STATE OF ILLINOIS
HEALTH FACILITIES AND SERVICES REVIEW BOARD
525 WEST JEFFERSON ST, SPRINGFIELD, ILLINOIS 62761 •(217) 782-3516 FAX: (217) 785-4111

DOCKET NO: H-01	BOARD MEETING: May 9, 2023	PROJECT NO: #22-047	PROJECT COST: Original: $388,787,687
FACILITY NAME: Northwestern Lake Forest Hospital		CITY: Lake Forest	
TYPE OF PROJECT: Substantive			HSA: VIII

PROJECT DESCRIPTION: The Applicants are proposing a 96-bed addition to Lake Forest Hospital in Lake Forest, Illinois. The total cost of the project is $388,787,687. **The anticipated completion date is April 30, 2028.**

EXECUTIVE SUMMARY

PROJECT DESCRIPTION:

- The Applicants are proposing a 96-bed addition to Lake Forest Hospital in Lake Forest, Illinois. The total cost of the project is $388,787,687. The Applicants are asking the State Board to approve the addition of 84 medical surgical beds and 12 intensive care beds. Should the State Board approve this project the Hospital will have a total of 168 medical surgical beds, 24 intensive care beds and 18 obstetric beds for a total of 210 inpatient beds. The anticipated completion date is April 30, 2028.

BACKGROUND

- In January of 2010 the State Board approved a change of ownership of Lake Forest Hospital to Northwestern Medicine as Exemption #E-004-10.
- In June of 2014 the State Board approved the Lake Forest replacement hospital as Permit #14-006 at a cost of $378 million. At that time the Hospital was approved for 84 medical surgical beds, 12 intensive care beds, 18 obstetric beds and 84 long-term care beds for a total of 198 authorized beds.
- In August of 2017 the State Board approved the discontinuation of the 84 long-term care beds at Lake Forest Hospital as Exemption #E-032-17.

WHY THE PROJECT IS BEFORE THE STATE BOARD:

- The project is before the State Board because the proposed project is a substantial change in the number of beds being added and the cost of the project exceeds the capital expenditure minimum of $15,723,786.

PURPOSE OF THE PROJECT:

- The purpose of this project is to address the high inpatient utilization at the Hospital. According to the Applicants this growth can be attributed to the advance care capabilities at the Hospital since the affiliation with Northwestern Medicine, the closure of the Vista West Hospital emergency department just prior to the opening of the replacement hospital, and patient preference to utilize Northwestern Lake Forest Hospital.

PUBLIC COMMENT:

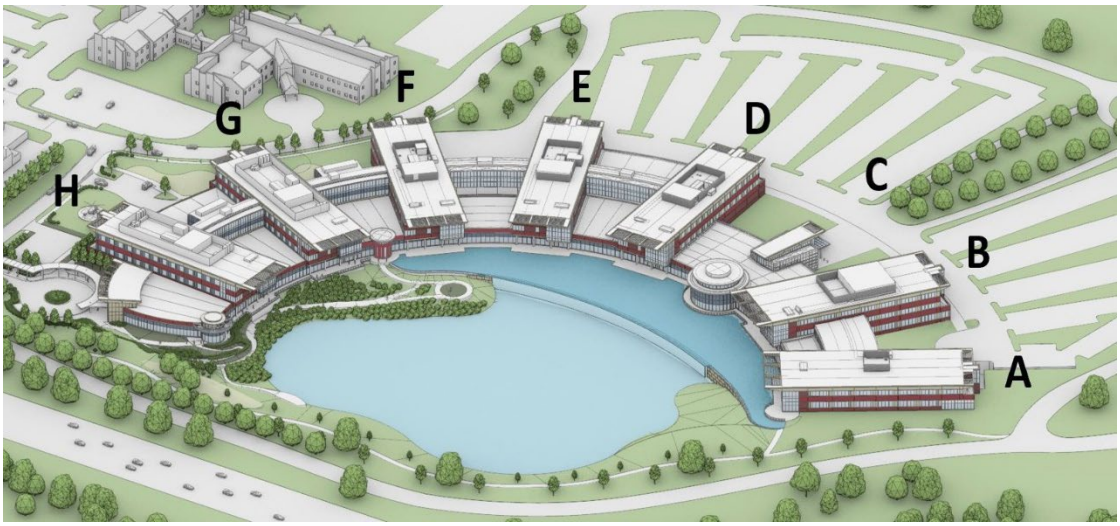
- A public hearing was conducted on February 15, 2023. SEIU Healthcare spoke in opposition to the proposed project at the public hearing.

