

# A New Heart Hospital for KU Med

Meeting building  
and design  
objectives for better  
cardiac care

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**W**hen administrators at The University of Kansas Hospital, Kansas City, Kan., decided to add a new heart hospital to their campus, they wanted the biggest bang for their buck—a new structure that would incorporate the latest technology, stellar design, and a built-in, family minded environment conducive to optimal patient care—all on an already utilized space. And, they wanted it up and running as quickly as possible. Today, their vision is a reality.

The Center for Advanced Heart Care stands on the most prominent location that was available on campus, a tight 200-ft.-by-300-ft. space adjacent to the existing hospital. The new building successfully supports cardiothoracic research and cardiac patient care as seamlessly as it blends with its neighbor, KU Med hospital. The Center brings together cardiologists and cardiovascular, thoracic and vascular surgeons, attracting some of the best physicians in the region—who, in turn,



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attract patients in search of high-quality care. Its close proximity to the existing hospital also allows patients access to other clinical services.

However, before a single patient could be helped or a single brick laid, architects at RTKL, the project's designers, first had to coordinate with hospital administration to develop a plan to relocate the small site's existing occupants—the emergency

department ambulance drive, the helipad, the hospital loading dock, and emergency generators, while maintaining access to the neighboring medical school's police and fire departments. Designers kept those functions operational while a new drive to the emergency department (ED), an expanded new dock, and two levels of underground parking were built. The helipad was

**Natural light and soothing surroundings help to welcome visitors to the new Center for Advanced Heart Care, located on the campus of The University of Kansas Hospital in Kansas City, Kan.**

moved to the existing hospital's rooftop prior to construction.

### Super Fast-Track Project

Fast-track construction is fairly standard in today's healthcare industry. The sooner a new hospital can be built and begin receiving patients, the sooner it can generate revenue. Architects and planners work to develop and release plans on an ongoing basis to cut the overall time needed for design and construction.

When KU Med committed to building this state-of-the-art facility, every effort was made to speed construction. Yet the process that made the facility a reality went beyond fast track; it progressed at super-fast-track speed.

Groundbreaking for the project began within three months of the time design began on the building. In that short period, designers planned and provided preliminary drawing packages so that bidding and construction could begin during the schematic design phase—one phase earlier than typical fast-track construction.

Super-fast-track projects succeed due to the expertise of—and the client's confidence in—the design and construction teams. Final designs rarely are completed within the first three months of a major project like this, so it is imperative that the lines of communication be open among client, architect, consultants and contractor.

RTKL worked closely with J.E. Dunn Construction and Owner's Representative Services to ensure complete understanding of client objectives. What emerged was a five-story building that met KU Med's goal for a cohesive, yet distinctive look. The new structure fits seamlessly into its tight space beside the existing hospital, yet through varying roof elevations and distinctive curving glass exteriors it establishes a personality all its own.

### Integrated Technology

The project's success went beyond a



**Decentralized nurse pods built between every two patient rooms place nurses within steps of their patients.**

cohesive fit and fast-track construction; it also was designed around technology that supports KU Med's commitment to provide the most advanced heart care in the Midwest.

Integrated operating rooms take full advantage of the latest video, communications and information technology. Surgeons have immediate access to patient files and vital information such as lab results and diagnostic images. RTKL's architects and healthcare technology team collaborated with the hospital's project planning team and equipment manufacturers to ensure future integration success—a foundation capable of expanding as technological advances and budget allow. Lights and booms work with existing equipment and were chosen to work with future planned equipment purchases. The building also is flexible for additional leading-edge technology, like KU Med's new Stereotaxis system that uses computer-controlled navigation to guide a mag-

net-tipped catheter into previously inaccessible areas of the heart.

RTKL planners moved the Level 1 trauma emergency department from its cramped facilities in the existing hospital to an expanded space on the ground level of the heart hospital. Here, emergency department patients can take full advantage of the level of care provided through an ED equipped with the technology and equipment to handle not only cardiac, but all emergency care.

### Cohesive Design

In order to visually and functionally connect both buildings, an open promenade runs across the front of the new structure toward the entrance of the existing hospital. Its immediately recognizable signature element of curving glass walls and light-filled space creates the cohesive look vital in the overall design. The glass walls serve to designate public areas while the promenade provides open access to both



The Center for Advanced Heart Care, with its curving glass facade, gracefully connects with The University of Kansas Hospital via a public promenade and Level 1 trauma center.

hospitals, an information center, waiting areas, conference rooms, elevators, restrooms, public phones, and the hospital's Jazzman's Café.

Included in the promenade is a tri-level, gently curving staircase to the building's second level. A bridge connecting the existing hospital to the existing parking garage literally has been given a face-lift so that it looks like part of the new construction.

Separate zones throughout the facility ensure security. While open, glass-walled areas indicate freely accessible public space, interior portions on each floor are separated through levels of secured access. Family members and visitors have controlled admittance to patient floors, while cardiovascular operating rooms and post-anesthesia care units, for example, require key card entry.

Perhaps the most distinguishable architectural element at the Center is its front corner tower, which houses a ground-level conference room and employee lounges on the floors above. This dramatic glass tower rises five stories and provides skybox views of Kansas City. Dubbed the Beacon, the illuminated tower can be seen at night from across town—directing visitors to the hospital.

### People-Focused

The Center for Advanced Heart Care's calming atmosphere is suited to combat the daily stresses, and life and death nature of heart disease. Peppered throughout the facility, artwork plays a role in healing and good will. Framed photography, sculptures and mobiles create an atmosphere of beauty while providing a sense of comfort, respite and healing to patients, their loved ones and KU Med staff.

Every consideration was taken to ensure patient comfort. Easy wayfinding helps alleviate any added tension as patients and family members navigate their way through this clearly marked facility.

Careful planning with clinicians

and staff helped designers create a floor plan that reinforces an optimal patient and staff experience. Levels of privacy are inherent to the plan. All patient rooms are private. Inpatient rooms include family alcoves for overnight accommodations, while four VIP suites, each with a separate guest room, are located on patient floors. Small, decentralized nurse pods between every two patient rooms puts nurses only steps away from patients.

Further amenities like free wireless computer access, available throughout the facility, ensure communication with family members far away. And while comfortable rooms are the norm at the Center, when appropriate patients are encouraged to get out of bed and partake in cardio conditioning by way of a dedicated walking track. Designers created designated walkways encircling central nursing stations to allow uninterrupted ambulation.

We're hearing more and more that happy employees provide better patient care. Designers paid

particular attention to employee spaces. Unnecessary steps are eliminated between supply closets, linens and designated employee conference rooms, thanks in part to thoughtfully designed main nursing stations. Gone are the tucked away break rooms. At KU Med, light-filled spaces dominate. Employees have access to hospitality-like lounges that offer a quiet place to eat and relax, providing a respite from the demands of the patient floor.

### A Healthy Future

In a tight space, and on an almost impossible schedule, the Center for Advanced Heart Care emerged, prepared for the growing influx of cardiac patients. Open hospitality-style spaces and leading-edge technology reflect the mission KU Med administrators envisioned for the future of healthier lives across the Midwest. And vertical expansion capabilities ensure supported space in the future when that need arises. Good news for all! ■



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