

Cypress helps target building challenge

LOCATED ON A 118-acre tract of land in Virginia Beach, Va., the Chesapeake Bay Foundation's Brock Environmental Center supports the group's advocacy, education and restoration initiatives to preserve one of the nation's most valuable natural resources—the Chesapeake Bay.

Clad in naturally durable, beautiful cypress siding, the 10,500-sq. ft. facility raises the bar for sustainable buildings around the world.

Designed by SmithGroupJJR, one of the largest architecture firms in the U.S., it was built to showcase building products and technologies that con-

tribute to net-zero energy, water and waste. Preference was given to natural materials, such as cypress, to reinforce a sense-of-place while reducing chemical constituents, according to project manager/design architect Greg Mella, FAIA, LEED AP.

"We specified cypress for many reasons," Mella said. "Aesthetically, we love the variation and richness the wood provided. Environmentally, we were able to reclaim sinker logs that sank to the bottom of the bayous and rivers in the Deep South any time from 100 to 1,000 years ago. The sinker logs gave us an opportunity to

repurpose beautiful cypress that was previously considered waste. There are lots of salvaged materials in the center—all with a story behind them, adding to the project's theme of environmental stewardship."

Because the design team was looking to select bio-based materials, rather than those that are synthetic and chemical-based, the ability for products to perform in a coastal setting was another important consideration.

Cypress contains a preservative oil, called cypressene, making the wood resistant to rot, decay, and insects without added chemicals," Mella



NATURALLY DURABLE: The Brock Environmental Center is 10,500 sq. ft., with 7,800 sq. ft. dressed in shiplap cypress siding. The facility is on pace to meet the requirements of the Living Building Challenge, a green building certification. (Photo by Chris Gorri)

explained. “Given its natural durability, we clad the exterior walls in 7,800 sq. ft. of shiplap cypress siding, finishing it with a stain to provide protection from ultraviolet light and give the wood its rich, warm tone.

“One aesthetic goal of the project was to blur the lines between exterior and interior, so there are some locations where we literally brought cypress inside, using it for paneling and as a fascia to the reception desk in the lobby. Consistent with our goals of eliminating waste, we took leftover scraps of cypress and used them to make room and exhibit signage, as well as a dining table the staff can use on their lunch break.”

The center is expected to earn LEED Platinum certification from the U.S. Green Building Council and is on pace to meet the requirements of the Living Building Challenge—a certification program developed by the International Living Future Institute to define the most advanced measure of sustainability in the built environment available today. LBC standards require the building to have net-zero impact on the environment.

In addition to using reclaimed cypress and other materials, all water



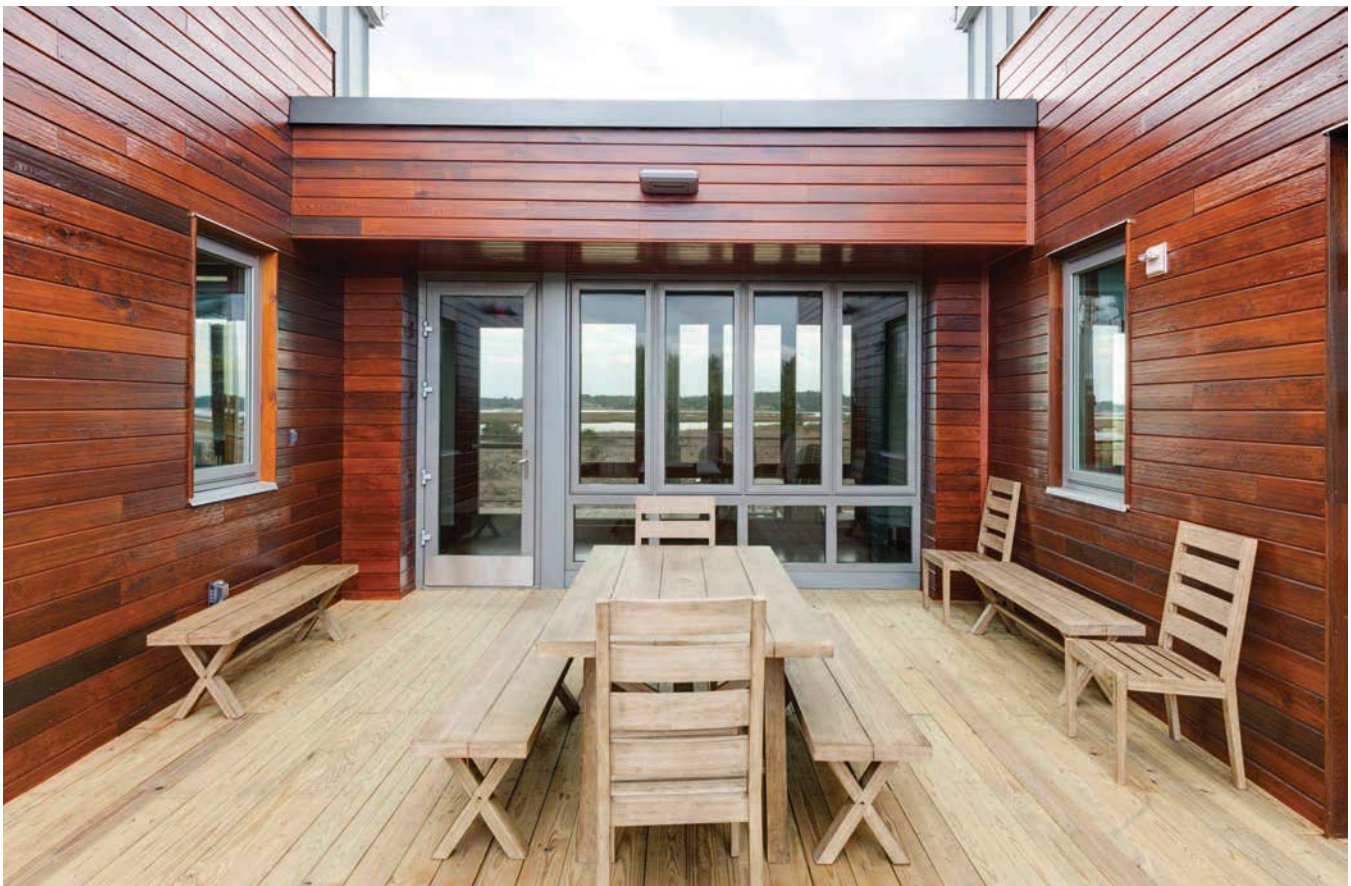
PROJECT MANAGER Greg Mella chose cypress because of the variation and richness the wood provided, as well as its resistance to insects, rot and decay. *(Photo by Chris Gorri)*

is sourced from rain and all energy is produced through photovoltaic panels and wind turbines.

“The building is completely self-sufficient,” Mella added. “Through LEED, we envisioned a building that would do less harm to the environ-

ment. But through the Living Building Challenge, we designed the Brock Environmental Center to actually improve the environment.”

– For more information on building with cypress, visit www.cypressinfo.org.



ENVIRONMENTALLY SOUND: Natural materials such as cypress siding, were preferred for this project to reinforce a sense-of-place while reducing chemical components. *(Photo by Dave Chance Photography)*