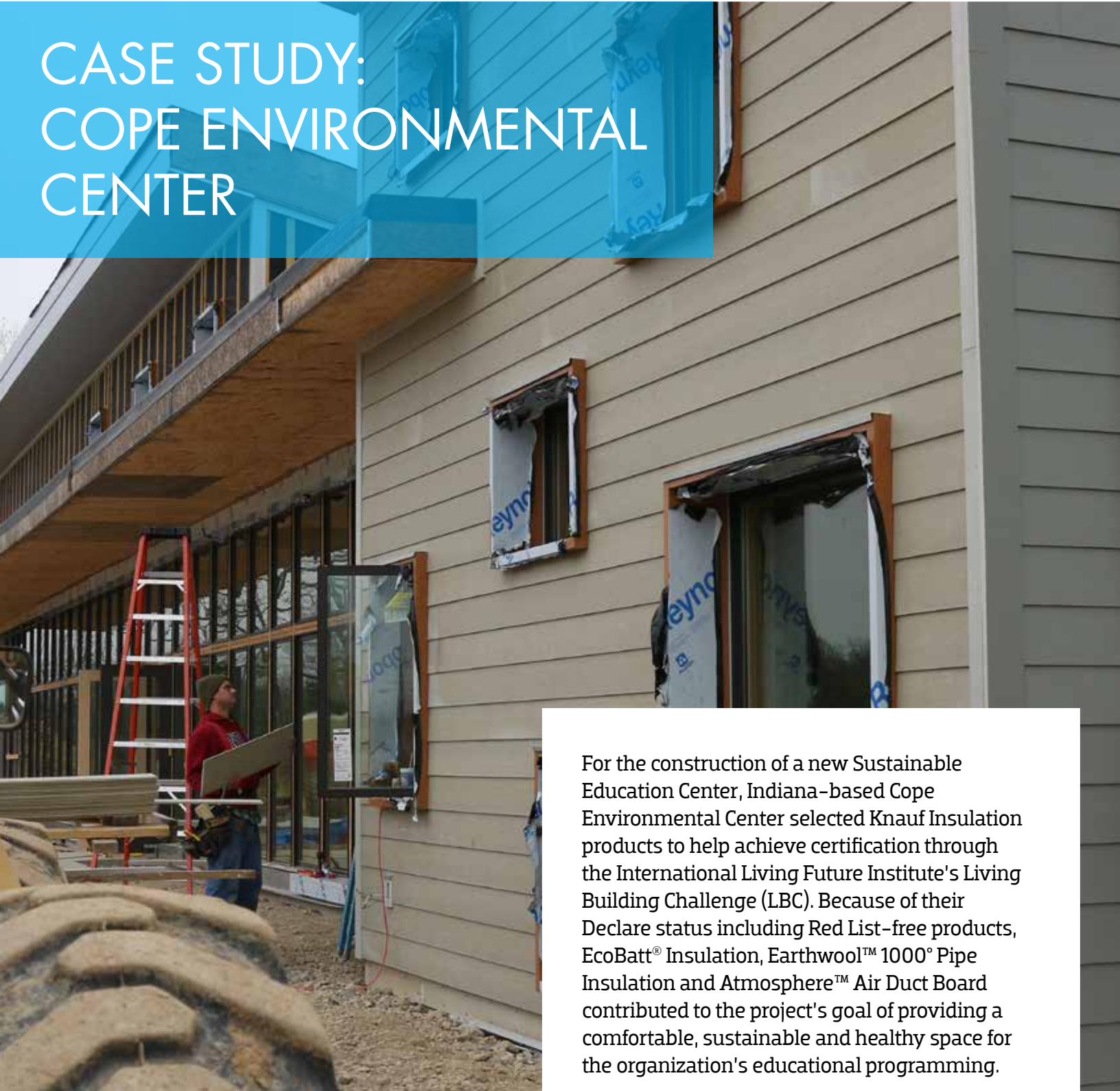


CASE STUDY: COPE ENVIRONMENTAL CENTER



For the construction of a new Sustainable Education Center, Indiana-based Cope Environmental Center selected Knauf Insulation products to help achieve certification through the International Living Future Institute's Living Building Challenge (LBC). Because of their Declare status including Red List-free products, EcoBatt® Insulation, Earthwool™ 1000° Pipe Insulation and Atmosphere™ Air Duct Board contributed to the project's goal of providing a comfortable, sustainable and healthy space for the organization's educational programming.



