

6 Passive House in North Stamford



8 Way Back, When



12 The Bridges of Fairfield County



THE VOICE OF NORTH STAMFORD

SPRING 2016



06903

N O R T H S T A M F O R D N E W S



Passive House In North Stamford

By Michael Block



WHEN I WAS GROWING UP in North Stamford, I was an avid bike rider. I had a set route I used to travel all the time starting at my house on Mohawk Trail and winding up at the deli next to the Stamford Historical Society. One street I would pass on this route was off of Scofieldtown Road called Campbell Drive.

Fast forward thirty years. My business partner and I are spearheading a new concept in home building called Passive House. Where in Stamford do we plan on introducing our first Passive House? Campbell Drive.

Passive House is an international building standard developed in the early 1990s in Darmstadt, Germany. It promotes the highest standard of energy efficient building in the world and requires virtually no energy use for heating and cooling. The concept has the word “passive” in its name because it allows your home to remain “passively” comfortable at a consistent temperature, as opposed to “actively” using energy in order to heat and cool the home. Passive House reliably delivers up to a 90% reduction in heating and cooling demand and up to a 75% reduction in overall energy demand when compared to our existing building stock.

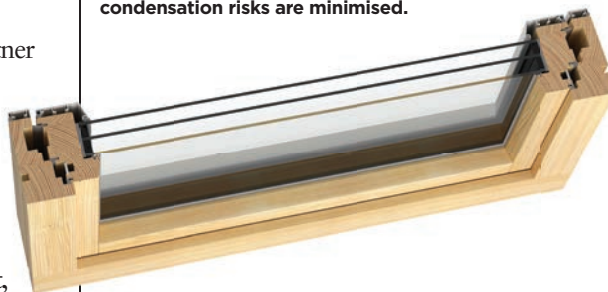
All of this is accomplished by the following principles:

- Air tight construction means that there are no unintended gaps in the building envelope that allow air to leak in or out of the building.
- Robust exterior insulation with walls that are two to three times thicker than traditionally built homes.
- Thermal-bridge-free construction that reduces

inefficient energy pathways such as external wall corners and framing stud members.

- High efficiency windows using triple panes that act as the “boiler” to the home, with the sun coming through the windows allowing the home to retain heat in the winter and keep heat out in the summer. Since the sun is stronger and hits homes on a higher angle in the summer, Passive Houses have a shading strategy that limit homes from overheating. Also, most of the windows are oriented southward in order to maximize sunlight in the house.

Weather proof windows are specifically developed to withstand very cold weather. The window's three gaskets ensure that the frame and casement are well insulated and condensation risks are minimised.



- Passive Houses have a unit installed in the home called an HRV (or air-to-air heat exchanger) that brings in outside air and captures heat from stale indoor air before air leaves the house. Airtight homes need fresh air to ensure high indoor air quality.

There are several Passive Houses in Connecticut, one in Fairfield County. If you ever drive down the FDR in Manhattan, look over to the construction site on Roosevelt Island. There, as part of Cornell Tech's new campus, will sit the world's tallest passive building at 27 stories when it is completed in 2017.

The home that our firm, Construction Management Group of New Canaan, will build on Campbell Drive will aggressively reduce carbon emissions, significantly reduce living expenses, have the best and purest air quality any house has to offer, and allow the homeowner all the modern luxuries that make up 21st century home living.