ORIGINAL

16-047

ILLINOIS HEALTH FACILITIES AND SERVICES REVIEW BOARD APPLICATION FOR PERMIT

RECEIVED
NOV 03 2016
HEALTH FACILITIES & SERVICES REVIEW BOARD

SECTION I. IDENTIFICATION, GENERAL INFORMATION, AND CERTIFICATION

This Section must be completed for all projects.

Facility/Project Identification

Facility Name: Advocate Christ Medical Center – Cancer Institute – Radiation Oncology			
Street Address: 4440 West 95th Street			
City and Zip Code: Oak Lawn 60453-2699			
County: Cook	Health Service Area 7	Health Planning Area: A-04	

Applicant /Co-Applicant Identification
[Provide for each co-applicant [refer to Part 1130.220].

Exact Legal Name: Advocate Health and Hospitals Corporation d/b/a Advocate Christ Medical Center
Address: 4440 West 95th Street Oak Lawn 60453-2699
Name of Registered Agent: Gail D. Hasbrouck
Name of Chief Executive Officer: Kenneth Lukhard, President, Advocate Christ Medical Center
CEO Address: 4440 West 95th Street Oak Lawn 60453-2699
Telephone Number: 708-684-5010

Type of Ownership of Applicant/Co-Applicant

☒	Non-profit Corporation	☐	Partnership		
☐	For-profit Corporation	☐	Governmental		
☐	Limited Liability Company	☐	Sole Proprietorship	☐	Other

- Corporations and limited liability companies must provide an **Illinois certificate of good standing.**
- Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.

APPEND DOCUMENTATION AS ATTACHMENT-1 IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Primary Contact
[Person to receive ALL correspondence or inquiries)

Name: Robert Harrison
Title: Vice President, Business Development
Company Name: Advocate Christ Medical Center
Address: 4440 West 95th Street, Oak Lawn, IL 60453
Telephone Number: (708) 684-4274
E-mail Address: Robert.Harrison@advocatehealth.com
Fax Number: (708) 520-1820

Additional Contact
[Person who is also authorized to discuss the application for permit]

Name: Wendy Mulvihill
Title: Director Planning & Analytics
Company Name: Advocate Health Care
Address: 3075 Highland Pkwy. Downers Grove, IL 60515
Telephone Number: (630) 929-5944
E-mail Address: Wendy.Mulvihill@advocatehealth.com
Fax Number: (630) 929-9905

ILLINOIS HEALTH FACILITIES AND SERVICES REVIEW BOARD
APPLICATION FOR PERMIT

SECTION I. IDENTIFICATION, GENERAL INFORMATION, AND CERTIFICATION

This Section must be completed for all projects.

Facility/Project Identification

Facility Name: Advocate Christ Medical Center – Cancer Institute – Radiation Oncology
Street Address: 4440 West 95th Street
City and Zip Code: Oak Lawn 60453-2699
County: Cook Health Service Area 7 Health Planning Area: A-04

Applicant /Co-Applicant Identification

[Provide for each co-applicant [refer to Part 1130.220].

Exact Legal Name: Advocate Health Care Network
Address: 3075 Highland Parkway, Downers Grove, IL 60515
Name of Registered Agent: Gail D. Hasbrouck
Name of Chief Executive Officer: James H. Skogsbergh, President and Chief Executive Officer
CEO Address: 3075 Highland Parkway, Downers Grove, IL 60515
Telephone Number: 630-929-8700

Type of Ownership of Applicant/Co-Applicant

- ☒ Non-profit Corporation
- ☐ For-profit Corporation
- ☐ Limited Liability Company
- ☐ Partnership
- ☐ Governmental
- ☐ Sole Proprietorship
- ☐ Other

- Corporations and limited liability companies must provide an **Illinois certificate of good standing.**
- Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.

APPEND DOCUMENTATION AS ATTACHMENT-1 IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Primary Contact

[Person to receive ALL correspondence or inquiries)

Name: Robert Harrison
Title: Vice President, Business Development
Company Name: Advocate Christ Medical Center
Address: 4440 West 95th Street, Oak Lawn, IL 60453
Telephone Number: (708) 684-4274
E-mail Address: Robert.Harrison@advocatehealth.com
Fax Number: (708) 580-1820

Additional Contact

[Person who is also authorized to discuss the application for permit]

Name: Wendy Mulvihill
Title: Director Planning & Analytics
Company Name: Advocate Health Care
Address: 3075 Highland Pkwy. Downers Grove, IL 60515
Telephone Number: (630) 929-5944
E-mail Address: Wendy.Mulvihill@advocatehealth.com
Fax Number: (630) 929-9905

Additional Contact

[Person who is also authorized to discuss the application for permit]

Name: Janet Scheuerman
Title: Senior Consultant
Company Name: PRISM Healthcare Consulting
Address: 1808 Woodmere Drive, Valparaiso, IN 46383
Telephone Number: (219) 464-3969
E-mail Address: jscheuerman@consultprism.com
Fax Number: (219) 464-0027

Additional Contact

[Person who is also authorized to discuss the application for permit]

Name: Joe Ourth
Title: Attorney
Company Name: Arnstein & Lehr, LLP
Address: 120 S. Riverside Plaza, Suite 1200, Chicago, IL 60606-3910
Telephone Number: (312) 876-7815
E-mail Address: jourth@arnstein.com
Fax Number: (312) 876-6215

Post Permit Contact

[Person to receive all correspondence subsequent to permit issuance-**THIS PERSON MUST BE EMPLOYED BY THE LICENSED HEALTH CARE FACILITY AS DEFINED AT 20 ILCS 3960**

Name: Scott Nelson
Title: Vice President, Planning, Design and Construction
Company Name: Advocate Health Care
Address: 3075 Highland Parkway, Downers Grove, IL 60515
Telephone Number: (630) 929-5577
E-mail Address: Scott.Nelson@advocatehealth.com
Fax Number: (630) 929-9923

Site Ownership

[Provide this information for each applicable site]

Exact Legal Name of Site Owner: Advocate Health and Hospitals Corporation
Address of Site Owner: 3075 Highland Parkway, Downers Grove, IL 60515
Street Address or Legal Description of Site: **Proof of ownership or control of the site is to be provided as Attachment 2. Examples of proof of ownership are property tax statement, tax assessor's documentation, deed, notarized statement of the corporation attesting to ownership, an option to lease, a letter of intent to lease or a lease.**
APPEND DOCUMENTATION AS ATTACHMENT-2, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Operating Identity/Licensee

[Provide this information for each applicable facility, and insert after this page.]

Exact Legal Name: Advocate Health and Hospitals Corporation d/b/a Advocate Christ Medical Center

Address: 4440 W. 95th Street, Oak Lawn, IL 60453

☒	Non-profit Corporation	☐	Partnership		
☐	For-profit Corporation	☐	Governmental		
☐	Limited Liability Company	☐	Sole Proprietorship	☐	Other

- Corporations and limited liability companies must provide an Illinois Certificate of Good Standing.
- Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.
- **Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.**

APPEND DOCUMENTATION AS ATTACHMENT-3, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Organizational Relationships

Provide (for each co-applicant) an organizational chart containing the name and relationship of any person or entity who is related (as defined in Part 1130.140). If the related person or entity is participating in the development or funding of the project, describe the interest and the amount and type of any financial contribution.

APPEND DOCUMENTATION AS ATTACHMENT-4, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Flood Plain Requirements

[Refer to application instructions.]

Provide documentation that the project complies with the requirements of Illinois Executive Order #2005-5 pertaining to construction activities in special flood hazard areas. As part of the flood plain requirements please provide a map of the proposed project location showing any identified floodplain areas. Floodplain maps can be printed at **www.FEMA.gov** or **www.illinoisfloodmaps.org**. **This map must be in a readable format**. In addition please provide a statement attesting that the project complies with the requirements of Illinois Executive Order #2005-5 **(http://www.hfsrb.illinois.gov)**.

APPEND DOCUMENTATION AS ATTACHMENT -5, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Historic Resources Preservation Act Requirements

[Refer to application instructions.]

Provide documentation regarding compliance with the requirements of the Historic Resources Preservation Act.

APPEND DOCUMENTATION AS ATTACHMENT-6, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

DESCRIPTION OF PROJECT

1. Project Classification

[Check those applicable - refer to Part 1110.40 and Part 1120.20(b)]

Part 1110 Classification:

☐ Substantive

☒ Non-substantive

2. Narrative Description

Provide in the space below, a brief narrative description of the project. Explain **WHAT** is to be done in **State Board defined terms, NOT WHY** it is being done. If the project site does NOT have a street address, include a legal description of the site. Include the rationale regarding the project's classification as substantive or non-substantive.

Advocate Health and Hospitals Corporation d/b/a Advocate Christ Medical Center (ACMC, Christ Medical Center) and Advocate Health Care Network, the applicants, propose to expand and modernize the functionally obsolete Radiation Oncology Department and replace the existing three external beam radiation oncology units.

The Christ Medical Center's Radiation Oncology Department opened in the early 1970s. It was designed for approximately one-third the current volume which includes 50 to 70 patient treatments as well as 10 to 20 follow-up and new patient consultations per day. Over the intervening 40 years, due to structural limitations, the department was extended in multiple directions resulting in poor work flow and lack of patient privacy. The department is severely undersized resulting in crowded conditions for patients, family and staff. The proposed Project will increase the square footage of the department and will improve operational efficiency, patient privacy and overall patient experience.

The Radiation Oncology Department has three external beam external radiation devices – one stereotactic device (CyberKnife™) and two standard linear accelerators. These units are reaching the end of their useful life. The proposed Project will replace the existing units with three safer state-of-the-art units that will reduce treatment times and improve outcomes.

A site plan showing the location of the Project on the Christ Medical Center's campus and a description of Project phasing are included as Narrative Exhibits 1 and 2. The existing and proposed floor plans of the department are included as Narrative Exhibits 3 and 4. Community support for the Project is documented in Narrative, Exhibit 5.

The Project will be completed in two phases. The first phase will begin with the demolition of the existing CyberKnife™ vault and adjacent spaces; these are currently at the front of the Radiation Oncology Department. A larger new building will replace the demolished building. At the completion of Phase I, the new building will include a dedicated front entrance as well as new registration and waiting, gowning and gowned waiting, exam rooms, consultation rooms, a nursing station and a new south vault that will initially house a Varian Truebeam STX with the HD MLC and Cranium Package (the stereotactic components). Phase II completes the back of the department. At the completion of Phase II, the remaining patient care areas including two linac vaults (the west and north vaults), the HDR brachytherapy unit and the CT

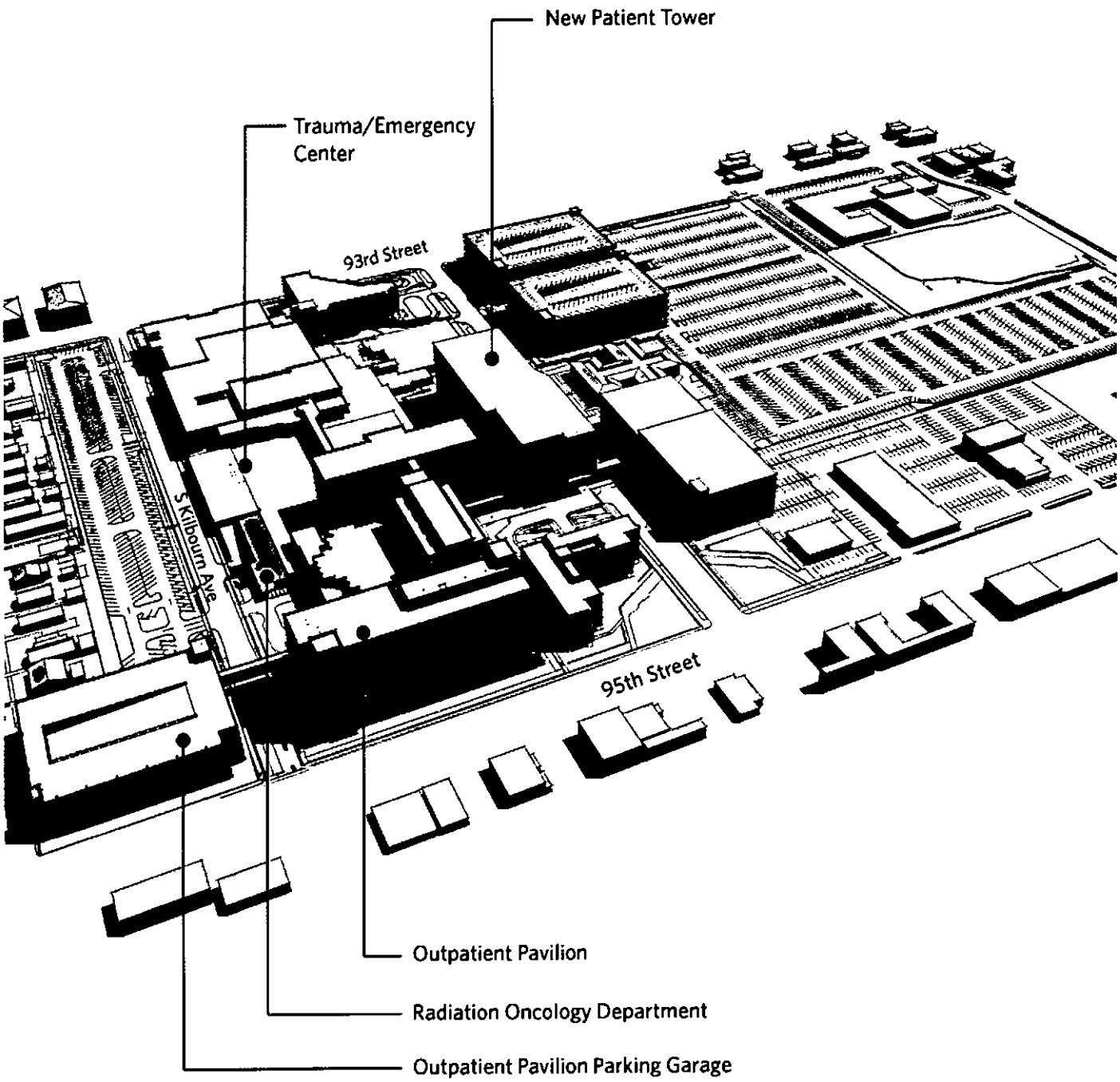
simulator will be modernized. Clinical support space necessary for these areas will also be modernized as well as non clinical offices, conference spaces, and staff spaces. At the conclusion of Phase II, the stereotactic components from the south vault will be moved to the north vault. This relocation of the stereotactic components permits the newest stereotactic technology to come on line at the end of Phase I; this is a substantial benefit for patients. Further, relocating the stereotactic device at the completion of Phase II greatly enhances operational efficiency and patient experience.

The Project will include 12,308 square feet of new construction, of which 3,602 will be clinical; it will also include 12,123 square feet of modernization; of which 6,993 will be clinical. The remaining 15 square fee is "as is". The total Project is 24,446 square feet.

Project construction is expected to begin in April 2017 and be completed in December 2020.

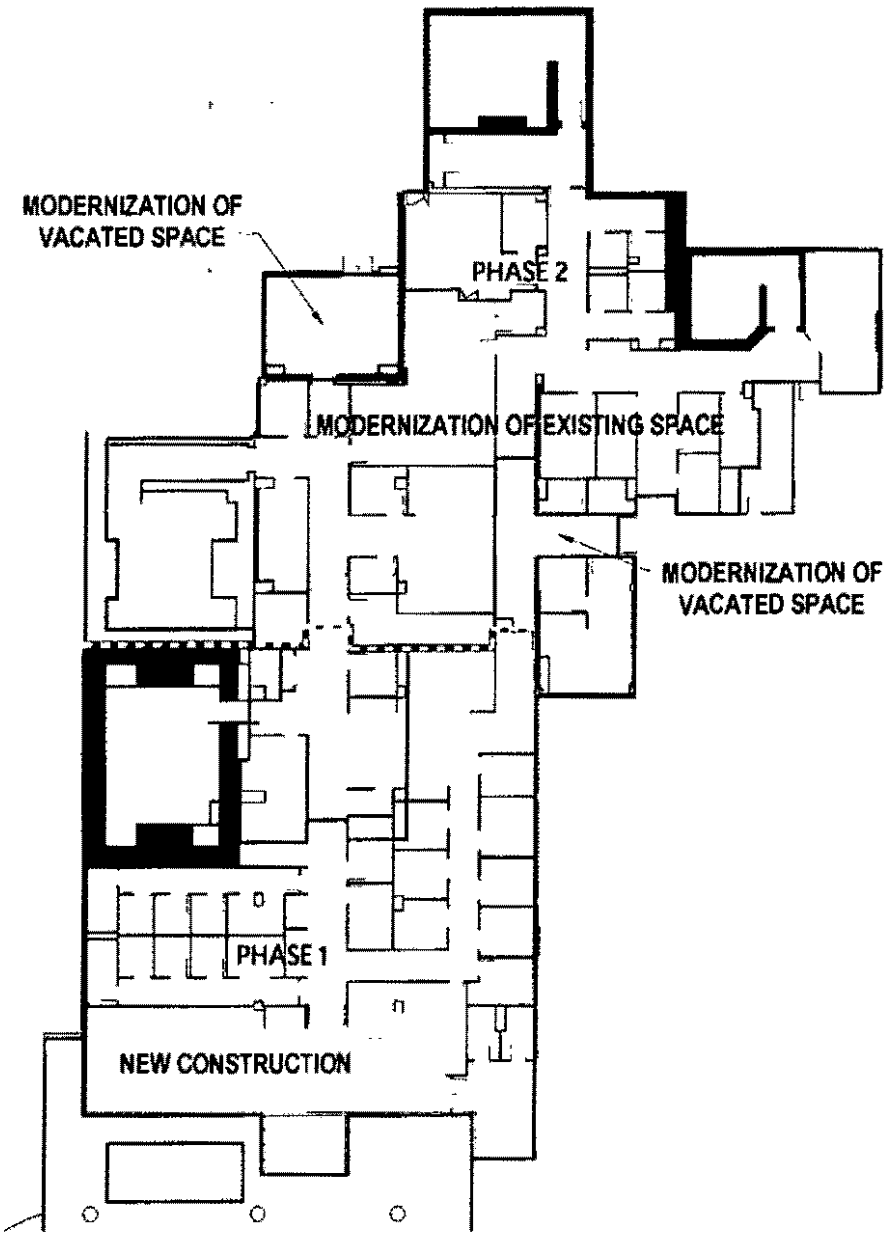
Total Project cost is estimated to be $46,966.26. The Project will be financed with cash and securities and debt.

In accordance with Public Act 96-31; the Project is classified as non substantive because it does not establish a new facility; does not add or discontinue a service; or propose a change of capacity of more than 20 beds.



HDR

Advocate Christ Medical Center
Location of Radiation Oncology Department



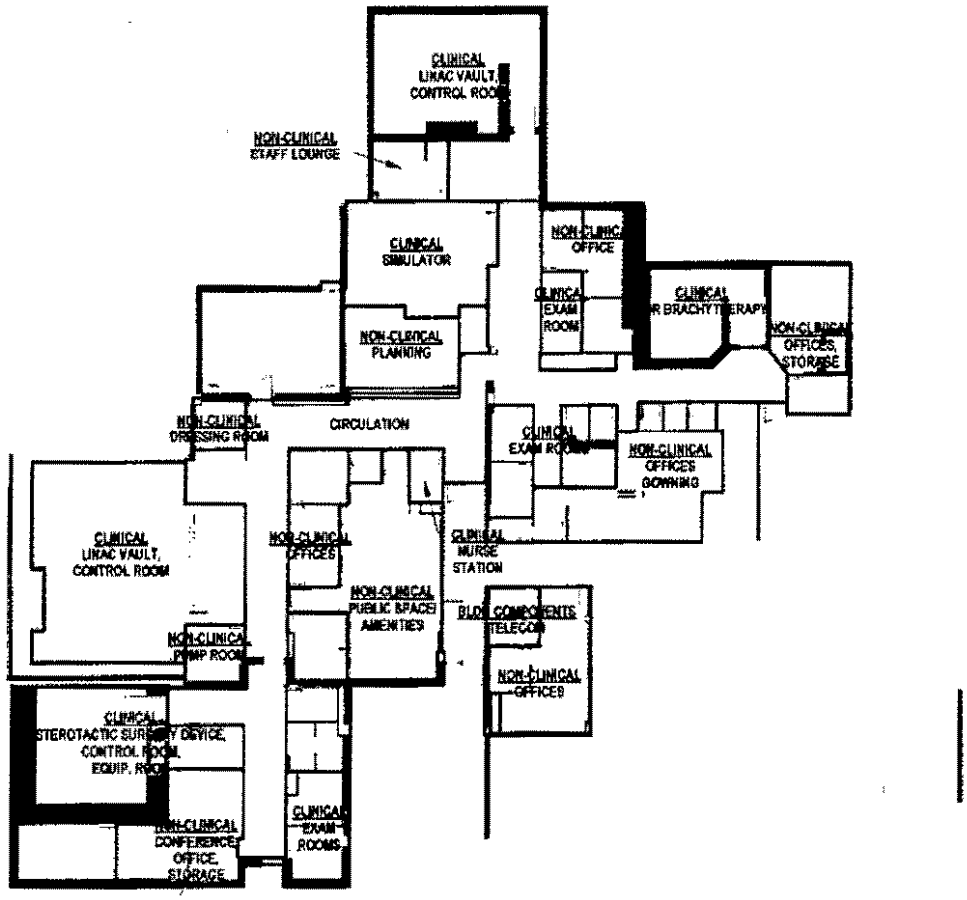
☐ MODERNIZATION OF EXISTING
☐ MODERNIZATION OF VACATED
☐ NEW CONSTRUCTION

CONSTRUCTION AREA TOTALS

MODERNIZATION OF EXISTING	11,105 SF
MODERNIZATION OF VACATED	1,033 SF
NEW CONSTRUCTION	12,308 SF
TOTAL	24,446 SF

HDR

Project Title
Advocate Christ Medical Center
ACMC RAD ONC EXPANSION AND RENOVATION
Sheet Title
PROPOSED DEPARTMENT CONSTRUCTION AREAS
Date
09/15/16



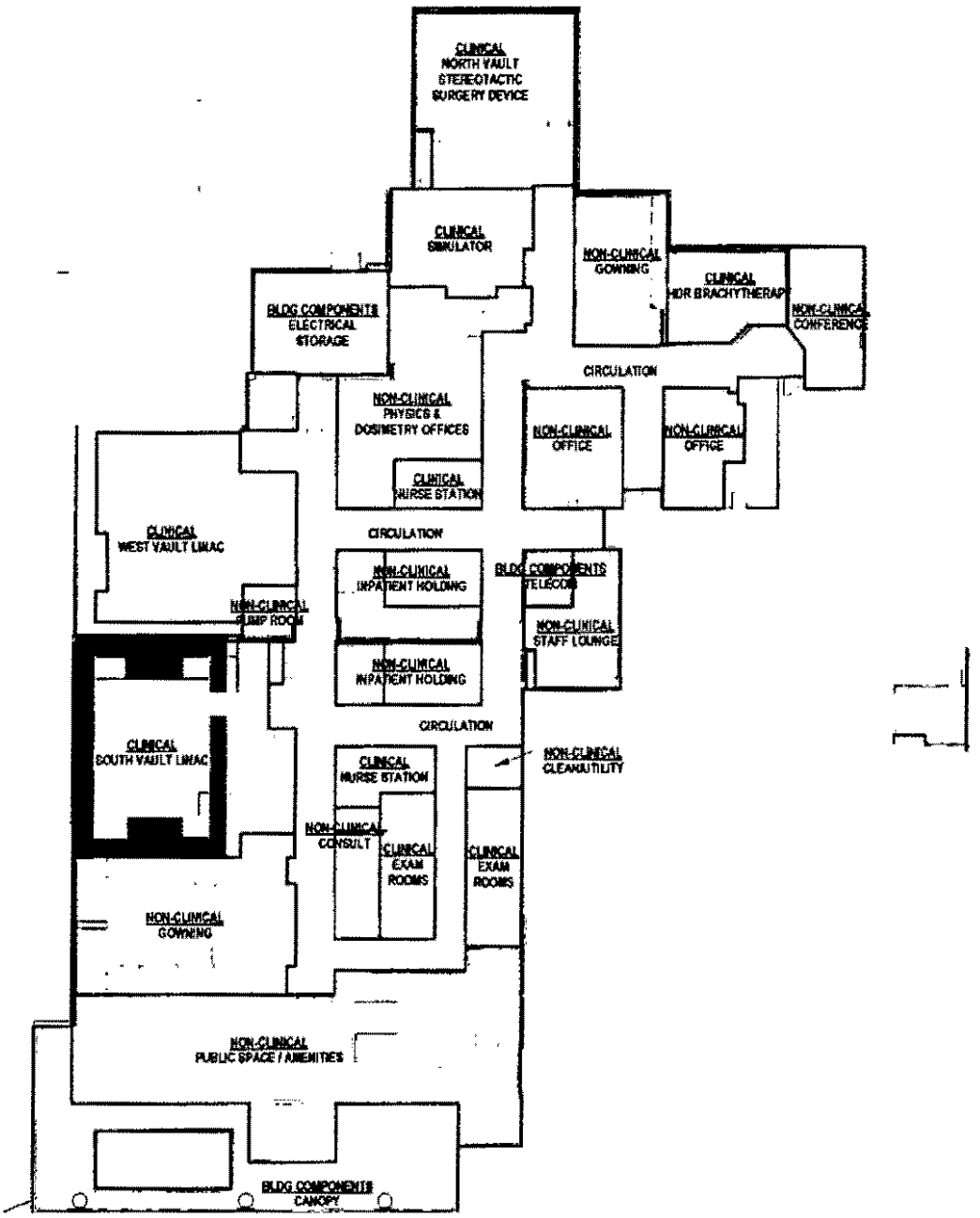
- ☐ BUILDING COMPONENTS
- ☐ CIRCULATION
- ☐ CLINICAL
- ☐ NON-CLINICAL
- ☐ PUBLIC SPACE/AMENITIES

EXISTING AREA TOTALS

BUILDING COMPONENTS	133 SF
CIRCULATION	2314 SF
CLINICAL	5258 SF
NON-CLINICAL	4159 SF
PUBLIC SPACE/AMENITIES	779 SF
TOTAL	12642 SF

HDR

Project Title
Advocate Christ Medical Center
ACMC RAD ONC EXPANSION AND RENOVATION
Sheet Title
EXISTING DEPARTMENT AREAS
Date
09/15/16



- ☐ BUILDING COMPONENTS
- ☐ CIRCULATION
- ☐ CLINICAL
- ☐ NON-CLINICAL
- ☐ PUBLIC SPACE/AMENITIES

PROPOSED AREA TOTALS

BUILDING COMPONENTS	4,905 SF
CIRCULATION	4,049 SF
CLINICAL	6,546 SF
NON-CLINICAL	6,310 SF
PUBLIC SPACE/AMENITIES	2,636 SF
TOTAL	24,446 SF

HDR

Project Title
Advocate Christ Medical Center
ACMC RAD ONC EXPANSION AND RENOVATION
Sheet Title
PROPOSED DEPARTMENT AREAS
Date
09/15/16

Support Letters

State Senators

Jacqueline Y. Collins (16th District)
Bill Cunningham (18th District)

State Representatives

Frances Ann Hurley (35th District)
Kelly Burke (36th District)
Margo McDermed (37th District)

Village of Oak Lawn

Dr. Sandra Bury
Mayor

Larry Lehman
President
Oak Lawn Chamber of Commerce

Village of Tinley Park

David G. Seaman
Mayor

Village of Evergreen Park

James J. Sexton
Mayor

Gilda's Club Chicago

LauraJane Hyde
Chief Executive Officer

Advocate Health Care

Michele Goodier
Vice President
Advocate Cancer Center

Advocate Christ Medical Center (Personal Letter)

Mary Mayer
Radiation Oncology Patient
Advocate Christ Medical Center

Advocate Christ Medical Center

Kenneth W. Lukhard
President

Richard Scott, MD
Chief Medical Officer

Dr. Amar Hamad
Senior Chief, Department of Hematology and Oncology

Keith Ammons, MBA, BSRT (T)
Director of Operations, Cancer Institute

Faisal Vali, MD, MSc
Chairman, Department of Radiation Oncology

John McKee
Clinical Coordinator, Radiation Oncology Department

ILLINOIS STATE SENATE

☐ CAPITOL OFFICE:
M114 STATE CAPITOL
SPRINGFIELD, ILLINOIS 62706
(217) 782-1607
FAX: (217) 782-2115

☐ DISTRICT OFFICE:
1155 WEST 79TH STREET
CHICAGO, ILLINOIS 60620
(773) 224-2850
FAX: (773) 224-2855

Jacqueline Y. Collins
STATE SENATOR · 16TH DISTRICT

COMMITTEES:
- FINANCIAL INSTITUTIONS CHAIRPERSON
- COMMERCE & ECONOMIC DEVELOPMENT
- HIGHER EDUCATION
- INSURANCE
- PUBLIC HEALTH
- TRANSPORTATION

September 19, 2016

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

Advocate Medical Center is submitting a Certificate of Need application to expand and modernize its radiation oncology department on its Oak Lawn campus. The project wil be instrumental in the medical center continuning to provide high-level cancer care, while utilizing existing space within the medical center.

As a state senator, I am comforted that my constituents are able to receive the highest quality care on Chicago's southside. Renovation and modernization will ensure that tertiary-level cancer services will continue to be provided and more easily accessed by patients treated at Christ Medical Center. The residents in the district that I represent depend on the institution's services and on its continuing ability to offer the latest advancements in health care.

Additionally, with some 6,000 associates and more than 1,300 physicians, the medical center is a major employer in the region. Allowing this institution to proceed with needed expansion not only helps guarantee the ongoing availability of necessary health care services, but serves to bolster the economic vitality of the region, including the creation of more jobs.

I believe the expansion and modernization of the radiation oncology department is necessary if we are to maintain strong, healthy communities well into the future, and I ask that you approve the Certificate of Need for this project.

Sincerely,

Jacqueline Collins

Jacqueline Y. Collins
State Senator, 16th District

CAPITOL OFFICE:
ROOM M118 STATE CAPITOL
SPRINGFIELD, ILLINOIS 62706
PHONE: 217/782-5145

DISTRICT OFFICES:
10400 SOUTH WESTERN AVE.
CHICAGO, ILLINOIS 60643
PHONE: 773/445-5128
FAX: 773/879-5143

16033 SOUTH 94TH AVE.
ORLAND HILLS, ILLINOIS 60487
PHONE: 708/233-9703

ILLINOIS STATE SENATE
BILL CUNNINGHAM
STATE SENATOR · 18TH DISTRICT
WWW.SENATORBILLCUNNINGHAM.COM

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I fully support plans by Advocate Christ Medical Center to expand and modernize the radiation oncology department on its Oak Lawn campus. Enacting this proposal will allow the hospital to better serve its cancer patients who need radiation treatment.

