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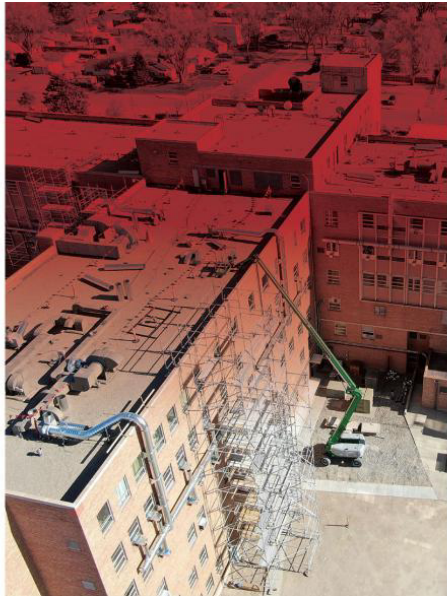
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Renovation STAT! Adams Electric electrifies Colorado hospital



Adams Electric used skill, collaboration, prefab and creativity to update two floors of the decommissioned St. Mary-Corwin Medical Center over five weeks this spring.

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By [Claire Swedberg \(/contributing-authors/claire-swedberg\)](/contributing-authors/claire-swedberg)

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During extraordinary times, some contractor teams take on extraordinary challenges. That's what happened when Adams Electric Inc., Pueblo, Colo.; its subcontractors; and the entire team led by Mortenson Construction, Denver, built out hospital space for a potential influx of patients in the spring of 2020. The team completed an entire project, from design and bid to completion, in about five weeks.

The St. Mary-Corwin Medical Center Building project in Pueblo, Colo., completely renovated two floors of unused and decommissioned hospital space. The fourth and fifth floors of the hospital's East Tower (each covering about 46,000 square feet) was readied to accept hundreds of patients at the facility, if necessary, and the team did it quickly.

The state leased the space from Centura Health, which owns St. Mary-Corwin Medical Center, for use through at least the next year to serve healthcare needs as they arise. After that, as the COVID-19 pandemic passes, the area could be turned over to use as college space.

The project was a design-assist/bid/build and all construction players were at the table from the first day, ensuring the specifications were accomplished quickly and accurately, and necessary paperwork was completed. The final challenge was the construction itself within a tight deadline. In fact, the project was assessed, designed and bid over the course of just six days. The state accepted that assessment bid a day later, and the following day the crew began a four-week build-out. In addition to Mortenson as

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general manager and Adams Electric as the lead electrical contractor, Cator, Ruma & Associates, Lakewood, Colo., was electrical and mechanical engineer on-site.



Electrical, nurse call and fire

Adams Electric's responsibility included temporary upgrades to the electrical systems and installation of life safety, normal power, equipment power branches and fire alarm upgrades. The electrical contractor also provided nurse-call and access-control system upgrades and installations.

St. Mary-Corwin moved into its new tower more than a decade ago, while the older tower was converted to administrative support and then sat vacant for years. In early 2020, the state opted to lease the space to serve COVID-19 patients, which meant a fast renovation.

St. Mary-Corwin dates back more than a century, while the tower being renovated was first constructed in the late 1950s, said Doug McNichol, Mortenson's preconstruction manager. Adams Electric had already served the hospital with electrical maintenance for many years, so the company knew the facility well. Mortenson reached out to Adams Electric to develop the assessment and bid around April 10, and, together, the contractors started the planning.

Adams Electric hadn't worked with Mortenson before because the electrical contractor mostly does business in Southern Colorado, while Mortenson serves the Denver area, McNichol said. The two contractors conducted numerous phone calls to get acquainted.

"We had vast knowledge of the hospital itself since we were on-site for maintenance," said Chris Frazier, Adams Electric president.

Mortenson gathered the entire team together right from the beginning. With just a week to work with, the team collaborated and created a design, with workers on-site every day for about 12 hours a day to develop the bid and meet the federally reimbursable project requirements for paperwork.

The entire \$8 million project was unique in many ways, recalled McNichol. The short timeline—along with social distancing requirements—meant that numerous accommodations had to be made daily. Then there were the unknowns. For example, they didn't get a close look at the existing electrical system in the tower until the work started, at which time they discovered there was a lot of work needed.

As soon as they were on-site, it was clear that “the infrastructure had some issues; the fire alarms system had some issues; we definitely had some challenges,” McNichol said.

Six days for design and bid

Adams Electric's design progress and building was led by Frazier and the company's vice president of operations, Joe Incitti.

First, they made their assessment.

“We had six days to completely assess the building, infrastructure, electrical systems, nurse call and IT. We assessed it all, wrote the report and came up with the design-build price,” Frazier said.

Because of the time frame, Adams Electric subbed out the new fiber backbone installation to Pueblo Electrics, Pueblo, Colo., and voice/data/video to systems integrator BW Systems in Colorado Springs, Colo.

