



BIOLOGICAL SCIENCES BUILDING

College biological sciences building design reflects mechanical, educational needs

Building's wooded location presents challenges for construction crews on LEED Gold project

Informally dubbed “The Building in the Trees,” the new Biological Sciences Building at Georgia Southern University in Statesboro, Ga., is located on a major campus pedestrian way that brings students through a wooded area to reach the 158,000 sq. ft. structure. The LEED Gold building is the first in a new precinct of the campus largely devoted to a center for the study of coastal plains biology and ecology.

The three-story building includes five active-learning classrooms, 10 teaching labs and 15 research labs utilized by 1,300 undergraduate and graduate students. “The new building will allow students to work together in groups, and for faculty to be more mobile in the labs so they can check on what the students are doing, answer questions and challenge the students,” says Stephen Vives, Department of Biology chair.

Architectural design was provided by S/L/A/M Collaborative in Atlanta. The firm specializes in higher education health sciences and research projects. According to S/L/A/M principal Joseph League, “Given its unique siting, the building is somewhat of a departure from the architectural language of the rest of the campus, although it was purposely designed to be compatible from a materials standpoint.” Other buildings on the campus utilize red brick and metal roofs.

The Biological Sciences Building includes a three-story portion that houses classrooms, instructional laboratories, research laboratories, and faculty and administrative offices. Attached to the three-story building is a one-story, double-wing component where field-collected samples and biology specimens are

stored. "From a practical standpoint, we needed to separate the functions since they have distinctly different mechanical requirements," League says. "The labs and classrooms require 100% recirculated air. The building has a lot of plenum space and an attic that accommodates large air handlers. The whole rationale for the way we designed the low-rise wing was to separate the expanse of mechanical systems but to treat it as a handsome yet utilitarian out-building."

The Petersen 16-in. Tite-Loc Plus roof panels cover both portions of the structure. The low-rise wing is horizontally clad with Petersen's M-36 siding panels that were "reverse rolled" with the ribs "in" to create a wider-looking, flat panel appearance.

More than 100,000 sq. ft. of PAC-CLAD material was utilized in both roofing and siding applications. The building's roof incorporates 65,000 sq. ft. of Petersen's 22 gauge Tite-Loc Plus panels in Slate Gray and more than 30,000 sq. ft. of Petersen's M-36 siding panels in Charcoal and Silver. The Petersen products were supplied by Commercial Roofing Specialties in College Park, Ga., and manufactured in Petersen's Acworth, Ga., plant.

Budget, logistical challenges met

As with most university projects, the budget was a challenging factor, League says. "We considered several roofing product manufacturers, but Petersen was chosen on the basis of cost as well as meeting our design and performance criteria, plus Georgia's rather stringent requirements for maintainability, serviceability and guarantees."

Installation of the Petersen roof panels was done by Richter Contracting in Albany, Ga. Ken Wood, senior superintendent, says, "The only real challenge was getting the panels on the roof due to the limited accessibility of the site. We had to use a sky crane and lay the crates of panels horizontal to the pitch. Then we would manually spin each panel and carry it over and drop it down onto the roof slope. That made it a little cumbersome since everybody was tied off for safety. But, there was nothing out of the norm about that, and the job went very well."

The M-36 siding panels were installed by Pierre Construction Group, Stone Mountain, Ga. "The job was relatively straight-forward," says Collins Westcott, project manager. "The GC put together a great team and did lots of front-end planning that really made the project go smoothly. And, we have considerable experience with Petersen and their products, and they have always been good to work with." The general contractor was Brasfield & Gorrie in Kennesaw, Ga.

Petersen, a Carlisle company, manufactures PAC-CLAD architectural metal cladding systems in multiple gauges of steel and aluminum. PAC-CLAD products include hidden- and exposed-fastener wall panels, standing seam roof panels, flush- and reveal-joint wall panels, vented or solid soffit panels, perforated metal, coil and flat sheet, composite panels, column covers, plus fascia and coping. All are available in a Kynar-based 70% PVDF Fluoropon coating in 46 standard colors and 16 wood grain finishes that include a 30-year finish warranty. Most colors meet LEED requirements and are rated by the Cool Roof Rating Council. Custom colors and weathertightness warranties are offered. BIM and CAD documents are available for most products. Founded in 1965, Petersen's facilities are located in Illinois, Georgia, Texas, Maryland, Arizona and Washington. For information on the complete line of Petersen's PAC-CLAD metal products call 800-PAC-CLAD, visit pac-clad.com or write to info@pac-clad.com.

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