Advocate Christ Medical Center is the only comprehensive tertiary and quaternary care facility in the Southland, and my constituents rely on the hospital remaining a world-class facility that can provide the latest and best in treatment technology and grow to meet the expanding needs of the communities in our region. Sadly, cancer is the second leading cause of death in Illinois and is unfortunately also highly prevalent among the senior population and minority groups that reside in Christ Medical Center's service area.

I applaud Advocate Christ Medical Center for its continued effort to expand and grow its services to meet the needs of the thousands of patients it treats annually. This new project shows that the hospital is committed to being prepared for whatever the future holds. I strongly urge the members of the Illinois Health Facilities and Services Review Board to approve the institution's Certificate of Need application for expanding and modernizing its radiation oncology department.

Sincerely,

Bill Cunningham
State Senator, 18th District

DISTRICT OFFICES
10400 S. WESTERN AVE.
CHICAGO, IL 60643
(773) 445-8128
(773) 672-5144 FAX

16033 S. 94TH AVE.
ORLAND HILLS, IL 60487
(708) 233-9703

SPRINGFIELD OFFICE
252-W STRATTON BUILDING
SPRINGFIELD, IL 62706
(217) 782-8200
EMAIL: repfranhurley@gmail.com

STATE OF ILLINOIS
FRANCES ANN HURLEY
STATE REPRESENTATIVE
35TH DISTRICT

COMMITTEES
- APPROPRIATIONS GENERAL SERVICE
- CITIES & VILLAGES
- HEALTH CARE LICENSES
- PUBLIC SAFETY: POLICE & FIRE
- TRANSPORTATION: REGULATION, ROADS & BRIDGES

September 13, 2016

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I wholeheartedly support plans by Advocate Christ Medical Center to expand and modernize the radiation oncology department on its Oak Lawn campus. This proposal responds to the hospital's critical need to better serve its cancer patients requiring radiation treatment.

The medical center serves as the only comprehensive tertiary and quaternary care facility in the Southland, and the residents whom I represent depend on it remaining a top-level facility that is able to provide the latest in treatment technology and expand to meet the growing needs of the communities in our region. Unfortunately, cancer is the second leading cause of death in Illinois and is highly prevalent among the senior population and minority groups that reside in Christ Medical Center's service area.

Expansion and modernization of the current radiation oncology department will improve patient access to radiation services at Christ Medical Center's main campus, allow the medical center to perform more radiation procedures by upgrading to equipment with the newest and safest clinical features, and position the medical center for meeting the area's future health care demands.

I applaud Advocate Christ Medical Center for continuing to expand and grow its services to meet the needs of the thousands of patients it treats annually. This project demonstrates the medical center's foresight in preparing for the future. I urge members of the Illinois Health Facilities and Services Review Board to approve the institution's Certificate of Need application for expanding and modernizing its radiation oncology department.

Sincerely,

Francas Ann Hurley
State Representative , District 35

DISTRICT OFFICE
5144 W. 95TH STREET
OAK LAWN, IL 60453
708.425.0571
708.425.0642 FAX

CAPITOL OFFICE
246-W STRATTON OFFICE BUILDING
SPRINGFIELD, IL 62706
217.782.0515
217.558.4653 FAX

KELLY BURKE
STATE REPRESENTATIVE
36TH DISTRICT

August 23, 2016

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I am writing to you in support of the proposed radiation oncology expansion and modernization project for Advocate Christ Medical Center. When it comes to high-level care in Chicago's Southland, thousands of patients rely on the care that Christ Medical Center provides.

As a state representative, I know first-hand the devastation that cancer can cause to patients and their loved ones. In fact, cancer is the second leading cause of death in Illinois, and at least 50 percent of cancer patients are treated with radiation therapy.

This proposal to expand and modernize the radiation oncology department on Christ Medical Center's main campus in Oak Lawn is in an effort to respond to the hospital's critical need to better serve its cancer patients requiring radiation treatment. The project will improve patient access to radiation services at Christ Medical Center's main campus, make receiving care a better experience for patients, and position the medical center to remain a health care leader.

I recommend members of the Illinois Health Facilities and Services Review Board approve the institution's Certificate of Need application for expanding and modernizing its radiation oncology department.

Sincerely,

Kelly Burke

Kelly Burke
State Representative – 36th District

Margo McDermed
State Representative • 37th District

September 6, 2016

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I am writing to you in support of Advocate Christ Medical Center's proposed radiation oncology expansion and modernization project. The purpose of this project is to improve cancer care to the regional community Christ Medical Center serves, and I fully support their plans. Their current radiation oncology department is more than 40 years old, and there is no room to expand or to update equipment, which is vital to Christ Medical Center remaining a destination hospital for cancer patients in Chicago's Southland as well as areas of Northwest Indiana.

I highly urge members of the Illinois Health Facilities and Services Review Board to approve the medical center's Certificate of Need application for upgrading its radiation oncology department. As a state representative, it's important to me that my constituents are able to rely on Christ Medical Center for high-level health care cancer services.

Sincerely,

Margo McDermed

Margo McDermed
State Representative
37th Legislative District
IL House of Representatives

District 37 Office: 11032 W. Lincoln Hwy., Frankfort, IL 60423 | 815-277-2070
Springfield Office: 204-N Stratton Office Building, Springfield, IL 62706 | 217-782-0424
Email: McDermed@ilhsgop.org | Website: www.repmcdermed.com

THE VILLAGE OF
OAK LAWN

9446 SOUTH RAYMOND AVENUE OAK LAWN, ILLINOIS 60453
TELEPHONE: (708) 636-4400 | FACSIMILE: (708) 636-9506 | WWW.OAKLAWN-IL.GOV

September 15, 2016

Ms. Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I wholeheartedly support plans by Advocate Christ Medical Center to renovate, expand and modernize its radiation oncology department on its Oak Lawn campus. As Mayor of the Village of Oak Lawn, I take pride in knowing that the residents I serve are able to receive the highest level of health care in south suburban Chicago.

I have watched as Christ Medical Center has developed into one of the Chicago area's largest tertiary and quaternary care providers, drawing patients from throughout the southern and southwestern portion of Chicago and surrounding suburbs. And the care they provide is excellent; *US News and World Report* recently listed them as the fourth best hospital in the state of Illinois.

I watched the Outpatient Pavilion be built and open to the community, and I'm thankful that Oak Lawn has tremendous outpatient services located in one conveniently accessed location. I spoke at the opening of their new East Tower and take comfort in knowing mothers are delivering their babies in a beautiful facility providing excellent medical care. The two floors of ICU beds remain full each day and have taken some of the burden off of Christ's emergency department that reaches critical capacity regularly. The residents of Oak Lawn and the surrounding region rely on the medical center to continue to grow, renovate and enhance the services provided across a broad spectrum of services. So, change must continue as health care evolves and the need for services increase.

The Illinois Health Facilities and Services Review Board, in the past, has indicated a preference for having hospitals expand services at their current locations rather than look to alternative sites for the building of brand-new complexes. Expanding radiation oncology services on Christ Medical Center's existing campus speaks directly to that preference.

I applaud Advocate's ongoing efforts to meet the health care needs of the Southland. For this reason, I urge the members of the Illinois Health Facilities and Services Review Board to approve the Certificate of Need application for expansion and modernization of the existing radiation oncology department.

Sincerely,

Dr. Sandra Bury
Mayor

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I am writing this letter in strong support of Advocate Christ Medical Center's expansion and modernization of its radiation oncology department. I therefore support and endorse their Certificate of Need application.

This project addresses a critical need for cancer patients in Chicagoland and Northwest Indiana. Christ Medical Center must be able to expand and add new technology to continue to address the needs of a growing regional population.

Not only is the project vital to the community, it's construction will take place within the exisitng walls of the medical center, which I understand is preferred by the Illinois Health Facilities and Services Review Board.

Again, I fully support Advocate's ongoing efforts to meet the health care needs of the Southland. For this reason, I urge the members of the Illinois Health Facilities and Services Review Board to approve the Certificate of Need application for expansion and modernization of the existing radiation oncology department.

Sincerely,

Kathy Lehman

PRESIDENT, OAK LAWN CHAMBER OF COMMERCE

Tinley Park
ILLINOIS

Village Hall
16250 S. Oak Park Ave.
Tinley Park, IL 60477

Administration
(708) 444 5000
Fax: (708) 444 5099

Building & Planning
(708) 444 5100
Fax: (708) 444-5199

Public Works
(708) 444-5500

Police Department
7850 W. 183rd St.
Tinley Park, IL 60477
(708) 444-5300/Non-emergency
Fax: (708) 444-5399

John T. Dunn Public Safety Building
17355 S. 68th Court
Tinley Park, IL 60477

Fire Department & Prevention
(708) 444-5200/Non-emergency
Fax: (708) 444-5299

EMA
(708) 444-5600
Fax: (708) 444-5699

Senior Community Center
(708) 444-5150

www.tinleypark.org

August 22, 2016

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I am writing to give my support for providing approval to Advocate Christ Medical Center in Oak Lawn, IL to upgrade and expand its radiation oncology department. As you may already know, Cancer is the second leading cause of death in Illinois.

As the mayor of Tinley Park, our citizens rely on Christ Medical Center, which has grown into one of the premier teaching hospitals in Chicagoland, providing the high quality care, for their healthcare needs. Oak Lawn is a neighboring community and it would allow another option Tinley Park citizens to consider, with the requested upgraded equipment and technology.

It is imperative for the residents of the region surrounding Christ Medical Center the medical center to provide state-of-the-art facilities and equipment to keep up with consumer demand. I urge the members of the Illinois Health Facilities and Services Review Board to approve the Certificate of Need application for expansion and modernization of the existing radiation oncology department.

In closing, please consider Advocate's request to replace two linear accelerators (LINACs) and The CyberKnife stereotactic device so the citizens of Tinley Park and all of the Chicagoland Southwest Suburban neighbors can rely on Christ Medical Center to give them the best fighting chance against cancer.

Sincerely,

David G. Seaman
Mayor

Village of Evergreen Park

Mayor
James J. Sexton

Clerk
Catherine T. Aparo, MMC

9418 SOUTH KEDZIE AVENUE
EVERGREEN PARK, ILLINOIS 60805
Tel. (708) 422-1551
Fax (708) 422-7818

August 18, 2016

Ms. Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I am writing to voice my support for Advocate Christ Medical Center upgrading and updating the radiation oncology department on its Oak Lawn campus.

Christ Medical Center has grown into one of the Chicago area's finest medical centers, providing high-level tertiary and quaternary care. Patients from throughout the southern and southwestern portion of Chicago and surrounding suburbs, as well as Northwest Indiana, rely on Christ Medical Center for their health care needs. As the Mayor of the Village of Evergreen Park, a next door neighbor of the Village of Oak Lawn, this upgrading would greatly benefit the residents of our community who are seeking excellence in cancer treatment and care.

I am grateful, as are my constituents, that Christ Medical Center continues to invest in providing high-level health care. I urge the members of the Illinois Health Facilities and Services Review Board to approve the Certificate of Need application for expansion and modernization of the existing radiation oncology department.

Sincerely,

James J. Sexton

James J. Sexton, Mayor
Village of Evergreen Park

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

September 2, 2016

Dear Ms. Avery:
Gilda's Club Chicago is a long-time partner of Advocate Christ Medical Center in Oak Lawn. As such, we strongly support plans by Advocate Christ Medical Center to renovate, expand and modernize its radiation oncology department on its Oak Lawn campus, as top-notch radiation oncology services are vital to the successful treatment of many battling cancer.

Gilda's Club Chicago (GCC) opened a satellite in the Outpatient Pavilion at Christ Medical Center when the building opened in March 2014. GCC is a place where men, women, and children whose lives have been touched by cancer, as well as their families and friends, can feel they are part of a welcoming community. The mission of GCC is to ensure that all people impacted by cancer are empowered by knowledge, strengthened by action and sustained by community. Gilda's Club Chicago at Advocate Christ Medical Center provides accessible cancer support to patients, families and the community at large and exemplifies Christ Medical Center's commitment to provide quality cancer care.

As a partner in care, Gilda's Club Chicago hears first-hand how Advocate Christ Medical Center has impacted the lives of cancer patients and their families. We are proud to recommend Christ Medical Center's cancer services, including radiation oncology, to our community. The recognitions and accreditations they have received are a testament to the outstanding care they provide and include:

- 100 Greatest Hospitals in America and one of the 100 Hospitals and Systems with Great Oncology Programs by *Becker's Hospital Review* in 2015-16.
- Accreditation by the American College of Surgeons as an Approved Cancer Teaching Hospital.
- Accreditation by the National Accreditation Program for Breast Centers (NAPBC).
- In 2016, the Cancer Institute's cancer program was granted a three-year accreditation by the Commission on Cancer (CoC) of the American College of Surgeons (ACoS).

We are proudly behind Advocate's ongoing efforts to upgrade their cancer services to continue to meet the health care needs of the Southland. For this reason, I ask the members of the Illinois Health Facilities and Services Review Board to approve the Certificate of Need application for expansion and modernization of the existing radiation oncology department.

Sincerely,

LauraJane Hyde
Chief Executive Officer

537 N. Wells Street, Chicago, Illinois 60654 312-464-9900 Fax: 312-464-1487 www.gildasclubchicago.org
A free nonprofit support community for anyone touched by cancer

Advocate Health Care
3075 Highland Parkway, Suite 600 || Downers Grove, Illinois 60515 || T 630.572.9393|| advocatehealth.com

August 15, 2016

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I strongly support plans by Advocate Christ Medical Center to expand and modernize its radiation oncology department in Oak Lawn, IL. As Vice President for the Advocate Cancer Institute/oncology service line, I know it is essential that each of our cancer centers be able to expand to serve the growing needs of our patients and modernize equipment to provide safe, efficient and effective care.

This radiation oncology expansion will allow Christ Medical Center to continue its mission of excellence in patient care, research and education in cancer care. Staying current with new technology will also allow the hospital to retain and expand upon awards and recognitions, which serve as a way to help consumers choose where they receive care. For Christ Medical Center, this includes a three-year accreditation by the American College of Surgeons Commission on Cancer as an Approved Cancer Teaching Hospital, accreditation by the National Accreditation Program for Breast Centers (NAPBC), and being recognized by Becker's Hospital Review as one of the 100 Greatest Hospitals in America and one of the 100 Hospitals and Systems with Great Oncology Programs.

Prior to moving to the system leadership position in cancer, I was the Executive Director of the Cancer Institute at Christ Medical Center. During the last two of my six years there, I worked very hard to move this particular project forward as I felt strongly that it was in the best interest of our patients. I am very encouarged and excited by the fact that the Medical Center leadership is now able to move in this direction.

I urge the members of the Illinois Health Facilities and Services Review Board to approve the Certificate of Need application for expansion and modernization of the existing radiation oncology department.

Sincerely,

Michele Goodier

Michele Goodier
Vice President, Advocate Cancer Institute

September 15, 2016

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

I wholeheartedly support plans for Advocate Christ Medical Center to expand and upgrade its radiation oncology department in Oak Lawn, Ill. As a patient, I have witnessed firsthand the fact that the radiation oncology department is severely lacking the needed space and equipment to properly serve the community. As recently as yesterday, the machines were down. THIS IS THE SECOND TIME I'VE EXPERIENCED THIS SINCE I BEGAN MY TREATMENT ON 8/1/16. This should not be occuring, particularly since its puts additional stress on patients who are already dealing with the stress of cancer and radiation! The patient waiting room was filled to capacity since all were hoping to receive their treatments eventually that day. Luckily, the problem was resolved and I was able to receive my treatment. However, the previous time this occurred I was sent home which was quite frustrating to say the least!

The current radiation oncology department is more than 40 years old. It was the first addition to the original Christ Hospital Building. While undergoing treatment, the quality of care I received was fantastic, but the cramped environment and worn equipment certainly were not. While waiting within the department, I witnessed inpatients in the hallways on carts who were extremely sick, providing no privacy whatsoever to them. Additionally, there are no lockers within the dressing rooms, as well as a co-ed dressing room which certainly provides zero privacy. I also observed a lack of restrooms within the department since staff had to use the patient restroom on several occassions. It also appears that there is an inadequate number of exam rooms since patients are waiting to be placed in a room to see their doctor!???

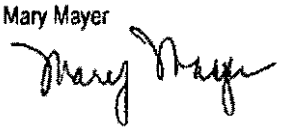
The conditions put an enormous strain on patients and associates alike, leaving those coming for treatment to attempt to heal in subpar conditions and associates to provide care in a poor environment with dated equipment. Patients are traveling to the radiation oncology department to undergo difficult treatments. It can be a traumatic time, and coming to a cramped facility that currently feels almost dungeon-like isn't giving anyone the needed space to focus on health and well-being. The walk to the radiation department is extremely long,even for patients who use valet parking. Although wheelchairs are available, not all patients choose to use them. The location of the radiation depatment is so remote that when initially coming to the department, one feels they need a roadmap! When traveling from the Outpatient Pavillion to the old building, you see paint chipping off the walls within the doorway as well as garbage overflowing onto the floor(so bad that one day I had to report to the receptionist at the front desk). It is in definite need of an upgrade.

There has to be--and there is--a better way to provide radiation oncology services. By modernizing and expanding the current cancer services, the medical center will be able to offer even better care to those in the Southland region.

I ask members of the Illinois Health Facilities Planning Board to approve the Certificate of Need request for expansion and modernization of the existing radiation oncology department.

Sincerely,

Mary Mayer



Advocate Christ Medical Center
4440 West 95th Street || Oak Lawn, IL 60453 || T 708.684.8000 || advocatehealth.com

September 1, 2016

Ms. Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

As president of Advocate Christ Medical Center in Oak Lawn, Illinois, I know firsthand that the need is urgent to expand and modernize Advocate Christ Medical Center's Radiation Oncology department. Now 40 years old, the department is woefully undersized and the equipment is thoroughly outdated with no possibility for further upgrades.

Advocate Christ Medical Center is a regional referral center for tertiary and quaternary services, including cancer services. We serve patients and their families from all over Chicagoland, as well as northwestern Indiana. At least 50 percent of the patients who rely on us for their cancer care are treated with radiation therapy, either alone or in combination with chemotherapy and surgery. The purpose of our proposed renovation and expansion is to further improve the care and experience we provide our cancer patients each and every day.

I am proud of the physicians, nurses, technicians and others who compassionately and expertly care for the patients through our Cancer Institute. The community looks to our providers to provide exceptional care, and the patient care team looks to us to provide the resources and space they need to provide the highest level of care. For these reasons, I urge the members of the Illinois Health Facilities Planning Board to approve the Certificate of Need request for expansion and modernization of the existing Radiation Oncology department. God bless.

Sincerely,

Ken Lukhard

Kenneth W. Lukhard
President
Advocate Christ Medical Center

Advocate Christ Medical Center
4440 West 95th Street || Oak Lawn, IL 60453 || T 708.684.8000 || advocatehealth.com

September 15, 2016

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

As chief medical officer for Advocate Christ Medical Center, I know how vital it is to expand and upgrade the radiation oncology department in Oak Lawn, Ill. In viewing the unit in action and speaking with physicians and the patient care team in that department, I have seen firsthand that the department lacks the needed space to properly serve the community. Soon the equipment will be obsolete as well.

The current radiation oncology department is more than 40 years old. It was the first addition to the original Christ Hospital Building. While the care provided is excellent and has resulted in awards and accreditations for the medical center, the conditions put an enormous strain on patients and associates alike. Patients do not have the adequate space to change and secure their belongings during their treatment. The location within the hospital is hard to find and is a hike for many patients. Because the unit has been patched together over the years to meet a growing patient population, physicians and associates do not have a space that flows well for patient care. There is a lack of privacy, a lack of restrooms, especially for those who have handicaps, and no receiving area for inpatients coming to the unit for treatment.

By modernizing and expanding the current cancer services, the medical center will be able to offer even better care to those in the Southland region and keep pace with technological advances.

I ask members of the Illinois Health Facilities Planning Board to approve the Certificate of Need request for expansion and modernization of the existing radiation oncology department so that we can continue to deliver to our patients world-class care right in their own neighborhood!

Sincerely,

Richard Scott, MD
Chief Medical Officer

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

As a hematologist oncologist, I work closely with the radiation oncology department at Advocate Christ Medical Center in Oak Lawn, IL. The current department is 40 years old, and in now undersized for the amount of patients treated. In addition, the technology is nearing the end of its uselful life and for Advocate Christ Medical Center to be able to continue to provide the highest level of care our patients rely on, replacing the current sterotactic radio surgery system and the two linear accelerators are imperative.

Renovating the department will allow us to offer safe state-of-the-art treatment and care, to provide integrated care, at time of appointment, with hospital physicians, surgeons and other multimodality treatment programs, and provide adequate space to accommodate the growing volume of patients.

The department will also be able to increase exam room capacity, decrease patient wait time and provide patient privacy.

The renovation and expansion will provide easy access to the deparment for all patients both ambulatory and wheel chair or cart bound and will allow patient transport to drop off right at the door of the department.

I urge the members of the Illinois Health Facilities Planning Board to approve the Certificate of Need request for expansion and modernization of the existing radiation oncology department.

Sincerely,

Amar Hamad M.D.
Section Chief, Department of Hematology and Oncology

Advocate Christ Medical Center

4400 West 95th Street || Oak Lawn, IL 60453 || T 708.684.8000 || advocatehealth.com

Cancer Institute

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

Advocate Christ Medical Center in Oak Lawn Illinois has a significant need to modernize its facility and upgrade antiquated technology in its Radiation Oncology Department. The depth and breadth of the Cancer Program at Christ Medical Center is extensive, and a facility and technological upgrade is necessary to improve cancer care for the nearly 1,800 new cancer patients in the region that Christ Medical Center serves. Approximately 50% of cancer patients are treated with radiation therapy either alone or in combination with surgery or chemotherapy.

The incidence of cancer continues to rise. This is in part due to population growth as well as newer therapies, which allow cancer patients to survive much longer. Because of increased survival we see patients returning with secondary malignancies/cancers as they get older. Cancer is the leading cause of death in Illinois, and it is most prevalent among our senior population and minority groups.

When a cancer patient enters the Radiation Oncology Department they are greeted by an extremely friendly staff in one of the worst physical environments I have seen for patient care. Patients are fortunate that they have the best physicians, nurses, therapists, and support staff anywhere. Unfortunately, the warm compassionate care they receive is in a 40 year old basement that does not lend itself to the warm healing environments that one would come to expect by a program that has received national accolades.

Advocate Christ Medical Center

4400 West 95th Street || Oak Lawn, IL 60453 || T 708.684.8000 || advocatehealth.com

Cancer Institute

Radiotherapy equipment at ACMC has surpassed its normal life span and is no longer upgradeable. As we move forward we need equipment that will allow us to be on the forefront of medicine. The department's goals in Radiation Oncology are for:

- Patients to be treated continuously without interruptions due to machine glitches and down-time. This would be a significant improvement to patient care/satisfaction.
- Equipment that allows for varying intensities of radiation to produce dose distributions that are significantly more precise than the current method.
- Greater latitude for dose escalation, which may lead to improved local control.
- Ability to deliver differential dose rates, which will improve the distribution of radiation dose and reduce dose to normal tissues.
- Reduction in acute and late radiation toxicity.
- Combine linear accelerator and tumor tracking technologies to treat lung and abdominal tumors.

I have been fortunate to be involved in Radiation Oncology for the past 21 years and worked for several hospitals. I have directed many large scale capital and modernization projects. Now, as director of operations for the Cancer Institute at Christ Medical Center, I can say with certainty that the environment in Radiation Oncology at Christ Medical Center is in dire need of renovation. Literature shows that a holistic environment is critical to cancer patient's mental well-being.

I urge the members of the Illinois Health Facilities Planning Board to approve the Certificate of Need request for expansion and modernization of the existing radiation oncology department.

Sincerely,

Keith Ammons, MBA, BSRT (T)
Director of Operations, Cancer Institute

Affiliated Oncologists, LLC
Specializing in Radiation Oncology

Elke Aippersbach, M.D.
Paul Crossan, M.D.
Jayant Ginde, M.D.
H. Jason Kang, M.D.
Faisal Vali, M.D.
Harsha Varadhi, M.D.

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

As a radiation oncologist, I work primarily in the radiation oncology department at Advocate Christ Medical Center in Oak Lawn, IL. Every day, our staff struggles with providing care to our varied cancer patients despite our undersized department that has been cobbled together over 40-years in a piecemeal fashion. The physical limitation of this (lack of) design continuously interferes with a streamlined workflow and our ability to provide a peaceful patient experience.

The limitations of the space and its dated design have resulted in creative, yet inefficient afterthoughts that require laborious efforts and non-obvious workflows to meet our patients' basic needs for privacy and a tranquil environment. As an example, being a tertiary care hospital, we tend to treat sicker patients than most radiation oncology departments in the southland region, including bedridden patients from intensive care units that are accompanied by ICU-nurses and associates to handle their complex medical needs that range from ventilation or full blood bypass machines. These patient's privacy and safety needs must be accommodated. However, our forty-year-old department was not designed with inpatient bays, so while our staff works hard to accommodate all needs, the limitations of the structure and design results in needless anxiety in all patients and their family members.

Additionally, the labyrinthine layout of our department does little to facilitate patient privacy and comfort (e.g. patients often run into each other or lose direction as they try to find the changing room or the linear accelerator on which they are to be treated). While our department sees anywhere from 50-90 patients a day, we have only one bathroom that is handicap enabled. All these challenges could have been avoided had the department been borne out of a coherent design (as opposed to being patched together) - an issue we hope to rectify with the proposed expansion and modernization.

Our Medical Center serves a regional need by providing a singularly comprehensive cancer center for Chicago's Southland and additional areas of Illinois and Northwest Indiana. Our diverse, comprehensive and multi-faceted department serves patients who are often: pediatric age, hospitalized, acutely ill from intensive care units, have severe social challenges, with advanced cancers that require concomitant inpatient care and/or a highly skilled multidisciplinary team to coordinate their care and patients who requiring stereotactic radiosurgery treatments that

4440 West 95th Street
Oak Lawn, IL 60453
708-684-5475

11800 Southwest Highway
Palos Heights, IL 60463
708-923-3285

17750 South Kedzie Avenue
Hazel Crest, IL 60429
708-799-9995

19060 Everett Blvd.
Mokena, IL 60448
708-478-4302

Affiliated Oncologists, LLC
Specializing in Radiation Oncology

Elke Alpersbach, M.D.
Paul Crossan, M.D.
Jayant Ginde, M.D.
H. Jason Kang, M.D.
Faisal Vali, M.D.
Harsha Varadhi, M.D.

necessitate a highly skilled physics staff and state-of-the-art equipment that operates at the highest levels of precision attainable.

Given the staff's expertise and the technology, there is no cancer-related diagnosis that a patient could present with that we lack the skill or equipment to treat.

Yet, while our patient survey indicate that while patients are more than satisfied with their care, they are consistently disappointed in the inadequate facilities. Additionally, the equipment we use is nearing the end of its useful life. Renovating the facility would allow us to continue our mission of providing comprehensive radiation oncology care to all our patients.

As patients who receive radiation must travel daily to the department for anywhere from 2-8 weeks, it is vital that we remain capable of caring for those in our service area. I fear that failing to update and expand our radiation oncology department will force other departments within the medical center to refer patients to hospitals far outside of their sphere, as we would lose the ability to provide the highest level of care, inevitably placing a huge burden on the region's cancer patients – a burden that a renovated and fully resourced department would be able to relieve.

For these reasons, I respectfully urge the members of the Illinois Health Facilities Planning Board to approve the Certificate of Need request for expansion and modernization of the existing radiation oncology department.

Sincerely,

Faisal Vali, M.D.

Faisal Vali, MD, MSc
Chairman, Department of Radiation Oncology
Advocate Christ Medical Center

4440 West 95th Street
Oak Lawn, IL 60453
708-684-5475

11800 Southwest Highway
Palos Heights, IL 60463
708-923-3285

17750 South Kedzie Avenue
Hazel Crest, IL 60429
708-799-9995

19060 Everett Blvd.
Mokena, IL 60448
708-478-4302

Advocate Christ Medical Center
4440 West 95th Street || Oak Lawn, IL 60453 || T 708.684.8000 || advocatehealth.com

September 16, 2016

Courtney R. Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

As Clinical Coordinator of the Radiation Oncology Department at Advocate Christ Medical Center in Oak Lawn, IL, I know first-hand the challenges we face in an outdated and undersized facility. These include:

- Working with the limitations of outdated equipment
- Decreased efficiency in completing procedures
- Decreased patient comfortably and patient privacy
- Increased possibility of patient safety events

While providing excellent care, the ability to modernize and expand the facility would allow us to treat our patients with increased precision in a more comfortable and safe environment.

In my 26 years in the radiation therapy field, it is my strong opinion that the clinical and technical gains we would achieve by upgrading to the TruBeam platform are greater than any other generation upgrade that we have ever seen. The previous milestone upgrades include:

- The implementation of record and verify systems
- Introduction of Multileaf Collimators (advanced blocking and shaping of radiotherapy beams).
- The ability to perform techniques such as Intensity-Modulated Radiation Therapy and Rapidarc Radiation Therapy. (Both techniques improved tumor targeting and reduced damage to surrounding healthy tissue).

Although the milestones mentioned are considered technical breakthroughs in the field of radiation treatment delivery, the TruBeam platform exceeds all three for many reasons including the following:

The TruBeam platform includes advanced features built around the Maestro synchronous control system. This control system dynamically directs, synchronizes, and monitors all TrueBeam integrated functional components. Maestro's sophisticated orchestration and command of every element of treatment delivery including dose, motion, and imaging enables fast and efficient image-guided treatments including Stereotactic Radiosurgery (a non-surgical radiation therapy used to treat functional abnormalities and small tumors of the brain). Sub-millimeter accuracy and comprehensive QA tools help ensure patient safety.

For this reason, I respectfully urge the members of the Illinois Health Facilities Planning Board to approve the Certificate of Need request for expansion and modernization of the existing radiation oncology department.

