

University of Minnesota Amplatz Children's Hospital

Minneapolis, Minnesota



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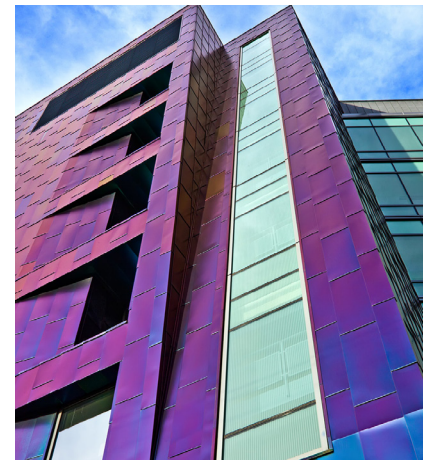
OWNER/AFFILIATION
University of
Minnesota - Fairview

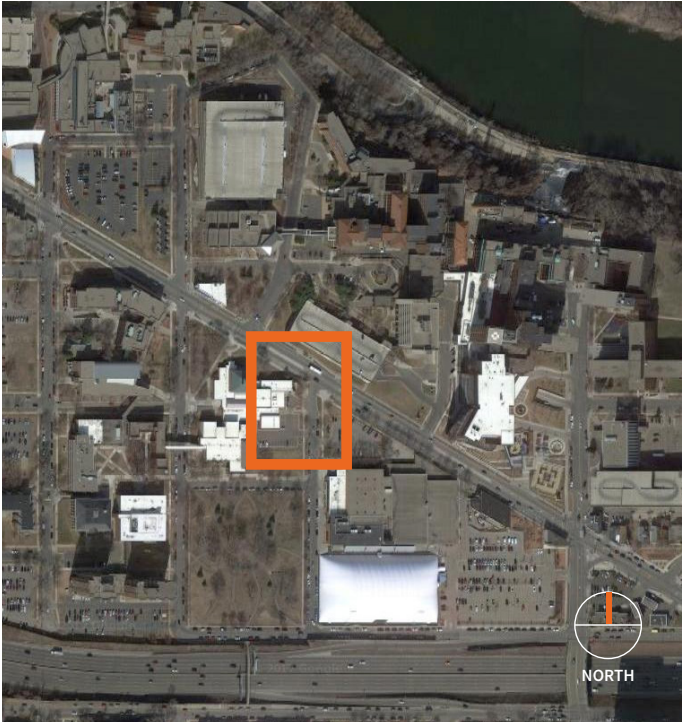


ARCHITECT(S)
Tsoi/Kobus &
Associates



COMPLETION DATE
March 2011



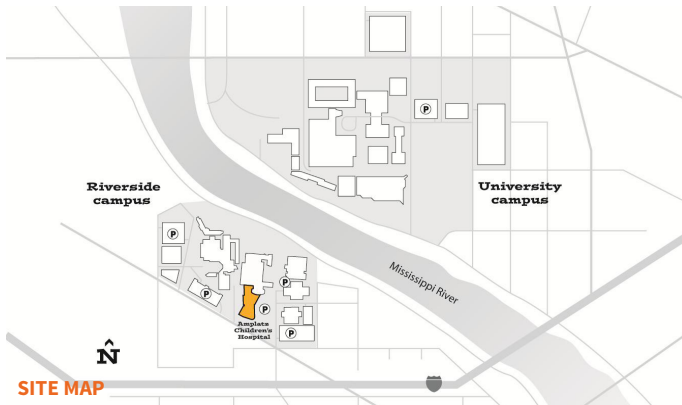


ABOUT | DESIGN INTENTIONS

City permitting process requiring street vacations and multiple neighborhood negotiations. The repetitive nature of designing a bed tower instigates a challenge to create an interesting building instead of a large block. **TK&A responded to this by breaking the mass into two towers reflecting the bed unit neighborhoods separated by a central light zone which brings daylight into the center of the building.**

Pediatric design presents an interior design challenge as it needs to appeal to and feel welcoming to infants through young adults as well as adult visitors. It also must strike a careful balance between being stimulating but not too much so. It should provide distractions to help pass waiting time, but not so much so that it is impossible for the child to leave the “fun” for the appointment. TK&A responded to this challenge by creating a theme for the interior called **“Passport to Discovery”**. This theme utilized ecosystems to provide a broad and diverse methodology for application such as people, cultures and animals which live within that ecosystem. Each department is then identified with an animal which has helped with medical research as the “story teller” for that area.

