To honor teamwork, communication and overall excellence, the American Hospital Association’s American Society for Healthcare Engineering (ASHE) presents its annual Vista Awards for team-based planning, design and construction.

This year’s winning projects are Mercy Hospital Joplin (Mo.), for new construction; Shawnee Mission Medical Center, Merriam, Kan., for renovation; and Nebraska Medicine, Omaha, for infrastructure.

Unlike other awards in the field, the Vista Awards judges look beyond aesthetic points and mirror the process by which hospitals are built by focusing on the key players who are involved from inception to completion. “Vista Awards are based on demonstrated teamwork delivering a successful project,” says Dana E. Swenson, PE, MBA, ASHE, chair of the Vista Awards and senior vice president and chief of facilities at UMass Memorial Health Care, Worcester, Mass.

“When judging projects, teamwork that extends beyond the planning, design and construction teams, and encompasses the larger organization, the stakeholders, and the community are the healthcare projects that shine.”

Swenson and the other Vista Awards judges — Randy Regier, ALA, president of Taylor Design, Irvine, Calif.; C. Scott Shipp, PE, vice president, RDK Engineers, An NV5 Company; Charlotte, N.C.; and Sean M. Mulholland, PE, CHFM, CHC, director of planning, design and construction at Children’s Hospital Colorado, Aurora — found three particularly good examples of such projects this year:

- Community service and inclusion was a big part of the Mercy team’s mission to quickly and effectively fill a void left when its previous facility was destroyed in a natural disaster.
- The Shawnee Mission Medical Center team, likewise, faced logistical challenges of maintaining operations while adding new spaces for community access.
- The team at Nebraska Medicine met a regulatory mandate and maintained continuous patient services by precisely coordinating a major electrical system overhaul.

To learn how the teams guided these impressive projects, see the following pages.

Jessica Villasenor is a freelance writer based in Chicago.
Mercy Hospital Joplin

Mercy Hospital Joplin (Mo.) stood out as a team that exemplified the goals described by Vista Awards Chair Dana E. Swenson, PE, MBA, SASHE, as encompassing the larger organization, stakeholders and the community.

The hospital opened in March 2015 after a tornado in May 2011 left both the hospital and its facilities in turmoil. John Farnen, executive director of special projects for Mercy, says the team worked together to minimize the impact on the community and reconstruct a state-of-the-art facility within four years.

"The existing facility, when it was hit by the tornado, was just devastated," he says. "It blew out all the windows, it blew off roofs, the inside partitions were all blown in. There was a lot of damage at that facility and the Mercy staff there just did a remarkable job protecting the patients from getting injured from the event."

The EF-5 tornado ripped through Joplin, destroying St. John's Regional Medical Center. Hours after the tornado, the realization that the community needed a functional working facility loomed. HKS and McCarthy were contacted for the rebuilding, which began immediately. The goal was to create a 208-bed, 890,000-square-foot hospital.

"To be recognized by them on this project is a wonderful event; the team is just thrilled about getting the award," Farnen says. "It was a long four years to get through that project. It really brought together hundreds of people to complete this project."

Farnen says that after the powerful destruction, the team decided it must build a facility that could withstand a tornado. The community needed a facility that could protect patients and community members, he adds.

Within a matter of 24 to 48 hours, a work plan was conceptualized, including a structure for all teams to work cohesively. "We had to have a plan to build this in the time we had," says Norman Morgan, lead architect, HKS. "It's not your typical interview process where you have time to put together your game plan over several weeks; we had just a couple of days."

Though building time posed a struggle, the team expedited the construction and design to maximize the patient family experience. They spent hours meeting with patient care teams and conceptualized a communication strategy based on focus, creativity and transparency, reviewing building progress each month.

The focus of the building was to maintain Mercy standards and to maximize treating patients and designing patient rooms with functional style. The building is special because of the innovative design that secures patient safety in the event of a storm at equal magnitude.

