STATE OF MARYLAND

Ben Steffen
ACTING EXECUTIVE DIRECTOR



MARYLAND HEALTH CARE COMMISSION

4160 PATTERSON AVENUE – BALTIMORE, MARYLAND 21215 TELEPHONE: 410-764-3460 FAX: 410-358-1236

Memorandum

To: Commissioners

From: Paul Parker

Date: June 21, 2012

Re: Carroll Hospital Center

Docket No. 12-06-2330

Enclosed is a staff report and recommendation for a Certificate of Need ("CON") application filed by Carroll Hospital Center ("CHC") in Westminster. The project is development of a comprehensive cancer program facility connected to the CHC main hospital building, centralizing the hospital's oncology services, which are currently provided in a freestanding Cancer Center acquired by CHC and the hospital proper. As such, the project can be characterized as a replacement facility project with significant space expansion. The project will involve construction of a building addition and renovation of adjacent space in the Dixon Building of the hospital. The total estimated cost of the project is \$27,975,000 and the project will be funded with cash and donations; there is no debt financing.

This project contains no elements that categorically require CON review and approval. The cost estimate, which is well above the current hospital capital expenditure threshold (\$11.35 million) requiring approval, is the only basis for this review. The hospital has chosen to obtain CON approval to make a substantive revenue adjustment request possible but could implement this project without CON approval by "pledging" to limit any rate adjustment to a total of \$1.5 million over the life of the project.

Staff recommends approval of this project with conditions.

IN THE MATTER OF * BEFORE THE

*

CARROLL HOSPITAL * MARYLAND HEALTH

*

CENTER, INC. * CARE COMMISSION

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DOCKET NO. 12-06-2330

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Staff Report and Recommendation

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I. INTRODUCTION

A. The Applicant and the Project

Carroll Hospital Center, Inc. ("CHC") is a 189-bed hospital located in at 200 Memorial Avenue in Westminster (Carroll County). CHC is a not-for-profit corporation. CHC is the only general hospital in Carroll County and provides all four acute inpatient care services found in general hospitals; medical/surgical services, including intensive care), obstetric services, pediatric services, and acute psychiatric services.

CHC seeks approval for a capital expenditure described as creating a comprehensive community oncology center (Cancer Center) connected to and including renovated space in the existing Richard N. Dixon Building which is connected to the hospital. This project includes new construction of 42,546 square feet ("SF") in a structure which will connect to the Dixon Building at the first floor level and renovation of 25,555 SF of Dixon Building space on this level. See Appendix A for conceptual design drawings of the new construction and renovated space. Inpatient bed capacity is unaffected by this proposal. Conference and education space and space for CHC's Complementary Health Program (a suite of services including massage, meditation, and other therapies and healing practices often referred to as "alternative medicine") will be important components of this project, integrating functionally with the clinical oncology program space.

This project replaces the 13,250 SF Carroll Regional Cancer Center currently owned and operated by CHC at 555 South Center Street. These facilities were purchased by CHC in July, 2011 from U.S. Oncology for \$5.9 million, and were originally developed in 1998. This facility has a linear accelerator and simulator of the same vintage and is the only radiation therapy facility in Carroll County. In addition to the radiation therapy facilities, it has seven exam rooms, a laboratory, an infusion area with 11 chairs and infusion pharmacy, office spaces and staff support spaces, and areas for patient registration, waiting, and checkout/scheduling.

The replacement facility will concentrate radiation and hematology/oncology treatment in the new construction component, which will include a replacement linear accelerator and a second linear accelerator vault, to allow for future expansion or seamless replacement of equipment in the future, and a CT simulator for radiation therapy. It will contain 18 spaces for infusion therapy, physician offices, a pharmacy, nine exam rooms, and staff support offices, locker, lounge, and support spaces. The main lobby, reception, and waiting area will also be included in the new construction. The renovated space adjoining the new construction will primarily house the Wellness/Education Center facilities being added and space for use in providing complementary health services,

The treatment service capacities of the proposed project can be summarized as follows:

Table 1: Current and Proposed Cancer Service Capacity
Carroll Hospital Center

	Current		Proposed
	Capacity	To be Added	Capacity
Infusion Stations	11	7	18
Exam Rooms	7	2	9*
Linear Accelerator Vaults	1	2	2
Linear Accelerators	1	0	1
CT Simulator	0	1	1

Source: Adapted from CHC CON Application, page 4.

The project will have a ground floor of new construction totaling 12,340 SF that will house mechanical and electrical systems, receiving and storage, and service space. It will also include a small second floor space (3,184 SF) with an elevator lobby and 1,900 SF of shell space.

The total estimated cost of the project is \$27,975,000 consisting of \$26,482,776 in capital costs, an inflation allowance of \$1,442,224, and \$50,000 in consulting fees. CHC proposes to fund this project with \$17,975,000 in cash and \$10 million in donated funds. It notes that its foundation has recently raised \$8.1 million in less than a year as part of a campaign that includes the cancer center as one of its featured projects. CHC states that it "reserves the right to include capital costs associated with the project in future rate setting proceedings with the HSCRC (the Health Services Cost Review Commission)."

This project contains no elements that categorically require CON review and approval. The cost estimate is well above the current hospital capital expenditure threshold (\$ million) requiring approval, so this is the only basis for this review. The hospital has chosen to obtain CON approval presumably to preserve its ability to seek inclusion of costs associated with this project in the hospital's revenue cap if such an opportunity is made available by HSCRC policy. (The hospital is one of ten in Maryland operating under a "Total Patient Revenue" ("TPN") plan, a recently developed funding model reflecting a more "global" approach to funding hospital services rather than the traditional per case funding approach historically used by HSCRC.) CHC could avoid the necessity for CON approval by "pledging" to limit any rate adjustment to a total of \$1.5 million over the life of the project.

B. Summary of Staff Recommendation

Staff recommends approval of the proposed project with conditions. The key findings of Staff's review of the proposed project can be summarized as follows:

- CHC has demonstrated a need to expand and modernize its oncology service facilities;
- CHC has demonstrated that the proposed project is a cost effective alternative for meeting its objectives for expanding and modernizing its cancer care services on its campus;
- CHC has documented the availability of sufficient resources to fund the project, as

^{*}Nine exam rooms are located within the clinical treatment core space near radiation and infusion therapy. Nine additional exam rooms are shown in the renovated Dixon Building space, near the Wellness/Education Center and "boutique" for prosthetic fittings.

proposed, and its financial projections and assumptions are reasonable. These indicate feasibility of the project and long-term viability of CHC;

- The project does not alter the capacity for service on the CHC campus, relative to the capacity that has been operated there since the late 1990s, in a way that would be likely to have a significant impact on other hospitals or health care facilities. It will increase the asset value of the facilities used in delivering cancer services at CHC; this cost impact is reasonable to obtain the facility and service improvements and additional needed space gained through the capital expenditure.
- CHC expended \$5.9 million to acquire the current Cancer Center operated on its campus last year and now proposes to spend \$28 million to replace and expand these facilities, which are approximately 14 years old. As a TPN hospital, CHC brought these services under a hospital revenue cap system in 2011 which altered the fee-for-service status under which these services had been provided prior to 2011. Over time, this should provide incentives for CHC to provide these services as appropriately and efficiently as possible.

It is recommended that standard conditions with respect to shell space be attached to an approval of this project and a condition excluding certain project cost in any future rate action by HSCRC, based on MHCC's use of the Marshall Valuation Service benchmark for construction cost, also be attached.

II. PROCEDURAL HISTORY

A. Review of the Record

On November 29, 2011, CHC submitted a Letter of Intent to apply for a Certificate of Need ("CON") for the creation of the project. This letter was acknowledged by Commission staff on December 7, 2011 [Docket Item ("DI") #1].

The Hospital filed letters of supports for the project on February 8, 2012 (DI #2).

The Hospital filed a CON application on February 3, 2012 (DI #3).

Commission staff acknowledged receipt of the application for the project (DI #4) on February 6, 2012 and requested publication of a notice of receipt of the application in the next issue of the *Baltimore Sun* (DI #5) and *Maryland Register* (DI #6) on the same date.

On February 14, 2012, the *Baltimore Sun* provided proof of publication of the application notice. (DI #7).

On February 21, 2012, staff requested additional information from CHC (DI #8). CHC responded to the additional information questions on March 6, 2012 (DI #9).

On March 26, 2012, staff requested publication of a notice of the application's docketing in the next issue of the *Maryland Register* (DI #10) and, on April 10, 2012, staff requested publication of a notice of the application's docketing by the *Baltimore Sun*. (DI #11)

On April 10, 2012, staff requested review and comment on the CON application by the Carroll County Health Department. (DI#12) The Department responded by referencing the letter of support it had previously provided for the project. (DI #13)

On April 19, 2012, the *Baltimore Sun* provided proof of publication of the docketing notice. (DI #14).

On April 20, 2012, staff notified the applicant of docketing and sent additional information questions. (DI#15).

On April 27, 2012, staff requested comments from HSCRC (DI #16).

On May 8, 2012 the applicant responded to the additional questions sent on April 20, 2012. (DI #17)

B. Interested Parties

There are no interested parties in this review.

C. Local Government Review and Comment

The Carroll County Department of Health expressed it "unequivocal support" for the project. (Letter from Larry L. Leitch, Health Officer) The Department referenced the cancer death rate objective of the Maryland State Health Improvement Process and the challenges of better coordinating cancer services posed by the Affordable Care Act as a basis for this support and also expressed the view that expansion of facilities was needed.

Letters of support were also received from other elected officials in the hospital's service area. (See following section of this report).

D. Community Support

CHC provided letters of support for this application. These letters were written by:

Joseph M. Getty, Maryland State Senate

Donald Elliott, Susan Krebs, Justin Ready, and Nancy Stockdale, all members of the Maryland House of Delegates

Faye Pappalardo, President of Carroll Community College, Westminster

Kent Martin, Plant Manager, Lehigh Heidelberg Cement Group, Union Bridge

David J. Salinger, M.D., Director, Radiation Oncology, CHC

Stanley H. Tevis, III, Tevis Oil, Westminster

Patrick T. Rockinberg, Mayor, Town of Mount Airy

Haven N. Shoemaker, Jr., Carroll County Board of Commissioners.

Christopher M. Nevin, Mayor, Town of Hampstead

Larry Leitch, Health Officer, Carroll County Health Department

Flavio Kruter, M.D., Director, Carroll Regional Cancer Center

Robin Bartlett Frazier, Doug Howard, David H. Roush, Richard S. Rothschild, and

Haven N. Shoemaker, Jr., The Board of County Commissioners of Carroll County

James L. McCarron, Mayor, City of Taneytown

Michael P. Miller, Mayor, Town of Sykesville

III. BACKGROUND

A. Hospital Service Area, Demographics, Utilization

The hospital's profile of its service area population is shown in the two tables labeled "Population Growth" in Appendix A. The hospital defines Carroll County as its primary service area and "Reisterstown" as a "secondary service area," with "several Pennsylvania zip codes" as an extended service area. In total, it projects a primary service area population of 214,474 by 2016 and a total (primary, secondary, and extended) service area population of 343,765 by that year.

Population growth and aging in Carroll County and Maryland is shown in the following table. Carroll is growing and aging faster than the state as a whole.