WHAT WE FOUND:

- For the expansion of an existing Hospital the State Board does not consider the calculated bed need or excess in the planning area. The State Board does not consider the proposed project a modernization project as a modernization of a hospital does not include a substantial change in either the bed count or scope of the facility.
- The Applicants note the historical growth in the number of patient days of 8.6% annually for medical surgical service and 8.3% annual growth in inpatient days for intensive care beds. The Applicants are expecting a 7.6% annual growth in patient days for medical surgical inpatient service for the period 2022 to 2029 two years after project completion. The Applicants are expecting a 2% growth in medical surgical observation days for this

same period. The Applicants used these growth rates to justify the additional 84 medical surgical beds being requested for a total of 168 beds. The Hospital has increased ICU patient days by an 8.3% annually for the period 2015-2021 and expects a 7.3% average annual growth rate for the period 2022-2029. The Applicants experienced a 37.3% annual growth in dedicated observation unit patient days for the period 2015-2021. The Applicants are projecting a growth in dedicated observation days of 16.2% until 2029 the second year after project completion.

- CY 2021 Utilization at the Hospital justifies 109 medical surgical beds at the target occupancy of 85% and 28 intensive care beds at the target occupancy of 60%.
- Below is a graphic of the current Hospital and the proposed expansion. Lake Forest Hospital is currently made up of 5 pavilions connected by building segments comprised of public common areas and staff support space. Pavilions A and B house physician practice clinics, cancer center, diagnostic imaging, and other outpatient clinics. Beds are in Pavilions D, E, and F. The proposed project is for the addition of Pavilions G and H south of Pavilion F. The proposed project also includes the expansion and relocation of the Emergency Department. The current Emergency Department is in the F Pavilion which is the last pavilion in the current building configuration. The Applicants are proposing to move the Emergency Department to the H Pavilion at the end of the building for ease of patient flow and infection control.



- The Applicants addressed a total of 17 criteria and have met them all.

STATE BOARD STAFF REPORT
Northwestern Lake Forest Hospital
PROJECT #22-047

APPLICATION SUMMARY	
Applicants(s)	Northwestern Memorial Healthcare, Northwestern Lake Forest Hospital
Facility Name	Northwestern Lake Forest Hospital
Location	1000 North Westmoreland Road, Lake Forest, Illinois
Application Received	December 12, 2022
Application Deemed Complete	December 16, 2022
Application Review Period Ends	April 15, 2023
Application Completion Date	April 30, 2028
Review Period Extended by the State Board Staff?	No
Can the applicants request a deferral?	Yes

I. The Proposed Project

The Applicants are proposing a 96-bed addition to Lake Forest Hospital in Lake Forest, Illinois. The total cost of the project is $388,787,687. **The anticipated completion date is April 30, 2028.**

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 Northwestern Memorial Healthcare and Northwestern Lake Forest Hospital. Northwestern Memorial Healthcare is the sole corporate member of Northwestern Memorial Hospital, Northwestern Lake Forest Hospital, and Northwestern Memorial Foundation. Northwestern Memorial Healthcare includes ten acute care hospitals, one specialty hospital, and more than 200 diagnostic and ambulatory sites across Chicago, Illinois, and in surrounding counties. Northwestern Memorial Hospital is **a** major academic medical center located in Chicago **and** is the primary teaching hospital for Northwestern University's Feinberg School of Medicine. Northwestern Memorial Healthcare's medical staff of more than 5,400 includes more than 2,000 employed physicians. Northwestern Memorial Healthcare has over 33,000 employees.

Northwestern Lake Forest Hospital is a community hospital located at 1000 North Westmoreland Road, Lake Forest, Illinois. The operating entity licensee and the owner of the site is Northwestern Lake Forest Hospital. The hospital is in the HSA VIII service area and Health Planning Area A-09. HSA VIII consists of the Illinois counties of Kane, Lake, and McHenry. A-09 includes Lake County.

The May 2023 Addendum to the Inventory of Health Care Facilities shows an excess of 24 Medical Surgical/Pediatric Beds, and an excess of 2 intensive care beds in the A-09 Health Planning Area. The State Board's target occupancy for medical surgical beds for a bed compliment of 100-200 beds is 85%. The State Board's target occupancy for intensive care beds is 60% no matter the number of beds. The State Board does not have a target occupancy for observation beds.

Northwestern Lake Forest Hospital has experienced an average annual growth in the number of patient days of 8.6% annually for medical surgical beds and 8.3% for intensive care days. The Emergency Department has had a 5.25% average annual growth in the number of visits for the period 2015-2021**(Table One)**. **Table Two** shows the authorized beds and staffed bed occupancy for CY 2021 for Northwestern Lake Forest Hospital.

TABLE ONE
Northwestern Lake Forest Hospital
Historical Growth
(2015-2021)

Service	**Authorized**	**Average Daily Census**							**Ave**
	Beds	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**ADC**
M/S	84	57.6	65.4	70.4	71.4	79.8	87.3	91.94	74.83
ICU	12	6.9	7.1	7.2	9.4	10.1	9.7	16.77	9.60
OB/GYN	18	11.3	11.1	11.7	11.7	12.3	11.1	11.8	11.57
Observation	32	5.73	5.88	6.11	6.95	9.654	6.88	17.39	8.37
		Visits							**Visits**
Emergency	16 stations	27,181	31,372	31,638	37,526	34,612	29,770	35,762	32,552