"The part that I was so impressed by was the weekly calls we had. We started the week knowing exactly what had to be done for the week. We were all on the same page," Morgan says. "The weekly huddles were extremely important and kept everyone on point. That was the biggest thing from a communications standpoint that made this work."

Vista Awards Judge Randy Regier, AIA, says the hospital CEO referred to the team members as friends, which was notable in the application. The team efficiency and streamlined communications also contributed to their selection.

"What was evident to me in the story they told about that project is that this was a disaster they had to deal with," he says. "Knowing they had to pull a team together quickly, there was no hesitation in team selection based upon previous team successes." Regier adds that every project has a story to tell but the inspiration that comes through of great teamwork to solve problems is notable.

"It wasn't just about a building, it was rebuilding a whole community," Morgan adds. The building gave the community a sense of hope, and to be a part of that is one of the project highlights of Morgan's career, he says.
Clockwise from upper left: The front entrance; the meditation pool outside the clinic entrance; the main dining room; lobby seating; an inpatient room; and (center) the meditation courtyard outside the main hospital entrance.
Shawnee Mission Medical Center

Phased project based on CREATION model philosophy delivers thoughtful elements and added efficiency

The four Cs — communication, collaboration, cooperation and coordination — created an efficient and effective project for Shawnee Mission Medical Center, Merriam, Kan., winner of the Vista Award for renovation. The 67,186-square-foot project was a result of prioritizing the needs of the communities of Johnson County and investing in renovations to streamline patient care.

"The holistic approach of the four Cs made this project successful and a winner of the 2018 Vista Award," says Vista Awards Chair Dana E. Swenson, PE, MBA, SASHE. The team approach during the project also contributed to its success, says Jason Piper, medical center project manager.

"This project was a team approach from the very beginning. It started with the vision of our administration — what they wanted and how they wanted it to look — and then the process moved to the designers to put that vision on paper and renderings for approval to make sure we were capturing that CREATION Health vision," he says.

The project was completed in phases with the CREATION model philosophy — Choice, Rest, Environment, Activity, Trust, Interpersonal relationships, Outlook and Nutrition — in the forefront of decision-making. The principles influenced the design of the space to improve the visitor experience as well as the workplace culture.

Central processing was transformed into Harvest Kitchen, an innovative hospital cafeteria that focuses on nutrition as well as providing a space for visitors and staff to gather. The kitchen was elevated with modern elements, including stone on walls and soft back-lit panels, to create a calming environment. Central processing was optimized to a new modern space designed in a circular format to streamline workflow. Previously, the space spread into two floors, which created an ineffective cleaning and sterilizing system for surgical instruments. The original cafeteria was then transformed into a state-of-the-art conference center for internal training and community education. Previously, the hospital lacked a meeting space.

Weekly meetings during all phases of the project and frequent communication were the norm throughout the process.

"Once we gained approval, we moved into how we were going to build it. It brought the team tighter as we all had to be on the same page, because most of the construction was in the heart of the hospital and we could not disrupt the goal of providing the best patient care possible," Piper says. "We identified key items and risks that would have to be addressed in order to make this project successful."

The obstacles in renovation were minimized by the teamwork displayed in the project. The valve on the main water line serving the hospital was no longer operable, creating a problem for the existing project. To make connections to renovated spaces, the water supply was shut down overnight, with the team ensuring that risk to patients was minimal. Infrastructure and operational issues occurred, but were mitigated by the team.

"It is rewarding to be recognized for a series of projects not directly related to patient care, but that are equally important to our mission to heal the mind, body and spirit," says Greg Highberger, architect and owner’s representative of the project. "Aligning project team members with our CREATION Health initiatives and creating purposeful relationships in which all parties strategically understood the goals, mission and objectives of the project drove the decisions we made."