Table 2: Population, 2000 & 2010, Projected Population, 2015 & 2020

Maryland & Carroll County

maryland &, Carron County							
	2010	2015	2020	% Change 2010-20			
MARYLAND							
0-14	1,110,385	1,122,814	1,155,943	4.1%			
15-44	2,357,553	2,347,542	2,422,097	2.7%			
45-64	1,597,972	1,651,143	1,637,289	2.5%			
65+	707,642	840,515	1,000,827	41.4%			
Total population	5,773,552	5,962,014	6,216,156	7.7%			
CARROLL COUNTY							
0-14	33,064	31,626	32,753	-0.9%			
15-44	61,163	59,136	65,333	6.8%			
45-64	51,098	53,339	52.025	1.8%			
65+	21,809	26,899	33,491	53.6%			
Total population	167,134	171,000	183,602	9.9%			

Source: U.S. Census; MD Department of Planning, May, 2012 Projection Series

CHC, like many general hospitals in Maryland, saw inpatient demand rise, beginning in the late 1990s, and peak in 2008-2009. CHC saw its average daily census of acute care patients increase by 24 between FY 2003 and FY 2009. Since that time, acute ADC has dropped by a larger number of patients. The table below compares the trend in medical/surgical case volume at CHC, Central Maryland hospitals, and all Maryland hospitals since 2005. MSGA

(medical/surgical/ gynecological/addictions) patients account for a very high proportion of all discharges from acute care hospital.

Table 3: MSGA Discharges, 2005-2011 Selected Hospitals

		MSGA DISCHARGES							
Hospital	2005	2006	2007	2008	2009	2010	2011		
Carroll Hospital Center	11,871	12,374	12,641	12,988	12,781	12,342	9,867		
Central MD Hospitals	327,392	328,944	329,656	337,848	341,305	321,602	308,302		
All Maryland Hospitals	530,882	534,663	539,085	552,155	554,941	531,986	504,206		

Source: HSCRC Discharge Data Base

IV. STAFF REVIEW AND ANALYSIS

The Commission is required to make decisions on CON applications in accordance with the general Certificate of Need review criteria at COMAR 10.24.01.08G (3) (a) through (f).

A. The State Health Plan

COMAR 10.24.01.08G(3)(a)State Health Plan.

An application for a Certificate of Need shall be evaluated according to all relevant State Health Plan standards, policies, and criteria.

The relevant State Health Plan chapter in this review is COMAR 10.24.10, Acute Inpatient Services. Not all of the project review standards in this chapter are applicable to this project and, in some cases, the text of these non-relevant standards has been omitted for brevity.

COMAR 10.24.10.04A — General Standards.

(1) Information Regarding Charges. Information regarding hospital charges shall be available to the public. After July 1, 2010, each hospital shall have a written policy for the provision of information to the public concerning charges for its services. At a minimum, this policy shall include:

Information regarding hospital charges shall be available to the public. Each hospital shall have a written policy for the provision of information to the public concerning charges for its services. At a minimum, this policy shall include:

- (a) Maintenance of a Representative List of Services and Charges that is readily available to the public in written form at the hospital and on the hospital's internet web site:
- (b) Procedures for promptly responding to individual requests for current charges for specific services/procedures; and
- (c) Requirements for staff training to ensure that inquiries regarding charges for its services are appropriately handled.

CHC states that "a list of representative services and corresponding charges are available to the public on the Hospital's internet website, in written form in the admitting/registration area

of the Hospital, and mailed upon request." Commission staff has confirmed the availability of a list of services and charges on the CHC website. CHC indicated that for specific requests regarding estimated charges, patients are advised to contact a CHC financial counselor. Moreover, the applicant provided a copy of CHC's policy describing the list's maintenance procedure and training of staff. CHC complies with this standard.

- (2) Charity Care Policy Each hospital shall have a written policy for the provision of charity care for indigent patients to ensure access to services regardless of an individual's ability to pay.
 - (a) The policy shall provide:
 - (i) Determination of Probable Eligibility. Within two business days following a patient's request for charity care services, application for medical assistance, or both, the hospital must make a determination of probable eligibility.
 - (ii) Minimum Required Notice of Charity Care Policy.
 - 1. Public notice of information regarding the hospital's charity care policy shall be distributed through methods designed to best reach the target population and in a format understandable by the target population on an annual basis;
 - 2. Notices regarding the hospital's charity care policy shall be posted in the admissions office, business office, and emergency department areas within the hospital; and
 - 3. Individual notice regarding the hospital's charity care policy shall be provided at the time of preadmission or admission to each person who seeks services in the hospital.
 - (b) A hospital with a level of charity care, defined as the percentage of total operating expenses that falls within the bottom quartile of all hospitals, as reported in the most recent Health Service Cost Review Commission Community Benefit Report, shall demonstrate that its level of charity care is appropriate to the needs of its service area population.

CHC submitted a copy of its charity care policy and it complies with the requirements of this standard with respect to determinations of probable eligibility, public notice, and individual notice. For example, the applicant states that notice is posted in conspicuous places throughout the Hospital including each registration area and the billing department. CHC's also indicates that this information is provided to the patient, the patient's family, or the patient's authorized representative before discharge, with the hospital bill and upon request. However, while not required, Commission staff could not find CHC's charity care policy on its website and recommends that CHC post its charity care policy on its patient and visitors page to raise awareness by those patients who may have a need for assistance.

CHC reported and Commission staff confirmed that in FY 2010 it provided almost \$5 million in charity care, which was equivalent to 2.63% of its total operating expenses. According to the FY2010 *Community Benefit Report* CHC was in the second quartile of Maryland hospitals ranked by level of charity care provided; it ranked 21st among the state's 46 general hospitals.

The applicant complies with this standard.

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¹ Carroll Hospital Center CON Application, p. 12

(3) Quality of Care

An acute care hospital shall provide high quality care.

- (a) Each hospital shall document that it is:
 - (i) Licensed, in good standing, by the Maryland Department of Health and Mental Hygiene;
 - (ii) Accredited by the Joint Commission; and
 - (iii) In compliance with the conditions of participation of the Medicare and Medicaid programs.
- (b) A hospital with a measure value for a Quality Measure included in the most recent update of the Maryland Hospital Performance Evaluation Guide that falls within the bottom quartile of all hospitals' reported performance measured for that Quality Measure and also falls below a 90% level of compliance with the Quality Measure, shall document each action it is taking to improve performance for that Quality Measure.

CHC documented its current licensure (expiration October 23, 2013) and accreditation status. It is accredited by the Joint Commission (July 24, 2010 for 39 months). CHC is in compliance with the conditions of participation of the Medicare and Medicaid programs.

CHC reported that it was below 90% compliance and in the bottom quartile for one of the 27 quality measures. However, Commission staff review of the latest information on the Commissions website (last updated in April of 20120 covering the period from October 2010 through September 2011 indicates that CHC's compliance with each of the quality measures exceeded 90%.

Based on all of the above, CHC has complied with this standard.

COMAR 10.24.10.04B-Project Review Standards

(1) Geographic Accessibility A new acute care general hospital or an acute care general hospital being replaced on a new site shall be located to optimize accessibility in terms of travel time for its likely service area population. Optimal travel time for general medical/surgical, intensive/critical care and pediatric services shall be within 30 minutes under normal driving conditions for 90 percent of the population in its likely service area.

This standard is not applicable to this project. No new or replacement hospital is proposed.

(2) <u>Identification of Bed Need and Addition of Beds</u>

Only medical/surgical/gynecological/addictions ("MSGA") beds and pediatric beds identified as needed and/or currently licensed shall be developed at acute care general hospitals.

(a) Minimum and maximum need for MSGA and pediatric beds are determined using the need projection methodologies in Regulation .05 of this Chapter.

- (b) Projected need for trauma unit, intensive care unit, critical care unit, progressive care unit, and care for AIDS patients is included in the MSGA need projection.
 - (c) Additional MSGA or pediatric beds may be developed or put into operation only if:
 - (i) The proposed additional beds will not cause the total bed capacity of the hospital to exceed the most recent annual calculation of licensed bed capacity for the hospital made pursuant to Health-General §19-307.2; or
 - (ii) The proposed additional beds do not exceed the minimum jurisdictional bed need projection adopted by the Commission and calculated using the bed need projection methodology in Regulation .05 of this Chapter; or
 - (iii) The proposed additional beds exceed the minimum jurisdictional bed need projection but do not exceed the maximum jurisdictional bed need projection adopted by the Commission and calculated using the bed need projection methodology in Regulation .05 of this Chapter and the applicant can demonstrate need at the applicant hospital for bed capacity that exceeds the minimum jurisdictional bed need projection; or
 - (iv) The number of proposed additional MSGA or pediatric beds may be derived through application of the projection methodology, assumptions, and targets contained in Regulation .05 of this Chapter, as applied to the service area of the hospital.

This standard does not apply to this project. No additional MSGA or pediatric beds or change in licensed bed inventory is being requested by the applicant.

(3) Minimum Average Daily Census for Establishment of a Pediatric Unit An acute care general hospital may establish a new pediatric service only if the projected average daily census of pediatric patients to be served by the hospital is at least five patients, unless:

- (a) The hospital is located more than 30 minutes travel time under normal driving conditions from a hospital with a pediatric unit; or
- (b) The hospital is the sole provider of acute care general hospital services in its jurisdiction.

This standard does not apply to this project. A new pediatric service is not being established.

(4) Adverse Impact

A capital project undertaken by a hospital shall not have an unwarranted adverse impact on hospital charges, availability of services, or access to services. The Commission will grant a Certificate of Need only if the hospital documents the following:

(a) If the hospital is seeking an increase in rates from the Health Services Cost Review Commission to account for the increase in capital costs associated with the proposed project and the hospital has a fully-adjusted Charge Per Case that exceeds the fully adjusted average Charge Per Case for its peer group, the hospital must document that its Debt to Capitalization ratio is below the average ratio for its peer group. In addition, if the project involves replacement of physical plant assets, the hospital must document that the age of the physical plant assets being replaced exceed the Average Age of Plant for its peer group or otherwise demonstrate why the physical plant assets require replacement in

order to achieve the primary objectives of the project; and

(b) If the project reduces the potential availability or accessibility of a facility or service by eliminating, downsizing, or otherwise modifying a facility or service, the applicant shall document that each proposed change will not inappropriately diminish, for the population in the primary service area, the availability or accessibility to care, including access for the indigent and/or uninsured.

With respect to paragraph (a), CHC is not requesting an HSCRC rate adjustment to cover the capital costs related to this project at this time, but reserves the right to include those capital costs related to hospital services in future rate proceedings with the HSCRC.

As for the requirements found in paragraph (b), CHC is not proposing to eliminate or downsize any facility or service. Rather, it is proposing to expand and improve the physical facility for oncology service delivery. This project will not alter geographic access or access to services by the indigent or uninsured for the oncology services currently provided by CHC.

Therefore, this project will not have an unwarranted adverse impact on hospital charges, availability of services, or access to services.

(5) <u>Cost-Effectiveness</u>

A proposed hospital capital project should represent the most cost effective approach to meeting the needs that the project seeks to address.

