



Habitat
for Humanity®
of Addison County, VT

NEWS
from the
CREWS
Spring 2019

Middle school students help design Seymour Street shed

Habitat for Humanity of Addison County has worked for a couple of years now with students from Middlebury College, who designed two new HfHAC homes to be built on Seymour Street in Middlebury.

Now another group of students is getting in on the fun.



The Edmunds Middle School class visits the Seymour Street site.

John McLeod is the Middlebury architect leading the collaboration between architecture students at the college and Habitat. He and Steve Kredell make up the firm McLeod Kredell Architects. Every summer, MKA coordinates what they call the Island Design Assembly, bringing together a team of students, architects, and educators for eight days to design, build and install a project for an island community near Penobscot Bay.

Brent Truchon, a Middlebury alum, is friends with Kredell, and

when Truchon heard about IDA he wondered whether he could get his students at Edmunds Middle School in Burlington, where he is an instructional coach, involved in a similar project. One thing led to another, and before too long a group of a dozen Edmunds seventh graders—nominated by their teachers

for, among other things, their leadership potential—was working with Kredell and Eric Schoembs, a design and technology teacher at Edmunds, on designing a storage shed to be shared by the two

Seymour Street homes. The students meet every day with Schoembs, and Kredell joins them one day each week.

The project has been helped along by a local donor in Burlington and by the South Burlington Lowe's store, which donated tools for the students. They can earn them each week by demonstrating "soft skills," such as leadership, active listening and speaking with intent.

The students studied the house designs by the college students, visited the college class and the Seymour Street site, and then each student came up with a design for a shared storage

shed, about eight feet by 24 feet. They showed their designs to Habitat volunteers, and Kredell and Schoembs pulled together a design incorporating common themes in the students' work.

In April, the students began building the shed in modules that will be assembled at the school and then taken apart, shipped to the Seymour Street site and reassembled, probably in late May or early June.

Kredell thinks the design project offers a different challenge from the students' other school work, "in that there is no right and wrong, just different approaches. It can be empowering to students, when they realize they have a say in their built environment."

Said Truchon, "It's project-based learning, and the kids are designing something that will actually make the world a better place."

The interactions with an authentic audience—architect Steve Kredell and the Habitat folks—have been key, says Schoembs. "The students are presenting to real-world clients," he said. "It definitely ups the ante for the kids, and increases their engagement."

For Mickey Heinecken, outgoing HfHAC president, the project is a win for the students and Habitat. "I'm not sure this is part of the traditional Habitat mission," he said, "but it's a good mission. We have volunteers doing the work, the way we always do; they're just a bit younger than usual. And it's been great to connect with the kids from Edmunds. They really give you hope the future is in good hands."

Habitat reaches milestone with first High Performance Home

For a few years now, Habitat for Humanity of Addison County has been aiming to build homes that meet the highest standards for energy efficiency. With its most recently completed home, the fourth on Carothers Lane in Cornwall, HfHAC reached a lofty goal: Efficiency Vermont, the state's energy conservation utility, certified the house as Habitat's first Vermont High Performance Home.

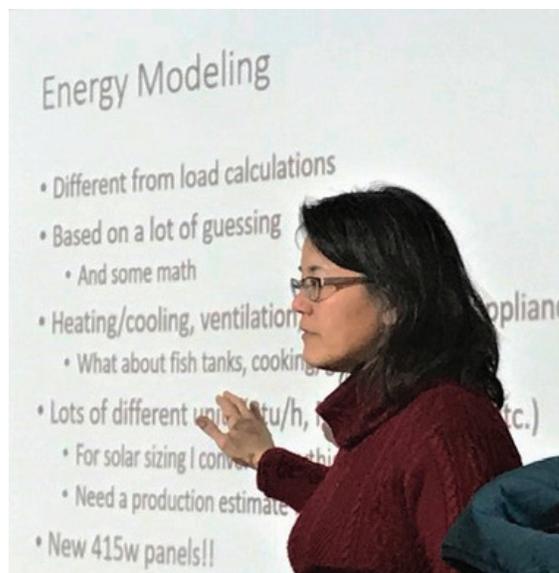
The certification followed what's called a blower test of the building envelope, which measures how tight the house is, which in turn helps determine how efficiently it can be heated and cooled. The test by Efficiency Vermont, overseen by EV's Li Ling Young, who has worked with HfHAC for years, determined the house met the HPH standard. The house has insulation valued at R-80 above the ceiling and R-47 in the double walls, with R-32 on the edges of and under the slab foundation.

Based on the test results, EV estimated the energy costs for the home—owned by Ed and Shelly Shackett who moved in last fall with their six children—for a full year would be just over \$1,400. Of that, the estimate is that heating with an air source electric heat pump will cost \$274, less than the cost of one cord of dry wood; cooling, also with an air source heat pump, will cost \$70. Lights and appliances will make up more than half of the total cost, at \$749, and \$167 will go for hot water, again provided by a heat pump.

Jean Terwilliger, the architect who designed the HfHAC houses on Carothers Lane, and Alex Carver,

a local builder and HfHAC board member, both said the HPH milestone was worthy of celebration.

