



Quality Craftsmanship | Stowe, Vermont

the craftsman.

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Tight envelopes save money

Two energy-efficient homes by Sisler Builders

By Kate Carter

Ernie Ruskey and Laurie Wood had three primary objectives when they built their house in Morrisville: simplicity, energy efficiency, and harmony with the site. They achieved their goals with a minimalist modern design, a home that is super tight, has excellent air exchange rate results, and heats easily with propane and supplemental wood. The house is nestled on a gentle, wooded hillside, with mountains views to the west, and blends unobtrusively with its surroundings.

“One goal in all of our work is to have a house that fits into the site and landscape.

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Jo and Jonathan (JP) Poole of Concord, Mass., had similar goals when building their house in Stowe. Simplicity was their primary objective. They wanted a modern design, small enough to feel cozy, yet large enough to accommodate guests. They also wanted a house that was ecologically friendly and sustainable, which led them to a solar-powered geothermal heating and cooling system which uses only renewable resources.

When the Pooles moved from the United Kingdom to the United States, they first came to Stowe. They ended up in Concord, Mass., where JP works in biotech and Jo owns Concord Fitsquad. They continued visiting Stowe, and when it was time to build their house they reached out to Sisler Builders, whom they had heard about around town, particularly in the context of highly energy-efficient, ecologically friendly construction.

“We set up a meeting with Steve Sisler and liked his practical approach,” JP says. When it was time to find an architect, Steve

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Ruskey home

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It's always about the view and topography," says Ernie, architect and owner of Tektonika Studio Architects in Stowe. He designed their house, which has a wedge shape that is, shall we say, wedged into the site's natural topography. The garage is a half-story down, connected by an open, covered walkway leading to the staircase and main entry. Passing through the mudroom and kitchen to the light-filled great room you notice the



subtle widening of the space. In consort with the nine-foot ceilings, expansive west-facing windows, well detailed maple stairwell, and natural stone hearth, this is a truly inviting space. A deck and screened porch off the wide end enable outdoor living close to nature.

As a Stowe architect, Ernie knows many local builders, and choosing one to build a house he designed for his family was a difficult decision. "I gave several builders a shot," he says. "Sisler Builders was on the short list of three companies. Their bid was the middle number and it felt realistic. I also felt good about the company's project-management skills and their deep energy-efficiency knowledge.

Sisler Builders' core tenet is building the tightest envelope possible at a cost that doesn't break the budget. Their seven years of focused home energy analysis and retrofits has shown them where typical problems are, especially for air and heat leakage. Whether building a new house or an addition, their crews know what to do to make sure there are no egregious air leaks in places that are difficult, costly, or impossible to fix later.

Aesthetics were also important for Ernie and Laurie. "Sisler Builders made the right matches with their subcontractors. The craftsmanship is superior and from a design standpoint it really worked for me," Ernie explains. "The costing piece, team, scheduling, and experience are all important, but most important in any building process is a good rapport. Steve communicates well and our personalities clicked. Laurie and I both had, and have, a good feeling about him."

Poole home

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recommended Ernie Ruskey of Tektonika Studio Architects. "Steve thought Ernie would be a good match for us. His tastes, design perspective, and core interests were aligned with ours."

At both the Poole and Ruskey-Wood residences, Sisler Builders implemented a combination of recently introduced energy efficiency building products and practices. When building the envelopes they used Huber's superior Zip-R wall-sheathing panel and proprietary tape. With careful application of the tape at all seams you can cost-effectively ensure a tight building envelope even before insulation is applied. Sisler Builders did that at both homes, achieving air exchange level's really close to the rigorous Passive House Institute US best practice standards, and they did it cost effectively.



The Poole house begins with the main-floor mudroom, which includes a huge, open-riser, three-story, steel-supported staircase. Beyond that is the heart of the home, a spacious and airy great room/kitchen/dining room. "The mud room and open-plan living area were primary for us. We focused our resources there and on the staircase," JP notes.

The house is entirely electrically driven, with LED lighting throughout. Radiant heat is powered by a closed loop geothermal system supplemented with a modern Hearthstone soapstone wood stove. Their 4.9 kW solar array provides about 70 percent of all the electricity the home uses.

It's the only modern style house in their neighborhood, yet it's inconspicuous and unassuming. JP and Jo concur that at the end of the day they were really happy with the final product. "Steve quickly found solutions to challenges and was sensible and direct. Our house is simple and clean and that means the quality of work is extra important. Sisler Builders, their crew, and subcontractors provided excellent craftsmanship. It was a good team."

Ask the craftsmen.

