



STATE OF ILLINOIS
HEALTH FACILITIES AND SERVICES REVIEW BOARD

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DOCKET NO: H-03	BOARD MEETING: August 25, 2015	PROJECT NO: 15-027	PROJECT COST: Original: \$18,840,927
FACILITY NAME: Advocate Lutheran General Hospital		CITY: Park Ridge	
TYPE OF PROJECT: Non-Substantive			HSA: VII

DESCRIPTION: The applicants (Advocate Health and Hospitals Corporation dba Advocate Lutheran General Hospital and Advocate Health Care Network) are proposing to relocate and modernize the Cardiac Catheterization Suite at Advocate Lutheran General Hospital. The proposed project would eliminate one cardiac cath unit, replace 3 cardiac cath units, relocate the electrophysiology unit, establish 4 Phase I recovery stations and increase the Phase II recovery stations from 8 to 14. The cost of the project is \$18,840,927 and the anticipated completion date is November 28, 2016.

EXECUTIVE SUMMARY

PROJECT DESCRIPTION:

- The applicants are proposing to relocate and modernize the Cardiac Catheterization Suite at Advocate Lutheran General Hospital. The proposed project would eliminate one cardiac cath unit, replace 3 cardiac cath units, relocate the electrophysiology unit, establish 4 Phase I recovery stations and increase the Phase II recovery stations from 8 to 14. The cost of the project is \$18,840,927 and the anticipated completion date is November 28, 2016.

WHY THE PROJECT IS BEFORE THE STATE BOARD:

- The project is before the State Board because the cost of the project exceeds the capital expenditure minimum of \$12,670,607.

PURPOSE OF THE PROJECT:

- The purpose of the project is to relocate and modernize the cardiac catheterization suite to allow for improved efficiency and effectiveness in the provision of cardiac catheterization services and to consolidate all cardiac-related services that are part of Advocate Heart Institute at ALGH into a single location.

SUMMARY:

- Current State Board rules state “that no proposed project for the modernization of existing equipment providing cardiac catheterization services will be approved unless the applicant documents that the minimum utilization standards are met.” The State Board Standard is 400 procedures per laboratory. The applicants’ current utilization (CY 2014 data) of 2,140 procedures justifies the 4 catheterization laboratories (2,140 procedures/4 laboratories = 535 procedures per lab) being requested.

The applicants state the facilities housing the labs and all of the equipment in the 4 cardiac cath labs are in need of modernization and replacement. The existing cardiac cath/EP labs are in old facilities; the floor plan of the department is fragmented into three pods, each with cath equipment, and is divided by a public corridor. Consequently the staff and equipment are dispersed through a cumbersome floor plan; the work flow is inefficient. The basement location is remote from other cardiac services that are part of the Advocate Heart Institute at ALGH and patients have difficulty finding the area. The space does not meet modern standards for cardiac cath/EP laboratories; it does not meet operating room airflow standards recommended by the Illinois Department of Public Health and it does not meet the current lower dose radiation standards. The procedure rooms are small; the post procedure recovery capability is inadequate and the recovery stations are not private. There are no Phase I recovery stations in the area serving the cath and EP labs. The hospital currently has four cath labs; only two of them are in sterile environments. One of them will be discontinued in the new lab because all space will meet operating room airflow requirements. The EP lab was purchased 2 years ago and will be relocated to the new Cardiac Catheterization Suite. All of the cardiac cath equipment has substantially exceeded its useful life. Because of the age of the equipment, it is increasingly difficult to find replacement parts and the amount of equipment downtime is increasing. Further, this old equipment does not have the advanced

capabilities and technologies available in the newer models, such as lower dose radiation. The Project includes replacing three of the cardiac cath units in the new Cardiac Catheterization Suite and relocating the newer EP unit when the new space is ready. The EP lab will be four years old when the relocated suite opens. The fifth cath lab will be discontinued and the equipment used for education in the future Simulation Lab. The Hospital will not take delivery on the new units until the third quarter of 2016 in order to assure that The Advocate Heart Institute will benefit from the most up-to-date technology including the latest generation hardware and software. Because this is an existing cardiac catheterization service the applicants have in place a peer review program, sufficient and trained staff, and an open heart program.

PUBLIC HEARING/PUBLIC COMMENT

- An opportunity for a public hearing was offered no hearing was requested. No letters of opposition were received. Letters of support were received from:
 - State Senator John G. Mulroe
 - Alan S. Brown, MD,
 - Mayor Marty Maloney
 - Nicholas Millissis, Alderman
 - Jeff Sorensen, Fire Chief
 - Reverend Theodore Stone
 - Vincent Bufalino, M.D.
 - David Sheftel, M.D.
 - Douglas A. Propp, M.D., MSAM, FACEP, FACPE
 - David Hassard, M.D.

CONCLUSION:

- The applicants addressed a total of 22 criteria and have successfully met them all.

STATE BOARD STAFF REPORT
Project #15-027
Advocate Lutheran General Hospital

APPLICATION SUMMARY/CHRONOLOGY	
Applicants	Advocate Health and Hospitals Corporation dba Advocate Lutheran General Hospital and Advocate Health Care Network
Facility Name	Advocate Lutheran General Hospital
Location/Address	1775 Dempster Street, Park Ridge
Permit Holder	Advocate Health and Hospitals Corporation dba Advocate Lutheran General Hospital
Operating Entity	Advocate Health and Hospitals Corporation
Owner of the Site	Advocate Health and Hospitals Corporation
Total Cost of the Project	\$18,840,927
Gross Square Feet	24,623 GSF
Number of Catheterization Laboratories	4 Catheterization Laboratories
Can Applicants Request Another Deferral?	Yes
Project Type	Non-Substantive
Application Received	June 11, 2015
Application Deemed Complete	June 12, 2015
Review Period Ends?	August 11, 2015
Obligation Date	November 28, 2016
Anticipated Completion Date	November 28, 2016

I. Project Description:

The applicants are proposing to relocate and modernize the Cardiac Catheterization Suite at Advocate Lutheran General Hospital. The Suite currently includes 4 cardiac catheterization units and one electrophysiology unit (or 5 total labs) as well as 8 Phase II recovery stations serving the labs. The Project would eliminate one cardiac cath unit, replace 3 cardiac cath units, relocate the electrophysiology unit, establish 4 Phase I recovery stations and increase the Phase II recovery stations from 8 to 14. The cost of the project is \$18,840,927 and the anticipated project completion date is November 28, 2016.

