

VIRGINIA DEPARTMENT OF HEALTH

Office of Licensure and Certification

Division of Certificate of Public Need

Staff Analysis

March 21, 2025

RE: COPN Request No. VA-8799

Virginia Commonwealth University Health System Authority

Richmond, Virginia

Add 1 CT Scanner

Applicant

The Virginia Commonwealth University Health Systems Authority (“VCUHS”) is a public body corporate and political subdivision of the Commonwealth of Virginia, governed by the Virginia Commonwealth University Health System Authority Act of 1996-Title 23, Chapter 6.2, 23-50.16:1 of the Code of Virginia. The VCU Medical Center Adult Outpatient Pavilion (“AOP”) is on the VCU Medical Center campus in Planning District (PD) 15, Health Planning Region (HPR) IV.

Background

A CT scan is a diagnostic imaging tool that utilizes x-ray technology to produce imaging of the inside of the body and can show bones, muscles, organs, and blood vessels. CT scans are more detailed than plain film x-rays; rather than the standard straight-line x-ray beam, CT imaging uses an x-ray beam that moves in a circle around the body to show structures in much greater detail.¹ The scans can be done with or without contrast; contrast is a substance taken either orally or injected within the body, causing a particular organ or tissue to be seen more clearly.²

VHI reported data on 48 CT scanners in PD 15 for 2023, the latest year for which such data are available. There are no mobile CT scanners in PD 15. That year PD 15 CT scanners reported volumes averaging 9,040 CT scans per unit equal to 122.2% of the SMFP standard of 7,400 CT scans (**Table 1**). There are currently a total of 64 authorized CT scanners in PD 15 of which six are CT simulators and two are for intraoperative use. These eight CT scanners do not perform diagnostic CT scans and are not included in this assessment. The inventory of the 56 diagnostic CT scanners included in this assessment is in **Table 2**.

¹ <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/computed-tomography-ct-scan#:~:text=Computed%20tomography%20is%20commonly%20referred,fat%2C%20organs%20and%20blood%20vessels.>

² Ibid.

Table 1. PD 15 CT Scanners' Utilization, VHI 2023

Facility Name	Total Stationary Units	Total CT Procedures	Procedures per Scanner	% Utilization of Threshold
Bon Secours Imaging Center at Reynolds Crossing	1	3,091	3,091	41.8%
Bon Secours Memorial Regional Medical Center	3	43,145	14,382	194.3%
Bon Secours Richmond Community Hospital	1	6,861	6,861	92.7%
Bon Secours St. Francis Medical Center	2	31,009	15,505	209.5%
Bon Secours St. Mary's Hospital	3	41,475	13,825	186.8%
Bon Secours Westchester Imaging Center	1	8,401	8,401	113.5%
Chesterfield Imaging	1	6,386	6,386	86.3%
Chippenham Hospital	3	48,520	16,173	218.6%
ED - Bon Secours Chester Emergency Center	1	8,842	8,842	119.5%
ED - Bon Secours Short Pump	1	11,358	11,358	153.5%
ED - Bon Secours Westchester	1	5,130	5,130	69.3%
ED - Hanover Emergency Center (HDH-F)	1	3,657	3,657	49.4%
ED - MCV/VCU	1	5,958	5,958	80.5%
ED - Swift Creek ER (CJW-C)	1	7,133	7,133	96.4%
Henrico Doctor's Hospital - Parham Doctors' Hospital	1	12,983	12,983	175.4%
Henrico Doctor's Hospital - Retreat	1	3,837	3,837	51.9%
Henrico Doctors' Hospital - Forest	2	33,288	16,644	224.9%
Independence Park Imaging	1	4,794	4,794	64.8%
Johnston-Willis Hospital	3	35,070	11,690	158.0%
MedRVA Imaging Center	1	1,222	1,222	16.5%
NOW Neuroscience, Orthopaedic and Wellness Center	1	5,865	5,865	79.3%
Richmond Ear Nose and Throat	1	319	319	4.3%
Urosurgical Center of Richmond	2	9,294	4,647	62.8%
VCU Medical Center	9	72,965	8,107	109.6%
VCU Medical Center at Stony Point Radiology	1	6,799	6,799	91.9%
Virginia Cancer Institute - Discovery Drive	1	6,369	6,369	86.1%
Virginia Cancer Institute - Harbourside	1	4,790	4,790	64.7%
Virginia Cardiovascular Specialists, PC	1	4,777	4,777	64.6%
Virginia Ear Nose & Throat	1	580	580	7.8%
Total and Average PD 15 CT Scanners	48	433,918	9,040	122.2%

Source: 2023 VHI

Table 2. Inventory of CT Scanners in PD 15

Facility Name	Authorized Diagnostic CT Scanners
Bon Secours Ashland Emergency and Imaging Center ³	1
Bon Secours Chester Emergency and Imaging Center	1
Bon Secours Imaging Center at Reynolds Crossing	1
Bon Secours Memorial Regional Medical Center	3
Bon Secours Richmond Community Hospital	1
Bon Secours Short Pump Emergency/Imaging Center	1
Bon Secours St. Francis Medical Center	2
Bon Secours St. Mary's Hospital	3
Bon Secours Westchester Imaging Center	1
Buford Road Imaging ⁴	1
Chester Imaging Center ⁵	1
Chesterfield Imaging	1
Chesterfield ER ⁶	1
Chippenham Hospital	3
Hanover Emergency Center	1
Henrico Doctor's Hospital - Parham Doctors' Hospital	1
Henrico Doctor's Hospital - Retreat	1
Henrico Doctors' Hospital - Forest ⁷	3
Magnolia ER	1
Virginia Cardiovascular Specialists	1
Johnston-Willis Hospital	3
OrthoVirginia ⁸	1
Richmond Ear, Nose & Throat ⁹	1
Richmond Eye & Ear Healthcare Alliance d/b/a Medarva Healthcare	1
Scott's Addition ER ¹⁰	1
Short Pump, LLC	1
VCU Health Neuroscience, Orthopedic and Wellness Center	1
VCU Health System	8
VCU Medical Center Adult Outpatient Pavilion	1
VCU Medical Center at Stony Point Radiology	1
VCU Health Emergency Center at New Kent	1
Vibra Hospital of Richmond LLC	1
Virginia Cancer Institute - Harbourside	1
Virginia Cancer Institute - Discovery Drive	1
Virginia Ear Nose & Throat - Chesterfield	1
Virginia Ear Nose & Throat - Henrico	1
Virginia Urology	2
Total Diagnostic CT Scanners, PD 15	56

