



Penn State University

Forest Resources Building- LEED Silver Facility

Approximate Contract Amount: \$4 Million



S. P. McCarl & Company installed the HVAC systems for the new 92,000 SF LEED Silver certified facility. It was designed to showcase Pennsylvania hardwood products and included a 4,000 SF green roof, as well as a patio for classroom and leisure purposes. The building includes numerous laboratories for various disciplines, such as forest sciences, wood products, wildlife and fisheries. In addition to classrooms and laboratories it was designed to serve as an instructional tool itself for the students in Forestry.



Installation included over 230,000 LBS of ductwork with large quantities containing free areas up to 30 SF. Plenums were also in excess of 15 FT x 10 FT x 3 FT. We installed over 21,000 FT of HVAC piping, numerous pieces of HVAC equipment including air handling units requiring high crane lifts for large units installed in the top floor mechanical room.

There were unique requirements for the HVAC systems since was over 1,700 FT of wainscot paneling and over 14,000 FT of other unique millwork throughout the building. During construction the humidity, cooling, and heating temperatures were held to very tight tolerances to acclimate the hardwoods to the space in order to be installed. Post construction HVAC system requirements were also critical due to the large amount of special hardwoods in the building.



S. P. McCarl & Company was the lead contractor in coordinating the installation with other partners such as: plumbing, fire protection, electrical, and data systems. The space for all these systems was very tight which made it very challenging to resolve the numerous collision conflicts. In spite of the immense challenges, the entire process from coordination drawings, to fabrication, installation, and final commissioning was completed in 10 months.

S. P. McCarl & Company, Inc. developed, implemented, and maintained the LEED Indoor Air Quality (IAQ) Plan. This plan included unique requirements for material storage, air handler filtration, building ventilation, and HVAC system protection.