

ATTACHMENT - REQUIRED STATE AGENCY FINDINGS

FINDINGS

C = Conforming

CA = Conditional

NC = Nonconforming

NA = Not Applicable

Decision Date: March 26, 2020

Findings Date: April 2, 2020

Project Analyst: Julie M. Faenza

Team Leader: Fatimah Wilson

COMPETITIVE REVIEW

Project ID #: F-11807-19

Facility: Novant Health Matthews Medical Center

FID #: 945076

County: Mecklenburg

Applicants: Presbyterian Medical Care Corp.

Novant Health, Inc.

Project: Add no more than 1 OR pursuant to the need determination in the 2019 SMFP for a total of no more than 9 ORs upon project completion

Project ID #: F-11808-19

Facility: Novant Health Matthews Medical Center

FID #: 945076

County: Mecklenburg

Applicants: Presbyterian Medical Care Corp.

Novant Health, Inc.

Project: Add no more than 20 acute care beds pursuant to the need determination in the 2019 SMFP for a total of no more than 174 acute care beds upon project completion

Project ID #: F-11810-19

Facility: Atrium Health Lake Norman

FID #: 190513

County: Mecklenburg

Applicant: The Charlotte-Mecklenburg Hospital Authority

Project: Develop a new satellite hospital campus of Atrium Health University City with 30 acute care beds and 2 ORs pursuant to the need determinations in the 2019 SMFP

Project ID #:	F-11811-19
Facility:	Carolinas Medical Center
FID #:	943070
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Add no more than 18 acute beds pursuant to the need determination in the 2019 SMFP for a total of no more than 1,073 acute care beds upon project completion

Project ID #:	F-11812-19
Facility:	Atrium Health University City
FID #:	923516
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Add no more than 16 acute care beds pursuant to the need determination in the 2019 SMFP for a total of no more than 116 acute care beds upon project completion

Project ID #:	F-11813-19
Facility:	Atrium Health Pineville
FID #:	110878
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Add no more than 12 acute care beds pursuant to the need determination in the 2019 SMFP for a total of no more than 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds)

Project ID #:	F-11814-19
Facility:	Atrium Health Pineville
FID #:	110878
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Add no more than 2 ORs pursuant to the need determination in the 2019 SMFP for a total of no more than 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add 1 OR)

Project ID #:	F-11815-19
Facility:	Carolinas Medical Center
FID #:	943070
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Add no more than 2 ORs pursuant to the need determination in the 2019 SMFP for a total of no more than 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs)

This competitive review involves two health systems in Mecklenburg County – Atrium Health and Novant Health. Each health system has acute care hospitals, freestanding ambulatory surgical facilities, and numerous other facilities such as satellite emergency departments that will be discussed in these findings. Given the complexity of this review and the numerous facilities involved for each of the two health systems, the Project Analyst created the tables below listing each health system’s referenced facilities and the acronyms or abbreviations used in the findings.

Atrium Health System		
Facility Name	Type of Facility	Acronym/Abbreviations Used
Atrium Health Pineville	Acute care hospital	AH Pineville AH-P (in tables)
Atrium Health Union*	Acute care hospital	AH Union AH-U (in tables)
Atrium Health University City	Acute care hospital	AH University City AH-UC (in tables)
Carolinas Medical Center	Acute care hospital	CMC CMC-Main (when referring to the specific campus)
Atrium Health Mercy	Satellite hospital campus of Carolinas Medical Center	AH Mercy AH-M (in tables) CMC (when referring to the entire licensed facility)
Atrium Health Lake Norman	Proposed satellite hospital campus of Atrium Health University City	AH Lake Norman AH-LN (in tables) May be included in discussions of AH-UC’s entire license
Carolina Center for Specialty Surgery	Freestanding ambulatory surgical facility	CCSS
Atrium Health Huntersville Surgery Center	Approved freestanding ambulatory surgical facility (currently licensed as part of AH-UC)	AH Huntersville AH-HSC (in tables)
Atrium Health Huntersville Emergency Department	Satellite emergency department of AH-UC	AH Huntersville ED AH-H-ED (in tables)
Atrium Health Mountain Island Emergency Department	Approved satellite emergency department of AH-UC	AH Mountain Island ED AH-MI-ED (in tables)

*Atrium Health Union is in Union County, not Mecklenburg County; it is included because it is discussed as part of projected utilization for all the Atrium Health facilities in Mecklenburg County.

Novant Health System		
Facility Name	Type of Facility	Acronym/Abbreviations Used
Novant Health Huntersville Medical Center	Acute care hospital	NH Huntersville NHHMC (in tables)
Novant Health Matthews Medical Center	Acute care hospital	NH Matthews NHMMC (in tables)
Novant Health Mint Hill Medical Center	Acute care hospital	NH Mint Hill NHMHMC (in tables)
Novant Health Presbyterian Medical Center	Acute care hospital	NH Presbyterian NHPMC (in tables) PMC-Main (when referring to the specific campus)
Novant Health Ballantyne Medical Center	Approved acute care hospital	NH Ballantyne NHBMC (in tables)
Novant Health Charlotte Orthopedic Hospital	Satellite hospital campus of Novant Health Presbyterian Medical Center	NH Charlotte NHCOH (in tables) NHPMC (when referring to the entire licensed facility)
Novant Health Ballantyne Outpatient Surgery	Freestanding ambulatory surgical facility	NH Ballantyne OPS NHBOS (in tables)
Novant Health Huntersville Outpatient Surgery	Freestanding ambulatory surgical facility	NH Huntersville OPS NHHOS (in tables)
Matthews Surgery Center	Freestanding ambulatory surgical facility	Matthews Surgery Center MSC (in tables)
SouthPark Surgery Center	Freestanding ambulatory surgical facility	SouthPark SPSC (in tables)

Other Acronyms/Abbreviations Used	
Acronym/Abbreviations Used	Full Term
ADC	Average Daily Census (# of acute care days / 365/366 days in a year)
ALOS	Average Length of Stay (average number of acute care days for patients)
ASF/ASC	Ambulatory Surgical Facility
CAGR	Compound Annual Growth Rate
CY	Calendar Year
ED	Emergency Department
FFY	Federal Fiscal Year (October 1 – September 30)
FY	Fiscal Year
GI Endo	Gastrointestinal Endoscopy
HSA	Health Service Area
ICU	Intensive Care Unit
IP	Inpatient
LRA	License Renewal Application
Med/Surg or M/S	Medical/Surgical
NC OSBM	North Carolina Office of State Budget and Management
OP	Outpatient
OR	Operating Room
OY	Operating Year
SMFP	State Medical Facilities Plan

REVIEW CRITERIA FOR NEW INSTITUTIONAL HEALTH SERVICES

N.C. Gen. Stat. §131E-183(a) The Agency 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.

NC – Atrium Health Lake Norman
C – All Other Applications

Need Determinations

Acute Care Beds – The 2019 State Medical Facilities Plan (SMFP) includes a methodology for determining the need for additional acute care beds in North Carolina by service area. Application of the need methodology in the 2019 SMFP identified a need for 76 additional acute care beds in the Mecklenburg County service area. Five applications were submitted to the Healthcare Planning and Certificate of Need Section (“CON Section” or “Agency”) proposing to develop a total of 96 new acute care beds in Mecklenburg County. However, pursuant to the need determination, only 76 acute care beds may be approved in this review for Mecklenburg County. See the Conclusion following the Comparative Analysis for the decision.

Only qualified applicants can be approved to develop new acute care beds. On page 38, the 2019 SMFP states:

“A person is a qualified applicant if he or she proposes to operate the additional acute care beds in a hospital that will provide:

- (1) *a 24-hour emergency services department,*
- (2) *inpatient medical services to both surgical and non-surgical patients, and*
- (3) *if proposing a new licensed hospital, medical and surgical services on a daily basis within at least five of the major diagnostic categories as recognized by the Centers for Medicare and Medicaid services (CMS), as follows... [listed on pages 38-39 of the 2019 SFMP].”*

Operating Rooms (ORs) – Chapter 6 of the 2019 SMFP includes a methodology for determining the need for additional ORs in North Carolina by service area. Application of the need methodology in the 2019 SMFP identifies a need for six additional ORs in the Mecklenburg County service area. Four applications were submitted to the CON Section, proposing to develop a total of seven ORs. However, pursuant to the need determination, only six ORs may be approved in this review for Mecklenburg County. See the Conclusion following the Comparative Analysis for the decision.

Policies – There are two policies applicable to the review of the applications submitted in response to the acute care bed and OR need determinations in the 2019 SMFP for the Mecklenburg County service area.

Policy GEN-3: Basic Principles, on page 31 of the 2019 SMFP, states:

“A certificate of need applicant applying to develop or offer a new institutional health service for which there is a need determination in the North Carolina State Medical Facilities Plan shall demonstrate how the project will promote safety and quality in the delivery of health care services while promoting equitable access and maximizing healthcare value for resources expended. A certificate of need applicant shall document its plans for providing access to services for patients with limited financial resources and demonstrate the availability of capacity to provide these services. A certificate of need applicant shall also document how its projected volumes incorporate these concepts in meeting the need identified in the State Medical Facilities Plan as well as addressing the needs of all residents in the proposed service area.”

Policy GEN-4: Energy Efficiency and Sustainability for Health Service Facilities, on page 31 of the 2019 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 is 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.”

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

Presbyterian Medical Care Corp. and Novant Health, Inc., collectively referred to as “Novant” or “the applicant,” operate Novant Health Matthews Medical Center (“NH Matthews” or “NHMMC”), an acute care hospital with eight ORs (including two dedicated C-Section ORs).

The applicant proposes to develop one additional OR pursuant to the 2019 SMFP need determination for a total of nine ORs upon project completion.

Need Determination. The applicant does not propose to develop more ORs than are determined to be needed in the Mecklenburg County service area.

Policy GEN-3. In Section B, pages 10-14, the applicant explains why it believes its application is consistent with Policy GEN-3.

Policy GEN-4. The proposed capital expenditure for this project is greater than \$2 million but less than \$5 million. In Section B, page 15, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more ORs than are determined to be needed in Mecklenburg County.
- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:
 - The applicant adequately documents how the project will promote safety and quality in the delivery of OR services in Mecklenburg County.
 - The applicant adequately documents how the project will promote equitable access to OR services in Mecklenburg County.
 - The applicant adequately documents how the project will maximize healthcare value for the resources expended.
 - The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

F-11808-19/ Novant Health Matthews Medical Center/Develop 20 acute care beds

Presbyterian Medical Care Corp. and Novant Health, Inc., collectively referred to as “Novant” or “the applicant,” operate Novant Health Matthews Medical Center (“NH Matthews” or “NHMMC”), an acute care hospital licensed for 154 acute care beds. The applicant proposes

to develop 20 additional acute care beds pursuant to the 2019 SMFP need determination for a total of 174 licensed acute care beds upon project completion.

Need Determination. The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County. In Section B, page 11, the applicant adequately demonstrates that it meets the requirements of a “qualified applicant” as defined in Chapter 5 of the 2019 SMFP.

Policy GEN-3. In Section B, pages 17-19, the applicant explains why it believes its application is consistent with Policy GEN-3.

Policy GEN-4. The proposed capital expenditure for this project is greater than \$5 million. In Section B, page 20, the applicant describes the project’s plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project’s plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County and meets the requirements of a “qualified applicant” as defined in Chapter 5 of the 2019 SMFP to develop the proposed beds.
- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:
 - The applicant adequately documents how the project will promote safety and quality in the delivery of acute care bed services in Mecklenburg County.
 - The applicant adequately documents how the project will promote equitable access to acute care bed services in Mecklenburg County.
 - The applicant adequately documents how the project will maximize healthcare value for the resources expended.
 - The applicant adequately demonstrates that the application includes a written statement describing the project’s plan to assure improved energy efficiency and water conservation.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as “CMHA,” “Atrium,” or “the applicant,” proposes to develop Atrium Health Lake Norman (“AH Lake Norman” or “AH-LN”), a new satellite hospital campus to be licensed under Atrium Health University City (“AH University City” or “AH-UC”), by developing 30 acute care beds and two ORs pursuant to the need determinations in the 2019 SMFP.

Need Determination. The applicant does not propose to develop more acute care beds or ORs than are determined to be needed in Mecklenburg County. In Section B, pages 12-14, the applicant adequately demonstrates that it meets the requirements of a “qualified applicant” as defined in Chapter 5 of the 2019 SMFP.

Policy GEN-3. In Section B, pages 23-26, the applicant explains why it believes its application is consistent with Policy GEN-3.

Policy GEN-4. The proposed capital expenditure for this project is greater than \$5 million. In Section B, pages 27-28, the applicant describes the project’s plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project’s plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments
- Information publicly available at the time of the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the following reasons:

- The applicant does not adequately demonstrate that the proposal is consistent with Policy GEN-3 for the following reasons:
 - The applicant does not demonstrate the need the population proposed to be served has for the proposed project. The discussion regarding need found in Criterion (3) is incorporated herein by reference.
 - The applicant does not adequately demonstrate that the proposal would not result in an unnecessary duplication of existing or approved services in the service area. The discussion regarding unnecessary duplication found in Criterion (6) is incorporated herein by reference.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as “CMHA,” “Atrium,” or “the applicant,” operates Carolinas Medical Center (“CMC”), an acute care hospital licensed for 1,055 acute care beds. The applicant proposes to develop 18 additional acute care beds pursuant to the 2019 SMFP need determination for a total of 1,073 acute care beds upon project completion.

Need Determination. The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County. In Section B, page 12, the applicant adequately demonstrates that it meets the requirements of a “qualified applicant” as defined in Chapter 5 of the 2019 SMFP.

Policy GEN-3. In Section B, pages 21-24, the applicant explains why it believes its application is consistent with Policy GEN-3.

Policy GEN-4. The proposed capital expenditure for this project is greater than \$5 million. In Section B, pages 25-26, the applicant describes the project’s plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project’s plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County and meets the requirements of a “qualified applicant” as defined in Chapter 5 of the 2019 SMFP to develop the proposed beds.
- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:
 - The applicant adequately documents how the project will promote safety and quality in the delivery of acute care bed services in Mecklenburg County.
 - The applicant adequately documents how the project will promote equitable access to acute care bed services in Mecklenburg County.
 - The applicant adequately documents how the project will maximize healthcare value for the resources expended.

- The applicant adequately demonstrates that the application includes a written statement describing the project’s plan to assure improved energy efficiency and water conservation.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as “CMHA,” “Atrium,” or “the applicant,” operates Atrium Health University City (“AH University City” or “AH-UC”), an acute care hospital licensed for 100 acute care beds. The applicant proposes to develop 16 additional acute care beds pursuant to the 2019 SMFP need determination for a total of 116 acute care beds upon project completion.

Need Determination. The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County. In Section B, page 12, the applicant adequately demonstrates that it meets the requirements of a “qualified applicant” as defined in Chapter 5 of the 2019 SMFP.

Policy GEN-3. In Section B, pages 21-24, the applicant explains why it believes its application is consistent with Policy GEN-3.

Policy GEN-4. The proposed capital expenditure for this project is greater than \$5 million. In Section B, pages 24-25, the applicant describes the project’s plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project’s plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County and meets the requirements in of a “qualified applicant” as defined in Chapter 5 of the 2019 SMFP to develop the proposed beds.
- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:
 - The applicant adequately documents how the project will promote safety and quality in the delivery of acute care bed services in Mecklenburg County.
 - The applicant adequately documents how the project will promote equitable access to acute care bed services in Mecklenburg County.

- The applicant adequately documents how the project will maximize healthcare value for the resources expended.
- The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as "CMHA," "Atrium," or "the applicant," operates Atrium Health Pineville ("AH Pineville" or "AH-P"), an acute care hospital licensed for 221 acute care beds. Pursuant to Project I.D. #F-11622-18, AH Pineville is approved to develop 38 acute care beds. The applicant proposes to develop 12 additional acute care beds pursuant to the 2019 SMFP need determination for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18.

Need Determination. The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County. In Section B, page 12, the applicant adequately demonstrates that it meets the requirements of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP.

Policy GEN-3. In Section B, pages 21-24, the applicant explains why it believes its application is consistent with Policy GEN-3.

Policy GEN-4. The proposed capital expenditure for this project is greater than \$5 million. In Section B, pages 25-26, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County and meets the requirements of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP to develop the proposed beds.
- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:
 - The applicant adequately documents how the project will promote safety and quality in the delivery of acute care bed services in Mecklenburg County.

- The applicant adequately documents how the project will promote equitable access to acute care bed services in Mecklenburg County.
- The applicant adequately documents how the project will maximize healthcare value for the resources expended.
- The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

F-11814-19/Atrium Health Pineville/Develop two ORs

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as "CMHA," "Atrium," or "the applicant," operates Atrium Health Pineville ("AH Pineville or "AH-P"), an acute care hospital licensed for 12 ORs. Pursuant to Project I.D. #F-11621-18, AH Pineville is approved to develop one OR. The applicant proposes to develop two additional ORs pursuant to the 2019 SMFP need determination for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18.

Need Determination. The applicant does not propose to develop more ORs than are determined to be needed in Mecklenburg County.

Policy GEN-3. In Section B, pages 10-13, the applicant explains why it believes its application is consistent with Policy GEN-3.

Policy GEN-4. The proposed capital expenditure for this project is greater than \$5 million. In Section B, pages 14-15, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more ORs than are determined to be needed in Mecklenburg County.
- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:
 - The applicant adequately documents how the project will promote safety and quality in the delivery of operating room services in Mecklenburg County.

- The applicant adequately documents how the project will promote equitable access to OR services in Mecklenburg County.
- The applicant adequately documents how the project will maximize healthcare value for the resources expended.
- The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

F-11815-19/Carolinas Medical Center/Develop two ORs

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as "CMHA," "Atrium," or "the applicant," operates Carolinas Medical Center ("CMC"), an acute care hospital licensed for 62 ORs. Pursuant to Project I.D. #F-11620-18, CMC is approved to develop two ORs. The applicant proposes to develop two additional ORs pursuant to the 2019 SMFP need determination for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18.

Need Determination. The applicant does not propose to develop more ORs than are determined to be needed in Mecklenburg County.

Policy GEN-3. In Section B, pages 10-13, the applicant explains why it believes its application is consistent with Policy GEN-3.

Policy GEN-4. The proposed capital expenditure for this project is greater than \$5 million. In Section B, pages 14-15, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more ORs than are determined to be needed in Mecklenburg County.
- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:
 - The applicant adequately documents how the project will promote safety and quality in the delivery of OR services in Mecklenburg County.

- The applicant adequately documents how the project will promote equitable access to OR services in Mecklenburg County.
 - The applicant adequately documents how the project will maximize healthcare value for the resources expended.
 - The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.
- (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.

NC – Atrium Health Lake Norman

C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

The applicant proposes to add one OR to NH Matthews, its existing acute care hospital, for a total of nine ORs upon project completion.

Novant submitted two applications in this review cycle for acute care beds and ORs at NH Matthews. The other application, Project I.D. #F-11808-19, proposes to add 20 acute care beds to the existing facility for a total of 174 acute care beds upon project completion.

Patient Origin – On page 36, the 2019 SMFP defines the service area for ORs as “...*the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1.*” Figure 6.1, on page 40, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. The following tables illustrate current and projected patient origin.

NHMMC Historical Patient Origin – Surgical Cases (CY 2018)				
County	Inpatient ORs		Outpatient ORs	
	# Patients	% of Total	# Patients	% of Total
Mecklenburg	799	50.3%	1,865	46.6%
Union	527	33.2%	1,494	37.3%
Cabarrus	31	2.0%	85	2.1%
Anson	27	1.7%	43	1.1%
Stanly	21	1.3%	65	1.6%
Gaston	*	*	29	0.7%
Other*	184	11.6%	423	10.6%
Total	1,589	100.0%	4,004	100.0%

Source: Section C, page 18

*Other (Inpatient ORs): Brunswick, Caldwell, Catawba, Cherokee, Cleveland, Columbus, Gaston, Guilford, Iredell, Lincoln, Randolph, Richmond, Rowan, Watauga, and Wayne counties in North Carolina as well as other states.

*Other (Outpatient ORs): Alexander, Avery, Brunswick, Buncombe, Caldwell, Catawba, Cleveland, Davidson, Davie, Forsyth, Guilford, Henderson, Iredell, Lincoln, Montgomery, Pender, Pitt, Polk, Randolph, Richmond, Robeson, Rowan, Rutherford, Surry, Transylvania, and Wake counties in North Carolina as well as other states.

NHMMC Projected Patient Origin – Inpatient Surgical Cases						
County	FY 1 (CY 2024)		FY 2 (CY 2025)		FY 3 (CY 2026)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	1,120	50.3%	1,181	50.3%	1,258	50.3%
Union	739	33.2%	779	33.2%	830	33.2%
Other Counties*	367	16.5%	387	16.5%	413	16.5%
Total	2,227	100.0%	2,347	100.0%	2,500	100.0%

Source: Section C, page 19

*Other: Alexander, Avery, Brunswick, Buncombe, Caldwell, Catawba, Cherokee, Cleveland, Columbus, Davidson, Davie, Forsyth, Gaston, Guilford, Henderson, Iredell, Lincoln, Montgomery, Pender, Pitt, Polk, Randolph, Richmond, Robeson, Rowan, Rutherford, Surry, Transylvania, Wake, Watauga, and Wayne counties in North Carolina as well as other states.

NHMMC Projected Patient Origin – Outpatient Surgical Cases						
County	FY 1 (CY 2024)		FY 2 (CY 2025)		FY 3 (CY 2026)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	1,705	46.6%	1,711	46.6%	1,741	46.6%
Union	1,365	37.3%	1,369	37.3%	1,394	37.3%
Other Counties*	589	16.1%	591	16.1%	602	16.1%
Total	3,659	100.0%	3,671	100.0%	3,737	100.0%

Source: Section C, page 19

*Other: Alexander, Avery, Brunswick, Buncombe, Caldwell, Catawba, Cherokee, Cleveland, Columbus, Davidson, Davie, Forsyth, Gaston, Guilford, Henderson, Iredell, Lincoln, Montgomery, Pender, Pitt, Polk, Randolph, Richmond, Robeson, Rowan, Rutherford, Surry, Transylvania, Wake, Watauga, and Wayne counties in North Carolina as well as other states.

In Section C, page 20, the applicant provides the assumptions and methodology used to project patient origin. The applicant's assumptions are reasonable and adequately supported.

Analysis of Need – In Section C, pages 21-36, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant calculated statistics by extrapolating actual historical data from October 1, 2018 through June 30, 2019 to obtain FFY 2019 annualized data.
- Between FFY 2014-2019 annualized, inpatient surgical cases at NH Matthews grew at an average rate of 6.8 percent per year. The applicant states recent small declines in outpatient surgical cases are the result of intentionally shifting lower acuity outpatient surgical cases to ASFs to reduce cost and to provide capacity at NH Matthews for more inpatient surgical cases as well as higher acuity outpatient surgical cases. The applicant states that, despite recent declines, outpatient surgical cases grew at an average rate of 2.3 percent between FFY 2014-2019 annualized.
- Successful recruitment of surgeons to replace retiring surgeons, as well as recruitment of additional surgeons, has resulted in growth in the number of inpatient cases. The applicant states the number of FFY 2019 annualized inpatient surgical cases was more than six percent higher than FFY 2018 inpatient surgical cases at NH Matthews.
- The opening of NH Mint Hill on October 1, 2018 has not affected surgical hours at NH Matthews. The applicant states surgical hours at NH Matthews are 13 percent higher for FFY 2019 annualized than in the year prior to NH Mint Hill offering services.
- Surgical cases at NH Matthews are increasing in complexity and in length of time needed for surgery. The applicant provides data from its annual License Renewal Applications (LRAs) submitted to the Agency showing increases in both inpatient and outpatient surgical case times between FFY 2016 and FFY 2019 annualized. The applicant provides data from Truven documenting the consistent increase in case complexity since FFY 2015.
- Physician recruitment at NH Matthews has resulted in development of new clinical programs that treat more clinically complex patients, and the applicant states these changes have resulted in higher demand for related services.
- According to NC OSBM, the population of Mecklenburg County is projected to grow 9.8 percent between 2019 and 2024, and the population of Union County is projected to grow 11.1 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- The applicant uses historical and demographic data to identify the population to be served, its projected growth, and the need the identified population to be served has for the proposed services.

- There is a need determination for six ORs in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop one OR in Mecklenburg County in accordance with the OR need determination in the 2019 SMFP.

Projected Utilization – In Section C, page 26, the applicant provides projected utilization as illustrated in the following table.

NHMMC Projected Utilization – Surgical Services			
	FY 1 (CY 2024)	FY 2 (CY 2025)	FY 3 (CY 2026)
Operating Rooms			
Dedicated C-Section ORs	2	2	2
Shared ORs	7	7	7
Total # of ORs	9	9	9
Excluded # of ORs	2	2	2
Total # of ORs – Planning Inventory	7	7	7
Surgical Cases			
# of Inpatient Cases (1)	2,227	2,347	2,500
# of Outpatient Cases	3,659	3,671	3,737
Total # Surgical Cases (1)	5,886	6,018	6,237
Case Times			
Inpatient (2)	117.9	117.9	117.9
Outpatient (2)	90.4	90.4	90.4
Surgical Hours			
Inpatient (3)	4,376	4,612	4,913
Outpatient (4)	5,513	5,531	5,630
Total Surgical Hours	9,889	10,143	10,543
# of ORs Needed			
Group Assignment (5)	4	4	4
Standard Hours per OR per Year (6)	1,500	1,500	1,500
ORs Needed (total hours / 1,500)	6.59	6.76	7.03

Additional sources: Section C, page 39; NH Matthews' 2020 LRA

(1) Excluding C-Sections performed in a dedicated C-Section OR

(2) From Section C, Question 9(c)

(3) [Inpatient Cases (exclude C-Sections performed in dedicated C-Section ORs) x Inpatient Case Time in minutes] / 60 minutes

(4) (Outpatient Cases x Outpatient Case Time in minutes) / 60 minutes

(5) From Section C, Question 9(a)

(6) From Section C, Question 9(b)

In Section C, pages 23-26, and the Form C Assumptions and Methodology subsection found in Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant reviewed its FFY 2014-2019 annualized data for surgical cases. The applicant calculated a 2-year, 3-year, 4-year, and 5-year CAGR for both inpatient surgical cases and outpatient surgical cases. The applicant assumed its inpatient surgical cases would grow at the lowest of the CAGRs calculated (its 4-year CAGR of 6.3 percent). The applicant assumed its outpatient surgical cases would decrease at the rate of the largest negative CAGR through CY 2023 (its 3-year CAGR of -1.2 percent), and projects

outpatient surgical cases will increase at the lowest positive CAGR in CYs 2024-2026 (its 4-year CAGR of 1.5 percent).

Regarding projected outpatient surgical case growth rates, on pages 23-24 the applicant states:

“The number of outpatient surgical cases at NH Matthews has declined slightly in recent years, but the Applicant does not expect the decline to be indefinite. The decline does not show a reduced need for outpatient surgeries at NH Matthews, but the intentional shift of low acuity outpatient cases to other NH [ASFs] to reduce cost and to accommodate the growing demand for inpatient surgeries and higher acuity outpatient surgeries. NH has and will continue to increase operating room hours and create efficiencies to accommodate the longer case times of inpatient surgeries. ... NH Matthews expects to continue shifting appropriate outpatient surgical cases to other NH ASCs and NH hospitals as needed until it opens another operating room. When the new operating room suite opens in July of 2023, NH Matthews expect the number of outpatient surgeries to increase due to available capacity, physician recruitment, and population growth.”

- The applicant converted FFY data to CY data using the following formula: $CY\ 2018 = [(FFY\ 2018 / 4) \times 3] + (FFY\ 2019 / 4)$
- In Project I.D. #F-11625-18, Novant was approved to develop NH Ballantyne, a new separately licensed hospital by relocating existing beds and ORs from NH Presbyterian. As part of that application, Novant projected some inpatient and outpatient surgical cases would shift from NH Matthews to NH Ballantyne. The applicant states it used much of the same assumptions and methodology it used in Project I.D. #F-11625-18 to calculate projections for NH Ballantyne and its impacts on other Novant facilities, but made some changes which it describes on pages 120-121 of the Form C Assumptions and Methodology subsection found in Section Q. The applicant states these changes result in an increase in the number of surgical cases projected to shift from NH Matthews to NH Ballantyne in the current application than in Project I.D. #F-11625-18. The applicant projects the shift in cases from NH Matthews to NH Ballantyne will begin in CY 2023.
- The applicant used its Final Case Times for inpatient and outpatient surgical cases as listed in the 2019 SMFP.

The table below summarizes the assumptions and methodology used by the applicant.

NHMMC Projected OR Utilization									
	2019*	2020	2021	2022	2023	2024	2025	2026	2027
FFY Baseline Inpatient Cases	1,715	1,823	1,938	2,060	2,190	2,328	2,475	2,631	2,797
Growth Rate	--	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%
CY Baseline Inpatient Cases	1,742	1,852	1,969	2,093	2,225	2,365	2,514	2,673	--
Baseline Outpatient Cases	3,996	3,948	3,901	3,854	3,808	3,865	3,923	3,982	4,042
Growth Rate	--	-1.2%	-1.2%	-1.2%	-1.2%	1.5%	1.5%	1.5%	1.5%
CY Baseline Outpatient Cases	3,984	3,936	3,889	3,843	3,822	3,880	3,938	3,997	--
Inpatient Cases Shifting to NHBMC	--	--	--	--	-110	-138	-167	-173	--
Outpatient Cases Shifting to NHBMC	--	--	--	--	-187	-221	-267	-260	--
Total Inpatient Cases	1,742	1,852	1,969	2,093	2,115	2,227	2,347	2,500	--
Total Outpatient Cases	3,984	3,936	3,889	3,843	3,635	3,659	3,671	3,737	--
Final Inpatient Case Time (1)	117.9	117.9	117.9	117.9	117.9	117.9	117.9	117.9	--
Final Outpatient Case Time (1)	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	--
Total Surgical Hours (2)	9,426	9,569	9,728	9,903	9,633	9,889	10,143	10,543	--
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	--
Number of ORs Needed (4)	6.28	6.38	6.49	6.60	6.42	6.59	6.76	7.03	--
Number of Existing/Approved ORs	6	6	6	6	6	6	6	6	--
(Surplus) / Deficit	0.28	0.38	0.49	0.60	0.42	0.59	0.76	1.03	--

Sources: Section C, pages 23-26; Form C Assumptions and Methodology subsection of Section Q

*Annualized based on October 2018-June 2019 data.

- (1) The Final Case Time in minutes for the facility in the 2019 SMFP.
- (2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
- (3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.
- (4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of one OR at NH Matthews in the third full fiscal year following project completion. The applicant proposes to add one additional OR at NH Matthews.

To determine whether the applicant would still demonstrate a need for the proposed OR at NH Matthews if outpatient surgical cases continued to decline (instead of increasing during the first three full fiscal years as projected by the applicant), the Project Analyst recalculated the CY 2024-2026 outpatient surgical cases based on a continued growth rate of -1.2 percent and recalculated surgical hours and OR need. See the Working Papers for these calculations. Even if outpatient surgical case utilization continues to decline at a rate of -1.2 percent through the end of CY 2026, there would still be a projected deficit of 0.69 ORs at the end of CY 2026, which would be rounded to one.

Novant Health System

The Novant health system for ORs in Mecklenburg County consists of NH Matthews, NH Presbyterian, NH Huntersville, NH Mint Hill, the approved NH Ballantyne, Matthews Surgery Center, SouthPark, NH Huntersville OPS, and NH Ballantyne OPS. Pursuant to 10A NCAC 14C .2103(a), the applicant must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year, using the Operating Room Need Methodology in the 2019 SMFP.

In the Form C Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization for all other facilities with ORs in its Mecklenburg County health system. The assumptions and methodology are summarized below.

As part of Project I.D. #F-11625-18 (proposing to develop NH Ballantyne), the applicant projected a shift in surgical cases from several of its facilities to the proposed NH Ballantyne. The applicant states it will project shifts between facilities in Mecklenburg County as it has in previously approved applications.

- Determine historical utilization by facility – using historical data for FFYs 2015-2018 and FFY 2019 annualized, the applicant calculated 2-year, 3-year, and 4-year CAGRs for each facility for inpatient cases (as applicable) and outpatient cases. The applicant states it substituted the NH system’s lowest corresponding CAGR for NH Mint Hill inpatient and outpatient surgical cases since it has only been offering services since October 1, 2018. The applicant states that for NH Huntersville OPS, which has experienced high growth due to initial ramp-up in cases, it substituted the NH system’s lowest OP CAGR.
- Project surgical cases through FFY 2027 prior to any shifts and convert to CYs – the applicant applied the selected growth rate to surgical cases at each facility through FFY 2027, and then converted the projections to CYs using the following formula: $CY\ 2018 = [(FFY\ 2018 / 4) \times 3] + (FFY\ 2019 / 4)$
- Project shift of surgical cases to NH Ballantyne – as part of Project I.D. #F-11625-18, the applicant projected some inpatient and outpatient surgical cases would shift to NH Ballantyne. The applicant states it expects cases to shift according to the projections in Project I.D. #F-11625-18, with one exception. The applicant projected some inpatient and outpatient surgical cases would shift from NH Matthews to NH Ballantyne, but now projects a shift in outpatient cases to NH Ballantyne based on projected ratios of inpatient to outpatient surgical cases. The applicant states these changes result in an increase in the number of surgical cases projected to shift from NH Matthews to NH Ballantyne in the current application than in Project I.D. #F-11625-18. The applicant projects the shift in cases from NH Matthews to NH Ballantyne will begin in CY 2023.
- Project shift of surgical cases to NH Mint Hill – the applicant states it plans to shift some surgical cases from NH Presbyterian to NH Mint Hill. The applicant states it projects five inpatient cases per quarter will shift beginning in the last quarter of CY 2019. The applicant also projects 20 outpatient cases per quarter will shift beginning in the last quarter of CY 2019 and which will then grow at the NH system outpatient 4-year CAGR for outpatient cases (5.4 percent).
- Subtract shifts in surgical cases from NH facilities to determine projected OR utilization through CY 2026 – the applicant subtracted the number of surgical cases projected to shift for the relevant Novant facilities in Mecklenburg County through CY 2026 to obtain projected OR utilization at each facility.

A brief summary of the assumptions and methodology used to project OR utilization at each Novant facility follows below.

Novant Health Presbyterian - The applicant starts with historical utilization and determines the lowest inpatient CAGR is its 4-year CAGR (0.7 percent) and the lowest outpatient CAGR is its 3-year CAGR (4.6 percent). The applicant projects FFY inpatient and outpatient surgical cases and converts them to CYs. Then the applicant makes assumptions about shifts of surgical cases to NH Ballantyne and NH Mint Hill. The following table illustrates projected OR utilization at NH Presbyterian.

NH Presbyterian Projected OR Utilization								
	2019*	2020	2021	2022	2023	2024	2025	2026
Baseline CY Inpatient Cases	8,162	8,219	8,277	8,335	8,393	8,452	8,511	8,570
Baseline CY Outpatient Cases	24,612	25,744	26,928	28,167	29,463	30,819	32,237	33,719
IP Cases Shifting to Other Facilities	-5	-20	-20	-20	-141	-171	-202	-208
OP Cases Shifting to Other Facilities	-20	-80	-84	-89	-94	-99	-104	-110
Total Inpatient Cases	8,157	8,199	8,257	8,315	8,252	8,281	8,309	8,362
Total Outpatient Cases	24,592	25,664	26,844	28,078	29,369	30,720	32,133	33,609
Final Inpatient Case Time (1)	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8
Final Outpatient Case Time (1)	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
Total Surgical Hours (2)	62,365	64,108	66,062	68,098	69,843	71,964	74,176	76,560
Avg Annual Operating Hrs – Group 2 (3)	1,950	1,950	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	31.98	32.88	33.88	34.92	35.82	36.90	38.04	39.26
Number of Existing/Approved ORs	37	37	37	37	36	36	36	36
(Surplus) / Deficit	(5.02)	(4.12)	(3.12)	(2.08)	(0.18)	0.90	2.04	3.26

Source: Form C Assumptions and Methodology subsection of Section Q

*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 3.26 ORs at NH Presbyterian in the third full fiscal year following project completion. Novant does not propose to add any ORs to NH Presbyterian as part of this review.

Novant Health Huntersville - The applicant starts with historical utilization and determines the lowest inpatient CAGR is its 3-year CAGR (3.4 percent) and the lowest outpatient CAGR is its 2-year CAGR (4.3 percent). The applicant projects FFY inpatient and outpatient surgical cases and converts them to CYs. Then the applicant makes assumptions about shifts of surgical cases to NH Ballantyne. The following table illustrates projected OR utilization at NH Huntersville.

NH Huntersville Projected OR Utilization								
	2019*	2020	2021	2022	2023	2024	2025	2026
Baseline CY Inpatient Cases	1,494	1,544	1,597	1,651	1,708	1,766	1,827	1,889
Baseline CY Outpatient Cases	4,058	4,233	4,415	4,605	4,803	5,009	5,225	5,449
IP Cases Shifting to NH Ballantyne	--	--	--	--	-1	-2	-2	-2
Total Inpatient Cases	1,494	1,544	1,597	1,651	1,707	1,764	1,825	1,887
Total Outpatient Cases	4,058	4,233	4,415	4,605	4,803	5,009	5,225	5,449
Final Inpatient Case Time (1)	139.9	139.9	139.9	139.9	139.9	139.9	139.9	139.9
Final Outpatient Case Time (1)	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
Total Surgical Hours (2)	9,598	9,978	10,376	10,788	11,217	11,660	12,127	12,610
Avg Annual Operating Hrs – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	6.40	6.65	6.92	7.19	7.48	7.77	8.08	8.41
Number of Existing/Approved ORs	6	6	7	7	7	7	7	7
(Surplus) / Deficit	0.40	0.65	(0.08)	0.19	0.48	0.77	1.08	1.41

Source: Form C Assumptions and Methodology subsection of Section Q

*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 1.41 ORs at NH Huntersville in the third full fiscal year following project completion. Novant does not propose to add any ORs to NH Huntersville as part of this review.

Novant Health Mint Hill - The applicant starts with its FFY 2019 annualized data for NH Mint Hill, which opened on October 1, 2018, and applies the lowest NH system inpatient CAGR (the 4-year CAGR of 2.2 percent) and the lowest NH system outpatient CAGR (the 3-year CAGR of 5.3 percent). The applicant projects FFY inpatient and outpatient surgical cases and converts them to CYs. Then the applicant makes assumptions about shifts of surgical cases from NH Presbyterian. The following table illustrates projected OR utilization at NH Mint Hill.

NH Mint Hill Projected OR Utilization								
	2019*	2020	2021	2022	2023	2024	2025	2026
Baseline CY Inpatient Cases	156	159	162	166	170	174	178	182
Baseline CY Outpatient Cases	664	699	737	776	818	861	907	955
IP Cases Shifting from NHPMC	5	20	20	20	20	20	20	20
OP Cases Shifting from NHPMC	20	80	84	89	94	99	104	110
Total Inpatient Cases**	161	179	182	186	190	194	198	202
Total Outpatient Cases**	684	779	821	865	912	960	1,011	1,065
Final Inpatient Case Time (1)	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5
Final Outpatient Case Time (1)	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
Total Surgical Hours (2)	1,119	1,267	1,322	1,383	1,446	1,511	1,579	1,652
Avg Annual Operating Hrs – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	0.75	0.84	0.88	0.92	0.96	1.01	1.05	1.10
Number of Existing/Approved ORs	3	3	3	3	4	4	4	4
(Surplus) / Deficit	(2.25)	(2.16)	(2.12)	(2.08)	(3.04)	(2.99)	(2.95)	(2.90)

Source: Form C Assumptions and Methodology subsection of Section Q

*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

**In Section Q and on Form C, the applicant did not add cases from NHPMC to NHMHC's baseline cases, despite subtracting them from NHPMC's baseline cases. The Project Analyst added the appropriate cases.

(1) From Step 5a of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 2.90 ORs at NH Mint Hill in the third full fiscal year following project completion. Novant does not propose to add any ORs to NH Mint Hill as part of this review. The Project Analyst notes the total number of surgical hours at NH Mint Hill in these projections is likely understated. According to NH Mint Hill's 2020 LRA, available to the Agency during this review, its actual inpatient case time was 134 minutes and its actual outpatient case time was 129 minutes. If the actual case times for NH Mint Hill were used, NH Mint Hill's surplus would be lower.

Novant Health Ballantyne – NH Ballantyne is not projected to become operational until January 1, 2023. The applicant projects inpatient cases will shift from NH Presbyterian, NH Huntersville, and NH Matthews as projected in Project I.D. #F-11625-18. The applicant projects outpatient cases will shift from NH Ballantyne OPS as projected in Project I.D. #F-11625-18 and projects some additional outpatient cases will shift from NH Matthews. The following table illustrates projected OR utilization at NH Ballantyne.

NH Ballantyne Projected OR Utilization				
	2023	2024	2025	2026
Total Inpatient Cases	394	492	596	614
Total Outpatient Cases	1,319	1,378	1,450	1,469
Final Inpatient Case Time (1)	112.5	112.5	112.5	112.5
Final Outpatient Case Time (1)	71.7	71.7	71.7	71.7
Total Surgical Hours (2)	2,315	2,570	2,851	2,906
Avg Annual Operating Hrs – Group 4 (3)	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	1.54	1.71	1.90	1.94
Number of Existing/Approved ORs	2	2	2	2
(Surplus) / Deficit	(0.46)	(0.29)	(0.10)	(0.06)

Source: Form C Assumptions and Methodology subsection of Section Q

(1) From Step 5a of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 0.06 ORs at NH Ballantyne in the third full fiscal year following project completion. Novant does not propose to add any ORs to NH Ballantyne as part of this review.

Novant Health Ballantyne OP Surgery – as part of Project I.D. #F-11625-18, the applicant was approved to relocate the two ORs at NH Ballantyne OPS to NH Ballantyne and projects all future surgical cases will shift to NH Ballantyne. NH Ballantyne OPS will then be delicensed. For purposes of showing projected growth in NH Ballantyne OPS surgical cases, the applicant starts with historical utilization and determines the lowest outpatient CAGR is its four-year CAGR (2.2 percent). The applicant projects FFY outpatient surgical cases and converts them to CYs. Beginning in 2023, the applicant shifts all NH Ballantyne OPS cases to NH Ballantyne. The following table illustrates projected OR utilization at NH Ballantyne OPS.

NH Ballantyne OPS Projected OR Utilization								
	2019*	2020	2021	2022	2023	2024	2025	2026
Baseline CY Outpatient Cases	1,038	1,061	1,084	1,108	1,132	1,157	1,183	1,209
Cases at NH Ballantyne OPS	1,038	1,061	1,084	1,108	--	--	--	--
Cases shifting to NH Ballantyne	--	--	--	--	1,132	1,157	1,183	1,209

Source: Form C Assumptions and Methodology subsection of Section Q

*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

Novant Health Huntersville OP Surgery - The applicant starts with historical utilization. Because of tremendous growth in utilization at NH Huntersville OPS during the initial ramp-up period, the applicant substitutes the lowest NH system outpatient CAGR (the 3-year CAGR of 5.3 percent). The applicant projects FFY surgical cases and converts them to CYs. The following table illustrates projected OR utilization at NH Huntersville OPS.

NH Huntersville OPS Projected OR Utilization								
	2019*	2020	2021	2022	2023	2024	2025	2026
Total CY Outpatient Cases	3,568	3,757	3,957	4,167	4,387	4,620	4,865	5,122
Final Outpatient Case Time (1)	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
Total Surgical Hours (2)	3,122	3,287	3,462	3,646	3,839	4,043	4,257	4,482
Avg Annual Operating Hrs – Group 5 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	2.38	2.51	2.64	2.78	2.93	3.08	3.24	3.42
Number of Existing/Approved ORs	2	2	2	2	2	2	2	2
(Surplus) / Deficit	0.38	0.51	0.64	0.78	0.93	1.08	1.24	1.42

Source: Form C Assumptions and Methodology subsection of Section Q

*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 1.42 ORs at NH Huntersville OPS in the third full fiscal year following project completion. Novant does not propose to add any ORs to NH Huntersville OPS as part of this review.

SouthPark Surgery Center - The applicant starts with historical utilization and determines the lowest outpatient CAGR is its 4-year CAGR (4.7 percent). The applicant projects FFY surgical cases and converts them to CYs. The following table illustrates projected OR utilization at SouthPark.

SouthPark Projected OR Utilization								
	2019*	2020	2021	2022	2023	2024	2025	2026
Total CY Outpatient Cases	12,201	12,774	13,374	14,003	14,660	15,349	16,071	16,827
Final Outpatient Case Time (1)	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2
Total Surgical Hours (2)	10,208	10,688	11,190	11,716	12,266	12,842	13,446	14,079
Avg Annual Operating Hrs – Group 5 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	7.78	8.15	8.53	8.93	9.35	9.79	10.25	10.73
Number of Existing/Approved ORs	6	6	6	6	6	6	6	6
(Surplus) / Deficit	1.78	2.15	2.53	2.93	3.35	3.79	4.25	4.73

Source: Form C Assumptions and Methodology subsection of Section Q

*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 4.73 ORs at SouthPark in the third full fiscal year following project completion. Novant does not propose to add any ORs to SouthPark as part of this review.

Matthews Surgery Center - The applicant starts with historical utilization and determines the lowest outpatient CAGR is its 3-year CAGR (2.1 percent). The applicant projects FFY surgical

cases and converts them to CYs. The following table illustrates projected OR utilization at Matthews Surgery Center.

Matthews Surgery Center Projected OR Utilization								
	2019*	2020	2021	2022	2023	2024	2025	2026
Total CY Outpatient Cases	2,155	2,201	2,247	2,294	2,342	2,392	2,442	2,493
Final Outpatient Case Time (1)	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
Total Surgical Hours (2)	2,802	2,861	2,921	2,982	3,044	3,110	3,175	3,241
Avg Annual Operating Hrs – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	2.14	2.18	2.23	2.27	2.32	2.37	2.42	2.47
Number of Existing/Approved ORs	2	2	2	2	2	2	2	2
(Surplus) / Deficit	0.14	0.18	0.23	0.27	0.32	0.37	0.42	0.47

Source: Form C Assumptions and Methodology subsection of Section Q

*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

- (1) The Final Case Time in minutes for the facility in the 2019 SMFP.
- (2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
- (3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.
- (4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 0.47 ORs at Matthews Surgery Center in the third full fiscal year following project completion. Novant does not propose to add any ORs to Matthews Surgery Center as part of this review.

Novant Health System Combined - To meet the performance standard promulgated in 10A NCAC 14C .2103(a) in effect at the time of the submission of this application, an applicant proposing to add new ORs to a service area must demonstrate the need for all of the existing, approved, and proposed ORs in a health system in the third full fiscal year following project completion based on the Operating Room Need Methodology in the 2019 SMFP. Novant proposes to add one OR to its health system as part of this project.

The following table illustrates the need for additional ORs for the entire Novant health system.

Novant Health OR Need			
	Deficits / (Surpluses)		
	1st Full FY CY 2024	2nd Full FY CY 2025	3rd Full FY CY 2026
NH Matthews	0.59	0.76	1.03
NH Presbyterian	0.90	2.04	3.26
NH Huntersville	0.77	1.08	1.41
NH Mint Hill	(2.99)	(2.95)	(2.90)
NH Ballantyne	(0.29)	(0.10)	(0.06)
NH Huntersville OPS	1.08	1.24	1.42
SouthPark	3.79	4.25	4.73
Matthews Surgery Center	0.37	0.42	0.47
Total Deficit/(Surplus)	4.22	6.74	9.36

Sources: Section C, pages 23-26; Form C Assumptions and Methodology subsection of Section Q

As shown in the table above, the Novant health system has a projected deficit of 9.36 ORs at the end of CY 2026. Novant proposes to add one OR to NH Matthews in this review. The proposal meets the standard promulgated in 10A NCAC 14C .2103(a), which requires an applicant proposing to add new ORs to a service area to demonstrate the need for all the existing, approved, and proposed ORs in a health system in the third full fiscal year following project completion based on the Operating Room Need Methodology in the 2019 SMFP. Projected utilization is reasonable and adequately supported based on the following analysis:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County OR planning area.
- The applicant relies on its historical utilization in projecting future utilization.
- The applicant still demonstrates the need for the proposed OR even without projecting growth in its outpatient surgical cases.
- The applicant’s projected utilization meets the performance standard promulgated in 10A NCAC 14C .2013(a).