Terwilliger and Carver said all the homes had been designed with the HPH standard in mind. But it takes a lot of experience to actually finish a house to that level of efficiency, and the volunteer builders had barely missed the mark on previous tries. The houses were extremely energy efficient



Li Ling Young of Efficiency Vermont handled the testing on the latest Habitat home in Cornwall.

and easy to heat and cool, but weren't quite at the HPH level.

Carver, whose company, Northern Timbers Construction, has been building energy efficient homes for years, got involved as an advisor on recent HfHAC projects, and joined the board last year. With him helping make sure that the volunteer builders paid strict attention to the details this time around, it all came together

“The volunteers need to be lauded for their dedication,” he said. “The group that worked on the last house

had large smiles and were very proud to have achieved High Performance Home certification.” He said the detail work will be similar on the next houses on the HfHAC schedule, on Seymour Street, “so we are confident we will continue to meet the mark.”

Jean Terwilliger said the most recent house envelope is similar to the other houses on Carothers Lane, “but some of the systems are different. This is the first house with a heat recovery ventilation system, a heat pump hot water heater, and a ducted heat pump for heat. The heat recovery ventilation system was the other change that was required to meet the High Performance Home specification. When houses are tight, balanced ventilation is important so that air is brought in through a controlled location and warmed with the exhaust air rather than being sucked in through cracks and holes in the building envelope. HfHAC is lucky to have Alex Carver and Efficiency Vermont as partners to get these systems donated.”

Mickey Heinecken, outgoing HfHAC president (Steve Ingram takes the reins in April), is also one of the volunteer builders, and says the progress made over the past few years is extraordinary. “We went from volunteers wanting to make sure the house was square, to taking pride in doing the little things that allow you to have an HPH project.”

He said having Terwilliger and Carver involved, and the professional oversight they bring, has made a huge difference. That HfHAC volunteers are capable of building to this standard, he says, should set an example for other Habitat groups.

While concern about climate change is a piece of the effort to reduce fossil fuel use, Heinecken said, “Perhaps as important is providing a family with a home that's comfortable and affordable for the rest of their lives.”

HOMEOWNER SPOTLIGHT

The Shacketts and their 'forever home'

Ed and Shelly Shackett recently moved to Carothers Lane in Cornwall. The Shacketts and their six children had previously lived in a four-bedroom apartment in Middlebury. Now, they occupy a five-bedroom home, with a yard. And their



mortgage payment is less than their rent check had been.

If it sounds slightly magical, that's the way the Shacketts feel about it, saying their lives really have been transformed. The magic comes courtesy of Habitat for Humanity of Addison County (HfHAC). The Shacketts' new home is the fourth built by HfHAC in this quiet, 13-acre corner of Cornwall.

Of course, a ton of work goes into making the magic happen. Dozens of Habitat for Humanity volunteers, including HfHAC board members and site supervisor Harold Strassner, worked on the house, along with the Shacketts. Habitat for Humanity rules require adult members of families purchasing homes to devote 200 hours

each to the project, and Ed and Shelly exceeded that. A small price to pay, they say, for what Shelly calls "the most amazing gift ever, our forever home."

Ed Shackett works in construction every day, but helping build the Cornwall house, working with the volunteers every Wednesday and Saturday, was something new for Shelly. "Building our house was one of the most rewarding experiences I've ever had," she said. "Having a team of helpers, who became family over the

The Shackett family, now of Carothers Lane in Cornwall.

course of nine months, made it that much more special."

Shelly says the money they're saving on rent and utilities has made it possible for Ed to trade in his old, somewhat undependable truck on a newer, roomier model, which comes in handy for transporting the kids.

Now that the Shacketts have moved in, Ed says, the kids are excited to have a yard and a place to put up a swing set. And the family, Shelly says, already feels at home on Carothers Lane. "If you had asked me two years ago if I ever thought this was possible," she said, "I would have said no. This will be an experience we will never forget."



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Habitat by the numbers

20

Years since the founding of Habitat for Humanity of Addison County.

10

Homes built by HfHAC.

6

HfHAC homes now in planning stages, including two on Seymour Street in Middlebury and four in Booth Woods in Vergennes.

19

Board members of HfHAC, from 13 Addison County towns.

48

The total number of family members served by the 10 Habitat homes.

200

Hours of “sweat equity” that adult members of Habitat families are required to contribute to the home-building process.

274

Predicted annual heating costs, in dollars, for the most recently completed Habitat house, the first to be certified as a Vermont High Performance House.

308

Likes for the Habitat for Humanity of Addison County Facebook page. Find us by searching Facebook for “Habitat for Humanity of Addison County,” and then like us or follow us.

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Length (minutes:seconds) of this Habitat video on YouTube, in which HfHAC homeowners talk about their experiences:
<http://www.addisonhabitat.org>



The Middlebury Maple Run, which bills itself as “the sweetest half marathon,” now includes Habitat for Humanity of Addison County in its annual grant program. The 11th running of the race takes place in Middlebury on May 5.

Maple Run grantees are selected based on their ability to improve the well-being of Addison County residents, and the race has donated more than \$65,000 to local charities over the past decade.

Thanks to the race organizers!