II. Summary of Findings

- A.** The State Board Staff finds the proposed project appears to be in conformance with the provisions of Part 1110.
- B.** The State Board Staff finds the proposed project appears to be in conformance with the provisions of Part 1120.

III. General Information

The applicants are Advocate Health Care Network and Advocate Health and Hospitals Corporation. Advocate Health Care Network is a nonprofit affiliated with the United Church of Christ and the Evangelical Lutheran Church of America. Advocate Health and Hospitals Corporation is a not for profit corporation. Advocate Lutheran General Hospital is located at 1775 Dempster Street, Park Ridge, Illinois in the HSA 7 Health Service Area. The operating entity and licensee is Advocate Health and Hospital Corporation. Project obligation will occur after permit issuance. This is a non substantive project. The applicants are in compliance with Executive Order #2005-5 and the proposed modernization is not in a flood plain. In addition no historic, architectural, or archeological sites exist within the project area.

IV. Outstanding Permits/Exemptions

The applicants have the following permits outstanding:

- 13-026 Advocate Lutheran General Hospital - Modernize existing Emergency Department with new construction and expansion of services. Estimated costs \$39,642,456
- 12-104 Advocate BroMenn Medical Center - Modernize Laboratory services by relocation to an existing space. Estimated costs \$7,648,833
- 14-027 Advocate BroMenn Medical Center Relocate the Pharmacy and establish 2 conference rooms in existing shell space Estimated costs \$2,031,564
- 12-066 Advocate Christ Medical Center-Construct a 9 level patient Tower.(Increase ICU by 50 beds, 17 OB beds, 27 neonatal ICU Level III, 16 M/S beds) Estimated costs \$345,756,980
- 14-057 Advocate Christ Medical Center - Modernize and Expand the existing Trauma Center and Emergency Departments. Estimated costs \$85,519,082
- 13-016 Advocate Good Shepherd Hospital - Major modernization of existing space. Discontinue 1 M/S bed and 6 Pediatric beds and increase ICU beds by 14 beds. Estimated costs \$246,841,082
- 14-057 Advocate Good Samaritan Hospital - Modernize and Expand the existing Trauma Center and Emergency Departments. Estimated costs \$85,519,082
- 12-065 Advocate Illinois Masonic Medical Center - Construct a new three story building for outpatient services with some modernization of existing space. Estimated costs \$109,248,973

- 13-015 Advocate Trinity Medical Center - Modernize existing space and add 12 ICU beds to an existing service. Estimated costs \$18,238,256
- 15-017 Advocate Condell Medical Center - Establish a multi-specialty ASTC. (Orthopedics - General - Neurosurgery - Urology - Otolaryngology). Estimated costs \$10,039,720
- In December 2014 the State Board approved the affiliation of Advocate Health Care Network, Advocate Health and Hospitals Corporation and NorthShore University HealthSystem.

V. Project Details

In August of 2013 the State Board approved a Trauma Center/Emergency Department project (Permit #13-026). This first phase of the Hospital's updated multi-year plan is currently under construction and nearing completion. Due to the challenging configuration of the site and the amount of grade, it was necessary to develop a crawl space under the Trauma Center/Emergency Department expansion in order for the new construction to be on the same level as the existing department. This crawlspace has a gravel floor, unfinished walls, exposed ceiling and is minimally heated to prevent pipes from freezing in the adjacent part of the building.

The Hospital's Cardiac Catheterization Suite (cardiac catheterization and electrophysiology labs as well as Phase II recovery stations) remain located in the basement of the original hospital. Over the years, as additional cardiac cath labs have been added, the department has expanded into three separate pods that are divided by a public corridor. This cumbersome floor plan results in inefficient work flow. The area does not meet current standards for air flow and radiation. There are no Phase I recovery spaces. The number of Phase II recovery stations is inadequate and the area's DGSF is approximately half the size suggested in the State Standards. All of the cardiac catheterization (cardiac cath) equipment in the labs has exceeded its useful life. The location is remote from other cardiac services that are part of Advocate Heart Institute at Advocate Lutheran General Hospital. Finally, the area is very difficult for patients to find.

The goal of the Project is to relocate the Cardiac Catheterization Suite into the crawlspace under the Trauma Center/Emergency Department. This Project will allow all cardiac cath and EP labs as well as recovery spaces to remain in operation during construction resulting in no down time. It will improve continuity of care, work flow and operational efficiency; it will also improve patient access, safety, clinical outcomes and patient way finding. Three new cardiac cath units will replace those that have exceeded their useful life and the existing EP lab will be relocated from the current space.

VI. Project Costs and Sources of Funds

The applicants are funding the project with cash of \$7,537,645 and a bond issue of \$11,303,282.

TABLE ONE			
Project Costs and Sources of Funds			
Project Costs			
Preplanning Costs	\$83,640	\$20,400	\$104,040
Site Preparation	\$95,300	\$225,300	\$320,600
New Construction Costs	\$5,531,540	\$2,693,415	\$8,224,955
Modernization Costs		\$497,400	\$497,400
Contingencies	\$550,388	\$267,995	\$818,383
Architectural and Engineering Fees	\$533,869	\$228,801	\$762,670
Consulting and Other Fees	\$310,590	\$533,110	\$843,700
Movable or Other Equipment	\$4,605,165	\$1,066,566	\$5,671,731
Bond Issuance Expense	\$39,561	\$101,730	\$141,291
Net Interest Expense	\$131,237	\$337,446	\$468,683
Other Costs to be Capitalized	\$906,234	\$81,220	\$987,454
Total	\$12,787,524	\$6,053,383	\$18,840,907
Project Sources of Funds			
Cash			\$7,537,645
Bond Issue			\$11,303,282
Total			\$18,840,927

VII. Cost Space Requirements

The applicants are proposing 18,074 GSF of new construction, 1,658 GSF of modernized space and 4,891 of as is space. Only the clinical space is reviewed by the State Board Staff.