- The application of **LEAN design** principles resulted in a highly efficient decentralized floor plan. This was used to help balance the growth in the floor plate by nearly double the existing units which was a result of transitioning to all private rooms.
- Identical, **same-handed rooms** were designed to reduce medical errors and improve staff efficiency.



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PROJECT GOALS

Identified as the highest priority in the master plan, this children's hospital contains **96 same-handed, single occupancy inpatient rooms, expansion space for 32 additional beds**, a family resource center, a gift shop, and underground parking. The six-story building, located on the Riverside campus, brings a leading-edge pediatric care center to Minneapolis while supporting Children's Hospital's research and patient-and family-centered care objectives.

- **Utilization of Lean** to maximize patient safety, staff effectiveness and to minimize medication errors and infection

- **"Passport to Discovery"** as an interactive wayfinding tool celebrating cultural diversity and reinforcing the importance of healthy environments and global interdisciplines encourages patients to ambulate and engage with fellow patients and caregivers

- **The massing and organization** of the building reinforces the street edge and provides a prominent presence for the Hospital along Riverside Avenue

- **An entry pavilion situated in a park-like setting** greets incoming visitors. While amenities such as a welcoming and centrally located information desk, a special events area, and the family resource center reinforce the institution's commitment to the patient

- **A comprehensive and complex phasing strategy** to upgrade its facilities while maintaining on-going operations

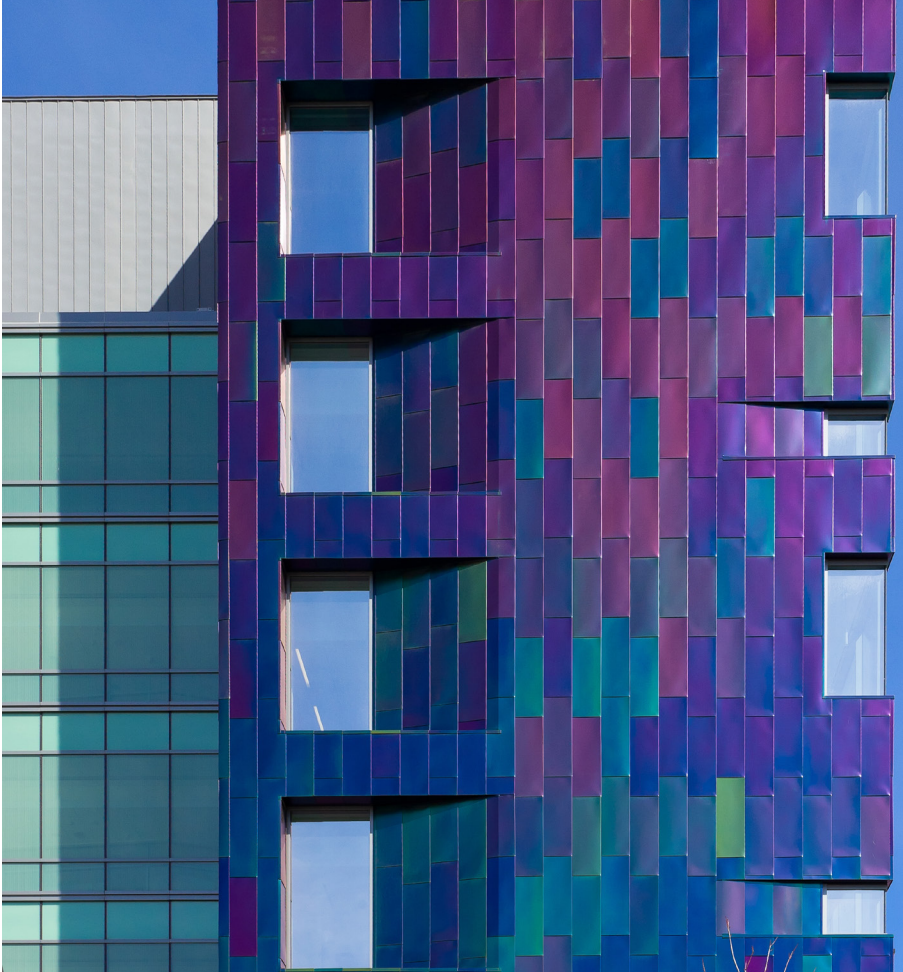
- 2013 AIA National Honor Award for Design