Access – In Section C, page 41, the applicant states:

“NH makes services accessible to indigent patients without regard to ability to pay. NH Matthews provides services to all persons regardless of race, sex, age, religion, creed, disability, national origin, or ability to pay.”

In Section L, page 83, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

NH Matthews Projected Payor Mix Third Full OY (CY 2026)		
Payor Source	Total Facility	ORs
Self-Pay	1.37%	0.75%
Charity Care	5.21%	2.12%
Medicare*	44.75%	39.12%
Medicaid*	7.48%	4.98%
Insurance*	38.07%	49.32%
Worker’s Comp.	0.33%	0.48%
TRICARE	0.90%	1.22%
Other**	1.89%	2.01%
Total	100.00%	100.00%

*Including any managed care plans

**Includes other government, institutional, and other unspecified payors.

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.
- The applicant adequately explains why the population to be served needs the services proposed in this application.
- Projected utilization is reasonable and adequately supported.
- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

The applicant proposes to add 20 acute care beds to NH Matthews, its existing acute care hospital, for a total of 174 acute care beds upon project completion.

Novant submitted two applications in this review cycle for acute care beds and ORs at NH Matthews. The other application, Project I.D. #F-11807-19, proposes to add an additional OR to its existing facility for a total of seven shared ORs and two dedicated C-Section ORs upon project completion.

Patient Origin – On page 36, the 2019 SMFP defines the service area for acute care beds as “*the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1.*” Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. The following tables illustrate current and projected patient origin.

NHMMC Current & Projected Patient Origin – Acute Care Beds								
County	Last FY (CY 2018)		FY 1 (CY 2024)		FY 2 (CY 2025)		FY 3 (CY 2026)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	5,433	51.8%	5,789	51.8%	5,894	51.8%	6,056	51.8%
Union	3,755	35.8%	4,001	35.8%	4,073	35.8%	4,185	35.8%
Stanly	159	1.5%	168	1.5%	171	1.5%	175	1.5%
Cabarrus	157	1.5%	168	1.5%	171	1.5%	175	1.5%
Other Counties*	984	9.4%	1,051	9.4%	1,070	9.4%	1,099	9.4%
Total	10,488	100.0%	11,176	100.0%	11,378	100.0%	11,691	100.0%

Source: Section C, pages 23-24

*Other: Alexander, Anson, Ashe, Brunswick, Buncombe, Burke, Caldwell, Carteret, Catawba, Cherokee, Cleveland, Columbus, Cumberland, Davidson, Forsyth, Gaston, Greene, Guilford, Halifax, Harnett, Henderson, Hoke, Iredell, Lee, Lincoln, McDowell, Montgomery, Moore, Nash, New Hanover, Onslow, Orange, Pitt, Polk, Randolph, Richmond, Robeson, Rockingham, Rowan, Scotland, Stokes, Surry, Watauga, Wayne, Wilkes, and Wilson counties in North Carolina as well as other states.

In Section C, page 25, the applicant provides the assumptions and methodology used to project patient origin. The applicant’s assumptions are reasonable and adequately supported.

Analysis of Need – In Section C, pages 25-47, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant calculated statistics by extrapolating actual historical data from October 1, 2018 through June 30, 2019 to obtain FFY 2019 annualized data.
- The growth of acute care days at Novant hospitals between FFY 2015-2019 annualized was higher than the average growth rate of acute care days for Mecklenburg County during the same time period. Acute care days at Novant hospitals grew 2.8 percent between FFY 2017 and FFY 2018. NH Mint Hill, an acute care hospital with 36 acute care beds, began offering services October 1, 2018. Despite adding 36 additional acute care beds to its Mecklenburg County inventory, acute care days at Novant hospitals in Mecklenburg County grew 11.4 percent between FFY 2018 and FFY 2019 annualized.
- The opening of NH Mint Hill has not affected acute care days at NH Matthews. The applicant states acute care days at NH Matthews increased by 6.4 percent since NH Mint Hill began offering services on October 1, 2018.
- Acute care days at NH Matthews are increasing due to increased clinical complexity of patients and surgical cases. The applicant provides data from Truven documenting the consistent increase in case complexity since FFY 2015. The applicant states NH Matthews is growing faster than any other Novant hospital in Mecklenburg County, and provides data from Truven showing its total acute care days and discharges increased by 26 percent and 23 percent, respectively, between FFY 2014-2019 annualized.

- Physician recruitment at NH Matthews has resulted in development of new clinical programs that treat more clinically complex patients, and the applicant states these changes have resulted in higher demand for related services.
- The applicant states that, despite restrictions at NH Matthews which limited the number of available acute care beds, acute care days at NH Matthews have increased. The applicant states necessary restrictions on acute care beds, such as intermediate care beds, pediatric beds, and obstetrics/gynecology beds, result in acute care beds that are not open to all patients. The applicant states it has between 20-30 observation patients each day, but no observation beds, so observation patients may occupy acute care beds.
- The applicant has taken steps to alleviate some of the capacity issues that exist at NH Matthews, such as the plan to develop a patient bed tower and develop observation beds, but the applicant states these steps do not increase the overall number of acute care beds.
- According to NC OSBM, the population of Mecklenburg County will grow 9.8 percent between 2019 and 2024, and the population of Union County will grow 11.1 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- The applicant uses historical and demographic data to identify the population to be served, its projected growth, and the need the population proposed to be served has for the proposed services.
- There is a need determination for 76 acute care beds in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop 20 acute care beds in Mecklenburg County in accordance with the acute care bed need determination in the 2019 SMFP.

Projected Utilization – On Form C in Section Q, the applicant provides projected utilization as illustrated in the following table.

NHHMC Projected Utilization – Acute Care Beds			
	FY 1 (CY 2024)	FY 2 (CY 2025)	FY 3 (CY 2026)
# of Beds	174	174	174
# of Patients	11,176	11,378	11,691
# of Acute Care Days	43,588	44,376	45,594

In the Form C Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant assumed that when NH Mint Hill opened on October 1, 2018, a number of patients shifted from NH Matthews to NH Mint Hill. To identify these patients, the applicant began with FFY 2019 annualized discharges from NH Matthews and excluded discharges that required higher acuity care than NH Mint Hill could provide, along with discharges for lines of service not offered at NH Mint Hill. The applicant refers to the remaining subset of patients as “Limited Acute Care Discharges.” The applicant reviewed

the area of patient origin for NH Mint Hill, identified the number of Limited Acute Care Discharges seen at NH Matthews in FFY 2018 and FFY 2019 annualized, and calculated how many of the Limited Acute Care Discharges shifted to NH Mint Hill by subtracting NH Matthews' FFY 2018 Limited Acute Care Discharges from FFY 2019 annualized Limited Acute Care Discharges.

- The applicant calculated the Limited Acute Care Discharges' ALOS for medical/surgical discharges and obstetrics discharges. The applicant then applied the corresponding ALOS to the number of Limited Acute Care Discharges that had shifted from NH Matthews to NH Mint Hill to obtain the number of acute care days that had shifted.
- To project future acute care bed utilization at NH Matthews along with future shifts of acute care days to NH Mint Hill from NH Matthews, the applicant added the acute care days for Limited Acute Care Discharges that had shifted to NH Mint Hill back to NH Matthews. The applicant states it projected growth of overall acute care days and would shift acute care days back to NH Mint Hill later in the projections.
- The applicant projected the combined total acute care days would grow at the Mecklenburg County Growth Rate Multiplier (CGRM) for the last five reporting periods, which corresponds to the Mecklenburg CGRM of 2.78 percent (or 1.0278) as published in the 2020 SMFP. The applicant states use of this growth rate is reasonable because most of NH Matthews' recent historical CAGRs for both discharges and acute care days are higher than 2.78 percent and the average growth rate of Novant system acute care days between FFY 2015 and FFY 2019 annualized is 3.56 percent, a higher growth rate than the applicant uses to project growth for NH Matthews.
- To project NH Matthews' adjusted acute care days and the number of acute care days projected to shift to NH Mint Hill, the applicant assumed the same number of acute care days from NH Mint Hill that it added back to NH Matthews would be shifted back for FFY 2019. The applicant states that, consistent with its projections in Project I.D. #F-7648-06 (develop NH Mint Hill), it projected the acute care days shifting to NH Mint Hill would grow by 24 percent from FFY 2019 to FFY 2020 and by 20 percent from FFY 2020 to FFY 2021. The applicant projected acute care days shifting from NH Matthews to NH Mint Hill beginning in FFY 2021 would increase at the Mecklenburg County Growth Rate Multiplier of 2.78 percent.
- After subtracting the acute care days projected to shift to NH Mint Hill, the applicant converted FFY acute care days to CY acute care days by using the following formula: $CY\ 2018 = [(FFY\ 2018 / 4) \times 3] + (FFY\ 2019 / 4)$
- The applicant subtracted days projected to shift to NH Ballantyne as part of revised projections from Project I.D. #F-11625-18, then used its FFY 2019 annualized ALOS for NH Matthews to calculate its discharges and ADC through CY 2026. Please see Section Q for the details of the applicant's revisions to projections it used in Project I.D. #F-11625-18.

The table below summarizes the assumptions and methodology used by the applicant to project utilization of acute care beds at NH Matthews.

NH Matthews Projected Acute Care Bed Utilization									
	2019*	2020	2021	2022	2023	2024	2025	2026	2027
NH Matthews FFY 2019* Days	40,383								
Days Shifted to NH Mint Hill	1,658								
Baseline FFY Days and Growth (2.78%)	42,041	43,210	44,411	45,646	46,915	48,219	49,559	50,937	52,353
Days to Shift to NH Mint Hill	1,658	2,054	2,466	2,535	2,605	2,677	2,751	2,827	2,906
FFY Days after Shift to NH Mint Hill	40,383	41,156	41,945	43,111	44,310	45,542	46,808	48,110	49,447
Conversion to CY Days	40,576	41,353	42,237	43,411	44,618	45,859	47,134	48,444	
Days to Shift to NH Ballantyne	--	--	--	--	-1,812	-2,271	-2,758	-2,850	
Adjusted CY Acute Care Days	40,576	41,353	42,237	43,411	42,806	43,588	44,376	45,594	
Discharges based on FFY 2019 ALOS	10,404	10,603	10,830	11,131	10,976	11,176	11,378	11,691	
ADC	111.2	113.0	115.7	118.9	117.3	119.1	121.6	124.9	
Beds Needed**	155.7	158.2	162.0	166.5	164.2	166.7	170.2	174.9	
Additional Beds Needed based on 154 beds	1.7	4.2	8.0	12.5	10.2	12.7	16.2	20.9	

Source: Form C Assumptions and Methodology subsection of Section Q

*FFY 2019 annualized based on October 2018 – June 2019 data.

**Based on 2019 SMFP Chapter 5 Target Occupancy Factor of 1.4.

Novant Health System

The Novant health system in Mecklenburg County consists of NH Matthews, NH Huntersville, NH Presbyterian, NH Mint Hill, and the approved NH Ballantyne. Pursuant to 10A NCAC 14C .3803(a), an applicant proposing to add new acute care beds to a service area must reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Section C, pages 54-56, the applicant projects the combined acute care bed utilization for the entire health system as summarized below:

- Begin with each hospital’s FFY 2019 annualized acute care days and apply the same updated Mecklenburg CGRM of 2.78 percent it used to project growth at NH Matthews.
- Convert FFY acute care days to CY acute care days by using the following formula: $CY\ 2018 = [(FFY\ 2018 / 4) \times 3] + (FFY\ 2019 / 4)$
- Calculate CY 2026 utilization based on adding 20 acute care beds to NH Matthews.

The applicant’s projections are summarized in the table below.

Novant Health Projected Acute Care Bed Utilization						
	NHPMC	NHMMC	NHHMC	NHMHMC	NHBMC	NH System
FFY 2019 Annualized* Acute Care Days	139,540	40,383	26,472	6,363	0	212,758
Mecklenburg County Growth Rate Multiplier	1.0278	1.0278	1.0278	1.0278	1.0278	1.0278
FFY 2026 Acute Care Days	169,067	48,928	32,074	7,709	0	257,778
FFY 2027 Acute Care Days	173,767	50,288	32,965	7,924	0	264,944
CY 2026 Acute Care Days	170,242	49,268	32,297	7,763	0	259,570
CY 2026 Projected ADC						711
CY 2026 Projected Acute Care Beds						894
CY 2026 NH System Projected Occupancy						79.5%

Source: Section C, pages 54-56

*FFY 2019 annualized based on October 2018 – June 2019 data.

As shown in the table above, in the third operating year following project completion, the applicant projects the average occupancy rate for all acute care beds owned by the applicant in Mecklenburg County will be 79.5 percent. This meets the standard promulgated in 10A NCAC 14C .3803(a), which requires an applicant proposing to add new acute care beds to a service area to reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

Projected utilization is reasonable and adequately supported based on the following analysis:

- To project utilization at NH Matthews, the applicant uses a growth rate that is lower than most of its recent historical growth.
- To project utilization for the entire Novant health system, the applicant uses a growth rate that is lower than its recent historical system-wide growth.
- The Project Analyst reviewed the 2020 LRAs for each of the facilities in the Novant system, which were available to the Agency during this review, and the actual FFY 2019 number of acute care days for each hospital in the system is higher than the applicant’s FFY 2019 annualized acute care days on which it based its utilization projections.
- As part of Project I.D. #F-11625-18, the applicant projected growth in acute care days that would shift to NH Ballantyne; however, the applicant meets the required performance standard even without relying on any projected growth at NH Ballantyne.

Access – In Section C, page 51, the applicant states:

“NH makes services accessible to indigent patients without regard to ability to pay. NH Matthews provides services to all persons regardless of race, sex, age, religion, creed, disability, national origin, or ability to pay.”

In Section L, page 87, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

NH Matthews Projected Payor Mix Third Full OY (CY 2026)		
Payor Source	Total Facility	Acute Care Beds
Self-Pay	1.37%	1.26%
Charity Care	5.21%	3.85%
Medicare*	44.75%	53.76%
Medicaid*	7.48%	7.37%
Insurance*	38.07%	31.67%
Worker's Comp.	0.33%	0.13%
TRICARE	0.90%	0.80%
Other**	1.89%	1.16%
Total	100.00%	100.00%

*Including any managed care plans

**Includes other government, institutional, and other unspecified payors.

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.
- The applicant adequately explains why the population to be served needs the services proposed in this application.
- Projected utilization is reasonable and adequately supported.
- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The applicant proposes to develop AH Lake Norman, a new satellite hospital campus to be licensed under AH University City, by developing 30 acute care beds and two ORs pursuant to need determinations in the 2019 SMFP.

This application is one of six filed in the same review cycle for acute care beds and ORs by Atrium. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review

that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	Current Name	Effective Date of Change
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

In Section C, pages 29-32, the applicant proposes to offer the following new services at the proposed facility:

- 30 acute care beds pursuant to the need determination in the 2019 SMFP for Mecklenburg County
- Eight non-licensed observation beds
- Emergency Department (ED) with 10 treatment rooms
- Two shared ORs
- One dedicated C-Section OR
- One procedure room
- Imaging services, including the following:
 - One fixed CT scanner
 - Fluoroscopy
 - Nuclear medicine
 - Ultrasound
 - General radiography
 - Mobile X-ray unit
 - Mobile C-arm
 - Mobile MRI pad/contracted mobile MRI services
- Ancillary and support services

Patient Origin – The 2019 SMFP defines the service area for acute care bed services and ORs as the planning area in which the acute care beds and ORs are located. Thus, the service area for the acute care beds and ORs is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

In Section C, page 41, and in the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant defines its primary area of patient origin (PSA) and its secondary area of patient origin (SSA) by ZIP code, as shown in the table below.

AH-LN Projected Area of Patient Origin	
	ZIP Codes
Primary Patient Origin (PSA)	28031, 28035, 28036, 28070, 28078, 28115, 28117, and 28123
Secondary Patient Origin (SSA)	28216 and 28269

AH Lake Norman is not an existing hospital or campus and thus has no historical patient origin.

The following tables illustrate projected patient origin for the first three full fiscal years (FYs) following project completion.

AH-LN Projected Patient Origin – Entire Facility						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	6,898	93.9%	10,577	93.9%	14,362	93.9%
Iredell	451	6.1%	691	6.1%	940	6.1%
Total	7,349	100.0%	11,247	100.0%	15,302	100.0%

Source: Section C, page 34

AH-LN Projected Patient Origin – Acute Care Beds						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	947	91.8%	1,448	91.8%	1,969	91.8%
Iredell	84	8.2%	129	8.2%	175	8.2%
Total	1,031	100.0%	1,577	100.0%	2,144	100.0%

Source: Section C, page 33

AH-LN Projected Patient Origin – Shared ORs						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	692	85.5%	1,060	85.5%	1,442	85.5%
Iredell	118	14.5%	180	14.5%	245	14.5%
Total	810	100.0%	1,240	100.0%	1,687	100.0%

Source: Section C, page 33

AH-LN Projected Patient Origin – C-Section OR						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	86	91.8%	132	91.8%	180	91.8%
Iredell	8	8.2%	12	8.2%	16	8.2%
Total	94	100.0%	144	100.0%	196	100.0%

Source: Section C, page 34

AH-LN Projected Patient Origin – Procedure Room						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	539	85.5%	824	85.5%	1,122	85.5%
Iredell	92	14.5%	140	14.5%	191	14.5%
Total	630	100.0%	965	100.0%	1,312	100.0%

Source: Section C, page 34

AH-LN Projected Patient Origin – Emergency Department						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	4,633	96.9%	7,093	96.9%	9,651	96.9%
Iredell	150	3.1%	230	3.1%	313	3.1%
Total	4,784	100.0%	7,322	100.0%	9,963	100.0%

Source: Section C, page 34

In Section C, page 36, the applicant states:

“For simplicity, projected patient origin for the entire campus of Atrium Health Lake Norman is based on the sum of the projected number of patients by county of origin for each identified service above. Atrium Health recognizes that this sum includes some duplication of patients as a single patient may utilize any number of the services proposed.

Projected patient origin for imaging and other ancillary and support services is assumed to be consistent with the patient origin for the entire campus and is not provided separately.”

In Section C, pages 35-36, and in the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project patient origin. The applicant’s assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted six applications in response to the Acute Care Bed and OR Need Determinations in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with 30 acute care beds and two ORs (Project I.D. #F-11810-19); to add 16 acute care beds to AH University City (Project I.D. #F-11812-19); to add 12 acute care beds and two ORs to AH Pineville (Project I.D. #s F-11813-19 and F-11814-19, respectively); and to add 18 acute care beds and two ORs to CMC (Project I.D #s F-11811-19 and F-11815-19, respectively). In Section C, pages 49-63, 65-70, and 73-80, the applicant discusses the need for all of Atrium’s acute care bed and OR proposals. In a competitive review, every application is first evaluated independently, as if there are no other applications in the review, to determine whether the application is conforming to all statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to AH Lake Norman.

In Section C, pages 54 and 62, Atrium states the need for 76 acute care beds and six ORs, respectively, in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed acute care beds and ORs in its applications as submitted.

In Section C, pages 37-49, 63-65, and 70-73, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.

- According to ESRI and the North Carolina Office of State Budget and Management (NC OSBM), the population of the PSA is projected to grow by 2.2 percent between 2019 and 2024, and the population of the SSA is projected to grow by 1.6 percent between 2019 and 2024. The applicant states the population of the combined areas is projected to grow two percent between 2019 and 2024, while the total population of Mecklenburg County is projected to grow 1.9 percent between 2019 and 2024.
- Public roadway projects planned or in progress due to the population growth of the area will make it easier for patients to access AH Lake Norman.
- Atrium has numerous medical facilities and practices in the Lake Norman area, including multiple physician practices, a skilled nursing facility, an approved ASF, an imaging center, a GI endoscopy ASF, and a satellite ED.
- Atrium hospitals served an average of 121 patients per day from the PSA and SSA in 2018, and the number of patients from the PSA and SSA receiving inpatient services from an Atrium hospital in Mecklenburg County and surrounding counties has increased over the last several years.
- In FFY 2018, 15 percent of Iredell County residents received acute care services in Mecklenburg County; development of AH Lake Norman will offer Iredell County patients who have historically used Atrium facilities an option closer to where they live.
- Surgical volumes in Mecklenburg County have grown at higher rates than the state average. Outpatient surgical cases in Mecklenburg County are increasing more quickly than inpatient surgical cases. While the number of outpatient cases performed at ASFs have higher growth rates than outpatient cases performed at hospitals, the difference isn't significant, and the increase in the number of outpatient cases performed at hospitals is more than double the increase in the number of outpatient cases performed at ASFs.
- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

However, the information is not reasonable and adequately supported based on the following analysis:

- On pages 46-47, the applicant states:

“..., a significant number of residents of the Lake Norman area, 121 each day in 2018, ..., bypass Novant Health Huntersville Medical Center for care at an Atrium Health facility. The proposed facility will better serve those Atrium Health patients at Atrium Health Lake Norman as appropriate.

The impetus for the proposed project is to locate Atrium Health inpatient services closer to patients in the Lake Norman area that have historically accessed existing Atrium Health hospitals in Mecklenburg County, ...”

Public comments received during the public comment period noted that Atrium appeared to include patients receiving care at Atrium hospitals in other counties, not just patients receiving care at Atrium hospitals in Mecklenburg County. Atrium's response to the public comments acknowledges that the 121 patients cited includes patients from Atrium hospitals outside of Mecklenburg County. The public comments also stated Atrium provided no information to demonstrate any of the 121 patients would be AH Lake Norman-appropriate patients. The applicant states a table provided in Section Q of its application identifies the number of AH Lake Norman-appropriate patients by PSA and SSA. Atrium's response also states that because the 121 patients it discusses in Section C (and Sections E, G, and Q) are not the basis of the utilization projections, there are no problems with its use of the 121 patients in this regard.

The table in Section Q that identifies the number of AH Lake Norman-appropriate patients originating from Mecklenburg County identifies acute care days representing 56 patients – less than half of the 121 patients that supposedly “bypass” NH Huntersville for care at Atrium hospitals in Mecklenburg County. The applicant is correct that, regarding utilization projections, there is no issue with the statement about the 121 Atrium patients; however, the applicant uses that statement repeatedly as a basis to demonstrate the need for the proposed project. If that number isn't accurate or is misleading, that calls into question one of the main reasons cited by the applicant to demonstrate the need for the proposed project.

The applicant does not explain what it means when it says patients “bypass” other facilities, including NH Huntersville; absent that information, the Project Analyst inferred that patients drive past NH Huntersville to access an Atrium hospital in Mecklenburg County. NH Huntersville is located further north in Mecklenburg County than any Atrium hospital. AH University City is the Atrium hospital furthest north in Mecklenburg County, in northeastern Charlotte; CMC and AH Mercy are located near the center of Charlotte and AH Pineville is located close to the state line with South Carolina. The entirety of the SSA is south of NH Huntersville; while AH University is east of the SSA, approximately half of the SSA is south of AH University City's latitude. While geography is not the only measure of distance that is relevant to the location of a proposed facility, the applicant provides no information to suggest patients from the SSA are driving north to the area of NH Huntersville and then driving further south to choose an Atrium hospital in Mecklenburg County, or that traveling that way is faster than driving directly to an Atrium hospital. Even if the Project Analyst interprets “bypass” to mean that NH Huntersville is closer to a patient than an Atrium hospital and the patient chooses to travel to access an Atrium hospital that is further away than NH Huntersville, that still excludes most, if not all, of the SSA.

NH Huntersville is south of almost the entirety of the PSA; it is reasonable to say that patients from the PSA “bypass” NH Huntersville to seek care at an Atrium hospital in Mecklenburg County. In Section C, page 47, the applicant states the number of acute care days it provided to residents of the PSA and SSA at Atrium hospitals. Approximately three quarters of the acute care days are provided to residents of the SSA, which significantly decreases the number of patients that “bypass” NH Huntersville.

In Section C, page 47, the applicant states:

“The proposed hospital will have 30 beds, which is only 25 percent of the beds needed to support the PSA/SSA residents that occupied 121 Atrium Health acute care beds in 2018. In addition, as demonstrated in Form C Methodology and Assumptions, Atrium Health projects Atrium Health Lake Norman to have an ADC of 22 patients by the third year of operation, 2025, which said another way means that 22 patients per day will not have to travel from the Lake Norman area to access Atrium Health hospital-based services.”

However, the applicant admitted in its response to comments that the 121 patients it so often cites are not only not all going to Atrium hospitals in Mecklenburg County, but not all needed care that could be provided at the proposed AH Lake Norman. According to the table cited by the applicant in Section Q, approximately three quarters of the acute care days for AH Lake Norman-appropriate patients come from the SSA. Even before the applicant makes assumptions about what percentage of patients from the PSA will be served at AH Lake Norman, the number of AH Lake Norman-appropriate patients originating from the PSA, based on the number of acute care days, is 13.

The applicant states that the proposed AH Lake Norman is needed so residents of the Lake Norman area that have historically traveled to Atrium hospitals for care can have access to an Atrium hospital closer to their homes. However, the applicant does not provide support for numerous statements, including how many patients actually bypassed NH Huntersville to seek care at an Atrium hospital further away, that patients from the SSA are going to be closer to AH Lake Norman than other Atrium hospitals, and how many patients from the PSA and SSA chose care at Atrium hospitals in Mecklenburg County and who would also be appropriate for treatment at AH Lake Norman. Further, the applicant provides no support for the statement that AH Lake Norman-appropriate patients from the SSA would quite literally drive past NH Huntersville, roughly 5-7 miles away on almost the same road as the proposed AH Lake Norman, to seek care at an Atrium hospital which would provide a lower level of care than NH Huntersville (as an example of the differing levels of care, according to NH Huntersville’s 2020 LRA, it provides cardiac catheterization, or invasive cardiology services; on page 3 of the Form C Methodology and Assumptions subsection of Section Q, the applicant states patients needing invasive cardiology services are excluded as not AH Lake Norman-appropriate). Without reasonable and adequate support for its assumptions, that further calls into question the need for the proposed project.

Further, the applicant states part of the need for the proposed project is the growth of the population from the PSA and SSA choosing to receive care at Atrium hospitals in Mecklenburg County. On page 47, the applicant states that the number of residents in the PSA and SSA receiving inpatient care at Atrium hospitals in Mecklenburg County was growing at a 2-year CAGR of 3.5 percent. However, in the Form C Methodology and Assumptions subsection of Section Q, along with the applicant’s response to comments submitted during the public comment period, the applicant states that the number of residents in the PSA and SSA receiving inpatient services at Atrium hospitals in Mecklenburg County and who were also clinically appropriate to receive services at the proposed AH Lake Norman is 56, not 121. The applicant provides no information about

the growth rate of the clinically appropriate PSA and SSA residents receiving inpatient services at Atrium hospitals in Mecklenburg County. Since the 2-year CAGR of 3.5 percent cited by the applicant as part of demonstrating need includes patients who utilize Atrium facilities outside of Mecklenburg County and patients who are not clinically appropriate to receive inpatient services at AH Lake Norman, use of that growth rate to demonstrate need for AH Lake Norman is not reasonable or adequately supported.

- The applicant states on page 49 that AH Lake Norman will reduce travel time for Iredell County patients who have historically accessed Atrium hospitals in Mecklenburg County, and states FFY 2018 patient origin reports show 15 percent of Iredell County patients received acute care services that were provided in Mecklenburg County. However, FFY 2018 patient origin reports show that of the 2,447 Iredell County patients who were served by Mecklenburg County hospitals, 77 patients, or 3.15 percent of all Iredell County patients, were served by AH University City, the closest Atrium hospital in Mecklenburg County from any location in Iredell County. The applicant provides no information in the application as submitted to substantiate that any Iredell County patients served at its facilities were part of the group of AH Lake Norman-appropriate acute care days. The applicant also does not explain in the application as submitted why Iredell County patients who historically accessed care at CMC (941, or 38.46 percent) or AH Pineville (20, or 0.82 percent) would seek care in the future at an Atrium hospital with fewer services than AH University City when they had historically bypassed AH University City for care at Atrium hospitals with more services.

Projected Utilization – On Form C in Section Q, the applicant provides projected utilization as illustrated in the following tables.

AH-LN Projected Utilization – Acute Care and Observation Beds			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Medical/Surgical Beds			
# of Beds	20	20	20
# of Days	2,677	4,093	5,563
Obstetrics Beds			
# of Beds	6	6	6
# of Days	805	1,231	1,674
ICU Beds			
# of Beds	4	4	4
# of Days	333	509	692
Total Acute Care Beds			
# of Beds	30	30	30
# of Patients	1,031	1,577	2,144
# of Acute Care Days	3,814	5,833	7,930
Observation Beds			
# of Beds	8	8	8
# of Days	393	601	816
ALOS*	1.39	1.39	1.39

*ALOS = Average Length of Stay

AH-LN Projected Utilization – Surgical Services			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Operating Rooms			
Dedicated C-Section ORs	1	1	1
Shared ORs	2	2	2
Total # of ORs	3	3	3
Excluded # of ORs	1	1	1
Total # of ORs – Planning Inventory	2	2	2
Surgical Cases			
# of C-Sections in Dedicated OR	94	144	196
# of Inpatient Cases (1)	145	222	302
# of Outpatient Cases	665	1,018	1,385
Total # Surgical Cases (1)	810	1,240	1,687
Case Times			
Inpatient (2)	112.6	112.6	112.6
Outpatient (2)	74.1	74.1	74.1
Surgical Hours			
Inpatient (3)	272	416	567
Outpatient (4)	821	1,257	1,710
Total Surgical Hours	1,093	1,673	2,277
# of ORs Needed			
Group Assignment (5)	4	4	4
Standard Hours per OR per Year (6)	1,500	1,500	1,500
ORs Needed (total hours / 1,500)	0.7	1.1	1.5
Procedure Rooms			
# of Rooms	1	1	1
# of Procedures	630	965	1,312

- (1) Excluding C-Sections performed in a dedicated C-Section OR
- (2) From Section C, Question 9(c)
- (3) [Inpatient Cases (exclude C-Sections performed in dedicated C-Section ORs) x Inpatient Case Time in minutes] / 60 minutes
- (4) (Outpatient Cases x Outpatient Case Time in minutes) / 60 minutes
- (5) From Section C, Question 9(a)
- (6) From Section C, Question 9(b)

AH-LN Projected Utilization – Laboratory, Therapies, & Diagnostic			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Laboratory	51,804	79,232	107,720
Therapy (all)	460	704	957
CT Scanner			
# of Units	1	1	1
# of Scans	3,503	5,358	7,284
# of HECT Units	5,655	8,650	11,760
MRI Scanner (mobile)			
# of Units	1	1	1
# of Procedures	291	445	605
# of Weighted Procedures	402	615	836
Fixed X-ray (including fluoroscopy)			
# of Units	2	2	2
# of Procedures	6,455	9,873	13,423
Ultrasound			
# of Units	1	1	1
# of Procedures	2,413	3,691	5,018
Nuclear Medicine			
# of Units	1	1	1
# of Procedures	234	358	487
Emergency Department			
# of Treatment Rooms/Beds	10	10	10
# of Visits	4,784	7,322	9,963

In the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

Projected Acute Care Bed Utilization

- The applicant identified its primary and secondary areas of patient origin (PSA/SSA) and identified a subset of acute care days from the PSA and SSA served at Atrium hospitals in Mecklenburg County in CY 2018 and which were appropriate to be served at AH Lake Norman.
- The applicant assumed 80 percent of the acute care days from the PSA and 20 percent of the acute care days from the SSA would transfer and be served at AH Lake Norman. The applicant also assumed the number of acute care days would grow at the 5-year CAGR for the projected population growth in the PSA and SSA.

- The applicant assumed there would be a ramp-up period for AH Lake Norman’s utilization – in CY 2023, 50 percent of acute care days would shift to AH Lake Norman from other Atrium facilities; in CY 2024, 75 percent of acute care days would shift; and in CY 2025, 100 percent of acute care days would shift. The applicant states it used the CY 2018 ALOS for AH Lake Norman-appropriate patients from the PSA and SSA to determine the total number of patient discharges.
- The applicant projected the number of acute care days that would shift from existing Atrium hospitals by determining the percentage of acute care from the PSA and SSA that were served at each Atrium hospital in CY 2018 and applying that to projected acute care days during the first three full fiscal years of operation.
- The applicant calculated its projected obstetrics bed utilization by obtaining the ratio of obstetrics days to total acute care days in CY 2018 for the AH Lake Norman-appropriate acute care days from the PSA and SSA and applied the ratio to the projected number of acute care days at AH Lake Norman.
- The applicant calculated its projected ICU bed utilization by subtracting the projected obstetrics days from the total acute care days; calculating the ratio of ICU days to medical/surgical days at AH University City during CY 2018; and applying that ratio to the remaining acute care days in the PSA and SSA.
- The applicant calculated its projected observation bed utilization by calculating the ratio of observation days to total acute care days at AH University City during CY 2018 and applying the ratio to the total acute care days. The applicant assumed the ALOS for observation beds would be consistent with the CY 2018 historical experience at AH University City and used the ALOS to calculate the projected number of observation patients.

The tables below summarize the characteristics of the PSA and SSA as well as the projected number of acute care days at AH Lake Norman during the first three full fiscal years following project completion.

Characteristics of PSA/SSA Used in Methodology						
	Appropriate days CY 2018	% to Shift to AHLN	CY 2018 Patient Base	Population Growth %	ALOS	% Obstetrics Days
PSA	4,671	80%	3,737	2.21%	3.56	24.7%
SSA	15,948	20%	3,190	1.65%	3.88	16.7%

Source: Section Q, Form C Methodology and Assumptions

AH-LN – Projected Acute Care Bed Utilization			
	CY 2023	CY 2024	CY 2025
PSA Potential Days of Care (1)	4,168	4,260	4,354
SSA Potential Days of Care (1)	3,461	3,518	3,576
Ramp-up	50%	75%	100%
PSA Total Days of Care	2,084	3,195	4,354
SSA Total Days of Care	1,730	2,638	3,576
Total Days of Care	3,814	5,833	7,930
Average Daily Census (ADC) (2)	10	16	22
# of Beds	30	30	30
% Occupancy	34.8%	53.3%	72.4%
PSA Discharges (ALOS = 3.56) (3)	585	897	1,222
SSA Discharges (ALOS = 3.88) (3)	446	680	922
Total Discharges	1,031	1,577	2,144
PSA Obstetrics Days (4)	515	790	1,076
SSA Obstetrics Days (4)	290	442	598
Total Obstetrics Days	805	1,231	1,674
Combined ICU/Med Surg Days (5)	3,010	4,602	6,255
ICU Days AH-UC CY 2018 Ratio	11.1%	11.1%	11.1%
ICU Days	333	509	692
Med Surg Days (6)	2,677	4,093	5,563
Ratio of Observation Days to Total Days	0.14	0.14	0.14
Total Observation Days	544	832	1,131
Observation Patients (ALOS = 1.39)	393	601	816

Source: Section Q, Form C Methodology and Assumptions

(1) CY 2018 Patient Base X Population Growth Rate through CY 2025

(2) ADC = Days of Care / 365 (366) days per year

(3) Days of Care / ALOS

(4) Total Days of Care X % Obstetrics Days

(5) Total Days of Care – Total Obstetrics Days

(6) Combined ICU/Med Surg Days – ICU Days

Atrium Health System

The Atrium health system in Mecklenburg County consists of CMC (including AH Mercy), AH Pineville, and AH University City, including its proposed satellite hospital campus, AH Lake Norman. Pursuant to 10A NCAC 14C .3803(a), an applicant proposing to add new acute care beds to a service area must reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Exhibit C.4-1, the applicant provides the assumptions and methodology used to project acute care bed utilization for all other hospitals in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2013, Atrium applications involving acute care bed utilization projections have included assumptions and methodology projecting shifts in acute care days between hospitals in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in acute care days between hospitals in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization and projected growth rate by hospital – the applicant calculated the 3-year CAGR for each hospital, based on CY 2016-2019 annualized utilization. The applicant projects acute care days at each hospital will grow at one-half the rate of the 3-year CAGR.
- Project acute care days through CY 2025 prior to any shifts – the applicant applied the projected growth rate and projected utilization at each hospital through CY 2025. The applicant states it has historically projected acute care days will shift to other facilities and states it will continue to project shifts in acute care days through CY 2025.
- Project shift of acute care days to Piedmont Fort Mill Medical Center – beginning with applications in 2013, the applicant projected a shift in acute care days to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 acute care days from patients who were admitted through the ED to the total acute care days. The applicant then applies the ratio to the total number of acute care days it previously projected to shift from each Atrium hospital to Piedmont Fort Mill Medical Center.
- Project shift of acute care days to AH Union – the applicant states it used the assumptions and methodology from previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to project the number of acute care days projected to shift from Atrium hospitals in Mecklenburg County to AH Union.
- Project shift of acute care days to AH Lake Norman – the applicant calculated the number of acute care days projected to shift from Atrium facilities in Mecklenburg County to AH Lake Norman. The applicant determined the ratio of AH Lake Norman-appropriate acute care days that would transfer from each Atrium hospital. For each hospital, the applicant divided the CY 2018 number of AH Lake Norman-appropriate acute care days served at that hospital by the total number of AH Lake Norman-appropriate acute care days for CY 2018. The applicant then applied those ratios to projected utilization in the first three full fiscal years following project completion. The ratios and the number of acute care days that will transfer from each hospital in each of the first three full fiscal years provided by the applicant in the Form C Utilization – Methodology and Assumptions subsection of Section Q are shown in the table below.

Current and Projected Appropriate Days of Care for AH-LN by Facility and Percentage					
	CY 2018 Days	% of Area	CY 2023	CY 2024	CY 2025
PSA					
Atrium Health Pineville	121	2.6%	54	83	113
Atrium Health University City	1,297	27.8%	579	887	1,209
CMC	2,656	56.9%	1,185	1,817	2,476
Atrium Health Mercy	597	12.8%	266	408	557
PSA Total	4,671	100.0%	2,084	3,195	4,354
SSA					
Atrium Health Pineville	300	1.9%	33	50	67
Atrium Health University City	4,704	29.5%	510	778	1,055
CMC	7,501	47.0%	814	1,241	1,682
Atrium Health Mercy	3,443	21.6%	374	570	772
SSA Total	15,948	100.0%	1,730	2,638	3,576
Combined Total					
Atrium Health Pineville	421	--	87	132	180
Atrium Health University City	6,001	--	1,089	1,665	2,264
CMC	10,157	--	1,999	3,058	4,158
Atrium Health Mercy	4,040	--	640	978	1,328
Total	20,619	--	3,814	5,833	7,930

Source: Section Q, Form C Methodology and Assumptions

- Subtract shifts in acute care days from each Atrium hospital to determine projected utilization of acute care beds through CY 2025 – the applicant subtracted the number of acute care days projected to shift to different hospitals from each of the Atrium hospitals in Mecklenburg County through CY 2025 to obtain the projected acute care days at each facility.

The table below summarizes the applicant’s assumptions and methodology used to calculate the number of acute care days projected to shift from each Atrium hospital in Mecklenburg County and each hospital’s projected acute care days through CY 2025.

Summary of Projected Shifts in Acute Care Days									
	3-year CAGR	Projected Growth %	CY 2019 Annualized	CY 2020	CY 2021	CY 2022	CY 2023 (FY 1)	CY 2024 (FY 2)	CY 2025 (FY 3)
AH Lake Norman									
Acute Care Days	--	--	--	--	--	--	3,814	5,833	7,930
AH Pineville									
Acute Care Days	5.63%	2.81%	71,997	74,022	76,104	78,244	80,445	82,708	85,034
Projected Shifts			--	-528	-806	-1,639	-7,168	-7,910	-8,193
Adjusted Acute Care Days			--	73,494	75,298	76,605	73,278	74,753	76,841
AH University City									
Acute Care Days	7.11%	3.55%	27,660	28,643	29,661	30,715	31,806	32,937	34,107
Projected Shifts				-25	-39	-79	-1,252	-1,858	-2,461
Adjusted Acute Care Days				28,618	29,622	30,636	30,555	31,078	31,646
Carolinas Medical Center*									
Acute Care Days	2.03%	1.01%	281,338	284,190	287,070	289,980	292,919	295,888	298,887
Projected Shifts				-4,171	-4,834	-6,824	-12,502	-15,069	-16,352
Adjusted Acute Care Days				280,019	282,237	283,156	280,416	280,820	282,536
AH Mercy**									
Acute Care Days	5.39%	2.69%	45,572	46,800	48,060	49,355	50,684	52,049	53,451
Projected Shifts				2,618	2,463	2,000	375	-318	-714
Adjusted Acute Care Days				49,417	50,523	51,354	51,059	51,732	52,737

Sources: Section Q, Form C Methodology and Assumptions; Exhibit C.4-1

*Carolinas Medical Center’s license includes AH Mercy as a satellite campus. The campuses are displayed separately because the applicant calculated growth rates separately for each campus.

**Even though the two campuses are on the same license, the applicant projected a shift in acute care days from Carolinas Medical Center to AH Mercy in previous applications, which is why AH Mercy appears to gain acute care days through CY 2023.

Atrium Health System Summary – The following table illustrates projected utilization for acute care beds at all Atrium hospitals in Mecklenburg County.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Atrium Health Lake Norman	3,814	5,833	7,930
Atrium Health Pineville	73,278	74,753	76,841
Atrium Health University City	30,555	31,078	31,646
Carolinas Medical Center	280,416	280,820	282,536
Atrium Health Mercy	51,059	51,732	52,737
Projected Total Acute Care Bed Days	439,123	444,216	451,689
Average Daily Census (ADC)	1,203	1,214	1,238
Total # of Beds	1,490	1,490	1,490
Occupancy %	81.2%	80.7%	83.1%

Sources: Section Q, Form C Methodology and Assumptions; Exhibit C.4-1

As shown in the table above, in the third operating year following project completion, the applicant projects the average utilization for all acute care beds owned by the applicant in Mecklenburg County will be 83.1 percent. This meets the performance standard promulgated in 10A NCAC 14C .3803(a), which requires an applicant proposing to add new acute care beds to a service area to reasonably project that all acute care beds in the service area under common

ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

Projected Acute Care Bed Utilization – Obstetrics Beds

The applicant states that, in CY 2018, 24.7 of AH Lake Norman-appropriate acute care days from the PSA and 16.7 percent of AH Lake Norman-appropriate acute care days from the SSA were obstetrics days. The applicant assumed the experience at AH Lake Norman would be consistent with the historical experience of AH Lake Norman-appropriate acute care days, as shown in the table below.

AH Lake Norman Projected Obstetrics Days			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
PSA Total Acute Care Days	2,084	3,195	4,354
PSA % of Obstetrics Days	24.7%	24.7%	24.7%
PSA Obstetrics Days	515	790	1,076
SSA Total Acute Care Days	1,730	2,638	3,576
SSA % of Obstetrics Days	16.7%	16.7%	16.7%
SSA Obstetrics Days	290	442	598
Total Obstetrics Days	805	1,231	1,674

Source: Section Q, Form C Methodology and Assumptions

Projected Acute Care Bed Utilization – ICU Beds

The applicant states it subtracted its obstetric days from its total acute care days to determine the combined number of medical/surgical and ICU days at AH Lake Norman. The applicant states that, in CY 2018, 11.1 percent of AH University City’s combined medical/surgical and ICU days were strictly ICU days. The applicant assumed the experience at AH Lake Norman would be consistent with its historical experience at AH University City, as shown in the table below.

AH Lake Norman Projected ICU Days			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Total Acute Care Days	3,814	5,833	7,930
Obstetrics Days	805	1,231	1,674
Combined Medical/Surgical & ICU Days	3,010	4,602	6,255
ICU % of Combined Days	11.1%	11.1%	11.1%
ICU Days	333	509	692
Medical/Surgical Days	2,677	4,093	5,563

Source: Section Q, Form C Methodology and Assumptions

Projected Acute Care Bed Utilization – Observation Beds

The applicant states that, in CY 2018, AH University City provided a ratio of 0.14 observation days to acute care days, and in CY 2018 the AH University City observation patients had an ALOS of 1.39 days. The applicant assumed the experience at AH Lake Norman would be consistent with its historical experience at AH University City, as shown in the table below.

AH Lake Norman Projected Observation Bed Utilization			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Total Acute Care Days	3,814	5,833	7,930
Ratio of Observation Days	0.14	0.14	0.14
Observation Days	544	832	1,131
Observation ALOS	1.39	1.39	1.39
Observation Patients	393	601	816

Source: Section Q, Form C Methodology and Assumptions

However, projected utilization of acute care beds is not reasonable and adequately supported based on the following analysis:

- The applicant does not provide information in the application as submitted to demonstrate it is reasonable to assume patients who have historically accessed Atrium hospitals in Mecklenburg County will now access AH Lake Norman simply because they live in the area of patient origin.

The Agency recognizes that patient choice is an important element of providing access to healthcare. However, many services such as inpatient care and inpatient surgery provided at hospitals, and in most cases a majority of those services provided, are the result of inpatient admissions through the ED as opposed to pure patient choice. In publicly available information (Section Q of Project I.D. #F-11811-19), the applicant provides the following table to show the percentage of total inpatient admissions originating through the ED:

CY 2018 Ratio of ED Admissions to Total Admissions (Project I.D. #F-11811-19)	
AH Pineville	66.7%
AH University City	65.1%
CMC	43.5%
AH Mercy	69.7%

Source: Atrium Health internal data

While it is possible for a patient to decide which ED to access, ED admissions happen at all hours of day and night. The applicant provides no information in the application as submitted to show that patients who have addresses located more closely to AH Lake Norman than to other hospitals will automatically choose AH Lake Norman for emergency treatment at any hour of the day, regardless of where they work or where they may be in an emergency. Further, while the applicant identifies a subset of AH Lake Norman-appropriate ED patients as part of its ED utilization projections, the applicant provides no information in the application as submitted to explain how patients will now know their acuity level is appropriate for AH Lake Norman and they will choose to utilize the AH Lake Norman ED (and hospital) instead of larger hospital EDs that patients have typically accessed.

- On page 1 of the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant states its utilization methodology, approach, and assumptions are consistent with the approved application for Atrium Health Union West (Project I.D. #F-11618-18), a 40-bed satellite hospital campus in Union County. That application proposed

to relocate existing acute care beds and ORs from AH Union to develop a satellite hospital campus. The only two similarities between the two applications, however, is that both involve a satellite hospital campus and the same applicant. Comments received during the public comment period note differences between Union County and Mecklenburg County with regard to the two applications. The Project Analyst summarized some of these differences in the table below.

Comparison of Mecklenburg and Union counties and applications		
Category	Union County (F-11618-18)	Mecklenburg County (F-11810-19)
Type of Project	Develop a satellite hospital campus by relocating existing acute care beds/ORs	Develop a satellite hospital campus with new acute care beds and new ORs
Total Population*	235,908	1,093,901
Number of Hospitals	1 existing	7 existing, 1 proposed
Number of Acute Care Beds	182 existing; 0 approved	2,224 existing; 50 approved
Number of Owners of Hospitals with Acute Care Beds	Atrium Health (1)	Atrium Health (3) Novant Health (4; 1 approved)
Number of ORs**	9 existing ORs; 1 approved	155 existing; 6 approved
Number of ASFs	2	11
Number of Owners of Hospitals with ORs**	Atrium Health (1)	Atrium Health (3) Novant Health (4; 1 approved)
Number of Owners of ASFs with ORs	Atrium Health (1) Novant Health (1)	Atrium Health (0; 1 approved) Novant Health (4) Charlotte Surgery Center (2) University Surgery Center (1) Valleygate Dental Surgery Center of Charlotte (1) Metrolina Vascular Access Care (1)

Unless otherwise noted, all information obtained from the 2020 SMFP

*Source: <https://factfinder.census.gov/>; accessed February 24, 2020

**Excludes dedicated C-Section ORs and dedicated trauma ORs

In its responses to the public comments, Atrium stated:

“It is not clear... [how any differences] between Atrium Health Union West and Atrium Health Lake Norman have a relationship to the application of the same methodology and approach to demonstrate need for Atrium Health Lake Norman. Atrium Health Union West is a recently approved CON application to develop a hospital of similar size as Atrium Health Lake Norman, to be licensed as part of an existing Atrium Health hospital similar to Atrium Health Lake Norman, in the Charlotte metropolitan area like Atrium Health Lake Norman. Given these similarities, Atrium Health provided a utilization methodology for Atrium Health Lake Norman that was consistent with the approach used in the Atrium Health Union West application. However, the specific number, type, patient origin, payor mix, demographic mix, etc. of the patients projected to be served at Atrium Health Lake Norman are based on patients Atrium Health projects to serve at that facility and not based on Atrium Health Union West.”

