Houses of the Gatineau Hills

There will be no escape, heat

Wakefield contractor shows off his innovative ‘passive’ home

By Joel Balsam

It's an oft-asked philosophical question about trades people: do mechanics have better cars, or do they drive beaters even though they work on cars all day? Do tailors have well-fitting clothes or do they need a tailor themselves? Does the contractor have a fine house? In the latter case, he most certainly does. Wakefield-based contractor Stephane Charette's gorgeous modern family home, completed in 2012, certainly stands out from the deep country forest that surrounds it. But it's not as different from the forest as one might think a modern house would be.

The stained wood panels that adjoin the steel-siding exterior actually came from cedar trees that fell down in a storm right next to where the house now stands on a 110-acre property. After he discovered them, Charette brought in a sawmill and did the work on-site. Using creativity and recycled goods are all part of Charette's innovative mindset as a contractor and designer. "Trying new stuff, that's what I love," he said. "I don't like to redo stuff people did before, I like to try new things."

The house at 95 Colbert, a private road in Wakefield, is referred to as a 'passively heated house' because it heats up with the sun's energy and holds in the warmth with airtight walls, thick insulation, and triple-pane windows. According to Charette, his 6,000 square foot home uses as much energy as a typical 1,500 square foot home.

That's due to a number of factors within the house's innovative design. First, this is a double-walled construction insulated with Roxul, a high-quality insulation material made of recycled stone dust that doesn't burn or melt if a fire were to occur. The exterior wall is R-22.5 moving in towards the centre of the house, there is an air barrier sandwiched between two separate wall systems. Generally, air barriers are full of holes where wires are fed through, which essentially defeats the purpose of creating an air barrier. Instead, Charette's house has wiring woven through the interior wall of the home with an additional Roxul R17 insulation inside of it, further reducing heat loss.

To maintain a steady temperature, heated water is pumped through the concrete slab basement floor, which can retain heat for days, even when the heat is turned off. According to Charette, during a power outage last Christmas, even though the system was off, heat slowly being released from the concrete meant his home only dropped five degrees over the 48 hour outage.

An airtight home needs a way for stale air to be replaced with fresh air, so the two heat recovery ventilators are "a must for this type of [airtight] house," said Charette.

The roof of the house is tin, which can last for at least 75 years. "Shingles just fill the dump sites," said Charette, adding that the petroleum-based conventional shingle is "just no good for the environment."

High-quality design and an attention to environmental protection are main focuses for Charette's contracting company, Bala Structures, which he founded in 2007. "More and more [we are] trying to go towards where we want to offer really comfortable... green and efficient houses to clients," said Charette.

If you grab a pint at Chelsea Pub or Le Gainsbourgh in Hull, just look around and you will see Bala Structures' work - they did the interior design for both restaurants. To see other examples of their work and for more information about the company, visit balastructures.com.

And if you like the look of Charette's home, he is actually selling it due to undisclosed life changes. To see the $800,000 list.

Stephane Charette stands in the sideyard with Manu, 6, (left) and newborn baby Aria and Darya, 10, (right) with Gopal. Meanwhile, Keisha the dog sniffs around behind.

Joel Balsam photo