TABLE TWO
Northwestern Lake Forest Hospital
CY 2021

Service	**Authorized**	**Staff**	**Average Daily Census**	**Auth Bed Occ.**	**Staff Bed Occ**
	Beds	Beds	**2021**		
MS	84	106	91.94	109.45%	86.74%
ICU	12	24	16.77	139.75%	69.88%
OB/GYN	18	18	11.8	65.56%	65.56%
Observation	32	32	17.39	54.34%	54.34%

IV. The Proposed Project – Details

Lake Forest Hospital is currently made up of 5 pavilions connected by building segments comprised of public common areas and staff support space. Pavilions A and B house physician practice clinics, cancer center, diagnostic imaging, and other outpatient clinics. Beds are in Pavilions D, E, and F. The proposed project is for the addition of Pavilions G and H south of Pavilion F. The proposed project also includes the expansion and relocation of the Emergency Department. According to the Applicants, relocating the Emergency Department not only allows for the necessary expansion of the department but also allows for a separate Emergency Entrance.

The proposed project will add 12 ICU beds by converting 12 medical surgical beds on the second floor of the E Pavilion. The project proposes to add 24 medical surgical beds on G2, 24 m/s beds on G3, 24 m/s beds on H2, and 24 m/s beds on H3 (12 new and 12 relocated from E2).

Project timeline:

- Anticipated project construction start date: June 2023
- Anticipated midpoint of construction date: June 2025
- Anticipated project construction substantial completion date: June 2027
- Anticipated project completion date: April 30, 2028

Outstanding Permits

- CON #21-008: Old Irving Park Medical Office Building
- CON #21-015: Winfield Town Center Medical Office Building
- CON #21-032: NM Cancer Center Delnor - Expansion/Modernization
- CON #22-011: Oak Brook Medical Office Building
- CON #22-046: Medical Office Building

V. Project Costs and Sources of Funds

The Applicants are funding this project with cash in the amount of $388.7 million. **See pages 41-45 of the application for the itemization of costs.**

TABLE THREE
Project Use and Source of Funds

Use of Funds	Reviewable	Non-Reviewable	Total	% Of Total
Preplanning	$898,274	$1,611,996	$2,510,270	0.65%
Site Survey and Soil Investigation	$357,840	$642,160	$1,000,000	0.26%
Site Preparation	$3,301,626	$5,924,926	$9,226,552	2.37%
Off Site Work	$1,185,930	$2,128,209	$3,314,139	0.85%
New Construction Contracts	$67,069,254	$133,086,643	$200,155,897	51.48%
Modernization	$3,112,098	$37,463,052	$40,575,150	10.44%
Contingencies	$7,018,135	$17,054,970	$24,073,105	6.19%
A/E Fees	$3,942,071	$7,074,236	$11,016,307	2.83%
Consulting and Other Fees	$7,441,306	$13,353,783	$20,795,089	5.35%
Movable or Other Equipment	$45,500,000	$14,223,471	$59,723,471	15.36%
Other Costs to be Capitalized	$5,867,749	$10,529,958	$16,397,707	4.22%

TABLE THREE Project Use and Source of Funds				
Use of Funds	**Reviewable**	**Non-Reviewable**	**Total**	**% Of Total**
Total	$145,694,283	$243,093,404	$388,787,687	100.00%
Source of Funds				
Cash			$388,787,687	100.00%

VI. Background of the Applicants

Criterion 1110.110 (a) – Background of the Applicants

The Applicants provided a listing of all health care facilities owned by the Applicants, their IDPH license number and Joint Commission Organization Number at page 48 of the Application for Permit. The Applicants attest that no adverse action has been taken against any facility owned and/or operated by the Applicants during the three years prior to filing this certificate of need application. The Applicants have authorized the State Board and the Illinois Department of Public Health to access any documentation which it finds necessary to verify information that has been submitted to the State Board.

VII. Purpose of the Project, Safety Net Impact, Alternatives to the Project

Criterion 1110.110 (b) – Purpose of the Project
Criterion 1110.110 (c) – Safety Net Impact Statement
Criterion 1110.110 (d) – Alternatives to the Proposed Project

A. Purpose of the Project

The purpose of this project is to address the high inpatient utilization at the Hospital. According to the Applicants this growth can be attributed to the advance care capabilities at the Hospital since the affiliation with Northwestern Medicine, the closure of the Vista West Hospital emergency department just prior to the opening of the replacement hospital, and patient preference to utilize Northwestern Lake Forest Hospital. According to the Applicants 88% of inpatient admissions come through the emergency departments at the hospital and Northwestern Medicine Grayslake Free Standing Emergency Department. The Applicants believe that a significant proportion of the increase in volume is attributable to the growth of patients originating from under-resourced communities such as Waukegan, Round Lake, and North Chicago. According to the Applicants total patient days have increased by 50% which patient days from under-resourced zip codes have increased by 85%. The primary service area for the Hospital is 18 zip codes in Lake County. Population estimates in Lake County as of July 1, 2021, is 711,239 residents. The Applicants believe the proposed addition of beds, emergency department stations, and diagnostic imaging equipment will allow Lake Forest Hospital to return to target occupancy/utilization levels. The Applicants state the goals of this project is the reduction of inpatient occupancy to target level, decrease in patient hold time in the emergency department, and elimination of the need for emergency department bypass.