However, in comments provided to the Agency on December 3, 2007, in response to an application filed by Novant to develop a new hospital by relocating 50 existing acute care beds (Project I.D. #F-7994-07), Atrium argued that similarities in previously approved

community hospital applications submitted by Novant were not similar enough to rely upon with regard to components of need for the proposed services. Specifically, Atrium noted differences in population size and number of existing facilities in an area as reasons why it was not reasonable for Novant to rely on previously approved applications for community hospitals.

Further, while the “specific number, type, patient origin, payor mix, demographic mix, etc.” of the patients proposed to be served at AH Lake Norman are based on Atrium patients in Mecklenburg County, the applicant relies on its historical experience at AH University City for many parts of its projections, as it did in Project I.D. #F-11618-18. The applicant provides no information in the application as submitted to explain why it is reasonable to use an approach consistent with that of Project I.D. #F-11618-18 with the numerous differences in the two projects, as highlighted in the table above. The applicant provides no other information in the application as submitted regarding why this approach is reasonable and adequately supported.

- The applicant projects acute care days for AH Lake Norman will grow at an annual rate of 2.21 percent for acute care days originating from the PSA and at an annual rate of 1.65 percent for acute care days originating from the SSA, consistent with ESRI population growth projections. On page 5 of the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant states the following regarding its projected growth rates:

“Atrium Health believes these projected growth rates are reasonable given that the historical growth in Atrium Health Lake Norman appropriate days of care served by Atrium Health Mecklenburg County hospitals has been 3.5 percent.”

However, Atrium’s statement is inaccurate. The 3.5 percent growth rate Atrium references refers to the growth of all PSA and SSA patients served at Atrium hospitals, both inside and outside of Mecklenburg County, and which includes patients who are not clinically appropriate for care at AH Lake Norman.

Projected Operating Room Utilization (excluding dedicated C-Section ORs)

The applicant states that, in CY 2018, out of the total AH Lake Norman-appropriate acute care discharges identified by the applicant, 17.2 percent of discharges from the PSA and 9.9 percent of discharges from the SSA were surgical discharges (excluding C-Section discharges). The applicant assumes 17.2 percent of the projected discharges from the PSA and 9.9 percent of the discharges from the SSA will be surgical discharges and equivalent to one inpatient surgical case. The applicant next calculated the CY 2018 ratio of outpatient to inpatient cases at AH University City and assumed the experience at AH Lake Norman would be consistent with its historical experience at AH University City. The applicant then applied the AH University City final inpatient and outpatient case times published in the 2019 SMFP to the number of projected inpatient and outpatient cases at AH Lake Norman to obtain the projected number of surgical hours in CYs 2023-2025. The table below summarizes the assumptions and methodology used by the applicant.

AH-LN Projected Surgical Cases/Hours (excluding C-Sections)			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
PSA Discharges	585	897	1,222
PSA % Surgical Discharges	17.2%	17.2%	17.2%
PSA Inpatient Cases	101	155	211
SSA Discharges	446	680	922
SSA % Surgical Discharges	9.9%	9.9%	9.9%
SSA Inpatient Cases	44	67	91
Total Inpatient Cases	145	222	302
Ratio of OP Cases to IP Cases	4.59	4.59	4.59
Total Outpatient Cases	665	1,018	1,385
AH-UC Final IP Case Time (1)	112.6	112.6	112.6
AH-UC Final OP Case Time (1)	74.1	74.1	74.1
Total Surgical Hours (2)	1,093	1,673	2,277
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500
Number of ORs Needed (4)	0.73	1.12	1.52
Number of Existing/Approved ORs	0	0	0
(Surplus) / Deficit	0.73	1.12	1.52

Source: Section Q, Form C Methodology and Assumptions

- (1) The Final Case Time in minutes for the facility in the 2019 SMFP.
- (2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
- (3) From Table 6B in the 2019 SMFP.
- (4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a need for 1.52 ORs, which would be rounded to two ORs, by the end of the third full fiscal year (CY 2025).

The applicant projected the number of surgical cases that would shift from existing Atrium hospitals by applying the CY 2018 percentage of acute care days from the PSA and SSA shifting from existing Atrium hospitals to projected inpatient and outpatient surgical cases at AH Lake Norman.

Atrium Health System

The Atrium health system in Mecklenburg County consists of Atrium Health Huntersville (AH Huntersville), Carolina Center for Specialty Surgery (CCSS), CMC (including AH Mercy), AH Pineville, and AH University City, along with the proposed AH Lake Norman. Pursuant to 10A NCAC 14C .2103(a), the applicant must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year following project completion, using the Operating Room Need Methodology in the 2019 SMFP.

In Exhibit C.4-2, the applicant provides the assumptions and methodology used to project utilization at all other facilities in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2015, Atrium applications involving OR utilization projections have included assumptions and methodology projecting shifts in surgical cases between facilities in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in surgical cases between facilities in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization by facility – The applicant calculated 3-year (CY 2015-2018) and 4-year (CY 2015-2019 annualized) CAGRs for inpatient and outpatient surgical cases at each facility.
- Project surgical cases through CY 2025 prior to any shifts – for each facility except AH Pineville, the applicant applied an annual growth rate of 1.99 percent to both inpatient and outpatient surgical cases and projected utilization at each facility through CY 2025. The applicant states it chose a 1.99 percent annual growth rate because it was the annual equivalent of the Growth Factor for Mecklenburg County in Chapter 6 of the 2019 SMFP. (The Project Analyst determined this to be true – please see the Working Papers for analysis.) The applicant states it used the CY 2015-2018 CAGR for inpatient and outpatient surgical cases at AH Pineville to project future utilization because AH Pineville utilization has historically grown faster than utilization at other Atrium facilities and is seeing more complex (and therefore longer) surgical cases. The applicant states it has historically projected surgical cases will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in surgical cases through CY 2025.
- Project shift of surgical cases to Piedmont Fort Mill Medical Center – beginning with applications in 2015, the applicant projected a shift in surgical cases to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 surgical patients who were admitted through the ED to the total number of acute care admissions. The applicant then applies the ratio to the total number of surgical cases it previously projected to shift from each Atrium facility to Piedmont Fort Mill Medical Center.
- Project shift of surgical cases to AH Union – the applicant states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18, F-11619-18, F-11620-18, and F-11621-18) to determine the number of surgical cases projected to shift care from Atrium facilities in Mecklenburg County to AH Union. The applicant states that when previous applications did not project shifts through the end of CY 2025, it used a 1.75 percent growth rate, consistent with Project I.D. #F-11618-18, to project growth in the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to AH Union through CY 2025.

- Project shift of surgical cases to AH Lake Norman – in the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant calculated the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to AH Lake Norman. The applicant states the inpatient and outpatient cases to be performed at AH Lake Norman are projected to shift from existing Atrium hospitals in Mecklenburg County, based on the CY 2018 acute care days ratio described previously, and projects the number of cases that will shift to AH Lake Norman from each Atrium hospital in Mecklenburg County.
- Project shift of surgical cases to Charlotte Surgery Center – Westover Campus and Charlotte Surgery Center – Museum Campus – the applicant states it used assumptions and methodology consistent with Project I.D. # F-11106-15 (develop Randolph Surgery Center, now known as Charlotte Surgery Center – Wendover Campus, or CSC-W) to determine the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to CSC-W and Charlotte Surgery Center – Museum Campus (CSC-M), with some modifications. The applicant states that, due to changes in utilization patterns and delays in the development of CSC-W, it projects 75 percent of the surgical cases previously projected to shift from Atrium facilities in Mecklenburg County in Project I.D. #F-11106-15 will shift to CSC-W and CSC-M. The applicant states that, since Project I.D. #F-11106-15 only projected utilization through CY 2022, it used the population growth factor from the 2019 SMFP (1.99 percent) to project growth in the number of surgical cases projected to shift to from Atrium facilities in Mecklenburg County to CSC-W and CSC-M through CY 2025.
- Subtract shifts in surgical cases from each Atrium facility to determine projected OR utilization through CY 2025 – the applicant subtracted the number of surgical cases projected to shift to different facilities from each of the Atrium facilities in Mecklenburg County through CY 2025 to obtain projected utilization at each Atrium facility.

A brief summary of the assumptions, methodology, and projected utilization for each Atrium facility follows below.

Atrium Health Pineville - The applicant projects growth for inpatient surgical cases at a 7.1 percent CAGR and projects growth for outpatient surgical cases using a 2.6 percent CAGR. The CAGRs are the actual CY 2015-2018 historical CAGRs. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected OR utilization at AH Pineville.

AH Pineville Projected OR Utilization							
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
Baseline Inpatient Cases	3,470	3,715	3,978	4,259	4,560	4,882	5,227
Baseline Outpatient Cases	4,130	4,239	4,351	4,466	4,583	4,704	4,829
Inpatient Cases Shifting to Other Facilities	--	-29	-45	-91	-253	-293	-301
Outpatient Cases Shifting to Other Facilities	--	-36	-55	-111	-167	-216	-228
Total Inpatient Cases	3,470	3,686	3,933	4,168	4,306	4,590	4,926
Total Outpatient Cases	4,130	4,203	4,296	4,354	4,417	4,488	4,600
Final Inpatient Case Time (1)	174.0	174.0	174.0	174.0	174.0	174.0	174.0
Final Outpatient Case Time (1)	101.6	101.6	101.6	101.6	101.6	101.6	101.6
Total Surgical Hours (2)	17,056	17,806	18,681	19,460	19,967	20,910	22,076
Average Annual Operating Hours – Group 3 (3)	1,755	1,755	1,755	1,755	1,755	1,755	1,755
Number of ORs Needed (4)	9.72	10.15	10.64	11.09	11.38	11.91	12.58
Number of Existing/Approved ORs	10	11	11	11	11	11	11
(Surplus) / Deficit	(0.28)	(0.85)	(0.36)	0.09	0.38	0.91	1.58

Sources: Section Q, Form C; Exhibit C.4-2

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 1.58 ORs at AH Pineville in the third OY. Atrium proposes to add two additional ORs at AH Pineville.

Atrium Health University City - There are two projects which were previously approved, but which are not yet developed as of the date of these findings which will impact the total number of ORs at AH University City:

- Project I.D. #F-11106-15/Charlotte Surgery Center – Westover Campus/Relocate three ORs from AH University City to CSC-W
- Project I.D. #F-11349-17/Atrium Health Huntersville Surgery/Separately license one OR currently on the hospital license

After the approved projects are complete, AH University City will have seven ORs.

The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. The CAGR used is higher than the historical inpatient CAGR (-2.5 percent) but lower than the historical outpatient CAGR (2.1 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at AH University City.

AH University City Projected OR Utilization							
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
Baseline Inpatient Cases	944	963	982	1,001	1,021	1,042	1,062
Baseline Outpatient Cases	4,916	5,014	5,114	5,216	5,320	5,425	5,533
Inpatient Cases Shifting to Other Facilities	--	-2	-3	-6	-50	-74	-96
Outpatient Cases Shifting to Other Facilities	--	-410	-462	-517	-717	-831	-945
Total Inpatient Cases	944	961	979	996	971	968	965
Total Outpatient Cases	4,916	4,604	4,652	4,699	4,602	4,595	4,588
Final Inpatient Case Time (1)	112.6	112.6	112.6	112.6	112.6	112.6	112.6
Final Outpatient Case Time (1)	74.1	74.1	74.1	74.1	74.1	74.1	74.1
Total Surgical Hours (2)	7,843	7,489	7,582	7,671	7,506	7,491	7,478
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	5.23	4.99	5.05	5.11	5.00	4.99	4.99
Number of Existing/Approved ORs	7	7	7	7	7	7	7
(Surplus) / Deficit	(1.77)	(2.01)	(1.95)	(1.89)	(2.00)	(2.01)	(2.01)

Sources: Section Q, Form C; Exhibit C-4.2

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 2.01 ORs at AH University City in the third full fiscal year following project completion. However, Atrium does not propose to add any additional ORs at AH University City as part of this review.

Carolinas Medical Center - The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. These CAGRs are not based on the historical CAGRs at CMC. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at CMC. Please note that the Project Analyst combined the CMC and AH Mercy sections into a single section, because the facilities are licensed together; as such, there may be minor discrepancies between the numbers displayed in the table below and the information found in the application. These discrepancies are irrelevant and do not impact the outcome of these findings in any way.

CMC Projected OR Utilization							
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
Baseline Inpatient Cases	20,188	20,590	21,000	21,418	21,843	22,278	22,721
Baseline Outpatient Cases	21,681	22,113	22,552	23,001	23,459	23,925	24,401
Inpatient Cases Shifting to Other Facilities	--	-131	-200	-407	-780	-989	-1,060
Outpatient Cases Shifting to Other Facilities	--	-2,510	-2,932	-3,520	-4,214	-4,696	-5,026
Total Inpatient Cases	20,188	20,459	20,800	21,011	21,062	21,289	21,661
Total Outpatient Cases	21,681	19,602	19,620	19,481	19,245	19,229	19,375
Final Inpatient Case Time (1)	224.7	224.7	224.7	224.7	224.7	224.7	224.7
Final Outpatient Case Time (1)	134.0	134.0	134.0	134.0	134.0	134.0	134.0
Total Surgical Hours (2)	124,025	120,399	121,714	122,194	121,861	122,672	124,391
Average Annual Operating Hours – Group 2 (3)	1,950	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	63.60	61.74	62.42	62.66	62.49	62.91	63.79
Number of Existing/Approved ORs	57	57	57	57	57	57	57
(Surplus) / Deficit	6.60	4.74	5.42	5.66	5.49	5.91	6.79

Sources: Section Q, Form C; Exhibit C.4-2

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 6.79 ORs on the CMC license in the third full fiscal year following project completion. Atrium proposes to add two additional ORs at CMC.

Atrium Health Huntersville Surgery – Currently, AH Huntersville is a separate building with one OR and one procedure room that is licensed as part of AH University City. In Project I.D. #F-11349-17, AH Huntersville was approved to become a separately licensed ASF with one OR. The development of the ASF will take place after the completion of CSC-W.

The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is nearly the same as the facility's historical CAGR (2.0 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina.

On page 23, the applicant states it uses the 2018 LRA adjusted case time of 52.4 minutes in its projections since AH Huntersville is “an existing facility with publicly reported historical case times.” While AH Huntersville is not considered an existing facility, this case time is lower than the corresponding case time for newly licensed ASFs in Group 6. The following table illustrates projected utilization at AH Huntersville.

AH Huntersville Projected OR Utilization							
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
Baseline Outpatient Cases	1,996	2,035	2,076	2,117	2,159	2,202	2,246
Outpatient Cases Shifting to Other Facilities	--	-434	-488	-542	-552	-563	-575
Total Outpatient Cases	1,996	1,601	1,588	1,575	1,607	1,639	1,671
Final Outpatient Case Time (1)	52.4	52.4	52.4	52.4	52.4	52.4	52.4
Total Surgical Hours (2)	1,743	1,398	1,387	1,376	1,403	1,431	1,459
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	1.33	1.07	1.06	1.05	1.07	1.09	1.11
Number of Existing/Approved ORs	1	1	1	1	1	1	1
(Surplus) / Deficit	0.33	0.07	0.06	0.05	0.07	0.09	0.11

Sources: Section Q, Form C; Exhibit C.4-2

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 0.11 ORs in the third full fiscal year following project completion. The applicant does not propose to add any additional ORs at AH Huntersville as part of this review.

Carolina Center for Specialty Surgery – The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is lower than the facility’s historical CAGR. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected OR utilization at CCSS.

CCSS Projected OR Utilization							
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
Baseline Outpatient Cases	2,036	2,077	2,118	2,160	2,203	2,247	2,292
Outpatient Cases Shifting From CMC	--	112	169	225	225	225	225
Total Outpatient Cases	2,036	2,189	2,287	2,385	2,428	2,472	2,517
Final Outpatient Case Time (1)	85.0	85.0	85.0	85.0	85.0	85.0	85.0
Total Surgical Hours (2)	2,884	3,102	3,240	3,379	3,440	3,502	3,566
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	2.20	2.36	2.47	2.58	2.62	2.67	2.72
Number of Existing/Approved ORs	3	3	3	3	3	3	3
(Surplus) / Deficit	(0.80)	(0.64)	(0.53)	(0.42)	(0.38)	(0.33)	(0.28)

Sources: Section Q, Form C; Exhibit C.4-2

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 0.28 ORs in the third full fiscal year

following project completion. The applicant does not propose to add any additional ORs at CCSS as part of this review.

Atrium Health System Combined - To meet the performance standard promulgated in 10A NCAC 14C .2103(a) in effect at the time of the submission of this application, an applicant proposing to add new ORs to a facility in its service area must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year following project completion, using the Operating Room Need Methodology in the 2019 SMFP. Altogether, Atrium proposes to add six ORs to its system:

- Project I.D. #F-11810-19/Atrium Health Lake Norman/Develop two ORs
- Project I.D. #F-11814-19/ Atrium Health Pineville/Add two ORs
- Project I.D. #F-11815-19/Carolinas Medical Center/Add two ORs

The following table illustrates the projected OR surpluses and deficits for the entire health system.

Atrium Health OR Need			
	Deficits / (Surpluses)		
	1st Full FY CY 2023	2nd Full FY CY 2024	3rd Full FY CY 2025
AH Lake Norman	0.73	1.12	1.52
AH Pineville	0.38	0.91	1.58
AH University City	(2.00)	(2.01)	(2.01)
CMC	5.49	5.91	6.79
AH Huntersville Surgery Center	0.07	0.09	0.11
CCSS	(0.38)	(0.33)	(0.28)
Total Deficit/(Surplus)	4.29	5.69	7.71

Sources: Section Q, Form C; Exhibit C.4-2

As shown in the table above, the Atrium health system projects a deficit of 7.71 ORs by the end of CY 2025. Atrium proposes to add a total of six ORs in the three applications submitted in this review. This meets the standard promulgated in 10A NCAC 14C .2103(a), which requires an applicant proposing to add new ORs to a service area to demonstrate the need for all the existing, approved, and proposed ORs in a health system in the third full fiscal year following project completion based on the Operating Room Need Methodology in the 2019 SMFP.

Projected C-Section OR Utilization

The applicant states that, in CY 2018, 32 percent of AH University City’s obstetrics discharges were the result of C-Sections. The applicant states that, in CY 2018, AH Lake Norman appropriate obstetric patients in the PSA and SSA had an ALOS of 2.73 days. The applicant assumed the experience at AH Lake Norman would be consistent with its historical experience at AH University City and its historical experience with obstetrics patients in the PSA and SSA, as shown in the table below.

AH Lake Norman Projected C-Section OR Utilization			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Obstetrics Days	805	1,231	1,674
ALOS	2.73	2.73	2.73
Obstetrics Discharges	294	450	613
C-Section % of Discharges	32.0%	32.0%	32.0%
C-Section Cases	94	144	196

Source: Section Q, Form C Methodology and Assumptions

Projected Procedure Room Utilization

The applicant states that, in CY 2018, AH University City had a ratio of 0.78 procedures performed in procedure rooms to OR cases. The applicant assumed the experience at AH Lake Norman would be consistent with its historical experience at AH University City, as shown in the table below.

AH Lake Norman Projected Procedure Room Utilization			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
OR Cases	810	1,240	1,687
Ratio of Procedures to OR Cases	0.78	0.78	0.78
Procedure Room Cases	630	965	1,312

Source: Section Q, Form C Methodology and Assumptions

However, projected utilization for ORs is not reasonable and adequately supported based on the following analysis:

- The applicant does not provide information in the application as submitted to demonstrate it is reasonable to assume patients who have historically accessed Atrium hospitals in Mecklenburg County will now access AH Lake Norman simply because they live in the area of patient origin.

The Agency recognizes that patient choice is an important element of providing access to healthcare. However, many services such as inpatient care and inpatient surgery provided at hospitals, and in most cases a majority of those services provided, are the result of inpatient admissions through the ED as opposed to pure patient choice. In publicly available information (Section Q of Project I.D. #F-11811-19), the applicant provides the following table to show the percentage of total inpatient admissions originating through the ED:

CY 2018 Ratio of ED Admissions to Total Admissions (Project I.D. #F-11811-19)	
AH Pineville	66.7%
AH University City	65.1%
CMC	43.5%
AH Mercy	69.7%

Source: Atrium Health internal data

While it is possible for a patient to decide which ED to access, ED admissions happen at all hours of day and night. The applicant provides no information in the application as

submitted to show that patients who have addresses located more closely to AH Lake Norman than to other hospitals will automatically choose AH Lake Norman for emergency treatment at any hour of the day, regardless of where they work or where they may be in an emergency. Further, while the applicant identifies a subset of AH Lake Norman-appropriate ED patients as part of its ED utilization projections, the applicant provides no information in the application as submitted to explain how patients will now know their acuity level is appropriate for AH Lake Norman and they will choose to utilize the AH Lake Norman ED (and hospital) instead of larger hospital EDs that patients have typically accessed.

- On page 1 of the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant states its utilization methodology, approach, and assumptions are consistent with the approved application for Atrium Health Union West (Project I.D. #F-11618-18), a 40-bed satellite hospital campus in Union County. That application proposed to relocate existing acute care beds and ORs from AH Union to develop a satellite hospital campus. The only two similarities between the two applications, however, is that both involve a satellite hospital campus and the same applicant. Comments received during the public comment period note differences between Union County and Mecklenburg County with regard to the two applications. Please see the discussion about why use of methodology consistent with Project I.D. #F-11618-18 was not reasonable or adequately supported found under the discussion of projected utilization of acute care beds above.
- The applicant's projections for inpatient surgical case utilization at AH University City are not based on reasonable and adequately supported assumptions. The applicant's historical inpatient utilization at AH University City has a CY 2015-2019 annualized CAGR of -2.5 percent. The applicant cites several reasons to explain its overall decline in OR utilization system-wide, including capacity constraints, increasingly complex and higher acuity inpatient surgical cases, and the prior shift of outpatient surgical cases to area ASFs. However, the applicant provides no information in the application as submitted that would suggest shifts in outpatient surgical cases impact inpatient surgical cases.

The 2019 SMFP shows that during FFY 2017, AH University City had 960 inpatient surgical cases and 6,423 outpatient surgical cases for a total of 9,731 surgical hours, based on the final inpatient and outpatient case times. Based on its adjusted inventory of seven ORs, this results in a deficit of 0.02 ORs. The 2020 SMFP shows that during FFY 2018, AH University City had 1,084 inpatient surgical cases and 6,745 outpatient surgical cases for a total of 10,865 surgical hours, based on the final inpatient and outpatient case times. Based on its adjusted inventory of seven ORs, this results in a deficit of 0.83 ORs.

However, the numbers in the SMFP include outpatient cases performed at AH Huntersville, which is approved to become a freestanding ASF, but which is currently still licensed as part of AH University City. Because of how OR utilization is calculated in Chapter 6 of the SMFP, the one approved OR at AH Huntersville is not counted as part of AH University City's adjusted inventory, even though the cases in that OR are being performed under AH University City's license. Thus, the actual inventory of ORs is higher than is reflected in the SMFP. This calls into question whether the applicant's explanation for the recent decline in cases is reasonable and adequately supported.

The Project Analyst prepared two sets of calculations to demonstrate the actual utilization at AH University City and AH Huntersville. One set reflects the actual number of ORs on AH University City’s license, and the other reflects what the numbers would show if AH Huntersville was counted separately. These tables do not show projected need; they show current capacity.

AH University City OR Need – including AH Huntersville OR									
Year	IP Cases	Final IP Case Time	OP Cases	Final OP Case Time	Total Hours	Group Hours	Total Need	Current ORs	(Surplus) /Deficit
FFY 2017	960	112.6	6,423	74.1	9,731	1,500	6.49	8	(1.51)
FFY 2018	1,084	123.9	6,745	76.7	10,865	1,500	7.24	8	(0.76)
FFY 2019	963	139.9	6,216	75.0	10,015	1,500	7.22	8	(0.78)

Source: AH University City’s 2018, 2019, and 2020 LRAs

AH University City OR Need – without AH Huntersville OR									
Year	IP Cases	Final IP Case Time	OP Cases	Final OP Case Time	Total Hours	Group Hours	Total Need	Current ORs	(Surplus) /Deficit
FFY 2017	960	112.6	4,901	81	8,418	1,500	5.61	7	(1.39)
FFY 2018	1,084	123.9	4,877	83.7	9,042	1,500	6.03	7	(0.97)
FFY 2019	963	139.9	4,422	101.6	9,733	1,500	6.49	7	(0.51)
AH Huntersville									
FFY 2017	NA	NA	1,522	54.4	1,380	1,312	1.05	1	0.05
FFY 2018	NA	NA	1,868	69.8	2,173	1,312	1.66	1	0.66
FFY 2019	NA	NA	1,794	48.4	1,447	1,312	1.10	1	0.10

Source: AH University City’s 2018, 2019, and 2020 LRAs

As shown in the tables above, there is currently existing capacity at AH University City. Additionally, the tables above use the applicant’s reported inpatient and outpatient case times for FFY 2019 for both facilities and for FFY 2017 and 2018 for when the facilities are split out. If the rules for Final Inpatient and Outpatient Case Times in the Operating Room Need Methodology from Chapter 6 of the SMFP were strictly applied, in some cases the Final Case Times would be lower, resulting in more capacity.

The applicant uses a growth rate of 1.99 percent – equivalent to a single year’s Growth Factor as published in the 2019 SMFP for Mecklenburg County – to project both inpatient and outpatient utilization at AH University City in future years. It is not reasonable or adequately supported to project future growth of inpatient surgical cases with historical declines in utilization that are not adequately explained.

Further, comments submitted during the public comment period note that Atrium’s own projections show AH University City with a surplus of two ORs in the third full fiscal year following project completion. The public comments also note that Atrium’s OR utilization projections for AH University City and AH Lake Norman combined result in a surplus of ORs on AH University City’s license in the third full fiscal year following project completion – without any additional ORs being added to the license. The Project Analyst prepared the table below to show the combined totals.

AH University City License – First Three Full Fiscal Years (CYs 2023-2025)			
	CY 2023	CY 2024	CY 2025
AH-LN IP	145	222	302
AH-UC IP (after shifts)	971	968	966
AH-LN OP	665	1,018	1,385
AH-UC OP (after shifts)	4,602	4,594	4,588
Total IP	1,166	1,190	1,268
Total OP	5,267	5,612	5,973
IP Time	112.6	112.6	112.6
OP Time	74.1	74.1	74.1
Total Surgical Hours	8,600	9,164	9,757
OR Need (1,500 hours)	5.73	6.11	6.50
Existing ORs	7	7	7
Deficit/(Surplus)	(1.27)	(0.89)	(0.50)

Source: Section Q, Form C Methodology and Assumptions; Exhibit C.4-2

In the applicant’s response to the comments submitted during the public comment period, the applicant states:

“Pursuant to the performance standards in the Criteria and Standards for Surgical Services and Operating Rooms at 10A NCAC 14C .2103, applicants must demonstrate the need for the number of proposed operating rooms in addition to the existing and approved operating rooms in the applicant’s health system in the third full fiscal year. Pursuant to an amendment to these performance standards on December 1, 2018, the rules no longer require each individual facility to demonstrate the need for its proposed additional operating rooms. Thus, the rules recognize that overall system need must be demonstrated but that utilization may vary within the applicant’s health system.” (emphasis in original)

While it is true that there is no longer a specific performance standard requiring an applicant to demonstrate the need for the number of existing, approved, and proposed ORs at each individual facility, all applicants must still demonstrate the need for the proposed services and demonstrate that projected utilization is based on reasonable and adequately supported assumptions. The requirement to demonstrate the need for the proposed services is found in N.C.G.S. §131E-183(3) and cannot be changed by administrative rule. Applicants no longer need to meet a specific performance standard at each facility as part of demonstrating the need for the proposed services, but applicants must still demonstrate a need for the proposed services. There are an infinite number of potential ways to demonstrate the need for proposed services; meeting a required performance standard may, in some situations, be one way to demonstrate need, but it is not the only way; nor does meeting a required performance standard mean the applicant has automatically demonstrated need.

The applicant does not adequately demonstrate in the application as submitted the need to add two additional ORs at a satellite campus on AH University City’s license. The applicant’s own projections for the AH University City adjusted OR inventory as it exists on the date of these findings show a surplus in the third full fiscal year following project

completion, including the projected surgical cases at the proposed AH Lake Norman. The applicant does not adequately demonstrate why it needs to add two additional ORs to its license while projecting a surplus of ORs on the license, even when including additional cases due to the proposed AH Lake Norman.

- Basing projections for inpatient and outpatient surgical services on the experience of AH University City is not reasonable or adequately supported. Atrium bases its projections for these services at AH Lake Norman on the experience of AH University City since AH Lake Norman will be licensed under AH University City. However, the applicant proposes to offer much lower acuity services at AH Lake Norman than at AH University City. The applicant does not provide any information in the application as submitted to explain why relying on historical use rates at AH University City is appropriate for AH Lake Norman projections, especially since the applicant specifically relies on statistics from AH Lake Norman-appropriate patients or acute care days in other places.

Public comments received during the public comment period stated it was unreasonable for Atrium to rely on historical experience at AH University City to project surgical cases at AH Lake Norman because AH University City offers higher acuity levels of care and has more ORs than will AH Lake Norman. Atrium's response states, in part, that the utilization is supported by the numerous letters of support from surgeons. However, the letters of support from almost all physicians are form letters expressing general support for developing AH Lake Norman. While it is entirely permissible for an applicant to submit form letters signed by physicians to demonstrate support, it is not reasonable for an applicant to state that a form letter signed by a physician supports specific utilization projections, such as whether the number of projected surgical cases can be based upon historical experiences at an existing and higher acuity level hospital, without any language in that letter to suggest the physician was lending support to specific utilization projections.

Projected Emergency Department Utilization

To project ED utilization at AH Lake Norman, the applicant identified the number of Atrium Health ED visits for both the PSA and SSA in CY 2018. The applicant assumed that, like acute care days, 80 percent of ED visits from the PSA and 20 percent of ED visits from the SSA would potentially shift to AH Lake Norman, and the number of ED visits would increase from CY 2018 to CY 2025, the third full fiscal year following project completion, at the same projected growth rate as the population in the PSA (2.21 percent) and SSA (1.65 percent). The applicant states that, as part of Project I.D. #F-11658-19 (develop AH Mountain Island ED, a satellite ED to AH University City), it projected utilization at AH Mountain Island ED for CYs 2021-2023. The applicant assumes the number of ED visits at AH Mountain Island ED in CYs 2024-2025 will increase at a rate of 1.8 percent, consistent with the projected population growth in Project I.D. #F-11658-19, and projects all ED visits for AH Mountain Island ED will be subtracted from potential AH Lake Norman ED visits. The applicant also projects ED visits at AH Lake Norman will ramp up in the first three full fiscal years at a rate of 50 percent, 75 percent, and 100 percent, consistent with its projections for acute care days. The applicant's projections are summarized in the tables below.

AH Lake Norman Projected ED Utilization – Potential ED Visits			
	CY 2018 Potential ED Visits	% Served	Potential ED Visits at AH-LN
PSA	10,610	80%	8,488
SSA	35,026	20%	7,005
Total	45,636	--	15,493

Source: Section Q, Form C Methodology and Assumptions

AH Lake Norman Projected ED Utilization							
	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
PSA Visits (2.21% CAGR)	8,675	8,867	9,063	9,263	9,468	9,677	9,890
SSA Visits (1.65% CAGR)	7,120	7,238	7,357	7,478	7,601	7,726	7,853
Total Potential ED Visits	15,796	16,105	16,420	16,741	17,068	17,402	17,743
AH Mountain Island ED Visits (1.8% CAGR)	--	--	-5,785	-6,628	-7,501	-7,639	-7,780
Adjusted Potential ED Visits	15,796	16,105	10,635	10,113	9,567	9,763	9,963
Ramp-up	--	--	--	--	50%	75%	100%
Projected ED Visits	--	--	--	--	4,784	7,322	9,963
# of ED Rooms	--	--	--	--	10	10	10
# of ED Visits per Room	--	--	--	--	478	732	996

Source: Section Q, Form C Methodology and Assumptions

However, projected utilization for ED services is not reasonable and adequately supported based on the following analysis:

- The applicant does not provide information in the application as submitted to demonstrate it is reasonable to assume patients who have historically accessed Atrium hospitals in Mecklenburg County will now access AH Lake Norman simply because they live in the area of patient origin.

The Agency recognizes that patient choice is an important element of providing access to healthcare. However, many services such as inpatient care and inpatient surgery provided at hospitals, and in most cases a majority of those services provided, are the result of inpatient admissions through the ED as opposed to pure patient choice. In publicly available information (Section Q of Project I.D. #F-11811-19), the applicant provides the following table to show the percentage of total inpatient admissions originating through the ED:

CY 2018 Ratio of ED Admissions to Total Admissions (Project I.D. #F-11811-19)	
AH Pineville	66.7%
AH University City	65.1%
CMC	43.5%
AH Mercy	69.7%

Source: Atrium Health internal data

While it is possible for a patient to decide which ED to access, ED admissions happen at all hours of day and night. The applicant provides no information in the application as submitted to show that patients who have addresses located more closely to AH Lake Norman than to other hospitals will automatically choose AH Lake Norman for emergency treatment at any hour of the day, regardless of where they work or where they may be in

an emergency. Further, while the applicant identifies a subset of AH Lake Norman-appropriate ED patients as part of its ED utilization projections, the applicant provides no information in the application as submitted to explain how patients will now know their acuity level is appropriate for AH Lake Norman and they will choose to utilize the AH Lake Norman ED (and hospital) instead of larger hospital EDs that patients have typically accessed.

- On page 1 of the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant states its utilization methodology, approach, and assumptions are consistent with the approved application for Atrium Health Union West (Project I.D. #F-11618-18), a 40-bed satellite hospital campus in Union County. That application proposed to relocate existing acute care beds and ORs from AH Union to develop a satellite hospital campus. The only two similarities between the two applications, however, is that both involve a satellite hospital campus and the same applicant. Comments received during the public comment period note differences between Union County and Mecklenburg County with regard to the two applications. Please see the discussion about why use of methodology consistent with Project I.D. #F-11618-18 was not reasonable or adequately supported found under the discussion of projected utilization of acute care beds above.
- The applicant does not adequately demonstrate the need to add ED services in the proposed location and the applicant’s projected utilization for ED services is not reasonable or adequately supported. The applicant operates AH Huntersville ED, a satellite ED licensed under AH University City. According to Google Maps (see the Working Papers), AH Huntersville ED is less than two miles south of the proposed AH Lake Norman on the same road. In Section C and in Section Q, the applicant does not provide any information or analysis as to any potential impact of AH Huntersville ED on AH Lake Norman or vice versa. In fact, the applicant provides no information in the application as submitted to demonstrate the need for additional ED services less than two miles from existing ED services.

The applicant does briefly reference AH Huntersville ED in Section G, page 109, where the applicant states:

“All of the services proposed for Atrium Health Lake Norman, which include not only acute care inpatient services, but also emergency services, ..., are part of its application to develop a hospital and are essential to the development and operation of its proposed facility as a hospital. For example, while freestanding emergency departments in the market such as Atrium Health Huntersville and the approved but not yet developed Atrium Health Mountain Island (Project ID # F-11658-19) are capable of serving emergency patients that are eventually admitted for inpatient care, visits resulting in inpatient admission are provided less frequently at freestanding emergency departments than at the emergency departments of inpatient acute care facilities. Only 1.8 percent of Atrium Health Huntersville’s emergency visits in CY 2018 resulted in an inpatient admission, and Atrium Health conservatively projected that Atrium Health Mountain Island would serve only outpatient emergency department visits. Further, Mecklenburg County needs additional capacity for

emergency services. As noted in the Agency Findings for Atrium Health Mountain Island ..., Atrium Health has previously demonstrated that Mecklenburg County needs additional capacity for emergency services and could support 29 additional emergency department rooms.

Moreover, based on the projected need for emergency department services, Atrium Health Lake Norman, Atrium Health Mountain Island, and Atrium Health Huntersville are all needed. On page 21 of Form C Methodology and Assumptions in the Atrium Health Mountain Island application (Project ID # F-11658-19), Atrium Health projected that Atrium Health Huntersville would provide 17,606 emergency department visits in CY 2023 after the potential impact of Atrium Health Mountain Island. Similarly, after adjusting for the projected utilization of Atrium Health Mountain Island, Atrium Health Lake Norman projects 9,963 emergency department visits in CY 2025, its third project year. Even if all of the 9,963 emergency department visits projected at Atrium Health Lake Norman were shifted from Atrium Health Huntersville (which Atrium Health does not expect), and Atrium Health Huntersville experienced no growth from 2023 to 2025, Atrium Health Huntersville would still provide 7,643 emergency department visits in the third project year of the proposed Atrium Health Lake Norman project (7,643 visits = 17,606 – 9,963) and would clearly still need to maintain its existing services. Thus, based on these analyses that contemplate mutually exclusive patient populations among these three emergency departments, Atrium Health Mountain Island, Atrium Health Lake Norman, and Atrium Health Huntersville are all needed.” (emphasis in original)

In addition to the fact that an analysis of unnecessary duplication is not the same as an analysis of need, there are problems with this analysis:

- Atrium is projecting to serve existing patients who already utilize Atrium facilities, yet the applicant does not address the existence of ED services located less than two miles from the proposed location for AH Lake Norman. Further, most patients Atrium projects to serve live in an area south of the proposed location for AH Lake Norman (and AH Huntersville ED). The applicant does not adequately explain in the application as submitted why patients would drive by an existing ED (literally – AH Huntersville ED and the proposed AH Lake Norman are on the same road) and go to another one simply because it is part of a hospital versus a freestanding ED.
- The applicant references its approved application to develop AH Mountain Island ED (Project I.D. #F-11658-19), where the applicant states it demonstrated that Mecklenburg County could support up to 29 additional ED beds. In that application, the applicant based its need in part on the utilization at existing Atrium facilities and provided an analysis which suggested non-Atrium EDs are not as highly utilized as Atrium EDs. The Project Analyst reviewed FFY 2018 and 2019 data for all EDs in Mecklenburg County, along with FFY 2017 data provided by the applicant in Project I.D. #F-11658-19, and utilization of Atrium ED facilities declined from FFY 2017 to FFY 2019 at a CAGR of -1.2 percent; however, ED visits in Mecklenburg County

increased during that same period at a CAGR of 1.3 percent. Utilization at non-Atrium EDs increased at a CAGR of 6.3 percent between FFY 2017 and FFY 2019. Atrium provides no information in its application as submitted to demonstrate why it needs additional ED services less than two miles from existing ED services, especially since the population it projects to serve (existing Atrium patients) has decreased its utilization of existing Atrium facilities.

Projected Utilization for All Other Service Components

To project utilization for all other service components at AH Lake Norman, the applicant calculated the ratio of inpatient service component use to inpatient discharges and the ratio of outpatient service component volume to inpatient service component volume by using CY 2018 data from AH University City. The applicant then calculated projected service component use by applying the calculated ratios to the previously projected acute care bed discharges. The applicant states it adjusted its outpatient MRI procedures because AH Lake Norman will have a contracted mobile MRI service versus AH University City's fixed MRI scanner. The applicant calculated the projected CT HECT units by assuming the experience at AH Lake Norman would be consistent with its historical experience at AH University City, using AH University's FFY 2017 ratio of HECT units to CT scans (1.614 HECT units per CT scan). The applicant calculated the projected weighted MRI procedures by using assuming the experience at AH Lake Norman would be consistent with its historical experience at AH University City, using AH University City's FFY 2017 ratio of contrast/sedation procedures to total procedures by IP/OP.

The table below summarizes the historical inpatient discharge ratio and the ratio of inpatient service component use to outpatient service component use and the projections for all other service component use at AH Lake Norman during the first three full fiscal years following project completion.

AH Lake Norman Projected Service Component Use				
	Discharge/IP-OP Ratios	CY 2023	CY 2024	CY 2025
Acute Care Discharges		1,031	1,577	2,144
Laboratory				
Inpatient	4.25	4,385	6,707	9,118
Outpatient	10.81	47,419	72,526	98,602
Total		51,804	79,232	107,720
PT/OT/ST/Other				
Inpatient	0.14	140	215	292
Outpatient	2.28	320	489	665
Total		460	704	957
CT – Total Scans				
Inpatient	0.55	572	874	1,189
Outpatient	5.13	2,931	4,483	6,095
Total		3,503	5,358	7,284
HECT Units per Scan		1.614	1.614	1.614
HECT Units		5,655	8,650	11,760
MRI Procedures				
Inpatient	0.19	198	303	412
IP % Contrast/Sedation		25.5%	25.5%	25.5%
IP w/Contrast		50	77	105
IP w/o Contrast		148	226	307
Outpatient	0.47	93	142	193
OP % Contrast/Sedation		32.1%	32.1%	32.1%
OP w/Contrast		30	46	62
OP w/o Contrast		63	96	131
Total Weighted Procedures		402	615	836
X-Ray				
Inpatient	0.97	999	1,527	2,077
Outpatient	5.46	5,456	8,345	11,346
Total		6,455	9,783	13,423
Ultrasound				
Inpatient	0.24	250	383	521
Outpatient	8.64	2,163	3,308	4,497
Total		2,413	3,691	5,018
Nuclear Medicine				
Inpatient	0.03	32	49	67
Outpatient	6.26	202	309	420
Total		234	358	487

Source: Section Q, Form C Methodology and Assumptions

However, projected utilization for all other service components is not reasonable and adequately supported based on the following analysis:

- The applicant does not provide information in the application as submitted to demonstrate it is reasonable to assume patients who have historically accessed Atrium hospitals in Mecklenburg County will now access AH Lake Norman simply because they live in the area of patient origin.

The Agency recognizes that patient choice is an important element of providing access to healthcare. However, many services such as inpatient care and inpatient surgery provided

at hospitals, and in most cases a majority of those services provided, are the result of inpatient admissions through the ED as opposed to pure patient choice. In publicly available information (Section Q of Project I.D. #F-11811-19), the applicant provides the following table to show the percentage of total inpatient admissions originating through the ED:

CY 2018 Ratio of ED Admissions to Total Admissions (Project I.D. #F-11811-19)	
AH Pineville	66.7%
AH University City	65.1%
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AH Mercy	69.7%

Source: Atrium Health internal data

While it is possible for a patient to decide which ED to access, ED admissions happen at all hours of day and night. The applicant provides no information in the application as submitted to show that patients who have addresses located more closely to AH Lake Norman than to other hospitals will automatically choose AH Lake Norman for emergency treatment at any hour of the day, regardless of where they work or where they may be in an emergency. Further, while the applicant identifies a subset of AH Lake Norman-appropriate ED patients as part of its ED utilization projections, the applicant provides no information in the application as submitted to explain how patients will now know their acuity level is appropriate for AH Lake Norman and they will choose to utilize the AH Lake Norman ED (and hospital) instead of larger hospital EDs that patients have typically accessed.

- On page 1 of the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant states its utilization methodology, approach, and assumptions are consistent with the approved application for Atrium Health Union West (Project I.D. #F-11618-18), a 40-bed satellite hospital campus in Union County. That application proposed to relocate existing acute care beds and ORs from AH Union to develop a satellite hospital campus. The only two similarities between the two applications, however, is that both involve a satellite hospital campus and the same applicant. Comments received during the public comment period note differences between Union County and Mecklenburg County with regard to the two applications. Please see the discussion about why use of methodology consistent with Project I.D. #F-11618-18 was not reasonable or adequately supported found under the discussion of projected utilization of acute care beds above.
- Basing projections for imaging and ancillary services on the experience of AH University City is not reasonable or adequately supported. Atrium bases its projections for these services at AH Lake Norman on the experience of AH University City since AH Lake Norman will be licensed under AH University City. However, the applicant proposes to offer much lower acuity services at AH Lake Norman than at AH University City. The applicant does not provide any information in the application as submitted to explain why relying on historical use rates at AH University City is appropriate for AH Lake Norman projections, especially since the applicant specifically relies on statistics from AH Lake Norman-appropriate patients or acute care days in other places. Indeed, the applicant noted that it adjusted the number of outpatient MRI scans at AH Lake Norman instead of just

using AH University City's historical ratio because there will be only a mobile MRI scanner at AH Lake Norman versus a fixed MRI scanner at AH University City.

The Project Analyst compared the applicant's projections for utilization of imaging and other services with publicly available information about other facilities offering the same services. Please see the Working Papers for these comparisons. For example, NH Mint Hill is a 36-bed acute care hospital which began offering services on October 1, 2018 and which has a nearly identical ratio of medical/surgical, ICU, and obstetrics beds as the proposed AH Lake Norman. Some ratios are very similar, and some are not. For example, the applicant projected the percent of patients receiving inpatient MRI services that involved sedation or contrast would be 25.5 percent of total inpatient MRI services and patients receiving outpatient MRI services that involved sedation or contrast would be 32.1 percent of patients, based on CY 2018 ratios at AH University City. NH Mint Hill's percentages for inpatient and outpatient MRI services involving sedation or contrast were 35.1 percent and 43.0 percent, respectively – a difference of 10 percent. Further, the applicant states it adjusted its projections for outpatient MRI services since AH Lake Norman will have a mobile MRI. The applicant projected a ratio of 0.47 outpatient MRI scans to inpatient MRI scans; the corresponding ratio from NH Mint Hill was 12.24 outpatient MRI scans to inpatient scans. The ratio of outpatient MRI scans to inpatient MRI scans at NH Mint Hill is not explained by the fact that NH Mint Hill has a fixed MRI scanner and AH Lake Norman will not. WakeMed North, a 30-bed satellite hospital campus of WakeMed in Wake County which also has mobile MRI service, has a ratio of 44.31 outpatient MRI scans to inpatient MRI scans.

The differences between AH Lake Norman projections and NH Mint Hill historical data are not explained by the fact that NH Mint Hill is a separately licensed hospital versus a satellite hospital campus as proposed for AH Lake Norman. The Project Analyst reviewed hospital systems with satellite campuses in other large urban counties – Forsyth, Orange, and Wake counties – and in every case, the ratio of outpatient services to inpatient services for X-ray, ultrasound, and MRI scans was significantly higher at the satellite campuses than at the main campuses – even when the satellite campus was served by a mobile MRI scanner.

There may be facts that explain these differences and which justify reliance, in this situation, on the historical experience at AH University City; however, the applicant provides no information in the application as submitted to explain why it is reasonable to rely on historical experiences at a hospital which will be larger than the proposed satellite campus, which will offer more services than AH Lake Norman and which will offer care for higher acuity patients than AH Lake Norman, and which result in projections which differ from similarly-sized hospitals in Mecklenburg County as well as satellite campuses of hospitals in other urban counties.

Access – In Section C, page 85, the applicant states that AH Lake Norman will provide: *“services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment.”*

In Section L, page 124, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

AH-LN Projected Payor Mix 3rd Full FY (CY 2025)								
Payor Source	Total Facility	M/S Beds	ICU Beds	OB Beds	Surg Svcs	ED	Imaging	Other*
Self-Pay	8.2%	7.5%	7.5%	1.5%	4.5%	21.4%	10.3%	6.8%
Medicare**	16.1%	52.7%	52.7%	0.7%	38.2%	19.4%	25.7%	10.9%
Medicaid**	37.2%	17.9%	17.9%	42.5%	6.4%	25.4%	16.5%	45.3%
Insurance**	37.2%	19.5%	19.5%	54.8%	48.4%	30.1%	45.9%	36.2%
Other***	1.2%	2.5%	2.5%	0.4%	2.5%	3.6%	1.7%	0.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Includes PT, OT, ST, and other services.

