New Hospital Tower Rush University Medical Center
Chicago, IL, United States

SQ FT 830,000 BGSF
386 BEDS

ARCHITECT(S) Perkins+Will

OWNER/AFFILIATION Rush University

COMPLETION DATE 2012

ABOUT | DESIGN INTENTIONS
This hospital is part of a campus-wide transformation project, which also includes an orthopedic building, parking structure and new loading and delivery systems. The 830,000-square-foot hospital consists of 386 patient beds along with diagnostic and treatment facilities, such as surgery, radiology and emergency departments. The hospital is sited adjacent to the Eisenhower Expressway (a major arterial feeding the central area of Chicago) on the north, Ashland Avenue on the east and Harrison Street, the major internal street for the Rush Campus, on the south.
The organizational concept consists of a rectangular seven-story base, containing new diagnostic and treatment facilities, topped by a five-story curvilinear bed tower.

The base connects to existing diagnostic treatment facilities to create a new continuous interventional platform.

Part of the ground level of this base contains an emergency department, which has been designed to be an advanced emergency response center for the City of Chicago.

The geometry of the bed tower maximizes views and natural light for patient rooms while also creating an environment for efficient and safe health care.
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LEVEL 10: ICU:

LEVEL 12: MED/SURG:

KEY SPACE:
- ICU Patient Room
- Nurse Work Station
- Clinical Support
- Support Services
- Patient/Family Area
- Vertical Circulation


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022006.005

CHECKED

AA-A-110

INTERIOR BUILD OUT 03/13/09

REVISED SCOPE

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DEPARTMENTAL GROSS SQUARE FOOT TAKE OFFS

<table>
<thead>
<tr>
<th></th>
<th>Net</th>
<th>Gross</th>
<th>N/G ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICU/Phoxy Adaptable</td>
<td>14105 SF</td>
<td>25835 SF</td>
<td>1.80</td>
</tr>
<tr>
<td>Med/Surg Unit</td>
<td>14228 SF</td>
<td>22318 SF</td>
<td>1.56</td>
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KEY SPACES:
- Med/surge patient room (240 sf)
- ICU/Phoxy Adaptable patient room (246 sf)
- Prefab patient toilet (42 sf)

TRAVEL DISTANCE ANALYSIS
- Public Elevator to ICU/Med/surg room 68-245 ft
- Patient Elevator to ICU/Med/surg room 142-264 ft

Typical Bed Floor

The east elevation works in tandem with the orthopedics building to create and reinforce the new entry boulevard from Ashland.

The south elevation weaves the rectilinear and curvilinear geometry of base and bed tower together to scale the building down to relate to the environment of the entry boulevard.

The difference in north and south elevation also responds to the internal organizations of the base. The simpler north elevation expresses the back of house staff connection corridors. The more layered and scaled down south facade contains the public elements of the base, such as lounges and waiting areas.
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**Floor 12 - Med Surg Patient Room**

- **Med/Surg patient room**
  - without toilet: 218sf
  - with toilet: 260sf
  - with alcove: 287sf

- **Hygiene zone**: 42sf
- **Family zone**: 41sf
- **Patient zone**: 131sf
- **Staff zone**: 46sf
- **Alcove**: 27sf

**Floor 10 - ICU Patient Room**

- **ICU patient room**
  - without toilet: 224sf
  - with toilet: 244sf
  - with alcove: 284sf

- **Hygiene zone**: 20sf
- **Family zone**: 46sf
- **Patient zone**: 130sf
- **Staff zone**: 48sf
- **Alcove**: 40sf

**Floor 10 - ICU Patient Room**

- **Bed**
- **Hand Wash**
- **Waste holding**
- **Charting and Supply**
- **Visual Display**
- **Wardrobe**
- **42” Wide Door**
- **48” Wide Door**

**Floor 12 - Med Surg Patient Room**

- **Bed**
- **Hand Wash**
- **Waste holding**
- **Charting and Supply**
- **Visual Display**
- **Wardrobe**
- **42” Wide Door**
• At the junction of new and old hospital is a multi-story entry pavilion whose roof is landscaped to provide a patient staff garden at level four that connects by bridge to the existing parking structure and has upper level patient check-in facilities.

• Skylights act as roof garden sculptural elements and provide natural light for the entry pavilion below. The walls of one of these skylights project down to the floor. Of the entry pavilion to introduce an exterior landscaped space without compromising internal contamination issues.
SUSTAINABILITY FEATURES

1. TOWER AHU’S
2. CISTERN
3. GREEN ROOF
4. CENTRAL PLANT

AUTOMATED GUIDED VEHICLES (AGVS), MOBILE ROBOTS THAT TRANSPORT MEDICAL SUPPLIES, CLEAN AND SOILED LINENS, AND REGULATED MEDICAL WASTE AND TRASH ACROSS LONG DISTANCES

STRUCTURAL COLUMNS ARE OUTFITTED WITH POWER AND OXYGEN LINES TO ALLOW TREATMENT TO BE EXPANDED INTO THE LOBBY IN THE EVENT OF A LARGE-SCALE EMERGENCY.

PUBLIC / PRIVATE CORRIDORS

AS SOUTH WINGS OPEN, FUTURE EXPANSION PLANS PROVIDE FOR FLEXIBLE HVAC, MEDICAL SUPPLIES, CLEAN AND SOILED LINENS, AND REGULATED MEDICAL WASTE AND TRASH ACROSS LONG DISTANCES
AIA/AAH DESIGN AWARD WINNER
Category: Innovations in Planning and Design Research, Built and Unbuilt
JURY COMMENT
▶ The jury applauds the transformation of a big box retail store into a simple, sophisticated and elegant healthcare clinic.
▶ From ideation to execution the layering of color and perforated skin adds architectural quality to the façade.
▶ The iconography is playful without being childish welcoming patients and families into the building.
▶ The selective use of color is balanced with a wood screen wall which anchors the interior space.
▶ Visibility into the basketball court from the waiting area and benches along the corridor are a nice touch.

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A large landscaped terrarium in the entry pavilion brings the outdoors in while maintaining a contaminate free environment.

Arow: Rush University Medical Center
Architect: Perkins+Will
Construction manager: Power Jacobs Joint Venture
Structural engineer: Thornton Tomasetti
General contractor: Power Jacobs Joint Venture
Electrical engineer: Environmental Systems Design (ESD)
Interior Designer: Perkins+Will
Civil Engineer: Terra Engineering
Light Designer: HDLC
Landscape Architect: Hitchcock Design Group
Photographs/illustrations: Steinkamp Photography
Construction cost: $398,000,000
Building area GSF: 830000 SF
Cost per square foot: $480/SF
Completion date: 2012

AIA Academy of Architecture for Health | Research Initiatives Committee
Case Study Format Developed By: AIA Academy of Architecture for Health | Research Initiatives Committee
Image Sources: https://www.archdaily.com/443648/new-hospital-tower-rush-university-medical-center-perkins-will

Windows at the tips of the bed tower’s wings allow nursing staff to have daylight and views to downtown.

Private NICU rooms located steps away from nursing stations.

The exterior corridors of the Interventional floors

Patient room with downtown Chicago views.