B. Safety Net Impact Statement

The Applicants stated in part:

"A significant proportion of the demand for inpatient services at LFH comes from patients originating from under-resourced communities, particularly Waukegan, Round Lake, and North Chicago. Since the opening of the new hospital, total patient days have increased by nearly 50% while patient days from the under-resourced ZIP codes have increased by 85%. In 2020, LFH provided more charity care than any other Lake County hospital by a wide margin; LFH's charity care as a percentage of net patient revenue was double that of any other Lake County hospital. Additionally. the rate of increase for patients on Medicaid at LFH is the highest in the county. While the total number of inpatients served at LFH increased by 43% from CY15 - CY21, the number of Medicaid inpatients increased by 186% and Charity Care inpatients increased by 199%. This project will improve access to the safety net services that LFH provides by increasing ICU, medical/surgical, observation, and Emergency Department capacity and improving patient through-put in the Emergency Department." **The complete safety net impact statement was provided by the Applicants at pages 123-128 of the Application for Permit.**

C. Alternatives to the Proposed Project

The Applicants considered four alternatives to the proposed project.

1. Add beds to Pavilions A and B
2. Construct One Pavilion instead of two
3. Vertical expansion of the existing pavilions
4. Utilize the 600 Building

The Applicants determined that the best option for accommodating demand is to construct two new pavilions attached to the current hospital. As mentioned above the hospital is made up of 5 pavilions connected by building segments comprised of public common areas and staff support space. Pavilions A and B house physician practice clinics, cancer center, diagnostic imaging, and other outpatient clinics. Beds are in Pavilions D, E, and F. There is space on the south side of Pavilion **F** for up to two more pavilions. The proposed project is for the addition of Pavilions G and H.

1. Add Beds to A and B Pavilion

According to the Applicants to create capacity to accommodate the proposed number of beds, all the existing functions in both A & B pavilions would have to be relocated. There are no other buildings on campus that could accommodate the relocation. The A and B Pavilions are designed to be outpatient buildings and extensive/expensive retrofitting would be required to convert the 2nd floor of the A Pavilion and the 2nd and 3rd floors of the B Pavilion from business occupancy to institutional occupancy. The placement of existing mechanical and electrical risers and overall floorplate of the buildings would force smaller inpatient rooms than on the current inpatient units. In addition, Pavilion C is a one-story plus basement structure so potential beds in the A and B Pavilions would be disconnected from all diagnostic and treatment functions that are housed in the D, E and F Pavilions. According to the Applicants, cost estimates were not developed for this option since it was not realistic.

2. Construct One Pavilion Only

This option includes the construction of only one Pavilion (G) on the south side of Pavilion F and would add 48 inpatient beds. The Applicants stated this option would not accommodate current volume demands and does not allow for the relocation of the emergency department. Estimated cost $180 million.

3. Vertical Expansion of Pavilion A

Pavilion A was built with the capability of having an additional floor added above the current roof level. One floor could accommodate 24 beds. This alternative was rejected because it does not meet the program need for ICU, medical surgical, observation beds or emergency department. Estimated cost $50 million.

4. Utilize the Women's Health Building

The Women's Health Building of the former Lake Forest Hospital, known as the 600 Building, was constructed in 2004. According to the Applicants, because of its age and condition, it was not demolished when the rest of the old facility was razed. During the pandemic it was used as the Hospital COVID vaccination/testing location. Currently, it is being used as administrative space and a training/simulation center for clinical students and staff. According to the Applicants, the Hospital explored the use of the Women's Health Building for inpatient care during the COVID census peaks since the former obstetrics rooms remain relatively untouched. However, because the building is located more than 250 yards from the new hospital, per the Illinois Hospital Licensing Act, it cannot be used for inpatient services. Additionally, because the building had been supported by the former hospital building, it doesn't have many of the necessary support services, such as pharmacy and food service. According to the Applicants, cost estimates were not developed for this option since it was not realistic.

VIII. Section 1110.234 - Project Scope and Size, Utilization and Unfinished/Shell Space
Criterion 1110.234 (a) - Size of Project
Criterion 1110.234 (b) – Projected Utilization

A. Size of the Project

The Applicants state "*Northwestern Memorial HealthCare has set clear and concise facility and site performance standards for all Northwestern Memorial HealthCare projects including Lake Forest Hospital. Northwestern Memorial HealthCare projects will meet USGBC LEED Silver requirements, ASHREA 189.1 standards, and utilize EnergyStar equipment to meet our corporate-social responsibility to design, build and operate sustainable/green facilities and sites within the Northwestern Memorial HealthCare System."*