**Including any managed care plans

***Includes TRICARE and worker’s compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the following reasons:

- The applicant does not adequately explain why the population to be served needs the services proposed in this application.
- Projected utilization is not reasonable and is not adequately supported.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The applicant proposes to develop 18 additional acute care beds at CMC, its existing acute care hospital, for a total of 1,073 acute care beds upon project completion.

This application is one of six filed in the same review cycle for acute care beds and ORs by Atrium. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	Current Name	Effective Date of Change
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

Patient Origin – On page 36, the 2019 SMFP defines the service area for acute care beds as “the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1.” Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. The following table illustrates current and projected patient origin.

CMC Current & Projected Patient Origin – Adult Acute Care Beds								
County	Last FY (CY 2018)		FY 1 (CY 2022)		FY 2 (CY 2023)		FY 3 (CY 2024)	
	# Days	% of Total	# Days	% of Total	# Days	% of Total	# Days	% of Total
Mecklenburg	47,774	44.9%	50,188	45.0%	49,985	45.3%	50,128	45.3%
York (SC)	7,585	7.1%	8,150	7.3%	7,333	6.6%	7,392	6.7%
Gaston	6,334	6.0%	6,806	6.1%	6,875	6.2%	6,945	6.3%
Union	5,809	5.5%	4,701	4.2%	4,214	3.8%	3,710	3.4%
Cleveland	4,914	4.6%	5,281	4.7%	5,334	4.8%	5,388	4.9%
Cabarrus	3,768	3.5%	4,049	3.6%	4,090	3.7%	4,131	3.7%
Lincoln	3,359	3.2%	3,609	3.2%	3,646	3.3%	3,683	3.3%
Lancaster (SC)	3,328	3.1%	3,576	3.2%	3,612	3.3%	3,649	3.3%
Iredell	2,078	2.0%	2,233	2.0%	2,192	2.0%	2,180	2.0%
Other Counties*	21,342	20.1%	22,932	20.6%	23,165	21.0%	23,399	21.2%
Total	106,291	100.0%	111,526	100.0%	110,447	100.0%	110,605	100.0%

Source: Section C, pages 28-29

*Other: Alamance, Alexander, Alleghany, Anson, Ashe, Avery, Beaufort, Bladen, Brunswick, Buncombe, Burke, Caldwell, Carteret, Caswell, Catawba, Chatham, Cherokee, Chowan, Clay, Columbus, Craven, Cumberland, Davidson, Davie, Durham, Edgecombe, Forsyth, Graham, Granville, Guilford, Harnett, Haywood, Henderson, Hoke, Jackson, Johnston, Jones, Lee, Lenoir, Macon, Madison, McDowell, Mitchell, Montgomery, Moore, Nash, New Hanover, Onslow, Orange, Pamlico, Pasquotank, Pender, Pitt, Polk, Randolph, Richmond, Robeson, Rockingham, Rowan, Rutherford, Sampson, Scotland, Stanly, Stokes, Surry, Swain, Transylvania, Vance, Wake, Watauga, Wilkes, Wilson, Yadkin, and Yancey counties in North Carolina as well as other states.

In Section C, page 30, the applicant provides the assumptions and methodology used to project patient origin. The applicant’s assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted four applications in response to the Acute Care Bed Need Determination in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with 30 acute care beds (Project I.D. #F-11810-19); to add 18 acute care beds to CMC (Project I.D. #F-11811-19); to add 16 acute care beds to AH University City (Project I.D. #F-11812-19); and to add 12 acute care beds to AH Pineville (Project I.D. #F-11813-19). In Section C, pages 30-44, the applicant discusses Atrium’s system-wide need for the acute care bed proposals in Mecklenburg County. In a competitive review, every application is first evaluated

independently, as if there are no other applications in the review, to determine whether the application is conforming to all statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to CMC.

In Section C, page 38, Atrium states the need for 76 acute care beds in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed acute care beds in its applications as submitted.

In Section C, pages 44-50, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.
- CMC's acute care days and ADC have increased at a 2.5 percent CAGR between CY 2016-CY 2019 annualized, despite efforts to alleviate high utilization by shifting patients to different Atrium hospitals.
- CMC's acute care bed average annual utilization was above 80 percent for each of the years between CY 2016-2019 annualized.
- CMC's projected deficit of 91 acute care beds is the highest of any hospital in Mecklenburg County.
- Because of a lack of capacity, some CMC patients have had to stay in the Post-Anesthesia Care Unit (PACU) after surgery due to the lack of an available bed. Additionally, some patients have had to remain in an OR after a surgery is complete because of the resulting lack of space in the PACU. Further, patients are often housed overnight in the ED due to lack of available beds.
- CMC's growth is projected to continue because it is the only provider of quaternary care in Mecklenburg County and the surrounding area.
- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- There is a need determination for 76 acute care beds in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop 18 acute care beds in Mecklenburg County in accordance with the acute care bed need determination in the 2019 SMFP.
- The applicant uses reasonable and clearly identified historical and demographic data to make assumptions regarding identification of the population to be served.

- The applicant provides reliable data, makes reasonable statements about the data, and uses reasonable assumptions about the data to demonstrate the need the population to be served has for the proposed services.

Projected Utilization – In Section Q, the applicant provides projected utilization, as illustrated in the following table.

CMC-Main Adult Med/Surg Acute Care Bed Projected Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
# of Beds	351	351	351
# of Admissions	21,741	21,531	21,562
# of Acute Care Days	111,526	110,447	110,605

In the Form C Utilization – Assumptions and Methodology subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant calculated the CY 2016 through CY 2019 annualized CAGR for CMC-Main’s total acute care days and uses one-half of that historical CAGR to project future growth in acute care days through the end of the third full fiscal year (CY 2024).
- The applicant projects a shift of acute care days to Piedmont Fort Mill Medical Center, a hospital that will be developed in South Carolina, consistent with its projections in previous acute care bed applications for CMC-Main. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center and calculated CMC-Main’s CY 2018 ratio of acute care days from patients who were admitted through the ED to total acute care days. The applicant then applied the ratio to the total number of acute care days it previously projected to shift from CMC-Main to Piedmont Fort Mill Medical Center.
- The applicant projects a shift of acute care days to AH Union, and states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to determine the number of acute care days projected to shift care from CMC-Main to AH Union.
- As part of Project I.D. #F-11810-19, the applicant’s proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from CMC-Main to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.
- The applicant projects a shift in acute care days from CMC-Main to AH Mercy, consistent with projections in Project I.D. #F-11268-16 (renovate surgical services and relocate one OR from CMC-Main to AH Mercy).

- The applicant calculated the CY 2018 ratio of medical/surgical acute care days to total acute care days at CMC-Main, then applied that ratio to determine the projected number of medical/surgical acute care days at CMC-Main during the first three full fiscal years following project completion.
- The applicant calculated total acute care discharges and medical/surgical acute care discharges at CMC-Main by using its CY 2018 ALOS for total acute care days (6.10 days) and for medical/surgical acute care days (5.13 days).

The table below summarizes the assumptions and methodology used to project acute care bed utilization at CMC-Main.

CMC-Main Total Acute Care Bed Projected Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Total Acute Care Days (1.01% growth)	281,338	284,190	287,070	289,980	292,919	295,888
Shift to Piedmont Fort Mill Medical Center	--	--	--	--	-2,284	-2,348
Shift to AH Union	--	-1,260	-1,923	-3,913	-5,308	-6,752
Shift to AH Lake Norman	--	--	--	--	-1,999	-3,058
Shift to AH Mercy	--	-2,911	-2,911	-2,911	-2,911	-2,911
Projected Total Acute Care Days	281,338	280,019	282,237	283,156	280,416	280,820
ADC	770.8	765.1	773.3	775.8	768.3	767.3
Beds	859	859	859	877	877	877
Occupancy %	89.8%	89.3%	90.0%	88.5%	87.6%	87.5%
Total Discharges (based on 6.10 ALOS)	46,121	45,896	46,260	46,410	45,961	46,027
Ratio of Med/Surg Days to Total Days	39.4%	39.4%	39.4%	39.4%	39.4%	39.4%
Projected Med/Surg Acute Care Days	110,847	110,290	111,163	111,526	110,446	110,605
Med/Surg Discharges (based on 5.13 ALOS)	21,608	21,501	21,671	21,741	21,531	21,562

Source: Section Q, Form C Assumptions and Methodology

*Annualized based on January 2019-July 2019 data.

Note: The information in the application has some miscalculations. These are minor and do not affect the outcome in any way. The Project Analyst used the information from the application in this table to be consistent with all applications even though there are some miscalculations.

Atrium Health System

The Atrium health system in Mecklenburg County consists of CMC (including AH Mercy), AH Pineville, and AH University City, including its proposed satellite hospital campus, AH Lake Norman. Pursuant to 10A NCAC 14C .3803(a), an applicant proposing to add new acute care beds to a service area must reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Section Q, the applicant provides the assumptions and methodology used to project acute care bed utilization for all other hospitals in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2013, Atrium applications involving acute care bed utilization projections have included assumptions and methodology projecting shifts in acute care days between hospitals in both

Mecklenburg County and surrounding counties. The applicant states it will project shifts in acute care days between hospitals in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization and projected growth rate by hospital – the applicant calculated the 3-year CAGR for each hospital, based on CY 2016-2019 annualized utilization. The applicant projects acute care days at each hospital will grow at one-half the rate of the 3-year CAGR.
- Project acute care days through CY 2024 prior to any shifts – the applicant applied the projected growth rate and projected utilization at each hospital through CY 2024. The applicant states it has historically projected acute care days will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in acute care days through CY 2024.
- Project shift of acute care days to Piedmont Fort Mill Medical Center – beginning with applications in 2013, the applicant projected a shift in acute care days to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 acute care days from patients who were admitted through the ED to the total acute care days. The applicant then applies the ratio to the total number of acute care days it previously projected to shift from each Atrium hospital to Piedmont Fort Mill Medical Center.
- Project shift of acute care days to AH Union – the applicant states it used the assumptions and methodology from previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to project the number of acute care days projected to shift from Atrium hospitals in Mecklenburg County to AH Union.
- Project shift of acute care days to AH Lake Norman – As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from each Atrium hospital to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts in acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.
- Subtract shifts in acute care days from each Atrium hospital to determine projected utilization of acute care beds through CY 2024 – the applicant subtracted the number of acute care days projected to shift to different hospitals from each of the Atrium hospitals in Mecklenburg County through CY 2024 to obtain the projected acute care days at each facility.

The table below summarizes the applicant’s assumptions and methodology used to calculate the number of acute care days projected to shift from each Atrium hospital in Mecklenburg County and each hospital’s projected acute care days through CY 2024.

Summary of Projected Shifts in Acute Care Days								
	3-year CAGR	Projected Growth %	CY 2019 Annualized	CY 2020	CY 2021	CY 2022 (FY 1)	CY 2023 (FY 2)	CY 2024 (FY 3)
AH Lake Norman								
Acute Care Days	--	--	--	--	--	--	3,814	5,833
AH Pineville								
Acute Care Days			71,997	74,022	76,104	78,244	80,445	82,708
Projected Shifts	5.63%	2.81%	--	-528	-806	-1,639	-7,168	-7,955
Adjusted Acute Care Days			--	73,494	75,298	76,605	73,278	74,753
AH University City								
Acute Care Days			27,660	28,643	29,661	30,715	31,806	32,937
Projected Shifts	7.11%	3.55%		-25	-39	-79	-1,252	-1,858
Adjusted Acute Care Days				28,618	29,622	30,636	30,555	31,078
Carolinas Medical Center*								
Acute Care Days			281,338	284,190	287,070	289,980	292,919	295,888
Projected Shifts	2.03%	1.01%		-4,171	-4,834	-6,824	-12,502	-15,069
Adjusted Acute Care Days				280,019	282,237	283,156	280,416	280,820
AH Mercy**								
Acute Care Days			45,572	46,800	48,060	49,355	50,684	52,049
Projected Shifts	5.39%	2.69%		2,618	2,463	2,000	375	-318
Adjusted Acute Care Days				49,417	50,523	51,354	51,059	51,732

Source: Section Q, Form C Assumptions and Methodology

*Carolinas Medical Center’s license includes AH Mercy as a satellite campus. The campuses are displayed separately because the applicant calculated growth rates separately for each campus.

**Even though the two campuses are on the same license, the applicant projected a shift in days from Carolinas Medical Center to AH Mercy in previous applications, which is why AH Mercy appears to gain acute care days through CY 2023.

Atrium Health System Summary – The following table illustrates projected utilization for acute care beds at all Atrium hospitals in Mecklenburg County.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
Atrium Health Lake Norman	--	3,814	5,833
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	439,123	444,216
Average Daily Census (ADC)	1,210	1,203	1,214
Total # of Beds	1,490	1,490	1,490
Occupancy %	81.2%	80.7%	81.5%

Source: Section Q, Form C Assumptions and Methodology

As shown in the table above, in the third operating year following project completion, the applicant projects the average utilization for all acute care beds owned by the applicant in

Mecklenburg County will be 81.5 percent. This meets the performance standard promulgated in 10A NCAC 14C .3803(a), which requires an applicant proposing to add new acute care beds to a service area to reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Project I.D. #F-11810-19 (proposing to develop AH Lake Norman), Atrium does not adequately demonstrate the need for the proposed project and that projected utilization is reasonable and adequately supported. This could potentially call into question whether the projected utilization for all acute care beds owned by Atrium in Mecklenburg County will meet the performance standard promulgated in 10A NCAC 14C .3803(a). However, even if all projected acute care days at AH Lake Norman are removed from the projections (and none are added back to the Atrium hospitals from where they originated), and the 30 acute care beds proposed to be added at AH Lake Norman are still counted toward the performance standard, the applicant still reasonably projects that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent. Please see the calculations prepared by the Project Analyst in the table below.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
Atrium Health Lake Norman	--	--	--
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	435,308	438,383
Average Daily Census (ADC)	1,210	1,193	1,198
Total # of Beds*	1,490	1,490	1,490
Occupancy %	81.2%	80.1%	80.4%

Source: Section Q, Form C Assumptions and Methodology

*Includes the 30 acute care beds proposed as part of Project I.D. #F-11810-19

Projected utilization is reasonable and adequately supported for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County acute care bed planning area.
- The applicant relies on historical utilization and assumptions consistent with previously approved projects to project future utilization.
- The applicant reasonably projects to meet the performance standard promulgated in 10A NCAC 14C .3803(a).

Access – In Section C, page 54, the applicant states:

“CMC provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment.”

In Section L, page 86, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

CMC Projected Payor Mix – Third Full FY (CY 2024)		
Payor Source	Total Facility	Med/Surg Beds
Self-Pay	14.1%	7.2%
Medicare*	26.1%	47.2%
Medicaid*	24.5%	17.0%
Insurance*	33.4%	24.9%
Other**	1.9%	3.7%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.
- The applicant adequately explains why the population to be served needs the services proposed in this application.
- Projected utilization is reasonable and adequately supported.
- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The applicant proposes to develop 16 additional acute care beds at AH University City, its existing acute care hospital, for a total of 116 acute care beds upon project completion.

This application is one of six filed in the same review cycle for acute care beds and ORs by Atrium. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	Current Name	Effective Date of Change
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

Patient Origin – On page 36, the 2019 SMFP defines the service area for acute care beds as “the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1.” Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. The following table illustrates current and projected patient origin.

AH-UC Current & Projected Patient Origin – Medical/Surgical Beds								
County	Last FY (CY 2018)		FY 1 (CY 2022)		FY 2 (CY 2023)		FY 3 (CY 2024)	
	# Days	% of Total	# Days	% of Total	# Days	% of Total	# Days	% of Total
Mecklenburg	13,786	72.9%	15,478	73.1%	15,337	72.6%	15,541	72.4%
Cabarrus	2,077	11.0%	2,332	11.0%	2,415	11.4%	2,501	11.6%
Iredell	501	2.7%	563	2.7%	522	2.5%	510	2.4%
Gaston	423	2.2%	475	2.2%	492	2.3%	510	2.4%
Lincoln	345	1.8%	387	1.8%	401	1.9%	415	1.9%
Union	236	1.2%	211	1.0%	201	1.0%	191	0.9%
York (SC)	144	0.8%	162	0.8%	130	0.6%	134	0.6%
Other Counties*	1,391	7.4%	1,561	7.4%	1,617	7.7%	1,674	7.8%
Total	18,905	100.0%	21,170	100.0%	21,114	100.0%	21,476	100.0%

Source: Section C, pages 28-29

*Other: Alamance, Alexander, Alleghany, Anson, Brunswick, Buncombe, Burke, Caldwell, Carteret, Catawba, Cleveland, Columbus, Craven, Cumberland, Davidson, Davie, Durham, Forsyth, Franklin, Granville, Guilford, Haywood, Hertford, Hoke, Jackson, Johnston, Macon, Montgomery, Onslow, Pender, Randolph, Richmond, Robeson, Rockingham, Rowan, Rutherford, Scotland, Stanly, Surry, Wake, Watauga, Wayne, Wilkes, Yadkin, and Yancey counties in North Carolina as well as other states.

In Section C, page 30, the applicant provides the assumptions and methodology used to project patient origin. The applicant’s assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted four applications in response to the Acute Care Bed Need Determination in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with 30 acute care beds (Project I.D. #F-11810-19); to add 18 acute care beds to CMC (Project I.D. #F-11811-19); to add 16 acute care beds to AH University City (Project I.D. #F-11812-19); and to add 12 acute care beds to AH Pineville (Project I.D. #F-11813-19). In Section C, pages 30-44, the applicant discusses Atrium’s system-wide need for the acute care bed proposals in Mecklenburg County. In a competitive review, every application is first evaluated independently, as if there are no other applications in the review, to determine whether the application is conforming to all statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to AH University City.

In Section C, page 38, Atrium states the need for 76 acute care beds in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed acute care beds in its applications as submitted.

In Section C, pages 44-48, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.
- AH University City’s CY 2016 – CY 2019 annualized CAGR is 7.1 percent, the fastest growth rate for acute care days at any of Atrium’s Mecklenburg County hospitals.
- AH University City’s bed deficit in the Proposed 2020 SMFP is the highest (by percentage) of any hospital in North Carolina in the last decade.
- Because of a lack of capacity, patients often must wait many hours or even overnight in the ED for an acute care bed to become available. The applicant states that in 2018, patients waited an average of five and a half hours in the ED before an acute care bed was available, and in some cases, patients waited in the ED for up to 24 hours.
- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- There is a need determination for 76 acute care beds in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop 16 acute care beds in Mecklenburg County in accordance with the acute care bed need determination in the 2019 SMFP.
- The applicant uses historical and demographic data to make assumptions regarding identification of the population to be served.
- The applicant provides reliable data, makes reasonable statements about the data, and uses reasonable assumptions about the data to demonstrate the need the population to be served has for the proposed services.

Projected Utilization – In Section Q, the applicant provides projected utilization, as illustrated in the following table.

AH-UC Med/Surg Acute Care Bed Projected Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
# of Beds	75	75	75
# of Admissions	5,559	5,544	5,639
# of Acute Care Days	21,170	21,114	21,476

In Section C, pages 27-28, the applicant states five of the proposed beds will be developed almost immediately in existing space that currently houses observation beds. The applicant states the remaining 11 beds will be developed in April 2021 after construction associated with downsizing Carolinas ContinueCare Hospital at University, a separately-owned Long Term Acute Care hospital located in existing space on the fourth floor of AH University City, is completed.

In the Form C Utilization – Assumptions and Methodology subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant calculated the CY 2016 through CY 2019 annualized CAGR for AH University City's total acute care days and uses one-half of that historical CAGR to project future growth in acute care days through the end of the third full fiscal year (CY 2024).
- The applicant projects a shift of acute care days to Piedmont Fort Mill Medical Center, a hospital that will be developed in South Carolina, consistent with its projections in previous acute care bed applications. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center and calculated AH University City's CY 2018 ratio of acute care days from patients who were admitted through the ED to total acute care days. The applicant then applied the ratio to the total number of acute care days it previously projected to shift from AH University City to Piedmont Fort Mill Medical Center.
- The applicant projects a shift of acute care days to AH Union, and states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to determine the number of acute care days projected to shift care from AH University City to AH Union.
- As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from AH University City to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.
- The applicant calculated the CY 2018 ratio of medical/surgical acute care days to total acute care days at AH University City, then applied that ratio to determine the projected number of medical/surgical acute care days at AH University City during the first three full fiscal years following project completion.
- The applicant calculated total acute care discharges and medical/surgical acute care discharges at AH University City by using its CY 2018 ALOS for total acute care days (3.93 days) and for medical/surgical acute care days (3.81 days).

The table below summarizes the assumptions and methodology used to project acute care bed utilization at AH University City.

AH University City Total Acute Care Bed Projected Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Total Acute Care Days (3.55% growth)	27,660	28,643	29,661	30,715	31,806	32,937
Shift to Piedmont Fort Mill Medical Center	--	--	--	--	-56	-57
Shift to AH Union	--	-25	-39	-79	-107	-136
Shift to AH Lake Norman	--	--	--	--	-1,089	-1,665
Projected Total Acute Care Days	27,660	28,618	29,622	30,636	30,555	31,078
ADC	75.8	78.4	81.2	83.9	83.7	85.1
Beds	100	100	100	116	116	116
Occupancy %	75.8%	78.4%	81.2%	72.3%	72.2%	73.4%
Total Discharges (based on 3.93 ALOS)	7,038	7,289	7,545	7,803	7,782	7,915
Ratio of Med/Surg Days to Total Days	69.1%	69.1%	69.1%	69.1%	69.1%	69.1%
Projected Med/Surg Acute Care Days	19,113	19,775	20,470	21,170	21,114	21,476
Med/Surg Discharges (based on 3.81 ALOS)	5,017	5,193	5,375	5,559	5,544	5,639

Source: Section Q, Form C Assumptions and Methodology
 *Annualized based on January 2019-July 2019 data.

Note: The information in the application has some miscalculations. These are minor and do not affect the outcome in any way. The Project Analyst used the information from the application in this table to be consistent with all applications even though there are some miscalculations.

Atrium Health System

The Atrium health system in Mecklenburg County consists of CMC (including AH Mercy), AH Pineville, and AH University City, including its proposed satellite hospital campus, AH Lake Norman. Pursuant to 10A NCAC 14C .3803(a), an applicant proposing to add new acute care beds to a service area must reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Section Q, the applicant provides the assumptions and methodology used to project acute care bed utilization for all other hospitals in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2013, Atrium applications involving acute care bed utilization projections have included assumptions and methodology projecting shifts in acute care days between hospitals in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in acute care days between hospitals in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization and projected growth rate by hospital – the applicant calculated the 3-year CAGR for each hospital, based on CY 2016-2019 annualized utilization. The applicant projects acute care days at each hospital will grow at one-half the rate of the 3-year CAGR.

- Project acute care days through CY 2024 prior to any shifts – the applicant applied the projected growth rate and projected utilization at each hospital through CY 2024. The applicant states it has historically projected acute care days will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in acute care days through CY 2024.
- Project shift of acute care days to Piedmont Fort Mill Medical Center – beginning with applications in 2013, the applicant projected a shift in acute care days to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 acute care days from patients who were admitted through the ED to the total acute care days. The applicant then applies the ratio to the total number of acute care days it previously projected to shift from each Atrium hospital to Piedmont Fort Mill Medical Center.
- Project shift of acute care days to AH Union – the applicant states it used the assumptions and methodology from previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to project the number of acute care days projected to shift from Atrium hospitals in Mecklenburg County to AH Union.
- Project shift of acute care days to AH Lake Norman – As part of Project I.D. #F-11810-19, the applicant’s proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from each Atrium hospital to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts in acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.
- Subtract shifts in acute care days from each Atrium hospital to determine projected utilization of acute care beds through CY 2024 – the applicant subtracted the number of acute care days projected to shift to different hospitals from each of the Atrium hospitals in Mecklenburg County through CY 2024 to obtain the projected acute care days at each facility.

The table below summarizes the applicant’s assumptions and methodology used to calculate the number of acute care days projected to shift from each Atrium hospital in Mecklenburg County and each hospital’s projected acute care days through CY 2024.

Summary of Projected Shifts in Acute Care Days								
	3-year CAGR	Projected Growth %	CY 2019 Annualized	CY 2020	CY 2021	CY 2022 (FY 1)	CY 2023 (FY 2)	CY 2024 (FY 3)
AH Lake Norman								
Acute Care Days	--	--	--	--	--	--	3,814	5,833
AH Pineville								
Acute Care Days	5.63%	2.81%	71,997	74,022	76,104	78,244	80,445	82,708
Projected Shifts			--	-528	-806	-1,639	-7,168	-7,955
Adjusted Acute Care Days			--	73,494	75,298	76,605	73,278	74,753
AH University City								
Acute Care Days	7.11%	3.55%	27,660	28,643	29,661	30,715	31,806	32,937
Projected Shifts				-25	-39	-79	-1,252	-1,858
Adjusted Acute Care Days				28,618	29,622	30,636	30,555	31,078
Carolinas Medical Center*								
Acute Care Days	2.03%	1.01%	281,338	284,190	287,070	289,980	292,919	295,888
Projected Shifts				-4,171	-4,834	-6,824	-12,502	-15,069
Adjusted Acute Care Days				280,019	282,237	283,156	280,416	280,820
AH Mercy**								
Acute Care Days	5.39%	2.69%	45,572	46,800	48,060	49,355	50,684	52,049
Projected Shifts				2,618	2,463	2,000	375	-318
Adjusted Acute Care Days				49,417	50,523	51,354	51,059	51,732

Source: Section Q, Form C Assumptions and Methodology

*Carolinas Medical Center’s license includes AH Mercy as a satellite campus. The campuses are displayed separately because the applicant calculated growth rates separately for each campus.

**Even though the two campuses are on the same license, the applicant projected a shift in days from Carolinas Medical Center to AH Mercy in previous applications, which is why AH Mercy appears to gain acute care days through CY 2023.

Atrium Health System Summary – The following table illustrates projected utilization for acute care beds at all Atrium hospitals in Mecklenburg County.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
Atrium Health Lake Norman	--	3,814	5,833
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	439,123	444,216
Average Daily Census (ADC)	1,210	1,203	1,214
Total # of Beds	1,490	1,490	1,490
Occupancy %	81.2%	80.7%	81.5%

Source: Section Q, Form C Assumptions and Methodology

As shown in the table above, in the third operating year following project completion, the applicant projects the average utilization for all acute care beds owned by the applicant in Mecklenburg County will be 81.5 percent. This meets the performance standard promulgated in 10A NCAC 14C .3803(a), which requires an applicant proposing to add new acute care beds to a service area to reasonably project that all acute care beds in the service area under common

ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Project I.D. #F-11810-19 (proposing to develop AH Lake Norman), Atrium does not adequately demonstrate the need for the proposed project and that projected utilization is reasonable and adequately supported. This could potentially call into question whether the projected utilization for all acute care beds owned by Atrium in Mecklenburg County will meet the performance standard promulgated in 10A NCAC 14C .3803(a). However, even if all projected acute care days at AH Lake Norman are removed from the projections (and none are added back to the Atrium hospitals from where they originated), and the 30 acute care beds proposed to be added at AH Lake Norman are still counted toward the performance standard, the applicant still reasonably projects that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent. Please see the calculations prepared by the Project Analyst in the table below.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
Atrium Health Lake Norman	--	--	--
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	435,308	438,383
Average Daily Census (ADC)	1,210	1,193	1,198
Total # of Beds*	1,490	1,490	1,490
Occupancy %	81.2%	80.1%	80.4%

Source: Section Q, Form C Assumptions and Methodology

*Includes the 30 acute care beds proposed as part of Project I.D. #F-11810-19

Projected utilization is reasonable and adequately supported for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County acute care bed planning area.
- The applicant relies on historical utilization and assumptions consistent with previously approved projects to project future utilization.
- The applicant reasonably projects to meet the performance standard promulgated in 10A NCAC 14C .3803(a).

Access – In Section C, page 53, the applicant states:

“Atrium Health University City provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment.”

In Section L, page 86, the applicant projects the following payor mix during the third full fiscal year following project completion, as illustrated in the following table.

AH University City Projected Payor Mix Third Full FY (CY 2024)		
Payor Source	Total Facility	M/S Beds
Self-Pay	18.5%	9.4%
Medicare*	22.0%	50.0%
Medicaid*	21.1%	15.9%
Insurance*	34.7%	21.3%
Other**	3.7%	3.4%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.
- The applicant adequately explains why the population to be served needs the services proposed in this application.
- Projected utilization is reasonable and adequately supported.
- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The applicant proposes to develop 12 additional acute care beds at AH Pineville, its existing acute care hospital, for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

This application is one of six filed in the same review cycle for acute care beds and ORs by CMHA. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	Current Name	Effective Date of Change
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

Patient Origin – On page 36, the 2019 SMFP defines the service area for acute care beds as “the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1.” Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. The following table illustrates current and projected patient origin.

AH-P Current & Projected Patient Origin – Medical/Surgical Beds								
County	Last FY (CY 2018)		FY 1 (CY 2022)		FY 2 (CY 2023)		FY 3 (CY 2024)	
	# Days	% of Total	# Days	% of Total	# Days	% of Total	# Days	% of Total
Mecklenburg	22,367	42.8%	25,671	43.7%	26,332	46.9%	27,042	47.2%
York (SC)	15,215	29.1%	17,463	29.8%	14,233	25.4%	14,633	25.6%
Lancaster (SC)	5,336	10.2%	6,124	10.4%	6,296	11.2%	6,474	11.3%
Union	3,319	6.4%	2,554	4.4%	2,213	3.9%	1,860	3.2%
Gaston	1,180	2.3%	1,354	2.3%	1,392	2.5%	1,432	2.5%
Iredell	77	0.1%	89	0.2%	86	0.2%	85	0.1%
Other Counties*	4,736	9.1%	5,435	9.3%	5,588	10.0%	5,745	10.0%
Total	52,230	100.0%	58,689	100.0%	56,140	100.0%	57,270	100.0%

Source: Section C, pages 30-31

*Other: Alamance, Alexander, Anson, Ashe, Avery, Brunswick, Buncombe, Burke, Cabarrus, Caldwell, Carteret, Catawba, Cleveland, Columbus, Craven, Cumberland, Dare, Davidson, Davie, Durham, Forsyth, Franklin, Granville, Guilford, Halifax, Haywood, Henderson, Lee, Lincoln, McDowell, Mitchell, Montgomery, Nash, New Hanover, Onslow, Orange, Pender, Pitt, Randolph, Richmond, Robeson, Rockingham, Rowan, Rutherford, Scotland, Stanly, Stokes, Swain, Wake, Watauga, Wayne, Wilkes, and Yancey counties in North Carolina as well as other states.

In Section C, page 32, the applicant provides the assumptions and methodology used to project patient origin. The applicant’s assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted four applications in response to the Acute Care Bed Need Determination in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with 30 acute care beds (Project I.D. #F-11810-19); to add 18 acute care beds to CMC (Project I.D. #F-11811-19); to add 16 acute care beds to AH University City (Project I.D. #F-11812-19); and to add 12 acute care beds to AH Pineville (Project I.D. #F-11813-19). In Section C, pages 32-46, the applicant discusses Atrium’s system-wide need for the acute care bed proposals in Mecklenburg County. In a competitive review, every application is first evaluated independently, as if there are no other applications in the review, to determine whether the application is conforming to all statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to AH Pineville.

In Section C, page 40, Atrium states the need for 76 acute care beds in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed acute care beds in its applications as submitted.

In Section C, pages 46-52, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.
- AH Pineville is southern Charlotte’s only tertiary care hospital.
- AH Pineville’s CY 2016 – CY 2019 annualized CAGR is 5.6 percent and utilization is at almost 90 percent.
- Using its CY 2019 annualized acute care days, AH Pineville has a projected deficit of 55 acute care beds with its current 221 licensed beds. Even after accounting for the 38 acute care beds approved for AH Pineville in Project I.D. #F-11622-18, AH Pineville still has a deficit of 17 beds.
- Because of a lack of capacity, AH Pineville patients have had to stay in the Post-Anesthesia Care Unit (PACU) after surgery because of the lack of an available bed. The average amount of time a patient waited in a PACU bed for an available acute care bed during January 2019 through July 2019 was 113 minutes, a 30 percent increase over the CY 2018 average wait time of 87 minutes. Further, patients are often housed overnight in the ED due to lack of available beds – in CY 2018, patients waited an average of six hours in the ED before an acute care bed was available, and in some cases, patients waited in the ED for up to 24 hours.
- The population of the southern Charlotte area where AH Pineville is located is growing more rapidly than other areas of the county. Historical projections of population growth submitted as part of previously approved applications turned out to be lower than actual population growth during the same time periods.
- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- There is a need determination for 76 acute care beds in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop 12 acute care beds in Mecklenburg County in accordance with the acute care bed need determination in the 2019 SMFP.
- The applicant uses historical and demographic data to make assumptions regarding identification of the population to be served.

- The applicant provides reliable data, makes reasonable statements about the data, and uses reasonable assumptions about the data to demonstrate the need the population to be served has for the proposed services.

Projected Utilization – In Section Q, the applicant provides projected utilization, as illustrated in the following table.

AH-P Med/Surg Acute Care Bed Projected Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
# of Beds	197	197	197
# of Admissions	15,191	14,531	14,824
# of Acute Care Days	58,689	56,140	57,270

In the Form C Utilization – Assumptions and Methodology subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant calculated the CY 2016 through CY 2019 annualized CAGR for AH Pineville’s total acute care days and uses one-half of that historical CAGR to project future growth in acute care days through the end of the third full fiscal year (CY 2024).
- The applicant projects a shift of acute care days to Piedmont Fort Mill Medical Center, a hospital that will be developed in South Carolina, consistent with its projections in previous acute care bed applications. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center and calculated AH Pineville’s CY 2018 ratio of acute care days from patients who were admitted through the ED to total acute care days. The applicant then applied the ratio to the total number of acute care days it previously projected to shift from AH Pineville to Piedmont Fort Mill Medical Center.
- The applicant projects a shift of acute care days to AH Union, and states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to determine the number of acute care days projected to shift care from AH Pineville to AH Union.
- As part of Project I.D. #F-11810-19, the applicant’s proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from AH Pineville to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.
- The applicant calculated the CY 2018 ratio of medical/surgical acute care days to total acute care days at AH Pineville, then applied that ratio to determine the projected number of medical/surgical acute care days at AH Pineville during the first three full fiscal years following project completion.

- The applicant calculated total acute care discharges and medical/surgical acute care discharges at AH Pineville by using its CY 2018 ALOS for total acute care days (4.03 days) and for medical/surgical acute care days (3.86 days).

The table below summarizes the assumptions and methodology used to project acute care bed utilization at AH Pineville.

AH Pineville Total Acute Care Bed Projected Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Total Acute Care Days (2.81% growth)	71,997	74,022	76,104	78,244	80,445	82,708
Shift to Piedmont Fort Mill Medical Center	--	--	--	--	-4,857	-4,994
Shift to AH Union	--	-528	-806	-1,639	-2,224	-2,829
Shift to AH Lake Norman	--	--	--	--	-87	-132
Projected Total Acute Care Days	71,997	73,494	75,298	76,605	73,278	74,753
ADC	197.3	200.8	206.3	209.9	200.8	204.2
Beds	221	221	221	271	271	271
Occupancy %	89.3%	90.9%	93.3%	77.5%	74.1%	75.4%
Total Discharges (based on 4.03 ALOS)	17,865	18,234	18,682	19,006	18,180	18,546
Ratio of Med/Surg Days to Total Days	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%
Projected Med/Surg Acute Care Days	55,150	56,306	57,688	58,689	56,140	57,270
ADC	151.1	153.8	158.0	160.8	153.8	156.5
Beds	147	147	147	197	197	197
Occupancy %	102.8%	104.6%	107.5%	81.6%	78.1%	79.4%
Med/Surg Discharges (based on 3.86 ALOS)	14,288	14,574	14,932	15,191	14,531	14,824

Source: Section Q, Form C Assumptions and Methodology

*Annualized based on January 2019-July 2019 data.

Note: The information in the application has some miscalculations. These are minor and do not affect the outcome in any way. The Project Analyst used the information from the application in this table to be consistent with all applications even though there are some miscalculations.

Atrium Health System

The Atrium health system in Mecklenburg County consists of CMC (including AH Mercy), AH Pineville, and AH University City, including its proposed satellite hospital campus, AH Lake Norman. Pursuant to 10A NCAC 14C .3803(a), an applicant proposing to add new acute care beds to a service area must reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Section Q, the applicant provides the assumptions and methodology used to project acute care bed utilization for all other hospitals in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2013, Atrium applications involving acute care bed utilization projections have included assumptions and methodology projecting shifts in acute care days between hospitals in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in acute care days between hospitals in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization and projected growth rate by hospital – the applicant calculated the 3-year CAGR for each hospital, based on CY 2016-2019 annualized utilization. The applicant projects acute care days at each hospital will grow at one-half the rate of the 3-year CAGR.
- Project acute care days through CY 2024 prior to any shifts – the applicant applied the projected growth rate and projected utilization at each hospital through CY 2024. The applicant states it has historically projected acute care days will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in acute care days through CY 2024.
- Project shift of acute care days to Piedmont Fort Mill Medical Center – beginning with applications in 2013, the applicant projected a shift in acute care days to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 acute care days from patients who were admitted through the ED to the total acute care days. The applicant then applies the ratio to the total number of acute care days it previously projected to shift from each Atrium hospital to Piedmont Fort Mill Medical Center.
- Project shift of acute care days to AH Union – the applicant states it used the assumptions and methodology from previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to project the number of acute care days projected to shift from Atrium hospitals in Mecklenburg County to AH Union.
- Project shift of acute care days to AH Lake Norman – As part of Project I.D. #F-11810-19, the applicant’s proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from each Atrium hospital to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts in acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.
- Subtract shifts in acute care days from each Atrium hospital to determine projected utilization of acute care beds through CY 2024 – the applicant subtracted the number of acute care days projected to shift to different hospitals from each of the Atrium hospitals in Mecklenburg County through CY 2024 to obtain the projected acute care days at each facility.

The table below summarizes the applicant’s assumptions and methodology used to calculate the number of acute care days projected to shift from each Atrium hospital in Mecklenburg County and each hospital’s projected acute care days through CY 2024.

Summary of Projected Shifts in Acute Care Days								
	3-year CAGR	Projected Growth %	CY 2019 Annualized	CY 2020	CY 2021	CY 2022 (FY 1)	CY 2023 (FY 2)	CY 2024 (FY 3)
AH Lake Norman								
Acute Care Days	--	--	--	--	--	--	3,814	5,833
AH Pineville								
Acute Care Days	5.63%	2.81%	71,997	74,022	76,104	78,244	80,445	82,708
Projected Shifts			--	-528	-806	-1,639	-7,168	-7,955
Adjusted Acute Care Days			--	73,494	75,298	76,605	73,278	74,753
AH University City								
Acute Care Days	7.11%	3.55%	27,660	28,643	29,661	30,715	31,806	32,937
Projected Shifts				-25	-39	-79	-1,252	-1,858
Adjusted Acute Care Days				28,618	29,622	30,636	30,555	31,078
Carolinas Medical Center*								
Acute Care Days	2.03%	1.01%	281,338	284,190	287,070	289,980	292,919	295,888
Projected Shifts				-4,171	-4,834	-6,824	-12,502	-15,069
Adjusted Acute Care Days				280,019	282,237	283,156	280,416	280,820
AH Mercy**								
Acute Care Days	5.39%	2.69%	45,572	46,800	48,060	49,355	50,684	52,049
Projected Shifts				2,618	2,463	2,000	375	-318
Adjusted Acute Care Days				49,417	50,523	51,354	51,059	51,732

Source: Section Q, Form C Assumptions and Methodology

*Carolinas Medical Center’s license includes AH Mercy as a satellite campus. The campuses are displayed separately because the applicant calculated growth rates separately for each campus.

**Even though the two campuses are on the same license, the applicant projected a shift in days from Carolinas Medical Center to AH Mercy in previous applications, which is why AH Mercy appears to gain acute care days through CY 2023.

Atrium Health System Summary – The following table illustrates projected utilization for acute care beds at all Atrium hospitals in Mecklenburg County.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
Atrium Health Lake Norman	--	3,814	5,833
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	439,123	444,216
Average Daily Census (ADC)	1,210	1,203	1,214
Total # of Beds	1,490	1,490	1,490
Occupancy %	81.2%	80.7%	81.5%

Source: Section Q, Form C Assumptions and Methodology

As shown in the table above, in the third operating year following project completion, the applicant projects the average utilization for all acute care beds owned by the applicant in Mecklenburg County will be 81.5 percent. This meets the performance standard promulgated in 10A NCAC 14C .3803(a), which requires an applicant proposing to add new acute care beds to a service area to reasonably project that all acute care beds in the service area under common

ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Project I.D. #F-11810-19 (proposing to develop AH Lake Norman), Atrium does not adequately demonstrate the need for the proposed project and that projected utilization is reasonable and adequately supported. This could potentially call into question whether the projected utilization for all acute care beds owned by Atrium in Mecklenburg County will meet the performance standard promulgated in 10A NCAC 14C .3803(a). However, even if all projected acute care days at AH Lake Norman are removed from the projections (and none are added back to the Atrium hospitals from where they originated), and the 30 acute care beds proposed to be added at AH Lake Norman are still counted toward the performance standard, the applicant still reasonably projects that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent. Please see the calculations prepared by the Project Analyst in the table below.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
Atrium Health Lake Norman	--	--	--
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	435,308	438,383
Average Daily Census (ADC)	1,210	1,193	1,198
Total # of Beds*	1,490	1,490	1,490
Occupancy %	81.2%	80.1%	80.4%

Source: Section Q, Form C Assumptions and Methodology

*Includes the 30 acute care beds proposed as part of Project I.D. #F-11810-19

Projected utilization is reasonable and adequately supported for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County acute care bed planning area.
- The applicant relies on historical utilization and assumptions consistent with previously approved projects to project future utilization.
- The applicant reasonably projects to meet the performance standard promulgated in 10A NCAC 14C .3803(a).

Access – In Section C, page 57, the applicant states:

“Atrium Health Pineville provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment.”

In Section L, page 90, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

AH Pineville Projected Payor Mix Third Full FY (CY 2024)		
Payor Source	Total Facility	M/S Beds
Self-Pay	12.4%	5.2%
Medicare*	32.6%	64.5%
Medicaid*	13.0%	6.8%
Insurance*	39.3%	21.5%
Other**	2.8%	2.1%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker's compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.
- The applicant adequately explains why the population to be served needs the services proposed in this application.
- Projected utilization is reasonable and adequately supported.
- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11814-19/Atrium Health Pineville/Develop two ORs

The applicant proposes to develop two additional ORs at AH Pineville, its existing acute care hospital, for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR).

This application is one of six filed in the same review cycle for acute care beds and ORs by CMHA. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review

that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	Current Name	Effective Date of Change
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

Patient Origin – On page 55, the 2019 SMFP defines the service area for ORs as “...*the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1.*” Figure 6.1, on page 60, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

The following table illustrates current and projected patient origin.

AH-P Current and Projected Patient Origin - ORs								
County	Current (CY 2018)		FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	3,063	36.9%	3,353	38.4%	3,507	38.6%	3,671	38.5%
York (SC)	2,633	31.7%	2,771	31.8%	2,908	32.0%	3,053	32.0%
Lancaster (SC)	1,012	12.2%	1,113	12.8%	1,167	12.9%	1,225	12.9%
Union	735	8.8%	534	6.1%	498	5.5%	533	5.6%
Gaston	233	2.8%	194	2.2%	204	2.2%	214	2.2%
Chester (SC)	177	2.1%	257	2.9%	269	3.0%	282	3.0%
Iredell	12	0.1%	11	0.1%	11	0.1%	11	0.1%
Other Counties*	445	5.4%	490	5.6%	513	5.7%	538	5.7%
Total	8,309	100.0%	8,723	100.0%	9,078	100.0%	9,527	100.0%

Source: Section C, pages 19-20

*Other: Alamance, Alexander, Anson, Ashe, Avery, Brunswick, Buncombe, Burke, Cabarrus, Caldwell, Carteret, Catawba, Cleveland, Dare, Davidson, Davie, Durham, Forsyth, Franklin, Granville, Guilford, Henderson, Lincoln, McDowell, Mitchell, Montgomery, New Hanover, Onslow, Orange, Richmond, Robeson, Rockingham, Rowan, Rutherford, Scotland, Stanly, Swain, Wake, Watauga, and Wilkes counties in North Carolina as well as other states.

In Section C, page 21, the applicant provides the assumptions and methodology used to project patient origin. The applicant’s assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted three applications in response to the OR Need Determination in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with two ORs (Project I.D. #F-11810-19); to add two ORs to AH Pineville (Project I.D. #F-11814-19); and to add two ORs to CMC (Project I.D. #F-11815-19). In Section C, pages 28-40, the applicant discusses Atrium’s system-wide need for the OR proposals in Mecklenburg County. In a competitive review, every application is first evaluated independently, as if there are no other applications in the review, to determine whether the application is conforming to all

statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to AH Pineville.

In Section C, page 32, Atrium states the need for six ORs in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed ORs in its applications as submitted.

In Section C, pages 22-28 and 41-43, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.
- AH Pineville's 2-year CAGR (FFY 2016-2018) for surgical hours is 8.4 percent. AH Pineville is the only tertiary care hospital in south Charlotte and even with the approved OR from Project I.D. #F-11621-18, at the current growth rate its ORs will reach a utilization rate of 125 percent by 2021.
- The population of the southern Charlotte area where AH Pineville is located is growing more rapidly than other areas in the county. Historical projections of population growth submitted as part of previously approved applications turned out to be lower than actual growth during the same time periods.
- Surgical volumes in Mecklenburg County have grown at higher rates than the state average. Outpatient surgical cases in Mecklenburg County are increasing more quickly than inpatient surgical cases. While the number of outpatient cases performed at ASFs have higher growth rates than outpatient cases performed at hospitals the increase in the number of outpatient cases performed at hospitals is more than double the increase in the number of outpatient cases performed at ASFs.
- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- There is a need determination for six ORs in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop two ORs in Mecklenburg County in accordance with the OR need determination in the 2019 SMFP.
- The applicant uses historical and demographic data to make assumptions regarding identification of the population to be served.
- The applicant provides reliable data, makes reasonable statements about the data, and uses reasonable assumptions about the data to demonstrate the need the population proposed to be served has for the proposed services.

Projected Utilization – In Section Q, the applicant provides projected utilization, as illustrated in the following table.

AH-P Projected Utilization – Surgical Services			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Operating Rooms			
Dedicated C-Section ORs	2	2	2
Other Inpatient ORs	1	1	1
Shared ORs	12	12	12
Total # of ORs	15	15	15
Excluded # of ORs	2	2	2
Total # of ORs – Planning Inventory	13	13	13
Surgical Cases			
# of Inpatient Cases (1)	4,306	4,590	4,926
# of Outpatient Cases	4,417	4,488	4,600
Total # Surgical Cases (1)	8,723	9,078	9,527
Case Times			
Inpatient (2)	174.0	174.0	174.0
Outpatient (2)	101.6	101.6	101.6
Surgical Hours			
Inpatient (3)	12,489	13,310	14,286
Outpatient (4)	7,479	7,600	7,790
Total Surgical Hours	19,967	20,910	22,076
# of ORs Needed			
Group Assignment (5)	3	3	3
Standard Hours per OR per Year (6)	1,755	1,755	1,755
ORs Needed (total hours / 1,500)	11.38	11.91	12.58

- (1) Excluding C-Sections performed in a dedicated C-Section OR
- (2) From Section C, Question 6(c)
- (3) [Inpatient Cases (exclude C-Sections performed in dedicated C-Section ORs) x Inpatient Case Time in minutes] / 60 minutes
- (4) (Outpatient Cases x Outpatient Case Time in minutes) / 60 minutes
- (5) From Section C, Question 6(a)
- (6) From Section C, Question 6(b)

In the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant calculated 3-year (CY 2015-2018) and 4-year (CY 2015-2019 annualized) CAGRs for inpatient and outpatient surgical cases. The applicant used the CY 2015-2018 CAGR for inpatient and outpatient surgical cases at AH Pineville to project future OR utilization at AH Pineville, stating AH Pineville OR utilization has historically grown faster than OR utilization at other facilities and is seeing more complex (and therefore longer) surgical cases.
- The applicant projects a shift of surgical cases to Piedmont Fort Mill Medical Center, a hospital that will be developed in South Carolina, consistent with its projections in previous OR applications. The applicant states that, since previous applications assumed Atrium

would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center and calculated AH Pineville's CY 2018 ratio of surgical patients who were admitted through the ED to the total number of acute care admissions. The applicant then applied the ratio to the total number of surgical cases it previously projected to shift from AH Pineville to Piedmont Fort Mill Medical Center.

