenue	\$5,621,394	\$6,002,690	\$6,308,016
Total Operating Expenses (Costs)	\$1,036,864	\$1,227,338	\$1,257,519
Net Income	\$4,584,530	\$4,775,352	\$5,050,497

The assumptions used by the applicant in preparation of the pro forma financial statements are reasonable, including projected utilization, costs and charges. See Section Q of the application for the assumptions regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference. The applicant adequately demonstrates sufficient funds for the operating needs of the proposal and that the financial feasibility of the proposal is based upon reasonable projections of costs and charges.

Conclusion

In summary, the applicant adequately demonstrates that the financial feasibility of the proposal is based upon reasonable and adequately supported assumptions regarding projected utilization, revenues (charges) and operating costs. Therefore, the application is conforming to this criterion.

- (6) The applicant shall demonstrate that the proposed project will not result in unnecessary duplication of existing or approved health service capabilities or facilities.

C

The Charlotte-Mecklenburg Hospital Authority d/b/a CMC proposes to replace its existing 2005 Siemens Sensation 16-slice CT scanner, located at CHS SouthPark in Charlotte, and install a Siemens SOMOTOM Force CT scanner in renovated space.

The 2017 SMFP does not define the service area for CT scanners, nor do the Criteria and Standards for CT Equipment (10A NCAC 14C .2300). However, the applicant indicates, in Section C.2, page 35, that historically, in CY2016, over 85% of CHS SouthPark's CT scanner's patients were from Mecklenburg County. In addition, in Section C.2, page 36, the applicant projects that over 69% of CHS SouthPark's CT patients will be from Mecklenburg County in each of the first three operating years following project completion. Thus, the applicant's service area for the proposed replacement CT scanner at CHS SouthPark is Mecklenburg County. However, facilities may serve residents of counties not included in their service area.

The proposal will not result in a change in the inventory of CT scanners located in Mecklenburg County. The applicant adequately demonstrates the need to replace the outdated equipment. The discussion regarding the need for the replacement CT scanner found in Criterion (3) is incorporated herein by reference. Consequently, the applicant adequately demonstrates that the proposed project will not result in unnecessary duplication of existing or approved health service capabilities or facilities. Therefore, the application is conforming to this criterion.

- (7) The applicant shall show evidence of the availability of resources, including health manpower and management personnel, for the provision of the services proposed to be provided.

C

In Section Q, Form H, the applicant provides the current and projected staffing for CHS SouthPark's CT services. The applicant states, in Form H, that it will add one additional Registered Technician FTE in CY2019, the first operating year. Current and projected staffing for the project are shown in the following table:

**CHS SouthPark
Current and Projected Staffing**

POSITION	TOTAL # OF CURRENT FTE POSITIONS CY2017	TOTAL # OF PROPOSED FTE POSITIONS CY2019
Registered Technician	2.3	3.3
Total	2.3	3.3

In Section Q, Form H, the applicant provides the salary per FTE for the Registered Technician position. In Section H.4, page 70, the applicant states that Dr. Markus Scherer will provide medical direction for the cardiac CT services to be provided at CHS SouthPark. Exhibit C.1 contains a letter from Dr. Scherer confirming his intention to serve as medical director for cardiac CT services. In addition, on page 70, the applicant states that Dr. Jonathan Clemente, will continue to provide medical oversight for non-cardiac CT services at CHS SouthPark. Exhibit C.1 contains a letter from Dr. Clemente that confirms his willingness to continue serving in this capacity. In Section H.2, the applicant states that it

expects to have minimal difficulty recruiting needed staff and utilizes several methods to recruit staff, including career fairs, employee referral bonuses, and providing its facilities as host sites for professional clinical training programs. In Exhibit I.2, the applicant provides several letters from area physicians, each indicating his or her support for the proposed replacement CT scanner.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services. Therefore, the application is conforming to this criterion.

- (8) The applicant shall demonstrate that the provider of the proposed services will make available, or otherwise make arrangements for, the provision of the necessary ancillary and support services. The applicant shall also demonstrate that the proposed service will be coordinated with the existing health care system.

C

In Section H.1, page 72, the applicant states that since CHS SouthPark is an existing full service ED, it has all necessary ancillary and support services currently in place to support the proposed project. In Exhibit I.1, the applicant provides an April 17, 2017 letter from the President of CMC, documenting that these services will continue to be provided following replacement of the CT scanner. Furthermore, in Section H.2, page 72, the applicant states that as an existing healthcare facility, it has established relationships with area healthcare and social services providers which it will continue to have following the proposed project's completion. In Exhibit I.2, the applicant provides several letters of support from area physicians who are willing to refer patients to CHS SouthPark's CT services.