- (a) To demonstrate cost effectiveness, an applicant shall identify each primary objective of its proposed project and shall identify at least two alternative approaches that it considered for achieving these primary objectives. For each approach, the hospital must:
 - (i) To the extent possible, quantify the level of effectiveness of each alternative in achieving each primary objective;
 - (ii) Detail the capital and operational cost estimates and projections developed by the hospital for each alternative; and
 - (iii) Explain the basis for choosing the proposed project and rejecting alternative approaches to achieving the project's objectives.
- (b) An applicant proposing a project involving limited objectives, including, but not limited to, the introduction of a new single service, the expansion of capacity for a single service, or a project limited to renovation of an existing facility for purposes of modernization, may address the cost-effectiveness of the project without undertaking the analysis outlined in (a) above, by demonstrating that there is only one practical approach to achieving the project's objectives.
- (c) An applicant proposing establishment of a new hospital or relocation of an existing hospital to a new site that is not within a Priority Funding Area as defined under Title 5, Subtitle 7B of the State Finance and Procurement Article of the Annotated Code of Maryland shall demonstrate:
- (i) That it has considered, at a minimum, the two alternative project sites located within a Priority Funding Area that provide the most optimal geographic accessibility to the population in its likely service area, as defined in Project Review Standard (1);
- (ii) That it has quantified, to the extent possible, the level of effectiveness, in terms of

achieving primary project objectives, of implementing the proposed project at each alternative project site and at the proposed project site;

- (iii) That it has detailed the capital and operational costs associated with implementing the project at each alternative project site and at the proposed project site, with a full accounting of the cost associated with transportation system and other public utility infrastructure costs; and
- (iv) That the proposed project site is superior, in terms of cost-effectiveness, to the alternative project sites located within a Priority Funding Area.

Only paragraph (a) applies to this CON application as it is neither limited in scope, consistent with the requirements of part (b), since it involves the expansion of capacity for a suite of cancer services and other needs (educational and complementary medicine space) rather than a single service. It does not establish or relocate a hospital. CHC has responded to this standard without detailing the capital and operational cost estimates and projections developed by the hospital for each alternative discussed.

CHC identified the following primary objectives of this outpatient cancer project.

- Increase facility capacity to meet community need, future demand, and technology advances.
- Provide comprehensive oncology services in one convenient location to create a multi-disciplinary treatment environment, enhance operational efficiency, and achieve the highest quality possible.
- Create a Cancer Center with the configuration and ambience that becomes the standard of care for providers, patients, and family members.
- Maintain a high quality community cancer program.
- Expand community and staff education program offerings, complementary medicine services, and wellness programs.

The proposed project involves a major renovation of Dixon Building space, the entire first floor, combined with the construction of additional building space. CHC states that its choice of this alternative rests on its analysis of the deficiencies that the considered alternatives present with respect to achievement of the project's objectives. It suggests that this analysis demonstrates the chosen alternative as the only "practical" and "viable" choice for goal achievement, obviating the need for detailed capital and operational cost analyses for decision support.

CHC notes that the proposed project is less costly than construction of a wholly new building space for the larger and modernized Cancer Center. It is likely that the chosen alternative will bring a modern level of space design, equipment, and finish, comparable in many respects with totally new construction, but will still use existing building systems.

Another alternative would be to expand the existing cancer center. This alternative was rejected because the current site of the existing CRCC cannot accommodate a facility expansion of the size required due to topography and the amount of parking required by zoning. CHC pointed out that construction of the existing building required a zoning variance of the setback

requirement and there is a 20-foot elevation change in the rear of the building due to topography, adding site preparation and building pad expenses. In addition current County parking requirements would require more spaces to serve the existing space, in addition to the additional spaces required due to the actual expansion of the center. CHC estimates that it would cost \$2.5 million to construct 30 additional spaces. The cost effectiveness ratio improves for the chosen alternative when the disadvantages of greater expenditures for parking are considered. There is adequate parking associated with the proposed project site, a building addition to the Dixon Building and renovation of the Dixon Building.

The second alternative considered was renovation of the Dixon Building without the construction of additional space. However, CHC determined that over 42,000 square feet is needed to meet the programmatic needs of the cancer center as well as the Wellness/Education Center and complementary health services. The Dixon Building is not large enough to achieve the project's facility expansion objectives.

This applicant has responded to this standard without detailed capital and operating cost projections but has outlined, to a convincing extent, the cost factors and limitations it considered in reaching a decision to implement the proposed project and asks the Commission to accept that its limited analysis provides sufficient clarity to justify the hospital's choice. Given the scope and size of this project, and the need to expand and modernize its cancer treatment facilities (See the discussion at Need criterion, later in this report.), staff is in agreement that this proposal is sufficient in addressing this criterion. We recommend that the Commission find that CHC has demonstrated compliance with this standard.

(6) <u>Burden of Proof Regarding Need</u>

A hospital project shall be approved only if there is demonstrable need. The burden of demonstrating need for a service not covered by Regulation .05 of this Chapter or by another chapter of the State Health Plan, including a service for which need is not separately projected, rests with the applicant.

See discussion of project need under COMAR 10.24.01.08G(3)(b). Need.

(7) <u>Construction Cost of Hospital Space</u>

The proposed cost of a hospital construction project shall be reasonable and consistent with current industry cost experience in Maryland. The projected cost per square foot of a hospital construction project or renovation project shall be compared to the benchmark cost of good quality Class A hospital construction given in the Marshall Valuation Service® guide, updated using Marshall Valuation Service® update multipliers, and adjusted as shown in the Marshall Valuation Service® guide as necessary for site terrain, number of building levels, geographic locality, and other listed factors. If the projected cost per square foot exceeds the Marshall Valuation Service® benchmark cost, any rate increase proposed by the hospital related to the capital cost of the project shall not include the amount of the projected

construction cost that exceeds the Marshall Valuation Service® benchmark and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess construction cost.

This standard requires a comparison of the project's estimated construction cost with an index cost derived from the Marshall Valuation Service ("MVS"). For comparison, the MVS cost index is based on the relevant construction characteristics of the proposed project. The MVS includes the base cost per square foot for new construction by type and quality of construction for a wide variety of building uses including hospitals. Separate base costs are specified for basements and mechanical penthouses. The MVS guide also includes a variety of adjustment factors, including adjustments of the base costs to the costs for the latest month, the locality of constructions, as well as factors for the number of stories, height per story, shape of the building (such as relationship of floor size to perimeter), and department use of space.

CHC developed separate MVS benchmark costs per square foot for the new construction and for the renovation. These benchmarks included adjustments for sprinkler systems, the shape of each of the two building components (relationship of floor size to perimeter), average floor height, current cost, and local costs. CHC then compared its estimated cost for each component and determined that its estimated costs are less than the MVS benchmark. However, CHC did not develop a separate benchmark for the basement as provided for in MVS.

Commission Staff has recalculated the MVS benchmark for the new construction accounting for the basement space and the two floors above. Commission staff also recalculated some adjustment factors to account for the different perimeters, square footage and floor heights of the different components. The result is a lower MVS benchmark of \$295.46, as calculated in the table below, than that calculated by CHC (\$345.45 per sq. ft.).

Table 4: Calculation of Marshall Valuation Service Benchmark for Carroll Hospital Center Cancer Center

Construction Class/Quality Class A/Good Quality A-B Number of Stories 2 1 Square Feet 30,206 12,340 Average Floor Areas (SF) 15,103 12,340 Average Perimeter (F) 578.38 582.83 Average Floor to Floor Height (F) 13.33 12 Base Cost per SF (Nov. 2011) \$336.71 \$144.83 Sprinkler Add-on 3.00 3.00 Adjusted Base Cost \$339.71 \$147.83 Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers 1.0 1.0 Perimeter Multiplier .943 0.967 Story Height Multiplier 1.03 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers 1.03 1.03 Update Multiplier (Silver Spring, July 2010) 1.04 1.045 Final Benchmark MVS Cost per SF \$353.55 \$153.28	Oarron Hospital Oction Oair	1	1
Number of Stories 2 1 Square Feet 30,206 12,340 Average Floor Areas (SF) 15,103 12,340 Average Perimeter (F) 578.38 582.83 Average Floor to Floor Height (F) 13.33 12 Base Cost per SF (Nov. 2011) \$336.71 \$144.83 Sprinkler Add-on 3.00 3.00 Adjusted Base Cost \$339.71 \$147.83 Adjustment for Dept. Cost Differences 1.0 1.0 Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers 943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers 1.03 1.03 Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045		Main Floors	Basement
Number of Stories 2 1 Square Feet 30,206 12,340 Average Floor Areas (SF) 15,103 12,340 Average Perimeter (F) 578.38 582.83 Average Floor to Floor Height (F) 13.33 12 Base Cost per SF (Nov. 2011) \$336.71 \$144.83 Sprinkler Add-on 3.00 3.00 Adjusted Base Cost \$339.71 \$147.83 Adjustment for Dept. Cost Differences 1.0 1.0 Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers 943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers 1.03 1.03 Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Construction Class/Quality	Class A/Good	
Number of Stories 2 1 Square Feet 30,206 12,340 Average Floor Areas (SF) 15,103 12,340 Average Perimeter (F) 578.38 582.83 Average Floor to Floor Height (F) 13.33 12 Base Cost per SF (Nov. 2011) \$336.71 \$144.83 Sprinkler Add-on 3.00 3.00 Adjusted Base Cost \$339.71 \$147.83 Adjustment for Dept. Cost Differences 1.0 1.0 Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers 943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers 1.03 1.03 Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045		Quality	A-B
Average Floor Areas (SF) 15,103 12,340 Average Perimeter (F) 578.38 582.83 Average Floor to Floor Height (F) 13.33 12 Base Cost per SF (Nov. 2011) \$336.71 \$144.83 Sprinkler Add-on 3.00 3.00 Adjusted Base Cost \$339.71 \$147.83 Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers 943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers 1.03 1.03 Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Number of Stories	2	1
Average Perimeter (F) 578.38 582.83 Average Floor to Floor Height (F) 13.33 12 Base Cost per SF (Nov. 2011) \$336.71 \$144.83 Sprinkler Add-on 3.00 3.00 Adjusted Base Cost \$339.71 \$147.83 Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers \$339.71 \$147.83 Perimeter Multiplier .943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers 1.03 1.03 Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Square Feet	30,206	12,340
Average Floor to Floor Height (F) 13.33 12 Base Cost per SF (Nov. 2011) \$336.71 \$144.83 Sprinkler Add-on 3.00 3.00 Adjusted Base Cost \$339.71 \$147.83 Adjustment for Dept. Cost Differences 1.0 1.0 Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers 943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Average Floor Areas (SF)	15,103	12,340
Base Cost per SF (Nov. 2011)	Average Perimeter (F)	578.38	582.83
Base Cost per SF (Nov. 2011)	Average Floor to Floor Height (F)	13.33	12
Sprinkler Add-on 3.00 3.00 Adjusted Base Cost \$339.71 \$147.83 Adjustment for Dept. Cost Differences 1.0 1.0 Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers .943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045			
Adjusted Base Cost \$339.71 \$147.83 Adjustment for Dept. Cost Differences 1.0 1.0 Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers .943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Base Cost per SF (Nov. 2011)	\$336.71	\$144.83
Adjustment for Dept. Cost Differences 1.0 1.0 Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers .943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Sprinkler Add-on	3.00	3.00
Adjusted Base Cost per SF \$339.71 \$147.83 Multipliers .943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers 1.03 1.03 Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Adjusted Base Cost	\$339.71	\$147.83
Multipliers .943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Adjustment for Dept. Cost Differences	1.0	1.0
Perimeter Multiplier .943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Adjusted Base Cost per SF	\$339.71	\$147.83
Perimeter Multiplier .943 0.967 Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	·		
Story Height Multiplier 1.031 1.0 Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Multipliers		
Multi-story Multiplier* 1.0 1.0 Combined Multiplier 0.972 0.968 Refined Cost per SF \$330.05 \$143.09 Update/Location Multipliers Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Perimeter Multiplier	.943	0.967
Combined Multiplier0.9720.968Refined Cost per SF\$330.05\$143.09Update/Location MultipliersUpdate Multiplier (Sept. 2010)1.031.03Location Multiplier (Silver Spring, July 2010)1.041.045	Story Height Multiplier	1.031	1.0
Combined Multiplier0.9720.968Refined Cost per SF\$330.05\$143.09Update/Location MultipliersUpdate Multiplier (Sept. 2010)1.031.03Location Multiplier (Silver Spring, July 2010)1.041.045	Multi-story Multiplier*	1.0	1.0
Update/Location Multipliers Update Multiplier (Sept. 2010) 1.03 1.03 Location Multiplier (Silver Spring, July 2010) 1.04 1.045		0.972	0.968
Update Multiplier (Sept. 2010)1.031.03Location Multiplier (Silver Spring, July 2010)1.041.045	Refined Cost per SF	\$330.05	\$143.09
Update Multiplier (Sept. 2010)1.031.03Location Multiplier (Silver Spring, July 2010)1.041.045	-		
Location Multiplier (Silver Spring, July 2010) 1.04 1.045	Update/Location Multipliers		
	Update Multiplier (Sept. 2010)	1.03	1.03
Final Benchmark MVS Cost per SF \$353.55 \$153.28	Location Multiplier (Silver Spring, July 2010)	1.04	1.045
7-00:00 V:00:20	Final Benchmark MVS Cost per SF	\$353.55	\$153.28