- The applicant projects a shift of surgical cases to AH Union, and states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18 and F-11621-18) to determine the number of surgical cases projected to shift care from AH Pineville to AH Union. The applicant states that, when previous applications did not project shifts through the end of CY 2025, it used a 1.75 percent growth rate, consistent with Project I.D. #F-11618-18, to project growth in the number of surgical cases projected to shift from AH Pineville to AH Union through CY 2025.
- As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of surgical cases projected to shift from AH Pineville to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of surgical cases to AH Lake Norman from AH Pineville.
- The applicant states it used assumptions and methodology consistent with Project I.D. # F-11106-15 (develop CSC-W) to determine the number of surgical cases projected to shift from AH Pineville to CSC-W and CSC-M, with some modifications. The applicant states that, due to changes in utilization patterns and delays in the development of CSC-W, it projects 75 percent of the surgical cases previously projected to shift from AH Pineville in Project I.D. #F-11106-15 will shift to CSC-W and CSC-M. The applicant states that, since Project I.D. #F-11106-15 only projected utilization through CY 2022, it used the population growth factor from the 2019 SMFP (1.99 percent) to project growth in the number of surgical cases projected to shift to from AH Pineville to CSC-W and CSC-M through CY 2025.
- The applicant subtracted the number of surgical cases projected to shift to different facilities from AH Pineville through CY 2025 to obtain its projected OR utilization at AH Pineville.

The following table shows projected OR utilization at AH Pineville.

AH Pineville Projected OR Utilization							
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
Baseline Inpatient Cases	3,470	3,715	3,978	4,259	4,560	4,882	5,227
Baseline Outpatient Cases	4,130	4,239	4,351	4,466	4,583	4,704	4,829
Inpatient Cases Shifting to Piedmont Fort Mill	--	--	--	--	-126	-130	-134
Inpatient Cases Shifting to AH Union	--	-29	-45	-91	-124	-158	-160
Inpatient Cases Shifting to AH Lake Norman	--	--	--	--	-3	-5	-7
Outpatient Cases Shifting to AH Union	--	-36	-55	-111	-151	-192	-195
Outpatient Cases Shifting to AH Lake Norman	--	--	--	--	-16	-24	-33
Total Inpatient Cases	3,470	3,686	3,933	4,168	4,306	4,590	4,926
Total Outpatient Cases	4,130	4,203	4,296	4,354	4,417	4,488	4,600
Final Inpatient Case Time (1)	174.0	174.0	174.0	174.0	174.0	174.0	174.0
Final Outpatient Case Time (1)	101.6	101.6	101.6	101.6	101.6	101.6	101.6
Total Surgical Hours (2)	17,056	17,806	18,681	19,460	19,967	20,910	22,076
Average Annual Operating Hours – Group 3 (3)	1,755	1,755	1,755	1,755	1,755	1,755	1,755
Number of ORs Needed (4)	9.72	10.15	10.64	11.09	11.38	11.91	12.58
Number of Existing/Approved ORs	10	11	11	11	11	11	11
(Surplus) / Deficit	(0.28)	(0.85)	(0.36)	0.09	0.38	0.91	1.58

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant will have a deficit of 1.58 ORs in the third full fiscal year following project completion. AH Pineville proposes to add two ORs to its facility.

Atrium Health System

The Atrium health system in Mecklenburg County consists of Atrium Health Huntersville (AH Huntersville), Carolina Center for Specialty Surgery (CCSS), CMC (including AH Mercy), AH Pineville, and AH University City, along with the proposed AH Lake Norman. Pursuant to 10A NCAC 14C .2103(a), the applicant must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year following project completion, using the Operating Room Need Methodology in the 2019 SMFP.

In the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization at all other facilities in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2015, Atrium applications involving OR utilization projections have included assumptions and methodology projecting shifts in surgical cases between facilities in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in surgical cases between facilities in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization by facility – The applicant calculated 3-year (CY 2015-2018) and 4-year (CY 2015-2019 annualized) CAGRs for inpatient and outpatient surgical cases at each facility.
- Project surgical cases through CY 2025 prior to any shifts – for each facility except AH Pineville, the applicant applied an annual growth rate of 1.99 percent to both inpatient and outpatient surgical cases and projected utilization at each facility through CY 2025. The applicant states it chose a 1.99 percent annual growth rate because it was the annual equivalent of the Growth Factor for Mecklenburg County in Chapter 6 of the 2019 SMFP. (The Project Analyst determined this to be true – please see the Working Papers for analysis.) The applicant states it used the CY 2015-2018 CAGR for inpatient and outpatient surgical cases at AH Pineville to project future utilization because AH Pineville utilization has historically grown faster than utilization at other Atrium facilities and is seeing more complex (and therefore longer) surgical cases. The applicant states it has historically projected surgical cases will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in surgical cases through CY 2025.
- Project shift of surgical cases to Piedmont Fort Mill Medical Center – beginning with applications in 2015, the applicant projected a shift in surgical cases to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 surgical patients who were admitted through the ED to the total number of acute care admissions. The applicant then applies the ratio to the total number of surgical cases it previously projected to shift from each Atrium facility to Piedmont Fort Mill Medical Center.
- Project shift of surgical cases to AH Union – the applicant states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18, F-11619-18, F-11620-18, and F-11621-18) to determine the number of surgical cases projected to shift care from Atrium facilities in Mecklenburg County to AH Union. The applicant states that when previous applications did not project shifts through the end of CY 2025, it used a 1.75 percent growth rate, consistent with Project I.D. #F-11618-18, to project growth in the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to AH Union through CY 2025.
- Project shift of surgical cases to AH Lake Norman – as part of Project I.D. #F-11810-19, the applicant’s proposal to develop AH Lake Norman, the applicant calculated the number of surgical cases projected to shift from Atrium hospitals in Mecklenburg County to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of surgical cases to AH Lake Norman from Atrium hospitals in Mecklenburg County.

- Project shift of surgical cases to CSC-W and CSC-M – the applicant states it used assumptions and methodology consistent with Project I.D. # F-11106-15 (develop CSC-W) to determine the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to CSC-W and CSC-M, with some modifications. The applicant states that, due to changes in utilization patterns and delays in the development of CSC-W, it projects 75 percent of the surgical cases previously projected to shift from Atrium facilities in Mecklenburg County in Project I.D. #F-11106-15 will shift to CSC-W and CSC-M. The applicant states that, since Project I.D. #F-11106-15 only projected utilization through CY 2022, it used the population growth factor from the 2019 SMFP (1.99 percent) to project growth in the number of surgical cases projected to shift to from Atrium facilities in Mecklenburg County to CSC-W and CSC-M through CY 2025.
- Subtract shifts in surgical cases from each Atrium facility to determine projected OR utilization through CY 2025 – the applicant subtracted the number of surgical cases projected to shift to different facilities from each of the Atrium facilities in Mecklenburg County through CY 2025 to obtain projected utilization at each Atrium facility.

A brief summary of the assumptions, methodology, and projected utilization for each Atrium facility follows below.

Atrium Health Lake Norman - The applicant calculated the projected inpatient and outpatient surgical cases to be served at AH Lake Norman in Project I.D. #F-11810-19. Please see the section of the Findings which discusses the assumptions and methodology used in Project I.D. #F-11810-19. The applicant used the AH University City final inpatient and outpatient case times published in the 2019 SMFP to calculate the projected number of surgical hours in CYs 2023-2025. The applicant states all surgical cases at AH Lake Norman are projected to shift from other Atrium facilities in Mecklenburg County.

The table below summarizes the assumptions and methodology used by the applicant for AH Lake Norman surgical case projections.

AH-LN Projected Surgical Cases/Hours (excluding C-Sections)			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Total Inpatient Cases	145	222	302
Total Outpatient Cases	665	1,018	1,385
AH-UC Final IP Case Time (1)	112.6	112.6	112.6
AH-UC Final OP Case Time (1)	74.1	74.1	74.1
Total Surgical Hours (2)	1,093	1,673	2,277
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500
Number of ORs Needed (4)	0.73	1.12	1.52
Number of Existing/Approved ORs	0	0	0
(Surplus) / Deficit	0.73	1.12	1.52

Source: Section Q, Form C Methodology and Assumptions

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects the need for 1.52 ORs in the third full fiscal year following project completion. Atrium proposes to develop two ORs at AH Lake Norman.

Atrium Health University City - There are two projects which were previously approved, but which are not yet developed as of the date of these findings which will impact the total number of ORs at AH University City:

- Project I.D. #F-11106-15/Charlotte Surgery Center – Wendover Campus/Relocate three ORs from AH University City to CSC-W
- Project I.D. #F-11349-17/Atrium Health Huntersville Surgery/Separately license one OR currently on the hospital license

After the approved projects are complete, AH University City will have seven ORs.

The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. The CAGR used is higher than the historical inpatient CAGR (-2.5 percent) but lower than the historical outpatient CAGR (2.1 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at AH University City.

AH University City Projected OR Utilization							
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
Baseline Inpatient Cases	944	963	982	1,001	1,021	1,042	1,062
Baseline Outpatient Cases	4,916	5,014	5,114	5,216	5,320	5,425	5,533
Inpatient Cases Shifting to Other Facilities	--	-2	-3	-6	-50	-74	-96
Outpatient Cases Shifting to Other Facilities	--	-410	-462	-517	-717	-831	-945
Total Inpatient Cases	944	961	979	996	971	968	965
Total Outpatient Cases	4,916	4,604	4,652	4,699	4,602	4,595	4,588
Final Inpatient Case Time (1)	112.6	112.6	112.6	112.6	112.6	112.6	112.6
Final Outpatient Case Time (1)	74.1	74.1	74.1	74.1	74.1	74.1	74.1
Total Surgical Hours (2)	7,843	7,489	7,582	7,671	7,506	7,491	7,478
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	5.23	4.99	5.05	5.11	5.00	4.99	4.99
Number of Existing/Approved ORs	7	7	7	7	7	7	7
(Surplus) / Deficit	(1.77)	(2.01)	(1.95)	(1.89)	(2.00)	(2.01)	(2.01)

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 2.01 ORs at AH University City in the third full fiscal year following project completion. However, Atrium does not propose to add any additional ORs at AH University City as part of this review.

Carolinas Medical Center - The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. These CAGRs are not based on the historical CAGRs at CMC. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at CMC. Please note that the Project Analyst combined the CMC and AH Mercy sections into a single section, because the facilities are licensed together; as such, there may be minor discrepancies between the numbers displayed in the table below and the information found in the application. These discrepancies are irrelevant and do not impact the outcome of these findings in any way.

CMC Projected OR Utilization							
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
Baseline Inpatient Cases	20,188	20,590	21,000	21,418	21,843	22,278	22,721
Baseline Outpatient Cases	21,681	22,113	22,552	23,001	23,459	23,925	24,401
Inpatient Cases Shifting to Other Facilities	--	-131	-200	-407	-780	-989	-1,060
Outpatient Cases Shifting to Other Facilities	--	-2,510	-2,932	-3,520	-4,214	-4,696	-5,026
Total Inpatient Cases	20,188	20,459	20,800	21,011	21,062	21,289	21,661
Total Outpatient Cases	21,681	19,602	19,620	19,481	19,245	19,229	19,375
Final Inpatient Case Time (1)	224.7	224.7	224.7	224.7	224.7	224.7	224.7
Final Outpatient Case Time (1)	134.0	134.0	134.0	134.0	134.0	134.0	134.0
Total Surgical Hours (2)	124,025	120,399	121,714	122,194	121,861	122,672	124,391
Average Annual Operating Hours – Group 2 (3)	1,950	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	63.60	61.74	62.42	62.66	62.49	62.91	63.79
Number of Existing/Approved ORs	57	57	57	57	57	57	57
(Surplus) / Deficit	6.60	4.74	5.42	5.66	5.49	5.91	6.79

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 6.79 ORs on the CMC license in the third full fiscal year following project completion. Atrium proposes to add two additional ORs at CMC.

Atrium Health Huntersville Surgery – Currently, AH Huntersville is a separate building with one OR and one procedure room that is licensed as part of AH University City. In Project I.D. #F-11349-17, AH Huntersville was approved to become a separately licensed ASF with one OR. The development of the ASF will take place after the completion of CSC-W.

The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is nearly the same as the facility’s historical CAGR (2.0 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina.

On page 23 of the Form C Methodology and Assumptions subsection of Section Q, the applicant states it uses the 2018 LRA adjusted case time of 52.4 minutes in its projections since

AH Huntersville is “an existing facility with publicly reported historical case times.” While AH Huntersville is not considered an existing facility, this case time is lower than the corresponding case time for newly licensed ASFs in Group 6. The following table illustrates projected utilization at AH Huntersville.

AH Huntersville Projected OR Utilization							
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
Baseline Outpatient Cases	1,996	2,035	2,076	2,117	2,159	2,202	2,246
Outpatient Cases Shifting to Other Facilities	--	-434	-488	-542	-552	-563	-575
Total Outpatient Cases	1,996	1,601	1,588	1,575	1,607	1,639	1,671
Final Outpatient Case Time (1)	52.4	52.4	52.4	52.4	52.4	52.4	52.4
Total Surgical Hours (2)	1,743	1,398	1,387	1,376	1,403	1,431	1,459
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	1.33	1.07	1.06	1.05	1.07	1.09	1.11
Number of Existing/Approved ORs	1	1	1	1	1	1	1
(Surplus) / Deficit	0.33	0.07	0.06	0.05	0.07	0.09	0.11

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 0.11 ORs in the third full fiscal year following project completion. The applicant does not propose to add any additional ORs at AH Huntersville as part of this review.

Carolina Center for Specialty Surgery – The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is lower than the facility’s historical CAGR. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected OR utilization at CCSS.

CCSS Projected OR Utilization							
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
Baseline Outpatient Cases	2,036	2,077	2,118	2,160	2,203	2,247	2,292
Outpatient Cases Shifting From CMC	--	112	169	225	225	225	225
Total Outpatient Cases	2,036	2,189	2,287	2,385	2,428	2,472	2,517
Final Outpatient Case Time (1)	85.0	85.0	85.0	85.0	85.0	85.0	85.0
Total Surgical Hours (2)	2,884	3,102	3,240	3,379	3,440	3,502	3,566
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	2.20	2.36	2.47	2.58	2.62	2.67	2.72
Number of Existing/Approved ORs	3	3	3	3	3	3	3
(Surplus) / Deficit	(0.80)	(0.64)	(0.53)	(0.42)	(0.38)	(0.33)	(0.28)

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 0.28 ORs in the third full fiscal year following project completion. The applicant does not propose to add any additional ORs at CCSS as part of this review.

Atrium Health System Combined - To meet the performance standard promulgated in 10A NCAC 14C .2103(a) in effect at the time of the submission of this application, an applicant proposing to add new ORs to a facility in its service area must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year following project completion, using the Operating Room Need Methodology in the 2019 SMFP. Altogether, Atrium proposes to add six ORs to its system:

- Project I.D. #F-11810-19/Atrium Health Lake Norman/Develop two ORs
- Project I.D. #F-11814-19/ Atrium Health Pineville/Add two ORs
- Project I.D. #F-11815-19/Carolinas Medical Center/Add two ORs

The following table illustrates the projected OR surpluses and deficits for the entire health system.

Atrium Health OR Need			
	Deficits / (Surpluses)		
	1st Full FY CY 2023	2nd Full FY CY 2024	3rd Full FY CY 2025
AH Lake Norman	0.73	1.12	1.52
AH Pineville	0.38	0.91	1.58
AH University City	(2.00)	(2.01)	(2.01)
CMC	5.49	5.91	6.79
AH Huntersville Surgery Center	0.07	0.09	0.11
CCSS	(0.38)	(0.33)	(0.28)
Total Deficit/(Surplus)	4.29	5.69	7.71

Source: Section Q, Form C Methodology and Assumptions

As shown in the table above, the Atrium health system projects a deficit of 7.71 ORs by the end of CY 2025. Atrium proposes to add a total of six ORs in the three applications submitted in this review. This meets the standard promulgated in 10A NCAC 14C .2103(a), which requires an applicant proposing to add new ORs to a service area to demonstrate the need for all the existing, approved, and proposed ORs in a health system in the third full fiscal year following project completion based on the Operating Room Need Methodology in the 2019 SMFP.

There is an issue that potentially calls into question whether Atrium's assumptions and methodology are adequately supported regarding projected utilization. The applicant uses a projected growth rate for both inpatient and outpatient surgical cases at CMC-Main that is not supported by its historical inpatient and outpatient surgical case volumes. The applicant does not adequately demonstrate in the application as submitted that projecting growth for inpatient and outpatient surgical cases is reasonable and adequately supported since CMC-Main's inpatient and outpatient surgical case volume has declined for several years in a row. According to the applicant's 2017-2020 LRAs, available to the Agency during this review, CMC-Main's inpatient surgical case volume was essentially unchanged between FFY 2017 and FFY 2018, decreased slightly between FFY 2018 and FFY 2019, and decreased more significantly between FFY 2019 and FFY 2020. CMC-Main's outpatient surgical case volume decreased between FFY 2017 and FFY 2018, decreased further between FFY 2018 and FFY 2019, and increased slightly between FFY 2019 and FFY 2020 (but did not increase back to the FFY 2019 number of outpatient surgical cases). Further, the applicant uses a projected growth rate for inpatient surgical cases at AH University City that is not supported by historical inpatient surgical case volumes. The applicant does not adequately demonstrate in the application as submitted that projecting growth for inpatient surgical cases at AH University City is reasonable and adequately supported since none of the reasons the applicant provides to explain the recent decline in utilization apply to inpatient surgical cases at AH University City.

Nevertheless, according to information provided by Atrium to the Agency in its 2020 Hospital and ASF LRAs, which were available to the Agency during the review, the Atrium health system already has a significant deficit of ORs. The table below shows the number of inpatient and outpatient surgical cases reported on the 2020 LRA for each Atrium facility. The reporting period is October 1, 2018 to September 30, 2019. Using the Final Case Times for each category as reported in the 2020 SMFP (most facilities report a higher Final Case Time on their 2020 LRA than is reported in the 2020 SMFP), the facilities in the system show the following deficits and surpluses:

Atrium Health OR Deficits/Surpluses Based on 2020 LRA Cases					
Facility	FY 2018 Cases*	Final Case Time**	Average Annual Op. Hours**	# ORs Needed	(Surplus) / Deficit
CCSS	1,979	68.0	1,312	1.71	(1.29)
AH Pineville Inpatient	3,498	176.0	1,755	10.23	(0.77)
AH Pineville Outpatient	4,311	107.0			
CMC Inpatient***	18,828	224.0	1,950	65.53	8.53
CMC Outpatient***	23,402	147.4			
AH University City Inpatient	963	123.9	1,500	6.62	(0.38)
AH University City Outpatient****	6,216	76.7			
System Total	59,197			84.09	6.09

Sources: 2020 LRAs for each facility; 2020 SMFP

*Does not include C-Sections performed in dedicated C-Section ORs

**From 2020 SMFP

***Includes AH Mercy

****Includes the OR that will become part of AH Huntersville Surgery Center

When using the calculations shown in the table above, CMC has a deficit of 8.53 ORs. The 2019 SMFP showed CMC had a projected deficit of 12.47 ORs, and the 2020 SMFP shows CMC has a projected deficit of 16.78 ORs. CMC could hold its current utilization steady through OY3 and it would not only show the need for the two additional ORs it proposes to add, but it would also by itself meet the standard promulgated in 10A NCAC 14C .2103(a). In other words, CMC-Main shows a need for all six ORs that are proposed in the three Atrium applications using the Operating Room Need Methodology in the 2019 SMFP.

Projected utilization is reasonable and adequately supported for the following reasons:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County OR planning area.
- The applicant relies on historical utilization and assumptions consistent with previously approved projects to project future utilization.
- The health system’s historical utilization already meets the performance standard promulgated in 10A NCAC 14C .2103(a).

Access – In Section C, page 48, the applicant states:

“Atrium Health Pineville provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment.”

In Section L, page 79, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

AH Pineville Projected Payor Mix Third Full FY (CY 2025)		
Payor Source	Total Facility	ORs
Self-Pay	12.4%	3.6%
Medicare*	32.6%	41.0%
Medicaid*	13.0%	4.8%
Insurance*	39.3%	48.6%
Other**	2.8%	2.0%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.
- The applicant adequately explains why the population to be served needs the services proposed in this application.
- Projected utilization is reasonable and adequately supported.
- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11815-19/Carolinas Medical Center/Develop two ORs

The applicant proposes to develop two additional ORs at CMC, its existing acute care hospital, for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs).

This application is one of six filed in the same review cycle for acute care beds and ORs by CMHA. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	Current Name	Effective Date of Change
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

Patient Origin – On page 55, the 2019 SMFP defines the service area for ORs as “...the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1.” Figure 6.1, on page 60, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

The following table illustrates current and projected patient origin.

CMC Current and Projected Patient Origin - ORs								
County	Current (CY 2018)		FY 1 (CY 2022)		FY 2 (CY 2023)		FY 3 (CY 2024)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	13,775	43.0%	13,096	43.8%	12,968	43.5%	13,034	43.4%
York (SC)	2,657	8.3%	2,526	8.4%	2,470	8.3%	2,521	8.4%
Union	2,352	7.3%	1,670	5.6%	1,514	5.1%	1,353	4.5%
Gaston	2,119	6.6%	2,014	6.7%	2,056	6.9%	2,099	7.0%
Cabarrus	1,336	4.2%	1,270	4.2%	1,297	4.4%	1,324	4.4%
Cleveland	1,202	3.7%	1,143	3.8%	1,167	3.9%	1,191	4.0%
Lancaster (SC)	1,034	3.2%	983	3.3%	1,003	3.4%	1,024	3.4%
Lincoln	889	2.8%	846	2.8%	863	2.9%	881	2.9%
Iredell	749	2.3%	712	2.4%	691	2.3%	687	2.3%
Other Counties*	5,953	18.6%	5,659	18.9%	5,777	19.4%	5,897	19.7%
Total	32,066	100.0%	29,919	100.0%	29,808	100.0%	30,012	100.0%

Source: Section C, pages 18-19

*Other: Alamance, Alexander, Alleghany, Anson, Ashe, Avery, Beaufort, Bladen, Brunswick, Buncombe, Burke, Caldwell, Carteret, Catawba, Chatham, Cherokee, Clay, Columbus, Craven, Cumberland, Davidson, Davie, Durham, Edgecombe, Forsyth, Graham, Granville, Guilford, Harnett, Haywood, Henderson, Hoke, Jackson, Johnston, Jones, Lee, Lenoir, Macon, Madison, McDowell, Mitchell, Montgomery, Moore, Nash, New Hanover, Onslow, Orange, Pender, Pitt, Polk, Randolph, Richmond, Robeson, Rockingham, Rowan, Rutherford, Sampson, Scotland, Stanly, Stokes, Surry, Swain, Transylvania, Vance, Wake, Watauga, Wilkes, Wilson, Yadkin, and Yancey counties in North Carolina as well as other states.

In Section C, page 20, the applicant provides the assumptions and methodology used to project patient origin. The applicant’s assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted three applications in response to the OR Need Determination in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with two ORs (Project I.D. #F-11810-19); to add two ORs to AH Pineville (Project I.D. #F-11814-19); and to add two ORs to CMC (Project I.D. #F-11815-19). In Section C, pages 20-29 and 32-37, the applicant discusses Atrium’s system-wide need for the OR proposals in Mecklenburg

County. In a competitive review, every application is first evaluated independently, as if there are no other applications in the review, to determine whether the application is conforming to all statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to AH Pineville.

In Section C, page 24, Atrium states the need for six ORs in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed ORs in its applications as submitted.

In Section C, pages 30-32 and 37-41, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.
- CMC is a Level 1 Trauma Center, offers solid organ transplantation, and is the area's only quaternary academic medical center; as such, it fills a vital role in the region.
- CMC's current OR deficit in the 2019 SMF is 12.32 ORs and it provides more hours per OR than any other facility in Mecklenburg County.
- Surgical volumes in Mecklenburg County have grown at higher rates than the state average. Outpatient surgical cases in Mecklenburg County are increasing more quickly than inpatient surgical cases. While the number of outpatient cases performed at ASFs have higher growth rates than outpatient cases performed at hospitals, the difference isn't significant, and the increase in the number of outpatient cases performed at hospitals is more than double the increase in the number of outpatient cases performed at ASFs.
- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- There is a need determination for six ORs in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop two ORs in Mecklenburg County in accordance with the OR need determination in the 2019 SMFP.
- The applicant uses historical and demographic data to make assumptions regarding identification of the population to be served.
- The applicant provides reliable data, makes reasonable statements about the data, and uses reasonable assumptions about the data to demonstrate the need the population to be served has for the proposed services.

Projected Utilization - In Section Q, the applicant provides projected utilization, as illustrated in the following table.

CMC-Main Projected Utilization – Surgical Services			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
Operating Rooms			
Dedicated C-Section ORs	4	4	4
Other Inpatient ORs	5	5	5
Shared ORs	29	29	29
Dedicated Ambulatory ORs	10	10	10
Total # of ORs	48	48	48
Excluded # of ORs	5	5	5
Total # of ORs – Planning Inventory	43	43	43
Surgical Cases			
# of Inpatient Cases (1)	15,509	15,554	15,744
# of Outpatient Cases	14,410	14,253	14,267
Total # Surgical Cases (1)	29,919	29,808	30,012
Case Times			
Inpatient (2)	224.7	224.7	224.7
Outpatient (2)	134.0	134.0	134.0
Surgical Hours			
Inpatient (3)	58,082	58,251	58,963
Outpatient (4)	32,182	31,833	31,864
Total Surgical Hours	90,265	90,084	90,826
# of ORs Needed			
Group Assignment (5)	1	1	1
Standard Hours per OR per Year (6)	1,950	1,950	1,950
ORs Needed (total hours / 1,500)	46.29	46.20	46.58

- (1) Excluding C-Sections performed in a dedicated C-Section OR
- (2) From Section C, Question 6(c)
- (3) [Inpatient Cases (exclude C-Sections performed in dedicated C-Section ORs) x Inpatient Case Time in minutes] / 60 minutes
- (4) (Outpatient Cases x Outpatient Case Time in minutes) / 60 minutes
- (5) From Section C, Question 6(a)
- (6) From Section C, Question 6(b)

In the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant calculated 3-year (CY 2015-2018) and 4-year (CY 2015-2019 annualized) CAGRs for inpatient and outpatient surgical cases. The applicant applied a growth rate of 1.99 percent to both inpatient and outpatient surgical cases and projected utilization at CMC-Main through CY 2024. The applicant states it chose a 1.99 percent annual growth rate because it was the annual equivalent of the Growth Factor for Mecklenburg County in Chapter 6 of the 2019 SMFP. (The Project Analyst determined this to be true – please see the Working Papers for analysis.) The growth rate is not based on the historical CAGR.

- The applicant projects a shift of surgical cases to Piedmont Fort Mill Medical Center, a hospital that will be developed in South Carolina, consistent with its projections in previous OR applications. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center and calculated CMC-Main's CY 2018 ratio of surgical patients who were admitted through the ED to the total number of acute care admissions. The applicant then applied the ratio to the total number of surgical cases it previously projected to shift from CMC-Main to Piedmont Fort Mill Medical Center.
- The applicant projects a shift of surgical cases to AH Union, and states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18 and F-11620-18) to determine the number of surgical cases projected to shift care from CMC-Main to AH Union. The applicant states that, when previous applications did not project shifts through the end of CY 2024, it used a 1.75 percent growth rate, consistent with Project I.D. #F-11618-18, to project growth in the number of surgical cases projected to shift from CMC-Main to AH Union through CY 2024.
- As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of surgical cases projected to shift from CMC-Main to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of surgical cases to AH Lake Norman from CMC-Main.
- The applicant states it used assumptions and methodology consistent with Project I.D. # F-11106-15 (develop CSC-W) to determine the number of surgical cases projected to shift from CMC-Main to CSC-W and CSC-M, with some modifications. The applicant states that, due to changes in utilization patterns and delays in the development of CSC-W, it projects 75 percent of the surgical cases previously projected to shift from CMC-Main in Project I.D. #F-11106-15 will shift to CSC-W and CSC-M. The applicant states that, since Project I.D. #F-11106-15 only projected utilization through CY 2022, it used the population growth factor from the 2019 SMFP (1.99 percent) to project growth in the number of surgical cases projected to shift to from CMC-Main to CSC-W and CSC-M through CY 2024.
- The applicant states it used the assumptions and methodology from Project I.D. #F-11268-16 (relocate one OR to AH Mercy) to project the number of surgical cases that would shift from CMC-Main to AH-Mercy.
- The applicant states it used the assumptions and methodology from Project I.D. #F-11619-18 (add one OR to CCSS) to project the number of surgical cases that would shift from CMC-Main to CCSS.
- The applicant subtracted the number of surgical cases projected to shift to different facilities from CMC-Main through CY 2024 to obtain its projected OR utilization at CMC-Main.

The following table shows projected OR utilization at CMC-Main.

CMC-Main Projected OR Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Baseline Inpatient Cases	15,267	15,571	15,881	16,197	16,519	16,848
Baseline Outpatient Cases	15,830	16,145	16,466	16,794	17,128	17,468
IP Cases to Piedmont Fort Mill	--	--	--	--	-108	-111
IP Cases to AH Union	--	-82	-125	-255	-346	-441
IP Cases to AH Lake Norman	--	--	--	--	-78	-120
IP Cases to AH Mercy	--	-432	-432	-432	-432	-432
OP Cases to AH Union	--	-100	-153	-311	-422	-537
OP Cases to AH Lake Norman	--	--	--	--	-358	-548
OP Cases to CSC-W	--	-809	-911	-1,012	-1,032	-1,052
OP Cases to CSC-M	--	-54	-61	-68	-69	-70
OP Cases to AH Mercy	--	-768	-768	-768	-768	-768
OP Cases to CCSS	--	-112	-169	-225	-225	-225
Total Inpatient Cases	15,267	15,057	15,323	15,509	15,554	15,744
Total Outpatient Cases	15,830	14,301	14,405	14,410	14,253	14,267
Final Inpatient Case Time (1)	224.7	224.7	224.7	224.7	224.7	224.7
Final Outpatient Case Time (1)	134.0	134.0	134.0	134.0	134.0	134.0
Total Surgical Hours (2)	92,529	88,325	89,556	90,265	90,084	90,826
Average Annual Operating Hours – Group 1 (3)	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	47.45	45.29	45.93	46.29	46.20	46.58
Number of Existing/Approved ORs	41	41	41	41	41	41
(Surplus) / Deficit	6.45	4.29	4.93	5.29	5.20	5.58

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 5.58 ORs at CMC-Main in the third full fiscal year following project completion. Atrium proposes to add two additional ORs at CMC-Main.

Atrium Health System

The Atrium health system in Mecklenburg County consists of Atrium Health Huntersville (AH Huntersville), Carolina Center for Specialty Surgery (CCSS), CMC (including AH Mercy), AH Pineville, and AH University City, along with the proposed AH Lake Norman. Pursuant to 10A NCAC 14C .2103(a), the applicant must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year following project completion, using the Operating Room Need Methodology in the 2019 SMFP.

In the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization at all other

facilities in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2015, Atrium applications involving OR utilization projections have included assumptions and methodology projecting shifts in surgical cases between facilities in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in surgical cases between facilities in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization by facility – The applicant calculated three-year (CY 2015-2018) and four-year (CY 2015-2019 annualized) CAGRs for inpatient and outpatient surgical cases at each facility.
- Project surgical cases through CY 2024 prior to any shifts – for each facility except AH Pineville, the applicant applied an annual growth rate of 1.99 percent to both inpatient and outpatient surgical cases and projected utilization at each facility through CY 2024. The applicant states it chose a 1.99 percent annual growth rate because it was the annual equivalent of the Growth Factor for Mecklenburg County in Chapter 6 of the 2019 SMFP. The applicant states it used the CY 2015-2018 CAGR for inpatient and outpatient surgical cases at AH Pineville to project future utilization because AH Pineville utilization has historically grown faster than utilization at other Atrium facilities and is seeing more complex (and therefore longer) surgical cases. The applicant states it has historically projected surgical cases will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in surgical cases through CY 2024.
- Project shift of surgical cases to Piedmont Fort Mill Medical Center – beginning with applications in 2015, the applicant projected a shift in surgical cases to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 surgical patients who were admitted through the ED to the total number of acute care admissions. The applicant then applies the ratio to the total number of surgical cases it previously projected to shift from each Atrium facility to Piedmont Fort Mill Medical Center.
- Project shift of surgical cases to AH Union – the applicant states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18, F-11619-18, F-11620-18, and F-11621-18) to determine the number of surgical cases projected to shift care from Atrium facilities in Mecklenburg County to AH Union. The applicant states that when previous applications did not project shifts through the end of CY 2024, it used a 1.75 percent growth rate, consistent with Project I.D. #F-11618-18, to project growth in the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to AH Union through CY 2024.

- Project shift of surgical cases to CSC-W and CSC-M – the applicant states it modified the assumptions and methodology it used in its application to develop CSC-W (Project I.D. # F-11106-15) to determine the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to CSC-W and CSC-M. The applicant states that, due to changes in utilization patterns and delays in the development of CSC-W, it projected 75 percent of the surgical cases previously projected to shift from Atrium facilities in Project I.D. #F-11106-15 would shift to CSC-W and CSC-M. The applicant states that, since Project I.D. #F-11106-15 only projected utilization through CY 2022, it used the same growth rate it used for most Atrium facilities (1.99 percent) to project growth in the number of surgical cases projected to shift to CSC-W and CSC-M through CY 2024.
- Project shift of surgical cases from CMC-Main to AH Mercy – the applicant states it used the assumptions and methodology from Project I.D. #F-11268-16 (relocate one OR to AH Mercy) to project the number of surgical cases that would shift from CMC-Main to AH-Mercy.
- Project shift of surgical cases from CMC-Main to CCSS – the applicant states it used the assumptions and methodology from Project I.D. #F-11619-18 (add one OR to CCSS) to project the number of surgical cases that would shift from CMC-Main to CCSS.
- Subtract shifts in surgical cases from each Atrium facility to determine projected OR utilization through CY 2024 – the applicant subtracted the number of surgical cases projected to shift to different facilities from each of the Atrium facilities in Mecklenburg County through CY 2024 to obtain its projected OR utilization at each facility.

A brief summary of the assumptions, methodology, and projected OR utilization for each Atrium facility follows below.

Atrium Health Lake Norman - The applicant calculated the projected inpatient and outpatient surgical cases to be served at AH Lake Norman in Project I.D. #F-11810-19. Please see the section of the Findings which discusses the assumptions and methodology used in Project I.D. #F-11810-19. The applicant used the AH University City final inpatient and outpatient case times published in the 2019 SMFP to calculate the projected number of surgical hours in CYs 2022-2024. The applicant states all surgical cases at AH Lake Norman are projected to shift from other Atrium facilities in Mecklenburg County.

The table below summarizes the assumptions and methodology used by the applicant for AH Lake Norman surgical case projections.

AH-LN Projected Surgical Cases/Hours (excluding C-Sections)		
	FY 1 (CY 2023)	FY 2 (CY 2024)
Total Inpatient Cases	145	222
Total Outpatient Cases	665	1,018
AH-UC Final IP Case Time (1)	112.6	112.6
AH-UC Final OP Case Time (1)	74.1	74.1
Total Surgical Hours (2)	1,093	1,673
Average Annual Operating Hours – Group 4 (3)	1,500	1,500
Number of ORs Needed (4)	0.73	1.12
Number of Existing/Approved ORs	0	0
(Surplus) / Deficit	0.73	1.12

Source: Section Q, Form C Methodology and Assumptions

- (1) The Final Case Time in minutes for the facility in the 2019 SMFP.
- (2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
- (3) From Table 6B in the 2019 SMFP.
- (4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

CMC-Main’s third full fiscal year is AH Lake Norman’s second full fiscal year. As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects the need for 1.52 ORs in the third full fiscal year following project completion. Atrium proposes to develop two ORs at AH Lake Norman.

Atrium Health Pineville - The applicant projects growth for inpatient surgical cases at a 7.1 percent CAGR and projects growth for outpatient surgical cases using a 2.6 percent CAGR. The CAGRs are the actual CY 2015-2018 historical CAGRs. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected OR utilization at AH Pineville.

AH Pineville Projected OR Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Baseline Inpatient Cases	3,470	3,715	3,978	4,259	4,560	4,882
Baseline Outpatient Cases	4,130	4,239	4,351	4,466	4,583	4,704
Inpatient Cases Shifting to Other Facilities	--	-29	-45	-91	-253	-293
Outpatient Cases Shifting to Other Facilities	--	-36	-55	-111	-167	-216
Total Inpatient Cases	3,470	3,686	3,933	4,168	4,306	4,590
Total Outpatient Cases	4,130	4,203	4,296	4,354	4,417	4,488
Final Inpatient Case Time (1)	174.0	174.0	174.0	174.0	174.0	174.0
Final Outpatient Case Time (1)	101.6	101.6	101.6	101.6	101.6	101.6
Total Surgical Hours (2)	17,056	17,806	18,681	19,460	19,967	20,910
Average Annual Operating Hours – Group 3 (3)	1,755	1,755	1,755	1,755	1,755	1,755
Number of ORs Needed (4)	9.72	10.15	10.64	11.09	11.38	11.91
Number of Existing/Approved ORs	10	11	11	11	11	11
(Surplus) / Deficit	(0.28)	(0.85)	(0.36)	0.09	0.38	0.91

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects the need for 0.91 ORs in the third full fiscal year following project completion. Atrium proposes to add two additional ORs at AH Pineville.

Atrium Health University City - There are two projects which were previously approved, but which are not yet developed as of the date of these findings which will impact the total number of ORs at AH University City:

- Project I.D. #F-11106-15/Charlotte Surgery Center – Wendover Campus/Relocate three ORs from AH University City to CSC-W
- Project I.D. #F-11349-17/Atrium Health Huntersville Surgery/Separately license one OR currently on the hospital license

After the approved projects are complete, AH University City will have seven ORs.

The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. The CAGR used is higher than the historical inpatient CAGR (-2.5 percent) but lower than the historical outpatient CAGR (2.1 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at AH University City.

AH University City Projected OR Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Baseline Inpatient Cases	944	963	982	1,001	1,021	1,042
Baseline Outpatient Cases	4,916	5,014	5,114	5,216	5,320	5,425
Inpatient Cases Shifting to Other Facilities	--	-2	-3	-6	-50	-74
Outpatient Cases Shifting to Other Facilities	--	-410	-462	-517	-717	-831
Total Inpatient Cases	944	961	979	996	971	968
Total Outpatient Cases	4,916	4,604	4,652	4,699	4,602	4,595
Final Inpatient Case Time (1)	112.6	112.6	112.6	112.6	112.6	112.6
Final Outpatient Case Time (1)	74.1	74.1	74.1	74.1	74.1	74.1
Total Surgical Hours (2)	7,843	7,489	7,582	7,671	7,506	7,491
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	5.23	4.99	5.05	5.11	5.00	4.99
Number of Existing/Approved ORs	7	7	7	7	7	7
(Surplus) / Deficit	(1.77)	(2.01)	(1.95)	(1.89)	(2.00)	(2.01)

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 2.00 ORs at AH University City in CMC-Main’s third full fiscal year following project completion. However, Atrium does not propose to add any additional ORs at AH University City as part of this review.

Atrium Health Mercy - The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. These CAGRs are not based on the historical CAGRs at AH Mercy. Then the applicant makes assumptions about shifts of surgical cases from CMC-Main and shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at AH Mercy.

AH Mercy Projected OR Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Baseline Inpatient Cases	4,921	5,019	5,119	5,221	5,324	5,430
Baseline Outpatient Cases	5,851	5,968	6,086	6,207	6,331	6,457
Net Inpatient Cases Shifting from Other Facilities	--	383	357	280	184	115
Net Outpatient Cases Shifting to Other Facilities	--	-667	-870	-1,136	-1,340	-1,496
Total Inpatient Cases	4,921	5,402	5,476	5,500	5,508	5,545
Total Outpatient Cases	5,851	5,301	5,216	5,071	4,992	4,960
Final Inpatient Case Time (1)**	224.7	224.7	224.7	224.7	224.7	224.7
Final Outpatient Case Time (1)**	134.0	134.0	134.0	134.0	134.0	134.0
Total Surgical Hours (2)	31,496	32,069	32,157	31,925	31,775	31,844
Average Annual Operating Hours – Group 2 (3)**	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	16.15	16.45	16.49	16.37	16.29	16.33
Number of Existing/Approved ORs	16	16	16	16	16	16
(Surplus) / Deficit	0.15	0.45	0.49	0.37	0.29	0.33

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

**Because AH Mercy operates under CMC’s license, it must use the CMC inpatient and outpatient case times in the 2019 SMFP along with the Average Annual Operating Hours for CMC.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 0.33 ORs at AH Mercy in CMC-Main’s third full fiscal year following project completion. The applicant does not propose to add any additional ORs at AH Mercy as part of this review.

Carolinas Medical Center/Atrium Health Mercy Combined – Because CMC-Main and AH Mercy are on the same hospital license, their combined utilization is what any surplus or deficit is calculated against. The table below shows the combined projected utilization at CMC-Main and AH Mercy.

CMC Projected OR Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
CMC-Main IP Cases	15,267	15,057	15,323	15,509	15,554	15,744
CMC-Main OP Cases	15,830	14,301	14,405	14,410	14,253	14,267
AH Mercy IP Cases	4,921	5,402	5,476	5,500	5,508	5,545
AH Mercy OP Cases	5,851	5,301	5,216	5,071	4,992	4,960
Combined Total Inpatient Cases	20,188	20,459	20,800	21,011	21,063	21,289
Combined Total Outpatient Cases	21,681	19,603	19,620	19,481	19,245	19,229
Final Inpatient Case Time (1)	224.7	224.7	224.7	224.7	224.7	224.7
Final Outpatient Case Time (1)	134.0	134.0	134.0	134.0	134.0	134.0
Total Surgical Hours (2)	124,025	120,399	121,714	122,194	121,861	122,672
Average Annual Operating Hours – Group 2 (3)	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	63.60	61.74	62.42	62.66	62.49	62.91
Number of Existing/Approved ORs	57	57	57	57	57	57
(Surplus) / Deficit	6.60	4.74	5.42	5.66	5.49	5.91

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 5.91 ORs on CMC's license during the applicant's third full fiscal year following project completion.

Atrium Health Huntersville Surgery – Currently, AH Huntersville is a separate building with one OR and one procedure room that is licensed as part of AH University City. In Project I.D. #F-11349-17, AH Huntersville was approved to become a separately licensed ASF with one OR. The development of the ASF will take place after the completion of CSC-W.

The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is nearly the same as the facility's historical CAGR (2.0 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina.

On page 23 of the Form C Methodology and Assumptions subsection of Section Q, the applicant states it uses the 2018 LRA adjusted case time of 52.4 minutes in its projections since AH Huntersville is “an existing facility with publicly reported historical case times.” While AH Huntersville is not considered an existing facility, this case time is lower than the corresponding case time for newly licensed ASFs in Group 6. The following table illustrates projected utilization at AH Huntersville.

AH Huntersville Projected OR Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Baseline Outpatient Cases	1,996	2,035	2,076	2,117	2,159	2,202
Outpatient Cases Shifting to Other Facilities	--	-434	-488	-542	-552	-563
Total Outpatient Cases	1,996	1,601	1,588	1,575	1,607	1,639
Final Outpatient Case Time (1)	52.4	52.4	52.4	52.4	52.4	52.4
Total Surgical Hours (2)	1,743	1,398	1,387	1,376	1,403	1,431
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	1.33	1.07	1.06	1.05	1.07	1.09
Number of Existing/Approved ORs	1	1	1	1	1	1
(Surplus) / Deficit	0.33	0.07	0.06	0.05	0.07	0.09

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 0.09 ORs in CMC-Main’s third full fiscal year following project completion. The applicant does not propose to add any additional ORs at AH Huntersville as part of this review.

Carolina Center for Specialty Surgery – The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is lower than the facility’s historical CAGR. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected OR utilization at CCSS.

CCSS Projected OR Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Baseline Outpatient Cases	2,036	2,077	2,118	2,160	2,203	2,247
Outpatient Cases Shifting From CMC	--	112	169	225	225	225
Total Outpatient Cases	2,036	2,189	2,287	2,385	2,428	2,472
Final Outpatient Case Time (1)	85.0	85.0	85.0	85.0	85.0	85.0
Total Surgical Hours (2)	2,884	3,102	3,240	3,379	3,440	3,502
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	2.20	2.36	2.47	2.58	2.62	2.67
Number of Existing/Approved ORs	3	3	3	3	3	3
(Surplus) / Deficit	(0.80)	(0.64)	(0.53)	(0.42)	(0.38)	(0.33)

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 0.33 ORs in CMC-Main’s third full fiscal

year following project completion. The applicant does not propose to add any additional ORs at CCSS as part of this review.

Atrium Health System Combined - To meet the performance standard promulgated in 10A NCAC 14C .2103(a) in effect at the time of the submission of this application, an applicant proposing to add new ORs to a facility in its service area must demonstrate the need its entire health system has for all of the ORs proposed by the end of the third full fiscal year following project completion. Altogether, Atrium proposes to add six ORs to its system:

- Project I.D. #F-11810-19/Atrium Health Lake Norman/Develop two ORs
- Project I.D. #F-11814-19/ Atrium Health Pineville/Add two ORs
- Project I.D. #F-11815-19/Carolinas Medical Center/Add two ORs

The following table illustrates the need for additional ORs for the entire health system.

Atrium Health OR Need			
	Deficits / (Surpluses)		
	1st Full FY CY 2022	2nd Full FY CY 2023	3rd Full FY CY 2024
AH Lake Norman	0.00	0.73	1.12
AH Pineville	0.09	0.38	0.91
AH University City	(1.89)	(2.00)	(2.01)
CMC	5.66	5.49	5.91
AH Huntersville Surgery Center	0.05	0.07	0.09
CCSS	(0.42)	(0.38)	(0.33)
Total Deficit/(Surplus)	3.49	4.34	5.69

Source: Section Q, Form C Methodology and Assumptions

As shown in the table above, the Atrium health system projects a deficit of 5.69 ORs at the end of CY 2024, which would be rounded up to a deficit of six ORs. Atrium proposes to add a total of six ORs in the three applications submitted in this review. This meets the standard promulgated in 10A NCAC 14C .2103(a), which requires an applicant proposing to add new ORs to a service area to demonstrate the need for all the existing, approved, and proposed ORs in a health system in the third full fiscal year following project completion based on the Operating Room Need Methodology in the 2019 SMFP.

There is an issue that potentially calls into question whether Atrium’s assumptions and methodology are adequately supported regarding projected utilization. The applicant uses a projected growth rate for both inpatient and outpatient surgical cases at CMC-Main that is not supported by its historical inpatient and outpatient surgical case volumes. The applicant does not adequately demonstrate in the application as submitted that projecting growth for inpatient and outpatient surgical cases is reasonable and adequately supported since CMC-Main’s inpatient and outpatient surgical case volume has declined for several years in a row. According to the applicant’s 2017-2020 LRAs, available to the Agency during this review, CMC-Main’s inpatient surgical case volume was essentially unchanged between FFY 2017 and FFY 2018, decreased slightly between FFY 2018 and FFY 2019, and decreased more significantly between FFY 2019 and FFY 2020. CMC-Main’s outpatient surgical case volume

decreased between FFY 2017 and FFY 2018, decreased further between FFY 2018 and FFY 2019, and increased slightly between FFY 2019 and FFY 2020 (but did not increase back to the FFY 2019 number of outpatient surgical cases). Further, the applicant uses a projected growth rate for inpatient surgical cases at AH University City that is not supported by historical inpatient surgical case volumes. The applicant does not adequately demonstrate in the application as submitted that projecting growth for inpatient surgical cases at AH University City is reasonable and adequately supported since none of the reasons the applicant provides to explain the recent decline in utilization apply to inpatient surgical cases at AH University City.