**TABLE TWO
Project Cost Space Requirements**

Department/Service	Project Costs	Existing	Proposed	New Construction	Mod.	As Is	Vacated Space
Cardiac Catheterization	\$9,265,018	8,322	6,864	6,864	0	0	8,322
Phase I Recovery Stations	\$487,669	425	719	719	0	0	425
Phase II Recovery Stations	\$3,034,837	2,013	4,470	4,470	0	0	2,013
Total Clinical	\$12,787,524	10,760	12,053	12,053	0	0	10,760
Administrative Education	\$2,601,148	4,324	6,086	1,762	0	4,324	0
Public Spaces	\$747,595	577	1,552	1,552	0	0	577
Education	\$329,305						
Mechanical	\$803,287						
Roof Top AHU	\$472,165						
Building Components	\$1,099,903	567	4,932	2,707	1,658	567	0
Total Non Clinical	\$6,053,403	5,468	12,570	6,021	1,658	4,891	577
Total	\$18,840,927	16,228	24,623	18,074	1,658	4,891	11,337

Use of Vacated Space

There will be 10,760 GSF of clinical space and 577 GSF of non clinical space vacated when the Cardiac Catheterization Suite is relocated. Future plans for this space include the development of a Simulation Laboratory which is a hands-on learning environment where medical and nursing students apply theoretical knowledge to a simulated yet dynamic medical facility setting. In the Simulation Lab, students practice essential skills on computer operated yet life-like mannequins that simulate everything from mild symptoms to complex health problems to specialized scenarios that occur with real-life patients. This type of experiential and active learning mimics the reality in the hospital or clinic setting while providing a risk-free learning environment for students to demonstrate critical thinking and judgment skills without fear of harming a patient.

VII. Section 1110.530 (b) (1) (3) – Background of Applicants

Advocate Health and Hospitals Corporation and Advocate Health Care Network have attested that there have been no adverse actions for 3 years prior as evidenced by compliance with Medicare and Medicaid 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. Advocate Health and Hospitals Corporation and Advocate Health Care Network also 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.

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT TO BE IN CONFORMANCE WITH CRITERION BACKGROUND OF APPLICANTS (77 IAC 1110.530 (b)(1) (3))

VIII. Section 1110.230 - Purpose of Project, Safety Net Impact Statement and Alternatives

A) Criterion 1110.230 (a) - Purpose of the Project

The applicants stated the following: *“The purpose of the proposed Project is to address Advocate Lutheran General Hospital's (ALGH, Hospital) inability to fulfill the requirement of Section 1100.360 of The Illinois Health Facilities Planning Act that "The people of Illinois should have facilities which are modern in accord with recognized standards of design, construction, operation and which represent the most cost efficient alternative for the provision of quality of care." The current Project involves relocating the Hospital's Cardiac Catheterization Suite from its current obsolete and inefficient space to accessible new space designed with adequate square footage to sustain efficient work flow, to accommodate advanced equipment and to enhance patient outcomes and safety as well as the patient experience. The Project is critical to continuing to improve clinical outcomes and quality of service to patients. The proposed new location will improve access and way finding to the Suite and enhance coordination of care among all elements of the Advocate Heart Institute at ALGH. It will improve door-to-balloon times due to increased operational efficiency and a more accessible location, and it will decrease radiation dose to patients, staff and physicians consistent with the most recent radiation standards. Finally, the improved area and advanced technology in the new Suite will attract needed cardiologists to the area, thereby improving access to the community. The better access to the facility and to physicians, increased coordination of care, as well as enhanced patient outcomes, patient safety and patient experience achieved by the Project will improve health care and the well-being of the population served by Advocate Lutheran General Hospital.”*

B) Criterion 1110.230 (b) - Safety Net Impact Statement

The applicants stated the following:

“Advocate Health and Hospitals Corporation provided \$661 million in charity care and services in 2013. This contribution represents more than one million lives touched in the community Advocate Serves throughout Chicago land and Central Illinois. Advocate provided \$527.5 million in free care and discounted charity care for the uninsured and underinsured including subsidized or without full reimbursement from Medicare, Medicaid or other government-sponsored programs. Advocate also provided \$34.1 million in services that responding to unique community needs including trauma services, behavioral health services, health screenings, immunization programs, alcohol-based health care and other community outreach programs. In 2013, Advocate contributed \$82.3 million to professional education to train physicians, nurses, radiology technicians, physical therapists and a host of other highly skilled health care professionals. Advocate hospital workers volunteered in their communities and

community members who volunteered at Advocate hospitals accounted for another \$36.2 million. \$4.0 million was provided for language assistance services including the provision of interpreter services and translation for signage, for forms, brochures, patient education materials and information in languages other than English. Finally, contributions of equipment, supplies, and meeting and clinic space as well as other assistance to communities accounted for the balance, or \$6.6 million. Advocate Lutheran General Hospitals provided a significant portion of the System's community benefit efforts and support." See Pages 149-160 of the application for permit for a complete discussion of the Safety Net Impact and Charity Care. In addition a copy of the financial assistance policy was provided by the applicants.