What differentiates Sisler Builders' business practices with others in the area?

We strive for transparency in everything we do. I like to think of the building process as a partnership with the customer. The partnership needs to be built on mutual respect and open dialogue. We accomplish this by keeping accurate and dated records throughout the process, which we can periodically show the customer. With this data we can demonstrate exactly what has happened and why. I think customers appreciate this.

—Steve Sisler, Owner

What differences can you see between Sisler Builders and the companies you worked for in Jackson Hole?

Jackson, Wyo., and Stowe are actually relatively similar markets. Most newly built homes are custom private residences. I worked for two higher-end companies while I was out there and noticed staggering inefficiencies. My father is detail driven, has a highly logical mind, and has surrounded himself with similar people. They have established a streamlined process that reduces communication time, which transfers to an effective building process. This was not the case in Jackson; I found myself waiting for answers, often while twiddling my thumbs.

—Luke Sisler, Site Supervisor

Have a question for Sisler Builders? Send it to Ask@SislerBuilders.com and we'll answer it in our next newsletter.

Ski racing for health, fun, friendship

By Brian Irwin, Sisler Builders Project Manager

Stowe has long been considered the Ski Capital of the East, and that is probably the reason many of us have chosen to call this beautiful area our home. I, like many Stowe residents, have an avid fascination and strong desire to partake in all things skiing. A skier since I was 3 and a season pass holder at Stowe since 1976 I make it a point to get to the hill as often and as early as I can. That's when the skiing is best, and usually the only time to really let the skis run. After a quick break around 9:30, I might head down the road to the Mt. Mansfield Ski Touring Center for some Nordic skiing to get my heart rate up. I am not alone at Sisler Builders in this early-morning pursuit; Steve and Sharon Sisler can often be found here at this time as well, doing the exact same thing.

Stowe is a skier's mountain and it has produced a great number of elite skiers. It is the home to the UVM ski team and to the Mount Mansfield Ski Club (MMSC), which has sent many skiers to the US Ski Team and college programs throughout the country. MMSC is also headquarters for a



large number of "ski bums," who participate in the weekly Ski Bum Race Series, which dates back to the late 1960s and may be the longest-running locals' ski race series in the country. Teams of four compete for the coveted Smugglers' Bowl, the prize given to fastest team each week. Former ski team members, college all-stars, masters racers, and ex-pros line up next to people who have never raced. Because of a handicap system, the newbies can actually be more of an asset than the folks who have raced their entire lives. The countless friendly rivalries that have popped up over the years are the stuff of legend and great stories, and every year more people experience ski bum racing and get hooked.

Every Tuesday at 11 a.m., upwards of 150 would-be and veteran racers attack the Slalom Hill and the dreaded "knoll." The knoll has brought many fine skiers to their butts, as the pitch goes from gradual to steep just above the finish. Some skiers attack it praying for success, only to crash spectacularly, while others decelerate through the transition, ensuring that they will see the finish line and a spot on the result sheet. Personally, that isn't my style, and anyone who has skied with me knows that I prefer to keep the skis in the fall line. I choose to attack the knoll, give it my all, and be confident that I will make the next three turns and be one of the quickest of the day.

Winning a ski bum race and the glory associated with it is a feather in any skier's cap, and I've been fortunate to do so many times over the last decade in a variety of disciplines. The fastest skier doesn't always win due to any number of factors, but, that's why we compete every week—to discover the unknown and see how we do.



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Working toward renewable resource heating

By Nick Sisler

For decades, Sisler Builders installed propane (and sometimes oil) heating equipment as a matter of course. The advent of heat-pump technology and, to a lesser extent, rising fuel prices, has changed all of that. For the last few years Sisler Builders installed ground source or air source heat pumps in almost all of their buildings. The technology for heat pumps, which are essentially air conditioners that run in reverse, has improved drastically in the last 20 years. On average, the systems are now four times more efficient than traditional electric resistance heat, operate well (even in Vermont winters) and cost less to operate than propane or oil.

In 2013 Sisler Builders installed air source heat pumps in one of their apartment buildings in Waterbury, Vt., which replaced an old oil boiler. The annual heating and hot water costs of the building have gone from about \$8,000 to \$2,500 annually! And, since almost all



Sisler's apartment building in Waterbury runs on solar energy.

of the electricity comes from a rooftop solar array, the system is much better for the environment, too.

Steve's son Nick is co-founder and lead engineer at Ekotrope, a building energy software and consulting company. This essay is adapted from an article in Green Building Advisor. For the full article go to GreenBuildingAdvisor.com and search "Nick Sisler."