Data Sources: CHC CON Application Chart 1 and Exhibit 6 and Response to Completeness Questions, March 6, 2012 and Marshall Valuation Service®, published by Marshall & Swift/Boeckh, LLC

The consolidated cost per square foot is \$295.46 as detailed in the following table.

Table 5: Calculation of Composite MVS Benchmark for Carroll Hospital Center Cancer Center New Construction

Hospital Component	MVS Benchmark Cost Per SF	Square Feet	Construction Cost Based on MVS Benchmarks		
First and Second Floor	\$353.55	30,206	\$10,679,331		
Basement	\$153.28	12,340	\$1,891,475		
Total Consolidated Building	\$295.46	42,546	\$12,570,806		

Data Sources: CHC CON Application Chart 1 and Exhibit 6 and Response to Completeness Questions, March 6, 2012 and Staff Calculations

A comparison of CHC's estimated cost for constructing the addition to the Dixon Building to the MVS benchmark is detailed in the following table.

^{*}Multi-story multiplier is .5% (.005) per floor for each floor more than three floors above the ground.

Table 6: Comparison of Carroll Hospital Center's
New Construction Budget to
Marshall Valuation Service Benchmark

Project Budget Item	Estimated Cost by Applicant
Building	\$12,124,114
Fixed Equipment	Included Above
Site Preparation	\$150,000
Architectural Fees	\$1,110,865
Permits	\$1,00,000
Capitalized Construction Interest	\$0
Total	\$13,484,979
Total Adjustments to Cost	\$0
Adjusted Total for MVS Comparison	\$13,484,979
Adjusted Project Cost Per SF	\$316.95
MVS Benchmark Cost Per SF.	\$295.46
Total Over (Under) MVS Benchmark	\$21.49

Data Sources: CHC CON Application, Project Budget, p. 9 and Commission Staff Caclulations

The standard requires that any rate increase proposed by the hospital related to the capital cost of the project shall not include the amount of project construction costs that exceeds the MVS benchmark and those portions of the contingency allowance, inflation allowance and capital construction interest that are based on the excess construction cost. The construction costs in excess of the MVS benchmark totals \$914,254 (\$21.49 per SF. times the total area of the proposed new construction, which is 42,546 SF).

Regarding the renovation portion of the project, Commission staff recalculated the MVS benchmark making slight adjustments in the perimeter and height per floor adjustment factors to account for the actual floor area, perimeter and height per floor of the renovation portion of the project. Because MVS cost figures are for new construction, the MVS benchmarks are typically much higher than the costs estimated by applicants. In the case of this proposed project by CHC, the MVS benchmark is \$345.50 per square foot compared to CHC's estimated cost of \$216.70 per square foot. Therefore no exclusion of depreciation and interest costs associated with the renovations for purposes of a request to increase rates is required.

Regarding the exclusion for the amount that the square foot cost of new construction exceeds the MVS benchmark costs, the excess construction costs of \$914,254 only needs to be adjusted for the contingency allowance and inflation allowance because the project will not require any debt financing and will not include capital construction interest. The \$914,254 represents 4.8% of the new construction and renovation costs. Therefore, \$12,015 of the contingency (4.8% of \$250,000 contingency costs) should be excluded from any future request for a rate increase associated with this project. CHC calculated future inflation at 5.4% of the \$26.5 million current capital cost of the project, which includes the contingency. Thus, \$50,018 of the inflation allowance should be excluded from any rate increase request (\$914,254 plus \$12,015 times 5.4%). Therefore, any future change to the financing of this project involving adjustments in rates set by the Health Services Cost Review Commission must exclude \$976,287 associated with the excess construction cost, capitalized interest, and portions of the contingency

and inflation allowance for the project.

(8) <u>Construction Cost of Non-Hospital Space</u>

The proposed construction costs of non-hospital space shall be reasonable and in line with current industry cost experience. The projected cost per square foot of non-hospital space shall be compared to the benchmark cost of good quality Class A construction given in the Marshall Valuation Service® guide for the appropriate structure. If the projected cost per square foot exceeds the Marshall Valuation Service® benchmark cost, any rate increase proposed by the hospital related to the capital cost of the non-hospital space shall not include the amount of the projected construction cost that exceeds the Marshall Valuation Service® benchmark and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess construction cost. In general, rate increases authorized for hospitals should not recognize the costs associated with construction of non-hospital space.

This standard is not applicable to this project. Construction of non-hospital space is not proposed by CHC.

(9) <u>Inpatient Nursing Unit Space</u>

Space built or renovated for inpatient nursing units that exceeds reasonable space standards per bed for the type of unit being developed shall not be recognized in a rate adjustment. If the Inpatient Unit Program Space per bed of a new or modified inpatient nursing unit exceeds 500 square feet per bed, any rate increase proposed by the hospital related to the capital cost of the project shall not include the amount of the projected construction cost for the space that exceeds the per bed square footage limitation in this standard or those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess space.

Not applicable to this project.

(10) Rate Reduction Agreement

A high-charge hospital will not be granted a Certificate of Need to establish a new acute care service, or to construct, renovate, upgrade, expand, or modernize acute care facilities, including support and ancillary facilities, unless it has first agreed to enter into a rate reduction agreement with the Health Services Cost Review Commission, or the Health Services Cost Review Commission has determined that a rate reduction agreement is not necessary.

This standard is not applicable. CHC is not a high-charge hospital. The HSCRC 2011 Reasonableness of Charges Comparison report found that CHC's charge per case was 2.48% below the average charge per case for its Peer Group (Peer Group 2 – Suburban/Rural Non-Teaching Hospitals).

(11) <u>Efficiency</u>

A hospital shall be designed to operate efficiently. Hospitals proposing to replace or expand diagnostic or treatment facilities and services shall:

- (a) Provide an analysis of each change in operational efficiency projected for each diagnostic or treatment facility and service being replaced or expanded, and document the manner in which the planning and design of the project took efficiency improvements into account; and
- (b) Demonstrate that the proposed project will improve operational efficiency when the proposed replacement or expanded diagnostic or treatment facilities and services are projected to experience increases in the volume of services delivered; or
 - (c) Demonstrate why improvements in operational efficiency cannot be achieved.

CHC states that a "design team" was established to plan this project. It identified several efficiency improvements associated with this project when contrasted with the current Cancer Center facilities.

- Radiation oncologists will now be working in close proximity not only to radiation therapy facilities but also to operating rooms and other procedure suites where patient care requires their presence, saving travel time and patient wait time and reducing procedural delays which also affect other support staff productivity.
- CHC is combining two small but separate infusion facilities into a more efficient, single space;
- The registration function of oncology, wellness/education/conferencing, and complementary health services will be centralized, minimizing space and staffing requirements;
- Computed tomographic ("CT") simulation will be more efficient. The current CCRC is not equipped with this state of the art mode, so using it now requires travel by staff and patients to off-site facilities. Scheduling and turnaround time for this important step in planning radiation oncology treatment is expected to be reduced from an average of five days to 3.5 days; and
- The new, expanded cancer center space will accommodate more and better multidisciplinary collaboration, by gathering the full spectrum of oncology specialists and providing a flexible amount of work space and conference/educational space.

The applicant has demonstrated that the project will achieve operational efficiencies when compared with the current layout and capability of existing facilities. The project complies with this standard.

(12) <u>Patient Safety</u>

The design of a hospital project shall take patient safety into consideration and shall include design features that enhance and improve patient safety. A hospital proposing to replace or expand its physical plant shall provide an analysis of patient safety features included for each facility or service being replaced or expanded, and document the manner in which the planning and design of the project took patient safety into account.

The applicant outlined design and operational characteristics incorporated in its proposed project that it believes will have a positive impact on patient safety, summarized as follows:

- The facility's ability to facilitate more multi-disciplinary collaboration on oncology cases will better ensure safety and effectiveness in treatment planning;
- The infusion facilities will improve visual observation by staff of all patients in treatment;
- Simulation integrated into the cancer center will now be state-of-the-art CT simulation, reducing the need for multiple radiation exposures in treatment planning which now occurs; and
- Bringing the cancer center into the hospital proper instead of operating it as a free-standing facility will provide better access to the "code team" of the hospital when medical emergencies occur in a patient receiving oncology treatment. Response time is critical in such cases and will be reduced through this project.

The applicant has demonstrated that design of its project took patient safety into consideration and that it includes features that enhance and improve patient safety, consistent with this standard.

(13) Financial Feasibility

A hospital capital project shall be financially feasible and shall not jeopardize the long-term financial viability of the hospital.

- (a) Financial projections filed as part of a hospital Certificate of Need application must be accompanied by a statement containing each assumption used to develop the projections.
- (b) Each applicant must document that:
 - (i) Utilization projections are consistent with observed historic trends in use of the applicable service(s) by the service area population of the hospital or State Health Plan need projections, if relevant;
 - (ii) Revenue estimates are consistent with utilization projections and are based on current charge levels, rates of reimbursement, contractual adjustments and discounts, bad debt, and charity care provision, as experienced by the applicant hospital or, if a

new hospital, the recent experience of other similar hospitals;

- (iii) Staffing and overall expense projections are consistent with utilization projections and are based on current expenditure levels and reasonably anticipated future staffing levels as experienced by the applicant hospital, or, if a new hospital, the recent experience of other similar hospitals; and
- (iv) The hospital will generate excess revenues over total expenses (including debt service expenses and plant and equipment depreciation), if utilization forecasts are achieved for the specific services affected by the project within five years or less of initiating operations with the exception that a hospital may receive a Certificate of Need for a project that does not generate excess revenues over total expenses even if utilization forecasts are achieved for the services affected by the project when the hospital can demonstrate that overall hospital financial performance will be positive and that the services will benefit the hospital's primary service area population.