Source: DCOPN Records

³ COPN No. VA-04864 authorized this site.

⁴ This site did not report data in 2022 or 2023.

⁵ COPN No. VA-04688 authorized this site.

⁶ COPN No. VA-04840 authorized this site.

⁷ COPN No. VA-04925 authorized a third scanner.

⁸ COPN No. VA-04876 authorized this site.

⁹ One of two CT scanners reported (two sites).

¹⁰ COPN No. VA-04811 authorized this site.

Proposed Project

VCUHS proposes to expand its CT services by adding one diagnostic CT scanner at its AOP at 1001 East Leight Street, Richmond Virginia on VCU Medical Center's downtown campus. VCUHS currently operates nine CT units on its downtown campus, including one at the AOP. In addition, VCUHS operates CT scanners at its Stony Point, Short Pump and New Kent Emergency Department sites for a total of 12 CT scanners. The proposal is for a 13th CT scanner, the 10th on VCU Medical Center's downtown campus, to meet an institutional need.

The proposal will require minor renovations of a small area of shell space on the 6th floor radiology department area effecting approximately 435 square feet. Capital costs are projected to be \$3,180,000 (**Table 3**) funded by accumulated reserves such that no financing costs will be incurred. Should the proposed project be approved, VCUHS' target date of opening is ten months after the issuance of a COPN.

Table 3. Capital Costs, VCUHS Additional CT Scanner

Direct Construction Costs	\$700,000
Equipment not included in construction costs	\$2,400,000
Other Consultant fees	\$80,000
TOTAL CAPITAL COST	\$3,180,000

Source: COPN Request No. VA-8799

Project Definition

Section 32.1-102.1:3 of the Code of Virginia defines a project, in part, as the "addition by an existing medical care facility described in subsection A of any new medical equipment for the provision of ... computed tomographic (CT) scanning..." A medical care facility includes "[a]ny facility licensed as a hospital..."

Required Considerations -- § 32.1-102.3, of the Code of Virginia

In determining whether a public need exists for a proposed project, the following factors shall be taken into account when applicable.

- 1. The extent to which the proposed service or facility will provide or increase access to needed services for residents of the area to be served, and the effects that the proposed service or facility will have on access to needed services in areas having distinct and unique geographic, socioeconomic, cultural, transportation, and other barriers to access to care.**

PD 15 had a population over 1.1 million in 2020 and is projected to add nearly 100,000 to its population by 2030. Its projected growth of 8.6% by the end of the decade is a higher growth rate than that projected for Virginia's population, 5.6% (**Table 4**). Richmond City, where the proposed project is located, represents about 20% of the PD 15 population (**Chart 1**) and is

projected to grow by 8.3%, about the same rate as PD15 (8.6%). Richmond is projected to add nearly 20,000 to its population between 2020 and 2030 (**Table 4**).

People aged 65 and older, have a higher utilization rate for advanced imaging services than younger individuals,¹¹ so they are an important demographic in projects involving CT imaging. Though the population over age 65 is expected to grow at a higher rate in PD 15 (29.9%) than that of Virginia (27.4%), this age cohort is projected to grow in Richmond at 20.1%, slower than Virginia or PD 15. Richmond is projected to add 5,305 people over age 65 between 2020 and 2030 through aging and in migration (**Table 4/Chart 2**).

