



The Sustainable Architecture awards program is to recognize the efforts of licensed architects who have developed and demonstrated ways to decrease Green House Gases, reduce energy use and demand, and conserve water use in the built or unbuilt environment. Equally important is the creation of durable, comfortable and healthy spaces. The award attempts to raise the public awareness of the current climate crisis and the massive role played by construction, maintenance, and operations of the built environment. The Sustainable Architecture Award also honors the climate change initiatives of AIA Connecticut and Connecticut Passive House to secure a more sustainable and environmentally thriving future.

2020 Jury



Melissa Kops, AIA, LEED AP BD+C, LFA
Pirie Associates



Bruce Becker, FAIA, AICP, LEED AP
Becker + Becker Associates



Larry Jones, LEED Fellow
Atelier Ten USA, LLC



New Construction

Stonington Passive House Wyeth Architects, LLC

The clients wanted a house in which to retire that minimizes their environmental footprint. The design is one-level living that supports two lifestyles with two separate visual art studios – the inspiration for the four-volume layout.

For the 1,725SF main house, Passive House was selected for its minimal use of energy and maximum internal comfort – ideal for those getting on in years. The connected 1,030SF studio building, outside the Passive House envelope, uses the same construction principles.

The orientation of the site presented a solar design challenge – narrow, running north-south, views to the east, and the southern property edge bordered by tall trees. To capitalize on light and views, openings on the east and west sides were increased using low SHGC glass to mitigate solar gain. Deep overhangs are used throughout and a translucent shading device protects the west elevation while still capturing afternoon sun.

Passive House principles dictated the envelope design: Super-insulated envelope, minimal thermal- bridging, ventilation with heat recovery, airtight, triple-glazed exterior windows and doors.





609 Main Pickard Chilton

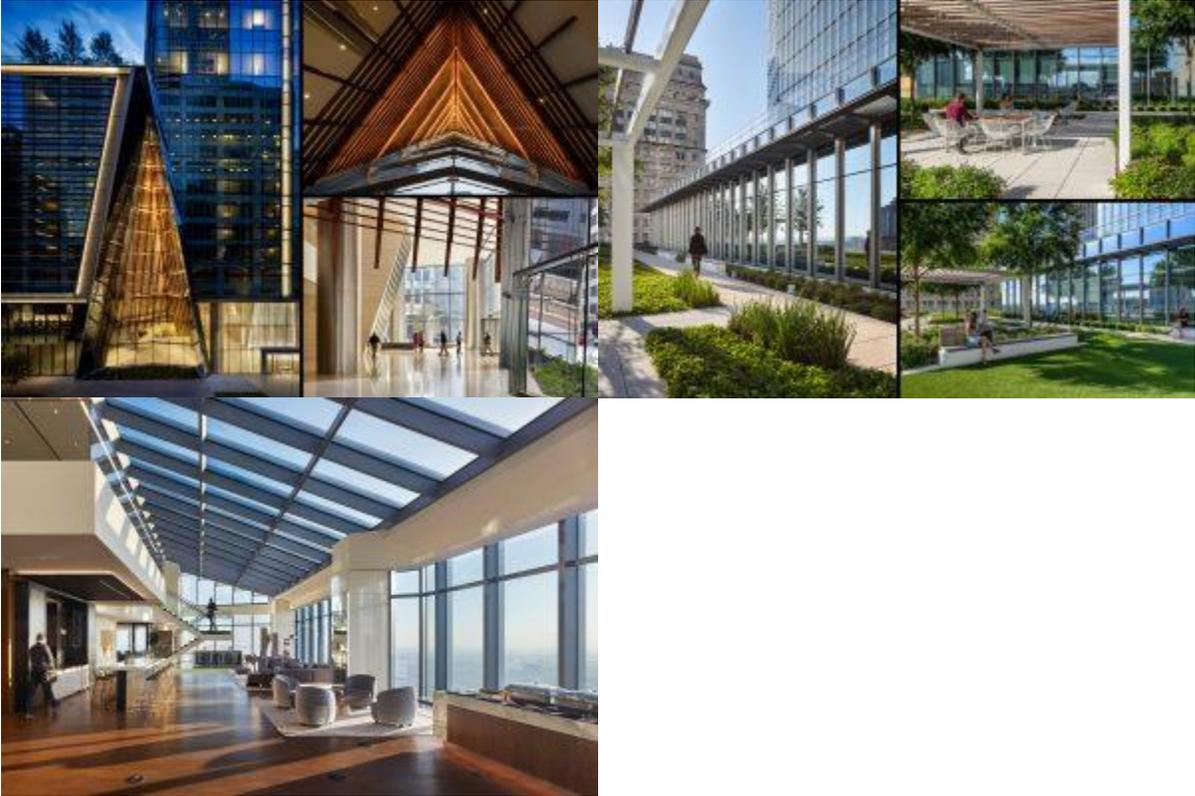


609 Main at Texas is a LEED-CS Platinum certified, high-performance 48-story, 1.85 million gsf Class A tower at the corner of Main and Texas Streets in Houston. An expansive landscaped roof garden atop the 13-level podium conceals parking for 1700 cars. 609 Main incorporates superior technology defining it as a next-generation office tower. Drivers fundamental to its design were: greater access to natural light, fresh air, and nature; and the efficient stewardship of water, energy and materials. Innovative design in its enclosure, mechanical systems, energy efficiency and water management, as well as conscientious material selection, allowed 609 Main to achieve its sustainability goals.

