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Momentum

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Optimizing High-Tech in Higher Education

Instructional Facilities Yield Breakthrough Results

photo by Robert Creamer

L to R: John Morris of Mueller Associates and Mike DiProspero of Johns Hopkins in the boardroom of Hodson Hall

Broader course offerings, enhanced presentation techniques, increased student interest—educators are praising the benefits of new classroom and laboratory buildings recently completed at several college and university campuses. Faculty members report that the technology-rich environments have served as a springboard to more creative teaching approaches and e-learning opportunities, while students rave about dynamic multimedia-based instruction and instant plug-ins for laptops that support interactive learning. Administrators also point to the new facilities as critical tools in attracting students and recruiting top faculty members.

Each of these facilities has a common element: Mueller Associates served as the prime mechanical and electrical consultant through design and construction.

A New Standard at the Johns Hopkins University

Hodson Hall, a new 44,200-square-foot, $15-million classroom building at Johns Hopkins University's Homewood Campus, is "bursting with high-tech amenities," reports a recent issue of *Johns Hopkins Magazine*. Designed by Hillier, the three-story facility houses classrooms, lecture halls, a 485-seat auditorium, and an 80-seat, state-of-the-art boardroom. The building features professional sound systems, data and power ports in every chair, and wireless Internet access. Amenities also include extensive audio-visual technology, such as touch-screen podiums and state-of-the-art presentation systems.

"This building sets the standard for how universities are going to operate in the future," JHU President William R. Brody noted at the dedication. Mike DiProspero, senior project manager with JHU, confirms that Hodson Hall offers a number of breakthrough features: "You can sit in any seat in the auditorium and plug in your laptop and access the Hopkins network," he says. He also notes that two distance learning classrooms are another building highlight, enabling real-time video-teleconferencing with remote locations.

"Mueller did a marvelous job for us on this project—I was very impressed with the firm's ability to work through the issues during construction," says DiProspero. "The building has been very well received by everyone—faculty, students, and visitors."

A Star is Born on the Eastern Shore

At Salisbury University, students and educators celebrated the opening of the new Henson Science Hall with a dedication themed, "A Star Is Born." The new $35-million, 145,000-square-foot building—the largest on the campus—serves the School of Science & Technology, including the biology, environmental health, chemistry, physics, engineering, mathematics, and computer science departments. Henson Science Hall houses 20 research laboratories, teaching laboratories, classrooms, lecture rooms, offices and support spaces, two auditoriums, and a small vivarium.

Designed by Cho Benn Holback + Associates of Baltimore and Mitchell/Giurgola Architects of New York, the building houses a $2.5-million investment in new laboratory equipment.

Salisbury University Henson Science Hall

photo by Kevin Chu and Jessica Paul

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Working With Colleges and Universities Across the Region

Mueller Associates is currently working with several other colleges and universities throughout the mid-Atlantic on such major campus expansion/renovation projects as:

- Duke University Medical Center - School of Nursing
- Performing Arts Centers at the University of Delaware, Towson University, and Howard Community College
- Georgetown University - Chiller Plant Expansion
- Messiah College - Academic Building
- Swarthmore College - Parish Hall Renovation
- Haverford College - Stokes Hall Renovation
- University of Delaware - Mechanical Hall Renovation
- Loyola College - Master Plan

For more information on Mueller's higher education capabilities, please email Bob Marino at rmarino@muellerassoc.com or visit www.muellerassoc.com.

Engineering features include state-of-the-art VAV laboratory air systems, including variable volume hoods and laboratory pressurization controls. Designed in two, three-story wings, the building required five supply and two exhaust air handling systems.

Other features include heat recovery between lab supply and exhaust air streams, a central heating and cooling plant, an emergency generator and power system, and a central ultrapure reverse osmosis water system. Smart classrooms and labs are wired for the Internet and computer projection systems, and student chairs are hard wired for computers.

Although the building features advanced MEP systems, construction proceeded smoothly under the direction of Bovis Lend Lease. "From a construction standpoint, Mueller's documents were clear, concise, and complete," says Bovis Senior Project Manager Steven Groth. "The quality of their documents enabled us to complete the work with a minimal number of questions."

High Use, High Efficiency at Howard Community College

A new Instructional/Laboratory Center at Howard Community College has also become a star attraction at this growing campus. The $18-million, 95,000-square-foot building houses computer instructional labs, lab adjunct rooms, open labs, a lecture hall, reading and group study rooms, a café, and offices for the Office Technology, Computer Systems, and English departments.

Jim Lash, executive director of capital projects/facilities at the college, is pleased with the results and the work of the design team, headed by Design Collective Inc. of Baltimore, the project architect. "I'm delighted with Mueller's engineering performance on this job, in every conceivable way," he says. "They did a heck of a job." Riparius Construction, Inc. served as the construction manager.

The new building has been instrumental in easing space shortages at Howard Community College, while substantially upgrading the college's instructional infrastructure and use of technology. Lash acknowledges that the building is a vital new presence on the campus: "It's clearly become one of the signature buildings for Howard Community College."

University of Delaware Modernizes Historic Wolf Hall

Wolf Hall, a landmark building at the University of Delaware in Newark, has recently been revitalized into a modern and technologically advanced teaching and laboratory environment for the Biological Sciences and Psychology departments. The facility also contains 32 labs as well as graduate and post-doctoral spaces for 550 users.

Completion of the final phase marks the end of a four-year, $25-million design and construction program, which included a total renovation and complete replacement of the building's MEP systems in the 106,000-square-foot facility, as well as a new 12,000-square-foot, four-story laboratory wing.

Wolf Hall, which originally opened in 1917, posed a number of design challenges during the renovation process. Detailed phasing plans enabled the university to keep the building in use.

Ducted air systems—needed to maintain air change rates in the laboratories—replaced fan coil systems. This required detailed coordination to integrate ductwork with the existing structure and the architectural program. Mueller also worked diligently to maintain the historical aesthetics of the building while incorporating the new systems. As one example, existing chimneys were used to conceal lab exhaust stacks.

The successful project, for which Ayers Saint Gross of Baltimore served as architect and the Whiting-Turner Contracting Company as the construction manager, signals the potential for restoring full productivity to historic campus buildings—even with today's technological demands. Steve Ruble, a project manager for the university who oversaw the construction phase, found the renovation experience "refreshing…Everyone approached this project in a very professional way and worked as a team," he notes. "We are very pleased with the end result."

University of Delaware Wolf Hall

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