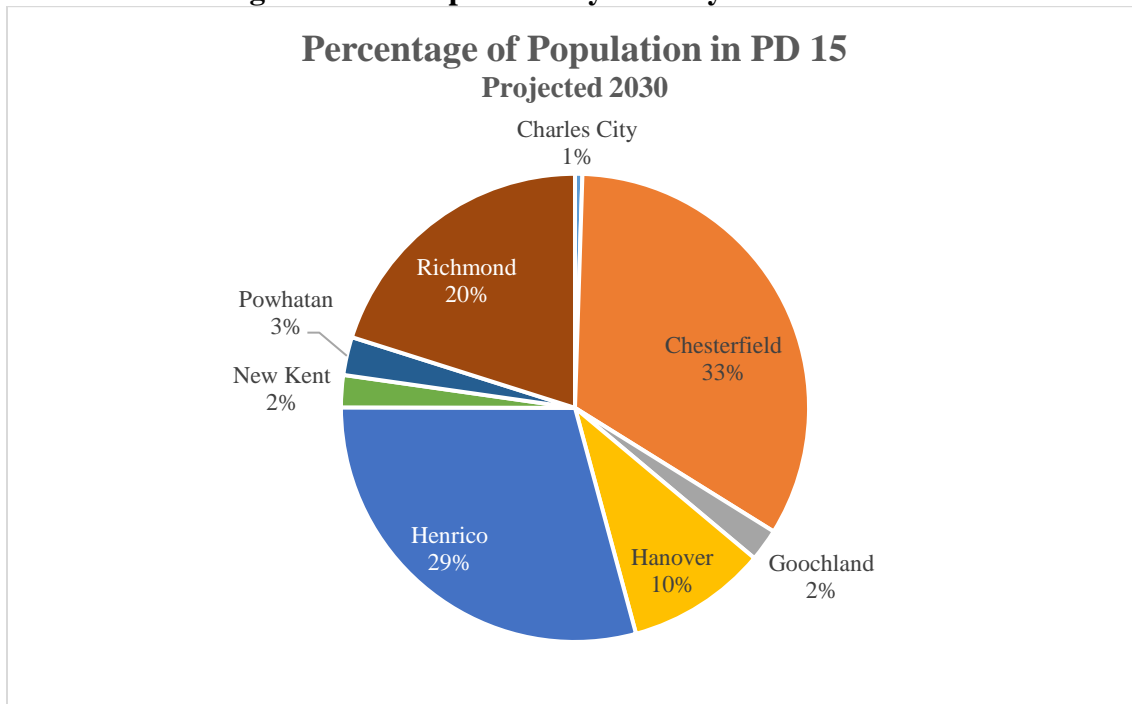
Table 4. PD 15 Population Data

	2020 Population	2030 Projected Population	Proj. Population Change 2020-2030	Proj. Percent Change 2020-2030	2020 65+ Population	Proj. 2030 65+ Population	Proj. 65+ Population Change 2020-2030	Proj. 65+ Percent Change 2020-2030
Charles City	6,758	6,200	-558	-8.3%	1,773	2,189	416	23.4%
Chesterfield	365,627	406,942	41,315	11.3%	55,297	72,476	17,179	31.1%
Goochland	24,809	27,339	2,530	10.2%	5,420	7,421	2,001	36.9%
Hanover	110,164	118,374	8,210	7.5%	19,807	27,456	7,649	38.6%
Henrico	334,756	356,656	21,900	6.5%	53,255	68,003	14,748	27.7%
New Kent	23,069	27,067	3,998	17.3%	4,303	6,663	2,360	54.8%
Powhatan	30,355	32,152	1,797	5.9%	6,041	8,552	2,511	41.5%
Richmond	226,613	245,437	18,824	8.3%	26,352	31,657	5,305	20.1%
PD 15	1,140,301	1,238,825	98,524	8.6%	176,028	228,611	52,583	29.9%
Virginia	8,646,905	9,129,002	482,097	5.6%	1,352,448	1,723,382	370,934	27.4%

Source: Weldon Cooper Intercensal Estimates

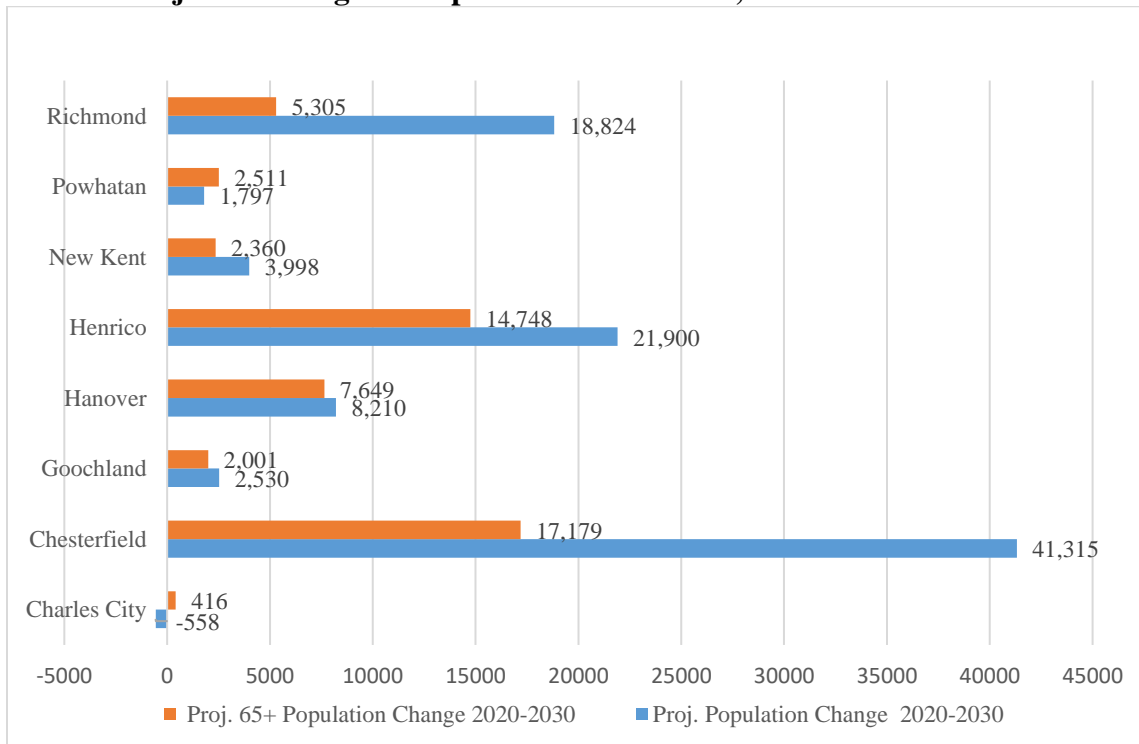
¹¹ <https://jamanetwork.com/journals/jama/fullarticle/2749213>

