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J&M Brown Co. nearing completion of the Signature Healthcare Brockton Hospital fire recovery project

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Brockton, MA J&M Brown Company (JMB) is nearing completion of the comprehensive, electrical infrastructure reconstruction project at Signature Healthcare Brockton Hospital. The hospital reopened in mid-August, 18 months after the massive, 10-alarm February 2023 electrical equipment room fire had forced the immediate, emergency closure of the hospital. The arcing electrical fire caused failure of the hospital's electrical system, including normal power, generator power, lighting, emergency lighting, elevators, telecommunications, and oxygen system, and required the evacuation of 162 patients in coordination with the Brockton Fire Department and EMS resources from around the state.

Within one week of the fire, J&M Brown was called upon by Signature Healthcare to assess the facility's electrical systems and deliver design-assist/electrical construction recovery services.

The multifaceted electrical reconstruction project scope entailed installation of the five-story healthcare facility's all new primary and emergency power systems, comprised of new electrical switchboards and electrical distribution panels throughout, as well all new electrical feeders and branch wiring. Emergency power is delivered by three new generators. The hospital's existing lighting was replaced with new LED lighting panels controlled by a new, advanced nLight lighting control system.

The project also encompassed electrical installations for the hospital's updated emergency department, updated catheterization lab, and new case management department, as well as the facility's entirely renovated lobby, pharmacy, cafe, and kitchen.

During the course of the project, J&M Brown's fire alarm division also installed a new, state-of-the-art Autocall fire alarm system and Bi-directional antenna system to replace the hospital's existing 40-year-old fire alarm system. The existing system was operational and kept on-line until parallel installation of the new life safety system was complete. JMB then enabled cutover to the new fire alarm system and provided removal of the old system.

The NECA Boston contractor managed detailed electrical system and fire alarm system testing services with its subcontractor United Power Group, and working in close coordination with Brockton Inspectional Services, the Brockton Fire Department, and Signature Healthcare.

Planning phase operations: In the planning phase, JMB evaluated the condition of all electrical systems and components, and created a plan to feed an existing switchboard through the installation of temporary generators, which enabled the hospital to have limited power restored within the first month. This allowed for the project's clean-up and reconstruction efforts to begin in earnest. And within six months, the hospital was able to use surgical suites for day surgeries.

New, stand-alone electrical building: During the initial planning phase, JMB worked with Signature Healthcare in the planning and then construction of a new electrical building, separated from the main hospital as a preventative measure. The building houses all major electrical and power supply components, and power is fed from utility power.

Hospital's New Solar Canopy project completed: JMB also completed the fast-track installation of four solar arrays composed of a total of 3,243 solar panels on the four parking area canopies concurrent to the electrical reconstruction project. The solar project will generate 1.5MW of renewable power, helping to significantly reduce the facility's electrical budget and offset its carbon footprint.

Logistical challenges met in active hospital: JMB met numerous logistical challenges as electrical crews worked in an active hospital on a six-day-a-week work schedule through much of the project. Electrical shutdowns were carefully coordinated and scheduled to accommodate the needs of the

active hospital.

J&M Brown is performing the electrical restoration with a project team headed by project executive Michael Booker and general foreman Phil Talbot managing an electrical crew ranging upwards of 50 IBEW electricians, based out of Local 223 in Brockton and Local 103 in Boston.

Commenting on the challenges of the electrical restoration project, Brian Backoff, Signature Healthcare Brockton Hospital director of facilities and engineering, said, “An electrical fire of that magnitude meant that we [had] to rewire the entire 250,000 s/f hospital. Wiring a hospital is a monumental task even for new construction. Retrofitting a hospital with new wiring and electrical and other infrastructure is even more challenging.”

“J&M Brown is proud to have been called upon to achieve the comprehensive electrical restoration of Signature Healthcare Brockton Hospital, a project critical to Brockton and neighboring South Shore communities,” said Booker. “It was a true collaborative effort, requiring close coordination with Signature Healthcare Brockton Hospital facility management, general contractor Auburn Construction, the city of Brockton Fire Department, numerous state agencies, and the support of key electrical vendors, as well as the dedication and expertise of our team of Local 223 and Local 103 electricians.”

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