



Building with conscience.

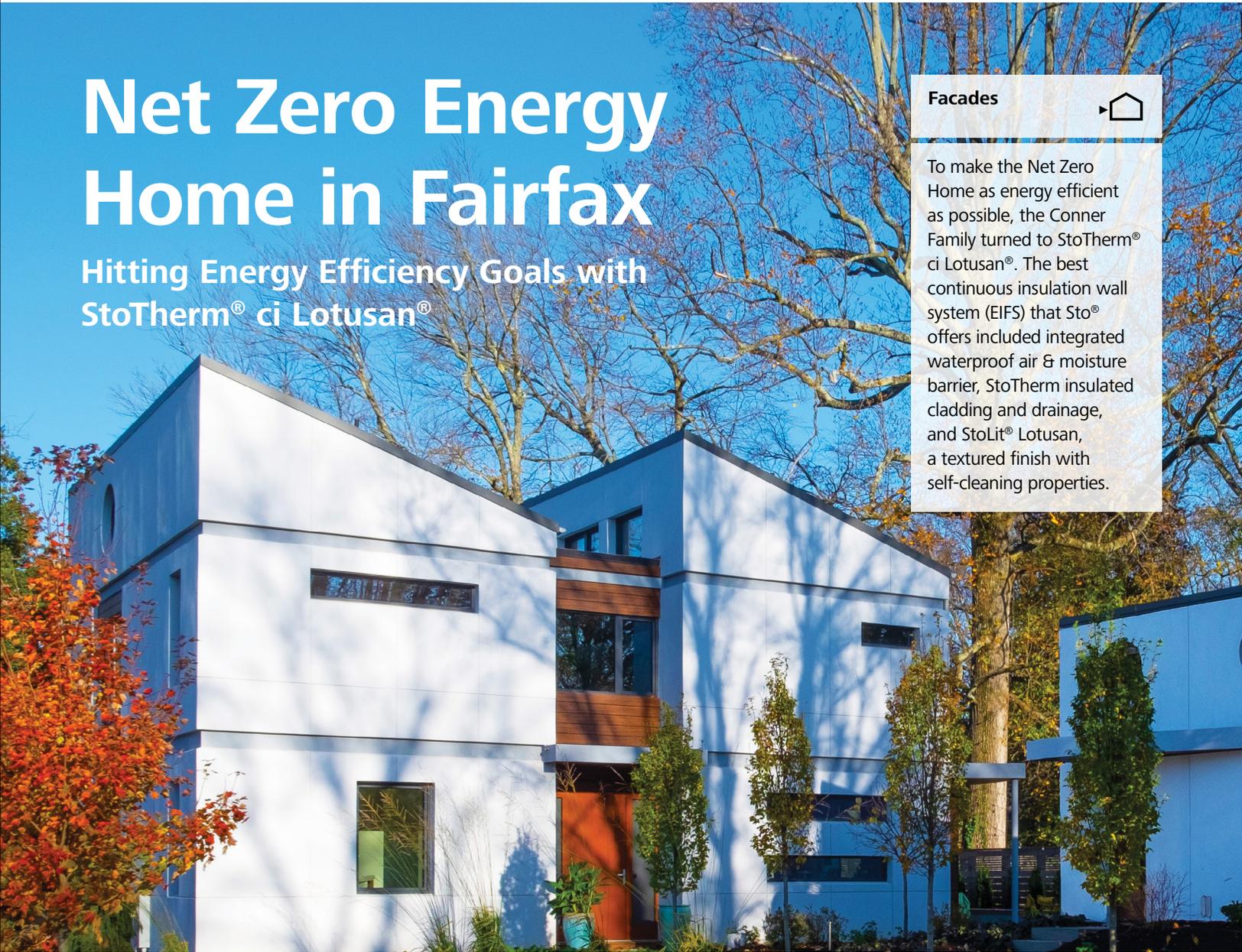
# Net Zero Energy Home in Fairfax

## Hitting Energy Efficiency Goals with StoTherm® ci Lotusan®

### Facades



To make the Net Zero Home as energy efficient as possible, the Conner Family turned to StoTherm® ci Lotusan®. The best continuous insulation wall system (EIFS) that Sto® offers included integrated waterproof air & moisture barrier, StoTherm insulated cladding and drainage, and StoLit® Lotusan, a textured finish with self-cleaning properties.



