Category: Best Building Project – Specialty Contractor ($2-$6 Million)
Contractor: Kenny Electric
Project Name: Swedish Medical Center– Neuro Expansion & Renovation

Kenny Electric's progressive ability to synchronize and integrate safety within all electrical installations and responsibilities ensured the success of the expansion to the region's leading stroke and neuroscience center in Englewood, Colorado. With the help of Kenny Electric, Swedish Medical Center set out to conquer their second largest expansion in recent Swedish history. This project planned to further align its medical center's neuroscience center with the addition of needed critical care beds and medical surgical beds with an added 65,000 square feet to the campus and renovation of 28,000 square feet. Construction of two additional floors to the south tower would also transpire resulting in new neuroscience, medical and surgical beds, and construction of a new neuro-critical care unit to address more significant patient needs and volume.

This 18 month project consisted of 4 individual phases, all taking place while the level one trauma center was fully operational. In order to successfully overcome this challenge, effective and diligent coordination was crucial. Throughout the project, Kenny Electric's crews worked side-by-side Doctors, nurses, and patients. During this time, the patients became the number one priority as our crews often had to adjust and plan around the needs of the hospital staff.

Throughout each phase of this project, our Electricians were forced to coordinate at a higher level allowing them to be more efficient and accurate. During the various phases of this project, Kenny Electric took an approach which allowed us to complete each phase, on time, while working with an existing hospital dating almost 100 years old.

Central Utility Plant

The Central Utility Plant was the largest phase of this project that our team accomplished. This stage involved of a complete replacement of the existing emergency power system. Three new 2 megawatt diesel generators, new paralleling switchgear, 2 new 4000 amp services, refeeding of 12 existing automatic transfer switches and upgrades to the chiller plant were included in this scope of work.

Dealing with older electrical and mechanical equipment can pose obstacles, however we were able to complete this phase with improved systems. Kenny Electric proposed installing a new utility transformer in lieu of using temporary generators during the switchovers in order to provide a more reliable power source during the outages and saving the cost of rentals and fuel. When dealing with a fully operational hospital, reliability is of the utmost importance. The owner also received the added value of a new transformer to replace the older existing one. This work required constant organization and communication with the entire team to ensure a successful outcome which was accomplished by the use of many Method of Procedure (MOP) documents and coordination meetings.

Multiple planned outages were effectively accomplished in the allotted time frame while maintaining a functioning level one trauma center. Part of this phase included a 56 hour shutdown in order to replace a piece of main gear located in a vault that fed two large distribution panels in the hospital. During this period, two temporary generators were used to keep the distribution panels energized while we completed the work inside the vault. If the two distribution panels were not energized for those 56 hours, the hospital would not be considered a level one trauma center as the two distribution panels fed vital equipment in the hospital for operating rooms, lifesaving equipment, and patient care. In order to successfully complete this task, our crews worked around the clock. This shutdown took advanced planning and coordination as the use of a crane was necessary while working in a very tight space. Our crew successfully completed the work inside the time constraints with an hour to spare.

