



ON SPACES THAT LEARN -- Into The Woods

Q: What if a high school could infuse a mountain retreat with a LEED Platinum building that fully embraces its surroundings? Wouldn't learning thrive?

When students at **Burr and Burton Academy's** Mountain Campus spend a semester studying the environment in the Vermont woods, they ask themselves a central question: *how do we live well in this place?* In a setting with stunning natural beauty, living well involves immersing themselves in the environment, learning from it, and soaking it all in, but doing so with a light touch.

Bensonwood's Lead Architect **Randall Walter** also focused on that central question in designing the campus facility. Located 15 miles from Burr and Burton's main campus in Manchester, Vermont, it sits on several hundred acres of land. For the 40+ students enrolled each semester in the mountain campus program, nature itself is the learning laboratory. Walter's team at **Bensonwood**, a New Hampshire-based design-engineering-build firm that specializes in sustainable timber framing, high-performance homes, and custom buildings, kept that top of mind as they designed the campus.

"Anything we did would be secondary to what nature has to offer as a classroom," he says. As **Ben Freeman**, director of the mountain campus, puts it: "Our classroom is just as likely to be outside as inside."

The academy envisioned the campus as a "semester abroad" environment within a day program format, offering a radical departure from students' technology-driven lives. The teenagers hike to the site each morning, a five to 10-minute walk along scenic **Jones Brook**. It's on that journey, Walter says, that the immersion begins each day. Whether tracking the progress of the beavers damming the stream or observing the day a specific wildflower blooms, they tune in to the frequency of the wilderness. Once they make it to campus, those observations are amplified. "Our building enhances these experiences by mirroring and enhancing what we see and feel outside."



From the oak trees that anchor the multipurpose room to the rafters patterned as leaf veins, the building truly brings the outdoors in. Even in timber-rich regions like Vermont, materials have become increasingly disconnected from their origins. By leaving live edges on the wood, students and faculty can easily see how a piece of lumber was once a tree -- and how it fit into the greater ecosystem.

Bensonwood sourced timber and other building materials from a 100-mile radius, surpassing the traditional LEED standard of 500 miles. Two of the oak trees fashioned into columns, in fact, were harvested from the forest adjacent to the main campus by Burr and Burton alumni, who are now loggers. Walter says that kind of connection—between the main campus and the mountain campus, between nature and the individuals interacting with it—pervades all aspects of the project.

The slate is native to Vermont, and by leaving it natural inside the building, it can be used as a makeshift chalkboard, letting students track everything from weather patterns to moon cycles. Even the finishes used throughout the facility, from the wood to concrete stains, are made by a local producer, **Vermont Natural Coatings**. Instead of a traditional petroleum-based finish, they are made of whey protein, a byproduct of cheesemaking. “It was definitely a project where we challenged the assumptions where each [material] would come from,” Walter says.

Walter’s team approached the project with ambitious goals. In addition to supporting the curriculum, it needed to meet the highest standards of sustainability. The facility achieved **LEED Platinum** certification, and thanks to its solar panels and highly efficient construction, it generates more energy than it uses. Triple-glazed windows and doors and the building’s tight shell minimize energy loss, while sensors reduce electric light usage during daylight hours. A masonry heater captures a much higher percentage of heat, recirculating it throughout the masonry of the building, and heating a pizza and bread oven.



The campus was constructed using Bensonwood’s “montage building” approach, in which pieces are manufactured off-site and then assembled at the location. As opposed to a traditional, linear process, this method gives the team more time during the design process as multiple pieces can be built simultaneously. In addition, it substantially reduces waste at the construction site.

Over the course of the semester, students learn a lot inside the building. But the real education, Walter and Freeman agree, begins when they walk out its doors.

“We want these students to kind of wake up to the world around them.”

###

Contact:

Paul van Winkle
Director, Marketing Communications
Bensonwood
6 Blackjack Crossing, Walpole, NH 03608
404 401 0634 (m)
pvanwinkle@bensonwood.com
www.bensonwood.com