Sincerely,

John McKee

Clinical Coordinator, Radiation Oncology Department

Project Costs and Sources of Funds

Complete the following table listing all costs (refer to Part 1120.110) associated with the project. When a project or any component of a project is to be accomplished by lease, donation, gift, or other means, the fair market or dollar value (refer to Part 1130.140) of the component must be included in the estimated project cost. If the project contains non-reviewable components that are not related to the provision of health care, complete the second column of the table below. Note, the use and sources of funds must equal.

Project Costs and Sources of Funds			
USE OF FUNDS	**CLINICAL**	**NONCLINICAL**	**TOTAL**
Preplanning Costs	$ 120,900	$ 199,700	$ 320,600
Site Survey and Soil Investigation	53,000	62,600	115,600
Site Preparation	250,400	663,300	913,700
Off Site Work	195,780	547,446	743,226
New Construction Contracts	2,714,319	7,558,662	10,272,981
Modernization Contracts	3,246,885	2,417,979	5,664,864
Contingencies	755,484	1,113,575	1,869,059
Architectural/Engineering Fees	530,387	904,017	1,434,404
Consulting and Other Fees	675,900	2,032,800	2,708,700
Movable or Other Equipment (not in construction contracts)	15,241,765	2,190,003	17,431,768
Bond Issuance Expense (project related)	84,772	231,540	316,312
Net Interest Expense During Construction (project related)	295,296	806,555	1,101,851
Fair Market Value of Leased Space or Equipment			
Other Costs To Be Capitalized	1,075,950	2,997,250	4,073,200
Acquisition of Building or Other Property (excluding land)			
TOTAL USES OF FUNDS	**25,240,838**	**21,725,427**	**46,966,265**
SOURCE OF FUNDS	**CLINICAL**	**NONCLINICAL**	**TOTAL**
Cash and Securities	4,671,714	12,760,054	17,431,768
Pledges			
Gifts and Bequests			
Bond Issues (project related)	7,915,245	21,619,252	29,534,497
Mortgages			
Leases (fair market value)			
Governmental Appropriations			
Grants			
Other Funds and Sources			
TOTAL SOURCES OF FUNDS	**12,586,959**	**34,379,306**	**46,966,265**
NOTE: ITEMIZATION OF EACH LINE ITEM MUST BE PROVIDED AT ATTACHMENT-7, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.			

Related Project Costs

Provide the following information, as applicable, with respect to any land related to the project that will be or has been acquired during the last two calendar years:

Land acquisition is related to project ☐ Yes ☒ No

Purchase Price: $_____

Fair Market Value: $_____

The project involves the establishment of a new facility or a new category of service

☐ Yes ☒ No

If yes, provide the dollar amount of all **non-capitalized** operating start-up costs (including operating deficits) through the first full fiscal year when the project achieves or exceeds the target utilization specified in Part 1100.

Estimated start-up costs and operating deficit cost is $ Not Applicable.

Project Status and Completion Schedules

For facilities in which prior permits have been issued please provide the permit numbers.

Indicate the stage of the project's architectural drawings:

☐ None or not applicable ☐ Preliminary

☒ Schematics ☐ Final Working

Anticipated project completion date (refer to Part 1130.140): December 31, 2020

Indicate the following with respect to project expenditures or to obligation (refer to Part 1130.140):

☐ Purchase orders, leases or contracts pertaining to the project have been executed.

☐ Project obligation is contingent upon permit issuance. Provide a copy of the contingent "certification of obligation" document, highlighting any language related to CON Contingencies

☒ Project obligation will occur after permit issuance.

APPEND DOCUMENTATION AS ATTACHMENT-8, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

State Agency Submittals

Are the following submittals up to date as applicable:

☒ Cancer Registry

☒ APORS

☒ All formal document requests such as IDPH Questionnaires and Annual Bed Reports been submitted

☒ All reports regarding outstanding permits

Failure to be up to date with these requirements will result in the application for permit being deemed incomplete.

Cost Space Requirements

Provide in the following format, the department/area **DGSF** or the building/area **BGSF** and cost. The type of gross square footage either **DGSF** or **BGSF** must be identified. The sum of the department costs **MUST** equal the total estimated project costs. Indicate if any space is being reallocated for a different purpose. Include outside wall measurements plus the department's or area's portion of the surrounding circulation space. **Explain the use of any vacated space.**

		Gross Square Feet		Amount of Proposed Total Gross Square Feet That Is:			
Dept. / Area	**Cost**	**Existing**	**Proposed**	**New Const.**	**Modernized**	**As Is**	**Vacated Space**
REVIEWABLE							
Medical Surgical							
Intensive Care							
Diagnostic Radiology							
MRI							
Total Clinical							
NON REVIEWABLE							
Administrative							
Parking							
Gift Shop							
Total Non-clinical							
TOTAL							

APPEND DOCUMENTATION AS ATTACHMENT-9, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Project Cost / Space Requirements							
		Gross Square Feet		Amount of Proposed Total GSF That Is:			
Department	Project Cost	Existing	Proposed	New Construction	Remodeled	As Is	Vacated Space
Clinical							
Therapeutic Radiology							
CT Simulator	$ 575,835	601	601	0	601		
Linear Accelerators	$ 10,858,551	2,401	2,535	0	2,535		
Stereotactic Surgery System	$ 8,439,100	1,005	1,859	1,524	335		
HDR Brachytherapy	$ 414,357	432	432	0	432		
Nurse Stations	$ 385,921	67	403	223	180		
Exam Rooms	$ 686,533	753	716	716	0		
Internal Department Circulation	$ 3,880,541	2,314	4,049	1,139	2,910		
Total Clinical	$ 25,240,838	7,573	10,595	3,602	6,993	0	0
Non Clinical							
Non-Clinical Storage and Shared Support	$ 9,134,467		6,310	1,889	4,421		
Public Space / Amenities	$ 3,815,384		2,636	2,636	0		
Building Components *	$ 8,775,576		4,905	4,181	709	15	
Total Non Clinical	$ 21,725,427		13,851	8,706	5,130	15	0
Total Project	$ 46,966,265		24,446	12,308	12,123	15	0

* Includes mechanical and electrical support spaces and exterior canopy

Facility Bed Capacity and Utilization

Complete the following chart, as applicable. Complete a separate chart for each facility that is a part of the project and insert following this page. Provide the existing bed capacity and utilization data for the latest **Calendar Year for which the data are available. Include observation days in the patient day totals for each bed service.** Any bed capacity discrepancy from the Inventory will result in the application being deemed **incomplete**.

FACILITY NAME: Advocate Christ Medical Center		**CITY:** Oak Lawn			
REPORTING PERIOD DATES:		**From:** January 1, 2015 **to:** December 31, 2015			
Category of Service	**Authorized Beds**	**Admissions**	**Patient Days[2]**	**Bed Changes**	**Proposed Beds**
Medical/Surgical	394	23,669	119,578	0	394
Obstetrics	56	4,596	12,831	0	56
Pediatrics	45	4,690	13,448	0	45
Intensive Care	153	5,019[1]	33,832	0	153
Comprehensive Physical Rehabilitation	37	894	12,304	0	37
Acute/Chronic Mental Illness	39	1,455	10,475	0	39
Neonatal Intensive Care	64	1,183	10,091	0	64
General Long Term Care	0	0	0	0	0
Specialized Long Term Care	0	0	0	0	0
Long Term Acute Care	0	0	0	0	0
Dedicated Observation Other ((identify)	0	0	0	0	0
TOTALS:	788	40,317	216,905	0	788

Source: ACMC AHQ Data Submission

[1] Direct admissions only; excludes 1,462 intensive care transfers

[2] Includes 2,495observation days

Category of Service	Observation Days
Medical Surgical	980
Obstetrics	256
Pediatrics	1,235
Intensive Care	24
Subtotal	2,495
Observation Days in Dedicated Beds or Stations	4,346 6,841

CERTIFICATION

The application must be signed by the authorized representative(s) of the applicant entity. The authorized representative(s) are:

- in the case of a corporation, any two of its officers or members of its Board of Directors;
- in the case of a limited liability company, any two of its managers or members (or the sole manger or member when two or more managers or members do not exist);
- in the case of a partnership, two of its general partners (or the sole general partner, when two or more general partners do not exist);
- in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- in the case of a sole proprietor, the individual that is the proprietor.

This Application for Permit is filed on the behalf of Advocate Health and Hospitals Corporation *

in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this application for permit on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the permit application fee required for this application is sent herewith or will be paid upon request.

SIGNATURE

James H. Skogsbergh

PRINTED NAME

President and Chief Executive Officer

PRINTED TITLE

Notarization:
Subscribed and sworn to before me this 10 day of October 2016

Signature of Notary

Seal

OFFICIAL SEAL
CRISTIN G FOSTER
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires Mar 4, 2019

SIGNATURE

William P. Santulli

PRINTED NAME

Executive Vice President, Chief Operating Officer

PRINTED TITLE

Notarization:
Subscribed and sworn to before me this 10 day of October 2016

Signature of Notary

Seal

OFFICIAL SEAL
CRISTIN G FOSTER
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires Mar 4, 2019

*Insert EXACT legal name of the applicant

CERTIFICATION

The application must be signed by the authorized representative(s) of the applicant entity. The authorized representative(s) are:

- in the case of a corporation, any two of its officers or members of its Board of Directors;
- in the case of a limited liability company, any two of its managers or members (or the sole manger or member when two or more managers or members do not exist);
- in the case of a partnership, two of its general partners (or the sole general partner, when two or more general partners do not exist);
- in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- in the case of a sole proprietor, the individual that is the proprietor.

This Application for Permit is filed on the behalf of Advocate Health Care Network * **in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this application for permit on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the permit application fee required for this application is sent herewith or will be paid upon request.**

SIGNATURE	SIGNATURE
James H. Skogsbergh	*William P. Santulli*
PRINTED NAME	PRINTED NAME
President and Chief Executive Officer	*Executive vice President, Chief Operating Officer*
PRINTED TITLE	PRINTED TITLE
Notarization: Subscribed and sworn to before me this 10 day of October 2016	Notarization: Subscribed and sworn to before me this 10 day of October 2016
Signature of Notary	Signature of Notary
Seal	Seal

OFFICIAL SEAL
CRISTIN G FOSTER
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires Mar 4, 2019

OFFICIAL SEAL
CRISTIN G FOSTER
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires Mar 4, 2019

*Insert EXACT legal name of the applicant

After paginating the entire, completed application, indicate in the chart below, the page numbers for the attachments included as part of the project's application for permit:

INDEX OF ATTACHMENTS

ATTACHMENT NO.		PAGES
1	Applicant/Co-applicant Identification including Certificate of Good Standing	44 – 46
2	Site Ownership	47 – 48
3	Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.	49 – 50
4	Organizational Relationships (Organizational Chart) Certificate of Good Standing Etc.	51 – 52
5	Flood Plain Requirements	53 – 55
6	Historic Preservation Act Requirements	56 – 57
7	Project and Sources of Funds Itemization	58 – 60
8	Obligation Document if required	61
9	Cost Space Requirements	62 – 63
10	Discontinuation	NA
11	Background of the Applicant	64 – 68
12	Purpose of the Project	69 – 84
13	Alternatives to the Project / Empirical Evidence	85 – 104
14	Size of the Project	105 – 108
15	Project Service Utilization	109 – 111
16	Unfinished or Shell Space	112
17	Assurances for Unfinished/Shell Space	NA
18	Master Design Project	NA
19	Mergers, Consolidations and Acquisitions	NA
	Service Specific:	
20	Medical Surgical Pediatrics, Obstetrics, ICU	
21	Comprehensive Physical Rehabilitation	NA
22	Acute Mental Illness	NA
23	Neonatal Intensive Care	NA
24	Open Heart Surgery	NA
25	Cardiac Catheterization	NA
26	In-Center Hemodialysis	NA
27	Non-Hospital Based Ambulatory Surgery	NA
28	Selected Organ Transplantation	NA
29	Kidney Transplantation	NA
30	Subacute Care Hospital Model	NA
31	Children's Community-Based Health Care Center	NA
32	Community-Based Residential Rehabilitation Center	NA
33	Long Term Acute Care Hospital	NA
34	Clinical Service Areas Other than Categories of Service	113 – 129
34	Assurances Letter	130
35	Freestanding Emergency Center Medical Services	NA
	Financial and Economic Feasibility:	
36	Availability of Funds	131 – 132
37	Financial Waiver	133
38	Financial Viability	134
39	Economic Feasibility	135 – 142
40	Safety Net Impact Statement	143 – 148
41	Charity Care Information	149 – 150

Attachments

SECTION I. IDENTIFICATION, GENERAL INFORMATION, AND CERTIFICATION

This Section must be completed for all projects.
Applicant /Co-Applicant Identification
[Provide for each co-applicant [refer to Part 1130.220].

Exact Legal Name: Advocate Health and Hospitals Corporation d/b/a Advocate Christ Medical Center
Address: 4440 West 95th Street Oak Lawn 60453-2699
Name of Registered Agent: Gail D. Hasbrouck
Name of Chief Executive Officer: Kenneth Lukhard, President, Advocate Christ Medical Center
CEO Address: 4440 West 95th Street Oak Lawn 60453-2699
Telephone Number: 708-684-5010

Applicant /Co-Applicant Identification
[Provide for each co-applicant [refer to Part 1130.220].

Exact Legal Name: Advocate Health Care Network
Address: 3075 Highland Parkway, Downers Grove, IL 60515
Name of Registered Agent: Gail D. Hasbrouck
Name of Chief Executive Officer: James H. Skogsbergh, President and Chief Executive Officer
CEO Address: 3075 Highland Parkway, Downers Grove, IL 60515
Telephone Number: 630-929-8700

File Number 1004-695-5

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

ADVOCATE HEALTH AND HOSPITALS CORPORATION, A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON SEPTEMBER 12, 1906, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE GENERAL NOT FOR PROFIT CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

Authentication #: 1609602214 verifiable until 04/05/2017
Authenticate at: http://www.cyberdriveillinois.com

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 5TH *day of* APRIL *A.D.* 2016 .

Jesse White

SECRETARY OF STATE

File Number 1707-692-2

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

ADVOCATE HEALTH CARE NETWORK, A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON JUNE 14, 1923, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE GENERAL NOT FOR PROFIT CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

Authentication #: 1608602306 verifiable until 04/05/2017
Authenticate at: http://www.cyberdriveillinois.com

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 5TH *day of* APRIL *A.D.* 2016 .

Jesse White

SECRETARY OF STATE

SECTION I. IDENTIFICATION, GENERAL INFORMATION, AND CERTIFICATION

This Section must be completed for all projects.

Site Ownership

[Provide this information for each applicable site]

Exact Legal Name of Site Owner: Advocate Health and Hospitals Corporation
Address of Site Owner: 3075 Highland Parkway, Downers Grove, IL 60515
Street Address or Legal Description of Site: **Proof of ownership or control of the site is to be provided as Attachment 2. Examples of proof of ownership are property tax statement, tax assessor's documentation, deed, notarized statement of the corporation attesting to ownership, an option to lease, a letter of intent to lease or a lease.**
APPEND DOCUMENTATION AS ATTACHMENT-2, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Proof of site ownership is appended as Attachment 2, Exhibit 1.

Advocate Health Care
3075 Highland Parkway, Suite 600 || Downers Grove, Illinois 60515 || T 630.572.9393|| advocatehealth.com

April 12, 2016

Ms. Kathryn Olson, Chairperson
Illinois Health Facilities and Services Review board
525 W. Jefferson Street — 2nd Floor
Springfield, IL 62761

RE: Advocate Christ Medical Center
Radiation Oncology Replacement Project

Dear Ms. Olson:

This attestation letter is submitted to advise you that Advocate Health and Hospitals Corporation owns the Advocate Christ Medical Center site.

We trust this complies with the State Agency Proof of Ownership requirement indicated in the July 2013 Permit Application Edition.

Respectfully,

William P. Santulli
Executive Vice President/COO

Notarization:

OFFICIAL SEAL
CRISTIN G FOSTER
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires Mar 4, 2019

Subscribed and sworn to before me
This 12 day of April, 2016.

Cristin G. Foster

Operating Identity/Licensee

[Provide this information for each applicable facility, and insert after this page.]

Exact Legal Name: Advocate Health and Hospitals Corporation d/b/a Advocate Christ Medical Center

Address: 4440 W. 95th Street, Oak Lawn, IL 60453

☒	Non-profit Corporation	☐	Partnership		
☐	For-profit Corporation	☐	Governmental		
☐	Limited Liability Company	☐	Sole Proprietorship	☐	Other

- Corporations and limited liability companies must provide an Illinois Certificate of Good Standing.
- Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.
- **Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.**

APPEND DOCUMENTATION AS ATTACHMENT-3, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

A Certificate of Good Standing for Advocate Health and Hospitals Corporation d/b/a Advocate Christ Medical Center is appended as Attachment 3, Exhibit 1.

File Number 1004-695-5

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

ADVOCATE HEALTH AND HOSPITALS CORPORATION, A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON SEPTEMBER 12, 1906, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE GENERAL NOT FOR PROFIT CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

Authentication #: 1609602214 verifiable until 04/05/2017
Authenticate at: http://www.cyberdriveillinois.com

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 5TH *day of* APRIL *A.D.* 2016 .

Jesse White

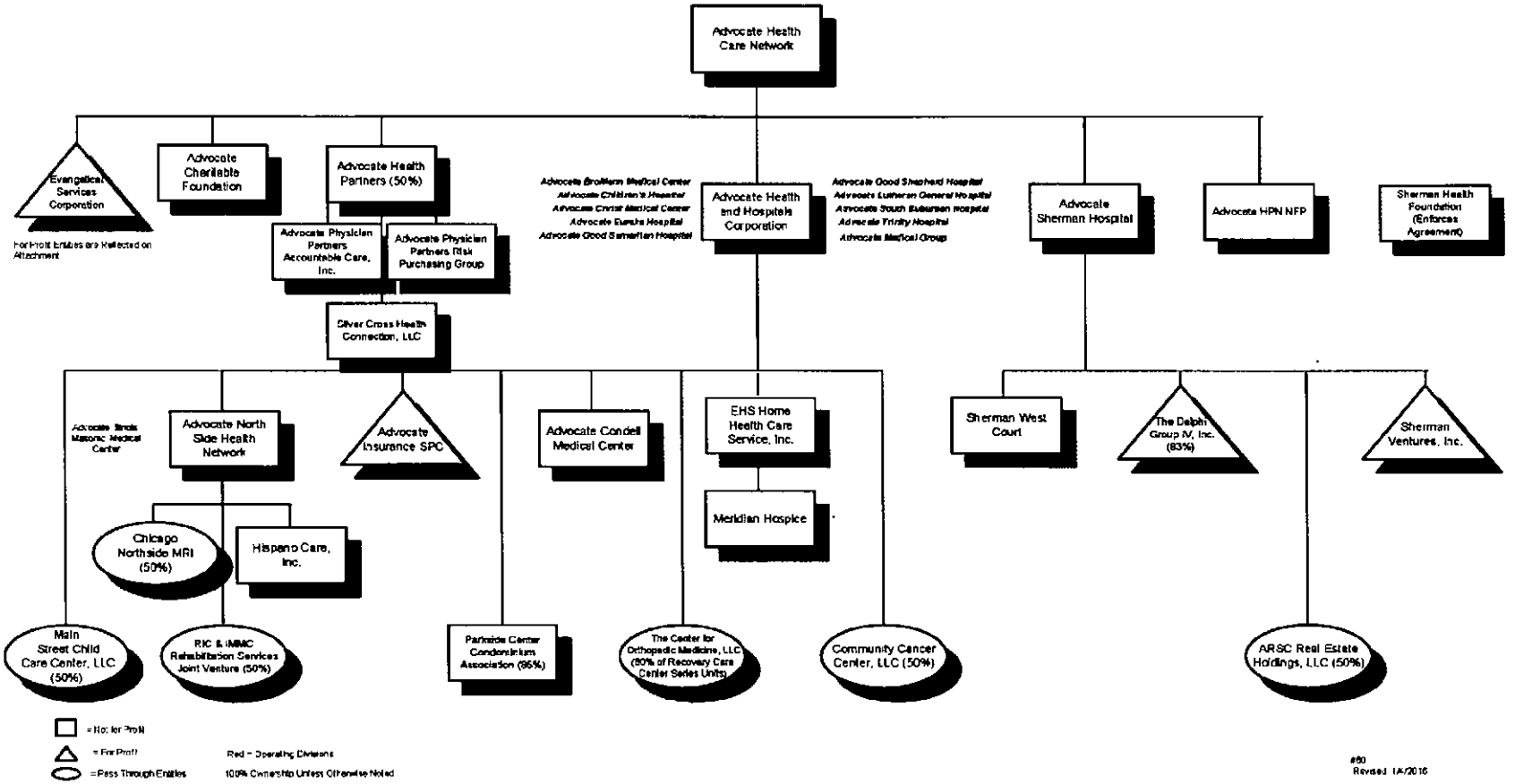
SECRETARY OF STATE

Organizational Relationships

Provide (for each co-applicant) an organizational chart containing the name and relationship of any person or entity who is related (as defined in Part 1130.140). If the related person or entity is participating in the development or funding of the project, describe the interest and the amount and type of any financial contribution.
APPEND DOCUMENTATION AS ATTACHMENT-4, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Attachment 4, Exhibit 1, is an organizational chart of Advocate Health and Hospitals Corporation and shows all of the relevant organizations including Advocate Health Care Network, Advocate Health and Hospitals Corporation, and Advocate Christ Medical Center.

Advocate Health Care



Flood Plain Requirements
[Refer to application instructions.]

Provide documentation that the project complies with the requirements of Illinois Executive Order #2005-5 pertaining to construction activities in special flood hazard areas. As part of the flood plain requirements please provide a map of the proposed project location showing any identified floodplain areas. Floodplain maps can be printed at **www.FEMA.gov** or **www.illinoisfloodmaps.org**. **This map must be in a readable format**. In addition please provide a statement attesting that the project complies with the requirements of Illinois Executive Order #2005-5 **(http://www.hfsrb.illinois.gov)**.

APPEND DOCUMENTATION AS ATTACHMENT -5, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

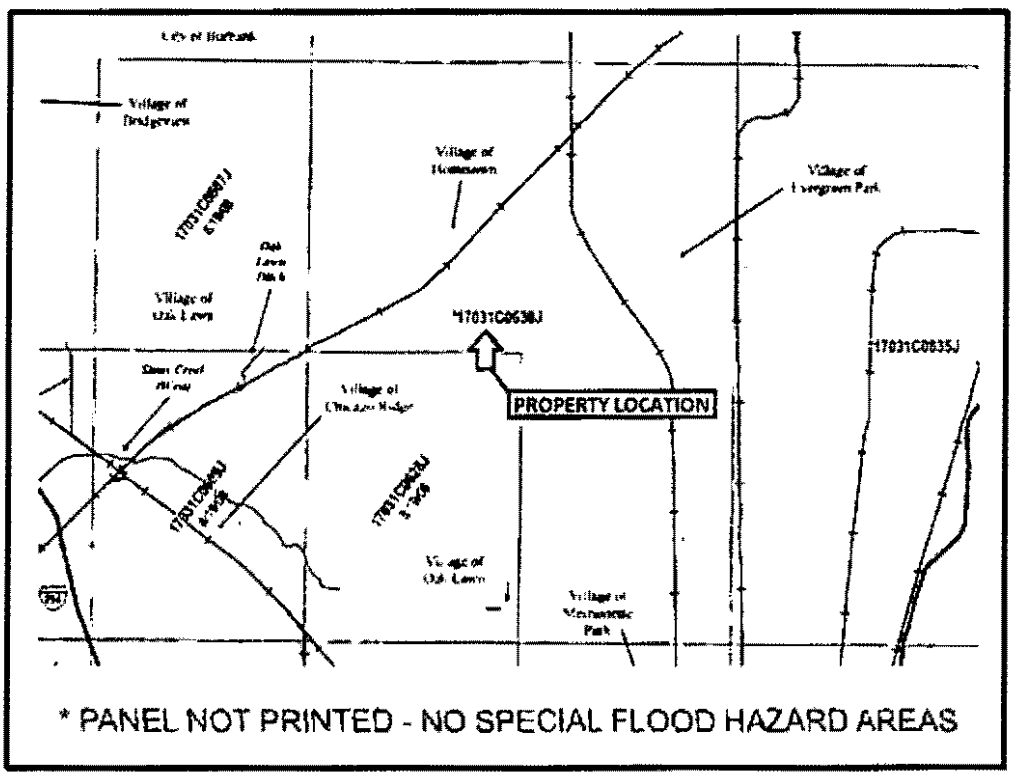
In accordance with the Flood Plain Requirements in the July 2013 Edition of the Certificate of Need Application and Illinois Executive Order # 2005-5, and the signatures on the application, Advocate Health Care Network and Advocate Health and Hospitals Corporation d/b/a Advocate Christ Medical Center (the applicants) submit the following.

Advocate Health Care Network and Advocate Health and Hospitals Corporation d/b/a Advocate Christ Medical Center attest that the proposed expansion and modernization and radiation equipment replacement project will not be in a flood plain area and that the area complies with requirements of Executive Order # 2005-5.

In addition, the applicants are providing a flood plain map of Christ Medical Center's location as Attachment 5, Exhibit 1. Attachment 5, Exhibit 2 is a Department of Homeland Security, Federal Emergency Management Agency, Standard Flood Hazard Determination Form (SFHDF), formerly FEMA Form 81-03) that states that Christ Medical Center's structure is out of the designated FEMA flood zone Area (Zone X).

FEMA

Panel: 17031C0630J
Date: 08/19/08
Community: Oak Lawn, Village of



You are located in Flood Zone X

Zone X: Minimal risk areas outside the 1-percent and .2-percent-annual-chance floodplains. No BFEs or base flood depths are shown within these zones. (Zone X (unshaded) is used on new and revised maps in place of Zone C.)

Page 2 of 2

DEPARTMENT OF HOMELAND SECURITY
FEDERAL EMERGENCY MANAGEMENT AGENCY

STANDARD FLOOD HAZARD DETERMINATION FORM (SFHDF)

See The Attached Instructions

O.M.B. No. 1660-0040
Expires May 30, 2015

SECTION I - LOAN INFORMATION

1. LENDER NAME AND ADDRESS	2. COLLATERAL (Building/Mobile Home/Property) PROPERTY ADDRESS AND PARCEL NUMBER (See instructions section for more information) 4040 West 95th Street Oak Lawn, IL 60453

3. LENDER ID NO.	4. LOAN IDENTIFIER	5. AMOUNT OF FLOOD INSURANCE REQUIRED

SECTION II

A. NATIONAL FLOOD INSURANCE PROGRAM (NFIP) COMMUNITY JURISDICTION

1. NFIP Community Name	2. County(ies)	3. State	4. NFIP Community Number
OAK LAWN, VILLAGE OF	COOK	IL	170137

B. NATIONAL FLOOD INSURANCE PROGRAM (NFIP) DATA AFFECTING BUILDING/MOBILE HOME

1. NFIP Map Number or Community-Panel Number (Community name, if not the same as "A")	2. NFIP Map Panel Effective/ Revised Date	3. LOMA/LOMR Number	4. Flood Zone	5. No NFIP Map
17031C0630J	08/19/08		X	

C. FEDERAL FLOOD INSURANCE AVAILABILITY (Check all that apply)

1. ☒ Federal flood insurance is available (community participates in the NFIP). ☒ Regular Program ☐ Emergency Program of NFIP
2. ☐ Federal flood insurance is not available because community is not participating in the NFIP.
3. ☐ Building/Mobile Home is in a Coastal Barrier Resources Area (CBRA) or Otherwise Protected Area (OPA). Federal Flood Insurance may not be available.

CBRA/OPA Designation Date: _____

D. DETERMINATION

IS BUILDING/MOBILE HOME IN SPECIAL FLOOD HAZARD AREA (ZONES CONTAINING THE LETTERS "A" OR "V")? ☐ YES ☒ NO

If yes, flood insurance is required by the Flood Disaster Protection Act of 1973.
If no, flood insurance is not required by the Flood Disaster Protection Act of 1973. Please note, the risk of flooding in this area is only reduced, not removed.

E. COMMENTS (Optional)

The structure is out of the designated FEMA flood zone area (Zone X).

This determination is based on examining the NFIP map, any Federal Emergency Management Agency revisions to it, and any other information needed to locate the building/mobile home on the NFIP map.

F. PREPARER'S INFORMATION

NAME, ADDRESS, TELEPHONE NUMBER (If other than Lender)	DATE OF DETERMINATION
Second Look Flood, LLC PO Box 7473 St. Cloud, MN 56302 320-224-4180	02/26/2016

FEMA Form 086-0-32, (4/12) **PREVIOUSLY FEMA Form 81-93** This form may be locally reproduced

Historic Resources Preservation Act Requirements

[Refer to application instructions.]

Provide documentation regarding compliance with the requirements of the Historic Resources Preservation Act.
APPEND DOCUMENTATION AS ATTACHMENT-6, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Attachment 6, Exhibit 1 is a copy of the letter received from the Illinois Historic Preservation Agency which documents that no historic, architectural, or archeological sites exist within the project area. The Project is in compliance with the Historic Resources Preservation Act.

Illinois Historic Preservation Agency

1 Old State Capitol Plaza, Springfield, IL 62701-1512

FAX (217) 524-7525
www.illinoishistory.gov

Cook County
Oak Lawn
CON - Replacement of Radiation Oncology Equipment and Rehabilitation of Area, Advocate Christ Medical Center
4440 W. 95th St.
IHPA Log #023022916

March 16, 2016

Janet Scheuerman
PRISM Healthcare Consulting
1808 Woodmere Drive
Valparaiso, IN 46383

Dear Ms. Scheuerman:

This letter is to inform you that we have reviewed the information provided concerning the referenced project.

Our review of the records indicates that no historic, architectural or archaeological sites exist within the project area.

Please retain this letter in your files as evidence of compliance with Section 4 of the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420/1 et. seq.). This clearance remains in effect for two years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440).

If you have any further questions, please contact me at 217/785-5031.

Sincerely,

Rachel Leibowitz, Ph.D.
Deputy State Historic
Preservation Officer

For TTY communication, dial 888-440-9009. It is not a voice or fax line.

Project Costs and Sources of Funds

Complete the following table listing all costs (refer to Part 1120.110) associated with the project. When a project or any component of a project is to be accomplished by lease, donation, gift, or other means, the fair market or dollar value (refer to Part 1130.140) of the component must be included in the estimated project cost. If the project contains non-reviewable components that are not related to the provision of health care, complete the second column of the table below. Note, the use and sources of funds must equal.

