The Children’s Center Rehabilitation Hospital

Trane and Strategic Partner Streets Mechanical help The Children’s Center Rehabilitation Hospital prepare for a massive expansion to provide more services to area children.

The Children’s Center Rehabilitation Hospital, located 12 miles northwest of Oklahoma City in Bethany, Oklahoma, is the only facility of its kind in the State of Oklahoma. The Hospital provides advanced, specialized pediatric medical care that helps children transition from intensive hospital care to successfully living at home. A private, nonprofit hospital, The Children’s Center Rehabilitation Hospital offers 24-hour medical care, comprehensive rehabilitative therapies, respiratory care, and special education.

The Children’s Center Rehabilitation Hospital has 120 beds and serves approximately 400 inpatients and over 2,100 outpatients. The Complex Care Unit provides 100 inpatient beds for patients with complex medical needs including birth defects and debilitating physical illnesses, while the Pediatric Medical Rehabilitation Unit has 20 inpatient beds for children who suffer traumatic injuries such as brain and spinal cord injuries. The Outpatient Therapy and Pediatric Clinic delivers physical, speech, and occupational therapy. With an extensive waiting list of children needing the type of care the Hospital provides, a 100,000 square-foot addition is underway which will provide two eight-bed units, 24 private rooms, an education center, and additional therapy and rehabilitation space.

The Children’s Center Rehabilitation Hospital is a private, nonprofit organization that provides advanced, specialized pediatric medical care that helps children transition from intensive hospital care to successfully living at home. The Hospital serves approximately 400 inpatients and over 2,100 outpatients through Complex Medical Care and Rehabilitation, Traumatic Injury Rehabilitation, and Outpatient Therapy and Pediatric Clinic. It is the goal of The Children’s Center Rehabilitation Hospital for patients to go home to a loving family that is trained and equipped for that homecoming.
Preparing for Growth

The Children’s Center Rehabilitation Hospital expansion brought forth an opportunity to replace aging, inefficient systems while preparing for a new, state-of-the-art facility. In August of 2013, work began on the construction of a Central Physical Plant. In addition to the energy savings of more efficient equipment, the objective of the Physical Plant was to create a safer / more reliable operating system for patients while allowing for future expansion.

The Physical Plant houses four (4) large cooling towers, two (2) Trane Centrifugal Chillers, Trane Fan Coil Units and Trane Air Handling Units. The system was designed around EarthWise low temperature, low flow principles in order to maximize energy efficiency.

In addition to the Physical Plant expansion, the Hospital also expanded their Control system.

Strategic Partners

Streets Mechanical, based in Oklahoma City, has been a long-time Strategic Partner with Trane. In fact, they were one of the very first mechanical contractors to sign up for the program over 25 years ago. As a Strategic Partner, Streets and Trane have agreed to work together to achieve superior design, manufacturing and installation of HVAC systems in an effort to advance the construction industry and bring increased value to building owners.

A long-time supporter of The Children’s Center Rehabilitation Hospital, Streets began working on the Donald W. Reynolds Center in 1996 (The Donald W. Reynolds Center currently houses the Complex Care Unit on the Hospital’s campus). Streets collaborated with Darr & Collins, a consulting engineer, and Trane on the original project. Since then, The Children’s Center Rehabilitation Hospital has worked exclusively with Streets, Darr & Collins and Trane to build an addition to the facility that houses the Pediatric Medical Rehabilitation Unit (PMRU) as well as the current addition of 38 new patient beds and the Physical Plant expansion.

“Prepared for Growth”

Kinslee Roe became a staggering statistic in January, 2014. She suffered a rare stroke while attending Sunday school. The energetic six-year-old loved playing basketball and pestering her siblings. Heather Roe, Kinslee’s mother, did not believe the news. “Before any of this happened, she was a perfectly normal, healthy little girl.”

Doctors discovered that the left side of Kinslee’s brain was underdeveloped. They also found small arteries and a blood clot disorder, which caused the stroke. It took Kinslee five days to speak after her stroke. Doctors referred her to The Children’s Center Rehabilitation Hospital for intense physical, occupational and speech therapy.

“When Kinslee arrived, she was barely eating and wasn’t speaking much,” Tami McMichael, Pediatric Nurse Practitioner, said. “And by the time she went home, she was able to carry on a good conversation. She was really amazing.”

