



BUILDING & MECHANICAL DESIGN SERVICES

ARMED FORCES RESERVE CENTER—SPRINGFIELD, MO

Total Project Cost: \$1,900,000

Integrity Engineering, Inc. was employed by Olgoonik Specialty Contractors (JOC Contractor) to design all improvements to a major remodel of the Armed Forces Reserve Center in Springfield, Mo. The project included full replacement and renovation of the HVAC system for the 95,000 square foot facility.

The components designed and specified on the project included four multi-zone cooling (100 tons) units and 8 multi-zone heating and ventilation units (4.42 MBTUH's), including replacement of much of the existing ductwork. The project also included replacement of two gas boilers (1.1 MBTUH's), and the hot water pumping and piping systems.

All of the HVAC system was set up with a BACNET Direct Digital Control (DDC) that replaced the existing pneumatic control system. The control system included an input-output PC terminal that controlled all boilers, pumps, valves and VFD fans, multi-staged cooling systems, and all chillers. The controls notify maintenance personnel if alarm condition were triggered and is also IP-Based so it can be remotely monitored.

The project included installation of a new addressable fire alarm system throughout the entire complex.

Miscellaneous items throughout the project included replacement of much of the ceiling tile and grid with new material and removal and replacement of many light fixtures to facilitate HVAC renovation.