The applicant identified the key assumptions used in projecting volume, staffing requirements, revenues, and expenses. (The standard revenue and expense projection format for CON applications is They are included in Appendix B. Our review indicates that they are reasonable assumptions for this project in light of the operational history of oncology services on the CHC campus.

With respect to volume projections, CHC worked with consultants, The Oncology Group, LLC, basing projections on service area cancer incidence rates and population change. Revenue projection reflect CHC's status as a TPR hospital with a "highly bundled payment system that provides a fixed revenue budget for hospital services." The acquisition of the existing cancer center facilities in 2011 brought an adjustment of the hospital's revenue cap to account for the revenue generated from radiation therapy and the medical oncology services of that center.

The volume projections in the new cancer center facility are projected to require an increase of 1.7 full time equivalent staff in the base of 35.5 FTEs currently involved in administration, direct care and support of cancer patient services; this represents an increment of additional salary expense of approximately \$142,000 and benefit expense of \$70,000 but CHC also list an additional physician compensation expense of \$199,000 by 2016.

CHC projects that cancer center operations are generating almost \$5 million in operating income in FY 2012 and projects that it will still be a service line that generates just under \$2.8 million in operating income by FY 2016, the second year of operating in the proposed new facilities, which is projected to have an incremental cost impact of about \$2.2 million in that year.

The applicant has demonstrated the financial feasibility of the project, under the terms of this standard. A financial feasibility opinion was requested from HSCRC on April 27, 2012 but a written opinion was not available at the time of posting of this report.

(14) Emergency Department Treatment Capacity and Space

(15) Emergency Department Expansion

This project does not involve ED services at CHC; therefore, these standards are not applicable.

(16) Shell Space

Unfinished hospital space for which there is no immediate need or use, known as "shell space," shall not be built unless the applicant can demonstrate that construction of the shell space is cost effective. If the proposed shell space is not supporting finished building space being constructed above the shell space, the applicant shall provide an analysis demonstrating that constructing the space in the proposed time frame has a positive net present value that considers the most likely use identified by the hospital for the unfinished space and the time frame projected for finishing the space. The applicant shall demonstrate that the hospital is likely to need the space for the most likely identified use in the projected time frame. Shell space being constructed on lower floors of a building addition that supports finished building space on upper floors does not require a net present value analysis.

Applicants shall provide information on the cost, the most likely uses, and the likely time frame for using such shell space. The cost of shell space included in an approved project and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the construction cost of the shell space will be excluded from consideration in any rate adjustment by the Health Service Cost Review Commission.

This project includes 1,907 SF of shell space on the second floor. This small floor (about 3,200 SF overall) serves the necessary purpose of providing an elevator lobby for access and egress from the second floor of the Dixon Building, which is currently occupied. This small amount of shell space, about 4.5% of the total new space being constructed in this project aligns the second floor component with the existing line of the Dixon Building (see floor plans at Appendix C) to which it is attached rather than serving the purpose of creating substantive future building space for expansion of services. Therefore, a rigorous net present value analysis is not viewed as necessary in this case. The project, if approved, should contain appropriate conditions that have become standard for projects with shell space construction.

B. Need

$COMAR\ 10.24.01.08G(3)(b)\ Need.$

The Commission shall consider the applicable need analysis in the State Health Plan. If no State Health Plan need analysis is applicable, the Commission shall consider whether the applicant has demonstrated unmet needs of the population to be served, and established that the proposed project meets those needs.

There is no applicable need analysis in the State Health Plan for radiation therapy or the establishment of a cancer care center, because the usual mix of diagnostic and treatment services located in such centers are not categorically regulated under Maryland's CON program.

As previously noted, CHC could undertake this project without CON approval, if it were willing to forego the opportunity, in the future, to seek substantive adjustment of its revenue base through appeal to HSCRC. In this case, the hospital applicant is operating under a revenue cap, which can be raised over time to reflect underlying inflation and demographic changes in the hospital's service area population.

It is the applicant's responsibility to demonstrate an unmet need(s) of the population to be served and that the proposed project meets those needs. In this case, CHC has presented a concise review of cancer incidence and mortality rates, the hospital's cancer case load, population growth and aging in its service area, and volume forecasts. Its primary service area is defined as Carroll County (206K or 62% of total service area population in 2011), Reisterstown (34K and 10%), and neighboring Pennsylvania communities (91K and 27%). This section of the application can be viewed in Appendix A. The response is well organized and presented and MHCC staff considers its assumptions reasonable and in line with widely use ranges of assumed capacity use. Key findings of the hospital's needs assessment are:

Carroll County's cancer incidence rate is higher than the state average but the County's residents experience a lower mortality rate;

- The number of cancer cases diagnosed at CHC has trended positively over the last seven years, reaching 598 in 2011, up 30% since 2004. Some insight into CHC's market share within its service area is indicated by the hospital's projection that the total service area will generate 1,710 new cancer cases in 2016;
- The hospital's service area population is projected to be growing at an average of 4.0% annually through 2016 and aging at a much faster pace, a major risk factor for cancer; and
- The hospital estimates a "total pool" of cancer cases in FY 2012, based on the first half of this fiscal year, at 1,643 patients, which includes 752 hematology/oncology patients (who represent the pool of patients using infusion therapy), and 987 total radiation therapy "pool" cases and 241 new radiation therapy patients. It also estimates 5,592 radiation treatments and 6,644 total infusion sessions in FY 2012, a level of volume it estimates to represent 75% of its linear accelerator capacity and 89% of its current infusion chair capacity. Growth in these 2012 numbers projected by 2016 is 4.0% for the total pool and radiation pool of cases, 9.0% increase in hematology/oncology patients, and 15% new radiation therapy patients. Correspondingly, radiation treatments are projected to grow 15% between 2012 and 2016 and infusion sessions are projected to grow by 7%. By 2016, CHC projects 86% capacity use of its new linear accelerator and 79% capacity use of its infusion facilities.

CHC also discusses the wider importance of maintaining a standard of cancer care, to improve its ability to retain physicians and compete effectively with other hospitals. Additionally, it points to the advantages, in continuity of care and patient compliance when state-of-the-art cancer treatment facilities are available for the hospital's service area population, which would primarily travel to Baltimore and its suburbs without local facilities.

Finally, CHC addresses the need for more educational facilities based on the increased demand for educational programing that supports the needs of the hospital for trained personnel and medical staff members, and the need for more treatment space that can be used by the hospital's Complementary Health Services program. With respect to education facilities, CHC also wants to serve as a community resource for health-related class, support group, and other purposes. As previously noted, this project will significantly expand education conference and classroom space at CHC and adds room space for the Complementary unit therapies and classes.

Findings and Conclusions

This application does not meet an "unmet need" of the population served by CHC, as referenced in this criterion, in the sense that it involves the introduction of new clinical services. It does not. But the hospital has done a good job of outlining the benefits of this project as an approach to assuring that cancer treatment needs will be met with modern facilities of sufficient capacity in future years. Its needs assessment employs reasonable assumptions with respect to growth in demand for these services and the assets in place now are substantially depreciated and demonstrably under capacity for demand levels likely to be experienced within only a few years.

But it should be noted that this assessment by MHCC staff is, of necessity, a generic evaluation. MHCC does not categorically regulate any of the clinical services affected by this project, so the Commission has not articulated specific policies, criteria, or standards that provide guidance on how population need for these services is defined or should be evaluated. Standardized approaches to collecting and assessing data for these services useful in the regulation of their supply have not been developed and interpreted for use in benchmarking. This places the Commission at some disadvantage in passing judgment on this criterion. CHC could implement this project without CON approval, if it is willing to forego the potential for substantive increases in its revenue cap based on the project's cost impact on the hospital, which, from the perspective of capital, is fairly limited in this case (building and equipment depreciation), since no debt financing is proposed.

We conclude that CHC has demonstrated a need for investment in modernizing and expanding its cancer treatment facilities in order to maintain a high standard of care for its service area population and the expansion of conference/educational and Complementary Health Services program space, that are smaller components of this project, has also been justified. A positive finding for this criterion is recommended.

C. Availability of More Cost-Effective Alternatives

COMAR 10.24.01.08G(3)(c)Availability of More Cost-Effective Alternatives.

The Commission shall compare the cost effectiveness of the proposed project with the cost effectiveness of providing the service through alternative existing facilities, or through an alternative facility that has submitted a competitive application as part of a comparative review.

As previously outlined in the discussion of COMAR 10.24.10.04(B) (5), the Project

Review Standard for Cost-Effectiveness, the applicant described its primary objectives and the project alternatives considered, including the reasons for their rejection in favor of the proposed project. Staff found that CHC demonstrated that the proposed capital project represented the most cost effective approach to meeting the needs that the project seeks to address.

D. Viability of the Proposal

COMAR~10.24.01.08G(3)(d) Viability of the Proposal.

The Commission shall consider the availability of financial and nonfinancial resources, including community support, necessary to implement the project within the time frames set forth in the Commission's performance requirements, as well as the availability of resources necessary to sustain the project.

The estimated project budget for this proposal is as follows

Table 7: Estimated Project Budget – Carroll Hospital Center Cancer Center Project

A.Use of Funds	
1.Capital Costs	
a.New Construction	
(1) Building	\$12,124,114
(4) Site Preparation	150,000
(5) Architect/Engineering Fees	1,110,865
(6) Permits	100,000
SUBTOTAL	
	\$13,484,979
b. Renovations	
(1) Building	\$5,095,922
(3) Architect/Engineering Fees	402,135
(4) Permits	39,740
SUBTOTAL	\$5,537,797
c. Other Capital Costs	
(1) Major Movable Equipment	\$3,697,500
(2) Minor Movable Equipment	2,362,500
(3) Contingencies	250,000
(4) Other (off-site road improvement, parking lot	
rework, city water impact fee)	1,150,000
SUBTOTAL	\$7,460,000
Total Current Capital Costs	\$26,482,776
d. Inflation	\$1,442,224
e. Capitalized Construction Interest	-
TOTAL PROPOSED CAPITAL COSTS	\$27,925,000
Financing Cost and Other Cash Requirements	
Legal Fees (CON)	\$50,000
SUBTOTAL	\$50,000
Working Capital Startup Costs	
TOTAL USES OF FUNDS	\$27,975,000
B. Sources of Funds For Project	
1. Cash	\$17,975,000
3. Gifts/Bequests	10,000,000
TOTAL SOURCES OF FUNDS	\$27,975,000

Source: CON application

Availability of Financial Resources

Staff reviewed the audited financial statement supplied, for CHC, Inc. and subsidiaries The statements for fiscal years ending June 30, 2010 and June 30, 2009 were analyzed. These statements showed that CHC had cash and cash equivalents and short-term investments in the amounts of approximately \$60 million in 2009 and \$60.8 million in 2010. These financial statements indicate the availability of sufficient cash resources for the proposed equity contribution.