Chart 1. Percentage of PD 15 Population by Locality



Source: Weldon Cooper Intercensal Estimates

Chart 2. Projected Changes in Population 2020 to 2030, PD 15 Localities



Source: Weldon Cooper Intercensal Estimates

Table 5 shows that PD 15 has a poverty rate just under that of Virginia (10.7%), but the poverty rate in Richmond is more than double that of Virginia or PD 15 at 24.5%. As to transportation barriers, none are identified. AOP is on the corner of North 10th Street and East Leigh Streets on the VCU Medical Center campus in downtown Richmond. The facility is readily accessible from Interstates 64 and 95 as well as Broad Street making it accessible for all patients of Central Virginia or those traveling across Virginia. It is served by public transportation, including the Greater Richmond Transit Company (“GRTC”) Pulse system, a modern rapid transit system that serves a 7.6-mile route along Broad Street and Main Street. The building is “steps away” from a GRTC bus stop connecting to all major GRTC bus routes for convenient access for the City of Richmond and surrounding communities.

Table 5. PD 15 Poverty Rates

Geographic Name	Poverty Rate
Charles City County	12.3%
Chesterfield County	7.6%
Colonial Heights City	13.5%
Goochland County	6.7%
Hanover County	5.2%
<i>Henrico County</i>	<i>9.0%</i>
New Kent County	5.2%
Powhatan County	6.9%
Richmond City	24.5%
PD 15 Totals	10.1%
Virginia	10.7%

Source: Weldon-Cooper Census Data

2. The extent to which the project will meet the needs of the residents of the area to be served, as demonstrated by each of the following:

(i) The level of community support for the project demonstrated by citizens, businesses, and governmental leaders representing the area to be served.

DCOPN received a letter of endorsement from the Interim Chief Medical Officer of VCU Medical Center on behalf of the VCUHS medical staff and a letter of support from the Chair of Radiology at VCU Medical Center. These letters, in aggregate, expressed the following

- The VCU medical staff is in support of the addition of a second CT scanner at the AOP.
- There is a need to improve timely access.
- CT imaging plays an integral role in the accurate diagnosis, treatment and surveillance of patients.
- VCUHS opened the AOP in 2021 to locate the majority of adult outpatient services on the MCV campus in downtown Richmond.

- The AOP houses over 20 outpatient specialties including urology, orthopedics, gastroenterology, neurology and oncology.
- The Massey Comprehensive Cancer Center, one of two NCI-designated comprehensive cancer centers in Virginia, occupies six floors in the AOP, offering cancer patients convenient access to a range of services co-located in the building, including diagnostic imaging.
- Patients visiting the Cancer Center and other clinics at the AOP rely heavily upon the availability of CT scanning capability.
- CT scanning is critical not only in the initial detection of cancer but also in follow-up to assess treatment response.
- A CT scanner became operational at the AOP in 2021, and demand has steadily increased, consistent with projections.
- The unit is now over capacity and continues to experience capacity challenges, as do the other CT scanners on MCV's campus.
- These CT scanners serve inpatients, outpatients, emergency patients, all of whom have conflicting and time urgent imaging needs.
- Adding a second CT scanner at the AOP will improve timely access to outpatient-focused scans while freeing up capacity on other scanners.
- The proposed CT scanner will serve outpatients requiring abdominal, breast, cardiothoracic and musculoskeletal imaging.
- Providing these in the same building as the patients' clinical services greatly enhances timing and quality of care delivery.
- In addition to clinical benefits, adding a second CT scanner at the AOP will further VCUHS' education and research missions.
- Co-locating imaging with patient clinics allows medical students, residents and fellows as well as nursing and allied health students to see firsthand how imaging directly impacts patient care.
- CT imaging is also used in research projects, including clinical trials that have potential to yield benefits for many patients in the years to come.

Public Hearing

§32.1-102.6B of the Code of Virginia directs DCOPN to hold one public hearing on each application in the case of competing applications; or in response to a written request by an elected local government representative, a member of the General Assembly, the Commissioner, the applicant, or a member of the public. COPN Request No. VA-8799 is not competing with another project and DCOPN did not receive a request to conduct a public hearing for the proposed project. Thus, no public hearing was held.

DCOPN provided notice to the public regarding this project inviting public comment on January 10, 2025. The public comment period closed on February 24, 2025. Other than the letters of support referenced above, no members of the public commented. There is no known opposition to the project.

(ii) The availability of reasonable alternatives to the proposed service or facility that would meet the needs of the population in a less costly, more efficient, or more effective manner.

There is no reasonable, more efficient or effective alternative to the addition of CT capacity at VCUHS. Its CT scanners operate above the SMFP threshold for an additional CT scanner. The existing CT scanner located at the AOP operated at 119% of the SMFP standard in 2024. Furthermore, the additional of a CT unit at the AOP was anticipated and shell space was constructed in the building for future expansion. Only minor renovation is required for the proposed project.

All of the CT scanners on the MCV campus are highly utilized, averaging 9,441 scans per unit in 2024, or 128% of the SMFP standard. These CT scanners support clinical and research needs, and many are dedicated to specific patient populations, such as pediatric, ICU outpatient or emergency patients. High utilization leads to operational inefficiencies and delays in patient care. VCUHS has a demonstrated institutional need for an additional CT scanner and anticipated continued growth in demand will exacerbate barriers to access in care. The proposal is more beneficial than the status quo.

(iii) Any recommendation or report of the regional health planning agency regarding an application for a certificate that is required to be submitted to the Commissioner pursuant to subsection B of § 32.1-102.6.

Currently there is no organization in HPR IV designated by the Virginia Department of Health to serve as the Health Planning Agency for PD 15. Therefore, this consideration is not applicable to the review of the proposed project.