The applicant adequately demonstrates that the necessary ancillary and support services will be available that that the proposed services will be coordinated with the existing health care system. Therefore, the application is conforming to this criterion.

- (9) An applicant proposing to provide a substantial portion of the project's services to individuals not residing in the health service area in which the project is located, or in adjacent health service areas, shall document the special needs and circumstances that warrant service to these individuals.

NA

- (10) When applicable, the applicant shall show that the special needs of health maintenance organizations will be fulfilled by the project. Specifically, the applicant shall show that the project accommodates: (a) The needs of enrolled members and reasonably anticipated new members of the HMO for the health service to be provided by the organization; and (b) The availability of new health services from non-HMO providers or other HMOs in a reasonable and cost-effective manner which is consistent with the basic method of operation of the HMO. In assessing the availability of these health services from these providers, the

applicant shall consider only whether the services from these providers: (i) would be available under a contract of at least 5 years duration; (ii) would be available and conveniently accessible through physicians and other health professionals associated with the HMO; (iii) would cost no more than if the services were provided by the HMO; and (iv) would be available in a manner which is administratively feasible to the HMO.

NA

- (11) Repealed effective July 1, 1987.
- (12) Applications involving construction shall demonstrate that the cost, design, and means of construction proposed represent the most reasonable alternative, and that the construction project will not unduly increase the costs of providing health services by the person proposing the construction project or the costs and charges to the public of providing health services by other persons, and that applicable energy saving features have been incorporated into the construction plans.

NA

- (13) The applicant shall demonstrate the contribution of the proposed service in meeting the health-related needs of the elderly and of members of medically underserved groups, such as medically indigent or low income persons, Medicaid and Medicare recipients, racial and ethnic minorities, women, and handicapped persons, which have traditionally experienced difficulties in obtaining equal access to the proposed services, particularly those needs identified in the State Health Plan as deserving of priority. For the purpose of determining the extent to which the proposed service will be accessible, the applicant shall show:
- (a) The extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved;

C

In Section L.1, page 82, the applicant provides the current payor mix for CT services provided at CHS SouthPark during CY 2016, as shown in the table below:

**CHS SouthPark
CT Services
CY 2016**

PAYOR SOURCE	PERCENT
Self Pay	11.6%
Medicare	30.7%
Medicaid	9.7%
Managed Care/ Commercial	45.1%
Other*	2.8%
Total**	100.0%

*On page 82, the applicant states “Other” includes “workers comp. and other government.”
 **Total may not foot due to rounding.

The United States Census Bureau provides demographic data for North Carolina and all counties in North Carolina. The following table contains relevant demographic statistics for the applicant’s service area.

Percent of Population						
County	% 65+	% Female	% Racial & Ethnic Minority*	% Persons in Poverty**	% < Age 65 with a Disability	% < Age 65 without Health Insurance**
Mecklenburg	10%	52%	51%	15%	6%	19%
Statewide	15%	51%	36%	17%	10%	15%

Source: <http://www.census.gov/quickfacts/table>, 2014 Estimate as of December 22, 2015.

*Excludes “White alone” who are “not Hispanic or Latino”

**“This geographic level of poverty and health estimates are not comparable to other geographic levels of these estimates. Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable...The vintage year (e.g., V2015) refers to the final year of the series (2010 thru 2015). Different vintage years of estimates are not comparable.”

However, a direct comparison to the applicant’s current payor mix would be of little value. The population data by age, race or gender does not include information on the number of elderly, minorities, women or handicapped persons utilizing health services.

The applicant adequately demonstrates that the facility provides access to medically underserved populations. Therefore, the application is conforming to this criterion.

- (b) Its past performance in meeting its obligation, if any, under any applicable regulations requiring provision of uncompensated care, community service, or access by minorities and handicapped persons to programs receiving federal assistance, including the existence of any civil rights access complaints against the applicant;

C

In Section L.2, page 82, the applicant states that it has no obligation under any applicable federal regulations to provide uncompensated care, community service, or access by minorities and handicapped persons. However, the applicant states, on page 82, that all CHS facilities, including CHS SouthPark, provide and will continue to provide services to all persons, “regardless of race, color, religion, national origin, sex, age, disability, or source of payment.” In Exhibit L.4, the applicant provides a copy of CHS’s financial policies, including its Hospital Coverage Assistance and Financial Assistance Policy and its Patient Financial Services Billing and Collections Policy. In Section L.2, page 83, the applicant states that no civil rights equal access

complaints were filed against any affiliated entity of CHS in the last five years. The application is conforming to this criterion.

