

FLETCHER BUSINESS PARK



OVERVIEW

- 900,000 sq. ft. facility
- Located in Fletcher, NC
- 1.5 miles of piping
- 1.0 mile steel tubing for solar panel frame
- 640 solar thermal panels totaling 20,000 sf
- 20,000 sq. feet of panels
- 30,000 gallon stainless steel solar hot water storage tank
- Two adsorption chillers, totaling 300 tons
- 4.3 million BTU/hour

Two independent glycol loops collect solar heat from the solar panel arrays and, using plate and frame heat exchangers, the heat is put into a large non-pressurized tank. Two adsorption chillers will make use of the solar heat in the summer. These chillers are unique in that they produce cooling with relatively low temperature water. All the piping in the mechanical room for the chillers, heat exchangers, and distribution pumps and piping are designed to enable a tie in to the existing hot water and chilled water distribution systems within the buildings. The project includes Direct Digital Controls and monitoring and BTU metering to allow the owners of the central plant to bill for the heating and cooling capacity delivered.

Sud Associates provided engineering design, and construction period inspections for this project.

SA ROLE

Lead Mechanical Consultants

SIZE

900,000 sf. ft.

COMPLETION DATE

2008

TOTAL COST