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The team submitted the details to the state on Saturday, April 16, and the state approved the proposal on Sunday. On Monday, “we hit the ground; Adams Electric had 40 electricians on-site, along with mechanical and sheetmetal guys and plumbers,” McNichol said.

While most of the two-floor space had been used for administrative purposes, an outdated maternity ward was located on the fifth floor, and its electrical system was not up to Code. That meant installing new emergency circuits, generator circuits, nurse call systems and lighting.

“You had to have to have emergency branch lighting, night lights, headwall lights, exam lights,” Frazier said.

Four weeks for building


Once the state accepted the bid, the team was turned loose on the site.

“From that time, we had four weeks to complete project,” he said.

The last time the tower’s electrical system had been touched was in the 1980s, McNichol said. The electrical renovation work needed to be done in conjunction with work done by the other subcontractors. Ninety-five percent of the construction work took place between that Monday (April 18) and May 20, and it was accomplished with some creativity. For instance, procurement was a challenge; getting the supplies required some extra effort on all sides, McNichol said.

“Everybody kind of took the approach of designing around what we can get done in time,” he said.

The local suppliers and manufacturers worked with the team to ensure goods were on-site within about a two-week time frame.

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“We were lucky that we had very good participation from our vendors and manufacturers,” Frazier said. (L)



To accommodate social distancing requirements, the team met in the parking lot to plan before workers were on-site each day. Each worker wore a mask, and nurses from the hospital were stationed at the entrance to check temperatures. Mortenson set up zones for everyone to work in.

“We basically said, ‘OK, plumbers can have these zones, electricians these zones,’” McNichol said.

That way, the team adhered to the Centers for Disease Control and Prevention’s guidelines for separation.

“The social distancing was tough at times when you had two men working, as fast as we were trying to move,” McNichol said.

They coordinated it appropriately. Having the subcontractors separated to different sides helped. Because of the coordination, all trades were able to work around each other.

“Mortenson did [a] terrific job with coordinating. We started on opposite ends and crossed in the middle.” Frazier said.

Adams Electric also assigned tools to each electrician to ensure there was no cross-contamination.

“We set up tool kits for each person. There was no sharing of tools,” Frazier said, adding that cleansing and sanitizing tools was a daily process.

Bringing manpower on-site at that pace was another challenge. When it began, only a handful of electricians were on the books.

The company took advantage of a team of good, young electricians, Frazier said, who worked through layouts, getting fabrication ideas together at the prefab site, and then transporting assemblies daily, which were installed as they arrived on-site.

Adams Electric met its deadline and space requirements in part by leveraging its prefab facilities.

“We have a small prefab shop and used it to the highest capacity it’s been done,” he said.

In fact, the company had started prefab only about a year before, and this would be, by far, the most challenging project to use it. They prefabbed the MC cable in boxes for wall rough-ins, all HVAC equipment feeder racks, and gear distribution racks and panels.



One-time patient rooms on the fifth floor required new emergency circuits, generator circuits, nurse call systems and lighting.

Very little material was staged on-site. Altogether, the company built about 600 assemblies and another 30 HVAC equipment feeder assemblies.

“We pretty much went consecutively through each wing and floor,” Frazier said. [\(L\)](#)



To work at the highest capacity and efficiency in the prefab site, the company created new order forms and new design forms for assemblies in this whole process, which can be used in future projects. They also acquired new tools and are equipped now to provide large-volume prefab services for other projects.

New technology

One challenge for Adams Electric was familiarizing the team with technology such as collaborative contractor software from Bluebeam and computer-aided-design software from AutoCAD.

Adams Electric staffers hadn't needed to use the technology at that depth before, Frazier said. This was their first technologically-advanced design-build project using the full potential of Bluebeam and AutoCAD.

“We used Bluebeam for years, but never used it to the degree we did in this project,” he said.

Ultimately, the time frame was the biggest crunch for everyone.

“It was an excellent team to work with,” Frazier said.

“Everybody from top to bottom was easy to work with and made the project go smoothly.”

Surprises along the way

The team tackled surprises along the way, including deficiencies in the existing fire alarms that had to be addressed. Mortenson worked with state inspectors and permit authorities to ensure the fire alarms could be provided in record time and would still meet requirements.



Additionally, training was needed to acquaint the state's IT personnel with the Wi-Fi network and phones. 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Without the trust of everybody on the team and communication, it would not have come together as well as it did, he said.

"I've been proud our company was able to provide this service to our local community," Frazier said.

Currently, the space is not being used. However, if the number of COVID-19 patients rises, the state will be prepared. When the lease is up in early 2021, the state may leave the site, and Pueblo Community College might use that space.

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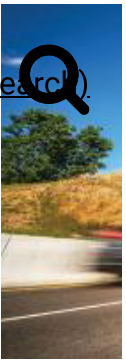
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