The design offers tenants greater comfort, efficiency and productivity. The high performance enclosure of maximizes daylight while reducing solar heat gain. With walls of 10-foot, floor-to-ceiling glass with stainless steel accents, near column-free floorplates accommodate flexible workspaces and greater collaborative areas. A two-story penthouse features an electrochromic glass skylight. The double-height "hotel-style" lobby features a café, a conference facility, retail space, and a fitness center. Natural stone and wood, stainless steel accents, and interior landscaping attest to the lobby's quality.

The double-tiered green roof terrace reduces heat island effect, absorbs and filters storm water and captures and stores rain in a cistern for future use while providing a natural environment for

tenants. In the lobby, a 28-foot tall greenwall and water feature greet visitors while serving as passive cooling elements. In addition to energy-efficient lighting and harmonic-mitigating transformers, heat sensors adjust room temperature for the number of occupants. Efficient building systems include “smart” elevators and a sophisticated “Dual Path” underfloor HVAC system that allows for individual control and constant air purification.





Pound Ridge Net Zero Trillium Architects



This new 3,100 square foot home is a Net Zero/ Net Positive Home. Conceived as a dream home for a retiring doctor and his wife, it has 2 bedrooms and 2 ‘offices’ that could be converted to bedrooms for a future family’s use.

The home owners, originally from Atlanta, dreamed of moving close enough to New York City to enjoy the theater and nightlife, but far enough away to have a serene and very private piece of land. They also wanted a community that applauded modern design. They found the perfect piece of land amongst a small development of other modern homes in Pound Ridge, NY. Avid gardeners, the landscape immediately became an integral part of the house design. The architects worked with the homeowners to conceive this unique property in its entirety - inside and out.

The Net Zero aspect of the project was another requirement, along with at least one Tesla car. Currently the home owners have the Tesla charging and the house produces about \$600 more

dollars' worth of electricity than it uses over the course of a year. The couple has just completed their second year of residence in the home.

The final result is a contemporary design to simplify their lives and allow them to live in a clutter-free environment. An open interior layout and extensive custom built-ins make this possible. The super-efficient building envelope and the sustainable landscape make for a carefree 'homestead' in which to enjoy their retirement. HERS Index -9 • Net Zero/ Net Positive Energy Home: This home produces +/- \$600 more electricity a year than it uses.)



Slate School

Patriquin Architects



SLATE SCHOOL
View looking towards School Entry

AIA CT SUSTAINABLE ARCHITECTURE AWARD
June 2020

Slate School is a private, coeducational non-profit elementary school located on a biodiverse 25-acre site in North Haven, Connecticut. Completed in 2018, the School provides a unique nature-based learning environment that aspires to cultivate creativity, kindness, and stewardship of the Earth, while fostering a passion for learning and discovery. From the outset, the Design Team and the Construction Manager worked together to minimize site disturbance and enhance the site's productive ecosystems and landscapes. The school's small footprint comprises only 6,925 square feet and is concentrated on previously disturbed soils – areas where the site had been formerly developed with buildings for a single-family residence. The remainder of the site is a nature preserve for local flora and fauna. A stormwater management plan improves downstream wetlands, while landscape management practices remove invasive species, bolster native species, and create wetland enhancement areas. Many of the plantings on the site are productive – providing food for pollinators and other wildlife – and serve as important educational tools for the students.

The school's design deliberately minimizes interior space, while engaging the outdoors as an extension, and vital part of, the classroom. Slate School's six buildings house four individual classrooms, an extensive library, multi-purpose space, and a greenhouse. Reducing the school's ecological footprint through energy efficiency was another key goal of the project. Building envelopes are insulated and detailed to Passive House standards, with R-60 roofs, R-40 walls, R-

30 floor slabs and frost-protected shallow footings, and low air infiltration. Enhanced moisture management includes rain screen siding and active vapor-open WRB. High-efficiency mechanical systems burn no fossil fuels on campus, and include a “smart” ERV that constantly monitors indoor conditions and adjusts accordingly. Mechanical (and structural) systems are left visible, forming another part of the students’ education about ecological practices. In integrating specific standards from so many different Green Building certification programs, the design process for Slate School treated building sustainability as a truly holistic endeavor. This holistic approach to architecture and construction mirrors the School’s holistic approach to nature-based education.



SLATE SCHOOL
Slate School (K-5) Primary, secondary, tertiary

WIKI CT SUSTAINABLE ARCHITECTURE AWARD
2014 (2014)



SLATE SCHOOL
Slate School (K-5) Primary, secondary, tertiary

WIKI CT SUSTAINABLE ARCHITECTURE AWARD
2014 (2014)



SLATE SCHOOL
Slate School (K-5) Primary, secondary, tertiary

WIKI CT SUSTAINABLE ARCHITECTURE AWARD
2014 (2014)

Conceptual or Research-Based Projects (Built or Unbuilt)



Adams Street Studio Q Architects



True Affordable Housing Through Sustainability- A case study with Neighborhood Housing Services of Waterbury

The Adams Street near net zero energy- block redevelopment of a blighted neighborhood in Waterbury CT is a case study in “truly” –affordable housing through minimal utility costs for 12 new units. The project remains to be funded for construction, yet through a collaborative design process, incorporates energy efficiency, sustainability, and affordability through multiple design features.

Site Planning and Design:

