

J. & M. Brown Company Completes \$19M Electrical Construction of Blue Cross/Blue Shield of MA 550,000 s/f Headquarters and Data Center at Landmark Center

NECA Firm's TelCom Division, Spectrum Integrated Technologies, Constructs Data Center; GC & Construction Manager: Payton Construction of Boston; Architect: Margulies & Associates, Inc. of Boston and McClier, Chicago; EE: Shooshanian Engineering, Boston, and McClier



BOSTON, MA – J. & M. Brown Company, Inc. (JMB), the venerable Jamaica Plain, MA based electrical contracting firm, has completed the 19 million dollar electrical construction of the 550,000 s/f Blue Cross/Blue Shield of Massachusetts (BC/BSMA) headquarters and data center facility at Landmark Center in Boston. The extremely complex, fast track electrical project commenced in February, 2000 and was complete by December, 2000.

The project scope included all electrical installations for a state-of-the-art data center and print center, as well as general offices. A sophisticated fire alarm system, advanced lighting, and computer wiring for the BC/BSMA facility were also handled by JMB. Power requirements for the building demanded very large capacity power equipment, including an N+1 back-up system in the event of power outages. There is, in fact, complete redundancy in every aspect of the critical power system.

In providing comprehensive electrical installations for the expansive BC/BS facility, which is located in the reconstructed Sears Building – a distribution warehouse originally built in the 1920s, Brown met significant logistical challenges. The electrical infrastructure for the state-of-the-art BC/BSMA offices and data center is entirely new. To provide power to the facility the electrical penthouse with a massive 4000A, 480/277V electrical substation, and three (3) 1500KW generators for critical back-up power were located on the roof at the center of the building so as to be not disrupt the architectural lines of the landmark structure. The size of the generators and the location of the electrical penthouse required first disassembling the generators, then air lifting the components by a special helicopter/air crane to the rooftop.

In addition, three 600KVA uninterrupted power supplies, housed on the 5th floor of the building, required being lifted by crane and being brought into the building through existing openings in the facade, as elevators were

unable to handle the weight of the equipment. The extensive power requirements including laying over 20 miles of conduit. In total, over 150 miles of wire and cable were installed by the NECA contractor.

Lighting requirements included the installation of more than 6,000 light fixtures that provide direct/indirect lighting to accommodate the varied tasks in the elaborate data and printing center of the facility.

To meet the aggressive project completion schedule, J. & M. Brown managed a field staff of 110 journeymen electricians, foremen, and apprentices from IBEW Local 103 at peak construction. Crews worked 10 to 12 hours per day, six and seven days per week to meet the move-in schedule. In managing the project Brown rotated work crews in order to keep electricians fresh. Worker safety was of paramount concern, and the firm's safety record on the project was impeccable as there was no lost time due to accidents at the site.

The firm worked in tandem with the general contractor and construction manager, Payton Construction Corporation of Boston. Architectural services were provided by the firms of Margulies & Associates, Inc., of Boston and McClier of Chicago. Shooshanian Engineering of Boston provided electrical engineering for the project.

Payton Construction's Vice President of Operations Michael Malloy commented on JMB's role in the project, saying, "J & M Brown Co. was a major contributor to the success of the Blue Cross Blue Shield project. Not only did they play a key role in putting the work in place, but their assistance throughout the design and engineering aspects of the project was invaluable. Without their timely input, the completion schedule would have been at risk."

Project coordination was a key aspect in the project. Patrick Ventura, Senior Project Manager for McClier commented, "The coordination and cooperation by J. & M. Brown Company in solving the many field conditions that could not be engineered or foreseen prior to construction made our role as Architect and Engineer of the Data Center and support facilities a rewarding one. In 26 years as an architect and project manager, I have never seen such outstanding quality of workmanship and cost effective resolution of project issues."

Adding to the fast track nature of the project, various design changes were necessary. Stephen Cabral, Sr. Project Manager for JMB said, "The complexity of the project and schedule was amplified by more than 360 electrical engineering changes made in order to accommodate Blue Cross/Blue Shield's specific requirements."

Larry Healey, Director of Corporate Real Estate for Blue Cross/Blue Shield reflected on the NECA member firm's abilities to meet the demands of the project saying, "In spite of continuous scope and design changes, J. & M. Brown was able to complete the project on schedule and under budget, effecting a seamless relocation of our nearly 1400 associates."

Approximately 1400 Blue Cross/Blue Shield associates, consisting of executive management personnel, data technicians, and administrative staffers are located at the new headquarters. The leading healthcare insurance provider in Massachusetts took occupancy of the Landmark Center by November of 2000. Prior to the move, BC/BSMA had headquarters at 100 Summer Street, one of Boston's early high-rise buildings. Interestingly, JMB also provided electrical

construction services for that facility thirty years ago. The electrical contracting firm has a full time crew providing service work for the new headquarters and other BC/BS facilities in the region.

In speaking of his firm's ability to meet the demands of the project, David Noon, President of J. & M. Brown said, "Our involvement throughout the conceptual, design, and construction phases of the new Blue Cross/Blue Shield of Massachusetts headquarters and data center has been one of the most challenging and exciting projects in our company's 80 year history."



Spectrum Integrated Technologies Provides \$2 M TelCom Installations

Concurrent and integral to JMB's elaborate electrical fit-up of the BC/BSMA facility at the Landmark Center, the firm's telcom division, Spectrum Integrated Technologies, provided installations of complex cable tray systems and computer data wiring at the 70,000 square foot data center. The firm commenced work on the fast track project in May and achieved substantial completion in 4 months, by September of 2000.

Spectrum's installation of an AVAYA – SYSTIMAX Giga-SPEED and Lazr-SPEED system will accommodate the informational and communications needs of the prominent healthcare provider. Within the telcom fit-up, more than 500,000 feet of Giga-SPEED cable, 100,000 feet of fiber optic cable was installed.

Spectrum's project manager, Ron Lapido spoke of the planning that was necessary to fit the extensive power requirements into the raised 150 foot computer floor. "Payton Construction was responsible for the integration of all equipment, and they were extremely precise in providing an effective layout for the manner in which various components integrate into the computer room floor."

Throughout construction, Spectrum Integrated Technologies managed a team of up to 20 certified telcom specialists from IBEW Local 103.

J. & M. Brown Company, Inc., founded in 1921, is one of New England's oldest electrical contracting firms. The company provides electrical construction and telcom services for commercial, industrial, healthcare, and educational projects throughout Eastern Massachusetts. Prominent recently completed work includes projects at Harvard Medical School, MIT, Brigham & Women's Hospital, Trinity Church, and One Beacon, and the electrical construction of the FleetCenter. Projects near completion are MIT's Central Athletic Facility, Cambridge and Lexigen Pharmaceuticals, Billerica. J. & M. Brown employs approximately 200, including 165 IBEW electricians in the field and an office staff of 35.