



St. Vincent's Medical Center

Bringing Mission Critical to critical care



Project Business Objective

Provide hardened normal and emergency/standby power systems with focus on system reliability and maintainability that exceed healthcare facility code requirements.

Project Summary

St. Vincent's Medical Center is a critical care facility serving Bridgeport and southern Connecticut. The Medical Center management team continually institutes programs for the facilities in order to better serve its patients and the community. The Medical Center desired to continue to provide state-of-the-art in-patient and ambulatory patient care and required a hardened power distribution system to achieve this goal.

FEA provided St. Vincent's an electrical system study to recommend upgrades to increase the system's reliability, maintainability, code compliance and its ability to function even if utility power is not available. The study provided a phased approach to serve the medical center for the next ten years and beyond.

After approval of the design concept, FEA, acting as the project prime professional, led an integrated design team of architectural, structural, environmental and acoustic design professionals to deliver a state-of-the-art normal and emergency power system design.

In its final configuration the generator plant will consist of three 2MW generators, paralleling switchgear and utility transfer switchgear on the third floor roof. Life safety and emergency power are provided by closed transition, automatic transfer switches while standby power is provided by the utility transfer switchgear. All systems can be tested and maintained as required by code without interruption to critical operations.

Deliverables

- // Incoming Service
 - 13.8 kV, 4MW N+1
- // Closed Transition Utility Switchgear
- // Emergency/Standby Central Generation System
 - 13.8 kV, 4MW N+1
- // Redundant and monitored fuel oil pumping system
- // Power Distribution
 - 13.8kV to 480V Double-Ended Substations
 - Automatic Transfer Switches for priority and non-priority loads — Isolated Life Safety, Critical and Equipment emergency services
- // Load shed, load restore