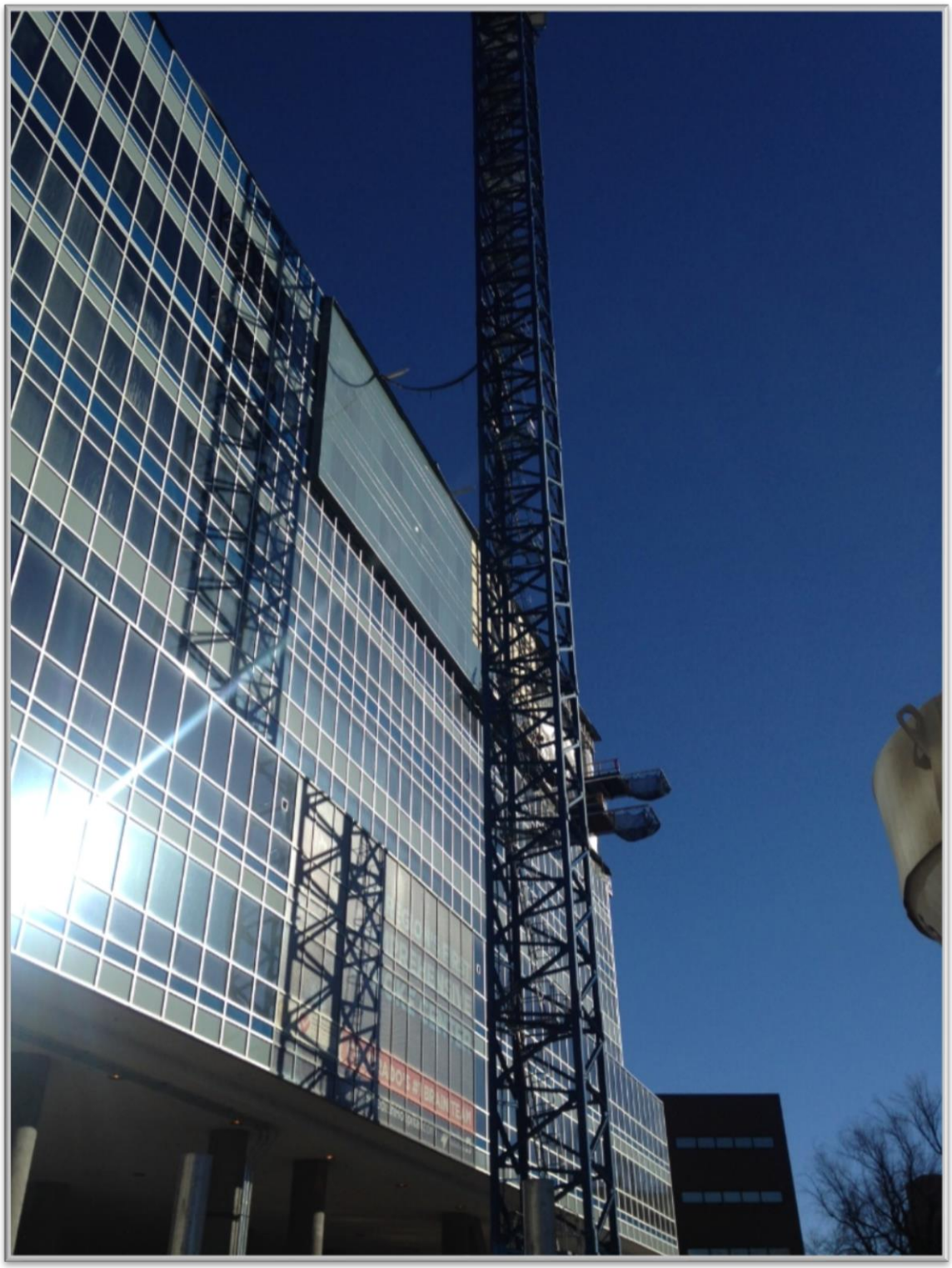
Two Story Vertical Expansion

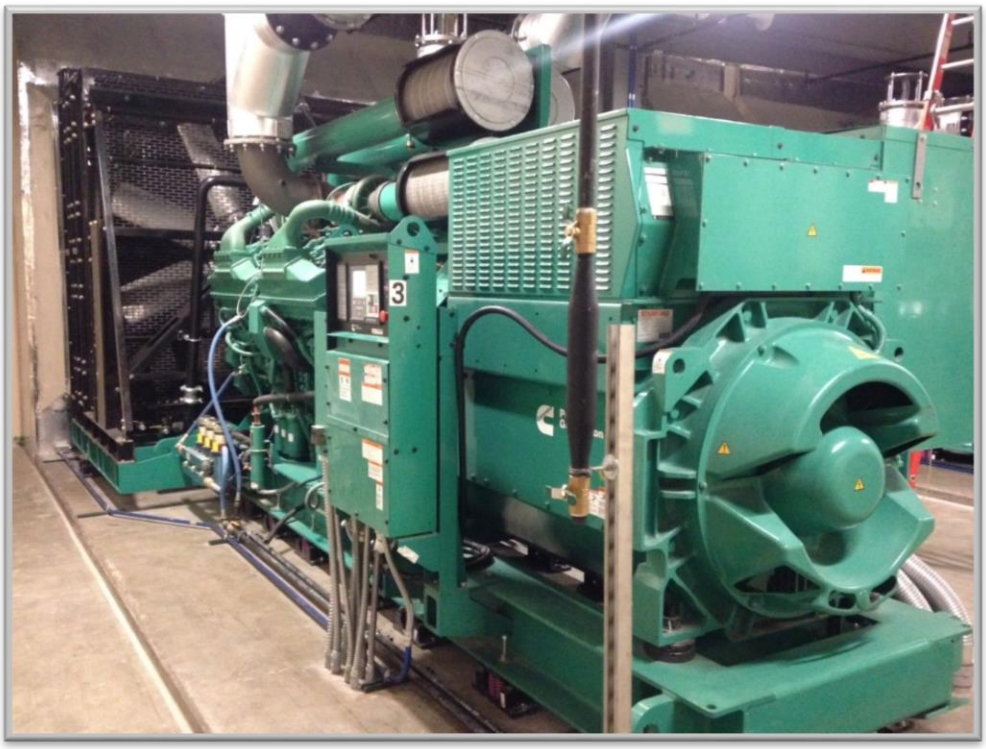
This phase of the project included a two story vertical expansion of the existing tower consisting of a 30,000 square foot addition of the 9th and 10th floors. A vertical expansion of any type of building can pose difficult obstacles. In order to complete this expansion, existing equipment on the roof had to be relocated. Additionally, material staging and planning was key as all materials needed to be hoisted to the roof utilizing a tower crane. The finished space included 36 new patient rooms. Expansion included new electrical distribution from the central utility plant, upgrade of the existing fire alarm system, tele/data riser improvements, relocation of all the existing roof equipment, new exterior soffit lighting, aircraft warning lights and lightning protection system.

Critical Care Unit Tower Level 1 & 2 and Level 4

CCU Tower Level 1 and 2 involved converting the valet parking area into 2 levels and 24,000 square feet of tenant space. This space was transformed into executive office and administration areas. The additional renovations included enhancing Swedish Medical Center's award-winning CCU and in-house 24 hour critical care center. Kenny Electric began heavy renovation of the CCU 4th level consisting of 13,000 square feet and 14 patient rooms. This work took place while the other half of this CCU floor was operational as well as the levels above and below. The entire area was demolished and rebuilt while maintaining the integrity of special systems, fire alarm, and the critical electrical systems.

The successful completion of this project was made possible by our team of skilled field personnel and accomplished management team. As the project came to an end in December of 2016, it was clear that the common denominator was outstanding harmonization while maintaining Kenny Electric’s high standards of safety, quality and communication. These individuals worked diligently around the clock with a shared goal of creating a better environment for those who need the best possible medical care.






Swedish Medical Center