TABLE THREE				
Advocate Lutheran General Hospital				
Net Revenue	\$741,764,588	\$717,538,689	\$692,043,354	\$667,042,998
CHARITY CARE ⁽¹⁾				
Charity (# of patients)	2014	2013	2012	2011
Inpatient	351	1054	1,093	825
Outpatient	4,754	6,515	5,991	2,884
Total	5,105	7,569	7,084	3,709
Charity (cost In dollars)				
Inpatient	\$4,106,000	\$11,353,000	\$10,434,000	\$9,057,000
Outpatient	\$4,048,000	\$6,194,000	\$5,375,000	\$4,395,000
Total	\$8,154,000	\$17,547,000	\$15,809,000	\$11,452,000
MEDICAID				
Medicaid (# of patients)	2014	2013	2012	2011
Inpatient	5,782	5,036	4,242	4,595
Outpatient	52,192	47,123	46,192	47,038
Total	57,974	52,159	50,434	51,633
Medicaid (net revenue)				
Inpatient	\$59,475,887	\$55,789,667	\$43,993,389	\$43,182,356
Outpatient	\$8,123,910	\$7,862,418	\$5,246,215	\$5,775,944
Total	\$67,599,797	\$63,652,085	\$49,239,604	\$48,958,300
Charity Care % or Net Revenue	1.20%	2.45%	2.28%	1.72%
Medicaid % of Net Revenue	9.10%	8.87%	7.12%	7.34%

C) Criterion 1110.234 (c) - Alternatives to the Proposed Project

Alternative 1 - Utilize other healthcare resources that are available. This alternative was rejected because it is inconsistent with the purpose of the Project. The proposed facilities will be operated as part of the premises licensed under The Illinois Hospital Licensing Act, therefore a joint venture would involve the entire Hospital; this is not a feasible option.

Alternative 2 - Utilize other available health resources for a portion of the population to be served. This alternative was rejected for the following reasons: Other local health care resources do not have the same advanced cardiac capabilities that are available at ALGH. Referral or transfer to another facility would separate the patient from his physicians, disrupt continuity of care, and risk error in transition from one

facility to another. If patients were to be transferred to other facilities, the needed graduate medical and nursing education programs at ALGH would be compromised. The patients of the Advocate Heart Institute at ALGH could not be part of the Institute's research studies.

Alternative 3 - Expand the Cardiac Catheterization Suite to the old receiving dock was rejected for the following reasons: Premium costs required for supporting walls and required phasing. This alternative would result in less than ideal departmental layout uncondusive to a desired patient experience. This alternative would compromise surgical clinical operations by disrupting surgical cases during construction and inhibiting future operating room expansion. Estimated Capital Costs are \$16 million.

Alternative 4 – Build a new addition This alternative was rejected because it would result in higher construction costs, require phasing which would disrupt the campus and add cost. This alternative would also require relocation of parking and fire exists as well as some underground utilities would also add unnecessary cost to the project. This alternative would decrease efficiency of patient safety and patient flow due to the increased distance from the emergency department and main entrance. Estimated Capital Costs is \$16.8 million.

Alternative 5 - The proposed project. The proposed project was selected because no phasing would be required and proposed location is closer to the Main Entrance and the Advocate Heart Institute Functions and will enhance patient way finding. Door to balloon times will be reduced because of the vertical proximity to the Emergency Department. Estimated Capital Costs is \$18.8 million.

IX. Section 1110.234 - Project Scope and Size, Utilization, Assurances

A) Criterion 1110.234 (a) - Size of Project

The applicants are proposing 4 cardiac cath labs, 4 Phase I Recovery Rooms, and 14 Phase II Recovery Rooms. The applicants have met the size requirements of the State Board.

TABLE FOUR Size of Project					
Department Area	Proposed Rooms	Total GSF	Room GSF	State Standard GSF	Met State Standard?
Cardiac Cath Labs	4	6,864	1,716	1,800	Yes
Phase I Recovery ⁽¹⁾	4	719	180	180	Yes
Phase II Recovery ⁽²⁾	14	4,470	319	400	Yes
<p>1. Post-Anesthesia Recovery Phase I means the phase in surgical recovery that focuses on providing a transition from a totally anesthetized state to one requiring less acute interventions. Recovery occurs in the post-anesthesia care unit (PACU). The purpose of this phase is for patients to regain physiological homeostasis and receive appropriate nursing intervention as needed.</p> <p>2. Post-Anesthesia Recovery Phase II means the phase in surgical recovery that focuses on</p>					

preparing the patient for self care, care by family members, or care in an extended care environment. The patient is discharged to phase II recovery when intensive nursing care no longer is needed. In the phase II area, sometimes referred to as the step-down or discharge area, the patient becomes more alert and functional.

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT IN CONFORMANCE WITH CRITERION SIZE OF PROJECT (77 IAC 1110.234 (a))

B) Criterion 1110.234 (b) - Project Services Utilization

The applicants are projecting 2,392 procedures by 2018, 2 years after project completion. This meets the State Standard of 400 procedures per lab.

TABLE FIVE Projected Utilization					
Department Area	Proposed Rooms	Historical Utilization		Projected Utilization	Met State Standard ⁽¹⁾
		2013	2014	2018	
Cardiac Cath Labs	4	2,128	2,140	2,392	Yes
Phase I Recovery	4	0	0	456	NA
Phase II Recovery	14	2,772	3,301	4,569	NA
1. The State Standard for cardiac cath is 400 procedures per lab. 77 IAC 1100.620 Currently there are no Phase I recovery stations supporting the cardiac catheterization labs. Cardiac cath and EP patients requiring Phase I recovery are taken to surgery Phase I recovery.					

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT IN CONFORMANCE WITH CRITERION PROJECT SERVICES UTILIZATION (77 IAC 1110.234 (b))

C) Criterion 1110.234 (e) Assurances

The applicants are currently at target occupancy for the 5 cardiac catheterization labs and are proposing to reduce the number to 4 cardiac catheterization labs. It would appear that the applicants will maintain target occupancy 2 years after project completion.