Products Used:

EcoBatt® Insulation
Earthwool™ 1000° Pipe Insulation
Atmosphere™ Air Duct Board (as wall panel)

Project Team:

Architect: Kevin McCurdy, LWC
Insulation contractor: Nick Woods
Lakoff Construction Services
Owner: Alison Zajdel, executive director,
Cope Environmental Center



"It's a holistic approach to protecting workers from toxic materials, using raw materials from forests that are responsibly managed, and creating a safe and healthy indoor environment for the kids."

—Alison Zajdel, executive director of
the Cope Environmental Center



CHALLENGE

The Cope Environmental Center is an educational organization based in Centerville, Ind., whose mission is to promote the sustainable use of the earth's resources through education, demonstration and research. The center is a popular field trip destination for area schools, and serves as many as 10,000 students a year.

Founded in 1992 on a 30-acre farm, the organization had been using a former homestead to house its staff and 700 volunteers, but was rapidly outgrowing its space. When planning construction of its new Sustainable Education Center, the organization's leaders saw an opportunity to "walk the walk" in terms of sustainability, and to broaden the reach of the organization's mission of environmental conservation. Architect Kevin McCurdy of Dayton, Ohio-based LWC encouraged the organization to pursue The Living Future Institute's Living Building Challenge for the new facility.

The Living Building Challenge is among the world's most rigorous green building certification programs. The program's sustainable design framework visualizes the ideal built environment using the metaphor of a flower—meaning it will give more than it takes.

"As an environmental education center, we knew we were going to build green regardless, but Kevin brought the idea of the Living Building Challenge to us, and it really is what our founders would want," said Alison Zajdel, executive director of the Cope Environmental Center. "It's a holistic approach to protecting workers from toxic materials, using raw materials from forests that are responsibly managed, and creating a safe and healthy indoor environment for the kids."

Per the standards set forth by the Living Building Challenge, the Cope Environmental Center was designed as a regenerative space that connects occupants to light, air, food, nature, and community. It is designed to be self-sufficient and remain within the resource limits of its site, producing more energy than it uses and collecting and treating all water onsite.

The Living Building Challenge also requires that building materials used in the project have transparent ingredient disclosure information and are free from harmful or untested chemicals included on The Living Future Institute's Red List.

SOLUTION

To insulate the Cope Environmental Center, the project team turned to a suite of sustainable insulation products from Knauf Insulation. Since 2012 Knauf Insulation has used the LBC Red List as a developmental benchmark, and was the first glass mineral wool insulation brand to disclose all of its product ingredients through the International Living Future Institute's Declare label, which acts as a nutrition label for building materials. Knauf Insulation believes that it is in the best interest of public welfare and the environment to reduce the adverse health, financial, environmental, and other negative impacts associated with the entire life cycle of consumer products.

Because of the company's revolutionary ECOSE Technology, Knauf is the only insulation manufacturer whose entire line of products

for commercial and residential applications are formaldehyde-free. Also, the vast majority of Knauf's products have received Red List free status, making them ideal for the Cope Environmental Center.

In addition to providing sustainable products, Knauf Insulation's longstanding relationship with the International Living Future Institute enabled the company to contribute expert guidance to the project team as it navigated the often challenging requirements of the program.

"It took companies like Knauf to say they are willing to put a dog in the race and support projects like ours because we are a small organization," Zajdel said. "Knauf really led the way on this one."

RESULT

Because Living Building Challenge certification requires actual, rather than anticipated, performance, the Sustainable Education Center has to demonstrate net-zero energy, waste and water use over twelve consecutive months. That process is ongoing, but early results indicate it will become one of only a handful of buildings worldwide to receive the prestigious designation.

It was the first time anyone on the project team had attempted to achieve Living Building status, and the Cope Environmental Center's leaders say it was a valuable learning experience that will also serve as a powerful teaching tool for sustainable building. As Zajdel noted, "The building can become the program."

"Being a smaller organization, and having never done a Living Building Challenge before, I knew we were in for a real challenge," Zajdel said. "It's a really tough goal to achieve, but we did our research and partnered with outstanding companies that were able to help us through. I'm really happy we went for it."