

# After Sandy

*After Hurricane Sandy, “in the aftermath of a disaster, if a community is fortunate enough to receive federal funds for rebuilding, then that community has an ethical obligation to rebuild responsibly,” said architect Dennis Wedlick, who maintains an office on Fourth Street in Hudson.*



*The interior of the Hudson Passive House of Meg and Bill Stratton, right and exterior, below.*



Photo by Peter Aaron / OTTO

“Today, home and business owners will have the opportunity to rebuild the residential, commercial, and institutional structures damaged by Hurricane Sandy to a remarkably new standard of performance that far exceeds current building codes. According to architects Dennis Wedlick and Alan Barlis of Dennis Wedlick Architect in Hudson, New York (soon to be Barlis Wedlick Architects), all it will take is a grass roots desire to demand and implement high performance standards that are based on the axiom “waste not, want not.”

Here in Columbia County we were very fortunate to have experienced little disruption from Hurricane Sandy. Unlike other Hudson Valley communities to the south of us, we had short-lived stretches of time without power and some tree damage. That said, we are not unfamiliar with dangerously long blackouts that can accompany natural disasters – powerful reminders that our lives, livelihood and personal safety are precariously dependent on our ability to have access to energy. With that in mind, Wedlick and Barlis are advocating for the implementation of a simple code of ethics to ensure energy security, and they’re doing it

by example. Their firm is designing and building five groundbreaking projects that they assert will use 90% less energy for heating and cooling than those that are conventionally constructed.

“We hope to demonstrate the value of investing in energy conservation science,” stated Barlis.

**Embracing alternative energy sources**

Thanks to programs co-sponsored by New York State Energy Research and Development Authority (NYSERDA), many Hudson Valley rural communities have embraced alternative energy production to minimize dependence on nonrenewable fuel.

“Ours is one of those rural communities where we see the use of new solar panels, geothermal wells and wind turbines throughout our landscape,” Wedlick continued. “Yet, even though these are important changes, the forthcoming set of high performance buildings we hope to see spread throughout our villages and farms will soon break records in energy conservation.”

Two years ago, in collaboration with local



*Upper left: A project for the Gould Family of Kinderhook. Amazingly, their construction proved to outperform even the Stratton house.*



*Above right: A project for Habitat for Humanity in Hudson.*

*Left: The interior (inset) and exterior of the new TCI headquarters in West Ghent.*

builder Bill Stratton of Stratton Building Company, Wedlick and Barlis pursued and won the NYSERDA High Performance Challenge by building New York State’s first low-energy house certified by the Passive House Institute, a global leader in energy conservation science. This state-of-the-art home is known as the Hudson Passive House and was designed and constructed in a way that would keep the interior at a comfortable temperature of 70 degrees for long stretches of time without the aid of a boiler, woodstove or a solar panel – even in the dead of winter.

“Last winter,” Barlis said, “this home, where Stratton and his wife live, used 99.9% percent less energy for heating than their neighbors.” Wedlick pointed out that the design and building materials “work like a well-insulated thermos or space age sleeping bag. If there were a power outage, Bill’s house would remain warm and toasty for days just from the passive heat of the sun, a few candles and the body heat of himself, his wife and their two golden retrievers.”

It should be noted that PHI certification requires a building use no more than 120kWh/

square meter per year. This is achieved through using proper building materials in the architectural design that take into consideration the properties’ climate, soil conditions, available sunlight and thermal dynamics.

**A home in the news**

News spread quickly about the Hudson Passive House throughout our county. What seemed to excite the community most was that a local builder was able to achieve these results by using readily available and local building materials. Only a year after completing the Stratton’s passive house, Barlis and Wedlick were asked to help other neighbors embark on five new high-performance, energy conservation projects.

Last year, the Gould Family of Kinderhook applied for and won a NYSERDA grant to build a high performance home on farmland that had been in Susan Gould’s family for over two centuries. Amazingly, their construction proved to outperform even the Stratton house. Just down the street from Wedlick and Barlis’s Hudson office, Columbia County Habitat for Humanity volunteers are busy at work build-

ing two townhouses using the same cutting edge energy conservation construction techniques. A few miles north of Chatham, our local Seventh Day Adventist community broke ground to be the first church and community center in the country to be built to PHI certification standards.

TCI – the transformer recycling plant in West Ghent that was destroyed by fire last summer – is set to begin construction on a new office building and research laboratory designed by Barlis and Wedlick. It is expected to be the nation’s first high performance commercial building to achieve these remarkable standards.

All of these projects will test the state-of-the-art methods developed by the Passive House Institute (PHI), all will use 90% less energy for heating, and will achieve an estimated 75% less energy for all other uses.

“Our goal is that NYSERDA will be able to monitor residential, institutional and commercial case-studies in energy conservation building techniques in Columbia County,” Barlis said, “and share that knowledge with the rest of the state and the rest of the nation.”