(iv) Any costs and benefits of the project.

Total projected capital cost for the proposed project is \$3,180,000, funded in its entirety with accumulated reserves, so there are no financing costs involved in the proposed project. The estimated costs are consistent with other recently approved projects to add a CT scanner at an established facility, COPN Nos. VA-04925 at \$2.6 million, VA-04873 at \$3.4 million and VA-04883 at \$6.2 million, for example.

The applicant has described several benefits to the proposed project, primarily the alleviation of patient care challenges that accompany highly utilized CT services. The proposed CT scanner will be the second CT unit at the AOP, supporting outpatients already coming to the building for clinical care. This co-location of essential imaging services is convenient for patients and physicians. VCUHS is an academic medical center that conducts clinical research and provides education for future physicians and other clinicians, functions also supported by adequate CT capacity.

(v) The financial accessibility of the project to the residents of the area to be served, including indigent residents.

VCU Health System provided charity care at 0.6% of gross patient revenues (including 0.2% of VCU Community Memorial's gross patient revenue and 0.1% of VCU Health Neuroscience,

Orthopedic and Wellness Center's) in 2022, the latest year for which such data are available. This is less than the HPR IV average of 0.9% (**Table 6**). The proforma provided (**Table 7**) assumes charity care for the proposed project, consistent with the HPR IV charity care contribution average in 2022, the latest year for which such data are available.

In accordance with section 32.1-102.4.B of the Code of Virginia, should the proposed project receive approval, the project would be conditioned to provide a level of charity care based on gross patient revenues derived from CT imaging that is no less than the equivalent average for charity care contributions in HPR IV of 0.9%. Pursuant to Code of Virginia language any COPN issued for this project will also be conditioned on the applicant's agreement to accept patients who are the recipients of Medicare and Medicaid.

Table 6. HPR IV Charity Care Contributions: 2022

2022 Charity Care Contributions at or below 200% of Federal Poverty Level			
HPR IV	Gross Patient Revenues	Adjusted Charity Care Contribution	Percent of Gross Patient Revenue
Inpatient Hospitals			
Encompass Health Rehab Hosp of Petersburg	\$29,926,632	\$1,262,680	4.2%
Bon Secours Southern Virginia Regional Medical Center	\$226,835,907	\$4,487,576	2.0%
Sheltering Arms Institute	\$151,399,824	\$2,530,945	1.7%
Sentara Halifax Regional Hospital	\$309,122,102	\$4,945,782	1.6%
Bon Secours St. Francis Medical Center	\$1,238,984,979	\$19,560,168	1.6%
Bon Secours St. Mary's Hospital	\$2,475,071,483	\$27,800,876	1.1%
Bon Secours Southside Regional Medical Center	\$2,238,925,486	\$23,176,465	1.0%
CJW Medical Center HCA	\$9,414,749,474	\$92,280,367	1.0%
TriCities Hospital HCA	\$1,291,681,768	\$12,190,500	0.9%
Bon Secours Richmond Community Hospital	\$1,099,525,303	\$9,999,109	0.9%
Henrico Doctors' Hospital HCA	\$6,125,759,528	\$50,390,024	0.8%
Bon Secours Memorial Regional Medical Center	\$1,648,605,572	\$10,986,041	0.7%
VCU Health System	\$7,574,785,954	\$45,509,855	0.6%
Poplar Springs Hospital UHS	\$84,621,465	\$328,036	0.4%
Centra Southside Community Hospital	\$357,467,950	\$1,261,207	0.4%
VCU Community Memorial Hospital	\$428,496,287	\$664,258	0.2%
Encompass Health Rehab Hosp of Virginia	\$28,839,933	\$35,972	0.1%
Select Specialty Hospital - Richmond	\$119,460,229	-	0.0%
Cumberland Hospital for Children and Adolescents UHS	\$32,427,799	-	0.0%
Total Inpatient Hospitals:			19
HPR IV Total Inpatient \$ & Mean %	\$34,876,687,675	\$307,409,861	0.9%
Outpatient Centers			
Boulders Ambulatory Surgery Center HCA	\$133,673,934	\$3,982,385	3.0%
Urosurgical Center of Richmond	\$46,192,499	\$467,587	1.0%
Virginia Eye Institute, Inc.	\$41,539,958	\$362,746	0.9%
St. Mary's Ambulatory Surgery Center	\$51,111,602	\$420,544	0.8%
MEDRVA Surgery Center @ West Creek	\$11,215,428	\$27,326	0.2%
VCU Health Neuroscience, Orthopedic and Wellness Center	\$6,301,892	\$9,063	0.1%
American Access Care of Richmond	\$5,218,308	\$865	0.0%
Cataract and Refractive Surgery Center	\$9,709,070	-	0.0%
MEDRVA Stony Point Surgery Center	\$62,279,534	-	0.0%
Skin Surgery Center of Virginia	\$1,562,293	-	0.0%
Virginia Beach Health Center VLPP	\$2,518,016	-	0.0%
Total Outpatient Hospitals:			11
HPR IV Total Outpatient Hospital \$ & Mean %	\$371,322,534	\$5,270,516	1.4%
Total Hospitals:			30
HPR IV Total \$ & Mean %	\$35,248,010,209	\$312,680,377	0.9%

Source: VHI 2022

(vi) At the discretion of the Commissioner, any other factors as may be relevant to the determination of public need for a project.

There are no other factors, not addressed elsewhere in the analysis, relevant to the determination of a public need for either project.