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT IN CONFORMANCE WITH CRITERION ASSURANCES (77 IAC 1110.234 (e))

X. Section 1110.1330 - Cardiac Catheterization

- A) Criterion 1110.1330 (a) - Peer Review**
- B) Criterion 1110.1330 (c) - Unnecessary Duplication of Services**
- C) Criterion 1110.1330 (d) - Modernization of Existing Cardiac Catheterization Equipment**
- D) Criterion 1110.1330 (e) - Support Services**
- E) Criterion 1110.1330 (f) - Laboratory Location**

F) Criterion 1110.1330 (g) - Staffing

G) Criterion 1110.1330 (h) - Continuity of Care

The applicants are proposing to relocate and modernize the existing Cardiac Catheterization Suite at Advocate Lutheran General Hospital. The Suite currently includes 4 cardiac catheterization units and one electrophysiology unit for a total of 5 labs as well as 8 Phase II recovery stations serving the labs. The Project would eliminate one cardiac cath unit, replace 3 cardiac cath units, relocate the electrophysiology unit, establish 4 Phase I recovery stations and increase the Phase II recovery stations from 8 to 14. At the completion of the project the cardiac catheterization suite will have four cardiac cath labs - two for diagnostic and interventional cardiac caths, one for cardiac caths and electrophysiology (EP) procedures, and the fourth will be dedicated to EP procedures. Complex trans esophageal echocardiograms (TEEs) will also be performed in the cardiac cath labs. There will be 4 Phase I recovery stations; IDPH code requires one Phase I recovery station for each cardiac cath lab. There will also be 14 Phase II recovery stations. The number of rooms was determined to satisfy two needs. First, this number is needed to accommodate the greater throughput of the advanced catheterization equipment that will be installed as part of this Project. Second, the Phase II recovery stations will also be used to perform tilt table exams, cardioversion procedures, and loop recorder procedures. The Cardiac Catheterization Suite would be consolidated in new construction in space that is presently crawlspace under the Emergency Department.

The applicants have detailed in their application for permit their mechanism for peer review of the program at pages 93-94 of the application for permit as required. Advocate Lutheran General Hospital has an established cardiac catheterization service and exceeds the State's cardiac catheterization utilization standards. The Hospital reported 2,128 cardiac catheterization procedures in 2013 and 2,143 procedures in 2014. This volume supports the need for more than 5 cardiac cath and/or EP units. The Hospital is requesting a total of 4 units. The State Board Standard is 400 procedures per cath unit. The Hospital is proposing to reduce the number of cardiac cath/EP labs in the Cardiac Catheterization Suite from 5 to 4. This is possible for 2 reasons. First, faster patient throughput will be possible with the new high tech equipment that is to be installed and the Hospital no longer needs the fifth lab with air flow that meets operating room standards since in the relocated unit, all cath rooms will meet operating room airflow standards. Consequently, the CRM (cardiac rhythm management) cardiac cath lab will be eliminated. Second, the Hospital assumed modest growth between 2014 and 2018, 2 years after project completion. This growth is attributable to two factors. The first is population growth and especially growth of the senior age groups, the primary users of the cardiac catheterization labs. The second is incremental new cath volume that will be possible because the new equipment will have capabilities that the current equipment does not have such as removal of transvenous pacemaker electrodes, single lead system, atrial or ventricle; removal of transvenous pacemaker electrodes, dual lead system; and removal of single or dual chamber pacing cardioverter defibrillator electrode(s), by transvenous extraction. Together these factors are expected to increase volume in the Cardiac Catheterization Suite by 249 procedures or total procedures of 2,392 by 2018, the second full year of utilization.

The labs will be adjacent to each other. Appropriate staffing is in place as the Hospital has an existing cardiac cath program and the Hospital has a heart surgery program.

TABLE SIX
Hospitals in the HSA7 Cardiac Catheterization Planning Area

Hospital	City	Health Service Area	Cardiac Catheterization Labs	Cardiac Catheterization Procedures	Number of Cath. Labs Justified
			Total Labs	Total Procedures	
Franciscan St. James Health - Olympia Fields	Olympia Fields	7	9	1,756	5
Loyola University Medical Center	Maywood	7	9	4,550	12
Advocate Christ Medical Center	Oak lawn	7	6	5,397	14
Edward Hospital	Naperville	7	6	4,059	11
Advocate Lutheran General Hospital	Park Ridge	7	5	2,128	6
Alexian Brothers Medical Center	Elk Grove Village	7	4	2,709	7
Elmhurst Memorial Hospital	Elmhurst	7	4	2,528	7
MetroSouth Medical Center	Blue Island	7	4	2,098	6
Adventist Hinsdale Hospital	Hinsdale	7	3	1,419	4
Advocate Good Samaritan Hospital	Downers Grove	7	3	2,128	6
Central DuPage Hospital	Winfield	7	3	2,367	6
Evanston Hospital	Evanston	7	3	2,073	6
MacNeal Hospital	Berwyn	7	3	1,522	4
Northwest Community Hospital	Arlington Heights	7	3	1,717	5
Adventist La Grange Memorial Hospital	La Grange	7	2	929	3
Advocate South Suburban Hospital	Hazel Crest	7	2	804	3
Gottlieb Memorial Hospital	Melrose Park	7	2	880	3
Ingalls Memorial Hospital	Harvey	7	2	1,312	4
Little Company of Mary Hospital	Evergreen Park	7	2	824	3
Palos Community Hospital	Palos Heights	7	2	2,043	6
Presence Saint Francis Hospital	Evanston	7	2	1,056	3
Skokie Hospital	Skokie	7	2	1,226	4
St. Alexius Medical Center	Hoffman Estates	7	2	1,499	4
VHS Westlake Hospital	Melrose Park	7	2	577	2
Adventist GlenOaks Hospital	Glendale Heights	7	1	448	2
Glenbrook Hospital	Glenview	7	1	573	2
Rush Oak Park Hospital	Oak Park	7	1	240	1
VHS West Suburban Medical Center	Oak Park	7	1	737	2
Total			89	49,599	
Average Number of Procedures per Lab				558	

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT IN CONFORMANCE WITH CRITERION PEER REVIEW, UNNECESSARY DUPLICATION OF SERVICES, MODERNIZATION OF EXISTING CARDIAC CATH SERVICE, SUPPORT SERVICES, LABORATORY LOCATION, STAFFING, AND CONTINUITY OF CARE (77 IAC 1110.1330 (a) (c) (d) (e) (f) (g) (h)

