



Growing a Winner

Geranium Homes Leverages Savings by Design for Its Award-winning Pickering Project

A design workshop. A passion for building well. And some stakeholder incentives. That's the equation that netted Geranium its recent win at the RESNET Cross Border Builder Challenge.

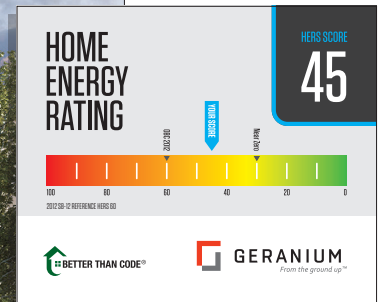
Getting the Most Out of the Savings by Design Program

Long before the challenge, and even before building permits were applied for, Geranium principal Boaz Feiner and senior project manager Diana Sousa were involved in a workshop from the Enbridge Gas Savings by Design program. The workshop included City of Pickering planning and sustainability officials; Michelle Vestergaard, senior advisor with Enbridge Gas' Savings by Design Program; and John Bell from ClearSphere. Manufacturers' reps and designers, as well as the builders' site staff, also attended the seminar.

The aim of the Savings by Design program is to help builders improve the energy and environmental performance of new construction projects. Participating builders must construct homes to achieve an energy reduction target of at least 15% better than code, and in return, financial incentives are available to help them implement energy-saving goals.

During the workshop, various construction components are considered – mechanicals, insulation values and air tightness, to name a few – in order to create an energy-efficient housing product.

"It's setting the bar high," admits Sousa. "The incentive is nice, though



it doesn't cover the costs to do all the upgrades. We've always done more than minimum, always gone above the minimum code, because we believe the end-product is important – comfort in a home is ultimately what people want."

Free and available to Ontario builders in areas served by the former Enbridge Gas Distribution Inc., the program sometimes sees builders having to redesign parts of the homes. As Vestergaard explains, "maybe the insulation needs to be increased, or better technologies need to be adopted and incorporated to run the home. Blower door tests are standard once homes are built because the 15% improvement has to be verified."

Enbridge Gas offers incentives. There's the monetary reward of \$2,000 per home with a cap of \$100,000, but more important are "the experts we bring to the table free of charge," Vestergaard says. "These experts

sit with the builder and have really valuable conversations about design improvement. You can't really put a price on that, to get all those people in one room talking it out."

According to previous participants, the program saves money in the long run, Vestergaard says. "When you have experts involved earlier in the process, builders avoid costly changes later; that's a value-add to them. If we can talk solutions before homes are built, they're way ahead of the process. For example, if the builder preplans using an integrated design process, determines exactly how much material the house will use, there will be a cost savings."

Currently, the Pickering site is under construction. Everyone – including seven sets of home owners who have moved in – is pleased with how their home has performed. In addition to this, Geranium won the coveted Enbridge Gas Innovation

Award at RESNET's Cross Border Builder Challenge, held this past February in Scottsdale, Arizona. Enbridge Gas has been involved in the Cross Border Builder Challenge for five years, and for the past three has sponsored the Innovation Award.

One of the main reasons why Geranium's Edgewood project was chosen over other submissions, says Vestergaard, is because "they made a commitment to do a whole subdivision – 21 homes – which aligned with our market transformation goals. They are leading the industry ahead of their peers."

Going with Greywater

The award-winning innovation in the Edgewood project is that 21 homes operate with greywater recycling, which reduces water usage by up to 25%.

While Geranium roughs in for greywater recycling on all its projects, they teamed up with Greyter on this one. The greywater recycling company installed the full system in each home. It's an expensive proposition, but it garners Geranium a first – it's become the first company to install greywater recycling in an entire subdivision in Canada. It's important to note that the support from Enbridge Gas has helped make this possible. With this, Geranium perpetuates their brand of building high-quality homes that offer as much comfort to the home owner as it does to the future life of the planet.

Edgewood will prove somewhat of a test case for Geranium, Sousa says. "We're interested in using the data from Edgewood to see how performance of that is going. We also went with HERS scores on this site. We'll try it to see how it works. Above all we like to remain flexible, and everything always depends on the market. In today's uncertain times, we need to be able to adapt."

While HERS doesn't have the same branding as ENERGY STAR, Sousa says regardless of what you call it or what kind of rating you use, it's all about having energy-efficient features. "ENERGY STAR was standard on all our products, but we've discovered that we needed more flexibility. ENERGY STAR was prescriptive, always changing, and every few years there were new guidelines. HERS has allowed us to do our own modelling and compare it to the code."

Water is a precious resource and Canadians are one of its highest users, Sousa says. "There are communities – especially in northern Ontario – that do not have access to enough clean water. We'll continue to rough in for greywater recycling in our detached homes, so home owners have the option to buy and install a system down the road."

"And it's a great case study for other municipalities and builders," Vestergaard says. "It's not cheap to do this kind of building, but it's a win-win – for Geranium, for their home owners, for the city and the environment." Each home will receive a HERS energy label and a HERS_{H2O} water score, which verifies 15% better than code performance.

Having the municipality's involvement was "huge," says Sousa. "Having officials working with you makes for a much better experience. If you have questions, you can ask and know you'll get supportive answers. It felt like we were collaborating as a team on this project." **BB**



Alex Newman is a writer, editor and researcher at alexnewmanwriter.com.

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