



## *Crestline Schools*

The Crestline PK-12 school building located in Crestline, Ohio is a 123,000 square foot building was completed in two phases with the Middle and High School opening first and the Pre-K and Elementary school opening later in the year.

The building design featured an 800 seat High School gymnasium and 185 seat Middle School gymnasium. The dining commons, stage and kitchen facilities are shared by all students.

The HVAC system was a geothermal design with 264 boreholes of 300 ft. depth concealed below the parking lot located at the rear of the building. The geothermal system provides 380 tons of cooling and 1,925 MBH of heating. A variable speed pumping system with vertical inline pumps circulates fluid to more than 100 geothermal heat pump units throughout the building. Many of the classrooms have vertical heat pump units that are installed in a closet located within the classroom for easy maintenance access.

Outdoor air is provided to the building by six dedicated outdoor air units which providing neutral air at a constant discharge temperature. The units feature energy recovery wheels and hot gas reclaim. Heat reclaimed from the compressors is used to pre-heat the outdoor air in the winter months. The units are variable volume, and supply air to variable air volume boxes that vary the airflow based on carbon dioxide levels in the space to maximize energy savings.

The Kitchen Hoods and associated make-up air unit also utilize variable speed controls.

HEI Engineering Group is anticipating LEED Gold certification