3. The extent to which the application is consistent with the State Medical Facilities Plan.

Section 32.1-102.2:1 of the Code of Virginia calls for the State Health Services Plan Task Force to develop recommendations for a comprehensive State Health Services Plan (SHSP). In the interim, DCOPN will consider the consistency of the proposed project with the predecessor of the SHSP, the State Medical Facilities Plan (SMFP).

The State Medical Facilities Plan (SMFP) contains criteria and standards for CT services. They are as follows:

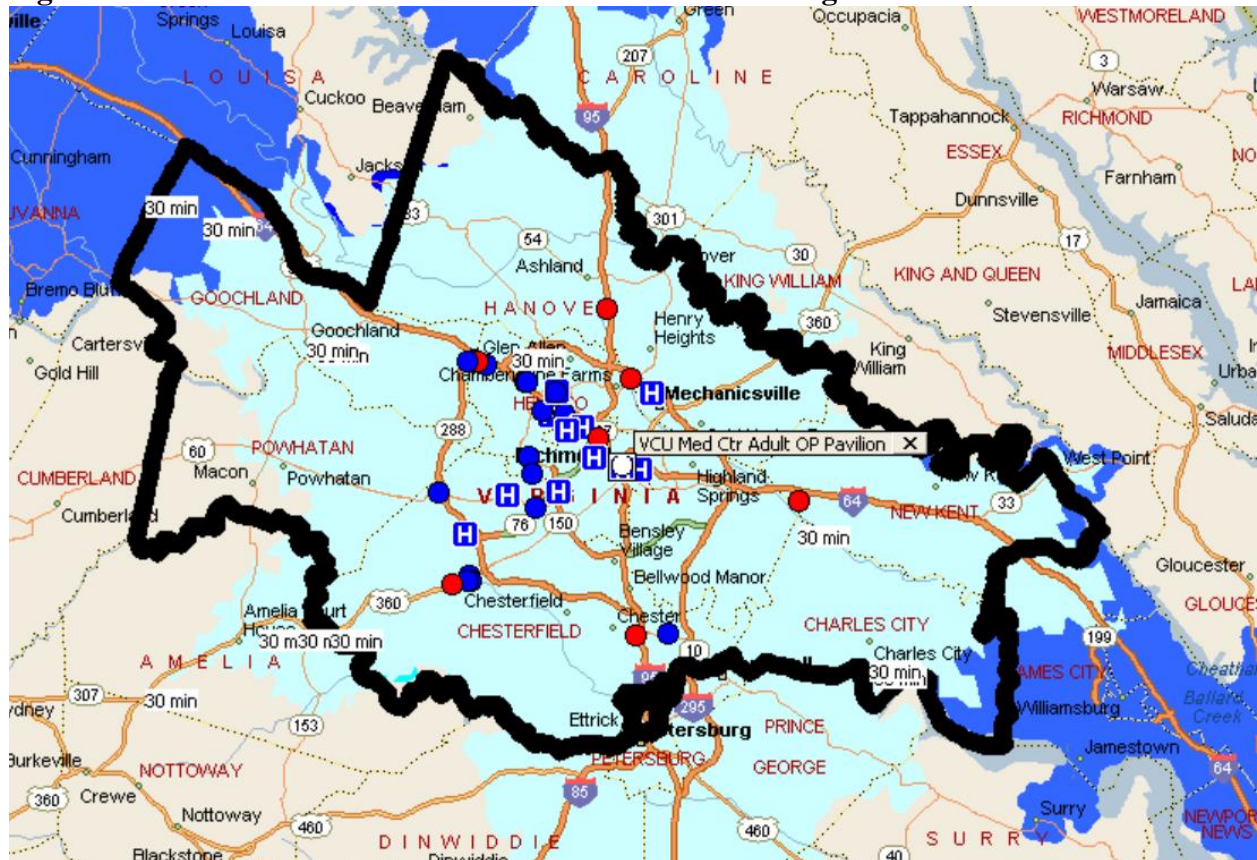
12VAC-5-230 Part I, Article 1 Criteria and Standards for Computed Tomography

12VAC5-230-90. Travel time.

CT services should be within 30 minutes driving time one way under normal conditions of 95% of the population of the health planning district using a mapping software as determined by the commissioner.

The black border in **Figure 1** is the outline of PD 15. The light blue shaded area illustrates the areas that have CT services available within 30 minutes driving distance of a PD 15 CT scanner. The dark blue illustrates CT coverage within 30 minutes from providers outside of the PD. The three towns not within the shaded area include Cartersville (population 1,434 per 2020 Census), Beaverdam (population 14,374 per 2020 Census), and Macon (population 28,696 per 2020 Census), with a total population for the three being approximately 44,504 in 2020. The total PD 15 population was 1,140,301 in 2020, meaning the three towns not within 30 minutes driving distance from CT services make up approximately 3.9% of the PD population, or that 96.1% of the PD is within the appropriate driving time from CT services according to the SMFP standard. The white dot is labeled and locates the proposed project. The proposed project on campus of existing CT scanners does not expand the geography with CT imaging within 30 minutes' drive time.

Figure 1. PD15 CT Services Locations and 30 Minutes Driving Distance



Source: DCOPN Records and Microsoft Streets & Maps

*Note: The red dots indicate free-standing ERs, the blue dots are outpatient imaging centers, the “H”s are hospitals with CTs. The white dot icon is the proposed project.

12VAC5-230-100. Need for new fixed site or mobile service.