- Certified GGHC/LEED NC (Silver Equivalent)



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The design calls for the creation of a distinctive identity for Amplatz Children's Hospital while also ensuring a coherent, unified campus where the wayfinding makes navigation easy for patients, staff, and visitors. **The massing and organization of the building reinforces the street edge and provides a prominent presence for Amplatz Children's Hospital along the main thoroughfare of Riverside Avenue.** A one-story glass façade greets incoming visitors.

Inside is a welcoming and centrally located information desk, a special events area for concerts, puppet shows, and other performances, and the family resource center, which features a special children's reading room. The tower's four 24-bed units are designed as a modified race track broken into neighborhoods of six beds each.

An interior design theme was developed to echo the research hospital's mission, "Driven to Discovery," while remaining broad enough to appeal to a diverse population. The chosen theme, "Passport to Discovery," is an engaging travel and exploration concept. A passport issued to each child encourages visits throughout the facility, with each destination featuring a "storyteller" character. The habitats of the storytellers, which include desert, grasslands, and ocean, are the basis for varied interiors expressed through distinct floor and wall patterns, lighting fixtures, unique finishes, materials, graphics, and signage.

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citation from design concept

STRATEGIES

Revitalizing the Campus Image

In support of the University's master plan development which relocates the pediatric program from the east (University) to west (Riverside) campus, team members advocated for overall improvement of the Riverside campus image and arrival experience, via thoughtful landscaping, signage, and additional parking.

A Sense of Place

Multi-colored stainless steel panels immediately engage and welcome visitors of all ages, playfully announcing the facility's identity on the reinvented Riverside Campus.

Passport to Discovery

A designated greeter provides patients with a paper "Passport" booklet, which is stamped with an image of each floor's animal storyteller after the patient has visited that floor and engaged in learning about that particular habitat.

Upon arrival at the hospital, a large terrazzo compass floor pattern orients visitors to the registration desk and sets the theme in motion.





LOBBY



READING ROOM

STRATEGIES

Informed Wayfinding and Incorporated Play

The information-rich theme is expressed through wall, ceiling and floor patterns, decorative lighting fixtures, furniture, finish materials, and integrated graphic elements at the elevator lobby for each level.

The team strove to integrate creative wayfinding elements at significant junctures in the architecture, while simultaneously recognizing these moments as possibilities for patients and families to learn, pause, or play.

Patient-Centered Care

Zones of Comfort: Patient room windows were designed to be 14.5 feet wide and 12.5 feet high, allowing patients and visitors of any stature to enjoy the view. Clear glass transoms bring light as deeply into the center of the unit as possible. Sleeper couches, integrated internet and entertainment technology and areas for rest, work and play empower the patient and family, by offering choices, diversions and privacy.

Imagination and Discovery in Service of Healing

In the Reading and Resource Room, a custom yellow glass cone creates safe zones of privacy for children, while simultaneously allowing parents and caregivers visibility and control.

Community of Care

A modified racetrack floor plan breaks four 24-bed units into “neighborhoods” of six beds, each supported by a nurse team station with its own medication and nourishment areas. Unique seating in the corridor engages visitors of all ages.

