

BEST OF
2007
AWARDS

Bailey Hall Rehabilitation

PROJECT OF THE YEAR:
Rehabilitation/Restoration/Renovation

Bailey Hall, one of the most cherished buildings on the Cornell University campus in Ithaca, N.Y., was due for a major overhaul. And a \$17.3 million, two-and-a-half-year reconstruction effort has brought the structure back into the limelight.

Built in 1912 as a lecture hall for the university's State College of Agriculture, the building has become one of the most utilized facilities on campus, hosting a variety of academic activities and performances in its intimate, auditoria-style space. But after many years of deferred maintenance and sporadic upgrades, the building needed attention.

The renovation effort that began in March 2004 and finished in November 2006 resulted not only in a modern 52,700-sq-ft multi-use space with 1,330 seats, but also a vibrant hub of campus creativity and learning. It also preserved the singular character of the historic building. Those attributes helped the project win the jury's vote for project of the year in the rehabilitation-restoration-renovation category.

While Bailey Hall's long standing on campus made it an icon of sorts, its condition prior to the project was lacking on several counts. Its outdated set-up made it inhospitable for contemporary performance events. It also suffered from inadequate mechanical systems, a lack of access for the handicapped and poor acoustics that stemmed from the hall's "horseshoe" configuration.

The project team – led by New York's Mitchell/Giurgola Architects as architect and Daniel J. Lynch Inc. of Endwell, N.Y. as general contractor, and New York's Bovis Lend Lease as construction manager – faced numerous challenges on the renovation effort, which was a publicly bid job on a tight budget.

The building's vintage was a complicat-



ing factor, because records of structural details were incomplete. The team, for instance, had to manage with spotty information about where utilities in the area were located as it tried to upgrade campus steam, gas, sanitary sewer, storm drainage, telecom, water, and electric lines without disrupting service to surrounding buildings.

Installing new mechanical systems was a major hurdle, because the team had to integrate them into the building without causing major impact on the interior spaces or finishes. The team opted to create an addition that connected with the north façade that would house the new mechanical systems and allow room for other program spaces. This decision also achieved acoustic separation between the equipment rooms and the auditorium.

Among the innovations in the new mechanical system is the manner in which air circulates. The system distributes low-velocity air to the auditorium through ductwork that is threaded through >>

Key Players

Owner: Cornell University, Ithaca, N.Y.; State University Construction Fund, Albany

Architect: Mitchell | Giurgola Architects, New York

General Contractor: Daniel J. Lynch Inc., Endwell, N.Y.

Construction Manager: Bovis Lend Lease, New York

M-E-P Engineer: Flack + Kurtz Consulting Engineers, New York

Structural Engineer: Severud Associates, New York

Site/Civil Engineer: T.G. Miller PC, Ithaca

Plumbing-HVAC: Frey & Campbell, Hammondsport, N.Y.

Electrical: Billitier Electric, Johnson City, N.Y.

Structural Steel: Rochester Rigging & Erectors, Bloomfield, N.Y.

Theater Consultant: Davis Crossfield Associates, New York

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the attic cavity and channeled to the room through diffusers that are integrated into the auditorium's decorative plaster ceiling. Then, the system circulates return air back into the mechanical room via a plenum that sits under the auditorium seats as well as a new tunnel under the existing building foundation.

The tunneling was a challenge in itself, which was required in part because the building's footprint sits atop one of the main underground utility corridors on the campus. The team had to execute extensive underpinning of the structure during the digging work.

In addition to the structural tasks, the project team also faced a major preservation effort, many geared toward capturing the unique period details and historic character. The team not only ensured that the new mechanical, electrical, audio-visual,

plumbing, and life safety systems fit neatly into the historic spaces, but it also had to reconfigure various spaces for handicapped accessibility and modern egress requirements under the building code.

The team managed to add those features while also preserving the distinctive horseshoe-seating set-up. It even managed to create better sightlines and replace the 1950s-era stage surround with a plaster and wood acoustic stage shell.

The preservation work also entailed extensive restoration of interior and exterior features. For instance, the team restored all decorative plaster moldings and frieze work in the auditorium; restored and re-lamped original steel and glass light fixtures; and restored elements such as the auditorium seating, sand finish plaster, wood windows, and hand chiseled limestone. It also cleaned the tile floor and

brick-and-limestone walls in the lobby, while also patching them as needed with period materials.

In addition, the project team restored and faux painted the original water-stained plaster ceiling using the 1912 construction drawings. And the team replaced a set of partial-height front doors that had been installed 40 years ago with new, full-height wood and glass front doors that now allow natural light into what had been a badly lit lobby.

The project team made great efforts to match materials with the original architectural features, especially where deterioration had taken its toll. Among those was slate roofing, which the team acquired from a Pennsylvania quarry near where the original stone had come from. The team also fabricated decorative sheet metal crestings on the roofs to make the originals. <<