Project Costs and Sources of Funds			
USE OF FUNDS	**CLINICAL**	**NONCLINICAL**	**TOTAL**
Preplanning Costs	$ 120,900	$ 199,700	$ 320,600
Site Survey and Soil Investigation	53,000	62,600	115,600
Site Preparation	250,400	663,300	913,700
Off Site Work	195,780	547,446	743,226
New Construction Contracts	2,714,319	7,558,662	10,272,981
Modernization Contracts	3,246,885	2,417,979	5,664,864
Contingencies	755,484	1,113,575	1,869,059
Architectural/Engineering Fees	530,387	904,017	1,434,404
Consulting and Other Fees	675,900	2,032,800	2,708,700
Movable or Other Equipment (not in construction contracts)	15,241,765	2,190,003	17,431,768
Bond Issuance Expense (project related)	84,772	231,540	316,312
Net Interest Expense During Construction (project related)	295,296	806,555	1,101,851
Fair Market Value of Leased Space or Equipment			
Other Costs To Be Capitalized	1,075,950	2,997,250	4,073,200
Acquisition of Building or Other Property (excluding land)			
TOTAL USES OF FUNDS	**25,240,838**	**21,725,427**	**46,966,265**
SOURCE OF FUNDS	**CLINICAL**	**NONCLINICAL**	**TOTAL**
Cash and Securities	4,671,714	12,760,054	17,431,768
Pledges			
Gifts and Bequests			
Bond Issues (project related)	7,915,245	21,619,252	29,534,497
Mortgages			
Leases (fair market value)			
Governmental Appropriations			
Grants			
Other Funds and Sources			
TOTAL SOURCES OF FUNDS	**12,586,959**	**34,379,306**	**46,966,265**
NOTE: ITEMIZATION OF EACH LINE ITEM MUST BE PROVIDED AT ATTACHMENT-7, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.			

Advocate Health Care
ACMC - Radiation Oncology

PROJECT COSTS

Cost Items	Clinical	Non-Clinical	PERMIT TOTAL
Pre-Planning	**$ 120,900**	**$ 199,700**	**$ 320,600**
Site Planning	$ 120,900	$ 199,700	
Site survey	**$ 53,000**	**$ 62,600**	**$ 115,600**
Soils Investigation / Geological	$ 28,000	$ 32,800	
Site Survey & Title	$ 25,000	$ 29,800	
Traffic / Flow study			
Site Preparation	**$ 250,400**	**$ 663,300**	**$ 913,700**
Prep Work (Demo, clearing, grading, shoring)	$ 57,300	$ 156,400	
Earthwork, Drainage, Stone, Foundation Preparations	$ 46,700	$ 130,800	
Civil Earthwork	$ 79,000	$ 212,800	
Misc Excavation, Backfill	$ 48,800	$ 128,800	
Site Protection	$ 18,600	$ 34,500	
OFF-Site Work	**$ 195,780**	**$ 547,446**	**$ 743,226**
Storm Detention	$ 42,600	$ 119,500	
Utilities	$ 82,600	$ 228,900	
Foundation / Concrete	$ 41,200	$ 118,800	
Site walks /Drive /Concrete	$ 29,380	$ 80,246	
New Construction (Various)	**$ 2,714,319**	**$ 7,558,662**	**$ 10,272,981**
Construction: Shell & Core, Systems	$ 2,714,319	$ 7,558,662	
Modernization	**$ 3,246,885**	**$ 2,417,979**	**$ 5,664,864**
Construction: Modernization	$ 3,246,885	$ 2,417,979	
Contingenies	**$ 755,484**	**$ 1,113,575**	**$ 1,869,059**
New Construction - Clinical	$ 270,075		
New Construction - Non Clinical		$ 752,087	
Mod Construction - Clinical	$ 485,409		
Mod Construction - Non Clinical		$ 361,488	
Architect/Eng Fees	**$ 530,387**	**$ 904,017**	**$ 1,434,404**
New Construction	$ 240,387	$ 684,180	
Modernization	$ 290,000	$ 219,837	
Consulting and Other Fees	**$ 675,900**	**$ 2,032,800**	**$ 2,708,700**
A/E Construction administration	$ 95,700	$ 365,300	
A/E Add'l Services: Civil, Equip., Interiors, Technology, C	$ 318,300	$ 869,800	
CON Fee	$ 26,800	$ 73,200	
CON Consultant / Legal	$ 41,600	$ 118,400	
Early Trade Partners	$ 39,000	$ 111,000	
Commissioning: MEP & Envelope	$ 34,400	$ 98,800	
Contract Project Manager	$ 35,900	$ 101,500	
VOL Permit/Government Fees	$ 55,500	$ 196,000	
VOL Permit Review fees	$ 28,700	$ 98,800	

Advocate Health Care

PROJECT COSTS

Cost Items	Clinical	Non-Clinical	PERMIT TOTAL
Movable / Equipment	**$ 15,241,765**	**$ 2,190,003**	**$ 17,431,768**
Radiation Therapy Equipment	$ 15,085,020	$ 1,676,113	
Misc Medical Equipment	$ 98,145	$ 384,990	
Furniture Office & Waiting	$ 58,600	$ 128,900	
Bond Issuance / Finance Expense	$ 84,772	$ 231,540	**$ 316,312**
Net Interest	$ 295,296	$ 806,555	**$ 1,101,851**
Fair Market Value of Lease	$ -	$ -	$ -
Other Costs to be Capitalized	**$ 1,075,950**	**$ 2,997,250**	**$ 4,073,200**
Construction Risk Insurance	$ 15,500	$ 42,200	
Gen Contractor GC fees	$ 174,000	$ 479,040	
Technology: IT Servers, Software, Lic. & Misc	$ 274,300	$ 751,140	
Technology Voice & Data	$ 284,500	$ 779,140	
Utility charges / fees	$ 53,450	$ 166,090	
Emergency Power Switchgear	$ 93,300	$ 261,640	
Interior Signage	$ 18,600	$ 55,800	
Exterior Signage	$ 25,600	$ 73,900	
PAC's Stations CERNER Technology, Lics	$ 130,000	$ 370,000	
Project audit	$ 6,700	$ 18,300	
Acquisition			
Sub Total			
TOTAL	$ 25,240,838	$ 21,725,427	**$ 46,966,265**

Project Status and Completion Schedules

For facilities in which prior permits have been issued please provide the permit numbers.
Indicate the stage of the project's architectural drawings: ☐ None or not applicable ☐ Preliminary ☒ Schematics ☐ Final Working
Anticipated project completion date (refer to Part 1130.140): December 31, 2020
Indicate the following with respect to project expenditures or to obligation (refer to Part 1130.140): ☐ Purchase orders, leases or contracts pertaining to the project have been executed. ☐ Project obligation is contingent upon permit issuance. Provide a copy of the contingent "certification of obligation" document, highlighting any language related to CON Contingencies ☒ Project obligation will occur after permit issuance.
APPEND DOCUMENTATION AS ATTACHMENT-8, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Cost Space Requirements

Provide in the following format, the department/area **DGSF** or the building/area **BGSF** and cost. The type of gross square footage either **DGSF** or **BGSF** must be identified. The sum of the department costs **MUST** equal the total estimated project costs. Indicate if any space is being reallocated for a different purpose. Include outside wall measurements plus the department's or area's portion of the surrounding circulation space. **Explain the use of any vacated space.**

		Gross Square Feet		Amount of Proposed Total Gross Square Feet That Is:			
Dept. / Area	**Cost**	**Existing**	**Proposed**	**New Const.**	**Modernized**	**As Is**	**Vacated Space**
REVIEWABLE							
Medical Surgical							
Intensive Care							
Diagnostic Radiology							
MRI							
Total Clinical							
NON REVIEWABLE							
Administrative							
Parking							
Gift Shop							
Total Non-clinical							
TOTAL							

APPEND DOCUMENTATION AS ATTACHMENT-9, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Project Cost / Space Requirements							
		Gross Square Feet		Amount of Proposed Total GSF That Is:			
Department	Project Cost	Existing	Proposed	New Construction	Remodeled	As Is	Vacated Space
Clinical							
Therapeutic Radiology							
CT Simulator	$ 575,835	601	601	0	601		
Linear Accelerators	$ 10,858,551	2,401	2,535	0	2,535		
Stereotactic Surgery System	$ 8,439,100	1,005	1,859	1,524	335		
HDR Brachytherapy	$ 414,357	432	432	0	432		
Nurse Stations	$ 385,921	67	403	223	180		
Exam Rooms	$ 686,533	753	716	716	0		
Internal Department Circulation	$ 3,880,541	2,314	4,049	1,139	2,910		
Total Clinical	$ 25,240,838	7,573	10,595	3,602	6,993	0	0
Non Clinical							
Non-Clinical Storage and Shared Support	$ 9,134,467		6,310	1,889	4,421		
Public Space / Amenities	$ 3,815,384		2,636	2,636	0		
Building Components *	$ 8,775,576		4,905	4,181	709	15	
Total Non Clinical	$ 21,725,427		13,851	8,706	5,130	15	0
Total Project	$ 46,966,265		24,446	12,308	12,123	15	0

* Includes mechanical and electrical support spaces and exterior canopy

SECTION III – BACKGROUND, PURPOSE OF THE PROJECT, AND ALTERNATIVES - INFORMATION REQUIREMENTS

This Section is applicable to all projects except those that are solely for discontinuation with no project costs.

Criterion 1110.230 – Background, Purpose of the Project, and Alternatives

READ THE REVIEW CRITERION and provide the following required information:

BACKGROUND OF APPLICANT

1. A listing of all health care facilities owned or operated by the applicant, including licensing, and certification if applicable.

2. A certified listing of any adverse action taken against any facility owned and/or operated by the applicant during the three years prior to the filing of the application.

3. Authorization permitting HFSRB and DPH access to any documents necessary to verify the information submitted, including, but not limited to: official records of DPH or other State agencies; the licensing or certification records of other states, when applicable; and the records of nationally recognized accreditation organizations. **Failure to provide such authorization shall constitute an abandonment or withdrawal of the application without any further action by HFSRB.**

4. If, during a given calendar year, an applicant submits more than one application for permit, the documentation provided with the prior applications may be utilized to fulfill the information requirements of this criterion. In such instances, the applicant shall attest the information has been previously provided, cite the project number of the prior application, and certify that no changes have occurred regarding the information that has been previously provided. The applicant is able to submit amendments to previously submitted information, as needed, to update and/or clarify data.

APPEND DOCUMENTATION AS ATTACHMENT-11, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM. EACH ITEM (1-4) MUST BE IDENTIFIED IN ATTACHMENT 11.

1. *A listing of all health care facilities owned or operated by the applicant, including licensing, and certification if applicable.*

Facility	Location	License No.	DNV Accreditation No.
Advocate Christ Medical Center	4440 W. 95th St. Oak Lawn, IL	0000315	197946-2016-AHC-USA-NIAHO

Additional hospitals owned and operated as a part of Advocate Health Care Network:

Facility	Location	License No.	DNV Accreditation No.
Advocate BroMenn Medical Center	1304 Franklin Ave. Normal, IL	0005645	195600-2016-AQ-USA-RvA
Advocate Condell Medical Center	801 S. Milwaukee Ave. Libertyville, IL	0005579	147414-2013-AHC-USA-NIAHO
Advocate Eureka Hospital	101 S. Major Eureka, IL	0005652	195598-2016-AQ-USA-RvA
Advocate Good Samaritan Hospital	3815 Highland Ave. Downers Grove, IL	0003384	186877-2015-AQ-USA-RvA
Advocate Good Shepherd Hospital	450 W. Highway, #22 Barrington, IL	0003475	186883-2015-AQ-USA-RvA
Advocate Illinois Masonic Medical Center	836 W. Wellington Chicago, IL	0005165	192082-2015-AHC-USA-NIAHO
Advocate Lutheran General Hospital	1775 Dempster Park Ridge, IL	004796	186960-2015-AQ-USA-RvA
Advocate South Suburban Hospital	17800 S. Kedzie Ave Hazel Crest, IL	0004697	195597-2016-AQ-USA-RvA
Advocate Sherman Hospital	1425 N. Randall Rd Elgin, IL	0005884	165481-2014-AHC-USA-NIAHO
Advocate Trinity Hospital	2320 E. 93rd St. Chicago, IL	0004176	193041-2015-AHC-USA-NIAHO

The license for Advocate Christ Medical Center (Christ Medical Center) is included as Attachment 11, Exhibit 1.

The most recent DNV accreditation certificate for Advocate Christ Medical Center is included as Attachment 11, Exhibit 2. Advocate Christ Medical Center participates in Medicaid and Medicare.

2. *A certified listing of any adverse action taken against any facility owned and/or operated by the applicant during the three years prior to the filing of the application.*

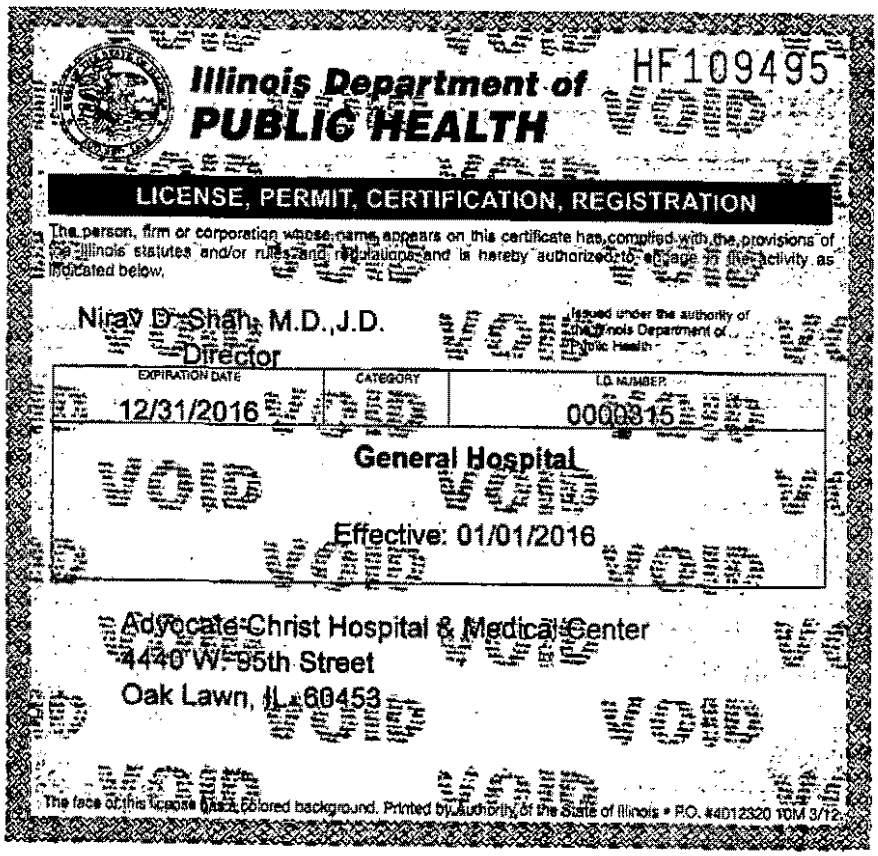
   By the signatures on this application, Advocate Health and Hospitals Corporation and Advocate Health Care Network hereby attest that there have been no adverse actions against any facility owned and/or operated by Advocate Health and Hospitals Corporation by any regulatory agency which would affect its ability to operate as a licensed entity during the three years prior to the filing of this application.

3. *Authorization permitting HFSRB and DPH access to any documents necessary to verify the information submitted, including, but not limited to: official records of DPH or other State agencies; the licensing or certification records of other states, when applicable; and the records of nationally recognized accreditation organizations.* ***Failure to provide such authorization shall constitute an abandonment or withdrawal of the application without any further action by HFSRB.***

   By the signatures on this application, Advocate Health and Hospitals Corporation and Advocate Health Care Network hereby authorize the Health Facilities and Services Review Board and the Department of Public Health to access information in order to verify any documentation or information submitted in response to the requirements of this subsection, or to obtain any documentation or information which the State Board or Department of Public Health find pertinent to this subsection.

4. *If, during a given calendar year, an applicant submits more than one application for permit, the documentation provided with the prior applications may be utilized to fulfill the information requirements of this criterion. In such instances, the applicant shall attest the information has been previously provided, cite the project number of the prior application, and certify that no changes have occurred regarding the information that has been previously provided. The applicant is able to submit amendments to previously submitted information, as needed, to update and/or clarify data.*

   The applicant has provided all requested information in Project 16-038, Advocate Sherman Ambulatory Surgery Center, Elgin.



Illinois Department of PUBLIC HEALTH

HF109495

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

Nirav D. Shah, M.D., J.D.
Director

Issued under the authority of the Illinois Department of Public Health

EXPIRATION DATE	CATEGORY	I.D. NUMBER:
12/31/2016		0000315

General Hospital

Effective: 01/01/2016

Advocate Christ Hospital & Medical Center
4440 W. 95th Street
Oak Lawn, IL 60453

The face of this license has a colored background. Printed by authority of the State of Illinois • P.O. #4012320 10M 3/12

DNV·GL

CERTIFICATE OF ACCREDITATION

Certificate No.:	Initial date:	Valid until:
197946-2016-AHC-USA-NIAHO	4/15/2016	4/15/2019

This is to certify that:

Advocate Christ Medical Center & Advocate Children's Hospital – Oak Lawn
4440 W. 95th Street, Oak Lawn, IL 60453

has been found to comply with the requirements of the:

NIAHO® Hospital Accreditation Program

Pursuant to the authority granted to DNV GL Healthcare USA, Inc. by the U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, this organization is deemed in compliance with the Medicare Conditions of Participation for Hospitals (42 C.F.R. §482).

This certificate is valid for a period of three (3) years from the Effective Date of Accreditation.

For the Accreditation Body:
DNV GL - Healthcare
Katy, TX

Patrick Norine
Chief Executive Officer

CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

Lack of continual fulfillment of the conditions set out in the Certification/Accreditation Agreement may render this Certificate invalid.

DNV GL - Healthcare, 400 Techne Center Drive, Suite 100, Milford OH, 45150. Tel: 513-947-8585 www.dnvglhealthcare.com

PURPOSE OF PROJECT

1. Document that the project will provide health services that improve the health care or well-being of the market area population to be served.
2. Define the planning area or market area, or other, per the applicant's definition.
3. Identify the existing problems or issues that need to be addressed, as applicable and appropriate for the project. [See 1110.230(b) for examples of documentation.]
4. Cite the sources of the information provided as documentation.
5. Detail how the project will address or improve the previously referenced issues, as well as the population's health status and well-being.
6. Provide goals with quantified and measurable objectives, with specific timeframes that relate to achieving the stated goals **as appropriate**.

For projects involving modernization, describe the conditions being upgraded if any. For facility projects, include statements of age and condition and regulatory citations if any. For equipment being replaced, include repair and maintenance records.

NOTE: Information regarding the "Purpose of the Project" will be included in the State Board Report.

APPEND DOCUMENTATION AS ATTACHMENT-12, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM. EACH ITEM (1-6) MUST BE IDENTIFIED IN ATTACHMENT 12.

1. Document that the project will provide health services that improve the health care or well-being of the market area population to be served.

The purpose of this Project is to improve cancer care for patients in Advocate Christ Medical Center's (ACMC, Christ Medical Center) defined regional service area and beyond by expanding and modernizing the currently deficient facilities and replacing the aging radiation therapy equipment in the Radiation Oncology Department. These investments will provide advanced cancer treatment services and functional facilities that will contribute to improving the health care and well-being of the market area population.

Currently, Christ Medical Center provides three distinct radiation treatment options. The first is HDR brachytherapy which involves placing highly radioactive pellets inside the body. There will be no changes to this treatment modality as part of the Project.

The other two are known as "external beam radiation therapy" because the treatment involves targeting the tumor with high energy x-ray beams. Of these, standard linear accelerators (linacs) deliver relatively small doses of radiation. A typical treatment course on a standard linac is five treatments a week over a course of several weeks. This is the most universally used external beam therapy.

The second external beam radiation therapy device is a stereotactic radiosurgery system commonly known as SRS (stereotactic radiosurgery/SRT (stereotactic radiation therapy); SRS/SRT is typically located in high volume cancer centers. ACMC currently has a CyberKnife™ which is the trademark for one of the stereotactic radiosurgery systems. SRS very precisely delivers a very high dose of radiation; the original uses of SRS were for tumors in the central nervous system (CNS) such as the brain and upper spine. Over the years, SRT has been introduced in the treatment of tumors in other parts of the body. SRT involves the delivery of several fractionated treatments (up to five).

The two types of external beam devices are not interchangeable except in a limited number of applications (See Attachment 34).

2. *Define the planning area or market area, or other, per the applicants' definition.*

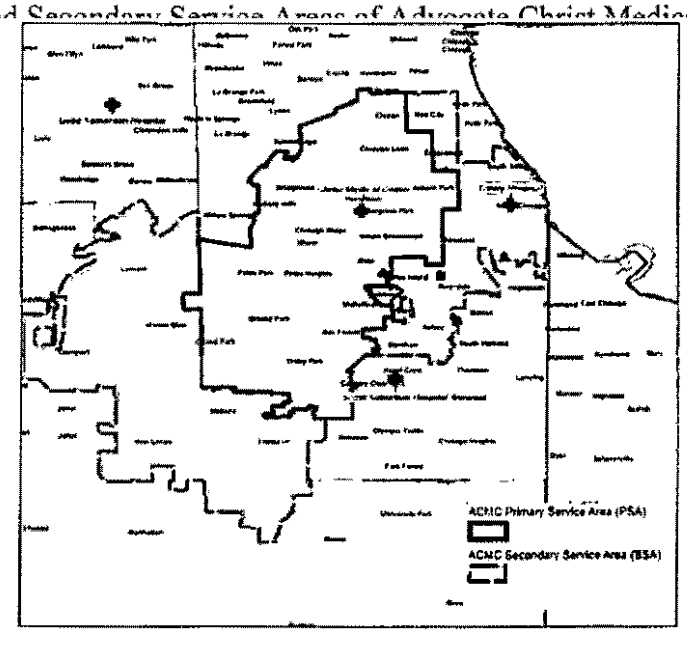
Patient Origin

Advocate Christ Medical Center is a tertiary/quaternary referral center; serving its local community as well as a very broad geographic area, especially for services such as advanced radiation oncology that are not available at many community hospitals.

Table 1 displays the patient origin of all adult inpatients as well as cancer inpatients and outpatients at ACMC. Figure 1 is a map of Christ Medical Center's primary and secondary service area.

Figure 1

Primary and Secondary Service Areas of Advocate Christ Medical Cent



Disclaimer: The information in this table/chart/report is based on inpatient admissions by zip code. Its use in this report should not be understood as a representation concerning a relevant geographic area of competition or concerning the actual extent of competition between or among providers in any given zip code or area.

As shown on Table 1, the cancer patient origin for inpatients and outpatients is similar with approximately 85 percent of the patients in each category originating from the defined service area, and the other 15 percent from "other Illinois" and "other States." The apparent correlation between inpatient and outpatient cancer patient origin attests to the complexity of the outpatient cancer services, including radiation oncology, provided by Christ Medical Center.

Table 1
Comparison of ACMC's Adult Inpatient Origin, Cancer Inpatient and Outpatient Origin, 2015

Area	Total Inpatients		Cancer Inpatients		Cancer Outpatients	
	Number	Percent	Number	Percent	Number	Percent
Primary Service Area (PSA)	23,462	68.0%	2,645	66.4%	15,393	70.2%
Secondary Service Area (SSA)	5,345	15.5%	708	17.8%	3,502	16.0%
Subtotal PSA and SSA	28,807	83.5%	3,353	84.1%	18,895	86.1%
Other Illinois	5,002	14.5%	582	14.6%	2,862	13.0%
Other States	647	1.9%	51	1.3%	185	0.8%
All Other	45	0.1%	0	0.0%	0	0.0%
Total	34,501	100.0%	3,986	100.0%	21,942	100.0%

Source: 2015 EPSi

Population Change in Christ Medical Center's Service Area

As shown on Table 2, the current population of the combined primary and secondary service area of Christ Medical Center is 1.6 million people. While the > 18 through 64 age cohorts are expected to be relatively stable between 2016 and 2022 (the second full year after Project completion), the 65+ cohort is expected to have a 16.9 percent increase. This strong growth is very important because of the high cancer incidence rate of cancer in the senior population. The national cancer incidence rate for the 65+ age cohort is nearly 10 times the rate of those under the age of 65, [(2,028.7 vs. 220.2 per 100,000 or 16.96 percent (SEER Cancer Statistics Review 1975-2013)]. ACMC's aging service area population increase will place substantial pressure on the current cancer-related services including radiation oncology, requiring significant investment to modernize Christ Medical Center's facility and equipment to meet future need and provide quality outcomes.

Table 2
Projected Change in ACMC's Primary and Secondary Service Area Population, 2016-2022

	Primary Service Area				
Age Cohort	< 18	18-44	45-64	65+	Total
2016	228,574	344,983	241,792	132,566	947,915
2022	223,506	341,513	235,402	155,133	955,554
Percent Change	-2.2%	-1.0%	-2.6%	17.0%	0.8%

	Secondary Service Area				
Age Cohort	< 18	18-44	45-64	65+	Total
2016	158,601	221,373	163,033	85,270	628,277
2022	148,900	221,065	156,405	99,617	625,987
Percent Change	-6.1%	-0.1%	-4.1%	16.8%	-0.4%

	Total Service Area				
Age Cohort	< 18	18-44	45-64	65+	Total
2016	387,175	566,356	404,825	217,836	1,576,192
2022	372,407	562,578	391,807	254,749	1,581,541
Percent Change	-3.8%	-0.7%	-3.2%	16.9%	0.3%

Source: Market Expert (Truven)

Other Key Demographic Characteristics of the Service Area Population

Health and health care disparities persist across the United States, leading to certain groups being of higher risk for being uninsured, having more limited access to care, experiencing poorer quality of care, and ultimately experiencing worse health outcomes. Although many initiatives have been undertaken to reduce these disparities, they still exist. In its planning initiatives, Advocate Christ Medical Center monitors several factors related to health disparities and uses this information in planning service priorities. For example, Advocate is in the process of implementing initiatives to improve early cancer detection through screening that should increase the number of cases identified in stage 1 or stage 2 which will vastly improve cancer care and outcomes for patients. The proposed modernized Radiation Oncology Department at Christ Medical Center will be able to not only treat complex cases, but also have the ability to identify and treat patients earlier in their diagnosis. The challenges Christ Medical Center faces are unique in many ways as it serves a broad patient base from different socio-economic backgrounds that often require additional resources to identify, treat, and manage patients compared to more affluent regions. The expanded and remodeled Radiation Oncology Department will be critical to meet the needs of the community as well as provide the efficiency required on behalf of ACMC to proactively develop the necessary initiatives to increase outreach to the surrounding communities who may not have the economic resources to do so on their own.

Racial Composition

Table 3 is an overview of the racial composition of Christ Medical Center's service area. As shown in this table, nearly 60 percent of the service area population is African American or Hispanic compared to 31 percent in Illinois. According to the Illinois State Cancer Registry, the African/American population reports cancer incidence rates nearly 10 percent higher than the white population and hence requiring more cancer diagnostic and treatment services.

Table 3
2016 Round Composition of ACMC Service Area Population

Radiation Oncology/ CyberKnife

Ethnicity Distribution	Number in Primary Service Area	Number in Secondary Service Area	Number in Total Service Area	Number in Illinois	Number in MSA Area	ACMC Patient Distribution - PSA	ACMC Patient Distribution - SSA	ACMC Patient Distribution - Outside
White	407,132	175,522	582,654	7,961,113	3,984,779	1,087	68	52
Black	216,009	331,461	547,470	1,803,883	1,285,210	413	130	354
Hispanic	274,830	104,341	379,171	2,199,546	1,629,557	104	19	36
Asian & Pacific Island, Non-Hispanic	19,247	7,565	26,812	674,521	535,613	26	4	0
All Others	11,130	9,388	20,518	246,766	138,567	18	4	6
Total	928,348	628,277	1,556,625	12,885,829	7,573,726	1,648	225	448

Source: Market Expert (Truven)

2016 Percentage Comparison of Racial Composition of ACMC Service Area Population

Radiation Oncology/ CyberKnife

Ethnicity Distribution	Percent in Primary Service Area	Percent Secondary Service Area	Percent Total Service Area	Percent Illinois	Percent MSA Area	ACMC Ethnicity Distribution - PSA	ACMC Ethnicity Distribution - SSA	ACMC Ethnicity Distribution - Outside
White	44%	28%	37%	62%	53%	66%	30%	12%
Black	23%	53%	35%	14%	17%	25%	58%	79%
Hispanic	30%	17%	24%	17%	22%	6%	8%	8%
Asian & Pacific Island, Non-Hispanic	2%	1%	2%	5%	7%	2%	2%	0%
All Others	1%	1%	1%	2%	2%	1%	2%	1%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: Market Expert (Truven)

Household Income

Household income in ACMC's service area is compared to Illinois and the MSA area in Table 4. The portion of low income households, those typically with the most challenging access to healthcare, is higher than the Chicago MSA and the State of Illinois. Because the service area population is economically challenged, there is a higher rate of late stage cancer cases as patients delay seeking early intervention due to financial hardships. Delayed cancer treatments require more intensive and complex care that translates into higher treatment requirements to meet service area needs.

Table 4

Comparison of 2016 Household Income of ACMC's
Primary and Secondary Service Areas with Illinois and Chicago Metropolitan Area

2016 Household Income	Number in Primary Service Area	Number in Secondary Service Area	Number in Total Service Area	Number in Illinois	Number in MSA Area
Less than $15K	34,852	43,731	78,583	568,520	311,687
$15-$25K	34,052	27,430	61,482	470,075	249,734
$25-$50K	76,103	50,862	126,965	1,079,710	583,413
$50-$75K	57,702	35,452	93,154	854,650	473,576
$75-$100K	41,373	22,875	64,248	615,671	351,802
Over $100K	75,443	42,555	117,998	1,304,954	828,656
Total	319,525	222,905	542,430	4,893,580	2,798,868

Source: Market Expert (Truven)

Comparison of 2016 Household Income of ACMC's
Primary and Secondary Service Areas with Illinois and Chicago Metropolitan Area

2016 Household Income	Percent in Primary Service Area	Percent Secondary Service Area	Percent Total Service Area	Percent Illinois	Percent MSA Area
Less than $15K	10.9%	19.6%	14.5%	11.6%	11.1%
$15-$25K	10.7%	12.3%	11.3%	9.6%	8.9%
$25-$50K	23.8%	22.8%	23.4%	22.1%	20.8%
$50-$75K	18.1%	15.9%	17.2%	17.5%	16.9%
$75-$100K	12.9%	10.3%	11.8%	12.6%	12.6%
Over $100K	23.6%	19.1%	21.8%	26.7%	29.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Market Expert (Truven)

Unemployment

Table 5 compares unemployment in Christ Medical Center's service area with the State and the Chicago MSA. The 9.6 percent unemployment rate in ACMC's service area is higher than either the State (6.5 percent) or the MSA (6.9 percent), another indication that a substantial portion of the service area experiences challenging access to healthcare.