TABLE FIVE Size of the Project Northwestern Lake Forest Hospital						
Department	**Beds Units Rooms**	**Departmental GSF**	**State Standard**		**Difference**	**Met Standard**
			Per Unit	**Total**		
Medical Surgical	96 beds	62,467	660 DGSF per bed	63,360	-863	Yes
ICU	12 beds	7,575	685 DGSF per bed	8,220	-645	Yes
Observation Unit	18 beds	11,128	NA		NA	NA
Emergency Department	24 Stations	18,906	900 DGSF	21,600	-2,694	Yes
Diagnostic Imaging • 1 CT Room • 1 Ultrasound Room • 1 X-ray Room		3,187	 1,800 900 1,300	4,000	-813	Yes
IP Rehab Services		787	NA	NA	NA	NA
Total		3,430		960	2,470	No

Non-Clinical

Non-clinical space includes administration, education conference, clinical operation, clinical support, dietary services, environmental services, general services, hospital staff support, reception/waiting/public space, and MEP systems. By statute these non-clinical areas are not reviewed by the State Board.

B. Criterion 1110.234 (b) - Projected Service Utilization

Projected utilization is discussed in detail in the sections below. Based upon the historic annual growth in the patient days at the Hospital the projected number of days appear realistic and doable.

IX. Medical/Surgical, Obstetric, Pediatric and Intensive Care

A. Criterion 1110.200 (b) (2) - Planning Area Need – Service to Planning Area Residents
B. Criterion 1110.200 (b) (4) - Planning Area Need – Service Demand – Expansion of an Existing Category of Service
C. Criterion 1100.200 (e) – Staffing
D. Criterion 1100.200 (f) – Performance Requirements
E. Criterion 1100.200 (g) – Assurance

The Applicants state that approximately 66.2% of the patients come from the service area of the hospital (See Application for Permit pages 81-89).

1. Factors Influencing Demand

As stated in above the Hospital has experienced high occupancy since opening of the replacement hospital. The Applicants believe one of the reasons for growth is the **increased access to specialty care.** According to the Applicants since the affiliation with Northwestern Medicine in 2010 the Hospital has continued to build advanced care capabilities in areas such as Heart and Vascular, Orthopedics, Endocrinology, Interventional Gastrointestinal, Pulmonology, and Oncology. Many subspecialists from Northwestern Memorial Hospital practice at the Hospital which increases access to the residents of the Lake Forest Hospital service area. The Applicants state with this ability to provide higher acuity care close to home, the Hospital has treated more complex cases that previously would have been transferred to Northwestern Memorial Hospital. The Hospital case mix index (CMI) increased from 1.7 in FY16 to 2.0 in FY21 (17.6% increase). **Another contributor of growth** at the Hospital is the closure of the Vista West Hospital emergency department just months prior to the opening of the new of replacement Hospital. At the Hospital 88% of inpatient admissions come through the emergency departments at the hospital and Northwestern Medicine Grayslake Freestanding Emergency Center scheduled procedures represent only about 11 % of admissions. **Patient preference** to receive care at the Hospital is according to the Applicants a major factor influencing the high occupancy. The Applicants state that over 40% of the Hospital emergency department patients live more than 10-miles from the Hospital. The Applicants believe **a significant factor** in the increase in volume is attributable to growth of patients originating from under-resourced communities, particularly Waukegan, Round Lake, and North Chicago. According to the Applicants since the opening of the new hospital, total patient days have increased by nearly 50% while patient days from the under-resourced ZIP codes have increased by 85%.

2. Medical Surgical Unit

The project proposes to add 24 medical surgical beds on G2, 24 m/s beds on G3, 24 m/s beds on H2, and 24 m/s beds on H3 (12 new and 12 relocated from E2). The Applicants are expecting a 7.6% annual growth in patient days for medical surgical inpatient service for the period 2022 to 2029 two years after project completion. The Applicants are expecting a 2% growth in observation days for this same period. The Applicants used these growth rates to justify the additional 84 medical surgical beds being requested for a total of 168 beds.

TABLE SIX
Northwestern Lake Forest Hospital
Historical Utilization
Medical Surgical Beds

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cases	5,490	4,554	4,289	4,862	5,080	6,789	7,189	6,871	7,280
Inpatient Days	17,625	16,867	18,039	17,361	17,616	20,791	24,990	26,929	29,805
Observation Days	3,131	4,437	2,971	3,631	4,070	5,271	4,137	5,032	3,754
Total Patient Days	20,756	21,304	21,010	20,992	21,686	26,062	29,127	31,961	33,559
ADC	56.9	58.4	57.6	57.5	59.4	71.4	79.8	87.6	91.9
Beds	74	84	84	84	84	84	84	84	84
Occupancy	76.8%	69.5%	68.5%	68.5%	70.7%	85.0%	95.0%	104.2%	109.5%
Beds Justified at 85% Occ.	67	69	68	68	70	84	94	103	108

Projected Utilization

Year	2022	2023	2024	2025	2026	2027	2028	2029
Cases	9,481	10,059	10,673	11,324	12,015	12,748	13,525	14,350
Inpatient Days	31,623	33,552	35,599	37,770	40,074	42,519	45,112	47,864
Observation Days	3,825	3,898	3,972	4,048	4,124	4,203	4,283	4,364
Total Patient Days	35,448	37,450	39,571	41,818	44,198	46,722	49,395	52,228
ADC	97.1	102.6	108.4	114.6	121.1	128.0	135.3	143.1
Beds	84	84	84	84	84	84	168	168
Occupancy	115.6%	122.1%	129.1%	136.4%	144.2%	152.4%	80.6%	85.2%
Beds Justified at 85% Occ.	114	121	128	135	142	151	159	168