XI. Section 1110.3030 – Clinical Services Other than Categories of Service

A) Criterion 1110.3030 (d) – Necessary Expansion

Phase I Recovery Stations

The Hospital proposes to provide 4 Phase I recovery stations in the relocated Cardiac Catheterization Suite. These Phase I recovery stations are required by Illinois code and will be used for the recovery of select cardiac catheterization (cath) and electrophysiology (EP) patients and for complex TEE procedures. TEE is a diagnostic test which employs ultrasound waves to make images of the heart chambers, valves and surrounding structures and which is done through the esophagus. The number of Phase I recovery stations (4) proposed for the Cardiac Catheterization Suite is based on IDPH code requirements of 1 Phase I recovery station for each procedure room. Advocate Lutheran General Hospital assumed that cardiac cath lab volume would increase from 2,143 procedures in 2014 to 2,392 procedures by 2018 (the second full year of utilization) based on population growth and aging and redistribution of procedures (105 procedures), and by new procedures that could be performed on the new, advanced technology (144 procedures). 2,143 current procedures + 105 growth and redistribution procedures + 144 new procedures = 2,392 total procedures. The Hospital assumed that 15 percent of all cardiac cath and EP patients (or 359 patients) would utilize Phase I recovery and most likely be admitted. The Hospital further assumed that TEE volume would increase by the rate of senior population growth or 11.9 percent or to 97 procedures in 2018.

Phase II Recovery Stations

The Hospital is proposing to increase the number of Phase II prep/recovery stations from 8 to 14. Of these, 12 are required by code; the additional recovery stations are necessary to accommodate the improved patient throughput possible with advanced high technology cardiac catheterization units being installed including recovery of patients having undergone tilt table and cardioversion procedures and loop recorder insertions. The number of Phase II prep/recovery stations proposed for the Cardiac Catheterization Suite is based on IDPH code requirements of at least 3 Phase II recovery rooms for each cardiac cath/EP lab.

To derive Phase II prep/recovery utilization, the Hospital assumed that all cardiac cath and EP patients would use the Phase II prep/recovery stations for prep except a very limited number of emergency patients who will be prepped in the cath lab. In addition, the Hospital assumed that 85 percent of the patients (excluding the 15 percent of the

patients utilizing the Phase I stations) would use the Phase II stations for recovery. To complete the projection, the Hospital added the tilt table, cardioversion, and loop recorder procedures that would be performed in the Phase II area. The Hospital assumed this volume would increase consistent with current trends or to 144 procedures. Total final Phase II prep/recovery volume by 2018 is expected to be 4,569 patients.

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT TO BE IN CONFORMANCE WITH CRITERION CLINICAL SERVICES OTHER THAN CATEGORIES OF SERVICE (77 IAC 1110.3030 (d))

FINANCIAL

XII. Section 1120.120 - Availability of Funds

The applicants are proposing to fund this project with cash of \$7,537,645 and a bond issue of \$11,303,282. The applicants have an “A” or better bond rating from Standard and Poor’s Rating Services, Moody’s Investor Services, and Fitch. The applicants provided their audited financial statements for years 2014 and 2013.

TABLE SEVEN		
Advocate Health Care Network and Subsidiaries		
Audited Financial Statements		
December 31st		
(in thousands)		
	2014	2013
Cash	\$272,912	\$563,229
Current Assets	\$1,322,268	\$1,524,917
Total Assets	\$9,534,180	\$9,049,946
Current Liabilities	\$1,439,058	\$1,380,596
LTD	\$1,458,375	\$1,452,109
Net Patient Service Revenue	\$4,786,197	\$4,468,468
Total Revenue	\$5,231,393	\$4,938,002
Expenses	\$4,900,793	\$4,637,807
Operating Income	\$330,600	\$300,195
Revenues in Excess of expenses	\$369,607	\$765,320

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT IN CONFORMANCE WITH CRITERION AVAILABILITY OF FUNDS (77 IAC 1120.120)

XIII. Section 1120.130 - Financial Viability

The applicants qualify for the financial viability waiver because the applicants have an “A” or better bond rating From Standard and Poor’s Rating Services, Moody’s Investor Services, the project is being funded with cash and securities totaling \$7,537,645, and a Bond Issue of \$11,303,282.

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT TO BE IN CONFORMANCE WITH CRITERION FINANCIAL VIABILITY (77 IAC 1120.130)

XIV. Section 1120.140 - Economic Feasibility

- A) **Criterion 1120.140 (a) – Reasonableness of Financing Arrangements**
- B) **Criterion 1120.140 (b) - Conditions of Debt Financing**

The project is being funded with cash and securities totaling \$7,537,645, and a Bond Issue of \$11,303,282. The applicants have stated that fixed rate bonds would be issued at a 5.5% interest rate and also assumed that bond issuance costs would be 1.25% of the bonds issued. The bonds for this project have not yet been issued; the term of the bonds will vary. The last three bond issuances were 35 years, 20 years and 25 years. The structure of the next bond issue could be longer than 35 years, but probably will not be less than 20 years.

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT TO BE IN CONFORMANCE WITH CRITERION REASONABLENESS OF FINANCING ARRANGEMENTS AND CONDITIONS OF DEBT FINANCING (77 IAC 1120.140 (a) (b))

- C) **Criterion 1120.140 (c) - Reasonableness of Project and Related Costs**

State Board staff notes that all costs identified in this criterion are classified as being clinical. The Tables below represent both clinical and non clinical costs.

Preplanning Costs – These costs total \$83,640, and comprise less 1% of the new construction, contingencies, and equipment costs. This appears reasonable when compared to the State Board Standard of 1.8%.

TABLE EIGHT

Pre-Planning	\$104,040
Site and Facility Planning	\$9,800
Programming thru Conceptual Planning	\$94,240

Site Survey/Site Preparation – These costs are \$95,300 and 1.57% of construction and contingencies costs. This appears reasonable when compared to the State Board Standard of 5%

TABLE NINE

Site Preparation	\$320,600
Prep Work (Clearing, shoring and utilities)	\$205,100
Minor earthwork, bench marks, drainage, trench lines, stone	\$115,500

New Construction and Contingencies – These costs are \$6,081,928 or \$504.60 per GSF ($\$6,081,928/12,053 = \504.60). This appears reasonable when compared to the State Board Standard of \$588.00 per GSF.