Table 5

Comparison of 2016 Unemployment of ACMC
Primary and Secondary Service Areas with Illinois and Chicago Metropolitan Area

2016 Unemployment	Number in Primary Service Area	Number in Secondary Service Area	Number in Total Service Area	Number in Illinois	Number in MSA Area
Unemployed	62,808	52,110	114,918	666,693	409,908
Total Population 16 +	729,639	489,525	1,219,164	10,268,034	5,932,055

Source: Market Expert (Truven)

Comparison of 2016 Unemployment Percentage of ACMC
Primary and Secondary Service Areas with Illinois and Chicago Metropolitan Area

2016 Unemployment	Percent in Primary Service Area	Percent Secondary Service Area	Percent Total Service Area	Percent Illinois	Percent MSA Area
Percent of Unemployed	8.6%	10.6%	9.4%	6.5%	6.9%

Source: Market Expert (Truven)

Education

The education status of the population of ACMC's service area is similar in most age cohorts to Illinois and the MSA (See Table 6). Several factors related to improved health status are related to education. For example, the higher his education level, the more likely a person is to know and take advantage of mammography and colonoscopy examinations for early diagnosis of breast and colon cancer. To improve the health status of the population it serves, Advocate Health Care is among the largest providers of community care, outreach and education in the State of Illinois. Screenings and classes such as Colon Cancer Prevention and Innovation, Meeting the Cancer Challenge, Melanoma Monday – Screenings and many more are provided at convenient locations. See Table 6.

Table 6

Comparison of 2016 Adult Education of ACMC's
Primary and Secondary Service Areas with Illinois and Chicago Metropolitan Area

2016 Adult Education Level	Primary Service Area 25+ Age Cohort	Secondary Service Area 25+ Age Cohort	Total Service Area 25+ Age Cohort	Illinois 25+ Age Cohort	MSA Area 25+ Age Cohort
Less than High School	52,194	26,331	78,525	479,924	324,646
Some High School	52,567	39,377	91,944	584,266	334,741
High School Degree	194,656	119,702	314,358	2,343,561	1,239,499
Some College/ Assoc. Degree	179,696	133,083	312,779	2,484,850	1,367,360
Bachelor's Degree or Greater	133,842	86,683	220,525	2,758,655	1,809,500
Total	612,955	405,176	1,018,131	8,651,256	5,075,746

Source: Market Expert (Truven)

Comparison of 2016 Adult Education of ACMC's
Primary and Secondary Service Areas with Illinois and Chicago Metropolitan Area

2016 Adult Education Level	Percent Primary Service Area 25+ Age Cohort	Percent Secondary Service Area 25+ Age Cohort	Percent Total Service Area 25+ Age Cohort	Percent Illinois 25+ Age Cohort	Percent MSA Area 25+ Age Cohort
Less than High School	8.5%	6.5%	7.7%	5.5%	6.4%
Some High School	8.6%	9.7%	9.0%	6.8%	6.6%
High School Degree	31.8%	29.5%	30.9%	27.1%	24.4%
Some College/ Assoc. Degree	29.3%	32.8%	30.7%	28.7%	26.9%
Bachelor's Degree or Greater	21.8%	21.4%	21.7%	31.9%	35.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Market Expert (Truven)

In summary, the composition of ACMC's total service area identifies a population that is characterized by the health and health care disparities. The proposed renovation and expansion of the Radiation Oncology Department is essential in order to improve access and quality of care to this population.

3. *Identify the existing problems or issues that need to be addressed, as applicable for the project. [See 1110.230(b) for examples of documentation.*

Existing Facility Problems

The Radiation Oncology Department at ACMC was developed in the 1972 addition to the original hospital building. As technology advanced and volume increased, the space was incrementally enlarged. As a result of this piecemeal approach to expansion, ACMC's Radiation Oncology Department has many problems that must be addressed. These include:

- The department is severely undersized. The current department is located in 12,642 sq. ft. compared to the 24,446 sq. ft. in the proposed department. Because of the piecemeal development and the current space deficit, the patient flow and functional efficiency of the department are poor.
- Spaces within the department are so undersized that it is difficult to preserve patient privacy and dignity.
- The waiting area is always overcrowded with outpatients and those who accompany them.
- There is limited inpatient waiting area; inpatients are brought to the department on gurneys and must often wait in hallways until they are moved for treatment.
- Family support space is inadequate. Family support is extremely important to cancer patients.
- Outpatients must change from street clothes to gowns. Separation of men and women for gowning and gowned waiting is unsatisfactory.
- The number of consultation and exam rooms is inadequate to support the number of patients being seen.
- Office, conference space, and support space for physicians and staff is inadequate.
- There is too little storage space, and
- Internal corridors are difficult to maneuver.

Existing Equipment Problems

As part of the proposed Project, ACMC is proposing to replace the three existing external beam treatment units – two general linear accelerators and the stereotactic radiosurgery system (the CyberKnife™). These units are approaching the end of their useful life.

The department's CT simulator and HDR brachytherapy unit will not be replaced as part of this Project.

Standard Linear Accelerators

The two standard linear accelerators were purchased in 2008 and 2009, respectively. Based on American Hospital Association guidelines, these accelerators have a useful life of 7 years. In general, linear accelerators are changed out at about the 7-year mark because they cannot be updated to have the advanced clinical features that enhance clinical outcomes that newer models offer.

The most challenging limitations of the existing linacs are:

- ACMC's current standard linacs have no upgrade path to remain contemporary. In other words, they are not capable of being further upgraded to provide the newest clinical and safety features.
- They have less accuracy, clinical applications, and capabilities when compared to currently available models.
- They do not have the same quality control features that newer models have.
- Their treatment times are slower than newer units both in calculating treatment plans and treating; hence, output is suboptimal.
- Unlike newer models, they do not have future failure warnings to minimize downtime.

SRS/SRT Device

The dedicated SRS/SRT device was purchased in 2006 and has exceeded its useful life.

The notable deficiencies of the SRS/SRT device are:

- Because of its age, replacement parts for the CyberKnife™ are difficult, if not impossible to obtain.

- The device is slower than newer models when treating patients. A treatment that could take 1 to 2 hours can last 2 to 3 hours; unnecessarily long treatment times are very difficult for patients.

These facility and equipment deficiencies detract from the care of cancer patients in the Radiation Oncology Department at ACMC. They will be resolved with the proposed new leading-edge technology, new construction and modernization.

4. *Cite the sources of information provided as documentation.*

- Advocate Health and Hospitals Corporation and Advocate Christ Medical Center clinical, administrative, and financial information
- National and State of Illinois demographic reports
- Technical Assistance from State Staff
- IDPH's *Hospital Profiles*
- HFSRB Rules
- HFSRB State Standards
- *Cancer Facts and Figures, 2016*
- National Cancer Institute, SEER Cancer Statistics Review, Table 2.7
- Other studies performed by internal and external planners, architects, and engineers
- Health care literature related to the development of the utilization guidelines for linear accelerators and future demand for cancer services
- Health care literature related to radiation oncology history and applications
- Illinois Department of Public Health Licensing Code and Illinois and Oak Lawn building, mechanical, electrical and accessibility codes

5. *Detail how the project will address or improve the previously referenced issues, as well as the population's health status and well-being.*

The proposed modernization and equipment replacement for the Radiation Oncology Department at Advocate Christ Medical Center will address the above referenced issues in the following ways:

Modernized Facility Improvements

The proposed Project will be redeveloped in two phases. The first phase will include the demolition of the area housing the existing SRS/SRT unit (CyberKnife™). A new expanded construction area will be developed in the demolished area. It will have a canopied entrance for incoming outpatients. The first phase area will also have a comfortable reception and waiting area, one vault initially for the replacement SRS/SRT device, patient dressing/waiting spaces and consultation rooms. The second phase will include the modernization of the remainder of the existing space as well as adjacent corridor space vacated when the Outpatient Pavilion was completed. Overall, the completed space will have 24,446 DGSF. The new and modernized space has been designed as a single department so that the entire area will be functionally efficient.

- Because of less crowding, the new space will better allow patient privacy and dignity to be respected.
- There will be a canopied drop off/pick up area for outpatient cancer patients. There is a nearby parking garage with a covered walkway that is in close proximity to the Radiation Oncology Department. The canopied area and the free garage parking with a covered walkway will improve access for outpatients. The pathways from the inpatient cancer unit and other outpatient cancer services on the eighth floor of the new Outpatient Pavilion have been shortened, further easing access for inpatients and outpatients.
- In the modernized facility, the reception/waiting area will be large enough to accommodate current and expected future outpatient volume and will have adequately sized monitored waiting spaces for inpatients.
- Phase I will include the new SRS/SRT device and Phase II will include two replacement state-of-the-art linacs. At the end of Phase II, the SRS component will be relocated from the south vault to the north vault.
- There will be private dressing rooms and waiting areas adjacent to the SRS/SRT unit as well as to the linacs. There will be separation of male and female patients and space for family.

- There will be exam and consultation rooms in close proximity to the SRS/SRT completed in Phase I and to the linear accelerators in Phase II.
- Adequate office, conference space, and support space for physicians and staff has been programmed.

Replacement Equipment Improvements

Advocate Christ Medical Center is proposing to replace the two aging linear accelerators with two state-of the-art units (Truebeam Standard Machines) and to replace the CyberKnife™ with a leading-edge dedicated linear accelerator specially equipped for SRS/SRT (Truebeam Premium with HD MLC and Intracranial Package).

- The replacement equipment will have upgrade paths so they can accommodate more advanced clinical and safety features as they are introduced.
- Because they are new models, replacement parts will available. Further, they will have future warning capabilities so downtime will be minimized. Downtime often results in rescheduled treatments or missed treatments that compromise patient care will become less an issue.

By developing more appropriately sized, accessible and operationally functional facilities, and replacing aging external beam equipment, Advocate Christ Medical Center is proposing a Project that will address current deficiencies and thereby contribute to the population's health and well-being by improving cancer care and outcomes.

6. *Provide goals with quantified and measurable objectives, with specific timeframes that relate to achieving the stated goals as appropriate.*

Over-Riding Goal – To Be at the Forefront in the Fight against Cancer

The over-riding goal of the proposed Radiation Oncology Department project at Advocate Christ Medical Center is to be at the forefront in the fight against cancer.

Several subsidiary objectives support this greater goal.

Objective 1 – To Continue To Be a Valued Contributing Member of the Advocate Cancer Service Line

ACMC's first objective is to continue to be a valued contributing member of the Advocate Cancer Service Line, the System function that sets strategic direction and provides centralized functions such as quality, cost, and other data for all Advocate hospitals. The Service Line is responsible for more than 10,000 newly diagnosed cancer patients (at varying sites) each year. Advocate Health Care helps more cancer patients become survivors than any other system in Illinois.

Advocate Christ Medical Center's Cancer Institute is an integral part of the Advocate Cancer Service Line. Currently, 2,300 newly diagnosed cancer patients annually rely on ACMC's Cancer Institute for the treatment of cancer. These volumes have made ACMC one of the most experienced cancer treatment centers in Illinois; this experience is shared with other Advocate hospitals through the Advocate Cancer Service Line. In addition, Christ Medical Center offers several currently unique programs, services and care delivery models that also are shared with other Advocate hospitals. These include, for example, numerous procedures, therapies and treatment protocols for challenging cancers that have been pioneered by Christ Medical Center.

In addition, Christ Medical Center provides very specialized SRS/SRT treatments; these include a cancer genetics program for individuals with an increased risk of cancer; and, a Cardiac-Oncology Service, one of only few in the country, that features a multidisciplinary approach to care for persons at risk for cardiovascular disease due to the toxic effects of therapies received during cancer treatment. By sharing these and other cancer-care initiatives, Advocate Christ Medical Center plays a key role in advancing cancer care not only in its own market but also to the vast regional market served by all Advocate hospitals.

The innovative facility design features of the modernized Radiation Oncology Department and the applications and benefits of the latest technology to be provided will serve as other opportunities to share operational and clinical advances through the Advocate Cancer Service Line to the extended System market. This sharing is currently underway and will be substantially expanded as soon as the new operational and clinical advances are in place in December 2020.

Objective 2 – To Become a Preferred Destination for Cancer Patients

The second objective is to become a preferred destination for patients with common, complex and advanced cancers who need a strong team of multidisciplinary cancer experts, personalized compassionate and specialized care, latest technology, and leading edge research.

The radiation oncology team at ACMC includes physicians with many oncology specialties and subspecialties, medical physicists, dosimetrists, radiation therapists, pathologists, oncology certified nurses, patient navigators, nutritionists and genetic counselors. This highly trained, professional staff is in place and working to fight and heal each patient's cancer.

To achieve this goal, patients and the radiation oncology team must have an adequately sized and operationally functional space and contemporary technology with which to provide care. The expanded and modernized Radiation Oncology Department and the new general linac and SRS/SRT equipment will contribute to the most clinically appropriate facility and technology. This goal will be achieved in December 2020 when the redeveloped department is fully operational.

Objective 3 – Superior Outcomes

The third objective is to provide superior outcomes for patients who undergo SRS, SRT, or standard linear accelerator treatment as measured by quality care indicators such as better survival rates, fewer complications and faster recovery.

ACMC currently develops and refines protocols to increase treatments and ultimately survival rates. The Radiation Oncology Department participates in an outcome monitoring data base. The ability to advance this objective will be enhanced when the modernized department and new radiation surgery/therapy device and the linacs are operational in December 2020.

Objective 4 – To Continue to Recruit and Retain an Exceptional Team of Cancer Radiation Oncology Treatment Professionals.

The fourth objective is to continue to recruit and retain an exceptional team of radiation oncology treatment professionals. This will include increasing the number of credentialed physicians with cancer specialties and subspecialties and to maintain a full complement of specially trained medical physicists, dosimetrists, radiation therapists, oncology credentialed nurses, patient navigators and other attendant staff to meet the clinical and related needs of the

increasing number of cancer patients choosing Advocate Christ Medical Center's Cancer Institute for their care.

The modern, functional facilities and the advanced radiation oncology technology that are part of the proposed Project will complement Christ Medical Center's recruitment efforts. Advanced technology, operationally functional facilities, and adequate conference space will also enhance in-service education initiatives that will continually enhance the skills of the radiation oncology team. These objectives will be enhanced as soon as the Project is complete in December 2020. In the future, the Department may provide a venue for nursing and graduate medical education.

Objective 5 – To Facilitate Clinical Research

The final objective is to facilitate clinical research performed at Christ Medical Center. Clinical trials provide patients access to the very latest in cancer care while giving physicians and researchers the opportunity to study the effectiveness of new treatments and to allow patients access to treatments before they are widely available.

ACMC's Cancer Institute already participates in research studies sponsored by the National Cancer Institute through groups such as the Radiation Oncology Group, the Eastern Cooperative Oncology Group, the Gynecological Oncology Group, The National Adjuvant Breast and Bowel Project and the American College of Surgeons Oncology Group. In addition, the Cancer Institute participates in several other national and international cancer studies sponsored by the pharmaceutical industry.

The availability of additional space to support the research effort and the leading-edge technology will enhance the Cancer Institute's ability to participate in additional research projects that will benefit patients everywhere. This goal will be achieved in December 2020 when the redeveloped department is fully operational.

ALTERNATIVES

1) Identify **ALL** of the alternatives to the proposed project:

Alternative options **must** include:

A) Proposing a project of greater or lesser scope and cost;

B) Pursuing a joint venture or similar arrangement with one or more providers or entities to meet all or a portion of the project's intended purposes; developing alternative settings to meet all or a portion of the project's intended purposes;

C) Utilizing other health care resources that are available to serve all or a portion of the population proposed to be served by the project; and

D) Provide the reasons why the chosen alternative was selected.

2) Documentation shall consist of a comparison of the project to alternative options. The comparison shall address issues of total costs, patient access, quality and financial benefits in both the short term (within one to three years after project completion) and long term. This may vary by project or situation. **FOR EVERY ALTERNATIVE IDENTIFIED THE TOTAL PROJECT COST AND THE REASONS WHY THE ALTERNATIVE WAS REJECTED MUST BE PROVIDED.**

3) The applicant shall provide empirical evidence, including quantified outcome data that verifies improved quality of care, as available.

APPEND DOCUMENTATION AS ATTACHMENT-13, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Advocate Christ Medical Center (ACMC, Christ Medical Center) is proposing to update in the existing Radiation Oncology Department. The Project includes increasing and modernizing the square footage of the department and replacing the two existing linear accelerators and the stereotactic radiosurgery/radiotherapy device (commonly referred to as the SRS/SRT device).

Christ Medical Center completed a campus-wide master planning initiative in early 2011. The two key components of that master plan have been completed or are under construction. The Outpatient Pavilion (Permit #11-019) was completed in December 2014 and a new patient tower (Permit #12-066) is partially open with completion targeted for July 2019. The Trauma Center/Emergency Department modernization (Permit # 14-057), part of a Backfill Master Plan, is also under construction.

The proposed redevelopment of the Radiation Oncology Development is the second phase of the Backfill Master Plan. The department will be redeveloped in new space, existing departmental space, as well as corridor space vacated when the Outpatient Pavilion opened. The space is at the ground level near the lobby / reception area of the Outpatient Pavilion so that cancer outpatients undergoing radiation therapy will be able to easily access other Cancer Institute services in the Outpatient Pavilion. In this location, a virtual Cancer Center is possible.

An ACMC campus map is included as Attachment 12, Exhibit 1. This map identifies the location of the Radiation Oncology Department, the Outpatient Pavilion (housing other Cancer Institute services) as well as other key structures on the ACMC site. It also shows the limited amount of space on ACMC's campus for new construction that would have necessary adjacencies for radiation oncology patients to the Outpatient Pavilion.

A) Proposing a Project of Greater or Lesser Scope

Alternative A1 – Redevelop the Radiation Oncology Department in the Parking Lot across the Street from Its Current Location (Project of Greater Scope)

In considering redevelopment options for the Radiation Oncology Department, the planners considered a potential expansion across South Kilbourn Avenue; the site is owned by Christ Medical Center and currently used as surface parking. A new structure would eliminate the inconvenience of phasing a project in a functioning department as well as resolve other limitations of the existing space.

This alternative was rejected because it was impractical.

- Replacing the Radiation Oncology Department on property across the street from the main hospital would distance it from key support staff and services such as infusion therapy, laboratory, pharmacy, laundry and moveable equipment and would require substantial downtime for the movement of staff and services/supplies from one location to the other.
- Redeveloping the Department on the parking lot would require building another bridge across South Kilbourn Avenue. An existing bridge connects the Outpatient Pavilion to the parking structure; it is not designed for patient transport. The second bridge would be designed to transport inpatients to and from radiation therapy and for radiation therapy patients to access needed services in the Cancer Institute in the Outpatient Pavilion.
- Redeveloping on the parking lot would be more costly because four vaults (for two linear accelerators, one SRS/SRT device, and one HDR/brachytherapy unit) would need to be built compared to the alternative of choice that requires that only one vault be replaced.
- The existing vaults with their thick concrete walls would most likely be left in place because of the high cost of demolishing them thereby limiting the future functionality of the space.

- Parking spaces eliminated for the construction of a remote Radiation Oncology Department would need to be replaced, most likely by constructing a parking structure that would increase the cost of the Project.
- There is a storm retention area under the parking lot that would have to be relocated before any construction could be done on the site. The relocation of the retention pond would further increase the cost of the Project.
- Constructing a building on the parking lot most likely would be opposed by the residents whose homes would be located next to the proposed new construction. The needed Project could be delayed.

The total cost of Alternative A1 is estimated to be $51.2 million. This does not include the cost of removing the radiation vaults in the existing location which is estimated to be $1.8 million.

Alternative A2 – Redevelop the Radiation Oncology Department in Its Current Location and Reduce the Number of Therapy Equipment Units from Four to Three (Project of Lesser Scope)

The Radiation Oncology Department currently has four treatment units – two linear accelerators, one stereotactic radiosurgery device (SRS/SRT), and a HDR/brachytherapy unit. Alternative A2 proposes replacing the linacs but not the SRS/SRT. The brachytherapy machine would remain "as is." For more detail regarding these technologies, see Attachment 34, Clinical Service Areas.

The existing stereotactic radiosurgery device at ACMC is a Cyber Knife™ and is used for very high dosage treatments of small cancer tumors, primarily of the brain and spine. It is a dedicated unit and is not interchangeable with the linacs. The cost of the Project could be reduced by deleting the SRS from the department and thereby reducing the cost of new construction and technology.

However, this lower cost option was rejected for the following reasons:

- It is essential that SRS/SRT capability be available at a cancer referral center such as ACMC. The volume of candidates for SRS/SRT and the new applications for this technology support the need for this advanced technology at Christ Medical Center.
- If the SRS/SRT were not replaced at ACMC, a SRS/SRT would not be available in Health Planning Area A-04 and would result in the maldistribution of this essential technology to the residents of the HPA and beyond.
- Elimination of the SRS/SRT would reduce the clinical effectiveness of the department.

This alternative would eliminate the cost of constructing one new vault (approximately 5,000 square feet) and purchasing of a new SRS/SRT. The expected cost of Alternative A2 is $21.1 million.

Alternative A3A – Expand and Modernize the Radiation Oncology Department in Place and Replace the Existing Linear Accelerators and the SRS/SRT Unit

The current Radiation Oncology Department has many shortcomings.

- The current department has been expanding since the 1970s. Due to structural limitations, the department was extended in multiple directions resulting in poor work flow issues. Patients often have to cross over to multiple areas to complete their procedures. This results in outpatients, pediatric patients, and inpatients sharing space and crossing paths during their stay in the department. The current department also has clinical areas that are located very close to office areas creating interference for treatment and office functions.
- It is very difficult for inpatients to access the department and the area lacks an appropriately sized holding area; patients are often required to wait in the hallways.
- It is very difficult to comply with HIPAA (patient privacy) standards. There are an inadequate numbers of exam rooms, changing areas, and gowned waiting areas. Separation of male and female patients is not satisfactory.
- The number of support spaces is inadequate. For example, the number of conference rooms is insufficient and they are poorly located. One of the conference rooms is the only access to a physician's office so conferences are interrupted by the physician or others who must access the office.

Even so, the current location of the Radiation Oncology Department has many important advantages.

- The Radiation Oncology Department is at ground level and easy to access by cancer outpatients (the majority of the patients) and their caregivers.
- The department can be redeveloped with a drop-off area near the entrance and a closed passage to the Outpatient Pavilion which houses the Cancer Institute with other outpatient services that are frequently used by radiation oncology patients.
- The department is also accessible to inpatients.
- There are three vaults that can be reused in the proposed remodeled project; only one replacement vault will need to be constructed. This is a significant cost savings.
- There is space immediately adjacent to the existing department that was vacated when the Outpatient Pavilion opened that can be reused to improve departmental circulation.

Considering the important attributes of the current location, Christ Medical Center began to investigate options for redeveloping the department in place. The facility planners determined that there was space to expand the department to the south by demolishing the inefficiently designed "front" of the department (including the CyberKnife vault) and developing 12,300 square feet of new construction. This would be Phase I of the Radiation Oncology Department expansion and modernization Project. The new space would house "front" functions of the department including registration, waiting, gowning and gowned waiting, exam rooms, inpatient holding and a new vault for state-of-the-art radiation oncology equipment.

Phase II of the redevelopment of the department would include modernizing the rest of the existing departmental space including the CT simulator, the HDR brachytherapy unit, the two general linear accelerator vaults and other necessary support spaces such as physics and dosimetry offices, conference rooms, other offices and a staff lounge. The completed department would have almost twice as much space as the existing severely undersized department with adequate waiting areas for inpatients and outpatients, dedicated male and female gowning and gowned waiting, the needed increase in exam rooms and other necessary support space. The space would also have a substantially improved internal corridor system.

Because this alternative provided additional needed space for the department, resolved the many issues related to patient privacy, improved patient flow and department efficiency as well as good access for inpatient and outpatients, this plan initially became the "alternative of choice", but was ultimately rejected in favor of Alternative A3B.

The cost of Alternative A3A is estimated to be $45.9 million.

Alternative A3B – Expand and Modernize the Radiation Oncology Department in Place and Relocate and Replace Linear Accelerators and Stereotactic Radiosurgery/Stereotactic Body Radiotherapy Device (SRS/SRT) to Optimize Patient Access to the Technology and Improve Departmental Operational Efficiency.

While Alternative A3A met most of the expansion and modernization goals of the Radiation Oncology Department, it lacked the ability to provide the desired patient experience and operational efficiency that had been envisioned.

As the functional planning for the department proceeded, it became apparent that the locations of the general linear accelerators and the SRS/SRT device were less than optimal. For example, although one of the linacs was ideally located in the west vault for outpatients (the vast majority of the

radiation oncology patients) near the outpatient registration and waiting as well as gowning, gowned waiting, and exam rooms, the other was located in the north vault near the non-clinical functions of the department. Concurrently the SRS/SRT vault was located in the south vault. Because of the substantially longer time for SRS/SRT treatments, this vault would have fewer patient visits than the linac vaults and would have a higher proportion of inpatients; however, it was located immediately adjacent to the access point and support spaces that were designed to serve the outpatients. In addition, it was furthest from the access and holding areas for inpatients. It had become evident that the two linacs should be in the "front" of the department and that the SRS/SRT device should be in the "back" of the department. See Attachment 13, Exhibit 2.

The facility planning team then relooked at the design of the department with emphasis on patient flow and operational efficiency and the phasing of the Project to minimize the downtime of the SRS/SRT device and the linacs. In the meantime, the Advocate physicists and the manufacturer's representatives reviewed the requirements for the SRS/SRT to determine if the existing north vault could safely accommodate this equipment rather than a linac. The solution gradually emerged. The SRS/SRT would initially be installed in the south unit so that it could be available for patient care as soon as possible, and the linacs would be phased into the north and west units as modernization of these areas was complete. Then the SRS/SRT components of the SRS/SRT device would be relocated from the south to the north vault. This would result in a standard linear accelerator in the south vault.

At the conclusion of the Project, the two linear accelerators would be co-located near the "front" of the department close to outpatient access, registration and waiting, gowning, gowned waiting, and exam areas. The SRS/SRT device would be located in the north vault in the "back" of the department close to inpatient access and holding but also accessible to outpatients. Limited gowning and gowned waiting would also be provided in this area to accommodate outpatients requiring SRS/SRT technology. This alternative solution resolved the important shortcomings in Alternative A3A. The cost of Alternative A3B is expected to be $47 million. Although this estimated cost is approximately 1.2 percent higher than Alternative A3A, this modest additional cost is more than justified by the earlier availability of state-of-the-art SRS/SRT technology and the improved departmental efficiency.

B) Pursue a Joint Venture

Advocate Christ Medical Center rejected joint venturing for the following reason.

The proposed Radiation Therapy Department will be operated as part of the premises licensed under The Illinois Hospital Licensing Act. Consequently a joint venture would necessarily involve a joint venture of the entire hospital; this is not a feasible option.

C) Utilize Other Health Care Resources

Advocate Christ Medical Center is a major referral center for cancer and cancer-related services, such as radiation oncology and stereotactic radiosurgery and stereotactic radiotherapy.

Because of Christ Medical Center's advanced cancer services and reputation for high quality and compassionate care, physicians refer complex cancer cases to ACMC. Christ Medical Center seldom refers cancer patients to other facilities.

Christ Medical Center rejected using tertiary/quaternary hospitals in Chicago and beyond as well as local community hospitals for the following reasons:

- Christ Medical Center rejected using tertiary/quaternary hospitals in Chicago and beyond because of the long travel times for patients who live in the south and southwest suburbs, Christ Medical Center's service area; travel is most often very difficult for cancer patients. More importantly, referral to these centers would disrupt continuity of care and introduce risk of poorly handled transitions.
- Christ Medical Center rejected using nearby community hospitals because they have neither the breadth of technology to care for Christ Medical Center's high acuity cancer patients nor the necessary clinical expertise. Further, referring patients to community hospitals separates them from their primary care physicians, family and community support network.
- Christ Medical Center supports health care educational programs. If current and future patients were referred to other facilities, the educational programs at Christ Medical Center would be compromised.
- ACMC supports cancer research. Christ Medical Center's patients would not have access to these clinical trials if they were referred to other facilities.

Alternative	Total Project Cost	Rationale
Alternative A1 – Redevelop the Radiation Oncology Department in the Parking Lot across the Street from Its Current Location (Project of Greater Scope)	$51.2 million which excludes the cost of removing the radiation therapy vaults estimated to cost $1.8 million.	Alternative A1 was rejected for the following reasons: • Relocation to the parking lot across the street from the current department would distance patients from key support staff and services and require substantial downtime for transport. • Relocation would require a second bridge designed for transport of inpatients that require radiation oncology services and outpatients needing other services in the Outpatient Pavilion such as infusion therapy. • All four radiation vaults would need to be replaced in the new location compared to only one vault in the alternative of choice. • The remaining vaults would most likely be left in place and limit the functionality of the space. • New construction on the parking lot would reduce surface parking capacity and most likely require building another parking structure. • The storm retention area under the parking lot would need to be relocated. • Area residents whose homes abut the parking lot would oppose and potentially delay the Project.

Alternative	Total Project Cost	Rationale
Alternative A2 – Redevelop the Radiation Therapy Department in Its Current Location and Reduce the Number of Treatment Units from Four to Three (Project of Lesser Scope) Note: This alternative would eliminate the SRS/SRT capability and retain two standard linear accelerators and the HDR brachytherapy unit.	$21.8 million	Alternative A2 was rejected for the following reasons: • It is essential that stereotactic radiosurgery and stereotactic radiation therapy be available in a cancer referral center such as ACMC. New, high cure rate applications are being introduced for the SRS/SRT device. These are life saving for the residents of Christ Medical Center's service area. • If the SRS/SRT were not replaced at ACMC, SRS would not be available in Health Planning Area A-04 and beyond; this would represent a maldistribution of this essential technology to the residents of the HPA.