<b>Sto Products</b>	StoTherm ci Lotusan StoLit® Lotusan 1.0
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The Conner Home in Fairfax Virginia is both an architectural and environmental gem. Sto solutions played an important role in achieving both distinctions. The residence is the very first net zero energy home in the city. (a net zero energy home is one that through energy efficiency and the production of its own renewable energy is left with an energy bill that is "net zero.") As you can imagine, Sto can play an important role in achieving the required energy efficiency. David Peabody of Peabody Architects had a plan for achieving his striking design. Originally, that plan did not involve Sto at all. He intended to use mineral wool batts and high pressure laminate panels to achieve the desired aesthetic but push-back from the subcontractor and unreasonable installation costs made the approach a non-starter.

The solution was StoTherm ci Lotusan. StoTherm ci is ideal for projects such as the Conner home which are designed according to Passive House principles (the idea that a house should be able to be heated or cooled with minimal energy output), because of Sto's all-in-one approach to the building envelope. "The 'Aha!' moment for me was when I realized if we use StoTherm ci, we don't have to separately air seal the walls of the house," said Peabody. After application of the StoGuard liquid-applied air & moisture barrier, which is part of the StoTherm ci system, an air infiltration number of .45 ACH@50 pascals was achieved.

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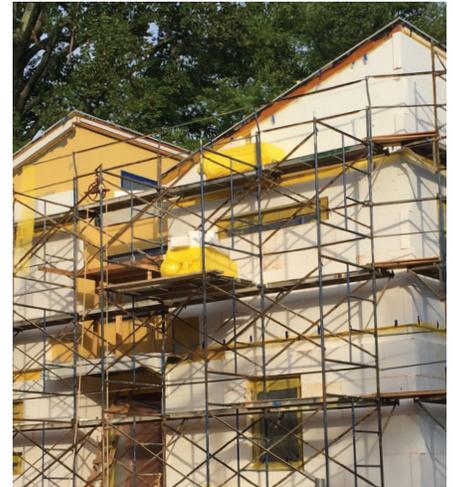
**David Peabody | Peabody Architects**

The desired energy efficiency required a large amount of insulation. According to Peabody, this was another built in advantage of the StoTherm ci system, "You can adjust the insulation value without adjusting the stud width." Avoiding double stud construction saved considerable money.

Color and texture choices offered within the StoTherm ci system along with its ability to create sharp, clean panel divisions were not available from other finishing systems. Application subcontractor Robert A Aird, Inc., who was very familiar with Sto from previous jobs, used a hard-troweled approach with StoLit Lotusan 1.0 to achieve the final texture. "We wanted a clean industrial look," Peabody said when describing the aesthetic vision that he and the home owners shared. "We saved considerable money doing it this way and still got a very smooth and crisp finish."

The finished house is a triumph of Passive House design, both aesthetically and practically. The modern styling speaks for itself on the design front. As for energy efficiency, the home is so well insulated and sealed so tightly, that its 20-kw solar array generates enough energy to not only power the entire house but also an electric vehicle, and a hot tub!

The homeowners themselves are certainly pleased with the results: "We appreciated the greatly lower cost of EIFS compared to the alternatives. We still had sharp corners and lines." It would be difficult to find a more effective use of EIFS anywhere. The EIFS Industry Members Association obviously agreed, awarding the Conner Residence a 2019 EIMA Hero Award, which recognizes outstanding projects in the EIFS industry. That's a lot of buzz for a house that requires so little energy.



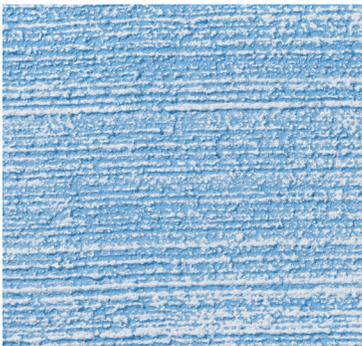


## The only limit is your imagination

Inspiration favors the open mind. With Sto, your creative exploration can take you anywhere. Our proven products give you unmatched freedom and the ability to achieve your vision in any color, any form, any texture, any material.

Combining innovative design and high-level performance, StoTherm ci offers a unique approach to wall system installation. These fully engineered systems provide unmatched versatility with an array of design options that include unique textures, colors, shapes and materials to suit any creative vision. With StoTherm ci, you get innovative products, forward-thinking design, and durable performance that surpasses your expectations. Rest assured, Sto is there wherever your inspiration leads.

Creativity Begins. **Sto Finishes.**®



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