Nevertheless, according to information provided by Atrium to the Agency in its 2020 Hospital and ASF LRAs, which were available to the Agency during the review, the Atrium health system already has a significant deficit of ORs. The table below shows the number of inpatient and outpatient surgical cases reported on the 2020 LRA for each Atrium facility. The reporting period is October 1, 2018 to September 30, 2019. Using the Final Case Times for each category as reported in the 2020 SMFP (most facilities report a higher Final Case Time on their 2020 LRA than is reported in the 2020 SMFP), the facilities in the system show the following deficits and surpluses:

Atrium Health OR Deficits/Surpluses Based on 2020 LRA Cases					
Facility	FY 2018 Cases*	Final Case Time**	Average Annual Op. Hours**	# ORs Needed	(Surplus) / Deficit
CCSS	1,979	68.0	1,312	1.71	(1.29)
AH Pineville Inpatient	3,498	176.0	1,755	10.23	(0.77)
AH Pineville Outpatient	4,311	107.0			
CMC Inpatient***	18,828	224.0	1,950	65.53	8.53
CMC Outpatient***	23,402	147.4			
AH University City Inpatient	963	123.9	1,500	6.62	(0.38)
AH University City Outpatient****	6,216	76.7			
System Total	59,197			84.09	6.09

Sources: 2020 LRAs for each facility; 2020 SMFP

*Does not include C-Sections performed in dedicated C-Section ORs

**From 2020 SMFP

***Includes AH Mercy

****Includes the OR that will become part of AH Huntersville Surgery Center

When using the calculations shown in the table above, CMC has a deficit of 8.53 ORs. The 2019 SMFP showed CMC had a projected deficit of 12.47 ORs, and the 2020 SMFP shows CMC has a projected deficit of 16.78 ORs. CMC could hold its current utilization steady through OY3 and it would not only show the need for the two additional ORs it proposes to add, but it would also by itself meet the standard promulgated in 10A NCAC 14C .2103(a). In other words, CMC-Main shows a need for all six ORs that are proposed in the three Atrium applications using the Operating Room Need Methodology in the 2019 SMFP.

Projected utilization is reasonable and adequately supported for the following reasons:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County OR planning area.

- The applicant relies on its historical utilization in projecting future utilization.
- The health system’s historical utilization already meets the performance standard promulgated in 10A NCAC 14C .2103(a).

Access – In Section C, page 45, the applicant states:

“CMC provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment.”

In Section L, page 75, the applicant projects the following payor mix during the third year of operation following project completion, as illustrated in the following table.

CMC Projected Payor Mix – Third Full FY (CY 2024)		
Payor Source	Total Facility	ORs
Self-Pay	14.1%	7.0%
Medicare*	26.1%	28.2%
Medicaid*	24.5%	18.9%
Insurance*	33.4%	42.8%
Other**	1.9%	3.0%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.
- The applicant adequately explains why the population to be served needs the services proposed in this application.
- Projected utilization is reasonable and adequately supported.
- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

- (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 – All Applications

None of the applicants propose to reduce, eliminate, or relocate a facility or service. Therefore, Criterion (3a) is not applicable to any of the applications in this review.

- (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.

NC – Atrium Health Lake Norman

C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

The applicant proposes to add one OR to NH Matthews, its existing acute care hospital, for a total of nine ORs upon project completion.

In Section E, pages 60-61, the applicant describes the alternatives considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states that, under the status quo, physician and staff efficiency would suffer due to projected growth, and the status quo could result in delays in service; therefore, maintaining the status quo is not an effective alternative.
- *Develop an OR in the Existing Hospital Building*: The applicant states developing the OR in existing space at NH Matthews might bring the surgical capability online more quickly but would require costs to renovate existing space which would ultimately be spent again when the patient tower is finished, and surgical services are moved to the patient tower. The applicant states developing the OR in existing space would decrease the quality of patients' experiences and is not an optimal setup to provide appropriate care; therefore, this is not an effective alternative.
- *Develop an OR in a Different Novant Facility*: The applicant states developing the OR at a different Novant facility would not meet the need for more surgical capacity at NH Matthews; therefore, this is not an effective alternative.

On page 60, the applicant states the proposed project is the best method to meet the need for additional surgical capacity at NH Matthews.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.
- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the applicant demonstrates that this proposal is its least costly or most effective alternative to meet the identified need for an additional OR at NH Matthews. Therefore, the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

The applicant proposes to add 20 acute care beds to NH Matthews, its existing acute care hospital, for a total of 174 acute care beds upon project completion.

In Section E, page 63, the applicant describes the alternatives considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states that, under the status quo, patients would face delayed admissions due to projected growth; therefore, maintaining the status quo is not an effective alternative.
- *Develop a Different Number of Acute Care Beds*: The applicant states developing fewer acute care beds would not effectively meet demand for inpatient services. The applicant states it chose the number of acute care beds to apply for based on conservative growth rates and the need for observation beds and adding more than 20 acute care beds was not judged by management to be necessary; therefore, this is not an effective alternative.
- *Relocate Acute Care Beds from a Different Novant Facility*: The applicant states it is already relocating acute care beds from NH Presbyterian to develop NH Ballantyne and relocating acute care beds from NH Mint Hill just as it opened would not be cost-effective; therefore, this is not an effective alternative.

On page 63, the applicant states the proposed project is the best method to meet the need for additional acute care beds at NH Matthews.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.

- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the applicant demonstrates that this proposal is its least costly or most effective alternative to meet the identified need for additional acute care beds at NH Matthews. Therefore, the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The applicant proposes to develop AH Lake Norman, a new satellite hospital campus to be licensed under AH University City, by developing 30 acute care beds and two ORs pursuant to need determinations in the 2019 SMFP.

In Section E, pages 98-100, the applicant describes the alternatives it considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states maintaining the status quo results in insufficient acute care bed and OR capacity in the Lake Norman area. Additionally, the applicant states Lake Norman residents would continue to drive further into Mecklenburg County to access care, which could create barriers to access; therefore, maintaining the status quo is not an effective alternative.
- *Develop the Hospital in a Different Location*: The applicant states that 121 Lake Norman-area patients occupy a bed in an area Atrium hospital each day, and Atrium has developed a comprehensive framework of healthcare services in the Lake Norman area; therefore, this is not an effective alternative.
- *Develop a Different Number of Acute Care Beds or ORs*: The applicant states it considered developing fewer acute care beds and ORs but believes doing so would not meet the needs of local physicians who may wish to treat their patients at AH Lake Norman. The applicant states it also considered developing more acute care beds and ORs but doing so would prevent the applicant from applying to develop acute care beds and ORs at other Atrium facilities in Mecklenburg County where need exists; therefore, this is not an effective alternative.

On pages 99-100, the applicant states:

“Atrium Health’s plans and subsequent CON applications represent the development of projects which respond to unmet needs as they are identified and prioritized. While

each CON application must demonstrate need, each individual project cannot represent the complete and final solution to meeting all of Mecklenburg County needs, as those needs continue to develop as the population grows. As illustrated by the projection of acute care bed and operating room utilization at CMC, Atrium Health Pineville, Atrium Health University City, and Atrium Health Lake Norman (see Form C), the additional acute care and operating room capacity proposed in these complementary applications alone is not sufficient to meet all the future needs; however, these projects are necessary to begin alleviating capacity constraints at Atrium Health's existing facilities in Mecklenburg County while locating appropriate hospital-based services closer to patients."

However, the applicant does not adequately demonstrate that the alternative proposed in this application is the most effective alternative to meet the need based on the following:

- The applicant does not adequately demonstrate the need the population proposed to be served has for the proposed project. The discussion regarding need found in Criterion (3) is incorporated herein by reference.
- The applicant does not adequately demonstrate that projected utilization is based on reasonable and adequately supported assumptions. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.
- The applicant does not adequately demonstrate that the proposal would not result in an unnecessary duplication of existing or approved services in the service area. The discussion regarding unnecessary duplication found in Criterion (6) is incorporated herein by reference.
- The application is not conforming to all statutory and regulatory review criteria. An application that cannot be approved cannot be the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the reasons stated above.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The applicant proposes to develop 18 additional acute care beds at CMC, its existing acute care hospital, for a total of 1,073 acute care beds upon project completion.

In Section E, pages 63-64, the applicant describes the alternatives considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states that, under the status quo, patients will continue to face long waits in the ED for acute care beds and in surgical suites after surgeries, which will delay recovery and delay treatment for other patients; therefore, maintaining the status quo is not an effective alternative.
- *Develop a Different Number of Acute Care Beds at CMC*: The applicant states developing fewer acute care beds at CMC would not meet the need for additional capacity. The applicant states all 76 acute care beds in the 2019 SMFP need determination would be well utilized at CMC, but development of all 76 acute care beds at CMC would prevent adding beds to AH Pineville, AH University City, and would prevent the development of AH Lake Norman. The applicant further states space at CMC to develop acute care beds is limited and developing more than 18 acute care beds would result in disruptions to patient care and higher costs; therefore, this is not an effective alternative.

On page 64, the applicant states the proposed project is the most cost-effective, reasonable, and timely alternative to respond to the need for acute care beds at CMC.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.
- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the applicant demonstrates that this proposal is its least costly or most effective alternative to meet the identified need for acute care beds at CMC. Therefore, the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The applicant proposes to develop 16 additional acute care beds at AH University City, its existing acute care hospital, for a total of 116 acute care beds upon project completion.

In Section E, pages 62-63, the applicant describes the alternatives it considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states this alternative would result in continued inefficiencies, long wait times for patients in the ED before being admitted, and lack of options to accommodate future growth in demand; therefore, this is not an effective alternative.
- *Develop a Different Number of Acute Care Beds at AH University City*: The applicant states developing fewer acute care beds would not meet the need for additional capacity at AH University City. The applicant states development of more than 16 additional acute care beds at AH University City would prevent adding beds to AH Pineville, CMC, and would prevent the development of AH Lake Norman; therefore, this is not an effective alternative.

On page 63, the applicant states the proposed project is the most cost-effective, reasonable, and timely alternative to respond to the need for acute care beds at AH University City.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.
- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes the applicant demonstrates that this proposal is the least costly or most effective alternative to meet the identified need for acute care beds at AH University City. Therefore, the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The applicant proposes to develop 12 additional acute care beds at AH Pineville, its existing acute care hospital, for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

In Section E, pages 66-67, the applicant describes the alternatives it considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states this alternative would result in continued inefficiencies, long wait times for patients in the ED before being admitted, and lack of options to accommodate future growth in demand; therefore, this is not an effective alternative.

- *Develop a Different Number of Acute Care Beds at AH Pineville:* The applicant states developing fewer acute care beds would not meet the need for additional acute care bed capacity at AH Pineville. The applicant states development of more than 12 additional acute care beds at AH Pineville would prevent adding beds to AH University City, CMC, and would prevent the development of AH Lake Norman; therefore, this is not an effective alternative.

On page 67, the applicant states the proposed project is the most cost-effective, reasonable, and timely alternative to respond to the need for acute care beds at AH Pineville.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.
- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes the applicant demonstrates that this proposal is the least costly or most effective alternative to meet the identified need for acute care beds at AH Pineville. Therefore, the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

The applicant proposes to develop two additional ORs at AH Pineville, its existing acute care hospital, for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR).

In Section E, pages 56-57, the applicant describes the alternatives it considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo:* The applicant states maintaining the status quo would result in more demand at the area's only tertiary care hospital with no increase in resources while the existing ORs are already operating above full capacity; therefore, this is not an effective alternative.
- *Develop a Different Number of ORs at AH Pineville:* The applicant states developing fewer ORs would not meet the need for additional OR capacity at AH Pineville. The applicant also states development of more than two ORs at AH Pineville would prevent adding ORs

to CMC and would prevent the development of AH Lake Norman; therefore, this is not an effective alternative.

On page 57, the applicant states the proposed project is the most cost-effective, reasonable, and timely alternative to respond to the need for acute care beds at AH Pineville.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.
- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes the applicant demonstrates that this proposal is the least costly or most effective alternative to meet the identified need for ORs at AH Pineville. Therefore, the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

The applicant proposes to develop two additional ORs at CMC, its existing acute care hospital, for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs).

In Section E, pages 53-54, the applicant describes the alternatives it considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states this alternative would result in delays in treatment because CMC has the highest number of surgical cases in Mecklenburg County, the largest OR need of any facility in the state, and there is already tremendous need for more ORs; therefore, this is not an effective alternative.
- *Develop a Different Number of ORs at CMC*: The applicant states developing fewer ORs would not meet the need for additional OR capacity at CMC. The applicant states there are currently spaces for two ORs and adding more would require a more intensive and costly project. The applicant also states development of more than two ORs at CMC would prevent the addition of ORs to AH Pineville and would prevent the development of AH Lake Norman; therefore, this is not an effective alternative.

On page 54, the applicant states the proposed project is the most cost-effective, reasonable, and timely alternative to respond to the need for acute care beds at AH University City.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.
- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes the applicant demonstrates that this proposal is the least costly or most effective alternative to meet the identified need for ORs at CMC. Therefore, the application is conforming to this criterion.

- (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.

NC – Atrium Health Lake Norman

C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

The applicant proposes to add one OR to NH Matthews, its existing acute care hospital, for a total of nine ORs upon project completion.

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Site Preparation	\$15,810
Construction Contract	\$622,250
Architect/Engineering Fees	\$44,664
Medical Equipment	\$1,086,056
Furniture	\$11,774
Consultant Fees	\$100,000
Other (IT, Security, Contingency)	\$282,113
Total	\$2,162,667

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, page 64, the applicant states there are no projected working capital costs because NH Matthews is already operational.

Availability of Funds – In Section F, pages 62-63, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Novant Health.

Exhibit F-2.1 contains a letter from the Senior Vice President of Operational Finance for Novant Health, agreeing to commit \$2,162,667 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Consolidated Financial Statements for Novant Health, Inc. and Affiliates for the years ending December 31, 2018 and 2017. The Consolidated Financial Statements indicate that as of December 31, 2018, Novant Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

NH Matthews Revenues and Operating Expenses – ORs			
	1st Full FY CY 2024	2nd Full FY CY 2025	3rd Full FY CY 2026
Total # of Patients	5,886	6,018	6,237
Total Gross Revenues (Charges)	\$283,433,850	\$301,810,646	\$325,483,546
Total Net Revenue	\$97,814,064	\$103,809,265	\$111,610,946
Average Net Revenue per Patient	\$16,618	\$17,250	\$17,895
Total Operating Expenses (Costs)	\$47,524,543	\$49,568,258	\$52,353,182
Average Operating Expense per Patient	\$8,074	\$8,237	\$8,394
Net Income	\$50,289,521	\$54,241,007	\$59,257,764

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 used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.
- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.

- 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.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

The applicant proposes to add 20 acute care beds to NH Matthews, its existing acute care hospital, for a total of 174 acute care beds upon project completion.

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Site Preparation	\$474,300
Construction Contract	\$21,000,000
Architect/Engineering Fees	\$1,470,000
Medical Equipment	\$800,474
Furniture	\$391,631
Consultant Fees	\$100,000
Other (IT, Security, Contingency)	\$2,975,712
Total	\$27,212,117

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, pages 67-68, the applicant states there are no projected working capital costs because NH Matthews is already operational.

Availability of Funds – In Section F, pages 65-66, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Novant Health.

Exhibit F-2.1 contains a letter from the Senior Vice President of Operational Finance for Novant Health, agreeing to commit \$27,212,117 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Consolidated Financial Statements for Novant Health, Inc. and Affiliates for the years ending December 31, 2018 and 2017. The Consolidated Financial Statements indicate that as of December 31, 2018, Novant Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

NH Matthews Revenues and Operating Expenses – Acute Care Beds			
	1st Full FY CY 2024	2nd Full FY CY 2025	3rd Full FY CY 2026
Total # of Patients	11,176	11,378	11,691
Total Gross Revenues (Charges)	\$464,242,166	\$486,813,954	\$515,180,938
Total Net Revenue	\$144,148,895	\$151,157,519	\$159,965,571
Average Net Revenue per Patient	\$12,898	\$13,285	\$13,683
Total Operating Expenses (Costs)	\$117,207,432	\$122,028,335	\$127,801,798
Average Operating Expense per Patient	\$10,487	\$10,725	\$10,932
Net Income	\$26,941,464	\$29,129,183	\$32,163,773

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 used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.
- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.
- 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.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The applicant proposes to develop AH Lake Norman, a new satellite hospital campus to be licensed under AH University City, by developing 30 acute care beds and two ORs pursuant to need determinations in the 2019 SMFP.

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Purchase Price of Land	\$3,792,353
Closing Costs	\$117,292
Site Preparation	\$1,229,513
Construction Contract	\$73,525,047
Landscaping	\$1,268,400
Architect/Engineering Fees	\$10,613,000
Medical Equipment	\$19,098,638
Non-Medical Equipment	\$155,903
Furniture	\$2,956,000
Consultant Fees	\$250,000
Financing Costs*	\$630,869
Interest During Construction*	\$6,145,652
Other (IS, Security, Internal Allocation)	\$27,307,459
Total	\$147,090,166

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, pages 103-104, the applicant states there are no projected working capital costs because AH Lake Norman will be a satellite campus of AH University City and any associated costs will be attributed to AH University City.

Availability of Funds – In Section F, pages 101-102, the applicant states the capital cost of the proposed project will be funded via accumulated reserves of Atrium Health. Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit \$147,090,166 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December 31, 2018, Atrium Health had adequate cash and assets to fund its portion of the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects operating expenses will exceed revenues in the first two full fiscal years following project completion, but revenues will exceed operating expenses in the third full fiscal year following project completion, as shown in the table below.

AH-LN Revenues and Operating Expenses – Entire Facility			
	1st Full FY CY 2023	2nd Full FY CY 2024	3rd Full FY CY 2025
Total Gross Revenues (Charges)	\$106,262,418	\$167,456,173	\$234,570,564
Total Net Revenue	\$27,956,302	\$44,056,125	\$61,714,006
Total Operating Expenses (Costs)	\$39,308,337	\$47,693,955	\$56,221,618
Net Income/(Losses)	(\$11,352,035)	(\$3,637,830)	\$5,492,388

The applicant also provided pro forma financial statements for the first three full fiscal years of operation by line of service. The tables below summarize the projections from Form F.2 for all acute care beds and for ORs.

AH-LN Revenues and Operating Expenses – Acute Care Beds*			
	1st Full FY CY 2023	2nd Full FY CY 2024	3rd Full FY CY 2025
Total Admissions	1,031	1,577	2,144
Total Gross Revenues (Charges)	\$15,104,033	\$23,793,701	\$33,318,222
Total Net Revenue	\$4,313,774	\$6,795,851	\$9,516,581
Average Net Revenue per Admission	\$4,184	\$4,309	\$4,439
Total Operating Expenses (Costs)	\$14,578,822	\$17,227,052	\$18,828,044
Average Operating Expense per Admission	\$14,140	\$10,924	\$8,782
Net Income/(Losses)	(\$10,265,048)	(\$10,431,202)	(\$9,311,463)

*The applicant provided separate Forms F.2 for medical/surgical beds, ICU beds, and obstetrics beds. This table combines the information for all three types of beds.

AH-LN Revenues and Operating Expenses – ORs			
	1st Full FY CY 2023	2nd Full FY CY 2024	3rd Full FY CY 2025
Total Surgical Cases	810	1,240	1,687
Total Gross Revenues (Charges)	\$22,583,846	\$35,602,739	\$49,890,656
Total Net Revenue	\$6,202,114	\$9,777,443	\$13,701,278
Average Net Revenue per Case	\$7,657	\$7,885	\$8,122
Total Operating Expenses (Costs)	\$5,039,666	\$6,744,836	\$8,711,604
Average Operating Expense per Case	\$6,222	\$5,439	\$5,164
Net Income/(Losses)	\$1,162,449	\$3,032,607	\$4,989,674

However, the assumptions used by the applicant in preparation of the pro forma financial statements are not reasonable and adequately supported because projected utilization is questionable. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference. Therefore, since projected revenues and expenses are based at least in part on projected utilization, projected revenues and expenses are also questionable.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments

- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion because the applicant does not adequately demonstrate 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.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The applicant proposes to develop 18 additional acute care beds at CMC, its existing acute care hospital, for a total of 1,073 acute care beds upon project completion.

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Construction Contract	\$5,029,616
Architect/Engineering Fees	\$740,308
Medical Equipment	\$2,070,937
Non-Medical Equipment	\$79,916
Furniture	\$274,485
Consultant Fees	\$150,000
Financing Costs*	\$47,050
Interest During Construction*	\$307,658
Other (IS, Security, Internal Allocation)	\$1,827,768
Total	\$10,527,737

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, page 67, the applicant states there are no projected working capital costs because CMC is already operational.

Availability of Funds – In Section F, pages 65-66, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Atrium Health.

Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit \$10,527,737 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December 31, 2018, Atrium Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant

projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

CMC Revenues and Operating Expenses – Adult General Med/Surg Acute Care Beds			
	1st Full FY CY 2022	2nd Full FY CY 2023	3rd Full FY CY 2024
Total # of Patients	21,741	21,531	21,562
Total Gross Revenues (Charges)	\$288,241,514	\$294,016,092	\$303,272,182
Total Net Revenue	\$82,454,791	\$84,106,675	\$86,754,486
Average Net Revenue per Patient	\$3,793	\$3,906	\$4,023
Total Operating Expenses (Costs)	\$70,319,987	\$71,730,299	\$73,950,484
Average Operating Expense per Patient	\$3,234	\$3,331	\$3,430
Net Income	\$12,134,804	\$12,376,376	\$12,804,002

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 used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.
- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.
- 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.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The applicant proposes to develop 16 additional acute care beds at AH University City, its existing acute care hospital, for a total of 116 acute care beds upon project completion.

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Construction Contract	\$2,103,000
Architect/Engineering Fees	\$352,000
Medical Equipment	\$577,350
Non-Medical Equipment	\$34,700
Furniture	\$80,000
Consultant Fees	\$100,000
Financing Costs*	\$15,492
Interest During Construction*	\$81,395
Other (IS, Security, Internal Allocation)	\$422,063
Total	\$3,766,000

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, pages 66-67, the applicant states there are no projected working capital costs because the facility is already operational.

Availability of Funds – In Section F, pages 64-65, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Atrium Health.

Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit \$3,766,000 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December 31, 2018, Atrium Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

AH-UC Revenues and Operating Expenses –Med/Surg Acute Care Beds			
	1st Full FY CY 2022	2nd Full FY CY 2023	3rd Full FY CY 2024
Total # of Patients	5,559	5,544	5,639
Total Gross Revenues (Charges)	\$72,340,840	\$74,313,226	\$77,853,731
Total Net Revenue	\$18,735,150	\$19,245,968	\$20,162,903
Average Net Revenue per Patient	\$3,370	\$3,471	\$3,576
Total Operating Expenses (Costs)	\$16,114,173	\$16,543,219	\$17,311,276
Average Operating Expense per Patient	\$2,899	\$2,984	\$3,070
Net Income	\$2,620,978	\$2,702,749	\$2,851,627

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 used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.
- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.
- 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.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The applicant proposes to develop 12 additional acute care beds at AH Pineville, its existing acute care hospital, for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Site Preparation	\$232,415
Construction Contract	\$5,355,473
Landscaping	\$6,111
Architect/Engineering Fees	\$475,490
Medical Equipment	\$222,504
Non-Medical Equipment	\$56,296
Furniture	\$30,643
Consultant Fees	\$150,000
Financing Costs*	\$33,270
Interest During Construction*	\$318,165
Other (IS, Security, Internal Allocation)	\$350,735
Total	\$7,231,102

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, page 70, the applicant states there are no projected working capital costs because the facility is already operational.

Availability of Funds – In Section F, pages 68-69, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Atrium Health.

Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit \$7,231,102 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December 31, 2018, Atrium Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

AH-P Revenues and Operating Expenses –Med/Surg Acute Care Beds			
	1st Full FY CY 2022	2nd Full FY CY 2023	3rd Full FY CY 2024
Total # of Patients	15,191	14,531	14,824
Total Gross Revenues (Charges)	\$191,040,009	\$188,225,214	\$197,774,590
Total Net Revenue	\$50,279,195	\$49,538,378	\$52,051,647
Average Net Revenue per Patient	\$3,310	\$3,409	\$3,511
Total Operating Expenses (Costs)	\$39,641,689	\$39,109,179	\$40,940,934
Average Operating Expense per Patient	\$2,610	\$2,691	\$2,762
Net Income	\$10,637,506	\$10,429,199	\$11,110,713

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 used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.
- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.
- 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.

F-11814-19/Atrium Health Pineville/Develop two ORs

The applicant proposes to develop two additional ORs at AH Pineville, its existing acute care hospital, for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR).

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Construction Contract	\$10,700,000
Architect/Engineering Fees	\$172,000
Medical Equipment	\$2,300,000
Non-Medical Equipment	\$450,000
Furniture	\$90,000
Consultant Fees	\$150,000
Financing Costs*	\$69,144
Interest During Construction*	\$664,380
Other (IS, Security, Internal Allocation)	\$1,100,000
Total	\$15,695,524

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, page 60, the applicant states there are no projected working capital costs because the facility is already operational.

Availability of Funds – In Section F, pages 58-59, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Atrium Health.

Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit \$15,695,524 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December

31, 2018, Atrium Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

AH-P Revenues and Operating Expenses – ORs			
	1st Full FY CY 2023	2nd Full FY CY 2024	3rd Full FY CY 2025
Total # of Patients	8,723	9,078	9,527
Total Gross Revenues (Charges)	\$458,047,360	\$490,976,373	\$530,709,352
Total Net Revenue	\$141,304,814	\$151,322,928	\$163,411,038
Average Net Revenue per Patient	\$16,199	\$16,669	\$17,152
Total Operating Expenses (Costs)	\$57,052,800	\$60,899,910	\$65,526,948
Average Operating Expense per Patient	\$6,541	\$6,709	\$6,878
Net Income	\$84,252,014	\$90,423,018	\$97,884,090

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 used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.
- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.
- 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.

F-11815-19/Carolinas Medical Center/Develop two ORs

The applicant proposes to develop two additional ORs at CMC, its existing acute care hospital, for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs).

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Construction Contract	\$4,153,154
Architect/Engineering Fees	\$614,219
Medical Equipment	\$1,250,916
Non-Medical Equipment	\$76,380
Furniture	\$191,666
Consultant Fees	\$150,000
Financing Costs*	\$35,855
Interest During Construction*	\$186,414
Other (IS, Security, Internal Allocation)	\$1,316,029
Total	\$7,974,633

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, page 57, the applicant states there are no projected working capital costs because the facility is already operational.

Availability of Funds – In Section F, pages 55-56, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Atrium Health.

Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit \$7,974,633 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December 31, 2018, Atrium Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

CMC Revenues and Operating Expenses – ORs			
	1st Full FY CY 2022	2nd Full FY CY 2023	3rd Full FY CY 2024
Total # of Patients	29,919	29,808	30,012
Total Gross Revenues (Charges)	\$1,452,939,311	\$1,490,946,140	\$1,546,181,323
Total Net Revenue	\$478,125,769	\$490,632,860	\$508,809,369
Average Net Revenue per Patient	\$15,981	\$16,460	\$16,954
Total Operating Expenses (Costs)	\$207,784,014	\$213,206,492	\$220,990,221
Average Operating Expense per Patient	\$6,945	\$7,153	\$7,363
Net Income	\$270,341,755	\$277,426,369	\$287,819,149

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 used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.
 - The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.
 - 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.
- (6) The applicant shall demonstrate that the proposed project will not result in unnecessary duplication of existing or approved health service capabilities or facilities.

NC – Atrium Health Lake Norman
 C – All Other Applications

The 2019 SMFP includes need determinations for 76 acute care beds and six ORs in the Mecklenburg County service area.

Acute Care Beds. On page 36, the 2019 SMFP defines the service area for acute care beds as *“the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1.”* Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for

this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

As of the date of this decision, there are 2,288 existing and approved acute care beds, allocated between 10 hospitals owned by two providers (Atrium and Novant) in the Mecklenburg County Service Area, as illustrated in the following table.

Mecklenburg County Acute Care Hospitals	
Facility	Existing/Approved Beds
AH Pineville	221 (+38)
AH University City	100
CMC-Main	859
AH-Mercy*	196
Atrium Total	1,414
NH Ballantyne Medical Center	0 (+36)
NH Huntersville Medical Center	139 (+12)
NH Health Matthews Medical Center	154
NH Health Presbyterian Medical Center	471 (-36)
NH Charlotte Orthopedic Hospital**	48
NH Mint Hill Medical Center	36 (+14)
Novant Total	874
Mecklenburg County Total	2,288

Source: Table 5A, 2019 SMFP; applications under review; 2020 LRAs; Agency records.

Note: Numbers in parentheses reflect approved changes in bed inventory which have not yet been developed.

*AH-Mercy is a separate campus but licensed as part of CMC.

**NHCOH is a separate campus but licensed as part of NHPMC.

Operating Rooms. On page 55, the 2019 SMFP defines the service area for ORs as “...the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1.” Figure 6.1, on page 60, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

Not including dedicated C-Section ORs and trauma ORs, there are 161 existing and approved ORs in Mecklenburg County, allocated between 18 facilities, as shown in the table below.

Mecklenburg County OR Inventory						
Facility	IP ORs	OP ORs	Shared ORs	Excluded C-Section and Trauma ORs	CON Adjustments	Total ORs
AH Huntersville Surgery Center	0	0	0	0	1	1
AH Pineville	3	0	9	-2	1	11
AH University City	1	1	7	-1	-1	7
CCSS	0	2	0	0	1	3
CMC	10	9	41	-5	2	57
Atrium Health System Total	14	12	57	-8	4	79
Charlotte Surgery Center – Museum	0	6	0	0	0	6
Charlotte Surgery Center – Wendover	0	6	0	0	0	6
Charlotte Surgery Center System Total	0	12	0	0	0	12
Matthews Surgery Center	0	2	0	0	0	2
NH Ballantyne*	0	0	0	0	2	2
NH Ballantyne OPS*	0	2	0	0	-2	0
NH Huntersville	1	0	6	-1	1	7
NH Huntersville OPS	0	2	0	0	0	2
NH Mint Hill	1	0	3	-1	1	4
NH Matthews	2	0	6	-2	0	6
NH Presbyterian	6	6	28	-3	-1	36
SouthPark Surgery Center	0	6	0	0	0	6
Novant Health System Total	10	18	43	-7	0	65
Carolinas Ctr for Ambulatory Dentistry**	0	2	0	0	0	2
Mallard Creek Surgery Center**	0	2	0	0	0	2
Metrolina Vascular Access Care	0	0	0	0	1	1
Total	24	46	100	-15	5	161

Sources: Table 6A, 2019 SMFP; 2019 LRAs; Agency records

*NHBMC, an approved hospital under development, will have 2 ORs that will be relocated from NHBOS, which will close once the ORs are relocated to NHBMC.

**These facilities are part of demonstration projects and the ORs are not included in the SMFP need determination calculations.

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

The applicant proposes to add one OR to NH Matthews, its existing acute care hospital, for a total of nine ORs upon project completion.

The applicant adequately demonstrates the need to develop an additional OR at its existing facility based on the number of projected patients it proposes to serve.

In Section G, page 69, the applicant states that the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On page 69, the applicant states:

“The proposed OR will meet the need for surgical services driven by the growth at NH Matthews. ... Surgical demand at NH Matthews is expected to grow due to many of the same factors that have produced past growth, including the increasing acuity of surgical patients, physician recruitment, and the growing acuity of the general inpatient population treated at NH Matthews. The proposed OR will allow NH Matthews to meet the demands of its patient population without duplicating services.”

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County service area and the applicant proposes to develop one OR.
- The applicant adequately demonstrates that the proposed OR is needed in addition to the existing or approved ORs in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

The applicant proposes to add 20 acute care beds to NH Matthews, its existing acute care hospital, for a total of 174 acute care beds upon project completion.

The applicant adequately demonstrates the need to develop 20 additional acute care beds at the existing facility based on the number of projected patients it proposes to serve.

In Section G, pages 72-73, the applicant states that the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On page 73, the applicant states:

“..., the Applicant demonstrates that by CY 2026, the third full project year, NH surgical [sic] facilities in Mecklenburg County will have a collective need for at least the 20 acute care beds requested, if not more.

The proposed acute care beds will meet the need for acute care services driven by the growth at NH Matthews. ... The proposed acute care beds will allow NH Matthews to meet the demands of its patient population without duplicating services.”

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County service area and the applicant proposes to develop 20 acute care beds.
- The applicant adequately demonstrates that the 20 proposed acute care beds are needed in addition to the existing or approved acute care beds in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The applicant proposes to develop AH Lake Norman, a new satellite hospital campus to be licensed under AH University City, by developing 30 acute care beds and two ORs pursuant to need determinations in the 2019 SMFP.

In Section G, pages 108-109, the applicant states the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On pages 108-109, the applicant states:

“...the only other Mecklenburg County-based inpatient service provider in the Lake Norman area is Novant Health Huntersville Medical Center. Lake Norman Regional Medical Center is an Iredell County-based inpatient service provider in Mooresville that is also located in the proposed service area. As previously noted, a significant number of residents of the Lake Norman area, 121 each day in 2018, bypass Novant Health Huntersville Medical Center and Lake Norman Regional Medical Center for care at an Atrium Health facility. The proposed facility will better serve those patients in need of the level of care to be offered at Atrium Health Lake Norman. Further, ..., Atrium Health proposes to serve only patients from the Lake Norman area that have historically accessed Atrium Health hospitals in Mecklenburg County.

All of the services proposed for Atrium Health Lake Norman, which include not only acute care inpatient services, but also emergency services, surgical services, imaging services, as well as ancillary and support services, are part of its application to develop a hospital and are essential to the development and operation of its proposed facility as a hospital. Other existing or approved services in the market do not offer inpatient services, such as inpatient imaging, acute care, or operating room services, as proposed at Atrium Health Lake Norman. Further, Mecklenburg County needs additional capacity for emergency services. ..., Atrium Health has previously demonstrated that Mecklenburg County needs additional capacity for emergency services and could support 29 additional emergency department rooms.” (emphasis in original)

However, the applicant does not adequately demonstrate that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- The applicant does not adequately demonstrate the need the population proposed to be served has for the proposed project. The discussion regarding need found in Criterion (3) is incorporated herein by reference.
- The applicant does not adequately demonstrate that projected utilization is based on reasonable and adequately supported assumptions. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the reasons stated above.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The applicant proposes to develop 18 additional acute care beds at CMC, its existing acute care hospital, for a total of 1,073 acute care beds upon project completion.

The applicant adequately demonstrates the need to develop 18 additional acute care beds at the existing facility based on the number of projected patients it proposes to serve.

In Section G, page 71, the applicant states the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On page 71, the applicant states:

“CMC’s acute care bed [sic] has already reached its capacity and is projected to continue to grow necessitating the proposed 18 additional acute care beds to meet the needs of its patients. As the only hospital in the region that provides quaternary level care, no other provider can meet the needs of CMC’s patients.”

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County service area and the applicant proposes to develop 18 acute care beds.
- The applicant adequately demonstrates that the 18 proposed acute care beds are needed in addition to the existing or approved acute care beds in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The applicant proposes to develop 16 additional acute care beds at AH University City, its existing acute care hospital, for a total of 116 acute care beds upon project completion.

The applicant adequately demonstrates the need to develop 16 additional acute care beds at the existing facility based on the number of projected patients it proposes to serve.

In Section G, page 71, the applicant states the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal will fill an unmet need. On page 71, the applicant states:

“Atrium Health University City’s acute care bed utilization has already reached its capacity and is projected to continue to grow necessitating the proposed 16 additional acute care beds to meet the needs of its patients.”

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County service area and the applicant proposes to develop 16 acute care beds.
- The applicant adequately demonstrates that the 16 proposed acute care beds are needed in addition to the existing or approved acute care beds in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The applicant proposes to develop 12 additional acute care beds at AH Pineville, its existing acute care hospital, for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

The applicant adequately demonstrates the need to develop the 12 additional acute care beds at AH Pineville based on the number of projected patients it proposes to serve.

In Section G, page 74, the applicant states that the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal will fill an unmet need. On page 74, the applicant states:

“Atrium Health Pineville’s acute care bed utilization is projected to continue increasing and will necessitate the proposed 12 additional acute care beds to meet the needs of its patients. As the only tertiary hospital in Mecklenburg County located outside of the center city area, no other provider can meet the needs of Atrium Health Pineville’s patients.”

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County service area and the applicant proposes to develop 12 acute care beds.
- The applicant adequately demonstrates that the 12 proposed acute care beds are needed in addition to the existing or approved acute care beds in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11814-19/Atrium Health Pineville/Develop two ORs

The applicant proposes to develop two additional ORs at AH Pineville, its existing acute care hospital, for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR).

The applicant adequately demonstrates the need to develop two additional ORs at its existing facility based on the number of projected patients it proposes to serve.

In Section G, page 65, the applicant states that the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On page 65, the applicant states:

“Atrium Health Pineville’s surgical utilization has already reached its capacity and is projected to continue to grow, necessitating the proposed additional operating rooms to meet the needs of its patients. As the only tertiary hospital in Mecklenburg County

located outside of the center city area, no other provider can meet the needs of Atrium Health Pineville's patients."

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County service area and the applicant proposes to develop two ORs.
- The applicant adequately demonstrates that the two proposed ORs are needed in addition to the existing or approved ORs in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11815-19/Carolinas Medical Center/Develop two ORs

The applicant proposes to develop two additional ORs at CMC, its existing acute care hospital, for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs).

The applicant adequately demonstrates the need to develop two additional ORs at its existing facility based on the number of projected patients it proposes to serve.

In Section G, page 62, the applicant states the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On page 62, the applicant states:

"CMC performs more surgical cases than any other facility in Mecklenburg County and has a need for additional operating room capacity to meet the needs of its patient population. As the only Level I trauma center and quaternary academic medical center in the region, no other provider can meet the unique needs of CMC's patients."

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County service area and the applicant proposes to develop two ORs.
- The applicant adequately demonstrates that the two proposed ORs are needed in addition to the existing or approved ORs in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

- (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 – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

NH Matthews – Historical and Projected Staffing (ORs)		
Position	Historical	First 3 Full FYs
CRNAs	18.6	19.6
Registered Nurses	14.9	15.9
Surgical Technicians	19.1	21.1
Central Sterile Supply	10.2	10.2
Administration	5.1	5.1
Total	67.9	71.9

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 71-73, the applicant describes the methods used to recruit or fill vacant or new positions and its existing training and continuing education programs. The applicant provides supporting documentation in Exhibits H-2.1 through H-2.4 and H-3. In Section I, page 76, the applicant identifies the current medical director for surgical services. In Exhibit I-3.2, the applicant provides a letter from the medical director, expressing his support for the proposed project and stating he plans to continue as medical director for surgical services.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

NH Matthews Historical and Projected Staffing (Acute Care Beds)		
Position	Historical	First 3 Full FYs
Registered Nurses	222.7	244.0
Licensed Practical Nurses	1.0	1.0
Aides/Orderlies	78.1	92.8
Clerical Staff	16.4	21.3
Administration	19.3	22.3
Total	337.5	381.4

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 74-76, the applicant describes the methods used to recruit or fill vacant or new positions and its existing training and continuing education programs. The applicant provides supporting documentation in Exhibits H-2.1 through H-2.4 and H-3. In Section I, page 79, the applicant identifies the current inpatient medical director. In Exhibit 1-3.2, the applicant provides a letter from the current inpatient medical director, expressing his support for the proposed project and indicating his interest in continuing to serve as inpatient medical director for the existing and proposed services.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section Q, Form H, the applicant provides projected staffing for the proposed services as illustrated in the following table.

AH-LN Projected Staffing			
Position	CY 2023 (FY 1)	CY 2024 (FY 2)	CY 2025 (FY 3)
Registered Nurses	59.00	72.60	75.70
Surgical Technicians	6.70	7.20	8.70
Aides/Orderlies	10.50	14.70	14.70
Clerical Staff	20.20	23.30	25.20
Laboratory Technicians	8.40	8.40	8.40
Radiology Technologists	6.20	6.70	7.20
Pharmacists	1.00	1.00	1.00
Pharmacy Technicians	1.50	1.50	1.50
Physical Therapists	1.20	1.20	1.20
Speech Therapists	0.50	0.50	0.50
Occupational Therapists	0.25	0.25	0.50
Respiratory Therapists	8.40	8.40	8.40
Dieticians	0.50	0.50	1.00
Cooks	12.00	13.00	15.00
Social Workers	0.50	0.50	1.00
Housekeeping	10.50	12.60	12.60
Materials Management	2.00	2.00	2.00
Maintenance/Engineering	1.25	1.75	2.50
Administrator	7.80	7.80	13.50
Director of Nursing	1.00	1.00	1.00
Business Office	2.00	2.00	2.00
Specialists	1.75	1.75	2.25
Security	6.90	8.40	8.40
Lactation Consultant	0.25	0.25	0.25
Diagnostic Technician	8.40	8.40	8.40
EEG Tech	0.50	0.50	0.50
Total	179.20	206.20	223.40

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 111-112, the applicant describes the methods it will use to recruit or fill new positions and its proposed training and continuing education programs. In Section I, page 115, the applicant identifies the current chief medical officer for AH University City. In Exhibit I.3, the applicant provides a letter from the chief medical officer, expressing his support for the proposed project and indicating an interest in continuing to serve as chief medical officer for AH University City including the satellite campus of AH Lake Norman.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

CMC Historical and Projected Staffing (Acute Care Beds)				
Position	Historical	CY 2022 (FY 1)	CY 2023 (FY 2)	CY 2024 (FY 3)
Registered Nurses	430.05	451.23	446.86	447.51
Licensed Practical Nurses	2.98	3.13	3.10	3.10
Aides/Orderlies	15.13	15.88	15.72	15.74
Clerical Staff	7.46	7.83	7.75	7.76
Administrator	12.03	12.62	12.50	12.52
Technicians	156.05	163.74	162.15	162.38
Temporary Help	1.33	1.40	1.38	1.38
Total	625.03	655.81	649.47	650.40

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 73-74, the applicant describes the methods used to recruit or fill vacant or new positions and its existing training and continuing education programs. In Section I, page 76, the applicant identifies the current Chief Medical Officer. In Exhibit I.3, the applicant provides a letter from the current Chief Medical Officer, expressing his support for the proposed project and indicating his interest in continuing to serve as Chief Medical Officer for the existing and proposed services.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

AH University City Historical and Projected Staffing (Adult Med/Surg Beds)				
Position	Historical	CY 2022 (FY 1)	CY 2023 (FY 2)	CY 2024 (FY 3)
Registered Nurses	75.12	84.12	83.90	85.34
Aides/Orderlies	9.81	10.99	10.96	11.14
Clerical Staff	0.88	0.99	0.98	1.00
Administrator	3.02	3.38	3.37	3.43
Technicians	33.40	37.40	37.30	37.94
Temporary Help	6.90	7.73	7.71	7.84
Total	129.13	144.61	144.22	146.69

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 73-74, the applicant describes the methods used to recruit or fill vacant or new positions and the existing training and continuing education programs. In Section I, page 76, the applicant identifies the current Chief Medical Officer. In Exhibit I.3, the applicant provides a letter from the current Chief Medical Officer, expressing his support for the proposed project and indicating his interest in continuing to serve as Chief Medical Officer for the existing and proposed services.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

AH Pineville Historical and Projected Staffing (Acute Care Beds)				
Position	Historical	CY 2022 (FY 1)	CY 2023 (FY 2)	CY 2024 (FY 3)
Registered Nurses	204.92	230.26	220.26	224.70
Aides/Orderlies	10.12	11.37	10.88	11.10
Clerical Staff	4.41	4.96	4.74	4.84
Administrator	5.19	5.83	5.58	5.69
Technicians	77.42	86.99	83.22	84.89
Temporary Help	8.06	9.06	8.66	8.84
Total	310.12	348.47	333.34	340.05

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 76-77, the applicant

describes the methods used to recruit or fill vacant or new positions and the existing training and continuing education programs. In Section I, page 79, the applicant identifies the current Chief Medical Officer. In Exhibit I.3, the applicant provides a letter from the current Chief Medical Officer, expressing her support for the proposed project and indicating her interest in continuing to serve as Chief Medical Officer for the existing and proposed services.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

AH Pineville Historical and Projected Staffing (ORs)				
Position	Historical	CY 2023 (FY 1)	CY 2024 (FY 2)	CY 2025 (FY 3)
Registered Nurses	61.21	64.26	66.87	70.18
Surgical Technicians	41.35	43.41	45.18	47.41
Aides/Orderlies	10.36	10.88	11.32	11.88
Clerical Staff	7.63	8.01	8.34	8.75
Housekeeping	2.95	3.10	3.22	3.38
Administrator	5.27	5.53	5.76	6.04
Business Office	2.71	2.85	2.96	3.11
Temporary Help	10.12	10.62	11.06	11.60
Total	141.60	148.66	154.70	162.35

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 66-67, the applicant describes the methods used to recruit or fill vacant or new positions and the existing training and continuing education programs. In Section I, page 69, the applicant identifies the current Chief of Surgery. In Exhibit I.3, the applicant provides a letter from the current Chief of Surgery, expressing his support for the proposed project and indicating his interest in continuing to serve as Chief of Surgery for the existing and proposed services. In Exhibit I.3, the applicant also includes a letter from the facility’s Chief Medical Officer supporting the proposed project.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

CMC Historical and Projected Staffing (ORs)				
Position	Historical	CY 2022 (FY 1)	CY 2023 (FY 2)	CY 2024 (FY 3)
Registered Nurses	237.16	221.28	220.46	221.97
Licensed Practical Nurses	3.96	3.69	3.68	3.71
Surgical Technicians	165.15	154.09	153.52	154.57
Aides/Orderlies	67.75	63.21	62.98	63.41
Clerical Staff	29.78	27.79	27.68	27.87
Housekeeping	0.32	0.30	0.30	0.30
Administrator	6.47	6.04	6.01	6.06
Business Office	12.76	11.91	11.86	11.94
Specialists	1.12	1.05	1.04	1.05
Temporary Help	4.04	3.77	3.76	3.78
Total	528.51	493.13	491.29	494.65

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 63-64, the applicant describes the methods used to recruit or fill vacant or new positions and the existing training and continuing education programs. In Section I, page 66, the applicant identifies the current Chair of the Department of Surgery and Surgeon-in-Chief. In Exhibit I.3, the applicant provides a letter from the current Chair of the Department of Surgery and Surgeon-in-Chief, expressing his support for the proposed project and indicating his interest in continuing to serve as Chair of the Department of Surgery and Surgeon-in-Chief for the existing and proposed services. In Exhibit I.3, the applicant also includes a letter from the facility’s Chief Medical Officer supporting the proposed project.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

- (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 – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section I, page 74, the applicant states the following ancillary and support services are necessary for the proposed services:

- Materials Management/Purchasing Services
- Billing and Finance Services
- Pre- and Post-Operative Nursing Services
- Anesthesia Services
- Laboratory Services
- Radiology Services
- Pharmacy Services
- Dietary Services
- Environmental Services
- Laundry Services

On page 74, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I-1.

In Section I, pages 74-76, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibits I-2 and I-3.1. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section I, page 77, the applicant states the following ancillary and support services are necessary for the proposed services:

- Materials Management/Purchasing Services

- Billing and Finance Services
- Nursing Services
- Anesthesia Services
- Laboratory Services
- Radiology Services
- Pharmacy Services
- Dietary Services
- Environmental Services
- Laundry Services

On page 77, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I-1.

