Trenton Central Fire Headquarters and Museum
Trenton, NJ

"MWCE helped restore an historic fire house to serve as the Central Fire Headquarters."

Client: Venturi, Scott Brown Associates

Cost: $1.2 million

MWCE was selected by Venturi, Scott Brown Associates to provide all mechanical engineering design services from the project design phase through construction administration. This project focused on the restoration and renovation of an historical fire house to accommodate a museum, administration offices and the addition of dorms and a state of the art fire truck repair facility. This modified fire house will serve as the Central Fire Headquarters for the City of Trenton. MWCE performed feasibility studies, site surveys, load calculations, equipment selections, code and standards review, and coordination with all related disciplines including: plumbing, electrical, sprinkler, structural, civil and architectural. In addition to HVAC systems design, MWCE developed the necessary specialty systems required by the multifunctional facility: above and below ground vehicle fume exhaust systems; fuel storage, transfer and automatic distribution systems; lubrication/vehicle maintenance fluids and storage automatic distribution systems; filtration exhaust/ventilation for fire extinguisher refill station; medium and low pressure screw type compressed air distribution system; self contained breathing apparatus refill station system; wood dust collection system; metal dust collection system; welding fume collection systems; and a petroleum fluid waste recycling system.

HIGHLIGHTS:

- Multi-function Building: Museum, Offices, Repair Facility
- Construction Administration
- Historic Renovation
- Specialty Systems: Wood and Metal Dust Collection Systems
- Mechanical/HVAC
- Vehicle Fume Exhaust
- Construction Administration

MWCE also performed construction administration tasks, which consisted of the review and analysis of MEP budget estimates and cost events, contractor schedule of payment values, change orders, project site visits and inspections. The MWCE team prepared reports on progress and deficiencies based on documents and specifications; reviewed and approved monthly billing vouchers, product submittals and shop drawings; review for conformance and approval to the project specifications. MWCE's responsibilities also included the review of all project closeout documentation- balancing reports, commissioning reports, factory start up reports, as built documentation, O&M manuals including all warranties, service agreements, and special conditions.