Recent Financial Performance

CHC's most recent operational results for those services that are regulated by the Health Services Cost Review Commission and for unregulated operations are presented below:

Table 8: Carroll Hospital Center Recent Financial Performance

Recent i maneiai i cirormanee								
	Fiscal Year Ending							
	Jur	า-30-2008	Ju	n-30-2009	Jur	n-30-2010		
REGULATE	D O	PERATIONS ON	LY					
Net Operating Revenue	\$	165,163,581	\$	173,755,553	\$	177,318,406		
Net Operating Income	\$	16,057,126	\$	12,053,197	\$	9,970,747		
Net Operating Margin		9.72%		6.94%		5.62%		
REGULATED AND	REGULATED AND UNREGULATED OPERATIONS							
Net Operating Revenue	\$	222,615,025	\$	235,044,615	\$	236,986,105		
Net Operating Income	\$	10,545,271	\$	4,129,112	\$	(1,295,873)		
Net Operating Margin		4.74%		1.76%		-0.55%		
Operating Margi	<u>n – F</u>	Peer Group 2 Re	gula	ted				
Average		5.11%	6.45%		6.04%			
Median		5.20%		5.90%		6.42%		
Average-Operating Margin –	Peer	Group 2 Regula	ted	and Unregulated	k			
Average		2.38%		1.89%		1.79%		
Median		1.99%		1.93%		1.66%		
Average-Operating Margin -	- Sta	te Wide Regulate	ed a	nd Unregulated				
State Wide Regulated and Unregulated		2.30%		2.60%		2.60%		
State Wide Regulated		5.20%		5.90%		6.20%		

Source: Health Services Cost Review Commission, Disclosure of Hospital Financial and Statistical Data dated September, 2011 which reports regulated and non-regulated activity as reported on the R/E Schedule of the Annual Report.

As reflected in the table above, CHC's operating margin for services regulated by HSCRC ranged from minus .55% to 4.74% in the last three fiscal years. This was below the average performance of its peer group for the last two years, but above the average performance of the peer group for FY 2008.

Table 9: Carroll Hospital Center Regulated and Unregulated Revenue

	regulated and configurated received							
Maryland Hospitals-Statewide Average								
Year	Operating Margin	Excess Margin						
2010	2.60%	3.77%						
2009	2.59%	(0.01%)						
2008	2.32%	1.35%						
	CHC							
Year	Operating Margin	Excess Margin						
2010	-0.55%	-1.53%						
2009	1.76%	-1.08%						
2008	4.74%	5.08%						
	HSCRC Target Values							
2.75% 4.00								

Source: Disclosure of Hospital Financial and Statistical Data, Fiscal Year 2010, published by the Health Services Cost Review Commission on September 2011 (Report and reports financial data of the hospital corporate entities as submitted on the audited financial statements.)

The financial performance of the hospital from FY 2008 and 2010 compared to the other hospitals in the State as reported by the HSCRC based on audited financial statements is outlined in the preceding table. CHC reported operating losses (operating margin) in 2010 and an operating profit in 2009 that were significantly below the statewide average and the HSCRC target. For 2008 CHC reported an operating profit that was significantly above the statewide average and the HSCRC target. With respect to total profits (losses), CHC's results were also significantly below the statewide averages and the HSCRC target for 2009 and 2010, but significantly above the statewide average and HSCRC target for 2008.

Projected Financial Performance

The applicant projected financial performance (current year dollars) of the entire hospital for fiscal years 2012 through 2019 as follows:

Table 10: Carroll Hospital Center, Historic and Projected Financial Performance (in current year \$000's)

(in carrent year \$600.5)										
	Histo	oric	Current	nt Projected						
	2010	2011	2012	2013	2014	2015	2016			
Gross Patient Service Revenue	216,631	226,34	253,825	254,149	255,420	256,747	258,135			
Allowance For Bad Debt	4,064	8,388	8,579	8,590	8,633	8,676	8,720			
Contractual Allowance	23,126	24,990	30,577	30,609	30,762	30,932	31,121			
Charity Care	4,992	3,012	3,168	3,173	3,188	3,204	3,220			
Net Patient Service Revenue	184,449	189,95	211,501	211,777	212,837	213,935	215,074			
Other Operating Revenue	2,790	3,604	4,653	4,684	4,738	4,812	4,916			
Net Operating Revenue	187,449	193,55	216,154	216,461	217,575	218,747	219,990			
Salaries, Wages, Benefits.	111,310	109,24	118,088	118,198	118,771	119,836	121,426			
Contracted Services	26,444	24,963	29,304	29,311	29,442	29,696	30,078			
Interest on Current Debt	6,788	6,889	7,248	7,188	7,108	7,016	6,911			
Current Depreciation	13,638	13,070	15,045	14,653	1,407	15,022	15,313			
Project Depreciation	-	-	-	-	-	1,324	1,589			
Current Amortization	164	164	164	164	164	164	164			
Supplies	27,587	25,463	32,843	32,962	33,214	33,587	34,121			
Operating Expenses	185,931	179,79	202,692	202,476	203,106	206,645	209,602			

Income from Operation	1,308	13,763	13,462	13,985	14,469	12,102	10,388
Net Income (Loss)	(1,517)	21,190	3,462	19,609	20,314	17,158	15,464

Source: CON application

The following table shows, on a summary basis projected financial performance of CHC, with assumed inflation and revenue adjustments, i.e., not expressed in current year dollars.

Table 11: Carroll Hospital Center, Projected Financial Performance (in \$000's inflated)

(III \$000 3 IIIIlatea)									
		Projected							
	2013	2014	2015	2016					
Gross Patient Service Revenue	255,082	258,907	266,726	275,924					
Net Patient Service Revenue	212,575	215,763	222,271	229,918					
Net Operating Revenue	217,319	220,610	227,315	235,221					
Operating Expenses	208,487	213,809	221,818	228,941					
Income from Operation	8,832	6,801	5,497	6,280					
Net Income	14,456	12,646	10,553	11,356					

Source: CON application, supplemental information provided May 4, 2012

Commission staff requested a review of the project's financial feasibility from HSCRC staff. That review was not available at the time of issuance of this report. The written opinion will be provided as soon as it is available.

Conclusion

CHC is a financially stable general hospital. It has the resources available to fund the project, as proposed, with cash and donations. The suite of Cancer Center services generate net income for the hospital and are reasonably projected to continue to generate net income. Therefore, staff concludes that the project and CHC should be viewed as viable.

E. Compliance with Conditions of Previous Certificates of Need

COMAR 10.24.01.08G(3)(e), Compliance with Conditions of Previous Certificates of Need. An applicant shall demonstrate compliance with all terms and conditions of each previous Certificate of Need granted to the applicant, and with all commitments made that earned preferences in obtaining each previous Certificate of Need, or provide the Commission with a written notice and explanation as to why the conditions or commitments were not met.

CHC, in recent years, has obtained approvals to expand and modernize its physical facilities, primarily with respect to bed capacity and surgical capacity. As demand moderated, it did scale back the scope of one CON authorizing expansion but met procedural requirements. It has a track record of implementing projects complying with the terms and conditions of the CONs approved.

F. Impact on Existing Providers

COMAR 10.24.01.08G(3)(f),)Impact on Existing Providers and the Health Care Delivery System.

An applicant shall provide information and analysis with respect to the impact of the proposed project on existing health care providers in the health planning region, including the impact on geographic and demographic access to services, on occupancy, on costs and charges of other providers, and on costs to the health care delivery system.

The proposed project's primary impact would be to expand and modernize facilities in operation on its campus since the late 1990s. It is not likely that CHC, the sole general hospital in Carroll County, would experience substantial increases in its market share of oncology services as a result of this project, given its geographic location and natural catchment area of patients. However, modernization and expansion of these facilities is likely to improve CHC's ability to maintain its market position within its service area for cancer treatment services and stem out-migration, because it would be providing an improved setting for its cancer treatment programs, which should be more attractive for physicians and patients.

The staff increases associated with this project are minimal (1.7 additional FTEs).

CHC costs will increase as a result of this project and thus, in general, the cost of the local and state "system" of delivering hospital services will increase. CHC's recent charge position relative to peer hospitals is favorable and it now operates under a revenue cap program. This project is unlikely to have an impact on charges or utilization of other cancer treatment providers; it would not be expected to shifting volume for cancer treatment to CHC from other facilities.

The proposed will not alter geographic access to radiation therapy or other oncology services It is likely to marginally increase medical/surgical bed occupancy over time if it serves to boost CHC's ability to maintain and strengthen its market position as a cancer treatment hospital. It will increase the fixed costs of CHC (although this will be limited to depreciation, a non-cash expense) but may improve the hospital's ability to better control its operating cost experience for these services, as outlined at various points in the preceding report. It provides a larger, more integrated setting for oncology service delivery. In summary, the likely impact of this project does not warrant consideration of denying CHC approval to undertake the project. On net, the impact of this project is positive on care and operational improvement dimensions.

V. SUMMARY AND STAFF RECOMMENDATION

Based on its review and analysis of the Certificate of Need application, the Commission staff has determined that the proposed capital project meets a need of CHC and is a cost-effective approach to modernizing and expanding its cancer center on the CHC campus. It will improve the effectiveness of cancer care delivery at CHC. It is a viable project. Accordingly, Staff recommends that the Commission **APPROVE** the application of Carroll Hospital Center for a Certificate of Need to establish a replacement cancer center, with additional space for conferencing/education and complementary health services, at a total estimated cost of \$27,975,000 with conditions regarding the shell space component and exclusion from recognition of the difference between the construction cost estimate and the construction cost index benchmark cost.

IN THE MATTER OF * BEFORE THE

*

CARROLL HOSPITAL * MARYLAND HEALTH

*

CENTER, INC. * CARE COMMISSION

*

DOCKET NO. 12-06-2330 *

*

FINAL ORDER

Based on the analysis and findings in the Staff Report and Recommendation, it is this 21st day of June, 2012, **ORDERED**, that the application for a Certificate of Need by Carroll Hospital Center, Docket No. 12-06-2330, for an expansion and renovation of the hospital to replace its current cancer center facilities, at a total cost of \$27,975,000 is **APPROVED** with the following conditions.

- 1. Carroll Hospital Center will not finish the shell space without giving notice to the Commission and obtaining all required Commission approvals.
- 2. Carroll Hospital Center will not obtain or request an adjustment in rates or its revenue cap by the Health Services Cost Review Commission ("HSCRC") that includes depreciation or interest costs associated with construction of the proposed shell space until and unless Carroll Hospital Center has filed a CON application involving the finishing of the shell space, has obtained CON approval for finishing the shell space, or has obtained a determination of coverage from the Maryland Health Care Commission that CON approval for finishing the shell space is not required.
- 3. The HSCRC, in calculating future rates or revenue caps for Carroll Hospital Center and its peer group, shall exclude the capital costs associated with the shell space until such time as the space is finished and put to use in a rate-regulated activity. In calculating any rate that includes an accounting for capital costs associated with the shell space, HSCRC shall exclude any depreciation of the shell space that has occurred between the construction of the shell space and the time of the rate calculation (i.e., the rate should only account for depreciation going forward through the remaining useful life of the space). Allowable interest expense shall also be based on the interest expenses going forward through the remaining useful life of the space.
- 4. Any future change to the financing of this project involving adjustments in rates or revenue caps set by the Health Services Cost Review Commission must exclude \$976,287 associated with the excess construction cost, and portions of the contingency and inflation allowance estimated for the project.

APPENDIX A

Excerpt from CON Application, Need

10.24.01.08G(3)(b). Need.