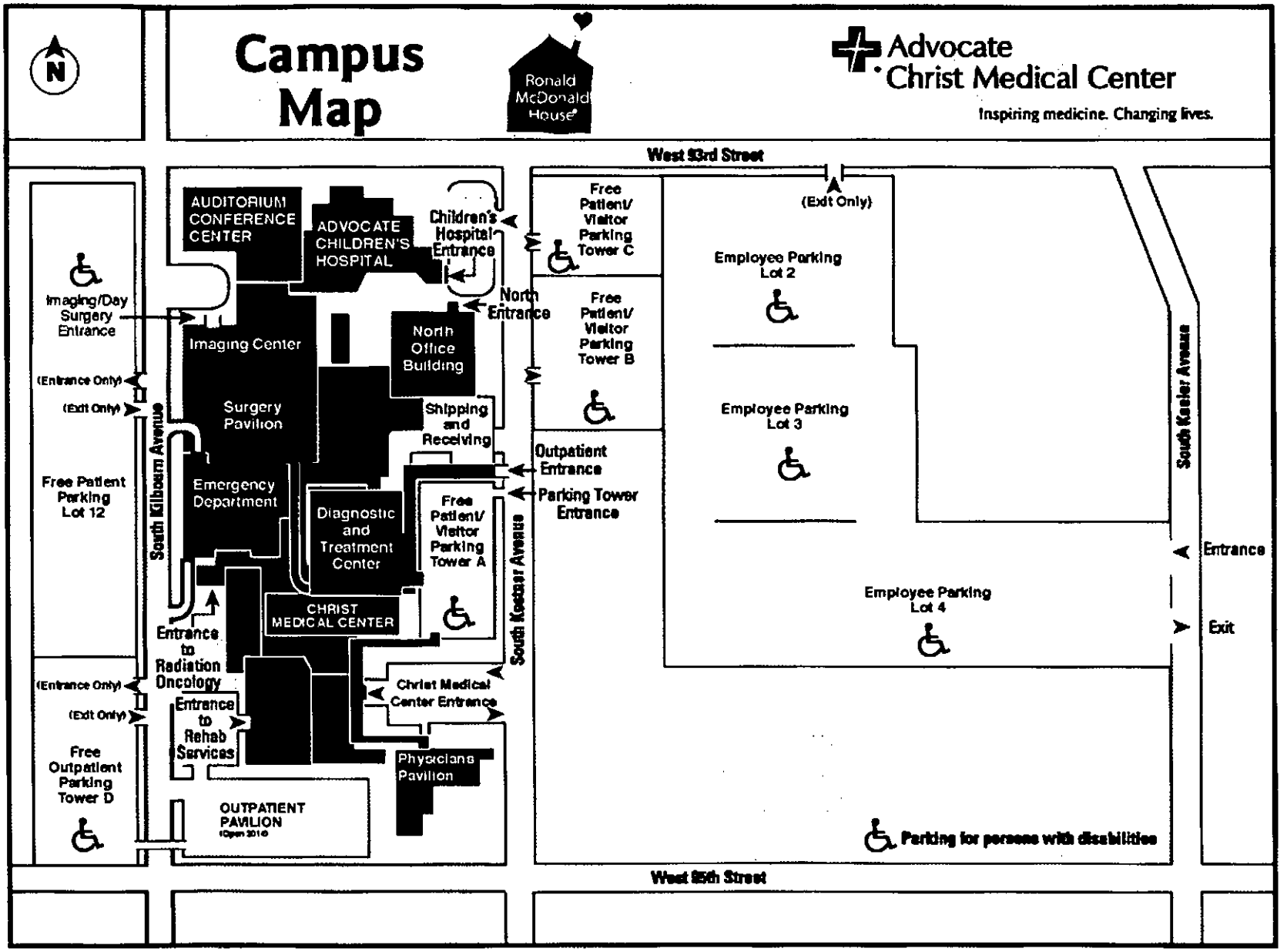
Alternative	Total Project Cost	Rationale
Alternative A3A – Replace the Existing Linear Accelerators and the SRS/SRT and Expand and Modernized the Radiation Oncology Department in Place (Initial Project of Choice)	$45.9 million	Alternative A3A was initially selected as the alternative of choice for the following reasons: • This location at ground level provides easy access for outpatients (the majority of patients). • This location is also accessible by inpatients. • The location is easily accessible to the Cancer Institute in the Outpatient Pavilion which houses other services frequently required by radiation oncology patients. • This location allows the reuse of three of the four vaults which is a substantial cost savings. • This option involves not only new construction but an equal amount of modernization thereby reducing the cost of the Project. • Space immediately adjacent to this location was vacated when the Outpatient Pavilion was opened that can now be used to enhance circulation in the Radiation Oncology Department. However, it was ultimately rejected because it delayed the availability of SRS/SRT technology and detracted from optimal operational efficiency.

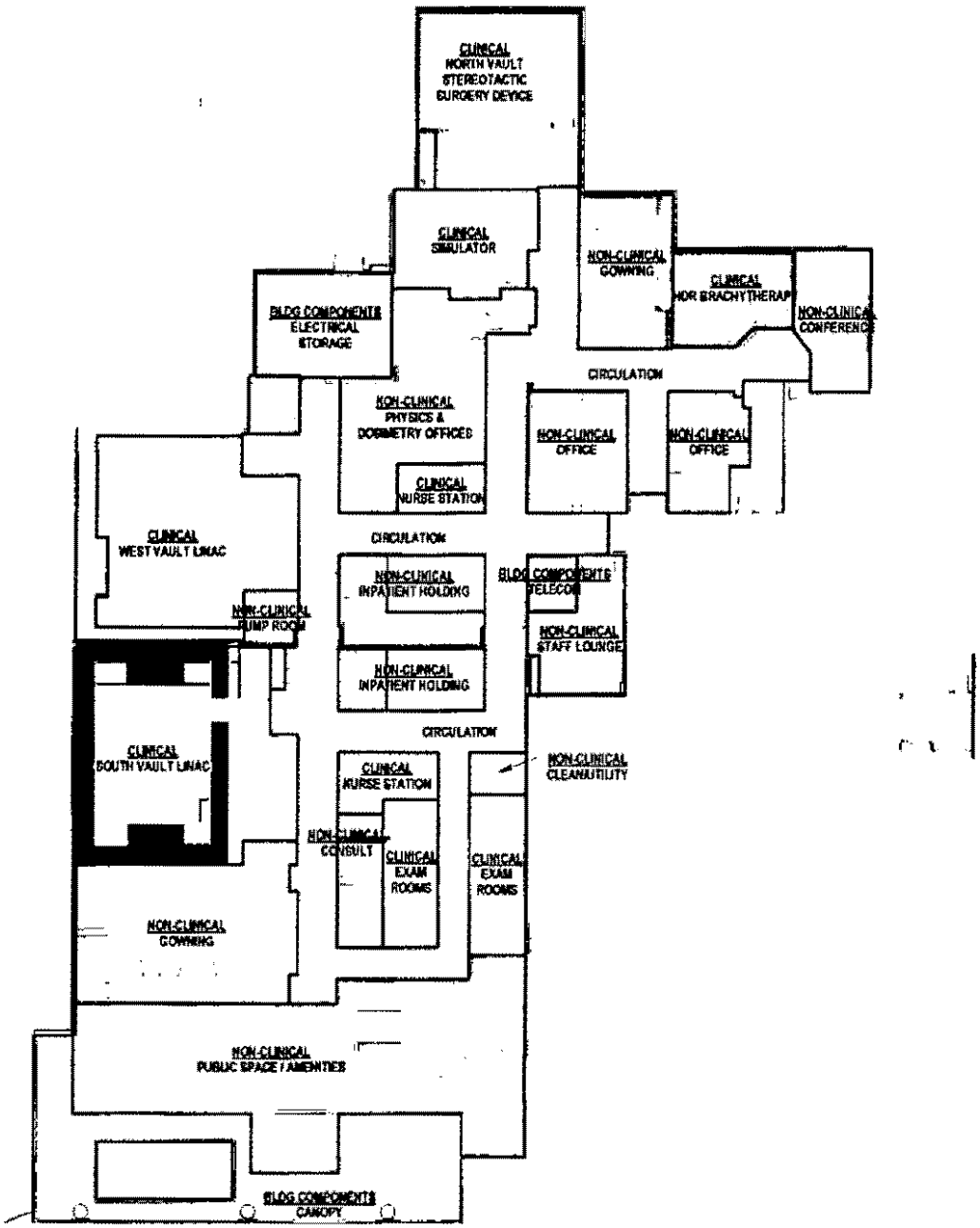
Alternative	Total Project Cost	Rationale
Alternative A3B – Expand and Modernize the Radiation Oncology Department in Place and Relocate and Replace Linear Accelerators and Stereotactic Radiosurgery/Stereotactic Body Radiotherapy Device (SRS/SRT) to Optimize Patient Access to the Technology and Improve Operational Efficiency.	$47 million	Alternative A3B is a modification of A3A. The substance of the modification is the ultimate locations of the accelerators and SRS/SRT. In Alterative A3B, the two linear accelerators will be located in the south and west vaults in the front of the Radiation Oncology Department while the SRS/SRT will be located in the north vault in the back of the department. Alternative A3B was ultimately selected as the alternative of choice for the following reasons: • Alternative A3B has all of the benefits of Alternative A3A plus the following: o The new SRS/SRT capability would become available at the completion of Phase I. o SRS/SRT technology is the most advanced non-invasive treatment available and new applications for the technology substantially improve the success rates for cancer treatment. It is important that the regional cancer patients that are treated at Advocate Christ Medical Center have the advantage of this technology. o At Project completion, the linear accelerators will be co-located in the front of the department and will be more convenient for the high volume of linac outpatients. The SRS/SRT will be located at the back of the department with improved access for inpatients.

Summary of Alternatives (Continued)

Alternative	Total Project Cost	Rationale
Alternative A3B – Expand and Modernize the Radiation Oncology Department in Place and Relocate and Replace Linear Accelerators and Stereotactic Radiosurgery/Stereotactic Body Radiotherapy Device (SRS/SRT) to Optimize Patient Experience and Departmental Operational Efficiency (Continued)		○ The proposed relocation of the SRS/SRT from the south vault to the north vault will substantially enhance the efficiency of the department. The efficiency is achieved by having the majority of the clinical support services closer to the linear accelerator vaults in which the majority of the patients will be treated because of shorter treatment times. The relocation of the SRS/SRT components from the south vault to the north vault provides better access for inpatients and outpatients who will receive the longer SRS/SRT treatments. ○ Overall, the relocation will enhance patient experience because of improved access for both inpatients and outpatients and more logical location of clinical and non clinical support service.
Alternative B – Pursue a Joint Venture	Since this alternative is not feasible, no cost was developed.	Alternative B was rejected because a joint venture would necessarily involve a joint venture of the entire hospital; this alternative is not feasible.

Alternative	Total Project Cost	Rationale
Alternative C – Utilize Other Health Care Resources	Since this alternative is not feasible, no cost was developed.	Alternative C was rejected for the following reasons: • There are no other cancer referral centers within HPA-A-04 and convenient for residents of ACMC's planning area that have SRS/SRT capability. • Local community hospitals do not have experienced staff or technology to provide radiation oncology treatments to the very acute cancer patients that are treated at ACMC. • Referring cancer patients to other facilities would compromise the educational programs at ACMC. • Referring cancer patients to other facilities would reduce patient access to ACMC's research protocols. • Referring radiation oncology patients to other tertiary/quaternary centers would increase their travel time to treatments. • Referring radiation oncology patients to other facilities has the potential to disrupt continuity of care.


Campus Map
Ronald McDonald House
Advocate Christ Medical Center
Inspiring medicine. Changing lives.
West 93rd Street
AUDITORIUM CONFERENCE CENTER
ADVOCATE CHILDREN'S HOSPITAL
Children's Hospital Entrance
North Entrance
Free Patient/ Visitor Parking Tower C
(Exit Only)
Employee Parking Lot 2
Imaging/Day Surgery Entrance
Imaging Center
North Office Building
Free Patient/ Visitor Parking Tower B
(Entrance Only)
(Exit Only)
Surgery Pavilion
Shipping and Receiving
Employee Parking Lot 3
Outpatient Entrance
Parking Tower Entrance
Free Patient Parking Lot 12
South Kilbourn Avenue
Emergency Department
Diagnostic and Treatment Center
Free Patient/ Visitor Parking Tower A
South Kostner Avenue
South Keeler Avenue
Entrance
Exit
CHRIST MEDICAL CENTER
Employee Parking Lot 4
Entrance to Radiation Oncology
Christ Medical Center Entrance
(Entrance Only)
(Exit Only)
Entrance to Rehab Services
Physicians Pavilion
Free Outpatient Parking Tower D
OUTPATIENT PAVILION
Parking for persons with disabilities
West 95th Street



- ☐ BUILDING COMPONENTS
- ☐ CIRCULATION
- ☐ CLINICAL
- ☐ NON-CLINICAL
- ☐ PUBLIC SPACE/AMENITIES

PROPOSED AREA TOTALS

BUILDING COMPONENTS	4,905 SF
CIRCULATION	4,049 SF
CLINICAL	6,546 SF
NON-CLINICAL	6,310 SF
PUBLIC SPACE/AMENITIES	2,636 SF
TOTAL	24,446 SF

HDR

Project Title
Advocate Christ Medical Center
ACMC RAD ONC EXPANSION AND RENOVATION
Sheet Title
PROPOSED DEPARTMENT AREAS
Date
09/15/16

3) The applicant shall provide empirical evidence, including quantified outcome data that verifies improved quality of care is available.

National Recognition for Exceptional Quality of Care

Advocate Christ Medical Center (ACMC, Christ Medical Center) is nationally recognized for exceptional quality of care. Among recent acknowledgments are the following.

- *U.S. News and World Report, 2016-2017* – Advocate Christ Medical Center was named fourth overall among hospitals in the State of Illinois.
- *Becker's Hospital Review, 2016, lists Christ Medical Center as one of the 100 Greatest Hospitals in America with Great Oncology Programs, Women's Health Programs and Heart Programs*
- Accreditation by the American College of Surgeons as an Approved Cancer Teaching Hospital
- Truven Health Analytics named ACMC to their list of 100 Top Hospitals; Christ Medical Center is one of only 15 major teaching hospitals in the country named to the 2015 list.
- Christ Medical Center achieved an "A" rating in the national Fall 2015 Hospital Safety Score
- The American Heart Association and American Stroke Association awarded ACMC with the "Get with the Guidelines" Stroke Gold Plus Quality Achievement Award. ACMC was also awarded achievement awards for AFIB Participating, Heart Failure, and Mission Lifeline® STEMI Receiving award.
- Accredited by DNV GL Healthcare USA, Inc. U.S. Department of Health and Human Services for Medicaid and Medicare Services
- American College of Surgeons recognized ACMC as an ACS NSQIP Meritorious Performing Hospital
- Accredited by the NAPBC – National Accreditation Program for Breast Centers certification
- Recognized as a Breast Center of Excellence by the American College or Radiology
- Silver Beacon Award for Excellence by the American Association of Critical Care Nurses in 2016

- Accredited by DNV GL as a stroke Center
- Accredited by the American Association of Cardiovascular and Pulmonary Rehabilitation
- Re-designated by the American Nurses Credentialing Center as a Magnet Medical Center
- The Post Anesthesia Care Unit Team and the Congestive Heart Failure Team were awarded by ADVANCE for Nurses as a 2015 Best Nursing Team.
- Named to *Becker's Hospital Review's* as among "50 of the Greenest Hospitals in America"
- Top 25 Environmental Excellence Award by Practice Greenhealth
- Recognized for the 14th time as one of America's "Most Wired" Hospital
- Recognized among *Diversity MBA magazine's 50 Out Front: Best Places for Women and Diverse Managers to Work*

Advocate's Commitment to Quality Health Care

Advocate Heath Care and all Advocate providers are committed to providing quality health care to their patients. The following are two examples of quality improvement – one at the System and the other at Advocate Christ Medical Center (ACMC, Christ Medical Center).

Esophageal Surgery Outcomes – Advocate Christ Medical Center

Advocate Christ Medical Center is a high volume center for esophageal cancer surgery. The excellent outcomes and survival for esophageal cancer surgery start with a multidisciplinary approach to care – the ACMC team that provides patients with the optimal treatment plan for their malignancy and a proven process to ensure quality care.

In 2014, a plan was put in place to improve esophageal cancer treatment outcomes. The plan involved highly trained nursing staff in the Medical Center's Surgical Vascular and Thoracic Unit as well as the 5 West Surgical Step Down Unit.

State-of-the-art technology such as the da Vinci robot system and other minimally invasive techniques were used to achieve better outcomes and quicker recovery from esophagostomy. Aggressive physical therapy with progressive ambulation was implemented. Specialized nursing care with specific training in the care of post-esophageal surgical patients was initiated.

All patients were evaluated preoperatively by a multidisciplinary cancer team of physicians including Oncology, Radiation Oncology, Gastroenterology and Thoracic Surgery specialists. Patients underwent endoscopic ultrasound for accurate staging. Endoscopic ultrasound was performed by fellowship trained gastroenterologists using state-of-the-art equipment. Routine endoscopic ultrasound led to an increased utilization of neoadjuvant chemotherapy and radiation.

The discussion below documents the outcomes of patients undergoing esophagectomy at ACMC during the period from 2012 to 2014 during which a total of 91 patients were diagnosed with esophageal or gastroesophageal junction carcinoma. Of these, 33 patients underwent esophagectomy. Of these, 28 were for esophageal or gastroesophageal junction malignancy. The 30-day operative mortality for these patients was zero percent. All patients were discharged alive from Christ Medical Center. Preoperative induction chemotherapy and radiation therapy were performed in 13 of the 28 patients, or 46 percent. An additional patient underwent induction chemotherapy alone.

The short-term survival results were excellent. The 6-month survival of this group was 89 percent. The 1-year survival rate was 83 percent. The operative mortality of zero percent compares favorably with national data base benchmarks of 3 percent to 12 percent 30-day mortality.

These quantified data verify one example of improved quality of care.

Physics Centralization – Advocate Health Care

Physics services are essential for the safe planning and delivery of care to patients receiving radiation therapy. Before 2015, physics services were delivered through various models across Advocate Health Care including shared staffing between Advocate Christ Medical Center and High Tech; a central cost center model was used by three other hospitals, and another had its own physics staff. Two others had services provided through contracted services. The then-existing situation presented many challenges including recruiting and retaining staff, developing a consistent skill set among the current staff, utilizing physics staffing effectively, standardizing quality and productivity metrics, and reducing variation in clinical practice.

A representative group of program directors, department managers, frontline leaders, and physicists met to determine whether opportunities existed to address the above issues in a way that would improve efficiency, as well as promote standardization and promote quality. A unanimous decision was made to move forward with a centralized model for physics. This model would provide leadership at the System and site levels in order to develop and standardize physics practices, mentor physics and dosimetry staff, and flex staffing to address individual site's patient volumes and procedures.

The rational for physics centralization was two-fold.

- Short Term

  The existing system for delivering physics and dosimetry services was fragmented and inefficient. Centralization would promote shared staffing, equipment and technology among the Advocate sites, which would improve standardization and decrease costs. Quality metrics for physics and dosimetry services at all Advocate radiation oncology sites could be established, and comparing data and sharing best practices would elevate the quality and safety of patient care.

- Long Term

  Physics staff are instrumental in evaluating new technology and planning for equipment replacement and purchases. Using a centralized approach would ensure that capital funds were used efficiently and redundant or unnecessary purchases were avoided.

  Another reason for centralizing physics services was human capital. Physicists and dosimetrists are in short supply and filling vacancies with qualified individuals can take substantial time. Centralizing physics would provide a flexible workforce to reduce the impact of vacancies. Having leadership roles that are accountable for mentoring and developing physicists and dosimetrists would improve the quality of care delivered and improve retention of current staff. Providing a dynamic workplace with opportunities for physicists and dosimetrists to learn and advance professionally would enhance recruitment and retention of staff.

  Finally, innovative practices are always occurring within Advocate and clinical research related to radiation oncology is already underway in some areas. A centralized physics program would expand clinical research across all Advocate sites, encourage the development and validation of cutting edge practices, enhance the reputation of Advocate in the clinical oncology community, and contribute to associate satisfaction.

The benefits achieved with the centralization of physics have been multifold:

- Clinical Benefits

  The new model provides manager and director oversight for all physics services within all Advocate radiation oncology departments. This provides knowledgeable leadership to each clinical area that enhances patient safety. Staff receives training and competency evaluation in all aspects of radiation oncology physics. Standardization and performance metrics ensure that consistent practices are followed and areas for improvement are addressed.

- Operational Benefits

  Every clinical site experiences fluctuations in patient volumes, and the physics staffing can now be flexed to ensure that physicists and dosimetrists are available to meet departmental needs. Procedures requiring shared equipment can be scheduled in advance to reduce the quantity of capital equipment required throughout Advocate and ensure that patient treatments occur in a timely manner.

The return on investment in this project is a well-trained, collaborative workforce that is able to flex to patient volume fluctuations and market demands across Advocate. In a highly specialized department such as the one at ACMC, there is greater flexibility to offer sophisticated treatments plans and bring a more focused approach to quality oversight and program development. The ability to maximize efficiency and manage costs with a streamlined, centralized organizational plan for physics and dosimetry ensures a safe, high quality program that addresses not only current but anticipated future program requirements.

SECTION IV - PROJECT SCOPE, UTILIZATION, AND UNFINISHED/SHELL SPACE

Criterion 1110.234 - Project Scope, Utilization, and Unfinished/Shell Space

READ THE REVIEW CRITERION and provide the following information:

SIZE OF PROJECT:

1. Document that the amount of physical space proposed for the proposed project is necessary and not excessive. **This must be a narrative.**

2. If the gross square footage exceeds the BGSF/DGSF standards in Appendix B, justify the discrepancy by documenting one of the following::

    a. Additional space is needed due to the scope of services provided, justified by clinical or operational needs, as supported by published data or studies;

    b. The existing facility's physical configuration has constraints or impediments and requires an architectural design that results in a size exceeding the standards of Appendix B;

    c. The project involves the conversion of existing space that results in excess square footage.

Provide a narrative for any discrepancies from the State Standard. A table must be provided in the following format with Attachment 14.

SIZE OF PROJECT				
DEPARTMENT/SERVICE	**PROPOSED BGSF/DGSF**	**STATE STANDARD**	**DIFFERENCE**	**MET STANDARD?**

APPEND DOCUMENTATION AS ATTACHMENT-14, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SIZE OF PROJECT:

1. *Document that the amount of physical space proposed for the proposed project is necessary and not excessive.* ***This must be a narrative.***

Advocate Christ Medical Center's proposed Project is in compliance with each relevant square footage State Standard.

2. *If the gross square footage exceeds the BGSF or the DGSF standards in Appendix B, justify the discrepancy by documenting one of the following:*

    a. *Additional space is needed due to the scope of services provided, justified by clinical or operational needs, as supported by published data or studies.*

    b. *The existing facility's physical configuration has constraints or impediments and requires an architectural design that results in a size that exceeding the standards in Appendix B.*

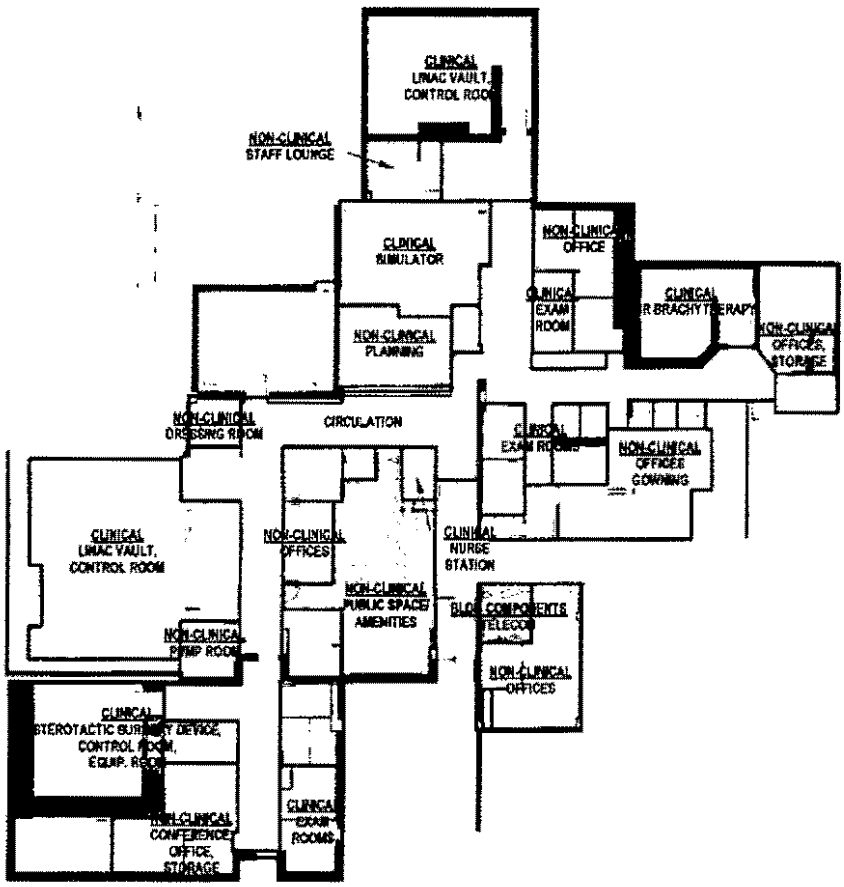
    c. *The project involves the conversion of existing space that results in excess square footage.*

Provide a narrative for any discrepancies from the State Standard. A table must be provided in the following format with Attachment 14.

Department/Area	Project				
	Key Rooms	DGSF	DGSF/Key Room	State Agency Standard per Key Room	Met Standard?
CT Simulator	1	601	601	1,800	YES
Standard Linear Accelerators	2	2,535	1,268	2,400	YES
Stereotactic Radiosurgery System	1	1,859	1,859	NA	NA
HDR Brachytherapy	1	432	432	NA	NA
Nurse Stations	2	403	202	NA	NA
Exam Rooms	6	716	120	NA	NA

There are no discrepancies between the square footage proposed in this project and any relevant State Standard.

Existing and proposed drawings of the Advocate Christ Medical Center' Radiation Oncology Department are enclosed at Attachment 14, Exhibits 1 and 2.



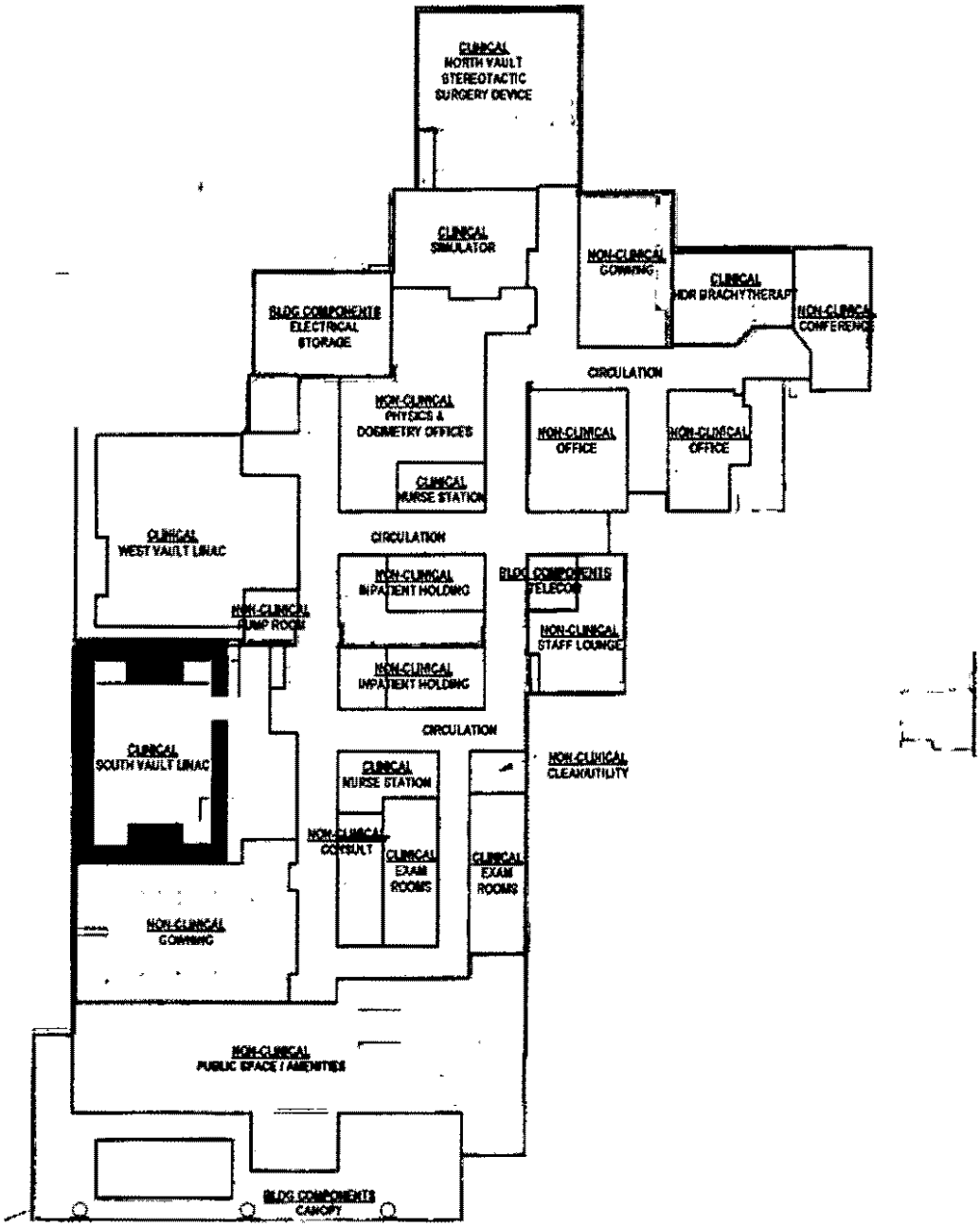
- ☒ BUILDING COMPONENTS
- ☐ CIRCULATION
- ☐ CLINICAL
- ☐ NON-CLINICAL
- ☒ PUBLIC SPACE/AMENITIES

EXISTING AREA TOTALS

BUILDING COMPONENTS	133 SF
CIRCULATION	2314 SF
CLINICAL	5258 SF
NON-CLINICAL	4159 SF
PUBLIC SPACE/AMENITIES	779 SF
TOTAL	12642 SF

HDR

Project Title
Advocate Christ Medical Center
ACMC RAD ONC EXPANSION AND RENOVATION
Sheet Title
EXISTING DEPARTMENT AREAS
Date
09/15/16



- ☐ BUILDING COMPONENTS
- ☐ CIRCULATION
- ☐ CLINICAL
- ☐ NON-CLINICAL
- ☐ PUBLIC SPACE/AMENITIES

PROPOSED AREA TOTALS

BUILDING COMPONENTS	4,905 SF
CIRCULATION	4,049 SF
CLINICAL	6,546 SF
NON-CLINICAL	6,310 SF
PUBLIC SPACE/AMENITIES	2,636 SF
TOTAL	24,446 SF

HDR

Project Title
Advocate Christ Medical Center
ACMC RAD ONC EXPANSION AND RENOVATION
Sheet Title
PROPOSED DEPARTMENT AREAS
Date
09/15/16

PROJECT SERVICES UTILIZATION:

This criterion is applicable only to projects or portions of projects that involve services, functions or equipment for which HFSRB has established utilization standards or occupancy targets in 77 Ill. Adm. Code 1100.

