Builder

PENNSYLVANIA BUILDER FINISHES FIRST ZERO-ENERGY READY TOWNHOMES IN MONTGOMERY COUNTY

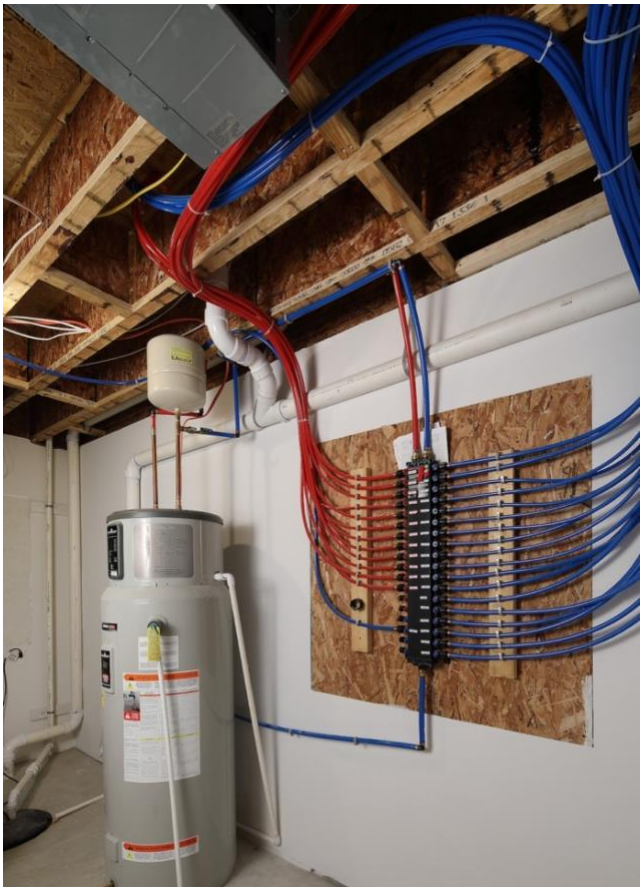
The renewable-energy ready homes are built with structurally insulated panels (SIPs) and a Superior Walls foundation and basement.

The Bridgeport Properties townhomes include an open floor plan, 4 bedrooms and 2-1/2 baths each, space-saving roof decks for outdoor entertaining, designer kitchens, luxury master baths, and garages. Photo courtesy of Matt Wargo Photography.

Alter Eco, LLC , a high performance residential and commercial design and build firm based in Paoli, Pennsylvania, has completed four Bridgeport Properties, LLC, Montgomery county's first Zero Energy Ready Home (ZERH) single-family attached twins, located in Bridgeport, Pennsylvania.

The Bridgeport Properties Zero Energy Ready Homes were born of a collaboration among developer, Bridgeport Properties, architectural firm, Architetra and builder, Alter Eco.

Joseph Lombardi, Alter Eco's co-founder and partner, explained, "We started with a vision to attract home buyers with a unique market offering that also supports Bridgeport's growth and revitalization efforts."



A sophisticated manifold saves both water and energy. Construction photos courtesy of Alter Eco, LLC.

The partnership enabled the innovative design and construction required for homes that meet and exceed the stringent technical requirements of the U.S. Department of Energy's ZERH Program while supporting Alter Eco's vision for a new paradigm in home building.

"Our mission is to deliver exceptional value that combines high-performance features, ultra-energy efficiency and stylish design at a competitive construction price compared to a standard code-built home," Lombardi said.

Spacious, light, and bright, Bridgeport Properties townhomes include an open floor plan, 4 bedrooms and 2-1/2 baths each, space-saving roof decks for outdoor entertaining, designer kitchens, luxury master baths, and garages. They were designed by Architetra for curb appeal with attractive front elevation designs that fit in seamlessly with the historic vernacular aesthetic–but with a modern twist.

The renewable-energy ready homes are built with industry-leading building technologies. Structurally Insulated Panels (SIPs), roofs and the Superior Walls foundation and basement

are the basis of a tight, highly insulated building envelope that makes the homes ultra-energy-efficient. The pre-engineered, highly insulated Structural Insulated Panel System (SIPs) roof provides a strong, highly energy-efficient, air tight enclosure with less waste and shorter framing installation times than standard "stick" frame roof assemblies. This means more comfort and less drafts for you (R-49, only R-38 required by code- 28.95% better than code).

The pre-engineered highly insulated Structural Insulated Panel System (SIPs) walls provides a strong, highly energy-efficient, air tight enclosure with less waste and shorter framing installation times than standard "stick" framed walls. This means more comfort and less drafting (R-25, only R-13 is required by code, - 92.31% better than code).

The Bridgeport Properties townhomes feature high-efficiency HVAC.

Superior Walls were used in the foundation and basement. Pre-engineered highly insulated basement and foundation walls use less concrete than those built on-site. This means less material waste and shorter construction time. (R-12.5, only R-10 is required - 25% better than code).

Based on an independent third-party professional energy rating company's audit reports, the four twin homes far exceed the ZERH program requirements. The homes are ENERGY STAR Certified. Smartly designed rooms feature ENERGY-STAR certified appliances, windows, and doors, and ENERGY-STAR qualified light-emitting diode (LED) lighting throughout.

The homes are also airPlus qualified and include additional features to help protect against potential health risks such as moisture, mold, pests, combustion gases, and garage pollutants. Bridgeport Properties also employs locally and responsibly sourced materials and finishes with no or ultra-low volatile organic compound (VOC) paints, flooring, and carpet.

The homes provide a more comfortable living environment with a whole house advanced HVAC system with improved duct and fresh air ventilation designed for energy-efficient new homes.

The energy recovering ventilation system in the Bridgeport Properties townhomes.

A Bridgeport Properties twin homeowner, who asked not to be identified for privacy reasons, said, “In my opinion it is definitely better than a standard built home. I had a chance to go into several homes over the two and a half years I was looking, and the comfort level is striking when you first walk-in. I can’t even really describe it. It’s like you know that something is very different and that there’s something comfortable about it. It’s just open and clean and fresh, and it flows nicely. The layout is great and the temperature consistency is the same on each floor.”

The Bridgeport twins were designed and built to exceed building code minimums with more insulation and low air leakage. These homes achieved a Home Energy Rating System (HERS) Score of 39 or below. The homes will use an average of 45% less energy than a code-built home.

This is a savings of 11,300 kWh a year. With the current electric rate of 13 cents per kilowatt hour, this translates into $1,469 dollars annual savings or $122 per month. Over ten years of ownership this results savings of almost $15,000.

“I happened to stumble on this home and didn’t really know what I was looking at, but the more I began to research, I began to understand all the features it has in terms of the air quality, the low energy bills, the overall feel of the home, and the comfort level. It was vitally important to me. It definitely paid off. Overall it’s a great choice and I’m very happy with the home. It was the right decision,” the homeowner said.

Alter Eco is a full-service design and build firm that provides architectural, construction management, and sustainable consulting services.