
Mortgage News Daily - The Green Home

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Carbon Neutral Home Shaping Up



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In September we introduced a project in Southhampton (Long Island), New York under which is being built a completely carbon-neutral home from the ruins of devastating residential fire.

As background, the home of David Dubin and his family was hit by a major fire on December 22 of last year. The fire ruined the center of the house but left the shell. The original house was a relatively new shingled, center entrance colonial that looked like hundreds of thousands of houses in the region. The new house, while it will be built from the remains, will have an 800 foot addition (an 4000 sq. ft total) and will resemble the Canadian "lodge houses" Mrs. Dubin recalls from her childhood in that country. The house, at least from viewing the architectural drawings, is quite spectacular.

The designers and builders of the new house are members of the Hampton's Green Alliance (HGA), an organization of local tradespeople formed to promote sustainable building. Their goal is to build a house with a Platinum rating from LEED (Leadership in Energy and Environmental Design). In fact, they hope to attain the highest Platinum ranking LEED has ever given.

Richard Stott, the lead architect, describes the house as "a platinum lining to a carbon cloud," and hopes it will become the first home constructed with a totally neutral carbon footprint. Going even beyond that, the project seeks to develop a model for determining carbon neutrality. To this end, Frank Dalene, the president of Telemark the general contracting company, has created the first indexing system to establish an "objective and scientific way of measuring the embodied carbon footprint associated with the production of all manufactured products." The Southhampton project will be the pilot project for this methodology.

First, the construction of the home will be carbon neutral with materials from the old home being recycled as much as possible and other materials being selected not only on the basis of their energy use going forward but the energy consumed in their manufacture. All of the trades involved in the project have undergone or will undergo carbon audits and will purchase carbon offsets at a level to become energy neutral.

Going forward the energy consumption of the home will be measured and any CO2 emissions will also be offset.

The house is now completely framed and sheathed; energy efficient windows have been installed, and roofing felt is being laid. On the interior the rough plumbing and rough electrical work are underway.

According to a spokesman for the HGA, the shell of the building has been super-insulated. Closed and open cell foam insulation was used for the roof and walls. This technology insulates and eliminates drafts, yet the open cell foam allows the home to "breathe", reducing the possibility of mold.

The house will perform virtually off the grid with a combination of geothermal heating and cooling, wind power, and thin film photo-voltaic solar power and an evacuated tube solar based hot water system. We will talk more about some of these technologies (check our archives for articles on geothermal heating and wind power) in the future and will also update the progress on the Southhampton green house as it nears completion in May of next year.

If you would like to see an architects rendering of the house as well as catch the view from a web cam on the site check out www.hamptonsgreenalliance.org/house/hgahouse.html.

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