Document that in the second year of operation, the annual utilization of the service or equipment shall meet or exceed the utilization standards specified in 1110.Appendix B. **A narrative of the rationale that supports the projections must be provided.**

A table must be provided in the following format with Attachment 15.

UTILIZATION					
	DEPT./ SERVICE	HISTORICAL UTILIZATION (PATIENT DAYS) (TREATMENTS) ETC.	PROJECTED UTILIZATION	STATE STANDARD	MET STANDARD?
YEAR 1					
YEAR 2					

APPEND DOCUMENTATION AS ATTACHMENT-15, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

PROJECTED SERVICES UTILIZATION							
Service	Historical Utilization	Historical Utilization	Historical Utilization [2]	Projected Utilization	State Guidelines	Number Requested	Met Standard?
	2014	2015	2016	2022			
CT Simulator	542	568		682	NA	1	NA
HDR Brachytherapy	273	159	160	190	NA	1	NA
Linear Accelerator Treatments	10,567	9,944	11,280	11,336	7,500 treatments per year	2	Yes
Treatment Equivalents[1] (Ratio of equivalents to treatments)	15,543 (1.5)	15,349 (1.5)	16,920 (1.5)	17,004 (1.5)	11,250 (1.5)	2	Yes
Stereotactic Radiosurgery/Therapy Treatments	223	238	284	309	NA	1	NA
Treatment Equivalents[1]		1,832 (7.70)	2,187 (7.70)	2,382 (7.70)	NA	1	NA

Source: ACMC records

[1] Attachment 34 includes a history of the development of the State Guideline for linear accelerators since it was first introduced in 1977, or almost 40 years ago. That guideline was based on an average treatment time of 12 to 15 minutes. While some treatments still fit into this 15 minute window, others do not and may last 60 minutes or longer. Hence, treatment time is now reported as 15 minute equivalents (much as physical therapy); a 15 minute treatment is 1 equivalent, a 30 minute treatment is 2 equivalents and so on. Consequently treatment equivalents exceed treatments. Treatment equivalents are more consistent with the intent of the State Guideline than treatments (which substantially understate the utilization of a radiation surgery/therapy unit).

[2] 2016 utilization is based on six months annualized.

The 2014 and 2015 utilization of the general linear accelerators met the State Standard. Other services that are part of the Project have no State Standard

The projection of utilization of the HDR brachytherapy and the two linear accelerators is based on overall cancer growth rates predicted in the literature of at least 20 percent over the next 10 years (approximately 2 percent per year), or 14 percent from 2015 to 2022, or 2 years after project completion. Projected utilization of the stereotactic radiosurgery/therapy unit is based on a higher rate, or 30 percent because of the growth potential for this technology. This rate translates into approximately 3 percent per year or 21 percent from 2015 to project completion in 2022.

The two standard linacs and the stereotactic radiosurgery/therapy unit have exceeded their useful life and can no longer be updated with the newest technological advances. Even so, volumes continue to increase. In 2016, the linacs operated at over 100 percent and the stereotactic radiosurgery/stereotactic radiation therapy unit (SRS/SRT) operated at over 90 percent. With the proposed state-of-the-art equipment and the ability to provide more advanced services, the projections of 2 percent annual growth for the linear accelerators and 3 percent annual growth for the SRS/SRT device are very conservative.

Resources

Weir, H.K., and others (2015, June 1). The past, present and future cancer incidence in the United States: 1975 through 2020. *Cancer*. 121 (11), 1827-1837.

Rahib, L., and others. (2014, May 19). Projecting cancer incidence and deaths in 2030. The unexpected burden of thyroid, liver and pancreas cancers in the United States. *Cancer Research.* 2913-2931

Timmerman, R.D., Herman, J. and Cho, L.C. (2014, Sept. 10) Emergence of Stereotactic body radiation therapy and its impact on current and future clinical practice. *Journal of Clinical Oncology. 32(26).* 2847-2854. mn

Smith, B.F. and others. (2010, Dec. 10) The future of radiation oncology in the United States from 2010 to 2020. Will supply keep pace with demand? *Journal of Clinical Oncology.* 28(35), 5160-5165.

UNFINISHED OR SHELL SPACE:

Provide the following information:

1. Total gross square footage of the proposed shell space;

2. The anticipated use of the shell space, specifying the proposed GSF tot be allocated to each department, area or function;

3. Evidence that the shell space is being constructed due to
   a. Requirements of governmental or certification agencies; or
   b. Experienced increases in the historical occupancy or utilization of those areas proposed to occupy the shell space.

4. Provide:
   a. Historical utilization for the area for the latest five-year period for which data are available; and
   b. Based upon the average annual percentage increase for that period, projections of future utilization of the area through the anticipated date when the shell space will be placed into operation.

APPEND DOCUMENTATION AS ATTACHMENT-16, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

NA There is no unfinished or shell space in this project.

O. Criterion 1110.3030 - Clinical Service Areas Other than Categories of Service

1. Applicants proposing to establish, expand and/or modernize Clinical Service Areas Other than Categories of Service must submit the following information:
2. Indicate changes by Service: Indicate # of key room changes by action(s):

Service	# Existing Key Rooms	# Proposed Key Rooms
CT Simulator	1	1
Standard Linear Accelerators	2	2
Stereotactic Radiosurgery/Stereotactic Radiation Therapy Device	1	1

3. READ the applicable review criteria outlined below and **submit the required documentation for the criteria:**

PROJECT TYPE	REQUIRED REVIEW CRITERIA	
New Services or Facility or Equipment	(b) –	Need Determination – Establishment
Service Modernization	(c)(1) –	Deteriorated Facilities
		and/or
	(c)(2) –	Necessary Expansion
		PLUS
	(c)(3)(A) –	Utilization – Major Medical Equipment
		Or
	(c)(3)(B) –	Utilization – Service or Facility
APPEND DOCUMENTATION AS ATTACHMENT-34, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.		

Criterion 1110.3030 - Clinical Service Areas Other than Categories of Service

c) Service Modernization

The applicant shall document that the proposed project meets one of the following:

1) Deteriorated Equipment or Facilities

The proposed project will result in the replacement of equipment or facilities that have been deteriorated and need replacement. Documentation shall consist of but is not limited to: historical utilization data, downtime or time spent out of service due to operational failures, upkeep and annual maintenance costs, and licensure or fire safety deficiency citations involving the proposed project.

2) Necessary Expansion

The proposed project is necessary to provide expansion for diagnostic treatment, ancillary training or other support services to meet the requirements of patient service demand. Documentation shall consist of, but is not limited to: historical utilization data, evidence of changes in industry standards, changes in the scope of services offered, and licensure or fire code deficiency citations involving the proposed project.

ACMC will respond to both c) Service Modernization, 1) Deteriorated Equipment or Facilities and 2) Necessary Expansion.

Introduction

Radiation Oncology

Radiation oncology is the branch of medicine that deals with the treatment of cancer using radiation therapy. Cancer is a group of related diseases, all involving out of control growth and spread of abnormal cells. Cancer is the second leading cause of death both nationally and in Illinois.

Radiation Therapy

Radiation therapy has been used as a method of treating cancer in the U.S. since 1896. Marie Curie's discovery of radium as a source of radiation began a new era of cancer therapy; it was used in various forms until the mid-1900s when cobalt was introduced. Beginning in the early 1970s, cobalt units were replaced by standard linear accelerators (linacs) that could deliver an average energy of 25 MVs, while cobalt produced an average energy of only 1.25 MVs. Stereotactic radiosurgery systems were introduced in the early 2000s and could target cancer tumors more precisely and with more concentrated dosage than standard linacs.

Radiation therapy can be used:

- Alone to kill cancer cells and shrink tumors by damaging their genetic material, making it impossible for them to continue to grow and divide
- Before surgery to shrink a tumor and make it easier to remove with surgery
- During surgery to kill cancer cells that may remain in surrounding tissue after surgery
- After surgery to kill cancer cells remaining in the body, and
- To shrink inoperable tumors in order to reduce pain and improve quality of life (palliative care).

The science and art of radiation therapy is one that has continued to change and diversify over the years with ever-improving technology and outcomes. Today more than 50 percent of cancer patients receive radiation therapy, either alone or in combination with chemotherapy or surgery.

Radiation is delivered to cancer sites in several ways – for example, HDR brachytherapy, standard linacs, and stereotactic radiosurgery/stereotactic radiation therapy (SRS/SRT) devices.

HDR Brachytherapy

HDR (high dose rate) brachytherapy involves placing highly radioactive pellets inside the patient's body either in or near the tumor itself giving a high radiation dose to the tumor while reducing the radiation exposure to nearby healthy tissue and potentially reducing complications. This procedure typically takes only a few minutes. Recovery time is usually short and patients are able to carry on with daily activities after treatment.

Only a few (1 to 5) treatments are typically needed; the treatments can take place over a period of a few hours, days or weeks. HDR brachytherapy is used to treat prostate, cervical and head and neck cancers.

Standard Linear Accelerators

For decades, standard linear accelerators have been the "work horses" of radiation therapy departments to treat cancer through a process called external beam radiation therapy. Over the years, the technology has been updated providing improved accuracy and increased treatment speed.

Linacs use powerful generators to create high energy x-ray or photon beams. They have a set of shutters called collimators which focus and direct the beams to converge on the tumor to be treated. The beams match the size and shape of the patient's tumor. The design of a standard linac allows it to rotate up and down as well as from side-to-side to deliver radiation from almost any angle.

With standard linacs, radiation is delivered in relatively small doses (fractions) over the course of several weeks, with patients receiving five treatments per week. Average treatment time is 15 minutes, although there are exceptions. Depending on the stage of the cancer, location in the body, and age of the patient, almost all cancers throughout the body can be treated with a linear accelerator. It can be used as a therapeutic treatment (to attempt to cure the disease), as a prophylactic treatment (to prevent cancer cells from growing in an area receiving radiation) and as a palliative treatment. Palliative treatments account for approximately 40 percent of total linac volume.

Stereotactic Radiosurgery (SRS) Stereotactic Radiation Therapy (SRT)

SRS and SRT are the newest radiation therapy treatment modalities. They are performed on linear accelerators that are specially equipped so they are not interchangeable with standard linacs. They are often referred to by their manufacturers' brand names such as CyberKnife™ or Gamma Knife.

Stereotactic Radiosurgery (SRS) is one of the most advanced non-invasive cancer treatments available. Despite its name, SRS does not use a knife – there is no incision, no blood and no pain. Instead the stereotactic surgery system very precisely delivers a high dose of radiation to the target with minimal, if any, impact to the surrounding healthy tissue. SRS is a single session procedure used to treat brain tumors and central nervous system disorders that cannot be treated by conventional surgery. Treatment time is usually from 30 to 90 minutes.

SRS is used for patients with small well-defined tumors, patients who have previously received standard radiation therapy, and pediatric patients. Recent advances in this technology have allowed physicians to reach tumors deep inside the body that are difficult to reach without the risks of surgery, such as infections.

Stereotactic Radiation Therapy (SRT)

SRT is an approach similar to SRS. It is typically used to treat small, early stage tumors. It takes radiation therapy to the next level.

With SRT, the dose of radiation is divided into several smaller doses (fractions) given over several days rather than a single dose (as with SRS). Treatments do not have to be administered on consecutive days, but the entire course of therapy is usually concluded in 10 days. The list of tumors that have been successfully treated with SRT includes lung, pancreatic, bile duct, liver kidney, prostate, pelvic, as well as sarcomas and metastatic tumors throughout the body.

Cure rates previously not achievable by standard linac therapy are achieved with SRT. Whereas 2-year success rates for conventional linac therapy range from 30 to 40 percent, the success rates for SRT range from 80 to 90 percent.

SRT is not suitable for all cancer patients because of the high dose nature of the treatment. For example, patients with tumors located centrally or close to airways or the heart have been considered poor candidates for SRT due to higher complication rates. Patients with large tumors or areas of treatment are usually referred to standard linac therapy rather than to SRT as are patients with previous cobalt or linear accelerator treatments because of sensitive tissues adjacent to the new lesion/tumor.

Historically SRT devices did not provide redundancy to the standard linacs.

c) Service Modernization

The applicant shall document that the proposed project meets one of the following:

1) Deteriorated Equipment or Facilities

The proposed project will result in the replacement of equipment or facilities that have been deteriorated and need replacement. Documentation shall consist of but is not limited to: historical utilization data, downtime or time spent out of service due to operational failures, upkeep and annual maintenance costs, and licensure or fire safety deficiency citations involving the proposed project.

CT Simulator

ACMC currently uses a CT scanner for simulation. CT images are taken of each patient following his initial visit with the radiation oncologists. The images are reconstructed and used to design the most precise treatment plan for the patient; the plan ensures that the treatment will target the area of concern while missing surrounding critical structures. The CT imaging unit will not be replaced or relocated as part of this project. Some modernization of he CT simulation space is planned.

Recent utilization of the CT simulator is as follows:

Year	Exams
2014	542
2015	568
2016 (6 months)	338
2016 annualized	716

There are also CT scanners mounted on the linacs and SRS devices. Once treatment begins, the linacs use their CT scanner capability in real-time to match the image of the target area with the original CT image to ensure the beam is accurately directed at the target. .

HDR Brachytherapy

ACMC provides HDR brachytherapy; this cancer treatment unit will not be replaced or relocated as part of this Project. HDR brachytherapy is located in the vacated cobalt therapy vault. Not only is the vault too small to accommodate a linear accelerator, it does not have adequate shielding. The vault has 22 cm concrete walls while its replacement 20 MV linear accelerator requires 46 cm of concrete.

Recent HDR brachytherapy utilization is as follows:

Year	Treatments
2014	273
2015	159
2016 (6 month)	80
2016 annualized	160

Brachytherapy growth estimates are based on new volume from recently recruited gynecological oncologists and the implementation of new procedures such as prostate and gastrointestinal treatments in the future.

Standard Linear Accelerators

ACMC currently has two aging standard linear accelerators. The current Project proposes replacing both of these units.

One linac is a Varian IX unit that was purchased in September, 2008 and the other is the same model that was purchased in July, 2009. According to America Hospital Association guidelines, linacs have a useful life of 7 years. Christ Medical Center's Clinical Engineering Department has deemed that the two units can be supported for at least 2 more years. ACMC's linacs have been in service more than 7 years and will have been in service more than 11 years when the Project is complete. Hence, they have will have already reached the end of their useful lives by Project completion.

Maintenance spending for the two units in 2014 and 2015 averaged $178,000 per year or $89,000 per unit. During 2015, 108 service calls were required for one vault and 179 for the other or more than double the number reported the previous year. Frequently repairs are needed. With the units operating at more than 100 per cent utilization, any downtime detracts from patient care. In recent years, one or the other of the linacs at Christ Medical Center has been out of service for two to three days at a time. This results in missed treatments that compromise clinical outcomes.

Far more important than maintenance costs or service calls and downtime is clinical capability. In general, linac units are changed out at about the 7-year mark because they no longer have the newer, more advanced clinical features that enhance clinical outcomes. ACMC's two linear accelerators have the following limitations:

- These linear accelerators have no upgrade path. In other words, they are not capable of being further upgraded to accommodate the new clinical features.
- They have less accuracy, clinical applications and capabilities when compared to currently available models.
- They do not have the same quality control features as newer models.
- They are slower than the new units both when calculating treatment plans and treating; hence, output is less than optimal.
- The proposed new linac equipment has a more advanced collision system reducing the chance of colliding the machine into the patient. The current machine has limited warnings which could result in injuries to the patient.
- Unlike newer models, they do not have future failure warnings to minimize downtime.

The advanced capabilities of the proposed new equipment will improve clinical care and outcomes for the cancer patients treated at ACMC.

Stereotactic Radiosurgery (SRS) Stereotactic Radiation Therapy (SRT) Device

ACMC has one dedicated SRS/SRT device; it is a CyberKnife™. It was purchased in July 2006. Not unlike the standard linear accelerators, it has an estimate useful life of 7 to 10 years. It has already exceeded its useful life.

The contract cost for support of CyberKnife™ unit is $325,000 per year.

Because maintenance and resulting downtime are part of the service contract, this data is not maintained.

The deficiencies for the stereotactic surgery/radiotherapy unit are as follows:

- The current CyberKnife™ is old and replacement parts are difficult, if not impossible to obtain.
- It does not provide redundant back up for the standard linacs; it is a very different technology.

The proposed new equipment will have the most contemporary features available and will be capable of being upgraded.

Deteriorated Facilities

The Radiation Oncology Department at Advocate Christ is located at the ground level in a 1972 addition to the hospital building; it was originally developed for cobalt therapy. As the radiation oncology service has grown to accommodate additional volume and new and upgraded technology, additional space for the department has been pieced together. As a result of this piecemeal approach to expansion, the department has many deficiencies. There include:

- The department is severely undersized. The department's existing clinical square footage is 12,308 DGSF. The proposed clinical square footage is 24,446 DGSF.
- Because spaces are so undersized, patient privacy is always a concern.
- The outpatient waiting room is often very crowded with patients (many of whom are in wheelchairs) and those who accompany them. Sometimes there are no available seats.
- There is limited inpatient waiting space. Inpatients are transported to the department on stretchers and may have to wait in hallways until their treatment time.
- Outpatients must change from their street clothes to gowns. There is unsatisfactory separation of men and women for gowning and gowned waiting.
- There is only one handicapped toilet in the department which sees almost 100 patients a day.
- The number of consultation and exam rooms does not support the number of patient

being seen.

- Office, conference space, and support spaces for physicians and staff is inadequate.
- Family support spaces are inadequate.
- Because of the piecemeal development of the department patient flow is very poor.
- There is too little storage space.
- Internal corridors are difficult to use.

These deficiencies will be corrected in the proposed redevelopment plan for ACMC's radiation oncology department that will have 100 percent more space than the existing department.

c) Service Modernization

The applicant shall document that the proposed project meets one of the following:

2) Necessary Expansion

The proposed project is necessary to provide expansion for diagnostic treatment, ancillary training or other support services to meet the requirements of patient service demand. Documentation shall consist of, but is not limited to: historical utilization data, evidence of changes in industry standards, changes in the scope of services offered, and licensure or fire code deficiency citations involving the proposed project.

The current State Standard for radiation therapy is 7,500 treatments per year for standard linear accelerators. This guideline was originally recommended in 1977 as part of the National Health Guidelines when cobalt units and linacs were both being used. It appears that this guideline was based on a treatment time of 12 minutes [1]. A total radiation therapy treatment time includes patient positioning, the treatment, and room clean up. Each of these steps has variables. For example:

Patient Positioning

Patient positioning is the most variable time factor in determining treatment scheduling time. Examples of cases that have greater than average time-consuming set-up times are elderly patients; image guided patients; patients with multiple sites such as bone cancer patients; patients with advanced disease; patients with special set-ups such as lung cancer and breast cancer patients; pediatric patients who require anesthesia, and high acuity patients who account for one-third of all radiation oncology patients.

[1] 254 days of operation per year x 7.5 hours per day x .80 target percent occupancy = 1,524 hours per year x 60 minutes per hour = 9,144 hours ÷ 7,500 treatments per year = 12 minutes per treatment.

Treatment

Treatment is often the shortest component of total time and may be only a few minutes. SRS and

SRT treatments are typically much longer. Since patients must remain perfectly still during a treatment, treatment times may be extended if they are interrupted by a patient cough or the need to suction a patient.

Clean-up

The radiation oncology vault must be cleaned after every treatment. Cleaning after an inpatient visit is even more stringent than cleaning after an outpatient visit in order to reduce the spread of hospital infections. This is a changing industry standard advanced by the National Comprehensive Cancer Network (NCCN).

To account for these variations in total treatment times, the industry has adopted an "equivalent treatment time" where a 15-minute treatment would be one equivalent; an expected one hour treatment would be four equivalents. Consequently, treatment equivalents exceed treatments and are more consistent with the methodology used to establish the State Standard than are treatments.

Many of ACMC's radiation therapy treatments performed on standard linacs can be done within the 15 minute window, but others exceed it. The following table includes both actual treatment and treatment equivalent volumes for 2014, 2015, and 2016 (6 month annualized).

Table 1
Utilization of the Linear Accelerators, 2014, 2015 and Partial Year 2016 Annualized

Year	Linear Accelerator Treatments	Total 15 Minute Equivalent Treatments
2014	10,567	15,543
2015	9,944	15,348
2016 (6 months)	5,640	8,294
2016 annualized	11,280	16,588

Source: ACMC records.

Table 2
Utilization of the Stereotactic Surgery Device (CyberKnife™)
2014, 2015 and Partial Year 2016 Annualized

Year	Stereotactic Surgery Device Treatments	Total 15 Minute Equivalent Treatments
2014	223	238
2015	238	1,832
2016 (6 months)	142	995
2016 annualized	284	1,990

Source: ACMC records.

For the most recent two years, actual standard linac treatments justify two linear accelerators; however treatment equivalents justify three.

Need Based on Linac Treatments and Treatment Equivalents

2014

10,567 linac treatments ÷ 7,500 treatments per unit = 1.4 units

2015

9,944 linac treatments ÷ 7,500 treatments per unit = 1.3 units.

Need Based on Linac Equivalent Treatments

2014

15, 543 linac equivalent treatments ÷ 7,500 treatments per unit = 2.1 or 3 units

2015

15,348 linac equivalent treatments ÷ 7,500 treatments per unit = 2.1, or 3 units

Based on this more accurate determination of need, Advocate Christ Medical Center could consider adding one linac, but instead has elected to be conservative and only replace the existing complement of units because of the higher speeds of the proposed new units.

There is no State Guideline for stereotactic radiosurgery devices; however both total treatments and total equivalent treatments clearly demonstrate the need for one machine.

Attachment 34 and Exhibit 1 is a graphic representation of the utilization of the standard linacs and the SRS/SRT unit for Monday through Friday the week of April 18, 2016. This graphic has several elements:

1. Prior to Treatment Time (7:00 AM to 8:00 AM)

   The Radiation Oncology Department opens at 7:00 AM. Since incorrect doses of radiation can be dangerous, manufacturers have made equipment modifications to improve patient safety by preventing equipment from operating unless the users verify that the safeguards are in place. During the pretreatment hours of the day, the technicians verify these safeguards, perform beam modification checks, and verify correct placement of machine accessories. These are indicated on the schedule as quality assurance (QA) checks on the equipment. The time is also used for routine maintenance.

   Also, as is shown, some treatments begin before the treatment hours officially begin.

2. Treatment Hours (8:00 AM to 4:30 PM with a One-Hour Lunch Break)

   Treatment hours extend from 8:00 AM to 4:30 PM with an hour lunch break; these are typical hours for the operation of many radiation therapy departments. Linac treatments (PT Treatments) are identified in the first two columns of each day's report. As can be seen, many of them are completed within an allotted 15 minute time block. However, there are several instances of 30, 45 and 60 minute treatments; these have been converted to two, three and four equivalent treatments in the above calculations of need. In addition to the treatments in the regularly scheduled hours, treatment time is also reported before treatments hours, during the lunch break and after treatment hours. These "overtime" hours are necessary to accommodate increasing patient volume. For example, the lunch break time is often used for scheduled patients when treatment has been delayed, but it also used for emergencies and physics quality assurance. For 2016, because of the increased patient volume staff has been working 9 – and 10 – hour week days on average. Staff has also been required to work on Saturdays.

3. After Treatment Time (4:30 PM to 5:30 PM)

   After-hours time is used almost daily for scheduled patient treatments; it may also be used for emergency patients. Further, this time is used by staff to complete necessary tasks for the day or to prepare for the next day.

The following table shows the percentage utilization of the standard linacs and the stereotactic radiosurgery device during the sample week.

Table 3
Radiation Oncology Utilization, Week of April 18, 2016

	Linear Accelerators	Stereotactic Surgery Device
Total Weekly Minutes Available (M-F 8:00 AM to 4:30 PM (excl. 60 minutes for lunch)	4,650 minutes	2,325 minutes
Patient Utilization During Regular Treatment hours	4,260 minutes	1,965 minutes
Percent Utilization During Regular Treatment Hours	91.6 %	84.5 %
Additional Utilization	735 minutes	135 minutes
Total Utilization	4,995 minutes	2,100 minutes
Total Patient Utilization	107.4%	90.3%

Source: ACMC records

Clearly, the linacs and the SRS/SRT unit are operating substantially in excess of an expected target utilization of 80 percent and must be replaced with new technology.

c) Service Modernization

The applicant shall document that the proposed project meets one of the following:

3) Utilization

A) Major Medical Equipment

Proposed projects for the acquisition of major medical equipment shall document that the equipment will achieve any target utilization levels specified in Appendix B within 12 months after acquisition.

NA There is no major medical equipment in this Project.

B) Service or Facility

Projects involving the modernization of a service or facility shall meet or exceed the utilization standards for the service, as specified in Appendix B. The number of key rooms being modernized shall not exceed the number justified per Subsection c) 2) (Necessary Expansion).

National experts are projecting a strong increase in the demand for cancer care services during the next decade. For example, The Advisory Board Roundtable on Oncology is predicting a 21 percent increase in demand for cancer care and an article published in *Cancer* in June 2015 is predicting a 24.1 percent increase for males and a 20.8 percent increase for females by 2020. These projections are based on a very modest increase in the cancer incidence rate and the robust

growth and aging of the population as evident in Christ Medical Center's service area. The increase also reflects the number of cancer survivors who are expected to be re-diagnosed with cancer as they age. The largest increases are expected to be in melanoma and cancers of the prostrate, kidney, liver, and urinary/bladder in males and lung, breast, uterus and thyroid in females.

The State guideline for standard linear accelerator utilization is 7,500 treatments per year. Advocate Christ Medical Center is proposing to replace two existing standard linear accelerators. Christ Medical Center is not adding any linear accelerators.

As shown in Table 4, the current and projected utilization of the linacs at Christ Medical Center justify the need for the two replacement linear accelerators being proposed.

Consistent with the literature, ACMC is projecting a 20 percent increase in linear accelerator treatments over the next 20 years or approximately 2 percent per year or 14 percent from 2015 to 2022, two years after project completion. Based on annualized 2016 volume, projected volume would be 12,634 treatments.

Table 4
Historic and Projected Utilization of
Linear Accelerators at ACMC, 2015 to 2022

Year	Existing /Proposed Units	Treatments	State Guideline per Unit	Number of Units Justified
2014	2	10,567	7,500	1.4 or 2
2015	2	9,944	7,500	1.3 or 2
2016 annualized	2	11,280	7,500	1.5
2022	2	11,336	7,500	1.5

As described above, the industry today commonly uses treatment equivalents as the metric to measure the utilization of a linear accelerator. Based on treatment equivalents (as shown on Table 3), and the fact that Christ Medical Center's two linear accelerators are currently operating at 107.4 percent occupancy, the need for replacement linacs is justified. This table and the graphic description of utilization (Exhibit 1), as well as the age of the equipment, further justify the need to replace the two existing linear accelerators.

C) *If no utilization standards exist, the applicant shall document in detail its anticipated utilization in terms of incidence of disease or conditions, population use rates.*

As noted in B. above, national experts are predicting more than a 20 percent total growth in demand for cancer care services during the next decade.

Advocate Christ Medical Center is proposing the replacement of its current stereotactic radiosurgery device (a CyberKnife™) with more technologically advanced equipment. As shown on Table 3 and Exhibit 1, based on treatment equivalents the current stereotactic radiosurgery device is operating at over 90 percent utilization, or higher than the typical target of 80 percent. This utilization as well as the age of the equipment and the new applications for this technology justify the replacement of the stereotactic radiosurgery device.

ACMC is projecting a conservative 30 percent increase in the utilization of the replacement stereotactic radio surgery/stereotactic body radiation therapy device. This growth rate is consistent with the growth rate recorded between 2014 and 2016 annualized, and the increasing number of applications for stereotactic surgery and especially stereotactic body radiation therapy.

Table 5

Historic and Projected Utilization of the Stereotactic Radiosurgery /Stereotactic Body Radiation Therapy Device at ACMC, 2015 to 2022

Year	Existing/ Proposed Units	Treatments	Treatment Equivalents	State Guideline/Unit	Number of Units Justified
2014	1	223	NA[1]	NA	1
2015	1	238	1,832	NA	1
2016	1	284	1,989	NA	1
2022	1	309	2,378	NA	1

1. ACMC did not start treating SRT patients until 2015; in 2015 and later years the high ratio of treatment equivalents to treatments reflects and increasing number of SRT patients.

Based on actual patient treatments between 2015 and 2022, the projected increase in the number of linear accelerator and SRS/SRT treatments is 14.4 percent or 2 percent per year. This growth is at the low end of the growth projected in the medical literature.