- A. No new fixed site or mobile CT service should be approved unless fixed site CT services in the health planning district performed an average of 7,400 procedures per existing and approved CT scanner during the relevant reporting period and the proposed new service would not significantly reduce the utilization of existing providers in the health planning district. The utilization of existing scanners operated by a hospital and serving an area distinct from the proposed new service site may be disregarded in computing the average utilization of CT scanners in such health planning district.**
- B. Existing CT scanners used solely for simulation with radiation therapy treatment shall be exempt from the utilization criteria of this article when applying for a COPN. In addition, existing CT scanners used solely for simulation with radiation therapy treatment may be disregarded in computing the average utilization of CT scanners in such health planning district.**

The proposed project is not a new fixed or mobile CT service, so this standard is not applicable, but the need calculation for CT scanners has been included here for reference:

According to 2023 VHI data, the most recent available, there were 48 CT scanners in PD 15 with an average utilization of 9,040 scans per unit, 122.2% percent of the SMFP threshold (**Table 1**). CT scanners have been authorized in PD 15 since the latest VHI data were published and there are currently 56 diagnostic CT scanners authorized (see **Table 2**). At utilization of the SMFP standard of 7,400 CT scans per year, the 433,918 scans performed in 2023 would represent 59 fully utilized CT scanners, three fewer than are currently authorized.

Needed CT units = $433,918 \div 7,400 = 58.6$ (59)

Utilization Percentage in 2023: 122.2%

Current number of authorized diagnostic CT units in PD 15 = 56 (excludes CT simulators and dedicated intraoperative scanners)

CT deficit = 3 CT Scanners

12VAC5-230-110. Expansion of fixed site service.

Proposals to expand an existing medical care facility's CT service through the addition of a CT scanner should be approved when the existing services performed an average of 7,400 procedures per scanner for the relevant reporting period. The commissioner may authorize placement of a new unit at the applicant's existing medical care facility or at a separate location within the applicant's primary service area for CT services, provided the proposed expansion is not likely to significantly reduce the utilization of existing providers in the health planning district.

VCUHS reported an average of 8,107 scans per diagnostic CT scanner in 2023, according to VHI (**Table 1**), which is 109.6% of the standard for expansion. In its application, VCUHS details that the existing CT scanner at the proposed AOP site performed 8,816 CT scans in 2024, 119% of the SMFP standard; the nine CT scanners on the VCU Medical Center campus averaged 9,441 scans per unit; and all twelve of VCUHS' CT scanners combined performed 104,166 CT scans in 2024, an average of 8,681 per scanner, 117% of the SMFP threshold.

12VAC5-230-120. Adding or expanding mobile CT services.

- A. Proposals for mobile CT scanners shall demonstrate that, for the relevant reporting period, at least 4,800 procedures were performed and that the proposed mobile unit will not significantly reduce the utilization of existing CT providers in the health planning district.**
- B. Proposals to convert authorized mobile CT scanners to fixed site scanners shall demonstrate that, for the relevant reporting period, at least 6,000 procedures were performed by the mobile scanner and that the proposed conversion will not significantly reduce the utilization of existing CT providers in the health planning district.**

This provision is not applicable as the applicant is not proposing to add or expand mobile CT services.

12VAC5-230-130. Staffing.

The applicant provides assurances that the CT imaging service will be under the direct supervision of one or more qualified physicians.

12VAC5-230-80. When institutional expansion needed.

A. Notwithstanding any other provisions of this chapter, the commissioner may grant approval for the expansion of services at an existing medical care facility in a health planning district with an excess supply of such services when the proposed expansion can be justified on the basis of a facility's need having exceeded its current service capacity to provide such service or on the geographic remoteness of the facility.

B. If a facility with an institutional need to expand is part of a health system, the underutilized services at other facilities within the health system should be reallocated, when appropriate, to the facility with the institutional need to expand before additional services are approved for the applicant. However, underutilized services located at a health system's geographically remote facility may be disregarded when determining institutional need for the proposed project.

C. This section is not applicable to nursing facilities pursuant to § 32.1-102.3:2 of the Code of Virginia.

D. Applicants shall not use this section to justify a need to establish new services.

VCUHS performed average volumes in 2024 above the SMFP threshold across all of its twelve sites, on the nine CT scanners on the VCU Medical Center campus, and on the single CT scanner currently at the proposed site. There is not an underutilized CT scanner available to reallocate to the proposed project. The proposal does not involve a nursing facility, nor does it seek to establish a new service.

Required Considerations Continued

- 4. The extent to which the proposed service or facility fosters institutional competition that benefits the area to be served while improving access to essential health care services for all persons in the area to be served.**

There are multiple providers of CT services in PD 15 such that there is no unhealthy market concentration of CT imaging services. The applicant has demonstrated an institutional need such that the proposal will not impact other providers and will not foster institutional competition.

- 5. The relationship of the project to the existing health care system of the area to be served, including the utilization and efficiency of existing services or facilities.**

VCUHS has twelve of the 56 authorized diagnostic CT scanners in PD 15. HCA Virginia has 17 and Bon Secours Mercy Health has 14. The PD is also served by several specialty and physician providers of CT imaging. CT services are generally well-utilized across the PD, operating above the SMFP in 2023, according to VHI (**Table 1**), with lowest utilization, as expected, on the restricted use CT scanners.

- 6. The feasibility of the project, including the financial benefits of the project to the applicant, the cost of construction, the availability of financial and human resources, and the cost of capital.**

Capital costs of the proposal are reasonable and will be paid with accumulated reserves, accruing no financing costs. The proposed project is expected to have a positive net income over \$2 million in years one and two (**Table 7**). The proposal requires an additional 3.2 FTEs. Recruitment of the modest number of needed staff members to implement the proposal is fully feasible.