3. Intensive Care Unit

The Hospital has experienced occupancy of over 60% since before the opening of the replacement hospital. Target occupancy for ICU beds is 60% no matter the number of beds. The Hospital currently has 12 ICU beds and is proposing to increase that number to 24 ICU beds by converting 12 medical surgical beds on the second floor of Pavilion E to 12 ICU Beds. The Hospital has increased ICU patient days by an 8.3% annually for the period 2015-2021 and expects a 7.3% average annual growth rate for the period 2022-2029.

TABLE SEVEN Northwestern Lake Forest Hospital Historical Utilization Intensive Care Beds									
Year	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cases	923	902	920	951	947	1146	3574	1324	1519
Inpatient Days	2206	2409	2463	2519	2524	3305	3491	3490	6028
ADC	6	6.6	6.7	6.9	6.9	9.1	9.6	9.6	16.5
Beds	10	10	10	10	10	12	12	12	12
Occupancy	60.00%	66.00%	67.00%	69.00%	69.00%	75.83%	80.00%	80.00%	137.50%
Projected Utilization									
Year	2022	2023	2024	2025	2026	2027	2028	2029	
Cases	1450	1535	1626	1722	1823	1931	2045	2165	
Inpatient Days	3914	4145	4389	4648	4923	5213	5521	5846	
ADC	10.7	11.4	12.0	12.7	13.5	14.3	15.1	16.0	
Beds	12	12	12	12	12	12	24	24	
Occupancy	89.36%	94.63%	100.21%	106.12%	112.40%	119.02%	63.03%	66.74%	

4. Dedicated Observation Unit

Observation beds are used to evaluate a patient's condition or to determine the need for a possible admission to the hospital as an inpatient. The Hospital currently has a dedicated observation unit of 32 beds and are requesting to increase that number by 18 beds for a total of 50 observation beds. The 18-bed observation unit will be located adjacent to the emergency department in Pavilion H. The State Board does not have an occupancy standard for a dedicated observation unit. The Applicants state that dedicated observation units typically have higher utilization during the day than overnight. Most patients are evaluated/treated during the day and either discharged or admitted as an inpatient by early evening. According to the Applicants approximately 87% of the Hospitals observation cases have an average length of stay of less than 2 midnights. According to the Applicants there has been a shift by managed care companies to classify stays of less than 3 midnights as observation status. The Applicants experienced a 37.3% annual growth in observation patient days for the period 2015 -2021. The Applicants are projecting a growth in observation days of 16.2% until 2029 the second year after project completion.

TABLE EIGHT Northwestern Lake Forest Hospital Dedicated Observation Unit Historical Utilization								
Year	2015	2016	2017	2018	2019	2020	2021	
Observation Days	1,962	2,148	2,231	2,536	3,520	2,512	6,348	
ADC	5.4	5.9	6.1	6.9	9.6	6.9	17.4	
Beds	12	12	12	8	8	8	32	
Occupancy	45.00%	49.17%	50.83%	86.25%	120.00%	86.25%	54.38%	
Projected Utilization								
Year	2022	2023	2024	2025	2026	2027	2028	2029
Observation Days	7,044	7,817	8,675	9,626	10,682	11,854	13,155	14,600
ADC	19.3	21.4	23.7	26.4	29.3	32.5	35.9	40
Beds	32	32	32	32	32	32	50	50
Occupancy	60.31%	66.88%	74.06%	82.50%	91.56%	101.56%	71.80%	80.00%

5. Staffing

According to the Applicants the Hospital has been successful at recruiting and retaining nurses, technicians. and other essential employees. The Applicants state in FY22, there were 574 total registered nurses at the Hospital, with an average tenure of 6.1 years. The Applicants state the Hospital hired 177 RN's in FY22 and 89% of the Hospital nurses hold a baccalaureate degree or higher which compares to the national average of 56%. The Department of Nursing had a 10.9% vacancy rate at the end of FY22, down from 12.6% earlier in the year. The Applicants state they continue to work to stabilize their workforce after the public health emergency and continue to see decreasing vacancy rates. The Hospitals' vacancy rate is less than the national average of 17% in 2022 *(2022 NSI National Healthcare and RN Staffing Report).* Vacant positions are covered using an overtime/supplemental pay program or through using agency contracted RN's. The Hospital is confident it can continue to fully staff its clinical inpatient and outpatient services. (See pages 96-98 of the Application for Permit for complete discussion)

6. Performance Requirements

The minimum bed capacity for a new medical-surgical category of service within a Metropolitan statistical Area (MSA), as defined by the U.S. Census Bureau, is 100 beds. The minimum unit size for an intensive care unit is 4 beds.