In Section I, pages 77-79, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibits I-2 and I-3.1. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section I, pages 113-114, the applicant states the following ancillary and support services are necessary for the proposed services:

- Diagnostic Imaging
- Pharmacy
- Laboratory
- Environmental Services
- Security
- Maintenance
- Administration
- Respiratory Therapy
- Rehabilitation Services
- Food and Nutrition Services
- Housekeeping
- Plant Operations and Maintenance
- Human Resources
- Patient Coding/Billing
- Accounting

On pages 113-114, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 114-115, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion - The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section I, page 75, the applicant states the following ancillary and support services are necessary for the proposed services:

- Laboratory
- Radiology
- Pharmacy
- Housekeeping
- Maintenance
- Administration
- Other Ancillary and Support Services

On page 75, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 75-76, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion - The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section I, page 75, the applicant states the following ancillary and support services are necessary for the proposed services:

- Laboratory
- Radiology
- Pharmacy
- Housekeeping
- Maintenance
- Administration
- Other Ancillary and Support Services

On page 75, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 75-76, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section I, page 78, the applicant states the following ancillary and support services are necessary for the proposed services:

- Laboratory
- Radiology
- Pharmacy
- Housekeeping
- Maintenance
- Administration
- Other Ancillary and Support Services

On page 78, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 78-79, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application

- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section I, page 68, the applicant states the following ancillary and support services are necessary for the proposed services:

- Laboratory
- Radiology
- Pharmacy
- Housekeeping
- Maintenance
- Administration
- Other Ancillary and Support Services

On page 68, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 68-69, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section I, page 65, the applicant states the following ancillary and support services are necessary for the proposed services:

- Laboratory
- Radiology
- Pharmacy
- Housekeeping
- Maintenance
- Administration
- Other Ancillary and Support Services

On page 65, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 65-66, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that 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 – All Applications

None of the applications include projections to provide the proposed services to a substantial number of persons residing in Health Service Areas (HSAs) that are not adjacent to the HSA in which the services will be offered. Furthermore, none of the applications include projections to provide the proposed services to a substantial number of persons residing in other states that are not adjacent to the North Carolina county in which the services will be offered. Therefore, Criterion (9) is not applicable to any of the applications in this review.

- (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 – All Applications

None of the applicants is an HMO. Therefore, Criterion (10) is not applicable to any of the applications in this review.

- (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.

NC – Atrium Health Lake Norman

C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section K, page 78, the applicant states the proposed project involves renovating 1,000 square feet of existing space. Line drawings are provided in Exhibit K-2.

On September 9, 2019, the Agency determined that a proposal from Novant to construct a new patient tower on the campus of NH Matthews was exempt from review, pursuant to G.S. 131E-184(g). In that request, Novant proposed to develop a three-story tower, approximately 147,000 square feet in total, which would be adjacent to and connected to NH Matthews. As part of that proposal, Novant stated it planned to relocate surgical and GI endoscopy services to the first floor of the proposed patient tower, and it planned to relocate 18 existing acute care beds and add six observation beds to the second floor of the proposed patient tower.

As part of this proposed project under review, the applicant plans to add four procedure rooms to the surgical space on the first floor, one of which will be converted to an additional shared OR if the proposed project is approved. In Section K, page 78, the applicant states that it included costs for the construction of the relevant portion of the new patient tower in its capital expenditures, allocated by the square footage of the proposed OR and associated pre- and post-operative spaces. Thus, while the applicant states that the space will be renovated, it can also be considered new construction.

On page 78, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 79, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. On page 79, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information which was publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section K, page 82, the applicant states the proposed project involves renovating 30,733 square feet of existing space. Line drawings are provided in Exhibit K-2.

On September 9, 2019, the Agency determined that a proposal from Novant to construct a new patient tower on the campus of NH Matthews was exempt from review, pursuant to G.S. 131E-184(g). In that request, Novant proposed to develop a three-story tower, approximately 147,000 square feet in total, which would be adjacent to and connected to NH Matthews. As part of that proposal, Novant stated it planned to relocate surgical and GI endoscopy services to the first floor of the proposed patient tower, and it planned to relocate 18 existing acute care beds and add six observation beds to the second floor of the proposed patient tower.

As part of this proposed project under review, the applicant plans to develop 20 acute care beds on the third floor of the proposed patient tower, along with four observation beds. In Section K, page 82, the applicant states that it included costs for the construction of the entire third floor of the new patient tower in its capital expenditures, allocated by the square footage of the third floor as compared to the entire patient tower. Thus, while the applicant states that the space will be renovated, it can also be considered new construction.

On page 82, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 83, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. On page 83, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information which was publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section K, page 118, the applicant states the proposed project involves constructing a new 160,000 square foot building. Line drawings are provided in Exhibit C.1. On page 118, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal.

On page 119, the applicant explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. However, the applicant does not adequately demonstrate the need the population proposed to be served has for the proposed new hospital campus and does not

adequately demonstrate that the proposal would not result in an unnecessary duplication of existing or approved services in the service area. The discussions regarding analysis of need and unnecessary duplication found in Criteria (3) and (6), respectively, are incorporated herein by reference.

On pages 119-120, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

On pages 120-121, the applicant identifies the proposed site and provides information about the current owner, zoning and special use permits for the site, and the availability of water, sewer, and waste disposal and power at the site.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments
- Information which was publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the reasons stated above.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section K, page 80, the applicant states the proposed project involves renovating 10,541 square feet of existing space. Line drawings are provided in Exhibit C.1. On page 80, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 81, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. On pages 81-82, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section K, page 80, the applicant states the proposed project involves renovating 7,509 square feet of existing space. Line drawings are provided in Exhibit C.1-1. On page 80, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 81, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed

services or the costs and charges to the public for the proposed services. On pages 81-82, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section K, page 83, the applicant states the project involves renovating 4,938 square feet of existing space. Line drawings are provided in Exhibit C.1-3.

On August 23, 2018, the Agency determined that a proposal from Atrium to construct a new patient tower on the campus of AH Pineville was exempt from review, pursuant to G.S. 131E-184(g). In that request, Atrium proposed to develop an eight-story tower, approximately 269,000 square feet in total, which would be adjacent to and connected to AH Pineville. As part of that proposal, Atrium stated it planned to relocate 36 existing acute care beds to the second level of the proposed patient tower, and it planned to relocate 22 existing acute care beds and 14 unlicensed observation beds to the third level of the proposed patient tower.

In Project I.D. #F-11622-18, the applicant was approved to develop 38 acute care beds. In Section C, page 29, the applicant states 36 of the previously approved acute care beds will be developed as proposed on the fourth level of the patient tower, and the remaining two acute care beds will replace two of the previously proposed 14 unlicensed observation beds on the third level of the patient tower. As part of this proposed project under review, the applicant plans to develop 12 new acute care beds on the third level of the patient tower instead of the previously proposed unlicensed observation beds. In Section C, page 28, the applicant states that it included in the capital expenditures the total cost to develop 12 acute care beds, including the cost of the core and shell of level three attributable to development of the 12 acute care beds, and the portions of site, foundation, engineering, and other costs that are attributable to development of the 12 acute care beds on level three. Thus, while the applicant states that the space will be renovated, it can also be considered new construction.

On page 83, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 84, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. On pages 84-85, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section K, page 72, the applicant states the project involves renovating 10,559 square feet of existing space. Line drawings are provided in Exhibit C.1-2.

On August 23, 2018, the Agency determined that a proposal from Atrium to construct a new patient tower on the campus of AH Pineville was exempt from review, pursuant to G.S. 131E-184(g). In that request, Atrium proposed to develop an eight-story tower, approximately 269,000 square feet in total, which would be adjacent to and connected to AH Pineville. As part of that proposal, Atrium stated it planned to develop the first floor of the patient tower as the entry and as shell space.

As part of this proposed project under review, the applicant plans to develop two new ORs on the first level of the patient tower instead of the previously proposed shell space. In Section C, page 17, the applicant states that it included in the capital expenditures the total cost to develop the two ORs, including the cost of the core and shell of the first level that is attributable to development of the two ORs, and the portions of site, foundation, engineering, and other costs that are attributable to development of the two ORs on the first level of the patient tower. Thus, while the applicant states that the space will be renovated, it can also be considered new construction.

On page 72, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 73, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. On pages 73-74, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section K, page 69, the applicant states the proposed project involves renovating 3,014 square feet of existing space. Line drawings are provided in Exhibit C.1. On page 69, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 70, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services.

On pages 70-71, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

(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;

NA – Atrium Health Lake Norman

C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section L, page 82, the applicant provides the historical payor mix of patients utilizing NH Matthews during CY 2018, as shown in the table below.

NH Matthews Historical Payor Mix Last Full FY (CY 2018)		
Payor Source	Total Facility	ORs
Self-Pay	1.37%	0.75%
Charity Care	5.21%	2.12%
Medicare*	44.75%	39.13%
Medicaid*	7.48%	4.97%
Insurance*	38.07%	49.32%
Worker's Comp.	0.33%	0.48%
TRICARE	0.90%	1.22%
Other**	1.89%	2.01%
Total	100.00%	100.00%

*Including any managed care plans

**Includes other government, institutional, and other unspecified payors.

On page 81, the applicant provides the following comparison.

	% of Total Patients Served at NHMMC during CY 2018	% of the Population of Mecklenburg County
Female	63.51%	51.69%
Male	36.49%	48.31%
Unknown	0.00%	0.00%
64 and Younger	58.36%	86.77%
65 and Older	41.64%	13.23%
American Indian	0.17%	0.47%
Asian	1.62%	4.48%
Black or African-American	15.63%	24.30%
Native Hawaiian or Pacific Islander	0.02%	0.07%
White or Caucasian	63.95%	62.44%
Other Race	5.30%	8.24%
Declined / Unavailable	13.31%	0.00%

Sources: Truven Analytics, Claritas Demographics

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents 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. Therefore, the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section L, page 86, the applicant provides the historical payor mix of patients utilizing NH Matthews during CY 2018, as shown in the table below.

NH Matthews Historical Payor Mix Last Full FY (CY 2018)		
Payor Source	Total Facility	Acute Care Beds
Self-Pay	1.37%	1.26%
Charity Care	5.21%	3.85%
Medicare*	44.75%	53.76%
Medicaid*	7.48%	7.37%
Insurance*	38.07%	31.67%
Worker’s Comp.	0.33%	0.13%
TRICARE	0.90%	0.80%
Other**	1.89%	1.16%
Total	100.00%	100.00%

*Including any managed care plans

**Includes other government, institutional, and other unspecified payors.

On page 85, the applicant provides the following comparison.

	% of Total Patients Served at NHMMC during CY 2018	% of the Population of Mecklenburg County
Female	63.51%	51.69%
Male	36.49%	48.31%
Unknown	0.00%	0.00%
64 and Younger	58.36%	86.77%
65 and Older	41.64%	13.23%
American Indian	0.17%	0.47%
Asian	1.62%	4.48%
Black or African-American	15.63%	24.30%
Native Hawaiian or Pacific Islander	0.02%	0.07%
White or Caucasian	63.95%	62.44%
Other Race	5.30%	8.24%
Declined / Unavailable	13.31%	0.00%

Sources: Truven Analytics, Claritas Demographics

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents 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. Therefore, the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

Atrium Health Lake Norman is not an existing facility. Therefore, Criterion (13a) is not applicable to this review.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section L, page 85, the applicant provides the historical payor mix for medical/surgical acute care patients utilizing CMC during CY 2018, as shown in the table below.

CMC Historical Payor Mix – Last Full FY (CY 2018)		
Payor Source	Total Facility	M/S Beds
Self-Pay	14.1%	7.2%
Medicare*	26.1%	47.2%
Medicaid*	24.5%	17.0%
Insurance*	33.4%	24.9%
Other**	1.9%	3.7%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

On page 84, the applicant provides the following comparison.

	% of Total Patients Served at CMC during CY 2018	% of the Population of Mecklenburg County
Female	59.6%	51.9%
Male	40.4%	48.1%
Unknown	0.0%	0.0%
64 and Younger	78.5%	88.8%
65 and Older	21.5%	11.2%
American Indian	0.9%	0.8%
Asian	1.6%	6.4%
Black or African-American	33.0%	32.9%
Native Hawaiian or Pacific Islander	0.2%	0.1%
White or Caucasian	46.0%	57.5%
Other Race	5.6%	2.4%
Declined / Unavailable	12.8%	0.0%

Source: Atrium internal data, US Census Bureau

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents 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. Therefore, the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section L, page 85, the applicant provides the historical payor mix for patients utilizing AH University City during CY 2018, as shown in the table below.

AH University City Historical Payor Mix Last Full FY (CY 2018)		
Payor Source	Total Facility	M/S Beds
Self-Pay	18.5%	9.4%
Medicare*	22.0%	50.0%
Medicaid*	21.1%	15.9%
Insurance*	34.7%	21.3%
Other**	3.7%	3.4%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

On page 84, the applicant provides the following comparison.

	% of Total Patients Served at AH-UC in M/S beds during CY 2018	% of the Population of Mecklenburg County
Female	62.4%	51.9%
Male	37.6%	48.1%
Unknown	0.0%	0.0%
64 and Younger	75.6%	88.8%
65 and Older	24.4%	11.2%
American Indian	1.4%	0.8%
Asian	4.4%	6.4%
Black or African-American	44.4%	32.9%
Native Hawaiian or Pacific Islander	0.1%	0.1%
White or Caucasian	32.8%	57.5%
Other Race	5.4%	2.4%
Declined / Unavailable	11.5%	0.0%

Source: Atrium internal data, US Census Bureau

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents 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. Therefore, the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section L, page 89, the applicant provides the historical payor mix for medical/surgical acute care patients utilizing AH Pineville during CY 2018, as shown in the table below.

AH Pineville Historical Payor Mix Last Full FY (CY 2018)		
Payor Source	Total Facility	M/S Beds
Self-Pay	12.4%	5.2%
Medicare*	32.6%	64.5%
Medicaid*	13.0%	6.8%
Insurance*	39.3%	21.5%
Other**	2.8%	2.1%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

In Section L, page 88, the applicant provides the following comparison.

	% of Total Patients Served at AH-P in M/S beds during CY 2018	% of the Population of Mecklenburg County
Female	57.3%	51.9%
Male	42.7%	48.1%
Unknown	0.0%	0.0%
64 and Younger	56.5%	88.8%
65 and Older	43.5%	11.2%
American Indian	0.6%	0.8%
Asian	1.7%	6.4%
Black or African-American	17.8%	32.9%
Native Hawaiian or Pacific Islander	0.1%	0.1%
White or Caucasian	65.4%	57.5%
Other Race	3.0%	2.4%
Declined / Unavailable	11.5%	0.0%

Source: Atrium internal data, US Census Bureau

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents 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. Therefore, the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section L, page 78, the applicant provides the historical payor mix for OR patients utilizing AH Pineville during CY 2018, as shown in the table below.

AH Pineville Historical Payor Mix Last Full FY (CY 2018)		
Payor Source	Total Facility	ORs
Self-Pay	12.4%	3.6%
Medicare*	32.6%	41.0%
Medicaid*	13.0%	4.8%
Insurance*	39.3%	48.6%
Other**	2.8%	2.0%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

On page 77, the applicant provides the following comparison.

	% of Total Patients Served at AH-P in ORs during CY 2018	% of the Population of Mecklenburg County
Female	57.7%	51.9%
Male	42.3%	48.1%
Unknown	0.0%	0.0%
64 and Younger	70.4%	88.8%
65 and Older	29.6%	11.2%
American Indian	0.8%	0.8%
Asian	1.2%	6.4%
Black or African-American	24.1%	32.9%
Native Hawaiian or Pacific Islander	0.1%	0.1%
White or Caucasian	60.7%	57.5%
Other Race	5.0%	2.4%
Declined / Unavailable	8.2%	0.0%

Source: Atrium internal data, US Census Bureau

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents 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. Therefore, the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section L, page 74, the applicant provides the historical payor mix for OR patients utilizing CMC during CY 2018, as shown in the table below.

CMC Historical Payor Mix – Last Full FY (CY 2018)		
Payor Source	Total Facility	ORs
Self-Pay	14.1%	7.0%
Medicare*	26.1%	28.2%
Medicaid*	24.5%	18.9%
Insurance*	33.4%	42.8%
Other**	1.9%	3.0%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

On page 73, the applicant provides the following comparison.

	% of Total Patients Served at CMC during CY 2018	% of the Population of Mecklenburg County
Female	59.6%	51.9%
Male	40.4%	48.1%
Unknown	0.0%	0.0%
64 and Younger	78.5%	89.1%
65 and Older	21.5%	10.9%
American Indian	0.9%	0.8%
Asian	1.6%	6.1%
Black or African-American	33.0%	32.8%
Native Hawaiian or Pacific Islander	0.2%	0.1%
White or Caucasian	46.0%	57.8%
Other Race	5.6%	2.4%
Declined / Unavailable	12.8%	0.0%

Source: Atrium internal data, US Census Bureau

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents 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. 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;

NA – Atrium Health Lake Norman
 C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, page 82, the applicant states it has no such obligation. In Section L, page 82, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any similar facilities owned by the applicant or a related entity and located in North Carolina.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, page 86, the applicant states it has no such obligation. In Section L, page 86, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any similar facilities owned by the applicant or a related entity and located in North Carolina.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

Atrium Health Lake Norman is not an existing facility. Therefore, Criterion (13b) is not applicable to this review.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, page 85, the applicant states it has no such obligation. In Section L, page 86, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any related entities.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, pages 85-86, the applicant states it has no such obligation. In Section L, page 86, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any related entities.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, pages 89-90, the applicant states it has no such obligation. In Section L, page 90, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any related entities.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, pages 78-79, the applicant states it has no such obligation. In Section L, page 79, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any related entities.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, page 74, the applicant states it has no such obligation. In Section L, page 75, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any related entities.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that 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 – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR
 In Section L, page 83, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

NH Matthews Projected Payor Mix Third Full FY (CY 2026)		
Payor Source	Total Facility	ORs
Self-Pay	1.37%	0.75%
Charity Care	5.21%	2.12%
Medicare*	44.75%	39.13%
Medicaid*	7.48%	4.98%
Insurance*	38.07%	49.32%
Worker’s Comp.	0.33%	0.48%
TRICARE	0.90%	1.22%
Other**	1.89%	2.01%
Total	100.00%	100.00%

*Including any managed care plans

**Includes other government, institutional, and other unspecified payors.

As shown in the table above, during the third full fiscal year of operation, the applicant projects that 5.21 percent of total services will be provided to charity care patients, 1.37 percent to self-pay patients, 44.75 percent to Medicare patients, and 7.48 percent to Medicaid patients.

On page 83, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.
- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section L, page 87, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

NH Matthews Projected Payor Mix Third Full FY (CY 2026)		
Payor Source	Total Facility	Acute Care Beds
Self-Pay	1.37%	1.26%
Charity Care	5.21%	3.85%
Medicare*	44.75%	53.76%
Medicaid*	7.48%	7.37%
Insurance*	38.07%	31.67%
Worker's Comp.	0.33%	0.13%
TRICARE	0.90%	0.80%
Other**	1.89%	1.16%
Total	100.00%	100.00%

*Including any managed care plans

**Includes other government, institutional, and other unspecified payors.

As shown in the table above, during the third full fiscal year of operation, the applicant projects that 5.21 percent of total services will be provided to charity care patients, 1.37 percent to self-pay patients, 44.75 percent to Medicare patients, and 7.48 percent to Medicaid patients.

On page 87, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.
- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section L, page 124, the applicant projects the following payor mix during the third full fiscal year following project completion, as illustrated in the following table.

AH-LN Projected Payor Mix – Third Full FY (CY 2025)								
Payor Source	Total Facility	M/S Beds	ICU Beds	OB Beds*	Surg Svcs	ED	Imaging	Other**
Self-Pay	8.2%	7.5%	7.5%	1.5%	4.5%	21.4%	10.3%	6.8%
Medicare***	16.1%	52.7%	52.7%	0.7%	38.2%	19.4%	25.7%	10.9%
Medicaid***	37.2%	17.9%	17.9%	42.5%	6.4%	25.4%	16.5%	45.3%
Insurance***	37.2%	19.5%	19.5%	54.8%	48.4%	30.1%	45.9%	36.2%
Other****	1.2%	2.5%	2.5%	0.4%	2.5%	3.6%	1.7%	0.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Obstetrics Beds

**Other includes laboratory services, physical therapy, occupational therapy, speech therapy, and other services.

***Including any managed care plans

****Includes TRICARE and worker’s compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects that 8.2 percent of total services will be provided to self-pay patients, 16.1 percent to Medicare patients, and 37.2 percent to Medicaid patients.

On page 124, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 125, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on historical data in projecting future utilization.
- The applicant accounts for the smaller subsection of patients from which the historical payor mix was used to make projections.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section L, page 86, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

CMC Projected Payor Mix – Third Full FY (CY 2024)		
Payor Source	Total Facility	M/S Beds
Self-Pay	14.1%	7.2%
Medicare*	26.1%	47.2%
Medicaid*	24.5%	17.0%
Insurance*	33.4%	24.9%
Other**	1.9%	3.7%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects that 14.1 percent of total services will be provided to self-pay patients, 26.1 percent to Medicare patients, and 24.5 percent to Medicaid patients.

On page 86, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 86, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.
- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section L, page 86, the applicant projects the following payor mix during the third full fiscal year following project completion, as illustrated in the following table.

AH University City Projected Payor Mix Third Full FY (CY 2024)		
Payor Source	Total Facility	M/S Beds
Self-Pay	18.5%	9.4%
Medicare*	22.0%	50.0%
Medicaid*	21.1%	15.9%
Insurance*	34.7%	21.3%
Other**	3.7%	3.4%
Total	100.0%	100.0%

*Including any managed care plans
 **Includes TRICARE and worker's compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects that 18.5 percent of total services will be provided to self-pay patients, 22 percent to Medicare patients, and 21.1 percent to Medicaid patients.

On page 86, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 86, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.
- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section L, page 90, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

AH Pineville Projected Payor Mix Third Full FY (CY 2024)		
Payor Source	Total Facility	M/S Beds
Self-Pay	12.4%	5.2%
Medicare*	32.6%	64.5%
Medicaid*	13.0%	6.8%
Insurance*	39.3%	21.5%
Other**	2.8%	2.1%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker's compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects 12.4 percent of total services will be provided to self-pay patients, 32.6 percent to Medicare patients, and 13 percent to Medicaid patients.

On page 90, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 90, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.
- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section L, page 79, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

AH Pineville Projected Payor Mix Third Full FY (CY 2025)		
Payor Source	Total Facility	ORs
Self-Pay	12.4%	3.6%
Medicare*	32.6%	41.0%
Medicaid*	13.0%	4.8%
Insurance*	39.3%	48.6%
Other**	2.8%	2.0%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker's compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects 12.4 percent of total services will be provided to self-pay patients, 32.6 percent to Medicare patients, and 13 percent to Medicaid patients.

On page 79, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 79, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.
- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section L, page 75, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

CMC Projected Payor Mix – Third Full FY (CY 2024)		
Payor Source	Total Facility	ORs
Self-Pay	14.1%	7.0%
Medicare*	26.1%	28.2%
Medicaid*	24.5%	18.9%
Insurance*	33.4%	42.8%
Other**	1.9%	3.0%
Total	100.0%	100.0%

*Including any managed care plans

**Includes TRICARE and worker’s compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects 14.1 percent of total services will be provided to self-pay patients, 26.1 percent to Medicare patients, and 24.5 percent to Medicaid patients.

On page 75, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 75, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.
- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that 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 – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR
 In Section L, page 85, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion -The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section L, page 89, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section L, page 126, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section L, page 87, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section L, page 87, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section L, page 91, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section L, page 80, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section L, page 76, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that 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 – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section M, page 86, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and provides supporting documentation in Exhibit H-2.1.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section M, page 90, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and provides supporting documentation in Exhibit H-2.1.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section M, page 127, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which Atrium has existing relationships.

Conclusion – The Agency reviewed the:

- Application

- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section M, page 88, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which it has existing relationships.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section M, page 88, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which it has existing relationships.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section M, page 92, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which it has existing relationships.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section M, page 81, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which it has existing relationships.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section M, page 77, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which it has existing relationships.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, 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.

NC – Atrium Health Lake Norman
 C – All Other Applications

The 2019 SMFP includes need determinations for 76 acute care beds and six ORs in the Mecklenburg County service area.

Acute Care Beds. On page 36, the 2019 SMFP defines the service area for acute care beds as “*the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1.*” Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

As of the date of this decision, there are 2,288 existing and approved acute care beds, allocated between 10 hospitals owned by two providers (Atrium and Novant) in the Mecklenburg County Service Area, as illustrated in the following table.

Mecklenburg County Acute Care Hospitals	
Facility	Existing/Approved Beds
AH Pineville	221 (+38)
AH University City	100
CMC-Main	859
AH-Mercy*	196
Atrium Total	1,414
NH Ballantyne Medical Center	0 (+36)
NH Huntersville Medical Center	139 (+12)
NH Health Matthews Medical Center	154
NH Health Presbyterian Medical Center	471 (-36)
NH Charlotte Orthopedic Hospital**	48
NH Mint Hill Medical Center	36 (+14)
Novant Total	874
Mecklenburg County Total	2,288

Source: Table 5A, 2019 SMFP; applications under review; 2020 LRAs; Agency records.

Note: Numbers in parentheses reflect approved changes in bed inventory which have not yet been developed.

*AH-Mercy is a separate campus but licensed as part of CMC.

**NHCOH is a separate campus but licensed as part of NHPMC.

Operating Rooms. On page 55, the 2019 SMFP defines the service area for ORs as “*...the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1.*” Figure 6.1, on page 60, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

Not including dedicated C-Section ORs and trauma ORs, there are 161 existing and approved ORs in Mecklenburg County, allocated between 18 facilities, as shown in the table below.

Mecklenburg County OR Inventory						
Facility	IP ORs	OP ORs	Shared ORs	Excluded C-Section and Trauma ORs	CON Adjustments	Total ORs
AH Huntersville Surgery Center	0	0	0	0	1	1
AH Pineville	3	0	9	-2	1	11
AH University City	1	1	7	-1	-1	7
CCSS	0	2	0	0	1	3
CMC	10	9	41	-5	2	57
Atrium Health System Total	14	12	57	-8	4	79
Charlotte Surgery Center – Museum	0	6	0	0	0	6
Charlotte Surgery Center – Wendover	0	6	0	0	0	6
Charlotte Surgery Center System Total	0	12	0	0	0	12
Matthews Surgery Center	0	2	0	0	0	2
NH Ballantyne*	0	0	0	0	2	2
NH Ballantyne OPS*	0	2	0	0	-2	0
NH Huntersville	1	0	6	-1	1	7
NH Huntersville OPS	0	2	0	0	0	2
NH Mint Hill	1	0	3	-1	1	4
NH Matthews	2	0	6	-2	0	6
NH Presbyterian	6	6	28	-3	-1	36
SouthPark Surgery Center	0	6	0	0	0	6
Novant Health System Total	10	18	43	-7	0	65
Carolinas Ctr for Ambulatory Dentistry**	0	2	0	0	0	2
Mallard Creek Surgery Center**	0	2	0	0	0	2
Metrolina Vascular Access Care	0	0	0	0	1	1
Total	24	46	100	-15	5	161

Sources: Table 6A, 2019 SMFP; 2019 LRAs; Agency records

*NHBMC, an approved hospital under development, will have 2 ORs that will be relocated from NHBOS, which will close once the ORs are relocated to NHBMC.

**These facilities are part of demonstration projects and the ORs are not included in the SMFP need determination calculations.

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

The applicant proposes to add one OR to NH Matthews, its existing acute care hospital, for a total of nine ORs upon project completion.

In Section N, pages 88-89, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 88, the applicant states:

“To compete with other hospitals, NH Matthews must have the capacity to serve additional patient volume. The proposed project will expand NH Matthews’ capacity to provide surgical services to area residents. ..., NH Matthews’ inpatient surgical services are growing in both volume and acuity. To continue to meet the growing demand for inpatient surgical services, NH Matthews needs an additional OR. This will allow NH Matthews to compete with other hospitals while reducing the need to extend operating room hours.”

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).
- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).
- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

The applicant proposes to add 20 acute care beds to NH Matthews, its existing acute care hospital, for a total of 174 acute care beds upon project completion.

In Section N, pages 91-92, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 91, the applicant states:

“To compete with other hospitals, NH Matthews must have the capacity to serve more patients. The proposed project will expand NH Matthews’ capacity to serve acute care patients. ..., demand for NH Matthews’ inpatient medical/surgical discharges is increasing. NH Matthews is now at or near its medical/surgical capacity. To meet the growing demand for inpatient medical/surgical services, NH Matthews needs more acute care beds.”

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).
- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).

- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The applicant proposes to develop AH Lake Norman, a new satellite hospital campus to be licensed under AH University City, by developing 30 acute care beds and two ORs pursuant to need determinations in the 2019 SMFP.

In Section N, pages 129-132, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 129, the applicant states:

“The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to acute care services.”

However, the applicant does not adequately demonstrate how any enhanced competition will have a positive impact on the cost-effectiveness of the proposal, based on the following analysis:

- The applicant does not adequately demonstrate the need the population proposed to be served has for the proposed project. The discussion regarding need found in Criterion (3) is incorporated herein by reference.
- The applicant does not adequately demonstrate that projected utilization is based on reasonable and adequately supported assumptions. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.
- The applicant does not adequately demonstrate that the proposal would not result in an unnecessary duplication of existing or approved services in the service area. The discussion regarding unnecessary duplication found in Criterion (6) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments

- Responses to written comments
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the reasons stated above.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The applicant proposes to develop 18 additional acute care beds at CMC, its existing acute care hospital, for a total of 1,073 acute care beds upon project completion.

In Section N, pages 90-93, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 90, the applicant states:

“The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to acute care services.”

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).
- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).
- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The applicant proposes to develop 16 additional acute care beds at AH University City, its existing acute care hospital, for a total of 116 acute care beds upon project completion.

In Section N, pages 90-93, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote cost-effectiveness, quality, and access to the proposed services. On page 90, the applicant states:

“The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to acute care services.”

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).
- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).
- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The applicant proposes to develop 12 additional acute care beds at AH Pineville, its existing acute care hospital, for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

In Section N, pages 94-97, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 94, the applicant states:

“The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to acute care services.”

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).
- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).

- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11814-19/Atrium Health Pineville/Develop two ORs

The applicant proposes to develop two additional ORs at AH Pineville, its existing acute care hospital, for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR).

In Section N, pages 83-86, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 83, the applicant states:

“The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to surgical services.”

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).
- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).
- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11815-19/Carolinas Medical Center/Develop two ORs

The applicant proposes to develop two additional ORs at CMC, its existing acute care hospital, for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs).

In Section N, pages 79-82, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 79, the applicant states:

“The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to acute care services.”

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).
- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).
- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

- (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.

C – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

On Form A in Section Q, the applicant provides a list of all healthcare facilities with ORs located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 21 hospitals and ASFs located in North Carolina.

In Section O, page 92, the applicant states that, during the 18 months immediately preceding the submittal of the application, there were no incidents which resulted in a finding of immediate jeopardy that occurred in any of these facilities. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in one of these facilities. 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 21 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

On Form A in Section Q, the applicant provides a list of all healthcare facilities with acute care beds located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 11 hospitals located in North Carolina.

In Section O, page 95, the applicant states that, during the 18 months immediately preceding the submittal of the application, there were no incidents which resulted in a finding of immediate jeopardy that occurred in any of these facilities. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in one of these facilities. 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 11 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

On Form A in Section Q, the applicant provides a list of all healthcare facilities with acute care beds or ORs located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 21 hospitals and ASFs located in North Carolina.

In Section O, pages 135-136, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. 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 21 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

On Form A in Section Q, the applicant provides a list of all healthcare facilities with acute care beds located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 14 hospitals located in North Carolina.

In Section O, pages 96-97, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. 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 14 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

On Form A in Section Q, the applicant provides a list of all healthcare facilities with acute care beds located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 14 hospitals located in North Carolina.

In Section O, pages 96-97, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. 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 14 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

On Form A in Section Q, the applicant provides a list of all healthcare facilities with acute care beds owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 14 hospitals located in North Carolina.

In Section O, pages 100-101, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. 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 14 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

On Form A in Section Q, the applicant provides a list of all healthcare facilities with ORs located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 21 hospitals and ASFs located in North Carolina.

In Section O, pages 89-90, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. 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 21 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

On Form A in Section Q, the applicant provides a list of all healthcare facilities with ORs located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 21 hospitals and ASFs located in North Carolina.

In Section O, pages 85-86, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. 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 21 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.

C – All Applications

SECTION .2100 – CRITERIA AND STANDARDS FOR SURGICAL SERVICES AND OPERATING ROOMS are applicable to:

- Project I.D. #F-11807-19/**Novant Health Matthews Medical Center**/Develop one OR
- Project I.D. #F-11810-19/**Atrium Health Lake Norman**/Develop two ORs
- Project I.D. #F-11814-19/**Atrium Health Pineville**/Develop two ORs
- Project I.D. #F-11815-19/**Carolinas Medical Center**/Develop two ORs

10A NCAC 14C .2103 PERFORMANCE STANDARDS

(a) *An applicant proposing to increase the number of operating rooms (excluding dedicated C-section operating rooms) in a service area shall demonstrate the need for the number of proposed operating rooms in addition to the existing and approved operating rooms in the applicant's health system in the applicant's third full fiscal year following completion of the proposed project based on the Operating Room Need Methodology set forth in the 2018 State Medical Facilities Plan. The applicant is not required to use the population growth factor.*

-C- **Novant Health Matthews Medical Center.** This proposal would add one new OR to NH Matthews for a total of nine ORs upon project completion. The applicant projects sufficient surgical cases and hours to demonstrate the need for an additional OR in the applicant's health system in the third full fiscal year following completion of the proposed project based on the Operating Room Need Methodology in the 2019 SMFP. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

-NC- **Atrium Health Lake Norman.** This proposal would add two new ORs to AH Lake Norman, a new satellite hospital campus. However, the applicant does not adequately demonstrate the need for the proposed project, or that projected utilization is reasonable and adequately supported. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Therefore, the application is not conforming with this Rule.

-C- **Atrium Health Pineville.** This proposal would add two new ORs to AH Pineville for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR). The applicant projects sufficient surgical cases and hours to demonstrate the need for two additional ORs in the applicant's health system in the third full fiscal year following completion of the proposed project based on the Operating Room Need Methodology in the 2019 SMFP. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

- C- **Carolinas Medical Center.** This proposal would add two new ORs to CMC for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs). The applicant projects sufficient surgical cases and hours to demonstrate the need for two additional ORs in the applicant’s health system in the third full fiscal year following completion of the proposed project based on the Operating Room Need Methodology in the 2019 SMFP. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.
- (b) *The applicant shall document the assumptions and provide data supporting the methodology used for each projection in this Rule.*
- C- **Novant Health Matthews Medical Center.** In Section C, pages 26-28, and Section Q, the applicant provides the assumptions and data supporting the methodology for its utilization projections. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.
- NC- **Atrium Health Lake Norman.** In Section Q and Exhibit C.4-2, the applicant provides the assumptions and data supporting the methodology for its utilization projections. However, the applicant does not adequately demonstrate the need for the proposed project, or that projected utilization is reasonable and adequately supported. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Therefore, the application is not conforming with this Rule.
- C- **Atrium Health Pineville.** In Section Q, the applicant provides the assumptions and data supporting the methodology for its utilization projections. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.
- C- **Carolinas Medical Center.** In Section Q, the applicant provides the assumptions and data supporting the methodology for its utilization projections. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

SECTION .2300 – CRITERIA AND STANDARDS FOR COMPUTED TOMOGRAPHY EQUIPMENT is applicable to:

- Project I.D. #F-11810-19/**Atrium Health Lake Norman**/Develop two ORs

10A NCAC 14C .2303 PERFORMANCE STANDARDS

An applicant proposing to acquire a CT scanner shall demonstrate each of the following:

- (1) *each fixed or mobile CT scanner to be acquired shall be projected to perform 5,100 HECT units annually in the third year of operation of the proposed equipment;*

-NC- **Atrium Health Lake Norman.** The applicant proposes to develop AH Lake Norman, a new satellite hospital campus, and proposes to acquire a CT scanner. In Section Q, the applicant projects to perform 11,760 HECT units in the third year of operation of the proposed equipment. However, the applicant does not adequately demonstrate the need to develop the new satellite hospital campus or that projected utilization, including for the proposed CT scanner, is reasonable and adequately supported. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Therefore, the application is not conforming with this Rule.

(2) *each existing fixed or mobile CT scanner which the applicant or a related entity owns a controlling interest in and is located in the applicant's CT service area shall have performed at least 5,100 HECT units in the 12 month period prior to submittal of the application; and*

-C- **Atrium Health Lake Norman.** In Section C, page 91, the applicant identifies its CT service area as its primary and secondary areas of patient origin (the PSA and SSA). The applicant states it currently owns and operates one existing fixed CT scanner in its CT service area, located at Carolinas Imaging Services – Huntersville. The applicant states that between August 2018 and July 2019, the CT scanner at Carolinas Imaging Services – Huntersville performed 6,602 HECT units.

(3) *each existing and approved fixed or mobile CT scanner which the applicant or a related entity owns a controlling interest in and is located in the applicant's CT service area shall be projected to perform 5,100 HECT units annually in the third year of operation of the proposed equipment.*

-NC- **Atrium Health Lake Norman.** In Section C, page 91, the applicant identifies its CT service area as its primary and secondary areas of patient origin (the PSA and SSA). In Section C, pages 91-92, the applicant states it currently owns and operates one existing fixed CT scanner in its CT service area, located at Carolinas Imaging Services – Huntersville (CIS-Huntersville), and was approved to relocate a fixed CT scanner to be relocated from CMC as part of developing AH Mountain Island ED (Project I.D. #F-11658-19). On page 92, the applicant provides the projected HECT units to be performed by AH Mountain Island ED in its third full fiscal year, CY 2023, and states that the combined average of the three existing, approved, and proposed CT scanners is projected to be more than 5,100 HECT units annually in CY 2025. On page 92, the applicant states:

“Even assuming that the CIS-Huntersville CT scanner experiences no growth in utilization from the most recent 12-month period and Atrium Health Mountain Island’s fixed CT scanner experiences no growth from its projected CY 2023 volumes..., the existing and approved fixed CT scanners which Atrium Health University City and its related entities operate in the proposed service area will perform more than 5,100 HECT units annually in the third project year...”

On page 92, the applicant provides the information in the table below.

Projected CT Service Area Utilization – CY 2025	
AH Lake Norman HECT Units	11,760
CIS-Huntersville HECT Units (from August 2018-July 2019)	6,602
AH Mountain Island HECT Units (for CY 2023, Project I.D. #F-11658-19)	3,452
Service Area Total	22,031
Fixed Units	3
HECTs per Fixed Unit	7,344

However, the applicant does not adequately demonstrate the need to develop the new satellite hospital campus or that projected utilization, including for the proposed CT scanner, is reasonable and adequately supported. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Without the proposed CT scanner at AH Lake Norman, the average HECTs per fixed unit of the remaining two existing and approved CT scanners is not at least 5,100 HECT units in CY 2025. Therefore, the application is not conforming with this Rule.

SECTION .3800 – CRITERIA AND STANDARDS FOR ACUTE CARE BEDS are applicable to:

- Project I.D. #F-11808-19/**Novant Health Matthews Medical Center**/Develop 20 acute care beds
- Project I.D. #F-11810-19/**Atrium Health Lake Norman**/Develop 30 acute care beds
- Project I.D. #F-11811-19/**Carolinas Medical Center**/Develop 18 acute care beds
- Project I.D. #F-11812-19/**Atrium Health University City**/Develop 16 acute care beds
- Project I.D. #F-11813-19/**Atrium Health Pineville**/Develop 12 acute care beds

10A NCAC 14C .3803 PERFORMANCE STANDARDS

(a) *An applicant proposing to develop new acute care beds shall demonstrate that the projected average daily census (ADC) of the total number of licensed acute care beds proposed to be licensed within the service area, under common ownership with the applicant, divided by the total number of those licensed acute care beds is reasonably projected to be at least 66.7 percent when the projected ADC is less than 100 patients, 71.4 percent when the projected ADC is 100 to 200 patients, and 75.2 percent when the projected ADC is greater than 200 patients, in the third operating year following completion of the proposed project or in the year for which the need determination is identified in the State Medical Facilities Plan, whichever is later.*

-C- **Novant Health Matthews Medical Center.** The applicant proposes to develop 20 additional acute care beds for a total of 174 acute care beds upon project completion. The projected ADC of the total number of licensed acute care beds proposed to be licensed within the service area and owned by Novant is greater than 200. The applicant adequately demonstrates that the projected utilization of the total number of licensed acute care beds proposed to be licensed within the service area and which are owned

by Novant is reasonably projected to be at least 75.2 percent by the end of the third operating year following completion of the proposed project. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

- NC- **Atrium Health Lake Norman.** The applicant proposes to develop AH Lake Norman, a new satellite hospital campus, with 30 acute care beds. The projected ADC of the total number of licensed acute care beds proposed to be licensed within the service area and owned by Atrium is greater than 200. However, the applicant does not adequately demonstrate the need for the proposed acute care beds or that its projected utilization is reasonable and adequately supported. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Therefore, the application is not conforming with this Rule.

- C- **Carolinas Medical Center.** The applicant proposes to develop 18 additional acute care beds for a total of 1,073 acute care beds upon project completion. The projected ADC of the total number of licensed acute care beds proposed to be licensed within the service area and owned by Atrium is greater than 200. The applicant adequately demonstrates that the projected utilization of the total number of licensed acute care beds proposed to be licensed within the service area and which are owned by Atrium is reasonably projected to be at least 75.2 percent by the end of the third operating year following completion of the proposed project. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

- C- **Atrium Health University City.** The applicant proposes to develop 16 additional acute care beds for a total of 116 acute care beds upon project completion. The projected ADC of the total number of licensed acute care beds proposed to be licensed within the service area and owned by Atrium is greater than 200. The applicant adequately demonstrates that the projected utilization of the total number of licensed acute care beds proposed to be licensed within the service area and which are owned by Atrium is reasonably projected to be at least 75.2 percent by the end of the third operating year following completion of the proposed project. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

- C- **Atrium Health Pineville.** The applicant proposes to develop 12 additional acute care beds for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18. The projected ADC of the total number of licensed acute care beds proposed to be licensed within the service area and owned by Atrium is greater than 200. The applicant adequately demonstrates that the projected utilization of the total number of licensed acute care beds proposed to be licensed within the service area and which are owned by Atrium is reasonably projected to be at least 75.2 percent by the end of the third operating year following completion of the proposed project. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

- (b) *An applicant proposing to develop new acute care beds shall provide all assumptions and data used to develop the projections required in this rule and demonstrate that they support the projected inpatient utilization and average daily census.*

- C- **Novant Health Matthews Medical Center.** See Section C, pages 25-47, for the applicant's discussion of need, and Section C, pages 25-47 along with Section Q for the applicant's data, assumptions, and methodology used to project utilization. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

- NC- **Atrium Health Lake Norman.** See Section Q and Exhibit C.4-1 for the applicant's data, assumptions, and methodology used to project utilization. However, the applicant does not adequately demonstrate the need for the proposed project or that its assumptions and methodology support the projected inpatient utilization and average daily census. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Therefore, the application is not conforming with this Rule.

- C- **Carolinas Medical Center.** See Section C, pages 44-50, for the applicant's discussion of need, and Section Q for the applicant's data, assumptions, and methodology used to project utilization. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

- C- **Atrium Health University City.** See Section C, pages 44-48, for the applicant's discussion of need, and Section Q for the applicant's data, assumptions, and methodology used to project utilization. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

- C- **Atrium Health Pineville.** See Section C, pages 46-52, for the applicant's discussion of need, and Section Q for the applicant's data, assumptions, and methodology used to project utilization. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

COMPARATIVE ANALYSIS FOR OPERATING ROOMS

Pursuant to G.S. 131E-183(a)(1) and the 2019 State Medical Facilities Plan, no more than six ORs may be approved for Mecklenburg County in this review. Because the four applications in this review collectively propose to develop seven additional ORs in Mecklenburg County, all the applications cannot be approved for the total number of ORs proposed. Therefore, after considering all the information in each application and reviewing each application individually against all applicable review criteria, the Project Analyst conducted a comparative analysis of the proposals to decide which proposals should be approved.

Below is a brief description of each project included in the Operating Room Comparative Analysis:

- Project I.D. #F-11807-19/**Novant Health Matthews Medical Center**/Develop one additional OR pursuant to the 2019 SMFP need determination
- Project I.D. #F-11810-19/**Atrium Health Lake Norman**/Develop two ORs pursuant to the 2019 SMFP need determination as part of developing a satellite hospital campus
- Project I.D. #F-11814-19/**Atrium Health Pineville**/Develop two additional ORs pursuant to the 2019 SMFP need determination
- Project I.D. #F-11815-19/**Carolinas Medical Center**/Develop two additional ORs pursuant to the 2019 SMFP need determination

Conformity with Review Criteria

Table 6C on page 85 of the 2019 SMFP identifies a need for six additional ORs in Mecklenburg County. As shown in Table 6B, pages 79-80, the Novant Health system shows a projected surplus of 7.06 ORs for 2021 and the Atrium Health system shows a projected deficit of 12.47 ORs in 2021, which results in the Mecklenburg County need determination for six ORs. However, the application process is not limited to the provider (or providers) that show a deficit and create the need for additional ORs. Any provider can apply to develop the six ORs in Mecklenburg County. Furthermore, it is not necessary that an existing provider have a projected deficit of ORs to apply for more ORs. However, it is necessary that an applicant adequately demonstrate the need to develop its project, as proposed.

The applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are conforming to all applicable statutory and regulatory review criteria. However, the application submitted by **Atrium Health Lake Norman** is not conforming to all applicable statutory and regulatory review criteria. An application that is not conforming to all applicable statutory and regulatory review criteria cannot be approved. Therefore, regarding this comparative factor, the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are equally effective alternatives and more effective than the application submitted by **Atrium Health Lake Norman**.

Scope of Services

Generally, the application proposing to provide the greatest scope of services is the more effective alternative with regard to this comparative factor.

Novant Health Matthews Medical Center, Atrium Health Pineville, and Carolinas Medical Center are all existing acute care hospitals which provide numerous types of surgical services. **Atrium Health Lake Norman** is a proposed satellite acute care hospital; however, it will not provide as many types of surgical services as **Novant Health Matthews Medical Center, Atrium Health Pineville, and Carolinas Medical Center**.

Therefore, **Novant Health Matthews Medical Center, Atrium Health Pineville, and Carolinas Medical Center** are more effective alternatives with respect to this comparative factor and **Atrium Health Lake Norman** is a less effective alternative.

Geographic Accessibility

Not including dedicated C-Section ORs and trauma ORs, there are 161 existing and approved ORs in Mecklenburg County, allocated between 18 facilities, as shown in the table below.

Mecklenburg County OR Inventory						
Facility	IP ORs	OP ORs	Shared ORs	Excluded C-Section and Trauma ORs	CON Adjustments	Total ORs
AH Huntersville Surgery Center	0	0	0	0	1	1
AH Pineville	3	0	9	-2	1	11
AH University City	1	1	7	-1	-1	7
CCSS	0	2	0	0	1	3
CMC	10	9	41	-5	2	57
Atrium Health System Total	14	12	57	-8	4	79
Charlotte Surgery Center – Museum	0	6	0	0	0	6
Charlotte Surgery Center – Wendover	0	6	0	0	0	6
Charlotte Surgery Center System Total	0	12	0	0	0	12
Matthews Surgery Center	0	2	0	0	0	2
NH Ballantyne*	0	0	0	0	2	2
NH Ballantyne OPS*	0	2	0	0	-2	0
NH Huntersville	1	0	6	-1	1	7
NH Huntersville OPS	0	2	0	0	0	2
NH Mint Hill	1	0	3	-1	1	4
NH Matthews	2	0	6	-2	0	6
NH Presbyterian	6	6	28	-3	-1	36
SouthPark Surgery Center	0	6	0	0	0	6
Novant Health System Total	10	18	43	-7	0	65
Carolinas Ctr for Ambulatory Dentistry**	0	2	0	0	0	2
Mallard Creek Surgery Center**	0	2	0	0	0	2
Metrolina Vascular Access Care	0	0	0	0	1	1
Total	24	46	100	-15	5	161

Sources: Table 6A, 2019 SMFP; 2019 LRAs; Agency records

*NHBMC, an approved hospital under development, will have 2 ORs that will be relocated from NHBOS, which will close once the ORs are relocated to NHBMC.

