

PENN STATE SHENANGO - SHARON & LECTURE HALL RENOVATIONS



Project: Penn State Shenango, Sharon and Lecture Hall Renovations

Budget: \$9 million

The Challenge: Renovating two distinguished and historic halls, while they were occupied.

The Result: Historic preservation mixes with novel engineering, design and green-building practices to produce an A+ score.

The Bottom Line: Experience. Whether your project is big or small, there's just no substitute for it.

In 2005, PJ Dick was contracted to provide design-build services for a phased renovation to 90,000 SF of Sharon and Lecture Halls at Penn State's Shenango campus. The project consisted of three building parts: renovations to both Sharon Hall and Lecture Hall, including the utility and system infrastructure, and the construction of an enclosed connector between the buildings. The scope of work also consisted of the construction of a plaza and rear pedestrian entrance. The renovation would ultimately create a student-oriented focal point for the campus and provide a new dining facility, fitness center, computer area, game room, student organization offices and classroom space.

PJ Dick provided comprehensive preconstruction for the project including design team management, design review budget tracking, estimating, value engineering, constructability reviews, phasing and logistics planning, preliminary schedule development, and subcontractor bidding and procurement.

Since this was a Design/Build contract, PJ Dick had extensive control over the design efforts with respect to cost control and worked closely with its design partner, WTW Architects, to ensure that the most competitive,

cost-effective solution to achieving the design and quality objectives was achieved.

In addition to implementation of traditional cost tracking methodologies that identified all potential changes to the contract and a current forecast of the final contract value, PJ Dick carefully scrutinized any pricing information received from subcontractors to achieve the best value for Penn State.

PJ Dick's web-based project management software, *Constructware*, provided a real-time information sharing platform and facilitated communications among the entire Design Team during all design and construction phases.

PJ Dick also used *Primavera P3* software to prepare the complex schedule consisting of phasing, occupancy and MEP requirements amongst trade contractors and the building occupants. Meeting the schedule was imperative given semester-timing and swing space issues related to the project.

"... one of the best experiences in my many years of doing this sort of thing."

According to Bruce Rohrbach, Project Manager for Penn State's western region "From start to finish, from the interview process to the Bond Inspection and beyond, PJ Dick's performance was way above average. In fact, it was one of the best experiences in my many years of doing this sort of thing."

Prior to the start of the job, Penn State made it clear that the renovations needed to take place while faculty had access to their offices and while students had access to their classrooms. This presented a major challenge, as the second floor of the facility was all faculty and administrative offices, while the third floor was occupied classroom space. Extensive interior renovations were required on all floors.

Continue to page 2 ...

The need to separate projects into specific phases was apparent to PJ Dick, and a large amount of the preconstruction efforts was focused on exactly how the building could be renovated while it remained occupied. "Phasing of the renovation was a priority to the construction operations," noted PJ Dick Superintendent Mark Werner. "By informing the client prior to disrupting them, keeping two-way communication open at all times during the renovation, and by working at night around sensitive spaces, we were able to accomplish the second and third floor renovations with no impact to the budget or schedule," added his colleague and PJ Dick Project Manager Tom Berkebile.

This is not to say that the renovation was not without its challenges. Communication was the key to dealing with and overcoming the obstacles associated with unforeseen conditions. The two buildings, Sharon and Lecture Halls, were built in 1903 and 1929 respectively. There was not a demolition area that did not uncover old electrical cabling, asbestos, mysterious abandoned pipes, and various other unknowns. Moreover, innovative structural steel re-engineering was necessary to facilitate Penn State's new interior design for Sharon Hall; PJ Dick worked closely with its structural engineer to design and shore up a 3-story structure while the interior steel was placed.

The connecting bridge between Sharon and Lecture Halls was the focal point of the design and provided for universal accessibility and circulation between both existing buildings. Given the different periods in which both buildings were constructed, the facades of Sharon and Lecture Halls represented very different styles. In response, a new "front door" of Sharon and Lecture Halls was conceptualized via a curtain wall system that would showcase the detailing and materials of the existing structures while joining them with a conditioned space.

Green building practices were used extensively in the Penn State Shenango project and were fully integrated into: site selection and development, water utilization and landscape design, energy and atmosphere,

materials and resources, and indoor environmental quality.

Since its completion, the project has proven to positively impact student-life at Penn State Shenango. The new amenities on the first floor of Sharon Hall, in particular, have become the place for student and faculty to meet and interact in a lively setting.