For purposes of evaluating an application under this subsection, the Commission shall consider the applicable need analysis in the State Health Plan. If no State Health Plan need analysis is applicable, the Commission shall consider whether the applicant has demonstrated unmet needs of the population to be served, and established that the proposed project meets those needs.

Please discuss the need of the population served or to be served by the Project.

Responses should include a quantitative analysis that, at a minimum, describes the Project's expected service area, population size, characteristics, and projected growth. For applications proposing to address the need of special population groups identified in this criterion, please specifically identify those populations that are underserved and describe how this Project will address their needs.

CHC Response:

Recent statistics from the American Cancer Society (ACS) estimate that one out of every two American men and one out of every three American women will be diagnosed with cancer at some point during their lifetime. Cancer is the second leading cause of death in Carroll County and the state of Maryland, which accounts for twenty-four percent of total deaths in 2009. Several additional factors that demonstrate the unmet need, as well as ongoing need for decades to come, are discussed below. These factors include population growth, aging of the population, cancer incidence rates and mortality rates. Carroll Hospital Center's defined service area includes Carroll County (primary service area), Reisterstown (secondary service area), and several Pennsylvania zip codes (extended service area).

Incidence Rates

The community of Carroll County has a higher rate of overall cancer incidence, but a lower cancer mortality rate, than Maryland as a whole. As noted in the Revised 2010 Cancer Report from Maryland Department of Health and Mental Hygiene, the overall age adjusted cancer incidence in Maryland decreased from 495.9 per 100,000 population in 2002 to 458.9 in 2007. Whereas, the incidence rate for Carroll County increased slightly from 496.3 to 497.4. The incidence rate for Carroll County is 8% higher than the state of Maryland's rate. The increasing incidence rates for CHC's PSA in comparison to significant decline in the overall Maryland rates clearly demonstrates the ongoing need for comprehensive oncology services in Carroll County.

Cancer Incidence Rates*

elingen og vinne 16 malen og 1865 till 188 malendaret en sk	Carroll County (DHMH)	Maryland (DHMH)		
All Sites	497.4	458.9		
Lung	72.5	66.6		
Colorectal	50.8	46.4		
Female Breast	133.9	122.4		
Prostate	139.5	157.6		

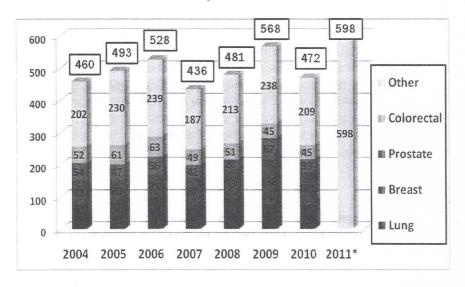
^{*}Rates per 100,000 and age-adjusted to 2000 U.S. standard population

Source: DHMH 2010 Cancer Report/MD Cancer Registry (2007 Data)

There were 825 cancer cases diagnosed in Carroll County residents in 2007. Approximately 436 (53%) of these cases were diagnosed through CHC services as reported by the Cancer Registry of Carroll Hospital Center. The annualized volume projections for calendar year 2011 based on five months of data is 598, which represents a 37% increase since 2007.

The number of Cancer analytic cancer cases (i.e., those diagnosed at the hospital) has fluctuated over the years as shown in the chart below.

CHC's Analytic Cancer Cases



^{* 2011} volumes are annualized based on 5 months of data, Jan thru Nov. Volumes by cancer site are not yet available for CY11. Note: Analytic Cases are diagnosed at CHC or have their first course of treatment hereSource: Maryland Cancer Registry

Mortality Rates

Although the overall cancer mortality rate for Carroll County is slightly lower than the state of Maryland, lung and colorectal cancer mortality rates are higher as shown in the chart below. These high rates further indicate a community need for more focused oncology prevention, diagnosis, and treatment programs.

CANCER MORTALITY RATES*

Cancer Site	Carroll County	Maryland		
All Sites	173.9	180.4		
Lung	56.5	50.1		
Colorectal	18	17.5		
Female Breast	21.6	24.8		
Prostate	N/A**	26.6		

^{*}Rates per 100,000 and age-adjusted to 2000 U.S. standard population

Source: DHMH 2010 Cancer Report (2007 Data)

Population Growth and Aging

As noted in the chart below, the recent demographic projections for 2011 – 2016 from Nielsen Claritas show a 4% growth in total population for CHC's total defined service, which includes Carroll County (primary service area), Reisterstown (secondary service area) and several Pennsylvania zip codes (extended service area). Carroll Hospital Center's service area growth rate (4.0%) is higher than the State of Maryland (2.7%) and most counties in the Baltimore region.

Population Growth - CHC Service Area and Maryland 2011-2016

Area	2011 Population	2016 Population	% Growth 2011-2016 4.0%	
Primary Service Area	206,163	214,474		
Reisterstown	33,935	35,052	3.3%	
Extended Service Area	90,588	94,239	4.0%	
CHC Total Service Area	330,686	343,765	4.0%	

State of Maryland	5,805,777	5,960,097	2.7%
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^{*} Source: Nielsen Claritas - Site Reports

In addition to overall population growth, CHC's service area is expected to age at a faster rate than most counties in the State of Maryland. The 55+ population is expected to increase by 20% in the PSA and 17% overall. Cancer occurs more commonly in adults over 50 years of age. Thus, the high growth rate for CHC's population 55 and older and total population growth projections indicate that the need for comprehensive oncology services will continue to increase.

^{**} Rates based on death counts of 0-15 are suppressed

Population Growth for Ages 55+ 2011-2016

CHC's SERVICE AREA	2011 Population	2016 Population	% Growth	
Primary Service Area	53,437	64,151	20.5%	
Reisterstown	7,847	9,149	16.6%	
Extended Service Area	26,789	30,460	13.7%	
Total CHC Service Area	88,073	103,760	17.1%	

State of Maryland	1,435,354	1,659,875	15.64%
otate of inal flama	1,433,334	1,033,073	

Source: Nielsen Claritas - Site Reports

FUTURE PROJECTIONS

By the year 2016, the number of annual cancer cases diagnosed in Carroll County residents is expected to increase by 29% from 2007 to approximately 1,067 due to current incidence rates, expected population growth, and the estimated aging factor of the population. The 2016 projection of new cancer cases for CHC's total service is 1,710. These projections do not factor in potential changes in the healthcare field that may increase diagnosis or demand e.g., health care reform initiatives, genetic risk profiling, and advancements in screening technology.

2016 Estimated Pool of New Cancer Cases By Cancer Site

Estimated Pool of New Cancer Cases								
Area	Population	All Sites	Breast	Prostate	Lung	Colorectal	Bladder	Other
PSA	214,474	1,067	287	299	155	109	46	170
SSA	35,052	174	47	49	25	18	7	28
ESA	94,239	469	126	131	68	48	20	75
Total Serv. Area	343,765	1,710	460	480	249	175	73	273
2011 Est. Totals	330,686	1,645	443	461	240	168	70	263

^{*} Methodology - Used 2003-2007 cancer incidence rates from DHMH/Maryland Cancer Registry and applied them to the current population and projections for CHC's Service area

The estimated new cancer patient "Pool" is used to project future volumes of new oncology patients and the "radiation patient pool". The historical utilization rates and practice patterns of CRCC physicians were used to project future volumes as shown below.

CRCC Annual Volume Projections

Category / Procedure	FY 12* (Actual)	FY 13	FY 14	FY 15**	FY 16
Fotimeted Total Pool	1 645	1 661	1 670	1 605	1 712
Estimated Total Pool	1,645	1,661	1,678	1,695	1,712
Hem/Onc New Pts	752	764	777	793	817
Radiation Pool 60%	987	997	1,007	1,017	1,027
Radiation New Pts	241	248	257	266	277
Radiation Treatments	5,592	5,759	5,956	6,181	6,434
LINAC Utilization @ 7500 tx/yr	75%	77%	79%	82%	86%
CRCC Infusion	5,698	5,791	5,887	6,010	6,187
CHC Infusion (outpatient)	946	946	946	946	946
Total Infusions	6,644	6,737	6,833	6,956	7,133
Infusion Chairs Available	15	15	15	18	18
Avg. # Chairs Occuppied	13.3	13.5	13.7	13.9	14.3
Infusion Chair Utilization	89%	90%	91%	77%	79%

^{*}annualized based on 6 months of historical data

The methodologies used to project annual volumes are as follows:

- The above volume projections are conservative and have been validated by a nationally recognized oncology program consulting company, The Oncology Group, LLC (TOG), who initiated CHC's planning process for this project in 2008 with an Oncology Program Feasibility Study and Business Plan projections. The CRCC's Business Plan strategies and volume projections were updated based current incidence rates and population demographic information.
- The radiation pool of patients is 60% of the total pool of oncology cases, which is CRCC's experience rate as well as the estimated national rate by various sources such as TOG, The Advisory Board Oncology Roundtable, and others.
- Radiation treatments are based on CRCC's historical average of 23.2 treatments per radiation patient, which is comparable to national utilization rates.
- The hematology/oncology Infusion treatments average 7.6 per new cancer patient. The average number of treatments per patient was held constant. The CHC total outpatient infusion volumes were also held constant.
- The linear accelerator equipment capacity for one machine was determined to be adequate based on current average treatment times and service availability. In the longterm future, a second machine may be needed to ensure operational efficiency and to provide state-of-the art technology. As such, CHC has included the construction of a second vault to accommodate long-term growth, changes in technology, and possible increases in treatment time.
- The average number of chairs occupied is based on a current weighted average treatment time of 2.5 hours and availability of seven hours a day; equivalent to approximately 2 treatments per chair per day at 250 work days per year. As noted above, the proposed 18 infusion chairs will be utilized approximately 79% of the time. This justifies the need for 18 chairs to accommodate for fluctuations in treatment time and scheduling to ensure sufficient availability. Treatment times can range from 1-7 hours or longer.

^{**}Target opening date of new center is Sept. 2014; Sept. FY15

PHYSICIAN MANPOWER

In order to meet the needs of the communities served, it is critical that CHC retain dedicated oncologists. The expectations of the CRCC oncologists are to develop a fully-integrated comprehensive spectrum of oncology services under one roof with state-of-art technology to appropriately treat their patients. To remain competitive and retain physicians to treat community residents locally, it is imperative that a new cancer center, as proposed, be built to replace the existing antiquated facility that cannot be expanded to establish necessary capacity for needed services. A new center will also help ensure that patients are compliant with their treatment regimens and that their expectations are met. The CRCC is the only comprehensive program in Carroll County and the only provider of radiation therapy. If CHC does not provide what has become a standard of care in the region, it is believed more patients will out-migrate and become less compliant due to the inconveniences, inefficiencies and higher costs of downtown Baltimore programs.

Wellness / Education Center and Complementary Health

Carroll Hospital Center is committed to providing health education, primary and secondary prevention programs, disease management services, and for staff and physicians to ensure safety and highest quality of care possible. In 2011 CHC offered over 1,155 education and training classes, special events, and support group sessions. The need for more Wellness/education programs continues to increase due to population demographics as previously described heightened awareness among the community, regulatory and payer focus on disease management and care coordination, and cost of illness as well as treatment. Despite the economic downturn in the past couple of years, more people are seeking screening services and less costly alternative treatments, as demonstrated by the significant growth CHC's Complementary Health Program has experienced over the past three years as shown below.