Contingencies Costs – These costs are \$550,388 and are 9.9% of new construction costs. This appears reasonable when compared to the State Board Standard of 10%.

Architectural and Engineering Fees – These costs are \$533,869 and are 8.7% of new construction and contingencies. This appears reasonable when compared to the State Board Standard of 6.42%-9.64%.

Consulting Fees – These costs are \$310,590. The State Board does not have a standard for these costs.

TABLE TEN

Consulting and Other Fees	\$843,700
Const. Admin & Misc. Consultants	\$130,000
Operational Consultants 1 Misc. Analysis	\$80,584
Reimbursables/ Renderings/ Misc. support	\$43,454
MEP Commissioning	\$80,000
Peer Review, Equipment planner	\$210,000
Miscellaneous	\$299,662

Movable of Other Equipment – These costs are \$4,605,165. The State Board does not have a standard for these costs.

TABLE ELEVEN

Movable Equipment	\$5,671,731
Imaging	\$3,316,572
Patient Monitors	\$565,000
PACS Hardware /Server/ Station Equipment	\$196,000
General Equip.	\$824,496
Miscellaneous equipment	\$769,663

Other Costs to be Capitalized – These costs are \$167,390. The State Board does not have a standard for these costs.

TABLE TWELVE

Other Costs to be Capitalized	\$987,454
FF&E	\$448,000
Utilities/Taps	\$15,678
Data Infrastructure, wireless, telecom	\$510,000
Miscellaneous other costs	\$13,776

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT IS IN CONFORMANCE WITH CRITERION REASONABLENESS OF PROJECT COSTS (77 IAC 1120.140 (c))

D) Criterion 1120.140 (d) - Projected Operating Costs

The projected operating costs per procedure are \$2615.25 per equivalent patient day. The operating costs appear reasonable when compared to previously approved projects.

Projected Operating Costs	
	2017
Hospital	\$654,172,064
Project	\$2,825,430
Total	\$656,997,494
Cost per Equivalent Patient Day	
Hospital	\$2,604
Project	\$11.25
Total	\$2,615.25

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT TO BE IN CONFORMANCE WITH CRITERION PROJECTED OPERATING COSTS (77 IAC 1120.140 (d))

E) Criterion 1120.140 (e) - Total Effect of the Project on Capital Costs

The total effect of project on capital costs per procedure is \$331.00 per patient day. The capital costs appear reasonable when compared to previously approved projects.

Projected Capital Costs	
Capital Costs	
Hospital	\$37,195,064
Project	\$1,476,059
Total	\$38,671,632
Cost per Equivalent Patient Day	
Hospital Capital Costs EPD	
	\$148.04
Project Capital Costs EPD	\$5.87

THE STATE BOARD STAFF FINDS THE PROPOSED PROJECT TO BE IN CONFORMANCE WITH CRITERION TOTAL EFFECT OF THE PROJECT ON CAPITAL COSTS (77 IAC 1120.140 (e))

Surgery and Operating Room Utilization

Surgical Specialty	Operating Rooms				Surgical Cases		Surgical Hours			Hours per Case	
	Inpatient	Outpatient	Combined	Total	Inpatient	Outpatient	Inpatient	Outpatient	Total Hours	Inpatient	Outpatient
Cardiovascular	1	0	0	1	410	142	1763	341	2104	4.3	2.4
Dermatology	0	0	0	0	0	0	0	0	0	0.0	0.0
General	1	7	10	18	1928	3757	5987	6570	12557	3.1	1.7
Gastroenterology	0	0	0	0	21	9	38	10	48	1.8	1.1
Neurology	0	0	2	2	420	158	1460	400	1860	3.5	2.5
OB/Gynecology	0	0	0	0	378	1993	1193	3934	5127	3.2	2.0
Oral/Maxillofacial	0	0	0	0	25	937	66	2016	2082	2.6	2.2
Ophthalmology	0	0	0	0	20	37	57	95	152	2.9	2.6
Orthopedic	0	0	2	2	3083	1336	8936	2782	11718	2.9	2.1
Otolaryngology	0	0	0	0	214	1408	502	2292	2794	2.3	1.6
Plastic Surgery	0	0	0	0	202	646	868	1635	2503	4.3	2.5
Podiatry	0	0	0	0	22	242	39	512	551	1.8	2.1
Thoracic	0	0	0	0	161	30	502	36	538	3.1	1.2
Urology	0	0	1	1	451	1164	1058	1585	2643	2.3	1.4
Totals	2	7	15	24	7335	11859	22469	22208	44677	3.1	1.9

SURGICAL RECOVERY STATIONS

Stage 1 Recovery Stations

25

Stage 2 Recovery Stations

49

Dedicated and Non-Dedicated Procedure Room Utilization

Procedure Type	Procedure Rooms				Surgical Cases		Surgical Hours			Hours per Case	
	Inpatient	Outpatient	Combined	Total	Inpatient	Outpatient	Inpatient	Outpatient	Total Hours	Inpatient	Outpatient
Gastrointestinal	2	0	6	8	1773	10796	1418	8637	10055	0.8	0.8
Laser Eye Procedures	0	0	0	0	0	0	0	0	0	0.0	0.0
Pain Management	0	0	0	0	0	0	0	0	0	0.0	0.0
Cystoscopy	0	0	0	0	0	0	0	0	0	0.0	0.0

Multipurpose Non-Dedicated Rooms

	0	0	0	0	0	0	0	0	0	0.0	0.0
	0	0	0	0	0	0	0	0	0	0.0	0.0
	0	0	0	0	0	0	0	0	0	0.0	0.0

Emergency/Trauma Care

Certified Trauma Center	Yes
Level of Trauma Service	Level 2
	Adult
	Not Answered
Operating Rooms Dedicated for Trauma Care	1
Number of Trauma Visits:	1,134
Patients Admitted from Trauma	1,021
Emergency Service Type:	Comprehensive
Number of Emergency Room Stations	33
Persons Treated by Emergency Services:	61,882
Patients Admitted from Emergency:	13,726
Total ED Visits (Emergency+Trauma):	63,016

