

CONSULTING ENGINEERING | PLANNING

Northern Middle School Renovation, Somerset. KY

Owner: Pulaski County Schools

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Architect: Ross Tarrant Architects

Building Area: 93,500 SF

Construction Estimate: \$ Unknown Construction Cost: \$ 13,700,000 Cons MEP Cost: \$ 8,410,294

MEP Change Orders: \$ none to date

Final Contract Amount: \$ TBD

MEP Contractor: Frei Mechanical, Somerset, KY

Project Status: Under Construction

Project Description: Complete HVAC replacement of 93,500 SF Middle School. Project also included a 100% new kitchen replacement and cafeteria expansion.



Mechanical:

The existing system was a 2-pipe boiler/chiller in which "change-over" was required when switching from cooling to heating. Instead of completely demolishing all HVAC infrastructure, two existing main hydronic pipes were utilized and two additional pipes were added to convert the system to a 4-pipe system, allowing heating and cooling year around for optimal comfort. The new chiller plant consists of two 150-ton air-cooled scroll compressor chillers and two 25-HP vertical inline pumps.

Plumbing:

The kitchen received all new domestic and under-slab piping specifically designed for each piece of commercial kitchen equipment. The domestic water heater system was upgraded from an electric boiler to natural gas high efficiency condensing boiler that utilizes a 140F loop to serve the kitchen and a 110F loop to serve the rest of the school.

Electrical:

The electrical power, lighting, and technology systems were expanded and improved to meet the demands of a modern scholastic facility. In addition to new electrical systems required for architectural changes and mechanical system improvements, receptacles and circuits were added in each existing classroom to address long-standing issues with the capacity and reliability of classroom circuitry. The technology and data systems throughout the school were also replaced. Data cabling was replaced with new enhanced category 6 and new high-speed AV cables were added in classrooms to improve the classroom teaching environment.