Table 7. Proforma, VCUHS Addition of One CT Scanner

	Year 1	Year 2
Gross Revenue	\$44,730,112	\$50,034,191
Charity Care	\$402,571	\$450,308
Other Deductions	\$38,948,290	\$43,545,585
Total Net Revenue	\$5,379,251	\$6,038,298
Total Expenses	\$3,170,033	\$3,575,418
Net Income Before Taxes	\$2,209,218	\$2,462,880

Source: COPN Request No. VA-8799

- 7. The extent to which the project provides improvements or innovations in the financing and delivery of health services, as demonstrated by: (i) The introduction of new technology that promotes quality, cost effectiveness, or both in the delivery of health care services. (ii) The potential for provision of services on an outpatient basis. (iii) Any cooperative efforts to meet regional health care needs. (iv) At the discretion of the Commissioner, any other factors as may be appropriate.**

The proposal does not seek to provide innovations in the delivery of health services; however, the applicant states that it will be used in clinical research and education of future physicians and other clinicians. It also allows for delivery of care in an outpatient facility likely to decant high utilization from the CT units at VCUHS. The applicant states that VCUHS has transfer agreements with hospitals across the Commonwealth and is engaged in cooperative efforts with health systems and post-acute and other providers across Virginia.

- 8. In the case of a project proposed by or affecting a teaching hospital associated with a public institution of higher education or a medical school in the area to be served.**

(i) The unique research, training, and clinical mission of the teaching hospital or medical school. (ii) Any contribution the teaching hospital or medical school may provide in the delivery, innovation, and improvement of health care for citizens of the Commonwealth, including indigent or underserved populations.

The applicant states that VCUHS is Central Virginia's only academic medical center. It has a tripartite mission to preserve and restore health for all people of Virginia and beyond through innovative service, research and education. CT imaging is an essential tool for VCUHS researchers to study the long-term efficacy of treatment and disease progression. The proposal will enhance the ability of researchers to enroll research participants and further the VCUHS mission. VCUHS is a key partner for many medical education programs. It is a clinical affiliate

for the VCU School of Radiation Sciences. In this specialty VCUHS provides training to medical students, interns, residents and fellows in training programs at VCU.

DCOPN Staff Findings and Conclusions

VCUHS proposes to add one CT scanner based on an institutional need, its thirteenth CT scanner and the tenth on the VCU Medical Center campus. Though the proposal will not expand geographic access, it will enhance access for CT patients served by VCUHS. The proposed project will spread growing outpatient CT volumes across two CT scanners at the Adult Outpatient Pavilion and decant high utilization from the other CT scanners on the VCU Medical Center campus. There is no identified reasonable alternative to the proposed project, and it is more beneficial than the status quo.

The proposal is consistent with applicable criteria and standards of the SMFP and the Eight Required Considerations of the Code of Virginia with regard to a fixed CT site. VCUHS has demonstrated an institutional need for additional CT capacity at the AOP and across all of its CT scanners, which the proposed project will alleviate. The proposal is unlikely to impact other existing providers significantly. The proposed project has support from its medical community and there is no known opposition. Projected capital costs for the proposal are reasonable and will be funded with accumulated reserves. The project is wholly feasible financially and with regard to human resources in the immediate and long-term

DCOPN Staff Recommendations

The Division of Certificate of Public Need recommends **conditional approval** of Virginia Commonwealth University Health System Authority's COPN Request number VA-8799 to expand its CT service with one additional CT scanner (its 13th scanner) located at the Adult Outpatient Pavilion on its downtown campus in Richmond, Virginia for the following reasons:

1. The proposal to add a CT scanner at the Adult Outpatient Pavilion on VCU Medical Center's campus is consistent with the applicable standards and criteria of the State Medical Facilities Plan and the Eight Required Considerations of the Code of Virginia.
2. The applicant has demonstrated an institutional specific need for an additional CT scanner.
3. The capital costs of the proposed project are reasonable and consistent with similar recently authorized projects.
4. The proposed project is unlikely to have a significant negative impact upon the utilization, costs, or charges of other providers of CT services in PD 15.
5. The proposed project is wholly feasible in the immediate and long-term.
6. There is no known opposition to the project.

DCOPN's recommendation is contingent on Virginia Commonwealth University Health System Authority's agreement to the following charity care condition:

Virginia Commonwealth University Health System Authority will provide CT imaging to all persons in need of these services, regardless of their ability to pay, and will provide as charity care to all indigent persons free services or rate reductions in services and will facilitate the development and operation of primary medical care services to medically underserved persons in PD 15 in an aggregate amount equal to at least 0.9% of Virginia Commonwealth University Health System Authority's gross patient revenue derived from CT imaging. Compliance with this condition will be documented to the Division of Certificate of Public Need annually by providing audited or otherwise appropriately certified financial statements documenting compliance with the preceding requirement. Virginia Commonwealth University Health System Authority will accept a revised percentage based on the regional average after such time regional charity care data valued under the provider reimbursement methodology utilized by the Centers for Medicare and Medicaid Services for reimbursement under Title XVIII of the Social Security Act, 42 U.S.C. § 1395 et seq. is available from Virginia Health Information. The value of charity care provided individuals pursuant to this condition shall be based on the provider reimbursement methodology utilized by the Centers for Medicare and Medicaid Services for reimbursement under Title XVIII of the Social Security Act, 42 U.S.C. § 1395 et seq.

Virginia Commonwealth University Health System Authority will provide CT imaging to individuals who are eligible for benefits under Title XVIII of the Social Security Act (42 U.S.C. § 1395 et seq.), Title XIX of the Social Security Act (42 U.S.C. § 1396 et seq.), and 10 U.S.C. § 1071 et seq. Virginia Commonwealth University Health System Authority will facilitate the development and operation of primary and specialty medical care services in designated medically underserved areas of the applicant's service area.