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PROJECT SUMMARY

Project: University of Minnesota Amplatz Children's Hospital

Project location: Minneapolis, Minnesota

Owner/Client: University of Minnesota - Fairview

Architect of Record: HGA Architects

Design Architect: Tsoi Kobus Architects

Construction manager: Kraus-Anderson Construction Company

Structural engineer: Meyer, Borgman & Johnson

General contractor: Kraus-Anderson Construction Company

MEP engineer: Hammel, Green, and Abrahamson (HGA) Architects and Engineers

Photographs/Illustrations: Primary: Nick Merrick,

Secondary: Paul Crosby & Brady Wilette

Construction cost: \$123,910,757

Building area GSF: 415,587 SF

Cost per square foot: \$351/SF

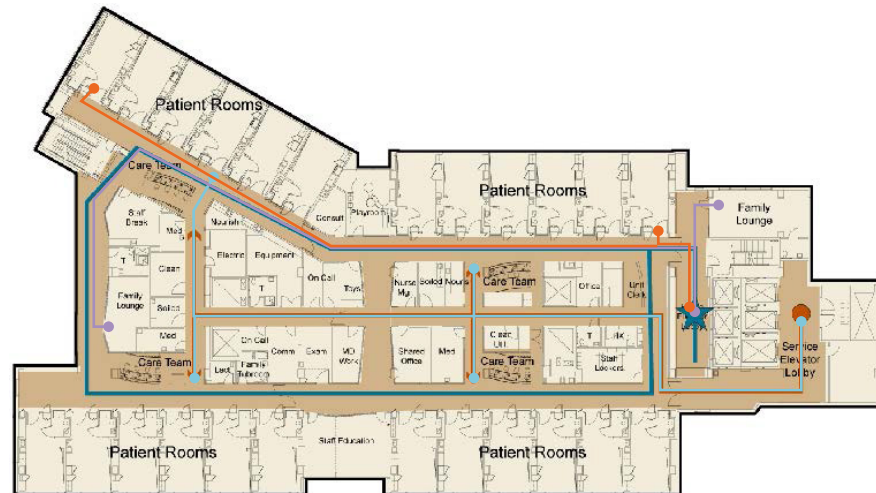
Construction start date: July 2008

Substantial completion date: March 2011

Lean Design

Research and focus groups informed strategies for improvements in patient safety outcomes, staff efficiency, and patient/family satisfaction. The travel distance of a nurse during a typical shift was reduced from 9 miles in the east campus facility, to 5 miles in the new hospital. This helped to minimize caregiver fatigue and potential for error, resulting in more time spent with patients.

GROUND LEVEL:



TRAVEL DISTANCE ANALYSIS

- Patient 30ft - 220ft
- Family 42ft - 252ft
- Staff 167ft - 300ft

Note: "Departmental Square footages take-off based on 'Analysis of Departmental Area in Contemporary Hospitals' calculation methodologies & Design Factors Report, 2014

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AIA/AAH DESIGN AWARD WINNER

Category B for built projects with total construction cost more than \$25 Million in Construction Cost

JURY COMMENT

- The use of city planning organizational principles is a sophisticated way to accept and make sense of the scale of such a complex. The integration of a shared space structure, specifically the three types of garden, gives scale and texture to this large complex. The use of cultural reference inn the facades and surfaces is sophisticated and modern.

DEPARTMENTAL GROSS SQUARE FOOT TAKE-OFFS

	Net	Gross
Patient Beds		
Acute Care Unit	29,880 SF	47,187 SF
ICU	14,966 SF	23,629 SF
Pediatric ICU	15,133 SF	23,824 SF
Diagnostics & Treatment		
Surgery	10,891 SF	15,298 SF
PACU	2,511 SF	4,572 SF
Prep/Recovery	6,642 SF	9,915 SF
Emergency	7,112 SF	11,441 SF
Dialysis	2,591 SF	3,860 SF
Imaging	7,873 SF	12,323 SF
Laboratory	432 SF	551 SF
Radiation Oncology	3,842 SF	7,106 SF
Observation/Sedation	4,662 SF	7,836 SF
Supportive Services		
Pharmacy	457 SF	501 SF
Staff Support	1,188 SF	1,250 SF