The Applicants are proposing a total of 168 medical surgical beds and 24 intensive care beds. The Applicants have met the requirements of this criterion.

7. Assurances

The applicant representative who signs the CON application shall submit a signed and dated statement attesting to the applicant's understanding that, by the second year of operation after project completion, the applicant will achieve and maintain the occupancy standards specified in 77 Ill. Adm. Code 1100 for each category of service involved in the proposal.

Marsha L. Oberrieder, President, Northwestern Medicine Lake Forest Hospital stated: "I hereby attest that it is mv understanding that Northwestern Medicine Lake Forest Hospital in Lake Forest, Illinois, will achieve and maintain the occupancy standards specified in 77 Ill. Adm. Code 1100 for the ICU and medical/surgical categories of service by the second year of operation after project completion.

X. Criterion 1110.270 - Clinical Service Areas Other than Categories of Service

Emergency Department

The Emergency Department at the Hospital is a Level II Trauma Center and is also designated as an Emergency Department Approved for Pediatrics. The Applicants are proposing to relocate the emergency department that will allow for an Emergency Entrance which according to the Applicants will improve traffic flow and pedestrian access to the general "south entrance" to the campus. It also allows for Emergency Department waiting areas and treatment spaces to have enough space to meet social distancing recommendations. The Applicants state relocating the ED will provide the space needed for an appropriately sized Ambulance Garage and will allow the ED to function at full capacity through the construction of the proposed project.

The State Board Standard for an emergency department is 2,000 visits per station annually.

TABLE NINE Historical								
Year	2015	2016	2017	2018	2019	2020	2021	
Visits	27,181	38,526	31,638	37,526	34,612	29,770	35,487	
Stations Justified	**14**	**20**	**16**	**19**	**18**	**15**	**18**	
Projected Utilization								
Year	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Visits	36,863	38,293	39,778	41,320	42,923	44,587	46,316	48,112
Stations Justified	**19**	**20**	**20**	**21**	**22**	**23**	**24**	**25**

The Applicants are proposing the following:
- 1 CT
- 1 Ultrasound
- 1 X-Ray unit

According to the Applicants all three imaging rooms will be located adjacent to the higher acuity area of the emergency department near the new Trauma room. In addition to needing additional pieces of equipment due to high utilization of the existing equipment, the Applicants determined that the location of the proposed emergency department was too far from the existing Diagnostic

Imaging area (440 feet) for very sick patients to travel. Additionally, the separate imaging area can be better staffed if located adjacent to the new emergency department.

1. CT

The State Board Standard for CT Units is 7,000 procedures per unit.
The Hospital currently has 3 CT machines and are requesting one additional CT Machine. Since the opening of the new Hospital in 2018, CT procedures have increased by 50% (16.8% average annual increase). Historical volume justifies the one additional CT scanner**.**

	2018	2019	2020	2021
Procedures	16,638	18,905	19,127	25,000
Standard	7,000	7,000	7,000	7,000
# CT Units Justified	3	3	3	4

2. Ultrasound

The State Board Standard for ultrasound is 3,100 procedures per unit. The Hospital has 3 ultrasound rooms in the Diagnostic Imaging Department. Since the opening of the Hospital in 2018 ultrasound procedures have increased by 14% (4.5% average annual increase). CY21 volume justifies one additional Ultrasound room.

Year	2018	2019	2020	2021
Procedures	9,904	10,268	9,288	11,242
Units	2	3	3	3
Standard	3,100	3,100	3,100	3,100
Units Justified	4	4	3	4

3. General Radiography (X-Ray)

The State Board Standard for general radiology is 8,000 procedures per unit.
The Hospital has 2 General Radiography (X-ray) machines in the Diagnostic Imaging Department. Since the opening of the in 2018. X-ray procedures have increased by 6% (1.8% average annual increase). CY21 volume justifies one additional X-ray room.

Year	2018	2019	2020	2021
Procedures	16,658	19,364	13,550	17,579
Units	2	2	2	2
Standard	8,000	8,000	8,000	8,000
Units Justified	3	3	2	3

4. Rehab Services

The State Board does not have a standard for rehabilitation services. The Applicants state there is space for Rehabilitative services (Physical Therapy/Occupational Therapy) on the 2nd and 3rd floor connectors between Pavilions D and E. The proposed project includes two additional IP Rehab spaces, on the 2nd and 3rd floor connectors between Pavilions G and H, for a total of 4 spaces. From CY19-CY21 there were approximately 3 Rehabilitation visits for each medical/surgical case at the Hospital.

XI. Financial Viability and Economic Feasibility

Criterion 1120.120 - Availability of Funds
Criterion 1120.130 - Financial Viability
Criterion 1120.140 (a) – Reasonableness of Financing
Criterion 1120.140 (b) - Conditions of Debt Financing
The Applicants have an AA+ bond rating from Standard and Poor's and a Aa2 rating from Moody's. No debt is being used to fund this project.