Free-Standing Emergency Center

Beds in Free-Standing Centers	0
Patient Visits in Free-Standing Centers	0
Hospital Admissions from Free-Standing Center	0

Outpatient Service Data

Total Outpatient Visits	299,669
Outpatient Visits at the Hospital/ Campus:	299,669
Outpatient Visits Offsite/off campus	0

Cardiac Catheterization Labs

Total Cath Labs (Dedicated+Nondedicated labs):	5
Cath Labs used for Angiography procedures	0
Dedicated Diagnostic Catheterization Lab	0
Dedicated Interventional Catheterization Labs	0
Dedicated EP Catheterization Labs	0

Cardiac Catheterization Utilization

Total Cardiac Cath Procedures:	2,128
Diagnostic Catheterizations (0-14)	15
Diagnostic Catheterizations (15+)	1,322
Interventional Catheterizations (0-14):	0
Interventional Catheterization (15+)	543
EP Catheterizations (15+)	248

Cardiac Surgery Data

Total Cardiac Surgery Cases:	172
Pediatric (0 - 14 Years):	6
Adult (15 Years and Older):	166
Coronary Artery Bypass Grafts (CABGs) performed of total Cardiac Cases :	116

Diagnostic/Interventional Equipment

	Examinations			Contract
	Owned	Inpatient	Outpt	

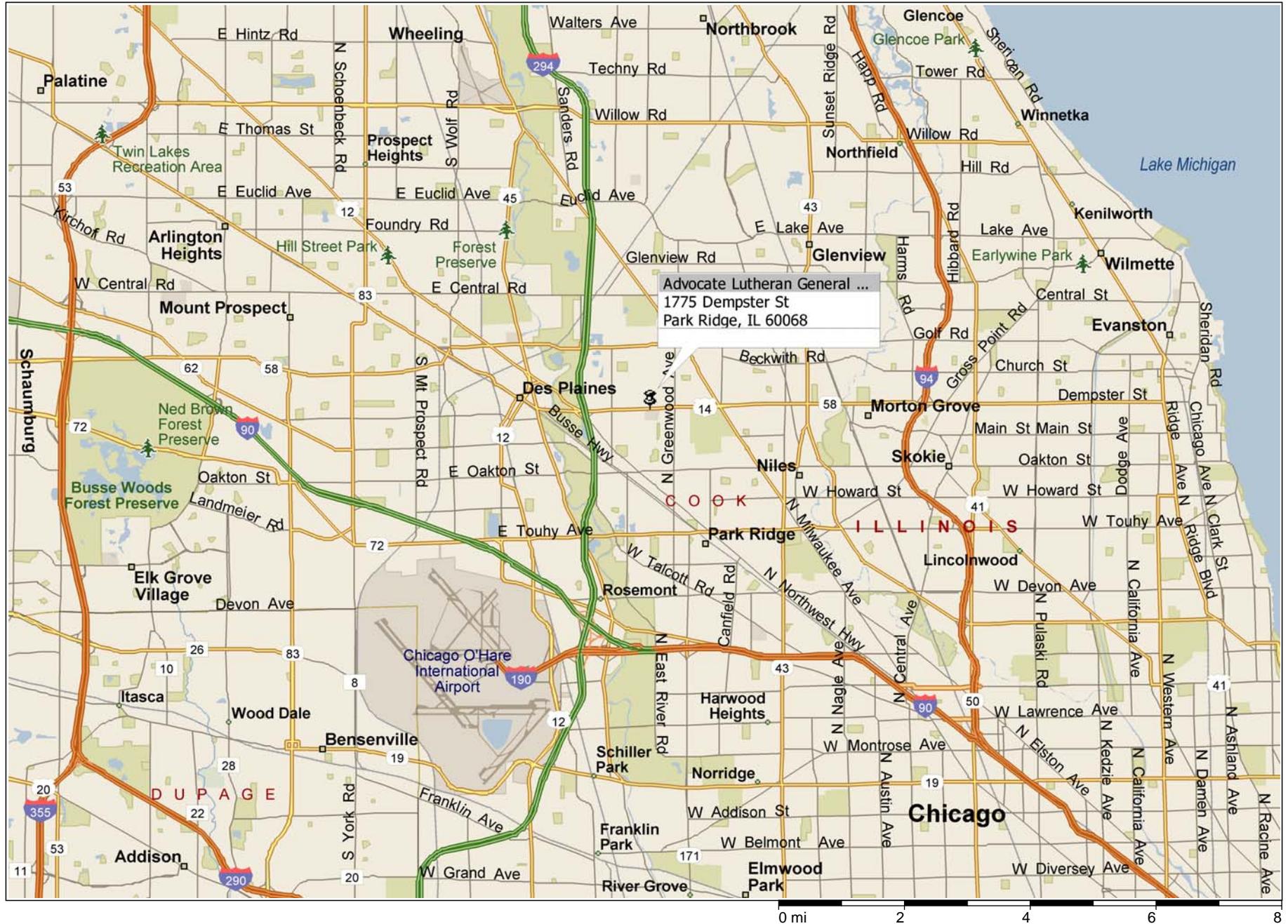
General Radiography/Fluoroscopy	32	0	44,622	47,787	0
Nuclear Medicine	8	0	1,543	4,153	0
Mammography	7	0	0	29,102	0
Ultrasound	11	0	4,114	18,100	0
Angiography	2	0			
Diagnostic Angiography			3,933	3,881	0
Interventional Angiography			1,843	2,320	0
Positron Emission Tomography (PET)	1	0	0	545	0
Computerized Axial Tomography (CAT)	5	0	15,386	23,069	0
Magnetic Resonance Imaging	5	0	4,814	13,501	0

Therapeutic Equipment

	Owned		Contract	Therapies/Treatments
	Owned	Contract		

Lithotripsy	0	1	717
Linear Accelerator	3	0	10,264
Image Guided Rad Therapy			3,501
Intensity Modulated Rad Thrp			3,184
High Dose Brachytherapy	1	0	263
Proton Beam Therapy	0	0	0
Gamma Knife	0	0	0
Cyber knife	0	1	573

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