HFIM

**PROJECT INFO**

- **SQUARE FEET:** 67,185
- **NUMBER OF BEDS:** N/A
- **PROJECT BUDGET:** $18 million
- **ACTUAL COST:** $17.2 million
- **START DATE:** August 2015
- **PROJECTED COMPLETION DATE:** June 2017
- **ACTUAL COMPLETION DATE:** December 2016

**TEAM MEMBERS**

- **GREG HIGHBERGER,** architect and owner’s representative, Shawnee Mission Medical Center, Merriam, Kan.
- **SAM BECKMAN,** AIA, project architect and design manager, ACI Boland Architects, Kansas City, Mo.
- **CHAD LANE,** PE, construction project manager, JE Dunn Construction, Kansas City, Mo.
- **CARSON MOSER,** PE, MEP/FP engineering project manager, Henderson Engineers Inc., Lenexa, Kan.
- **MEGHAN DUDAK,** NCIDQ, interior design, Benson Method, Overland Park, Kan.
- **SCOTT REITANO,** commercial food service design, Reitano Design Group, Indianapolis

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Clockwise from upper left: The main entry of Harvest Kitchen, a prefunction area of the conference center, an administrative boardroom and the dining area of Harvest Kitchen.
Nebraska Medicine

Coordination helps team to replace electrical system while health care facility remains in operation

Project success is not just defined as being done ahead of schedule and under budget. The metric to success is greater than that, according to Vista Awards Judge Sean M. Mulholland, PE, CHFM, CHC.

"A project’s completion that addresses an organization’s needs by the involvement of all parties—an organization’s end users and administrators, general and subcontractors, architects and engineers—along with a commitment to teamwork and continued individual growth is what drives a project to be awarded a Vista Award," he says.

For the award-winning infrastructure project at Nebraska Medicine in Omaha, the complexity of the academic facility’s university towers electrical upgrades project tested the team’s communication strategies and streamlined service. But, their success was noted by their ability to persevere in spite of challenges that emerged.

The project was created to increase the energy efficiency of the hospital while complying with set regulations. By complying with a strict schedule, the team’s goal of zero unscheduled outages for all areas would ensure patient safety.

"The key thing was the way they told the story and the complexity of what they were dealing with," Vista Awards Judge Randy Regier, AIA, says. "They completely replaced the electrical system for the facility while it was operating. To do that without any major hiccups requires an intense amount of coordination and collaboration to make it work."

The preplanning process included evaluating the electrical system of the four buildings with short- and long-term progress in mind. The impact to staff and patients, the system’s overall vulnerability, cost, reliability and construction ability were discussed.

Building relationships with those involved expedited and improved the overall process. For example, the electrical inspector became interested in the project and became part of the team. He was then involved in milestone reviews throughout the process. Challenges included a 45-day timeline to meet Centers for Medicare & Medicaid Services citations.

Lead electrical engineer Timothy Koch, FE, of HDR, Omaha says teamwork made the project a success.

"What made this team so special is that no decisions were ego-based; every decision was based on what was right for the patients and hospital staff," he says.

Additionally, the hospital had to remain fully functional and could not close parts of the hospital or move patients.

"Health care is a 24/7 operation and, as such, there is no time when hospitals close for renovations," says Vista Awards Judge C. Scott Shipp, PE. "Involvement of many different participants in projects—owner, architects, engineers, contractors, operators, clinical staff and others—generally will yield more success on these very complex project types. The Vista Awards committee looks for projects where superior teamwork and collaboration allow a complex project to be completed, often under unique circumstances."

Despite this challenge, the team was able to install new electrical branches, circuits and distribution boards. They also switched from the old electrical distribution to new, and completely removed the old system.

The project was completed 40 days ahead of schedule and under budget.

Where voltage sag and electrical inefficiencies once disrupted services, calls for power-quality issues dropped to zero.

"Every project has its share of challenges, especially one as complex as this. Yet, as a team, all solutions were tabled before moving forward with the best one," Koch says. HFM
Clockwise from upper left: The main normal power switchgear, the main generator power switchboard, the riser room and the distribution equipment room.