TABLE TEN
Northwestern Memorial Healthcare
Audited Information
August 31st
(In thousands)

	2022	2021
Cash	$779,110	$1,229,066
Current Assets	$2,668,610	$2,685,702
Total Assets	$18,633,522	$19,377,783
Current Liabilities	$2,394,416	$2,443,494
Total Liabilities	$5,507,001	$5,736,767
Patient Service Revenue	$7,399,123	$6,810,600
Total Revenue	$7,985,456	$7,359,368
Total Expenses	$7,649,695	$6,881,193
Operating Income	$335,761	$478,175
Nonoperating (losses) gains	-$1,024,415	$1,960,517
Excess of revenues over expenses	-$688,654	$2,438,692

C) Criterion 1120.140 (c) - Reasonableness of Project and Related Costs
The applicant shall document that the estimated project costs are reasonable and shall document compliance with the State Board Standards.

Only the clinical costs will be reviewed. Itemization of these costs can be found at page 41-45 of the Application for Permit

Preplanning Costs are $898,274 or less than 1% of new construction, modernization, and movable equipment of $115,681,352. These costs appear reasonable when compared to the State Board Standard of 1.8%.

Site Survey and Soil Investigation and Site Preparation – These costs are $3,659,466 or 4.74% of new construction, modernization, and contingency costs of $77,199,487. These costs appear reasonable when compared to the State Board Standard of 5%.

New Construction and Contingencies – These costs are $73,776,486 or $619.88per GSF. These costs appear reasonable when compared to the State Board Standard of $661.51 per GSF.

Modernization and Contingencies – These costs are $3,423,001 or $402.64 per GSF. This appears reasonable when compared to the State Board Standard of 463.06.

Contingency Costs – These costs are $7,018,135 and are 10% of new construction and modernization costs. This appears reasonable when compared to the State Board Standard of 10-15%.

Architectural/Engineering Fees – These costs are $3,942,071 or 5.11% of new construction modernization and contingency costs. This appears reasonable when compared to the State Board Standard of 3.59-5.39%

Consulting and Other fees – These costs are $7,863,956. The State Board does not have a standard for these costs.

The State Board does not have a standard for these costs.

Off Site Work	$1,185,930
Consulting and Other Fees	$7,441,306
Movable or Other Equipment	$45,500,000
Other Costs to be Capitalized	$5,867,749

D) Criterion 1120.140 (d) - Projected Operating Costs

The direct cost per equivalent patient day is $1,847.41 per equivalent patient day. The State Board does not have a standard for these costs.

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

The total effect of the project on capital costs is $133.74 per equivalent patient day. The State Board does not have a standard for these costs.

Northwestern Medicine Facilities		
Facility	City	Beds
Northwestern Memorial Hospital	Chicago	943
Northwestern Lake Forest Hospital	Lake Forest	114
Central DuPage Hospital	Winfield	408
Delnor-Community Hospital	Geneva	159
Marianjoy Rehabilitation Hospital & Clinics	Wheaton	113
Kishwaukee Community Hospital	DeKalb	98
Valley West Community Hospital	Sandwich	25
Northern Illinois Medical Center (McHenry)	McHenry	128
Northern Illinois Medical Center (Huntley)	Huntley	128
Memorial Medical Center (Woodstock)	Woodstock	56
Palos Community Hospital	Palos Heights	425
Grayslake Freestanding Emergency Center	Grayslake	
Grayslake ASTC	Grayslake	
Grayslake Endoscopy Center	Grayslake	
NW Medicine Surgery Center	Warrenville	
The Midland Surgical Center	Sycamore	
Illinois Proton Center	Winfield	
Palos Health Surgery Center	Orland Park	

Inpatient services defined

"An inpatient is a person who has been admitted to a hospital for bed occupancy for purposes of receiving inpatient hospital services. Generally, a patient is considered an inpatient if formally admitted as inpatient with the expectation that he or she will require hospital care that is expected to span at least two midnights and occupy a bed even though it later develops that the patient can be discharged or transferred to another hospital and not actually use a hospital bed overnight." CMS IOM Pub. 100-02 Benefit Policy Manual, Chapter 1, section 10

"Inpatient care, rather than outpatient care, is required only if the beneficiary's medical condition, safety, or health would be significantly and directly threatened if care was provided in a less intensive setting." CMS IOM Pub. 100-08 Program Integrity Manual, Chapter 6, section 6.5.2(A)

Observation services defined

"Observation care is a well-defined set of specific, clinically appropriate services, which include ongoing short-term treatment, assessment, and reassessment, that are furnished while a decision is being made regarding whether patients will require further treatment as hospital inpatients or if they are able to be discharged from the hospital. Observation services are commonly ordered for patients who present to the emergency department and who then require a significant period of treatment or monitoring to decide concerning their admission or discharge. In only rare and exceptional cases do reasonable and necessary outpatient observation services span more than 48 hours. In most cases, the decision whether to discharge a patient from the hospital following resolution of the reason for the observation care or to admit the patient as an inpatient can be made in less than 48 hours, usually in less than 24 hours." CMS IOM Pub. 100-04 Claims Processing Manual, Chapter 4, section 290.1

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