



Award-Winning Beach House Renovation Features High-Efficiency, Space-Saving HVAC

Architect-builder Sylvain Côte's commitment to "green building" is evident in his impressive renovation of The Beach House on Truesdale Lake. Sylvain's firm is the award-winning Absolute Green Homes, Inc. in Westchester County, New York. "I'm a firm believer in making design beautiful because if you don't, someone will replace it. And that is wasteful," Sylvain said.

The Beach House is anything but wasteful. It produces almost as much energy as it consumes, earning it LEED Platinum Certification, and Best Home Renovation by *Green Builder Magazine*. The house is also En-

ergy Star Certified, with a HERS rating of 30. These achievements required thoughtful planning and input from a variety of building professionals.

Before the renovation, the 1932 bungalow had fallen into disrepair over the years. Finally, a new owner wanted the home completely gutted and rebuilt with modern, efficient systems and eco-friendly materials. She hired Absolute Green Homes for the job.

Sylvain wanted to create a rustic feel throughout the house, with an open floorplan, plenty of natural light, and sweeping views of the lake. He also wanted a

The Unico System®



A view from the dining area and bar, overlooking the patio and lake. Round Unico outlets in the ceilings are barely noticeable. Only on close inspection can one see the white Unico outlets that match the ceiling in the bar area.

high-efficiency air conditioning system to pair with radiant heat that would be hidden in the flooring. But the thought of bulky ductwork for the AC didn't fit in with his design ideas including beamed ceilings, reclaimed wood covering some of the walls, and floor-to-ceiling windows on the lake side of the house.

Strategy:

Brothers Michael and Matthew Carlo, who own Innovative Air Solutions in New York, are expert HVAC professionals, and when Sylvain approached them about the Beach House, they knew The Unico System was the only solution for air conditioning.

"Sylvain designed this house with Unico and Innovative Air in mind from the beginning, otherwise it wouldn't have gotten done the way he envisioned," Michael said. "The living space design provided almost zero space for ductwork. Attic space is very limited also. This is a small house with limited wasted space; no other system would work here. It was the obvious choice for so many reasons."

The Unico System wasn't new to Sylvain. The Carlo brothers had installed it in Sylvain's own home across the lake a few years earlier. That too was an Energy Star project. "Unico was selected in both cases because of the superior performance and its ability to fit in both these homes where mechanicals were not granted much room," Michael said.

The installation of Unico's Green Series 3-ton air handler and small-duct system went smoothly. "We received unlimited support by the Unico team whenever it was necessary. It was like having them in our own office. You just don't get that anywhere else," Michael said. "If you are going to build a better house, you should also include a better system. Unico is just that --a major improvement upon standard air conditioning. It should be in every Energy

Star project. It's super-efficient right out of the box and easy to set up for Energy Star protocol."

Results:

The high-velocity, small duct system from Unico, Inc., cools the Beach House efficiently by removing 30 percent more humidity from the air than a traditional system. The Unico System delivers conditioned air through insulated tubing that has close to zero thermal loss, saving energy. The flexible tubing snakes through floor, wall and ceiling cavities. This "hidden" ductwork allowed architectural freedom in the design, eliminating the need for soffits that disrupt the charm of the home and take up valuable space. Small, round air outlets quietly deliver air into each room. Energy recovery ventilators bring in fresh outside air, and a triple HEPA filter provides healthy indoor air quality.

With new and reclaimed materials throughout, The Beach House is now beautifully restored and retro-fitted for maximum comfort with a minimal carbon footprint. For a reduced impact on the environment, the building footprint of this home was not

The master bath suite, on the second floor, stays cool and comfortable all summer long as the Unico System removes 30 percent more humidity than conventional HVAC.



expanded. In fact, the opposite took place — the home was reduced from 1,840 to 1,780 square feet.

What Sylvain couldn't reuse from the demolition, he sold or saved for other building projects. Very little went to landfills, even if he had to pay to recycle the debris.

Other features that contribute to the home's energy efficiency and sustainability include solar photo-voltaic roofing slates on part of the south side of the roof, durable synthetic slate tile for the roof with a 50-year warranty, whole-house system automation, LED lighting and rain collection barrels.

Sustainability, efficiency and beauty. The Beach House is truly a green home that will inspire for generations to come, and Unico is proud to be part of it.



The master bedroom is kept cool with The Unico System and its inconspicuous ceiling outlets. Unico's quiet operation guarantees a peaceful slumber. Reclaimed wood from an old barn nearby adds to the home's rustic beauty.

Location: South Salem, NY

Unico Contractor: Innovative Air Solutions
www.innovativeairsolutions.com



The "lake side" of the Beach House features a wide welcoming patio, designed to encourage outdoor living. Glass doors open up on both levels to overlook the patio and the lake. Rain barrels collect water that is used to irrigate the landscape plants and grass. LED lights throughout the property -- inside and out — save on energy consumption and costs.

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The Unico System®

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Unico, Inc. manufacturing plant and sub-assembly plant

Unico, Inc. is the leader in Small Duct High Velocity (SDHV) heating and cooling systems and other high-end HVAC systems. The company manufactures all of its products in St. Louis, Missouri, with over 200,000 square feet of modern manufacturing space. The company is well known for extensive use in older, architecturally unique homes and buildings as well as elite, high-end custom homes. The company is family owned and operated and is available throughout the United States and Canada, and in over 28 countries around the world.



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