

When Zero is the Hero



More than ever, the push towards greater energy efficiency and the overall reduction of a building's carbon footprint has been driving modern building design. Launched this past summer, *Getting to Zero with SIPs* is a live, instructor-led SIPA/AIA Continuing Education (CE) course that fully explores this trend, while also teaching the fundamentals of structural insulated panels (SIPs) and their use in passive, integrative design.

Each course is 50-minutes long and geared towards design professionals, engineers, and architects. Attendees gain valuable knowledge of how to use structural insulated panels for walls, roofing, and flooring, and they'll discover how SIPs can help achieve the many performance contributions that combine for near zero energy performance. Professionals who complete the course will fully understand the role SIPs play in contributing to faster, better, and environmentally sensitive commercial construction, as well as how SIPs can work side-by-side with other high-performing systems to provide positive results.

While the course does provide some insight into the history of SIPs and covers some of the basics, the *Getting to Zero with SIPs* course is not meant to be an introductory program. As Jack Armstrong, Executive Director and COO of the Structural Insulated Panel Association (SIPA) explains, "As a Net Zero Energy Building & Design course, *Getting to Zero* is considered to be a more advanced course. SIPA has two other AIA CE course offerings; one that's more basic for residential SIPs, and

a more intermediate course for commercial SIPs."

Each of these courses are AIA certified for one learning unit of the highly sought-after Health Safety and Welfare classification.

BENEFITS ILLUSTRATED BY SHOWCASING THE RMI INNOVATION CENTER

The *Getting to Zero with SIPs* course takes the Rocky Mountain Institute's (RMI) Innovation Center and uses it as a best-in-class case study. RMI's successful use of SIPs helps to illustrate the many benefits of structural insulated panels and how they can provide a repeatable and cost-effective path toward Passive House and LEED New Construction design goals.

Located in Basalt, Colorado, the RMI Innovation Center was chosen as the case study for several reasons. The building is a 15,610 square-foot, state-of-the-art convening center that was specifically designed to demonstrate precisely how a net-zero carbon building can be contracted, constructed, and then occupied. The building is the highest-performing building in one of the United States' coldest climates and produces more clean energy than it uses on an annual basis. RMI uses approximately three quarters less energy than the average building found in the same climate zone.

The RMI Innovation Center maintains an airtightness value of 0.32 ACH at 50 pascals – almost doubling the Passive

standard – and is considered to be one of the most airtight commercial buildings in the country; 97 percent more airtight than a conventional commercial building. In addition, the Center also meets (or exceeds) the stringent standards set by LEED Platinum and the Architecture 2030 Challenge.

The Center is also classified as a PHUS+ Source Net Zero Project, having earned all 19 LEED energy points.

"The designers were determined to shift reliance away from fossil fuels and, as a result, focused their energies instead

on generating energy through renewable resources," says James Hodgson, General Manager at Premier Building Systems.

"Given the extremely high-performance standards that the designers of the RMI Innovation Center wanted to attain, SIPs became the obvious choice. This remarkable building shows us what can be accomplished through the careful and conscious design of new buildings. This is so important because buildings are considered to be the highest users of energy in America."

The RMI Innovation Center also received the SiPA 2016 Building Excellence Award in the Commercial (over 10,000 square-foot) category and has been recognized as the largest Passive House certified office building in the U.S.

BECOME A SIPs EXPERT

In addition to the RMI Innovation Center, the *Getting to Zero with SIPs* course also highlights the Bagley Outdoor Classroom at the University of Minnesota Duluth and the Native American Center at the University of Montana as SIPs projects of note.

So far, the course has been highly sought after as part of the in-person launch and learn programs conducted by SiPA member company experts. SiPA

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is also looking at making the course available online sometime in 2019.

Those interested in learning more about the *Getting to Zero with SIPs* course can contact the SiPA main

office by phone at (253) 858-7472, by email at info@spas.org, or through any SiPA member company representative. More information can also be found online at www.spas.org/training/ais-continuing-education.

