



Award-Winning Quality from H.F. Lenz and Autodesk Building Systems

Autodesk Software Helps Engineering Firm Stay in Top Form

With more than 50 years in business and over 200 employees between its Johnstown headquarters and branch offices in Erie and Pittsburg, Pennsylvania, the H.F. Lenz Company offers a full range of engineering services for building systems, infrastructure, and industry. The firm serves clients in corporate, education, healthcare, government, and more, and exceeds \$200 million in construction annually. To meet the demands of about 300 projects a year, H.F. Lenz has standardized on **Autodesk® Building Systems** software and to date has completed about 200 projects using the software.



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—Steven Gridley,
Senior Vice President
of Engineering

Keeping the Competitive Advantage

Using Autodesk Building Systems, H.F. Lenz Company is able to quickly and accurately explore alternatives for the mission-critical systems they design. A 3D model created in Building Systems not only gives the designer a better understanding of a design challenge, but also enables the client to see design implications and, as a result, provide better direction in developing the solution. The fact that 85 percent of the firm's work consists of repeat commissions shows that clients appreciate the value-added service. It's simple, says Steven Gridley, Senior Vice President of Engineering: "Building Systems helps us provide the quality our clients have come to expect from our firm, and quality leads to repeat business."

Award-Winning Coordination and Accuracy

An important contributor to the firm's focus on quality is the improvement in coordination and accuracy they have gained with Autodesk Building Systems. According to Robert Shiery, IT Director, "Building Systems is definitely faster for creating views and sections, and improves coordination significantly." In fact, the ability to coordi-

nate using Building Systems helped the firm win an Integrator Award from *Consulting-Specifying Engineer Magazine* for the telecommunications and engineering design services for a new 14-story, 754,422 square-foot, state-of-the-art facility for Mellon Financial Corporation. The Integrator Award goes to projects that demonstrate a high level of coordination and reliability in design.

Mellon Financial Corporation Client Service Center

The Service Center site encompasses 4.2 acres in the heart of the Mellon Financial Center complex. The optical-fiber cable infrastructure in the headquarters complex is one of the largest corporate campus installations in the country. The project was completed on a fast track, so coordination between the building's systems was crucial. Lenz used the 3D design capabilities of Autodesk Building Systems to model the interaction of the various systems to convey special needs to the architect and provide information required for competitive bidding. With fewer revisions and more accurate bids, Building Systems saved both time and money.

H.F. Lenz Company

Ruby Hospital

For the health-care industry, the location, type, and capacity of mechanical and electrical systems can greatly affect not only construction costs but its timing as well. Lenz kept costs down for Ruby Hospital owners by using Autodesk Building Systems to create a 3D model of a central boiler and chiller plant for the hospital complex. In this way they were able to detect system interferences before they became expensive problems during construction.

The firm also used Autodesk Building Systems on a large addition to the hospital in an extremely difficult site location on the side of a hill. Because the main utilities ran right where the building was to be built, all utilities had to be relocated. But, according to Gridley, "the greater the challenge, the better the Building Systems product is." In addition, some of the mechanical rooms were extremely limited in size. But with Building Systems "we were able to coordinate those equipment rooms almost down to the inch and avoid structural interfer-

ences," says Gridley. The bottom line for the owners of the Ruby Hospital project, which is now under construction, was that they did not have to pay more money for an extremely difficult project.

Large Government Agency

H.F. Lenz Company provided engineering services for a modernization project totaling 1.7 million square feet for a large government agency. During the design phase, it became apparent that the modernizations would overload the central chilled water plant. The plant was in a fixed-space area already packed with equipment. Lenz met the challenge of fitting in the new equipment by developing detailed 3D models of the existing equipment layout. The firm was then able to work through the space constraints while precisely placing equipment; verifying pipe routing; maintaining clearances; and identifying phasing schemes to allow the plant to remain in service during construction. The 3D drawings were easy to read, resulting in more accurate and competitive bids. The renovation was completed

on time and within budget, and resulted in an 2002 ARC (Advancing, Reinvigorating, and Cultivating Excellence in Engineering) Merit Award from *Consulting-Specifying Engineer Magazine* for the H.F. Lenz Company.

The Autodesk Solution

For Gridley, the choice is clear: "I don't believe that there is a better alternative than Autodesk Building Systems," he says. "It allows our firm to produce high-quality documents that make the design intent clear. This minimizes change orders and RFIs."

H.F. Lenz Company also uses Autodesk® Land Desktop and the Autodesk® Revit® building information modeler, as well as numerous add-on analysis applications. And with 70 floating licenses of Building Systems on subscription, the company can anticipate their yearly costs. "Access to support and the ability to create more accurate budgets definitely make subscription worth doing," says Shiery.

To learn more, visit www.autodesk.com/abs.

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