New green buildings in South Philadelphia receive regional recognition

Properties in the Italian Market and Grays Ferry neighborhoods have been honored by Green Building United.

By Grace Maiorano - October 4, 2019





Green Building United hosted its Groundbreaker Awards ceremony last week. The acknowledgments celebrate the accomplishments of green building innovation around the region. Two of the 10 honorees, including one finalist and one awardee, are located in South Philadelphia. Left: The Italian Market Passive House. Right: Anthony Wayne Senior Housing Phase III (Grace Maiorano/SPR)

From the Italian Market to Grays Ferry, South Philadelphia is a growing home to some of the most energy-efficient buildings in the city.

Though their significance might not be recognizable at first glance, properties in local neighborhoods are striving to reduce ecological footprints on a global scale.

Two of these new sustainable properties have been recently recognized by Philadelphia-based Green Building United, a 501(c)(3) nonprofit organization and an aligned chapter of the U.S. Green Building Council that works to promote "the development of buildings that are sustainable, healthy for inhabitants, resilient and cost effective."

Marking a decade of award distribution, Green Building United once again hosted its Groundbreaker Awards ceremony at the Comcast Technology Center last week. The acknowledgments celebrate the accomplishments of green building innovation around the region.

Two of the 10 honorees, including one finalist and one awardee, are located in South Philadelphia.

"I think that it's particularly important to raise the profile of the projects that people might not know about," said Alex Dews, executive director of Green Building United. "...It's really important that the new construction, as well as the renovation market, could be pursuing efficiency and sustainability."

In the nearly 10 years since its inception, the Groundbreaker Awards, which Dews says is judged by an impartial jury comprised of sustainable building professionals across the country, has gradually shifted toward elevating the exposure of more neighborhood-based impact projects spearheaded by local organizations.

The South Philadelphia honorees, in particular, highlight community and small business entities.

The properties are the Italian Market Passive House, located around 9th and Carpenter streets, and Anthony Wayne Senior Housing Phase III, located around 28th and Morris streets. They have been spotlighted for their statuses as passive houses – a specific type of sustainable building that requires very little energy for space heating and cooling.

Considered a vigorous standard for energy use, passive houses are constructed according to specific building science principles.

The combination of technological and architectural elements generates a space producing significantly less carbon, creating healthier air quality and reducing costs of utility bills, according to local passive house consultants.

"If we push beyond and adhere to these principals, we can basically make a leap forward in efficiency by focusing on really healthy indoor environments," said Jon Jensen of MaGrann Associates, which served as the Certified Passive House Consultant for the Anthony Wayne project. "As well as, really carefully controlling the flow of air and energy across the surface of the building."

Though Anthony Wayne Senior Housing Phase III opened its doors to senior residents in September 2018, Jensen and his team first started working on the passive house vision a few years ago alongside other entities, including JKRP Architects, O'Donnell & Naccarato, Allied Construction Services, Bohler Engineering, Holstein White Inc., Elon Development and Altman Management Company.

The affordable housing building, which received funding from the Pennsylvania Housing Finance Agency, encompasses features that work to produce ultra-low energy, including continuous exterior insulation, R42-roof and INTUS triple glazed windows, to name a few.

On average, Jensen says passive houses will use about 30 percent of the energy used in a regular house single-family residence. In multi-family units, he says this figure is closer to a 50-percent reduction.

"Anthony Wayne III represents serious leadership in the area of building efficient green affordable housing," Jensen said. "Affordable housing has been pushing towards more green, more efficient for a while but stepping to a standard like passive house truly represents a significant leap whereas, we're maybe looking at something more like baby steps before."

On the other side of Broad Street, another passive house has popped up.

The Italian Market Passive House, which completed construction in 2016, is the brainchild of BluPath Design, a small woman-owned architecture firm that has been certified to build passive houses since 2009.

The structure was not only a finalist but a winner of the 2019 Groundbreaker Awards.

Laura Blau, co-founder of BluPath, and her project architect, Kevin Davey, won the design pitch a few years ago to build a private two-story sustainable home on top of an existing 2,200-square-foot warehouse in the Italian Market.

"It's a very interesting hybrid," Blau said.

Similar to the Anthony Wayne structure, the energy-reducing science behind the Italian Market Passive House, whose engineer was Bevan Lawson PE and contractor was Hanson Fine Building, also relies heavily upon specific insulation techniques.

This private home features INTUS three-pane Unplasticized Polyvinyl Chloride windows, ducted air-to-air heat pump for heating and cooling and a Zehnder energy recovery ventilator to balance the house's energy flow, to name a few.

Blau says passive houses are a matter of "synergy."

"When you put all of these things together, they amplify each other...and that's what's so exciting," Blau said. "It's the model when you see the amplified effects by combining all of these together."

The structure's central feature is a massive rooftop sunshade, which Blau says was specifically designed to maximize the amount of solar energy captured during the winter season while also keeping the home cool during the summer months.

Though the structure's aesthetics are inspired by the owners' honeymoon memories, its "true south" positioning creates the real fascination.

"It's not a decorative accessory to the building," Blau said. "It's an essential part of the heating and cooling system. And that's the passive part of passive house."

Both Blau and Jensen stress the dire environmental impact of the city's current infrastructure.

According to a 2017 report issued by the city Office of Sustainability, the amount of energy used by Philadelphia's buildings and industry accounts for 80 percent of local carbon emissions.

"Buildings are the biggest problem that we can work on in the Philadelphia region as it pertains to averting the worst consequences of climate change," Jensen said.

Along with constructing new green buildings, they note the escalating need for old structures to be retrofitted with sustainable features.

"We have to do better if we're going to meet this existential crisis we're in," Blau added. "It's a real crisis, which means, if you see a tsunami coming at you, you don't say, 'I'm going to arrange these deck chairs.' We really have to do something...You don't make a building that falls down, and you don't make a building that destroys the environment."

Beyond Blau's and Jensen's recognitions from Green Building United, the Groundbreaker Awards strive to incentivize the development of more sustainable buildings, such as passive houses, in the city.

Awarding projects such as the Italian Market Passive House and Anthony Wayne Senior Housing Phase III will ideally inspire the creation of more buildings resilient to the impacts of climate change in Philadelphia and beyond.

"To be able to showcase the fact that there are row house renovations happening, there's rec center renovations happening or people creating a park

space out of an industrial rail area – those are the kind of things that, I think, encourage us to do more," Dews said. "And to show that it's possible across the city in terms of sustainability."

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