Kinslee continues to get stronger every day by visiting The Children’s Center Rehabilitation Hospital’s Outpatient Therapy Services. She is now back on the basketball court and up to her old tricks with her siblings!

“The staff at The Children’s Center Rehabilitation Hospital did amazing things for Kinslee in the short amount of time she was there. She is able to walk again.”

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Energy Savings

Prior to the construction of the new Physical Plant, The Children’s Center Rehabilitation Hospital faced a common problem—a network of aging rooftop systems that were in desperate need of replacing. While replacing the existing equipment was certainly an option, the Hospital chose to invest in an operating system that increased efficiency in such a way that annual operating and maintenance costs were reduced by as much as one third. In addition, the new Physical Plant would support future expansion of the facilities without the need for another major capital expenditure.

In addition to the substantial energy savings, the new Physical Plant gave the Hospital an opportunity to apply for energy rebates from their local utility provider. In the summer of 2014, the Hospital was awarded a $48,000 rebate from OG&E as part of its Commercial Energy Efficiency Program (CEEP). CEEP is designed to provide rebates to customers that realize energy savings and make peak demand reductions. The program can be used for any energy efficiency upgrades like motors, geothermal, chillers, HVAC systems, compressed air or performance contracting.

“I was very impressed with Streets and Trane for thinking outside of the box on this project. It would have been much easier to just replace the rooftop units and add a chiller with new construction, but this was not the best option for The Children’s Center Rehabilitation Hospital. The facility is much more energy efficient with the new Trane equipment and there is room for growth with the new Physical Plant.”

-Forrest McGee
CEEP / IEEP Program Manager, OG&E

Looking To The Future

Plans for the 100,000-net-square-foot addition are under way. The addition will feature two new patient floors that will add 40 new patient beds, bringing the Hospital’s total capacity from 120 beds to 160. The lower level will feature an innovative “activities of daily living” therapy and rehabilitation space designed to help inpatients and outpatients build strength and practice daily living skills. The ground floor will encompass an education center that can accommodate up to 300 people. Finally, a shelled fourth floor will accommodate future growth.

As with any healthcare facility, the addition will take into consideration the need for medical gases and suctioning equipment as well as backup electrical systems and special considerations for severe weather typical of the Midwest. The HVAC system will also be designed to deliver filtered and controlled air evenly throughout the building to reduce airborne viruses, bacteria, mold and other contaminants. Because the addition will be built while patients are receiving care, the construction team will work closely with the staff to ensure patient care goes uninterrupted.
Corban and his brother, Jordan, were taken immediately to the neonatal intensive care unit. Corban weighed only one pound, while Jordan weighed one pound and five ounces. Sadly, doctors were not able to save the third baby.

“The first couple of days with Corban were kind of rough,” Jerri recalled. “I was at home when I got a phone call from the doctors saying Corban was not going to make it. When I got to the hospital, I saw this little finger pop up as if he knew I was there. I knew he would keep fighting.”

Doctors then performed an MRI on Corban. “They told me the MRI showed Corban did not have any brain damage and everything looked good. That was the first day Corban smiled at me.”

Corban required a tracheotomy on April 27, 2012. Doctors felt the procedure was vital to keeping Corban in stable condition. “Corban was a different child within 48 hours of that surgery,” Jeri said. “He was smiling, interacting. He had energy I had never seen before.”

Corban arrived at The Children’s Center Rehabilitation Hospital one month after his first birthday. “Corban received various types of therapies at The Children’s Center Rehabilitation Hospital. I watched him turn into a brand new child.”

A new MRI showed Corban would not be able to walk, however, that quickly changed with the physical therapy Corban received at the hospital. “He is now standing on his own, walking and talking,” Jeri said. “He can still communicate even though he doesn’t have the verbal ability to do so.”

Corban discharged from The Children’s Center Rehabilitation Hospital after almost a two-year stay. “The fact that he doesn’t have to rely on a ventilator anymore and that he gets to be home with the family is nothing short of incredible. There is a comforting feeling knowing people love your child just as much as you do, and that is what we received at The Children’s Center Rehabilitation Hospital.”

….Miracles happen here.