**These facilities are part of demonstration projects and the ORs are not included in the SMFP need determination calculations.

The following table illustrates where the ORs are located in Mecklenburg County.

City	System	Total OR Inventory*	Population as of July 1, 2018	# of ORs per 10,000 Population
Charlotte	Atrium	60	852,992	0.70
	Charlotte Surgery Center	12		0.14
	Carolinas Center for Ambulatory Dentistry	2		0.02
	Mallard Creek Surgery Center	2		0.02
	Metrolina Vascular Access Care	1		0.01
	Novant	42		0.49
	Novant	2		0.02
Ballantyne	Novant	2	0.02	
University City	Atrium	7	0.08	
	Charlotte Total	128		1.50
Pineville	Atrium	11	9,338	11.78
Huntersville	Atrium	1	61,220	0.16
	Novant	9		1.47
	Huntersville Total	10		1.63
Matthews	Novant	8	31,132	2.57
Mint Hill	Novant	4	27,459	1.46
Total		161	982,141	1.64
Total Mecklenburg County		161	1,088,350	1.48

Source: NC OSBM; accessed March 6, 2020.

*Existing and approved ORs, not including dedicated C-Section ORs or excluded trauma ORs.

As shown in the table above, the existing and approved ORs are in Charlotte, Huntersville, Matthews, Mint Hill, and Pineville. **Novant Health Matthews Medical Center** proposes to add one OR to an existing facility in Matthews. **Atrium Health Lake Norman** proposes to develop a new satellite hospital campus with two ORs in Cornelius. **Carolinas Medical Center** proposes to add two ORs to an existing facility in Charlotte. **Atrium Health Pineville** proposes to add two ORs to an existing facility in Pineville. Two of the seven proposed ORs would be in Cornelius, which does not currently have any ORs. Two proposed ORs would be in Charlotte, which already has 128 existing and approved ORs or 1.50 ORs per 10,000 people. One proposed OR would be in Matthews, which already has 8 existing and approved ORs or 2.57 ORs per 10,000 people. The remaining two ORs would be in Pineville, which already has 11 existing and approved ORs or 11.78 ORs per 10,000 people. However, Pineville is located very close to the NC/SC border, and **Atrium Health Pineville** serves a number of SC residents.

Atrium Health Lake Norman proposes to develop ORs in an area of Mecklenburg County where there are not currently any ORs. **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** propose to add ORs to existing facilities which already have ORs. Therefore, **Atrium Health Lake Norman** is the more effective alternative with regard to geographic accessibility and **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are less effective alternatives.

Historical Utilization

The table below shows OR utilization for both Atrium Health and Novant Health facilities based on surgical hours as reported in Table 6A of the 2020 SMFP. Generally, the applicant with the highest historical utilization is the more effective alternative with regard to this comparative analysis factor.

Mecklenburg County Historical OR Utilization (Table 6A of 2020 SMFP)				
Facility	FFY 2018 Surgical Hours	Surgical Hours for Group	Total ORs*	Utilization Rate
NH Matthews	10,112	1,500	6	112.3%
AH Pineville	18,991	1,755	10	108.2%
CMC	133,090	1,950	57	119.7%

*Existing ORs during FFY 2018 only.

As shown in the table above, **Carolinas Medical Center** has the highest historical utilization, followed next by **Novant Health Matthews Medical Center** and then **Atrium Health Pineville**. **Atrium Health Lake Norman** is not an existing facility and as such has no historical utilization.

Therefore, with regard to historical utilization, **Carolinas Medical Center** is the more effective alternative, and **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Atrium Health Lake Norman** are less effective alternatives.

Competition (Patient Access to a New or Alternative Provider)

Generally, the application proposing to increase competition and patient access to a new or alternative provider in the service area is the more effective alternative with regard to this comparative factor.

There are 161 existing and approved ORs (excluding dedicated C-Section ORs and trauma ORs) located in Mecklenburg County. The table below shows the number and percentage of ORs in which each applicant or health system has ownership.

ORs in Mecklenburg County by Health System/Applicant		
Health System (Applicants)	Number of ORs	Percent of ORs
Atrium (AH Lake Norman, AH Pineville, and CMC)	91	56.5%
Novant (NH Matthews)	65	40.4%
Others	5	3.1%
Total	161	100.0%

The table above includes the ORs for CSC-M and CSC-W in the total for Atrium Health. While the two surgery centers may not be associated with Atrium Health for purposes of determining need in the SMFP, LRAs for Atrium hospitals document that Atrium Health owns 45 percent of the two surgery centers; Atrium relocated existing ORs from CMC and AH University City to CSC-W as part of Project I.D. #F-11106-15; and Atrium has included projections for CSC-M and CSC-W in its current and historical applications for ORs.

There is a need determination in the 2019 SMFP for six ORs, which increases the total number of existing and approved ORs (excluding dedicated C-Section ORs and trauma ORs) located in Mecklenburg County to 167 ORs. The table below shows the number of ORs and percentage of the total each applicant or health system would control if all applications were approved as submitted.

ORs in Mecklenburg County by Health System/Applicant – If Approved		
Health System (Applicants)	Number of ORs	Percent of ORs
Atrium (AH Lake Norman, AH Pineville, and CMC)	97	58.1%
Novant (NH Matthews)	66	39.5%
Others	5	3.0%
Total	167	100.0%

If all Atrium Health applications (**Atrium Health Lake Norman, Atrium Health Pineville, and Carolinas Medical Center**) are approved as submitted, Atrium would control 97 of the 167 existing and approved ORs located in Mecklenburg County, or 58.1 percent. If **Novant Health Matthews Medical Center’s** application is approved, Novant Health would control 66 of the 167 existing and approved ORs located in Mecklenburg County, or 39.5 percent.

Even if CSC-M and CSC-W were not included in Atrium Health’s total, Atrium Health would currently control 49.1 percent of the existing and approved ORs in Mecklenburg County, and if all Atrium Health applications were approved as submitted, Atrium Health would control 85 of the 167 existing and approved ORs in Mecklenburg County, or 50.1 percent.

Therefore, with regard to competition, the application submitted by **Novant Health Matthews Medical Center** is the more effective alternative and the applications submitted by **Atrium Health Lake Norman, Atrium Health Pineville, and Carolinas Medical Center** are less effective alternatives.

Access by Service Area Residents

On page 57, the 2019 SMFP defines the service area for ORs as “...*the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1.*” Figure 6.1, on page 62, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. Generally, the application projecting to serve the highest percentage of Mecklenburg County residents is the more effective alternative with regard to this comparative factor since the need determination is for six additional ORs to be located in Mecklenburg County.

3rd Full FY		
Applicant	% of Mecklenburg County Residents	
NH Matthews	50.3% (IP)	46.6% (OP)
AH Lake Norman	85.5% (shared)	91.8% (C-Section)
AH Pineville	38.5%	
CMC	43.4%	

Source: Section C.3 (all applications)

As shown in the table above, **Atrium Health Lake Norman** projects to serve the highest percentage of Mecklenburg County residents during the third full fiscal year of operation following project completion, followed by **Novant Health Matthews Medical Center, Carolinas Medical Center, and Atrium Health Pineville.**

In comments submitted during the public comment period, Atrium states:

“Atrium Health believes that this comparative factor, as applied, would be inappropriate for a review of the proposed project. The need for additional operating room capacity in Mecklenburg County, and specifically, the need determination in the 2019 SMFP, is a result of the utilization of all patients that utilize surgical services located in Mecklenburg County. Mecklenburg County residents comprise a little more than 50 percent of that utilization, and there would be a large surplus of capacity if not for the demand for surgical services originating from outside the county. Under these circumstances, it would not be appropriate to determine the comparative effectiveness of an applicant based on service to Mecklenburg County residents when the need as identified for the proposed additional operating room capacity is not based solely on Mecklenburg County patients.”

Atrium is correct that the Operating Room Need Determination in the 2019 SMFP is based on the total number of surgical hours provided to patients and not based on anything related to Mecklenburg County-specific patients. Further, Mecklenburg County is a large urban county with over one million residents, two large health systems plus other smaller healthcare groups, and is on the border of North Carolina and South Carolina.

For statistical purposes, the United States Office of Management and Budget (US OMB) delineates Metropolitan Statistical Areas (MSAs) when using Census Bureau data. The US Census Bureau states the following about MSAs:

“The general concept of a metropolitan or micropolitan statistical area is that of a core area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core.”¹ (emphasis added)

The first list of MSAs (then known by a different name) was published in October 1950, and Charlotte was considered an MSA at that time. At first, only Mecklenburg County was included; however, by June 1983, the Charlotte-Gastonia MSA comprised six North Carolina counties and one South Carolina county.² Today, the Charlotte-Concord-Gastonia MSA is comprised of eight North Carolina counties and three South Carolina counties, and as of July 1, 2018 had an estimated population of more than 2.5 million people.³

Considering the discussion above, the Agency believes that in this specific instance attempting to compare the applicants based on the projected OR access of Mecklenburg County residents has little value.

Access by Underserved Groups

“Underserved groups” is defined in G.S. 131E-183(a)(13) as follows:

“Medically underserved groups, such as medically indigent or low income persons, Medicaid and Medicare recipients, racial and ethnic minorities, women, and handicapped persons, which

¹ <https://www.census.gov/programs-surveys/metro-micro/about.html>, accessed March 6, 2020.

² <https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/historical-delineation-files.html>, accessed March 6, 2020.

³ <https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/delineation-files.html>, accessed March 6, 2020.

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.”

Projected Charity Care

The following table shows projected charity care during the third full fiscal year following project completion for each facility. Generally, the application projecting to provide the most charity care is the more effective alternative with regard to this comparative factor.

Projected Charity Care – 3 rd Full FY			
Applicant	Projected Total Charity Care	Charity Care per Patient	% of Net Surgical Revenue
NH Matthews	\$6,918,022	\$1,109	6.2%
AH Lake Norman	\$2,216,832	\$1,314	16.2%
AH Pineville	\$18,535,573	\$1,946	11.3%
CMC	\$107,095,526	\$3,568	21.0%

Source: Form F.2 for each applicant.

As shown in the table above, **Carolinas Medical Center** projects the most charity care in dollars, the highest charity care per surgical case, and the highest charity care as a percent of net revenue. Therefore, the application submitted by **Carolinas Medical Center** is the more effective alternative with regard to access to charity care, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Lake Norman**, and **Atrium Health Pineville** are less effective alternatives. However, differences in the acuity level of patients at each facility, the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility, and the number and types of surgical services proposed by each of the facilities may impact the averages shown in the table above. Thus, the result of this analysis is inconclusive.

Projected Medicare

The following table shows projected Medicare revenue during the third full fiscal year following project completion for each facility. Generally, the application projecting the highest Medicare revenue is the more effective alternative with regard to this comparative factor to the extent the Medicare revenue represents the number of Medicare patients served.

Projected Medicare Revenue – 3 rd Full FY			
Applicant	Projected Total Medicare Revenue	Medicare Revenue per Patient	% of Gross Surgical Revenue
NH Matthews	\$138,130,124	\$22,147	42.4%
AH Lake Norman	\$19,051,690	\$11,293	38.2%
AH Pineville	\$217,600,574	\$22,840	41.0%
CMC	\$436,360,042	\$14,540	28.2%

Source: Form F.2 for each applicant.

As shown in the table above, **Carolinas Medical Center** projects the highest total Medicare revenue in dollars, **Atrium Health Pineville** projects the highest Medicare revenue per patient, and **Novant Health Matthews Medical Center** projects the highest Medicare revenue as a percentage of gross surgical revenue in each project’s third full fiscal year following project completion. Therefore, the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are more effective alternatives with respect to service to Medicare patients

and the application submitted by **Atrium Health Lake Norman** is a less effective alternative. However, differences in the acuity level of patients at each facility, the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility, and the number and types of surgical services proposed by each of the facilities may impact the averages shown in the table above. Thus, the result of this analysis is inconclusive.

Projected Medicaid

The following table shows projected Medicaid revenue during the third full fiscal year following project completion for each facility. Generally, the application projecting the highest Medicaid revenue is the more effective alternative with regard to this comparative factor to the extent the Medicaid revenue represents the number of Medicaid patients served.

Projected Medicaid Revenue – 3rd Full FY			
Applicant	Projected Total Medicaid Revenue	Medicaid Revenue per Patient	% of Gross Surgical Revenue
NH Matthews	\$15,702,756	\$2,518	4.8%
AH Lake Norman	\$3,186,879	\$1,889	6.4%
AH Pineville	\$25,667,472	\$2,694	4.8%
CMC	\$292,436,709	\$9,744	18.9%

Source: Form F.2 for each applicant.

As shown in the table above, **Carolinas Medical Center** projects the highest total Medicaid revenue in dollars, the highest Medicaid revenue per patient, and the highest Medicaid revenue as a percentage of gross surgical revenue in the project’s third full fiscal year following project completion. Therefore, the application submitted by **Carolinas Medical Center** is the more effective alternative with respect to service to Medicaid patients, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Lake Norman**, and **Atrium Health Pineville** are less effective alternatives. However, differences in the acuity level of patients at each facility, the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility, and the number and types of surgical services proposed by each of the facilities may impact the averages shown in the table above. Thus, the result of this analysis is inconclusive.

Projected Average Net Revenue per Surgical Case/Patient

The following table shows the projected average net surgical revenue per surgical case or patient in the third full fiscal year following project completion for each facility. Generally, the application projecting the lowest average net revenue per surgical case or per patient is the more effective alternative with regard to this comparative factor to the extent the average reflects a lower cost to the patient or third party payor.

Projected Average Net Revenue per Surgical Case/Patient – 3rd Full FY			
Applicant	Total # of Patients	Net Revenue	Average Net Revenue per Patient
NH Matthews	6,237	\$111,610,946	\$17,895
AH Lake Norman	1,687	\$13,701,278	\$8,122
AH Pineville	9,527	\$163,411,038	\$17,152
CMC	30,012	\$508,809,369	\$16,954

Source: Form F.2 for each applicant.

As shown in the table above, **Atrium Health Lake Norman** projects the lowest net revenue per surgical case or patient in the third full fiscal year following project completion. Therefore, the application submitted by **Atrium Health Lake Norman** is the more effective alternative with respect to net revenue per surgical case or patient, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are less effective alternatives. However, differences in the acuity level of patients at each facility, the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility, and the number and types of surgical services proposed by each of the facilities may impact the averages shown in the table above. Thus, the result of this analysis is inconclusive.

Projected Average Operating Expense per Surgical Case/Patient

The following table shows the projected average operating expense per surgical case or patient in the third full fiscal year following project completion for each facility. Generally, the application projecting the lowest average operating expense per surgical case or patient is the more effective alternative with regard to this comparative factor to the extent it reflects a more cost-effective service which could also result in lower costs to the patient or third party payor.

Projected Operating Expense per Surgical Case/Patient – 3rd Full FY			
Applicant	Total # of Patients	Operating Expenses	Average Operating Expense per Patient
NH Matthews	6,237	\$52,353,182	\$8,394
AH Lake Norman	1,687	\$8,711,604	\$5,164
AH Pineville	9,527	\$65,526,948	\$6,878
CMC	30,012	\$220,990,221	\$7,363

Source: Form F.2 for each applicant.

As shown in the table above, **Atrium Health Lake Norman** projects the lowest operating expense per surgical case or patient in the third full fiscal year following project completion. Therefore, the application submitted by **Atrium Health Lake Norman** is the more effective alternative with respect to operating expense per surgical case or patient, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are less effective alternatives. However, differences in the acuity level of patients at each facility, the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility, and the number and types of surgical services proposed by each of the facilities may impact the averages shown in the table above. Thus, the result of this analysis is inconclusive.

SUMMARY

Due to significant differences in the types of surgical facilities, types of surgical services to be offered, number of total operating rooms, and total revenues and expenses, the comparative factors may be of less value and result in less than definitive outcomes than if all applications were for like facilities of like size and proposing like services.

The following table lists the comparative factors and states which application is the more effective alternative with regard to that particular comparative factor. Note: the comparative factors are listed in the same order they are discussed in the Comparative Analysis, which should not be construed to indicate an order of importance.

Comparative Factor	NH Matthews	AH Lake Norman	AH Pineville	CMC
Conformity with Review Criteria	Yes	No	Yes	Yes
Scope of Services	More Effective	Not Approvable	More Effective	More Effective
Geographic Accessibility	Less Effective	Not Approvable	Less Effective	Less Effective
Historical Utilization	Less Effective	Not Approvable	Less Effective	More Effective
Competition/Access to New Provider	More Effective	Not Approvable	Less Effective	Less Effective
Access by Service Area Residents	Not Evaluated	Not Evaluated	Not Evaluated	Not Evaluated
Access by Underserved Groups				
Projected Charity Care	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Medicare	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Medicaid	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Average Net Revenue per Case	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Average Operating Expense per Case	Inconclusive	Inconclusive	Inconclusive	Inconclusive

The **Atrium Health Lake Norman** application is not an effective alternative with respect to Conformity with Review Criteria; therefore, it is not approvable and will not be further discussed in the comparative evaluation below:

- With respect to Conformity with Review Criteria, of the approvable applications, **Novant Health Matthews Medical Center, Atrium Health Pineville, and Carolinas Medical Center** offer equally effective alternatives. See Comparative Analysis for discussion.
- With respect to Scope of Services, of the approvable applications, **Novant Health Matthews Medical Center, Atrium Health Pineville, and Carolinas Medical Center** offer equally effective alternatives. See Comparative Analysis for discussion.
- With respect to Geographic Accessibility, of the approvable applications, **Novant Health Matthews Medical Center, Atrium Health Pineville, and Carolinas Medical Center** propose equally effective alternatives. See Comparative Analysis for discussion.
- With respect to Historical Utilization, of the approvable applications, **Carolinas Medical Center** offers the more effective alternative. See Comparative Analysis for discussion.
- With respect to Competition/Access to New Provider, of the approvable applications, **Novant Health Matthews Medical Center** offers the more effective alternative. See Comparative Analysis for discussion.

CONCLUSION

G.S. 131E-183(a)(1) states that the need determination in the SMFP is the determinative limit on the number of ORs that can be approved by the Healthcare Planning and Certificate of Need Section. Approval of all applications submitted during this review would result in ORs in excess of the need determination for Mecklenburg County. However, the application submitted by **Atrium Health Lake Norman** is not approvable and therefore cannot be considered an effective alternative. Consequently, the application submitted by **Atrium Health Lake Norman, Project I.D. #F-11810-19**, is denied. The applications submitted by **Novant Health Matthews Medical Center, Project I.D. #F-11807-19, Atrium Health Pineville, Project I.D. #F-11814-19, and Carolinas Medical Center, Project**

I.D. #F-11815-19 are the more effective alternatives proposed in this review for new ORs to be located in Mecklenburg County and are therefore approved as conditioned below.

Project I.D. #F-11807-19 is approved subject to the following conditions.

1. Presbyterian Medical Care Corp. and Novant Health, Inc. shall materially comply with all representations made in the certificate of need application.
2. Presbyterian Medical Care Corp. and Novant Health, Inc. shall develop no more than one additional operating room at Novant Health Matthews Medical Center.
3. Upon completion of the project, Novant Health Matthews Medical Center shall be licensed for no more than nine operating rooms, including two dedicated C-Section operating rooms.
4. Presbyterian Medical Care Corp. and Novant Health, Inc. shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.
5. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, Presbyterian Medical Care Corp. and Novant Health, Inc. shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:
 - a. Payor mix for the services authorized in this certificate of need.
 - b. Utilization of the services authorized in this certificate of need.
 - c. Revenues and operating costs for the services authorized in this certificate of need.
 - d. Average gross revenue per unit of service.
 - e. Average net revenue per unit of service.
 - f. Average operating cost per unit of service.
6. Presbyterian Medical Care Corp. and Novant Health, Inc. shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Project I.D. #F-11814-19 is approved subject to the following conditions.

1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.
2. The Charlotte-Mecklenburg Hospital Authority shall develop no more than two additional operating rooms at Atrium Health Pineville for a total of no more than 15 operating rooms upon completion of this project and Project I.D. #F-11621-18 (add one OR).
3. Upon completion of the project, Atrium Health Pineville shall be licensed for no more than 15 operating rooms, including two dedicated C-Section operating rooms.

4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.
5. The Charlotte-Mecklenburg Hospital Authority shall 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.
6. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, The Charlotte-Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:
 - a. Payor mix for the services authorized in this certificate of need.
 - b. Utilization of the services authorized in this certificate of need.
 - c. Revenues and operating costs for the services authorized in this certificate of need.
 - d. Average gross revenue per unit of service.
 - e. Average net revenue per unit of service.
 - f. Average operating cost per unit of service.
7. The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Project I.D. #F-11815-19 is approved subject to the following conditions.

1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.
2. The Charlotte-Mecklenburg Hospital Authority shall develop no more than two additional operating rooms at Carolinas Medical Center for a total of no more than 64 operating rooms upon completion of this project, Project I.D. #F-11106-15 (relocate two ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add two ORs).
3. Upon completion of the project, Atrium Health Pineville shall be licensed for no more than 64 operating rooms, including four dedicated C-Section operating rooms.
4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.
5. The Charlotte-Mecklenburg Hospital Authority shall 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.

6. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, The Charlotte-Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:
 - a. Payor mix for the services authorized in this certificate of need.
 - b. Utilization of the services authorized in this certificate of need.
 - c. Revenues and operating costs for the services authorized in this certificate of need.
 - d. Average gross revenue per unit of service.
 - e. Average net revenue per unit of service.
 - f. Average operating cost per unit of service.

7. The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

COMPARATIVE ANALYSIS FOR ACUTE CARE BEDS

Pursuant to G.S. 131E-183(a)(1) and the 2019 State Medical Facilities Plan, no more than 76 acute care beds may be approved for Mecklenburg County in this review. Because the applications in this review collectively propose to develop 96 additional acute care beds in Mecklenburg County, all applications cannot be approved for the total number of beds proposed. Therefore, after considering all the information in each application and reviewing each application individually against all applicable review criteria, the Project Analyst conducted a comparative analysis of the proposals to decide which proposal should be approved.

Below is a brief description of each project included in the Acute Care Bed Comparative Analysis.

- Project I.D. #F-11808-19/**Novant Health Matthews Medical Center**/Develop 20 additional acute care beds pursuant to the 2019 SMFP Need Determination
- Project I.D. #F-11810-19/**Atrium Health Lake Norman**/Develop 30 acute care beds pursuant to the 2019 SMFP need determination as part of developing a satellite hospital campus
- Project I.D. #F-11811-19/**Carolinas Medical Center**/Develop 18 additional acute care beds pursuant to the 2019 SMFP Need Determination
- Project I.D. #F-11812-19/**Atrium Health University City**/Develop 16 additional acute care beds pursuant to the 2019 SMFP Need Determination
- Project I.D. #F-11813-19/**Atrium Health Pineville**/Develop 12 additional acute care beds pursuant to the 2019 SMFP Need Determination

Conformity with Review Criteria

Table 5B on page 50 of the 2019 SMFP identifies a need for 76 additional acute care beds in Mecklenburg County. As shown in Table 5A, page 45, the Novant Health system shows a projected surplus of 130 acute care beds for 2021 and the Atrium Health system shows a projected deficit of 126 acute care beds for 2021, which results in the Mecklenburg County need determination for 76 acute care beds. However, the application process is not limited to the provider (or providers) that show a deficit and create the need for additional acute care beds. Any provider can apply to develop the 76 acute care beds in Mecklenburg County. Furthermore, it is not necessary that an existing provider have a projected deficit of acute care beds to apply for more acute care beds. However, it is necessary that an applicant adequately demonstrate the need to develop its project, as proposed.

The applications submitted by **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are conforming to all applicable statutory and regulatory review criteria. However, the application submitted by **Atrium Health Lake Norman** is not conforming to all applicable statutory and regulatory review criteria. An application that is not conforming to all applicable statutory and regulatory review criteria cannot be approved. Therefore, regarding this comparative factor, the applications submitted by **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are equally effective alternatives and more effective than the application submitted by **Atrium Health Lake Norman**.

Scope of Services

Generally, the application proposing to provide the greatest scope of services is the more effective alternative with regard to this comparative factor.

Novant Health Matthews Medical Center, Carolinas Medical Center, Atrium Health University City, and Atrium Health Pineville are all existing acute care hospitals which provide numerous types of medical services. **Atrium Health Lake Norman** is a proposed satellite acute care hospital; however, it will not provide as many types of medical services as **Novant Health Matthews Medical Center, Carolinas Medical Center, Atrium Health University City, and Atrium Health Pineville**.

Therefore, **Novant Health Matthews Medical Center, Carolinas Medical Center, Atrium Health University City, and Atrium Health Pineville** are more effective alternatives with respect to this comparative factor and **Atrium Health Lake Norman** is a less effective alternative.

Geographic Accessibility

As of the date of this decision, there are 2,288 existing and approved acute care beds, allocated between 10 hospitals owned by two providers (Atrium and Novant) in Mecklenburg County, as illustrated in the following table.

Mecklenburg County Acute Care Hospitals	
Facility	Existing/Approved Beds
AH Pineville	221 (+38)
AH University City	100
CMC-Main	859
AH-Mercy*	196
Atrium Total	1,414
NH Ballantyne Medical Center	0 (+36)
NH Huntersville Medical Center	139 (+12)
NH Health Matthews Medical Center	154
NH Health Presbyterian Medical Center	471 (-36)
NH Charlotte Orthopedic Hospital**	48
NH Mint Hill Medical Center	36 (+14)
Novant Total	874
Mecklenburg County Total	2,288

Source: Table 5A, 2019 SMFP; applications under review; 2020 LRAs; Agency records.

Note: Numbers in parentheses reflect approved changes in bed inventory which have not yet been developed.

*AH-Mercy is a separate campus but licensed as part of CMC.

**NHCOH is a separate campus but licensed as part of NHPMC.

The following table illustrates where the acute care beds are located in Mecklenburg County.

City	System	Total Acute Care Bed Inventory*	Population as of July 1, 2018**	# of Beds per 10,000 Population
Charlotte	Atrium	1,055		
	Novant	483		
Ballantyne	Novant	36		
University City	Atrium	100		
	Charlotte Total	1,674	852,992	19.6
Pineville	Atrium	259	9,338	277.4
Huntersville	Novant	151	61,220	24.7
Matthews	Novant	154	31,132	49.5
Mint Hill	Novant	50	27,459	18.2
Total		2,288	982,141	23.3
Total Mecklenburg County		2,288	1,088,350	21.0

*Existing and approved acute care beds.

**Source: NC OSBM; accessed March 6, 2020.

As shown in the table above, the existing and approved acute care beds are in Charlotte, Huntersville, Matthews, Mint Hill, and Pineville. **Novant Health Matthews Medical Center** proposes to add 20 acute care beds to an existing facility in Matthews. **Atrium Health Lake Norman** proposes to develop a new satellite hospital campus with 30 acute care beds in Cornelius. **Carolinas Medical Center** proposes to add 18 acute care beds to an existing facility in Charlotte. **Atrium Health University City** proposes to add 16 acute care beds to an existing facility in the University City section of Charlotte. **Atrium Health Pineville** proposes to add 12 acute care beds to an existing facility in Pineville. 30 of the 96 proposed acute care beds would be in Cornelius, which does not currently have any acute care beds. 34 acute care beds would be in Charlotte, which already has 1,674 existing and approved acute care beds or 19.6 acute care beds per 10,000 people. 20 proposed acute care beds would be in Matthews, which already has 154 existing and approved acute care beds or 49.5 acute care beds per 10,000 people. The remaining 12 acute care beds would be in Pineville, which already has 259 existing and approved acute care beds or 277.4 acute care beds per 10,000 people. However, Pineville is located very close to the NC/SC border, and **Atrium Health Pineville** serves a number of SC residents.

Atrium Health Lake Norman proposes to develop acute care beds in an area of Mecklenburg County where there are not currently any acute care beds. **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** propose to add acute care beds to existing facilities which already have acute care beds. Therefore, **Atrium Health Lake Norman** is the more effective alternative with regard to geographic accessibility and **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are less effective alternatives.

Historical Utilization

The table below shows acute care bed utilization for both Atrium Health and Novant Health facilities based on acute care days as reported in Table 5A of the 2020 SMFP. Generally, the applicant with the higher historical utilization is the more effective alternative with regard to this comparative analysis factor.

Mecklenburg County Historical Acute Care Bed Utilization (Table 5A of 2020 SMFP)				
Facility	FFY 2018 Acute Care Days	ADC	# of Acute Care Beds*	Utilization Rate
NH Matthews	37,968	104	154	67.5%
CMC	311,337	853	1,010	84.5%
AH University City	27,132	74	100	74.0%
AH Pineville	67,508	185	206	89.8%

*Existing acute care beds during FFY 2018 only.

As shown in the table above, **Atrium Health Pineville** has the highest historical utilization, followed next by **Carolinas Medical Center**, **Atrium Health University City**, and then **Novant Health Matthews Medical Center**. **Atrium Health Lake Norman** is not an existing facility and as such has no historical utilization.

Therefore, with regard to historical utilization, **Atrium Health Pineville** is the more effective alternative, and **Carolinas Medical Center**, **Atrium Health University City**, **Novant Health Matthews Medical Center**, and **Atrium Health Lake Norman** are less effective alternatives.

Competition (Patient Access to a New or Alternative Provider)

There are 2,288 existing and approved acute care beds located in Mecklenburg County. **Atrium Health Lake Norman**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are all affiliated with Atrium Health, which currently controls 1,414 of the 2,288 acute care beds in Mecklenburg County, or 61.8 percent. **Novant Health Matthews Medical Center** is affiliated with Novant Health, which currently controls 874 of the 2,288 acute care beds in Mecklenburg County, or 38.2 percent.

If **Atrium Health Lake Norman**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** each have their applications approved, Atrium would control 1,490 of the 2,364 existing or approved acute care beds in Mecklenburg County or 63.0 percent. If **Novant Health Matthews Medical Center's** application is approved, Novant Health would control 894 of the 2,364 existing and approved acute care beds in Mecklenburg County or 37.8 percent.

Therefore, with regard to competition, the application submitted by **Novant Health Matthews Medical Center** is the more effective alternative, and the applications submitted by **Atrium Health Lake Norman**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are less effective alternatives.

Access by Service Area Residents

On page 36, the 2019 SMFP defines the service area for acute care beds as “*the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1.*” Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. Generally, the application projecting to serve the highest percentage of Mecklenburg County residents is the more effective alternative with regard to this comparative factor since the need determination is for 76 additional acute care beds to be located in Mecklenburg County.

3 rd Full FY	
Applicant	% of Mecklenburg County Residents
NH Matthews	51.8%
AH Lake Norman	91.8%
CMC	45.3%
AH University City	72.4%
AH Pineville	47.2%

Source: Section C.3 (all applications)

As shown in the table above, **Atrium Health Lake Norman** projects to serve the highest percentage of Mecklenburg County residents during the third full fiscal year of operation following project completion, followed by **Atrium Health University City**, **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center**.

In comments submitted during the public comment period, Atrium states:

“Atrium Health believes that this comparative factor, as applied, would be inappropriate for a review of the proposed project. The need for additional acute care bed capacity in Mecklenburg County, and specifically, the need determination in the 2019 SMFP, is a result of the utilization of all patients that utilize acute care beds located in Mecklenburg County. Mecklenburg County residents comprise less than 60 percent of that utilization, and there would be a large surplus of capacity if not for the demand for acute care bed services originating from outside the county. Under these circumstances, it would not be appropriate to determine the comparative effectiveness of an applicant based on service to Mecklenburg County residents when the need as identified for the proposed acute care bed capacity is not based solely on Mecklenburg County patients.”

Atrium is correct that the Acute Care Bed Need Determination in the 2019 SMFP is based on the total number of acute care days at each hospital and not based on anything related to Mecklenburg County-specific acute care days. Further, Mecklenburg County is a large urban county with over one million residents, two large health systems plus other smaller healthcare groups, and is on the border of North Carolina and South Carolina.

For statistical purposes, the United States Office of Management and Budget (US OMB) delineates Metropolitan Statistical Areas (MSAs) when using Census Bureau data. The US Census Bureau states the following about MSAs:

“The general concept of a metropolitan or micropolitan statistical area is that of a core area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core.”⁴ (emphasis added)

The first list of MSAs (then known by a different name) was published in October 1950, and Charlotte was considered an MSA at that time. At first, only Mecklenburg County was included; however, by June 1983, the Charlotte-Gastonia MSA comprised six North Carolina counties and one South

⁴ <https://www.census.gov/programs-surveys/metro-micro/about.html>, accessed March 6, 2020.

Carolina county.⁵ Today, the Charlotte-Concord-Gastonia MSA is comprised of eight North Carolina counties and three South Carolina counties, and as of July 1, 2018 had an estimated population of more than 2.5 million people.⁶

Considering the discussion above, the Agency believes that in this specific instance attempting to compare the applicants based on the projected acute care bed access of Mecklenburg County residents has little value.

Access by Underserved Groups

“Underserved groups” is defined in G.S. 131E-183(a)(13) as follows:

“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.”

Projected Charity Care

The following table shows projected charity care during the third full fiscal year following project completion for each facility. Generally, the application projecting to provide the most charity care is the more effective alternative with regard to this comparative factor.

Projected Charity Care – 3 rd Full FY			
Applicant	Projected Total Charity Care	Charity Care per Patient	% of Net Acute Care Bed Revenue
NH Matthews	\$19,810,814	\$1,695	12.4%
AH Lake Norman*	\$1,771,645	\$826	18.6%
CMC	\$21,733,594	\$1,008	25.1%
AH University City	\$7,309,504	\$1,296	36.3%
AH Pineville	\$10,199,060	\$688	19.6%

Source: Form F.2 for each applicant.

*Includes medical/surgical, obstetrics, and ICU acute care beds.

As shown in the table above, **Carolinas Medical Center** projects the most charity care in dollars, **Novant Health Matthews Medical Center** projects the highest charity care per patient, and **Atrium Health University City** projects the highest charity care as a percent of net revenue. Therefore, the applications submitted by **Carolinas Medical Center**, **Novant Health Matthews Medical Center**, and **Atrium Health University City** are more effective alternatives with regard to access to charity care, and the applications submitted by **Atrium Health Pineville** and **Atrium Health Lake Norman** are less effective alternatives. However, differences in the acuity level of patients at each facility and the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility may impact the averages shown in the table above. Further, **Novant Health Matthews Medical Center** and **Atrium Health Lake Norman** do not provide a method to calculate only

⁵<https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/historical-delineation-files.html>, accessed March 6, 2020.

⁶ <https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/delineation-files.html>, accessed March 6, 2020.

medical/surgical acute care bed patients, whereas **Carolinas Medical Center, Atrium Health University City, and Atrium Health Pineville** provide information only for their medical/surgical acute care bed patients. Thus, the result of this analysis is inconclusive.

Projected Medicare

The following table shows projected Medicare revenue during the third full fiscal year following project completion for each facility. Generally, the application projecting the highest Medicare revenue is the more effective alternative with regard to this comparative factor to the extent the Medicare revenue represents the number of Medicare patients served.

Projected Medicare Revenue – 3rd Full FY			
Applicant	Projected Total Medicare Revenue	Medicare Revenue per Patient	% of Gross Acute Care Bed Revenue
NH Matthews	\$276,993,381	\$23,693	53.8%
AH Lake Norman*	\$11,389,088	\$5,312	34.2%
CMC	\$143,340,928	\$6,648	47.3%
AH University City	\$38,951,812	\$6,908	50.0%
AH Pineville	\$127,619,701	\$8,609	64.5%

Source: Form F.2 for each applicant.

*Includes medical/surgical, obstetrics, and ICU acute care beds.

As shown in the table above, **Novant Health Matthews Medical Center** projects the highest total Medicare revenue in dollars and the highest Medicare revenue per patient, and **Atrium Health Pineville** projects the highest Medicare revenue as a percentage of gross acute care bed revenue in each project’s third full fiscal year following project completion. Therefore, the applications submitted by **Novant Health Matthews Medical Center** and **Atrium Health Pineville** are more effective alternatives with respect to service to Medicare patients, and the applications submitted by **Carolinas Medical Center, Atrium Health University City, and Atrium Health Lake Norman** are less effective alternatives. However, differences in the acuity level of patients at each facility and the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility may impact the averages shown in the table above. Further, **Novant Health Matthews Medical Center** and **Atrium Health Lake Norman** do not provide a method to calculate only medical/surgical acute care bed patients, whereas **Carolinas Medical Center, Atrium Health University City, and Atrium Health Pineville** provide information only for their medical/surgical acute care bed patients. Thus, the result of this analysis is inconclusive.

Projected Medicaid

The following table shows projected Medicaid revenue during the third full fiscal year following project completion for each facility. Generally, the application projecting the highest Medicaid revenue is the more effective alternative with regard to this comparative factor to the extent the Medicaid revenue represents the number of Medicaid patients served.

Projected Medicaid Revenue – 3 rd Full FY			
Applicant	Projected Total Medicaid Revenue	Medicaid Revenue per Patient	% of Gross Acute Care Bed Revenue
NH Matthews	\$38,353,568	\$3,281	7.4%
AH Lake Norman*	\$8,881,776	\$4,143	26.7%
CMC	\$51,414,210	\$2,384	17.0%
AH University City	\$12,341,274	\$2,189	15.9%
AH Pineville	\$13,344,174	\$900	6.7%

Source: Form F.2 for each applicant.

*Includes medical/surgical, obstetrics, and ICU acute care beds.

As shown in the table above, **Carolinas Medical Center** projects the highest total Medicaid revenue in dollars and **Atrium Health Lake Norman** projects the highest Medicaid revenue per patient and the highest Medicaid revenue as a percentage of gross acute care bed revenue in each project’s third full fiscal year following project completion. Therefore, the applications submitted by **Carolinas Medical Center** and **Atrium Health Lake Norman** are more effective alternatives with respect to service to Medicaid patients and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are less effective alternatives. However, differences in the acuity level of patients at each facility and the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility may impact the averages shown in the table above. Further, **Novant Health Matthews Medical Center** and **Atrium Health Lake Norman** do not provide a method to calculate only medical/surgical acute care bed patients, whereas **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** provide information only for their medical/surgical acute care bed patients. Thus, the result of this analysis is inconclusive.

Projected Average Net Revenue per Patient

The following table shows the projected average net revenue per patient in the third full fiscal year following project completion for each facility. Generally, the application projecting the lowest average net revenue per patient is the more effective alternative with regard to this comparative factor to the extent the average reflects a lower cost to the patient or third party payor.

Projected Average Net Revenue per Patient – 3 rd Full FY			
Applicant	Total # of Patients	Net Revenue	Average Net Revenue per Patient
NH Matthews	11,691	\$159,965,571	\$13,683
AH Lake Norman*	2,144	\$9,516,581	\$4,439
CMC	21,562	\$86,754,486	\$4,023
AH University City	5,639	\$20,162,903	\$3,576
AH Pineville	14,824	\$52,051,647	\$3,511

Source: Form F.2 for each applicant.

*Includes medical/surgical, obstetrics, and ICU acute care beds.

As shown in the table above, **Atrium Health Pineville** projects the lowest net revenue per patient in the third full fiscal year following project completion. Therefore, the application submitted by **Atrium Health Pineville** is the more effective alternative with respect to net revenue per patient, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Lake Norman**, **Carolinas Medical Center**, and **Atrium Health University City** are less effective

alternatives. However, differences in the acuity level of patients at each facility and the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility may impact the averages shown in the table above. Further, **Novant Health Matthews Medical Center** and **Atrium Health Lake Norman** do not provide a method to calculate only medical/surgical acute care bed patients, whereas **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** provide information only for their medical/surgical acute care bed patients. Thus, the result of this analysis is inconclusive.

Projected Average Operating Expense per Patient

The following table shows the projected average operating expense per patient in the third full fiscal year following project completion for each facility. Generally, the application projecting the lowest average operating expense per patient is the more effective alternative with regard to this comparative factor to the extent it reflects a more cost-effective service which could also result in lower costs to the patient or third party payor.

Projected Average Operating Expense per Patient – 3rd Full FY			
Applicant	Total # of Patients	Operating Expenses	Average Operating Expense per Patient
NH Matthews	11,691	\$127,801,798	\$10,932
AH Lake Norman*	2,144	\$18,828,044	\$8,782
CMC	21,562	\$73,950,484	\$3,430
AH University City	5,639	\$17,311,276	\$3,070
AH Pineville	14,824	\$40,940,934	\$2,762

Source: Form F.2 for each applicant.

*Includes medical/surgical, obstetrics, and ICU acute care beds.

As shown in the table above, **Atrium Health Pineville** projects the lowest operating expense per patient in the third full fiscal year following project completion. Therefore, the application submitted by **Atrium Health Pineville** is the more effective alternative with respect to operating expense per patient, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Lake Norman**, **Carolinas Medical Center**, and **Atrium Health University City** are less effective alternatives. However, differences in the acuity level of patients at each facility and the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility may impact the averages shown in the table above. Further, **Novant Health Matthews Medical Center** and **Atrium Health Lake Norman** do not provide a method to calculate only medical/surgical acute care bed patients, whereas **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** provide information only for their medical/surgical acute care bed patients. Thus, the result of this analysis is inconclusive.

SUMMARY

Due to significant differences in the size of hospitals, levels of acuity each hospital can serve, total revenues and expenses, and the differences in presentation of pro forma financial statements, the comparatives may be of less value and result in less than definitive outcomes than if all applications were for like facilities of like size and reporting in like formats.

The following table lists the comparative factors and states which application is the more effective alternative with regard to that particular comparative factor. Note: the comparative factors are listed

in the same order they are discussed in the Comparative Analysis, which should not be construed to indicate an order of importance.

Comparative Factor	NH Matthews	AH Lake Norman	CMC	AH University City	AH Pineville
Conformity with Review Criteria	Yes	No	Yes	Yes	Yes
Scope of Services	More Effective	Not Approvable	More Effective	More Effective	More Effective
Geographic Accessibility	Less Effective	Not Approvable	Less Effective	Less Effective	Less Effective
Historical Utilization	Less Effective	Not Approvable	Less Effective	Less Effective	More Effective
Competition/Access to New Provider	More Effective	Not Approvable	Less Effective	Less Effective	Less Effective
Access by Service Area Residents	Not Evaluated	Not Evaluated	Not Evaluated	Not Evaluated	Not Evaluated
Access by Underserved Groups					
Projected Charity Care	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Medicare	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Medicaid	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Average Net Revenue per Case	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Average Operating Expense per Case	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Inconclusive

The **Atrium Health Lake Norman** application is not an effective alternative with respect to Conformity with Review Criteria; therefore, it is not approvable and will not be further discussed in the comparative evaluation below:

- With respect to Conformity with Review Criteria, of the approvable applications, **Novant Health Matthews Medical Center, Carolinas Medical Center, Atrium Health University City, and Atrium Health Pineville** offer equally effective alternatives. See Comparative Analysis for discussion.
- With respect to Scope of Services, of the approvable applications, **Novant Health Matthews Medical Center, Carolinas Medical Center, Atrium Health University City, and Atrium Health Pineville** offer equally effective alternatives. See Comparative Analysis for discussion.
- With respect to Geographic Accessibility, of the approvable applications, **Novant Health Matthews Medical Center, Carolinas Medical Center, Atrium Health University City, and Atrium Health Pineville** propose equally effective alternatives. See Comparative Analysis for discussion.
- With respect to Historical Utilization, of the approvable applications, **Atrium Health Pineville** offers the more effective alternative. See Comparative Analysis for discussion.
- With respect to Competition/Access to New Provider, of the approvable applications, **Novant Health Matthews Medical Center** offers the more effective alternative. See Comparative Analysis for discussion.

CONCLUSION

G.S. 131E-183(a)(1) states that the need determination in the SMFP is the determinative limit on the number of acute care beds that can be approved by the Healthcare Planning and Certificate of Need Section. Approval of all applications submitted during this review would result in acute care beds in excess of the need determination for Mecklenburg County. However, the application submitted by **Atrium Health Lake Norman** is not approvable and therefore cannot be considered an effective alternative. Consequently, the application submitted by **Atrium Health Lake Norman, Project I.D. #F-11810-19**, is denied. The applications submitted by **Novant Health Matthews Medical Center, Project I.D. #F-11808-19**, **Carolinas Medical Center, Project I.D. #F-11811-19**, **Atrium Health University City, Project I.D. #F-11812-19**, and **Atrium Health Pineville, Project I.D. #F-11813-19** are the more effective alternatives proposed in this review for new acute care beds to be located in Mecklenburg County and are therefore approved as conditioned below.

Project I.D. #F-11808-19 is approved subject to the following conditions.

1. Presbyterian Medical Care Corp. and Novant Health, Inc. shall materially comply with all representations made in the certificate of need application.
2. Presbyterian Medical Care Corp. and Novant Health, Inc. shall develop no more than 20 additional acute care beds at Novant Health Matthews Medical Center.
3. Upon completion of the project, Novant Health Matthews Medical Center shall be licensed for no more than 174 acute care beds.
4. Presbyterian Medical Care Corp. and Novant Health, Inc. shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.
5. Presbyterian Medical Care Corp. and Novant Health, Inc. shall 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.
6. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, Presbyterian Medical Care Corp. and Novant Health, Inc. shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:
 - a. Payor mix for the services authorized in this certificate of need.
 - b. Utilization of the services authorized in this certificate of need.
 - c. Revenues and operating costs for the services authorized in this certificate of need.
 - d. Average gross revenue per unit of service.
 - e. Average net revenue per unit of service.
 - f. Average operating cost per unit of service.

7. Presbyterian Medical Care Corp. and Novant Health, Inc. shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Project I.D. #F-11811-19 is approved subject to the following conditions.

1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.
2. The Charlotte-Mecklenburg Hospital Authority shall develop no more than 18 additional acute care beds at Carolinas Medical Center.
3. Upon completion of the project, Carolinas Medical Center shall be licensed for no more than 1,073 acute care beds.
4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.
5. The Charlotte-Mecklenburg Hospital Authority shall 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.
6. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, The Charlotte-Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:
 - a. Payor mix for the services authorized in this certificate of need.
 - b. Utilization of the services authorized in this certificate of need.
 - c. Revenues and operating costs for the services authorized in this certificate of need.
 - d. Average gross revenue per unit of service.
 - e. Average net revenue per unit of service.
 - f. Average operating cost per unit of service.
7. The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Project I.D. #F-11812-19 is approved subject to the following conditions.

1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.
2. The Charlotte-Mecklenburg Hospital Authority shall develop no more than 16 additional acute care beds at Atrium Health University City.

3. Upon completion of the project, Atrium Health University City shall be licensed for no more than 116 acute care beds.
4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.
5. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, The Charlotte-Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:
 - a. Payor mix for the services authorized in this certificate of need.
 - b. Utilization of the services authorized in this certificate of need.
 - c. Revenues and operating costs for the services authorized in this certificate of need.
 - d. Average gross revenue per unit of service.
 - e. Average net revenue per unit of service.
 - f. Average operating cost per unit of service.
6. The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Project I.D. #F-11813-19 is approved subject to the following conditions.

1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.
2. The Charlotte-Mecklenburg Hospital Authority shall develop no more than 12 additional acute care beds at Atrium Health Pineville for a total of no more than 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).
3. Upon completion of the project, Atrium Health Pineville shall be licensed for no more than 271 acute care beds.
4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.
5. The Charlotte-Mecklenburg Hospital Authority shall 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.
6. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, The Charlotte-

Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:

- a. Payor mix for the services authorized in this certificate of need.
 - b. Utilization of the services authorized in this certificate of need.
 - c. Revenues and operating costs for the services authorized in this certificate of need.
 - d. Average gross revenue per unit of service.
 - e. Average net revenue per unit of service.
 - f. Average operating cost per unit of service.
7. The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.