

PASSIVHAUS:

NATIONAL GROUNDBREAKERS ARE IN ROANOKE

BY SANDRA BROWN KELLY
PHOTOS BY DAVID HUNGATE

Structures Design Build's first major commercial project employing Passivhaus technologies is the Malcolim Rosenberg Hillel Center for Jewish Life at Virginia Tech, which is nearing completion.

Adam Cohen and Steven Strauss of Structures Design Build are not just near-evangelical about the "green" Passivhaus design, they are also actively putting up structures employing its tenets.

Steven Strauss and Adam Cohen have been on a mission the past few years, carrying the benefits of Passivhaus building techniques to anyone who will listen.

Selling a market on Passivhaus or the Passive House system requires some persuasion. While the building process promises the completed structure will save 70 percent on overall energy, the construction will cost more.

How much more? Strauss estimates an 1,800-square-foot house done to Passivhaus standards will increase costs less than \$20,000 – from about \$240,000 to about \$260,000.

The Passivhaus technique is credited to professors Bo Adamson of Sweden and Wolfgang Feist of Germany and dates to the early 1990s.

It has caught on strongly in Europe, but modestly in the U.S. The Passivhaus profile in this area was elevated with building of The Center for Energy Efficient Design (CEED) in Rocky Mount, a Structures project and the first public school in the U.S. to use the technique. CEED opened in 2010. In its first year of operation, its heating bill was 90 percent below that of a standard structure, and it achieved 70 percent energy efficiency, Strauss says.

Strauss and Cohen cofounded Structures Design Build in 1999 and recently added a Passivstructures division. Cohen is a certified Passivhaus planner in North America and Europe. Strauss, who joined his father Maury Strauss' construction business right out of college, flirted with energy efficient construction in the early 1980s. He built

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