Currently, educational space for community classes, outpatient education, support groups, CHC staff training, and continuing medical education programs for physicians is in adequate for the following reasons:

- The availability and capacity of existing classroom space is extremely limited and does
 not accommodate current demand. The renovation portion of the proposed project
 increases the educational conference/classroom space by 50% from less than 4,000
 square feet to approximately 6,000 square feet.
- Currently, the rooms used for education and training are dispersed throughout the
 campus i.e., trailers, The Women's Place, Dixon Building, and hospital, which is
 inefficient and confusing for users. The new center will centralize all educational services
 into one location with appropriate storage, state-of-the-art educational equipment, and
 improved classroom configuration to enhance learning. Existing rooms are not conducive
 for large groups due to visual obstructions from support columns.
- The current number of treatment rooms for Complementary Health Services is limiting
 expansion of types of services, as well as the ability to accommodate growth in a cost
 efficient manner. Additional rooms will improve cost-efficiency by accommodating more
 patients without extending hours and allow new services to be developed e.g., Traeger
 therapy, Meditation classes, and Rain Drop therapy.

APPENDIX B

Excerpt from CON Application, Financial Feasibility

CHC Response:

Key Assumptions used in Financial Projections:

<u>Current Year Projected (FY 2012):</u> Projected FY 2012 results are based on actual financial performance through December 2011 with revenue and expense estimates made for the remainder of the year through June 2012.

Years 2 – 5 (FY 2013 – 2015):

- 1) Volume Growth: Overall Hospital volume has been projected to grow at an average rate of .85% per year during the projection period (FY '13: 0.1%, FY '14: 0.6%, FY '15: 1.1%, FY '16 1.6%). This growth rate includes a 2.8% annual average growth rate for medical and radiation oncology treatments associated with the Project. Further explanations of the volume projection methodologies can be found in the section of this document addressing COMAR 10.24.01.08G (3) (b). Need.
- 2) Gross Patient Revenue: Approximately 95% of CHC's revenues are regulated under a Total Patient Revenue Agreement (TPR) with the HSCRC. TPR is a highly bundled payment system that provides a fixed revenue budget for hospital services. This revenue budget is not adjusted for volume and has limited adjustments (up to 1%) for population changes. For projection purposes, CHC has assumed that revenues will continue to be regulated under a TPR agreement throughout the projection period and include a .5% annual increase for the HSCRC population adjustment. Revenues not covered under the TPR agreement include lab outreach, homecare, and other operating activities such as cafeteria sales, and activity associated with CHC's physician hospitalist programs. These revenues have been projected to increase consistent with the growth assumptions mentioned above.
- <u>3) Revenue Deductions:</u> Revenue deductions for contractual allowances, bad debt, and charity care are projected based historical levels.
- 4) Variable Cost / Departmental Expense Growth: The table below indicates the variable cost factors used to develop the financial projections included in Table 3.

	FY 2013	FY 2014	FY 2015	FY 2016
Variable Dept. Costs				
Overall Volume Growth	0.1%	0.6%	1.1%	1.6%
Dept. Exp. Growth (No Inf.)	0.1%	0.5%	0.9%	1.4%
Variable Cost Factor	<u>100%</u>	<u>83%</u>	<u>82%</u>	88%

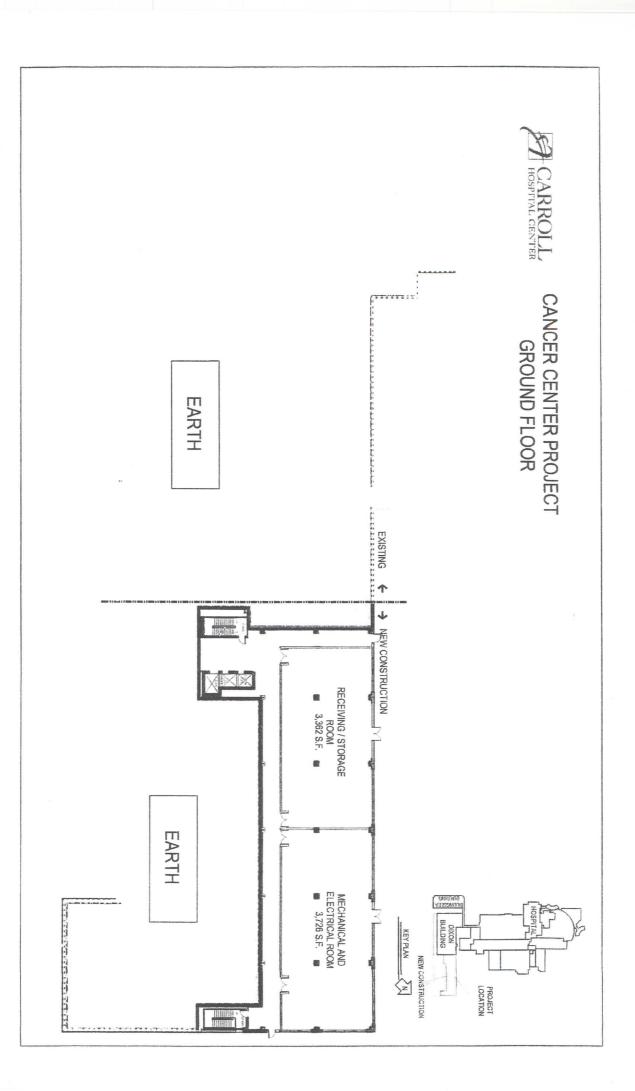
- <u>5) Revenue and Expense Inflation:</u> Financial statement projections during the projection period (FY '12 FY '16) exclude the impact of annual update factors provided by the HSCRC to Maryland hospitals and the impact of annual expense inflation. TRP Hospital's are subject to the same revenue update factors approved by the HSCRC for non-TPR hospitals.
- <u>6) Workforce Changes:</u> See Table 5 for estimated workforce changes associated with increase medical and radiation oncology treatments associated with the project.
- <u>7) Benefit Expense:</u> Benefit expense has been estimated at 20.6% of salary expense throughout the projection period consistent with past levels.

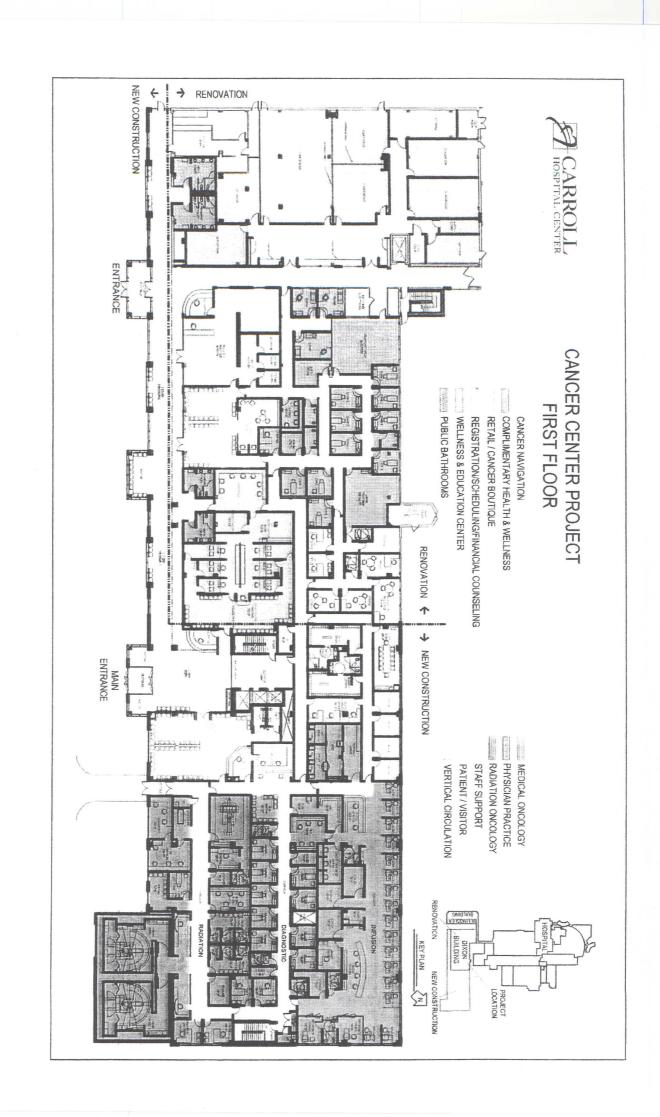
Assumptions - continued

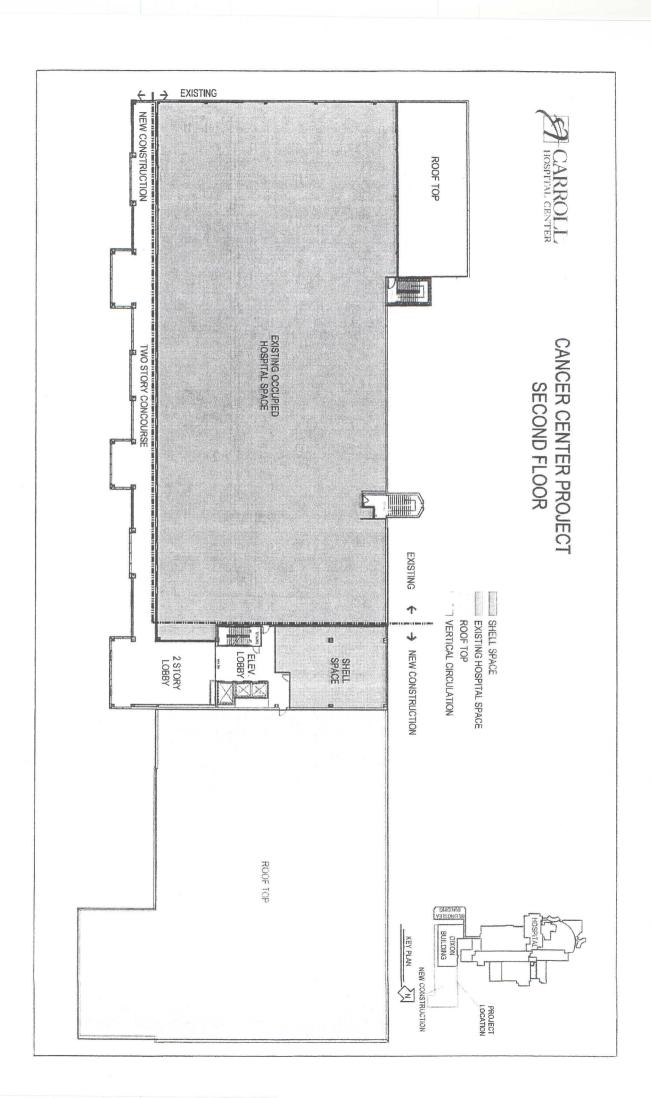
- **8) Non-operating:** Consists primarily of estimated investment income on CHC's cash and investments.
- 9) New Financing/Interest: No new borrowing is associated with this CON application.
- 10) "Project Only": Revenue and expenses on Table 4 and statistical projections on Table 2 reflect the incremental activity associated with CHC's change in medical and radiation treatments from current FY 2012 levels and increased capital costs (depreciation) associated with the Project.

APPENDIX C

Floor Plans







APPENDIX D HSCRC Memorandum