2015

9,944 linear accelerator treatments + 238 SRS/SRT treatments = 10,182 treatments

2022

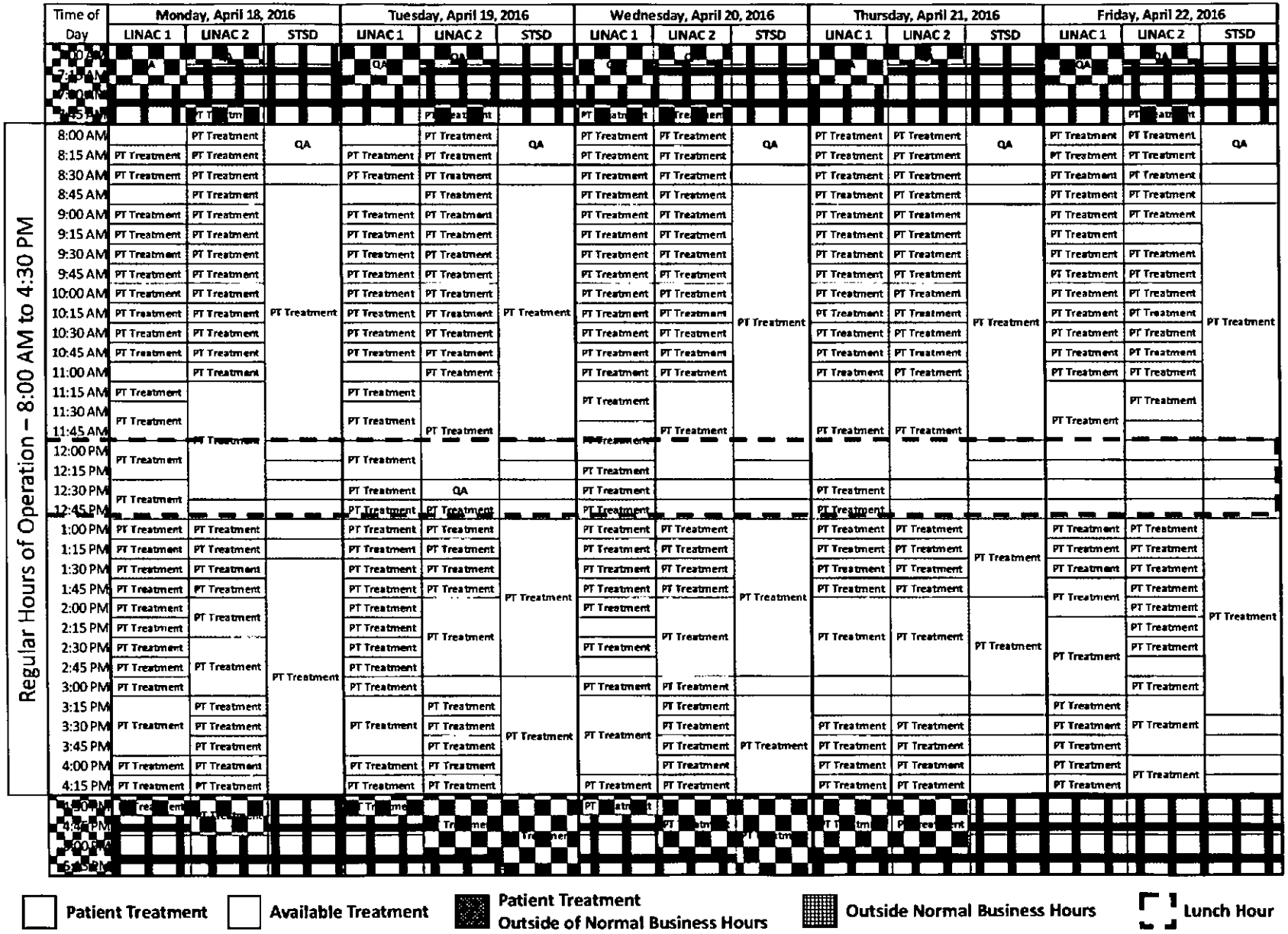
11,336 linear accelerator treatments + 309 SRS/SRT treatments = 11,645 treatments

11,645 treatments ÷ 10,182 treatments = 14.4 percent increase or

2.1 percent per year annual growth

This projected growth rate is conservative based on the growth in the senior population with the highest incidence of cancer and the continually increasing number of applications for stereotactic radiation therapy. The proposed new equipment will have technological advances that will allow new applications of the technology. Finally the new equipment will be able to perform some treatments currently performed on the standard linacs; this capability will relieve the standard linacs of some volume and will increase the flexibility of scheduling cases in the department.

Profiles of Radiation Oncology Utilization at ACMC
April 18, 2016 to April 22, 2016



Advocate Christ Medical Center
4440 West 95th Street || Oak Lawn, IL 60453 || T 708.684.8000 || advocatohealth.com

September 1, 2016

Ms. Courtney Avery
Administrator
Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

This letter provides the Health Facilities and Services Review Board with assurances regarding our application to expand and modernize the Radiation Oncology Department at Advocate Christ Medical Center in Oak Lawn. The application also includes the replacement of the three radiation oncology units in the department.

We hereby state that it is our understanding, based upon information available to us at this time, that by the second year of operation after project completion, Advocate Christ Medical Center reasonably expects to operate the Radiation Oncology Department and the replacement equipment in the application for which there are utilization standards at the State Agency target utilization specified in 77 Ill. Adm. Code 1110, Appendix B.

Sincerely,

Ken Lukhard

Kenneth W. Lukhard
President
Advocate Christ Medical Center

Notarization
Subscribed and sworn before me
this 1 day of September 2016

Rodney L L Vasquez
Signature of Notary

Seal

OFFICIAL SEAL
RODNEY L L VASQUEZ
Notary Public - State of Illinois
My Commission Expires May 24, 2017

The following Sections DO NOT need to be addressed by the applicants or co-applicants responsible for funding or guaranteeing the funding of the project if the applicant has a bond rating of A- or better from Fitch's or Standard and Poor's rating agencies, or A3 or better from Moody's (the rating shall be affirmed within the latest 18 month period prior to the submittal of the application):

- **Section 1120.120 Availability of Funds – Review Criteria**
- **Section 1120.130 Financial Viability – Review Criteria**
- **Section 1120.140 Economic Feasibility – Review Criteria, subsection (a)**

VIII. - 1120.120 - Availability of Funds

The applicant shall document that financial resources shall be available and be equal to or exceed the estimated total project cost plus any related project costs by providing evidence of sufficient financial resources from the following sources, as applicable: **Indicate the dollar amount to be provided from the following sources:**

$17,431,768	a)	Cash and Securities – statements (e.g., audited financial statements, letters from financial institutions, board resolutions) as to: 1) the amount of cash and securities available for the project, including the identification of any security, its value and availability of such funds; and 2) interest to be earned on depreciation account funds or to be earned on any asset from the date of applicant's submission through project completion;
_____	b)	Pledges – for anticipated pledges, a summary of the anticipated pledges showing anticipated receipts and discounted value, estimated time table of gross receipts and related fundraising expenses, and a discussion of past fundraising experience.
_____	c)	Gifts and Bequests – verification of the dollar amount, identification of any conditions of use, and the estimated time table of receipts;
$29,534,497	d)	Debt – a statement of the estimated terms and conditions (including the debt time period, variable or permanent interest rates over the debt time period, and the anticipated repayment schedule) for any interim and for the permanent financing proposed to fund the project, including: 1) For general obligation bonds, proof of passage of the required referendum or evidence that the governmental unit has the authority to issue the bonds and evidence of the dollar amount of the issue, including any discounting anticipated; 2) For revenue bonds, proof of the feasibility of securing the specified amount and interest rate; 3) For mortgages, a letter from the prospective lender attesting to the expectation of making the loan in the amount and time indicated, including the anticipated interest rate and any conditions associated with the mortgage, such as, but not limited to, adjustable interest rates, balloon payments, etc.; 4) For any lease, a copy of the lease, including all the terms and conditions, including any purchase options, any capital improvements to the property and provision of capital equipment; 5) For any option to lease, a copy of the option, including all terms and conditions.
_____	e)	Governmental Appropriations – a copy of the appropriation Act or ordinance accompanied by a statement of funding availability from an official of the governmental unit. If funds are to be made available from subsequent fiscal years, a copy of a resolution or other action of the governmental unit attesting to this intent;
_____	f)	Grants – a letter from the granting agency as to the availability of funds in terms of the amount and time of receipt;
	g)	All Other Funds and Sources – verification of the amount and type of any other funds that will be used for the project.
$46,966,265		**TOTAL FUNDS AVAILABLE**

APPEND DOCUMENTATION AS ATTACHMENT-36, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

See the following page regarding Advocate's audited financial statement and bond rating letters.

Audited Financial Reports

The Consolidated Financial Statements and Supplementary Information for Advocate Health Care Network and Subsidiaries, Years Ended December 31, 2015 and 2014, with Report of Independent Auditors are included in the Advocate Sherman Ambulatory Surgery Center Permit Application # 16-038.

Bond rating letters from Standard and Poors Rating Service (AA/Positive), Moody's Investor Services (Aa2), and Fitch Ratings (AA) are also included in the Advocate Sherman Ambulatory Surgery Center Permit Application # 16-038.

IX. 1120.130 - Financial Viability

All the applicants and co-applicants shall be identified, specifying their roles in the project funding or guaranteeing the funding (sole responsibility or shared) and percentage of participation in that funding.

Financial Viability Waiver

The applicant is not required to submit financial viability ratios if:

1. **"A" Bond rating or better**
2. **All of the projects capital expenditures are completely funded through internal sources**
3. **The applicant's current debt financing or projected debt financing is insured or anticipated to be insured by MBIA (Municipal Bond Insurance Association Inc.) or equivalent**
4. **The applicant provides a third party surety bond or performance bond letter of credit from an A rated guarantor.**

See Section 1120.130 Financial Waiver for information to be provided

APPEND DOCUMENTATION AS ATTACHMENT-37, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

NA. Advocate Health Care Network has an A Bond rating.

The applicant or co-applicant that is responsible for funding or guaranteeing funding of the project shall provide viability ratios for the latest three years for which **audited financial statements are available and for the first full fiscal year at target utilization, but no more than two years following project completion.** When the applicant's facility does not have facility specific financial statements and the facility is a member of a health care system that has combined or consolidated financial statements, the system's viability ratios shall be provided. If the health care system includes one or more hospitals, the system's viability ratios shall be evaluated for conformance with the applicable hospital standards.

Provide Data for Projects Classified as:	**Category A or Category B (last three years)**			**Category B (Projected)**
Enter Historical and/or Projected Years:				
Current Ratio				
Net Margin Percentage				
Percent Debt to Total Capitalization				
Projected Debt Service Coverage				
Days Cash on Hand				
Cushion Ratio				

Provide the methodology and worksheets utilized in determining the ratios detailing the calculation and applicable line item amounts from the financial statements. Complete a separate table for each co-applicant and provide worksheets for each.

2. Variance

Applicants not in compliance with any of the viability ratios shall document that another organization, public or private, shall assume the legal responsibility to meet the debt obligations should the applicant default.

APPEND DOCUMENTATION AS ATTACHMENT 38, IN NUMERICAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

NA. Advocate Health Care Network has an A Bond rating.

X. 1120.140 - Economic Feasibility

A. Reasonableness of Financing Arrangements NA Advocate Health has an A bond rating

The applicant shall document the reasonableness of financing arrangements by submitting a notarized statement signed by an authorized representative that attests to one of the following:

1) That the total estimated project costs and related costs will be funded in total with cash and equivalents, including investment securities, unrestricted funds, received pledge receipts and funded depreciation; or

2) That the total estimated project costs and related costs will be funded in total or in part by borrowing because:

   A) A portion or all of the cash and equivalents must be retained in the balance sheet asset accounts in order to maintain a current ratio of at least 2.0 times for hospitals and 1.5 times for all other facilities; or

   B) Borrowing is less costly than the liquidation of existing investments, and the existing investments being retained may be converted to cash or used to retire debt within a 60-day period.

B. Conditions of Debt Financing

This criterion is applicable only to projects that involve debt financing. The applicant shall document that the conditions of debt financing are reasonable by submitting a notarized statement signed by an authorized representative that attests to the following, as applicable:

1) That the selected form of debt financing for the project will be at the lowest net cost available;

2) That the selected form of debt financing will not be at the lowest net cost available, but is more advantageous due to such terms as prepayment privileges, no required mortgage, access to additional indebtedness, term (years), financing costs and other factors;

3) That the project involves (in total or in part) the leasing of equipment or facilities and that the expenses incurred with leasing a facility or equipment are less costly than constructing a new facility or purchasing new equipment. See Attachment 39, Exhibit 1

C. **Reasonableness of Project and Related Costs**

Read the criterion and provide the following:

1. Identify each department or area impacted by the proposed project and provide a cost and square footage allocation for new construction and/or modernization using the following format (insert after this page).

COST AND GROSS SQUARE FEET BY DEPARTMENT OR SERVICE

Department (list below)	A	B	C	D	E	F	G	H	Total Cost (G + H)
	Cost/Square Foot New	Cost/Square Foot Mod.	Gross Sq. Ft. New	Gross Sq. Ft. Circ.*	Gross Sq. Ft. Mod.	Gross Sq. Ft. Circ.*	Const. $ (A x C)	Mod. $ (B x E)	
Contingency									
TOTALS									

* Include the percentage (%) of space for circulation

APPEND DOCUMENTATION AS ATTACHMENT -39, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Advocate Christ Medical Center
4440 West 95th Street || Oak Lawn, IL 60453 || T 708.684.8000 || advocatehealth.com

September 1, 2016

Ms. Courtney Avery
Administrator
Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Dear Ms. Avery:

The purpose of this letter is to attest to the fact that the selected form of debt financing for the proposed Advocate Christ Medical Center Radiation Oncology Department Expansion and Modernization project will be the lowest net cost available, or if a more costly form of financing is selected, that form is more advantageous due to such terms as prepayment privileges, no requested mortgage, access to additional debt, term financing costs, and other factors. Generally, the term of the indebtedness is anticipated to be 30 years, but would not exceed 40 years, and the interest rate approximately 4.5 percent, but not to exceed 6.0 percent.

Sincerely,

Kenneth W. Lukhard
President
Advocate Christ Medical Center

Notarization
Subscribed and sworn before me
this 1 day of September 2016

Rodney L L Vasquez
Signature of Notary

Seal

OFFICIAL SEAL
RODNEY L L VASQUEZ
Notary Public - State of Illinois
My Commission Expires May 24, 2017

	Cost and Gross Square Feet by Department or Service								
	A	B	C	D	E	F	G	H	Total Cost
	Cost / Square Foot		Gross Square Feet		Gross Square Feet		Const. Cost	Mod. Cost	
Department	New	Mod.	New	Circ. %	Mod.	Circ.	(AxC)	(BxE)	(G+H)
Clinical									
Therapeutic Radiology									
Simulator	$ -	$ 455.30	0		601		0	$ 273,635	273,635
Linear Accelerators	$ -	$ 454.23	0		2,535		0	$ 1,151,473	1,151,473
Stereotactic Surgery Device	$ 1,013.50	$ 683.45	1,524		335		1,544,574	$ 228,956	1,773,530
Brachytherapy	$ -	$ 459.98	0		432		0	$ 198,711	198,711
Nurse Stations	$ 578.45	$ 463.10	223		180		128,994	$ 83,358	212,352
Exam Rooms	$ 554.23	$ -	716		0		396,829	$ -	396,829
Internal Department Circulation	$ 565.34	$ 450.43	1,139		2,910		643,922	$ 1,310,751	1,954,674
Clinical / Average Cost / Sq. Ft.	$ 753.56	$ 464.30	3,602		6,993		$2,714,319	$3,246,885	$5,961,204
Contingency (%) (9.95% New const., 14.95 % modifications)	$ 74.98	$ 69.41					270,075	485,409	$755,484
Clinical Subtotal / Average Cost / Sq. Ft.	$ 828.54	$ 533.72	3,602		6,993		$2,984,394	$3,732,294	$6,716,688
Non-Clinical									
Non-Clinical Storage and Shared Support	$921.55	$ 473.23	1,889		4,421		1,740,808	$ 2,092,150	3,832,958
Public Space / Amenities	$850.00	$ -	2,636		0		2,240,600	$ -	2,240,600
Building Components *	$855.60	$459.56	4,181		709		3,577,254	$ 325,829	3,903,083
Non-Clinical / Average Cost / Sq. Ft.	$868.21	$ 471.34	8,706		5,130		$7,558,662	$2,417,979	$9,976,641
Contingency (%) (9.95% New const., 14.95 % modifications)	$ 86.39	$ 70.47					$752,087	$ 361,488	$1,113,575
Non Clinical Subtotal / Average Cost / Sq. Ft.	$954.60	$ 541.81	8,706		5,130		$8,310,748	$2,779,467	$11,090,216
Total with Contingency/Average Cost/Sq. Ft.							11,295,142	6,511,761	17,806,904

The following letters from Pepper Construction and HDR, Attachment 39, Exhibits 1 and 2, describe the construction considerations at Advocate Christ Medical Center that influenced the construction and modernization cost estimates for the new construction and modernization of the Radiation Oncology Department Project.

PEPPER CONSTRUCTION

September 30, 2016

RE: Advocate Christ Medical Center
Radiation Oncology Expansion
Project Construction Costs

To Whom It May Concern:

This letter documents several factors & reasons why the construction cost of the above referenced project may exceed the construction cost data published in Means and used for Certificate of need review in the State of Illinois. The following is a list of these factors:

- The demolition of the existing building and erection of the new addition are to be completed within extremely tight quarters as the proposed site is between the Emergency Department Entrance Ramp to the west, adjacent to and below the existing building overhang to the east, and abutting the Patient drop off/entry for the Hospital Outpatient Pavilion to the south. These constraints create premiums associated with raduced flow to/from the project site, premiums for steel erection, and building envelope installations, that generally require a larger space for erection.
- The demolition of the existing Cyberknife building as required for this project includes the demolition and complete removal of an existing cyberknife treatment vault, which consists of 4'-0" thick concrete walls, which does not fit into the standard models for demolition. Additionally, due the adjacencies described in the Site Logistics section above, this work needs to be completed in such a manner that reduces noise, and eliminates vibrational impacts to the adjacent Hospital functions, including vibration sensitive, highly calibrated equipment.
- The project is going to have to be completed in multiple phases requiring extensive interim life safety measures (ILSM's) in order to perform construction activities without interrupting the operations of the occupied emergency department as well as to protect hospital staff and patrons.
- Due to the required project phasing, multiple mobilization and demobilization of the project team will be required
- The project will require multiple phases to be completed within the occupied department, adjacent to patient treatment areas. These areas will require multiple set ups and removal of infection control measures as necessary to protect the patients from these activities, which are above and beyond typical construction procedures.
- With a portion of this project being completed within the existing Hospital, there are numerous utility mains that are routed through the areas of renovation that serve adjacent modalities that will need to remain uninterrupted. As a result of the new piping and ductwork, routing temporary ductwork and piping will need to be installed to facilitate the installation of the new work without affecting the adjacent occupied hospital modalities.
- As a result of the additional phasing, and extended schedule associated with phased projects, this project has accounted for additional General Conditions cost for the extended period of work.
- The strategic and measured use of off-hours labor will be required to perform shut downs and complete certain demolition activities as described above. In addition, afterhours access to existing occupied hospital modalities, not scheduled for renovation, will be required from time to time.

Respectfully submitted,

PEPPER CONSTRUCTION COMPANY

Brian D. Mullen
Project Executive

cc: File

411 Lake Zurich Road | Barrington, Illinois 60010 | 847 381-2760 | FAX: 847 304-6510

www.pepperconstruction.com

HDR

October 19, 2016

Ms. Victoria Navarro
Planning and Design Manager
Planning, Design and Construction
Advocate Health Care
3075 Highland Parkway, Suite 600
Downers Grove, IL 60515

Re: Advocate Christ Medical Center, Oak Lawn, IL
Radiation Oncology Expansion and Renovation Project
Architectural Impediments
HDR Project No. 223162

Dear Victoria,

Per your request, we have evaluated the probable construction costs anticipated for the expansion and renovation of the existing Radiation Oncology Department at Advocate Christ Medical Center to increase capacity to serve additional patients, while maintaining the delivery of existing Radiation Oncology Department patient services in a sensitive environment.

It is anticipated that the project will incur additional costs above current typical costs per square foot averages due to the staging of construction activities in the Radiation Oncology Department. The expansion of Radiation Oncology Department, within a finite hospital building footprint, while maintaining existing operations; will necessitate the staging of construction in approximately two major phases (with additional minor phases).

The additional Radiation Oncology Department capacity requires new constriction, in addition to, expansion and ranovation in an area of the hospital comprised of several additions built over many years, with varying structural, mechanical and electrical systems. The varying structural systems' column locations and varying floor elevations limit the efficiency of the plan layout. Modifications to the existing mechanical, electrical and structural systems to bring them up to current code requirements will also be required as part of the expansion and renovation of existing spaces. Multiple system shut-downs and tie-ins will add additional costs. Further complicating the plan is the need to maintain internal circulation paths between existing inpatient bed tower elevators and the Outpatient Pavilion, and to work around existing mechanical shafts and closets.

Due to its complexity, it is expected that this project will incur additional costs not normally anticipated in average costs per square foot for similar types of space.

Sincerely,

Camulla Twohey, Licensed Architect
HDR Architecture, Chicago, IL

hdrinc.com

30 W. Monroe, Suite 700 Chicago, Il 60603-2425

D. Projected Operating Costs

The applicant shall provide the projected direct annual operating costs (in current dollars per equivalent patient day or unit of service) for the first full fiscal year at target utilization but no more than two years following project completion. Direct cost means the fully allocated costs of salaries, benefits and supplies for the service. See Attachment 39, Exhibits 1 and 2.

ADVOCATE CHRIST MEDICAL CENTER
CALCULATION OF EQUIVALENT PATIENT DAYS

		Actual 2015
Patient Days		215,859
Ratio of Outpatient Revenue to Inpatient Revenue		
Inpatient Revenue	$	2,190,694,325
Outpatient Revenue		931,361,250
Total Revenue	$	3,122,055,575
Ratio		42.5%
Computed O/P Equivalent Days		91,771
Total Equivalent Patient Days		307,630

E. Total Effect of the Project on Capital Costs

The applicant shall provide the total projected annual capital costs (in current dollars per equivalent patient day) for the first full fiscal year at target utilization but no more than two years following project completion

ADVOCATE CHRIST MEDICAL CENTER
OPERATING EXPENSES PER EQUIVALENT PATIENT DAY AND TOTAL EFFECT OF THE PROJECT ON CAPITAL COSTS

	2015		2022 Projected					
			Amount		Per EPD		Total	
	Amount	Per EPD	Medical Center	Project	Medical Center	Project	Amount	EPD
Operating Expenses	$ 915,094,871	2,974.66	$ 1,152,259,000	$ -	$ 3,399.99	$ -	$ 1,152,259,000	$ 3,399.99
Capital Costs	49,419,960	160.65	73,260,000	5,206,000	216.17	15.36	78,466,000	231.53
Total	$ 964,514,831	3,135.31	$ 1,225,519,000	$ 5,206,000	$ 3,616.15	$ 15.36	$ 1,230,725,000	$ 3,631.52

This section is applicable to all projects subject to Part 1120.

XI. Safety Net Impact Statement

SAFETY NET IMPACT STATEMENT that describes all of the following must be submitted for ALL SUBSTANTIVE AND DISCONTINUATION PROJECTS:

1. The project's material impact, if any, on essential safety net services in the community, to the extent that it is feasible for an applicant to have such knowledge.

2. The project's impact on the ability of another provider or health care system to cross-subsidize safety net services, if reasonably known to the applicant.

3. How the discontinuation of a facility or service might impact the remaining safety net providers in a given community, if reasonably known by the applicant.

Safety Net Impact Statements shall also include all of the following:

1. For the 3 fiscal years prior to the application, a certification describing the amount of charity care provided by the applicant. The amount calculated by hospital applicants shall be in accordance with the reporting requirements for charity care reporting in the Illinois Community Benefits Act. Non-hospital applicants shall report charity care, at cost, in accordance with an appropriate methodology specified by the Board.

2. For the 3 fiscal years prior to the application, a certification of the amount of care provided to Medicaid patients. Hospital and non-hospital applicants shall provide Medicaid information in a manner consistent with the information reported each year to the Illinois Department of Public Health regarding "Inpatients and Outpatients Served by Payor Source" and "Inpatient and Outpatient Net Revenue by Payor Source" as required by the Board under Section 13 of this Act and published in the Annual Hospital Profile.

3. Any information the applicant believes is directly relevant to safety net services, including information regarding teaching, research, and any other service.

A table in the following format must be provided as part of Attachment 43.

Safety Net Information per PA 96-0031			
CHARITY CARE			
Charity (# of patients)	**Year**	**Year**	**Year**
Inpatient			
Outpatient			
Total			
Charity (cost in dollars)			
Inpatient			
Outpatient			
Total			
MEDICAID			
Medicaid (# of patients)	**Year**	**Year**	**Year**
Inpatient			
Outpatient			
Total			
Medicaid (revenue)			
Inpatient			
Outpatient			
Total			

APPEND DOCUMENTATION AS ATTACHMENT-40, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

XI. Safety Net Impact Statement

Because this is classified as non-substantive, a safety net impact statement is not required. We are nevertheless including this information for the Board's consideration.

Safety Net Impact Statement that describes all of the following must be submitted for ALL SUBSTANTIVE AND DISCONTINUATION PROJECTS

1. *The project's material impact, if any, on essential safety net services in the community, to the extent that it is feasible for an applicant to have such information.*

Advocate Health and Hospitals provided $685,779,000 in charitable care and community services in 2015. According to Jim Skogsbergh, president and CEO of Advocate Health Care,

> "Our contributions are a reflection of our unwavering commitment to building healthy communities and delivering the best and safest care possible. The dedicated physicians, nurses, associates and volunteers of our health care ministry continue to work both within and beyond our hospital walls to heal and care for those we are privileged to serve."

Attachment 40, Exhibit 1 provides detail on Advocate Health and Hospital's 2015 charitable care and services.

Advocate Christ Medical Center (ACMC) provides a significant portion of the System's community benefits efforts and support in the South Market Area.

ACMC 's recent capital expansion projects – the Outpatient Pavilion, the Bed Tower and the Trauma/Emergency Department expansion are centered on increasing capacity for safety net services. The proposed Radiation Oncology Department expansion, modernization, and equipment replacements will improve accessibility and increase capacity for needed essential cancer care services.

Advocate Christ Medical Center is committed to cancer prevention and detection. ACMC appreciates that prevention and early detection lead to the best patient outcomes. Christ Medical Center's commitment to regular screenings translates into a dedicated Breast Cancer Center that offers the latest mammography, regular community seminars about the importance of colorectal screenings, as well as screening programs for cancers that can be detected early and even prevented. The cancer genetics program offers genetic testing and risk assessment for people concerned about a family history of cancer.

In 2015, Advocate Christ Medical Center provided $105,252,318 in charitable care and community services in 2015.

The proposed Project will enhance essential safety net services to the community.

2. *The project's impact on the ability of another provider or health care system to cross-subsidize safety net services, if reasonably known to the applicant.*

Christ Medical Center's modernization of the Radiation Oncology Department should not affect any other facilities' ability to cross-subsidize other safety net services. The patients expected to use the services in the Radiation Oncology Department, historically, have been served by Advocate Christ Medical Center.

Safety Net Information per PA 96-0031			
CHARITY CARE			
Charity (# of patients)	**Year 2013**	**Year 2014**	**Year 2015**
Inpatient	1,483	562	411
Outpatient	11,413	7,560	5,718
Total	12,896	8,122	6,129
Charity (cost In dollars)			
Inpatient	$23,079,000	$5,427,000	$9,241,000
Outpatient	$4,389,000	$3,046,000	$4,281,000
Total	$27,468,000	$8,473,000	$13,522,000
MEDICAID			
Medicaid (# of patients)	**Year 2013**	**Year 2014**	**Year 2015**
Inpatient	6,922	9,404	9,932
Outpatient	74,378	76,692	100,187
Total	81,300	86,096	110,119
Medicaid (revenue)			
Inpatient	$88,477,783	$126,822,509	$120,316,095
Outpatient	$2,327,324	$7,231,715	$21,1785,154
Total	$90,805,107	$134,054,224	$141,491,249

Source: Christ Medical Center Financial Records

Annual Non Profit Hospital Community Benefits Plan Report
Hospital System: Advocate Health Care Network
Form: AG-CBP-I

Period End: 12/31/2015

	System
Charity Care	$ 64,958,000
Language Assistant Services	5,278,000
Cost of Unreimbursed Medicaid	214,538,000
Cost of Unreimbursed Medicare	175,547,000
Government Sponsored Indigent Health Care	390,085,000
Donations	5,869,000
Volunteer Services	5,479,000
Education	128,806,000
Government -sponsored program services	132,000
Research	0
Subsidized health services	22,937,000
Bad Debts	
a) At Charges	213,515,000
b) At Cost	62,235,000
Other Community Benefits	0
Grand Total - At Charges	$ 837,059,000
Grand Total - At Cost	$ 685,779,000

Advocate Christ Hospital

Charity Care	$ 13,521,648
Language Assistant Services	678,506
Cost of Unreimbursed Medicaid	24,727,626
Cost of Unreimbursed Medicare	10,125,562
Government Sponsored Indigent Health Care	34,853,187
Donations	1,275,145
Volunteer Services	745,432
Education	42,127,039
Government -sponsored program services	0
Research	0
Subsidized health services	1,756,247
Bad Debts	
a) At Charges	38,648,167
b) At Cost	10,295,114
Other Community Benefits	0
Grand Total - At Charges	$ 133,605,372
Grand Total - At Cost	$ 105,252,318

XII. Charity Care Information

Charity Care information MUST be furnished for ALL projects.

1. All applicants and co-applicants shall indicate the amount of charity care for the latest three **audited** fiscal years, the cost of charity care and the ratio of that charity care cost to net patient revenue.

2. If the applicant owns or operates one or more facilities, the reporting shall be for each individual facility located in Illinois. If charity care costs are reported on a consolidated basis, the applicant shall provide documentation as to the cost of charity care; the ratio of that charity care to the net patient revenue for the consolidated financial statement; the allocation of charity care costs; and the ratio of charity care cost to net patient revenue for the facility under review.

3. If the applicant is not an existing facility, it shall submit the facility's projected patient mix by payer source, anticipated charity care expense and projected ratio of charity care to net patient revenue by the end of its second year of operation.

Charity care" means care provided by a health care facility for which the provider does not expect to receive payment from the patient or a third-party payer. (20 ILCS 3960/3) Charity Care must be provided at cost.

A table in the following format must be provided for all facilities as part of Attachment 44.

CHARITY CARE			
	Year	Year	Year
Net Patient Revenue			
Amount of Charity Care (charges)			
Cost of Charity Care			

APPEND DOCUMENTATION AS ATTACHMENT-41, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Advocate Christ Medical Center charity care information for the year is included on Attachment 41, Exhibit 1.

CHARITY CARE			
	Year	Year	Year
	2013	2014	2015
Net Patient Revenue	$900,774,000	$936,543,941	$961,099,001
Amount of Charity Care (charges)	$97,601,284	$30,788,000	$50,761,000
Cost of Charity Care	$27,468,000	$8,473,000	$13,522,000

Source: Christ Medical Center Financial Records