



STORY OF A HOUSE

Harmony & Function

In the newly constructed home of Jane and Lucien Ellison, Wilmington's first Certified Passive House, less is more and simply beautiful

By ASHLEY WAHL • PHOTOGRAPHS BY RICK RICOZZI



In March, after nearly fourteen months of construction and exhaustive performance calculations, the Ellisons were finally able to move into the 5,500 square-foot home of their dreams, a split-level concrete marvel on a shady seven-acre lot overlooking Hewletts Creek. Harmony between structure and environment recall Frank Lloyd Wright. Encircled by a stand of massive live oaks and a wispy veil of Spanish moss, the house fits the scene like a ship in a bottle.

But that's only part of what a handful of AIA (American Institute of Architects) were looking at when Lucien Ellison of Ellison Building Company and local architect Kevin Pirman welcomed them inside Wilmington's first Certified Passive House.

When architects view a space, they aren't just looking at a house. They're scrutinizing it. They study the lighting, survey the trim work, test the acoustics, look out the windows, ponder the materials and examine each room from every possible perspective. Then they start asking about the insulation, thermal bridging, solar orientation, and a host of other things related to form or function. Their obsession with details, numbers and material, after all, is part of how they stay in business.

And so it was on a recent summer evening. They wanted numbers. They wanted to know about the high-performance windows, the ERV (energy recovery ventilation), the TDDs (tu-



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bular daylighting devices) — and the challenges of creating a beautiful and livable space under such strict parameters. Lucien delivered. As a residential developer, he's worked on various projects, many of them rewarding, especially in terms of satisfying the customer. But this house represented his dream of becoming the area's premier low-energy homebuilder. He was eager to show the industry's toughest critics that an ultra low-energy structure can likewise serve as a model for exquisite craftsmanship and mid-century modern aesthetic.

In terms of green building, the passive house standard is said to be the most rigorous energy standard in the world. The idea is to create a super-insulated, airtight structure to maximize energy efficiency and minimize energy loss. Although the concept originated in Germany in the early '90s, it's just started to gain steam in the United States. In North Carolina, there are only three certified passive houses to date. Lucien hopes the house where he and his wife will raise their three children will inspire something of a local revolution.

Inside, form and function are one. Minimalist furniture and a neutral palette place emphasis on the materials, and the space is filled with natural light. In the main living room, a pair of transitional bubble chandeliers hangs from a steel girder truss between an open kitchen with Caesarstone quartz countertops and a contemporary living room with concrete slab flooring. Beyond the triple-pane tilt-and-turn windows along the back wall, a spacious deck shaded by an overhanging roof serves as an outdoor lounge and dining area with an unobstructed view of the water.

Lucien speaks of the sustainable features in his home the way an epicure might describe a gourmet meal. But in order to truly understand how this house works, you must meet the whole family: wife, Jane, and sons Jack, 10; Archie, 8; and Baines, 6.

Christmas before last, before the oak floors were installed, Jane and Lucien brought the boys to their future home where they each discovered a coveted gift: Jack got a new guitar. For Archie: an electronic drum set. Young Baines found the electric four-wheeler in the garage.

It goes without saying that the Ellison boys are a lucky lot.

From the main floor, an open riser staircase leads up to boys' suite. Their three rooms are virtually identical — same size bathroom, same size closet, same breathtaking view of the water — but each is styled to fit a distinct personality.



Jack keeps his space neat and tidy. Baines builds tiny worlds for his horses and robots. Speaking of robotics, even the closet lights turn off automatically. “We put occupancy sensors in their closets,” says Lucien. Archie asked if they could have them in their bathrooms, too.

Downstairs, a large game room features pool table, ping pong and built-in storage for toys. Outside: basketball hoop, tetherball set and a concrete backboard for practicing tennis.

The main floor is clutter free. Pocket doors separate the main living area from a tranquil Zen room for yoga or meditation beneath the shade of the largest oak on the property. Even the master bedroom is immaculate — just a bed with built-in storage and an incredible view of the creek.

Jane has a secret she calls the laundry room.

“This is the one room I think is a total luxury,” she says. Not because there’s a washer and dryer (energy efficient, of course). Because the space is hers — and it’s exactly what she asked for. Built-in storage stretches across the length of the room. There is a gift-wrapping station, a place for folding laundry and a home office. Each boy has a drawer for schoolwork, electronics, plus room for odds and ends. Jane’s secret is that everything from cleaning products to power chords belongs in a particular place.

From Jane’s room, the household functions like a well-oiled machine. And through the windows, she can look out across the front yard and see the future.

Before their passive home was a twinkle in the homebuilders’ eyes, the Ellisons lived in a Craftsman’s style house on Towles Road, just one mile away. Jack and Archie grew up playing in the small flower garden with Jane. When Baines was old enough to join them, Jane started to itch. She envisioned an urban farm with free-range chickens — a place her children could truly experience what she calls “back-to-basics” sustainability. They needed room to grow.

In 2011, when they discovered the nearby property on Hewletts Creek, Jane and Lucien agreed that it was the perfect site for the home and lifestyle of their dreams. The homestead, which includes six chickens and half a dozen raised beds, is a work-in-progress.





"I'm learning to enjoy the process," says Jane.

For architect Kevin Pfirman, who designed the first LEED house in the area in 1995, this project was a perfect match. (LEED, which stands for Leadership in Energy & Environmental Design, is a green-building program that promotes and rewards sustainable building practices with official certification.) He recalls a project he designed several years ago for a man who owned property on the waterway.

"He asked me to do whatever I wanted to do in whatever style I wanted to work in," says Pfirman, who designed an ultra modern house — the architect's dream house, more or less. Although the project never made it to construction, he put the rendering on his website where it sat for two years.

That rendering made Lucien pick up the phone.

"Can you do that in passive house?" the homebuilder asked the architect.

"This is the kind of house I would design just for fun," the architect replied. And the fun he had shows.

Walk through the space with Pfirman and he will point out the light shelf on the main floor, the catch basins, and the way the cypress paneling on the sloped ceiling appears to go straight through the concrete walls to the soffit. He will also point out details such as the flanges on the ends of the girder truss.

"It irks me when I see a massive structural member ghosting through a material that I know cannot hold it, but in this case, the girder is completely revealed, and there is no mystery as to how it is supported," says Pfirman.

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s for the children, their modern home is the kind of place they want to bring their friends.

They might show their friends the oak leaf prints on the living room floor, a happy accident that occurred when the slab was poured in spring. Or how they can enter the house with the fingerprint scanner beside the door of the mudroom. Or how they can feed the chickens from the palms of their hands. Or how Ollie, the yellow lab, likes to tug the rope swing that hangs from the branch of the mighty oak.

Or perhaps they will show off a picture of Leboo, the young Kenyan boy who the Ellison boys have been supporting through a local non-profit called One Way Out Kenya. One fourth of their allowance goes toward helping others.

Sometimes, rather than asking for birthday gifts, the boys ask for money for their friend Leboo.

"They're learning to give back," says Jane.

They're learning about conservation and sustainability. In many ways, they're learning to be more like their house. 🌿