- (c) That the elderly and the medically underserved groups identified in this subdivision will be served by the applicant's proposed services and the extent to which each of these groups is expected to utilize the proposed services; and

C

In Section L.3, page 83, the applicant projects the following payor mix for CHS SouthPark's ED-related CT services and for CHS SouthPark's incremental cardiac CT services during Project Year Two (CY 2020):

**CHS SouthPark CT Services
 Projected Payor Mix
 CY2020**

	ED-RELATED CT SERVICES	INCREMENTAL CARDIAC CT SERVICES
Self-Pay	11.6%	4.5%
Medicare	30.7%	49.1%
Medicaid	9.7%	4.6%
Managed Care/ Commercial	45.1%	40.4%
Other*	2.8%	1.4%
Total**	100.0%	100.0%

*On page 83, the applicant states that "Other" includes "worker's comp. and other government."

**Totals may not foot due to rounding.

As shown in the table above, the applicant projects that the payor mix for ED-related CT services will be similar to the historical payor mix. The applicant projects that a larger percentage of incremental cardiac CT services than ED-related CT services will be reimbursed by Medicare, 49.1% compared to 30.7%, and a lower percentage will be reimbursed by Medicaid, 4.6% compared to 9.7%.

The applicant demonstrates that medically underserved populations would have access to the proposed CT services. Therefore, the application is conforming to this criterion.

- (d) That the applicant offers a range of means by which a person will have access to its services. Examples of a range of means are outpatient services, admission by house staff, and admission by personal physicians.

C

In Section L.5, page 85, the applicant states that persons will have access to CT services at CHS SouthPark through admission to the ED and through scheduled outpatient CT scans referred by their physicians. The application is conforming to this criterion.

- (14) The applicant shall demonstrate that the proposed health services accommodate the clinical needs of health professional training programs in the area, as applicable.

C

In Section M.1, pages 86 - 87, the applicant describes CHS' many relationships with health professional training programs, and states, on page 87, that each of these programs will continue to have clinical training opportunities available at its facilities, including CHS SouthPark, as appropriate. Collaboration with clinical training programs include, but are not limited to:

- Cabarrus College of Health Sciences
- Carolinas College of Health Sciences
- Central Piedmont Community College
- Presbyterian School of Nursing

On page 87, the applicant states that the relationships it has with area clinical training programs will not change following the CT replacement at CHS SouthPark. In Exhibit M.2, the applicant provides a copy of a standard educational affiliation agreement used by CHS facilities and a list of its current affiliations with educational institutions and programs. The information provided is reasonable and adequately supports a determination that the application is conforming to this criterion.

- (15) Repealed effective July 1, 1987.
- (16) Repealed effective July 1, 1987.
- (17) Repealed effective July 1, 1987.
- (18) Repealed effective July 1, 1987.
- (18a) The applicant shall demonstrate the expected effects of the proposed services on competition in the proposed service area, including how any enhanced competition will have a positive impact upon the cost effectiveness, quality, and access to the services proposed; and in the case of applications for services where competition between providers will not have a favorable impact on cost-effectiveness, quality, and access to the services proposed, the applicant shall demonstrate that its application is for a service on which competition will not have a favorable impact.

C

The Charlotte-Mecklenburg Hospital Authority d/b/a CMC proposes to replace its existing 2005 Siemens Sensation 16-slice CT scanner, located at CHS SouthPark in Charlotte, and install a Siemens SOMOTOM Force CT scanner in renovated space.

The 2017 SMFP does not define the service area for CT scanners, nor do the Criteria and Standards for CT Equipment (10A NCAC 14C .2300). However, the applicant indicates, in Section C.2, page 35, that historically, in CY2016, over 85% of CHS SouthPark’s CT scanner’s patients were from Mecklenburg County. In addition, in Section C.2, page 36, the applicant projects that over 69% of CHS SouthPark’s CT patients will be from Mecklenburg County in each of the first three operating years following project completion. Thus, the applicant’s service area for the proposed replacement CT scanner at CHS SouthPark is Mecklenburg County. However, facilities may serve residents of counties not included in their service area.

In Section G.1, page 66, the applicant lists 34 existing facilities that provide CT services within the service area, identified from publicly available inventories. In Section G.2, page 67, the applicant provides a listing of 12 of these facilities for which it was able to obtain fiscal year (FY) 2016 CT utilization data, summarized as follows:

Fixed CT Scanner Utilization*
 FY2016

Facility	# of Fixed CT Scanners	Total CT Scans	Total HECT Units per Fixed Scanner
CMC	5	66,550	21,540
CHS SouthPark	1	2,961	4,729
CMC-Mercy	2	11,927	4,729
CHS Pineville	2	30,956	25,270
CHS Steele Creek	1	9,165	14,977
CHS Union	3	22,831	11,955
CHS Waxhaw	1	4,188	6,512
CHS University	2	18,098	14,508
Novant Health Huntersville	2	21,193	15,674
Novant Health Matthews	2	26,439	19,467
Novant Presbyterian Medical Center	3	31,967	15,473
Charlotte Orthopedic Hospital	1	1,282	2,233

*Table includes only those facilities in the applicant’s service area for which it was able to obtain fixed CT scanner utilization data.

As the table above shows, nine of the 12 facilities listed had fixed CT scanners that performed above capacity as defined by 10A NCAC 14C .2303 of 5,100 HECT units per fixed CT scanner in FY2016. CMC and CHS Pineville, the two facilities the applicant proposes will shift outpatient cardiac CT scans to CHS SouthPark, had HECT units per fixed CT scanner that were

well above the capacity threshold of 5,100 HECT units per fixed scanner. CMC had 21,540 HECT units per fixed scanner and CHS Pineville had 25,270 HECT units per fixed scanner. In this application, the applicant proposes to replace its existing 2005 Siemens Sensation 16-slice CT scanner at CHS SouthPark with a new Siemens Somatom CT scanner in order to better serve its cardiac outpatients and ED patients. The replacement CT scanner will not change the inventory of CT scanners in the service area.

In Section N.2, page 88, the applicant discusses the impact of the proposed project on competition in the service area as it relates to promoting cost-effectiveness, quality and access. The applicant states:

“CHS believes the project as proposed represents the most cost-effective alternative to replacing outdated CT equipment and increasing access to cardiac CT imaging to meet the demand...”

See also Sections C, E, F, G, K, L, N and O where the applicant discusses the impact of the project on cost-effectiveness, quality and access.

The information in the application is reasonable and adequately demonstrates that any enhanced competition in the service area includes a positive impact on the cost-effectiveness, quality, and access to the proposed services. This determination is based on the information in the application and the following analysis:

- ◆ The applicant adequately demonstrates the need for the project and that it is a cost-effective alternative. The discussions regarding the analysis of need and alternatives found in Criterion (3) and (4), respectively, are incorporated herein by reference.
- ◆ The applicant adequately demonstrates it will continue to provide quality services. The discussions regarding quality found in Criteria (1) and (20) are incorporated herein by reference.
- ◆ The applicant demonstrates that it will provide adequate access to medically underserved populations. The discussions regarding access found in Criteria (1) and (13) are incorporated herein by reference.

Therefore, the application is conforming to this criterion.

- (19) Repealed effective July 1, 1987.
- (20) An applicant already involved in the provision of health services shall provide evidence that quality care has been provided in the past.

In Exhibit O.3, the applicant provides a listing of all healthcare facilities owned, managed or leased by CMHA in North Carolina. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding the submittal of the application through the date of the decision, five facilities were found to be out of compliance with one or more Medicare conditions of participation and two of those were found to be out of compliance with Medicare conditions of participation more than once. At this time, all five facilities are in compliance with all Medicare conditions of participation. After reviewing and considering information provided by the applicant and by the Acute and Home Care Licensure and Certification Section and considering the quality of care provided at all 24 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

- (21) Repealed effective July 1, 1987.
- (b) The Department is authorized to adopt rules for the review of particular types of applications that will be used in addition to those criteria outlined in subsection (a) of this section and may vary according to the purpose for which a particular review is being conducted or the type of health service reviewed. No such rule adopted by the Department shall require an academic medical center teaching hospital, as defined by the State Medical Facilities Plan, to demonstrate that any facility or service at another hospital is being appropriately utilized in order for that academic medical center teaching hospital to be approved for the issuance of a certificate of need to develop any similar facility or service.

NA