



MEDIA RELEASE

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Home of Tomorrow demonstrates energy efficiency

Recent EnerGuide testing has shown the Home of Tomorrow, one of two homes that make up the Wilden Living Lab project, to be 52 per cent more energy efficient than a standard home constructed to today's building code.

The Home of Today and the Home of Tomorrow – two houses constructed side-by-side in the popular Wilden neighbourhood – are part of a real-world study on sustainable homebuilding that compares the energy usage patterns of identical structures built with different energy-efficient technologies.

The pioneering initiative is collaborative three-year learning and research project by Wilden developer Blenk Development Corp., AuthenTech Homes, UBC Okanagan, Okanagan College and FortisBC.

Following the completion of construction of both homes in early November, the Living Lab partners enlisted an energy evaluation company to analyze the performance of each home based on the Government of Canada's EnerGuide standard ratings for new homes.

Gilles Lesage, operations manager of Total Home Solutions, conducted the testing on insulation levels, airtightness, windows and door types and space and hot water heating systems. The Home of Tomorrow achieved an exceptional EnerGuide rating of 47 gigajoules (GJ) per year and greenhouse gas emissions of only 0.3 tonnes per year in the energy audit. In comparison, the Home of Today, which was built to current building code standards, has a rating of 110 GJ/year and GHG emissions of 3.0 tonnes/year.

Lesage attributes the efficiency rating to the sustainable construction of the Home of Tomorrow.

"This project shows the impact that's made when homes are built with efficiency in mind right from the planning stage," says Danielle Wensink, director, energy conservation and management for FortisBC. "We believe it's well worth supporting forward-thinking projects like this that advance energy-efficient construction in the region."

The Home of Tomorrow was built with several advanced, energy-efficient components that exceed current building code requirements, including geothermal heating and cooling, a heat pump water heater, triple glazed windows and an insulated concrete form foundation. The Home of Today was built to the current B.C. Building Code

specifications, allowing it to act as a baseline comparison to the Home of Tomorrow.

The Wilden Living Lab project is also unique in that it has integrated students from both post-secondary institutions for hands-on participation.

Students from Okanagan College's Sustainable Construction Management and Residential Construction programs worked with local builder AuthenTech Homes on the construction of the homes and implementing the latest sustainable technologies.

"Working with the latest green building materials on these homes was very valuable for our students," says Angus Wood, Okanagan College program instructor. "And seeing the EnerGuide results will affirm for them the benefits of new technology and techniques they employed in this project."

The two Wilden Living Lab homes mark the College's 49th and 50th community projects as part of their Homes for Learning program.

In Spring 2017, the homes will start their collection of real life data, when they will be sold at market value. The residents who move in will have their consumption monitored on the meters and sensors installed throughout the equipment in the homes. Researchers from UBC Okanagan's School of Engineering will spend the next three years analyzing and comparing the collected data from the homes to learn how sustainable building technologies can influence energy consumption.

"The Wilden Living Lab will provide real life energy consumption data over the next three years and help us understand and compare the conventional and advanced local construction practices and energy efficient appliances, and its relationship to energy bills," explains UBC Okanagan associate professor Dr. Shahria Alam, who is leading the monitoring effort.

"The initial test on the home of tomorrow has already proven its energy efficiency. The model being developed from the generated data will be also capable of selecting the most energy efficient components and their various combinations for residential construction."

The findings from UBC will be published on the Wilden Living Lab website.

FortisBC will be offering open houses to the public in Feb. 2017.

The project has been named a finalist in four categories of the annual Tommie Awards, organized by the Canadian Home Builders Association (CHBA) Okanagan chapter. The winners will be announced at the Tommie Awards Gold Gala on Jan. 28.

More information about the project is available at wildenlivinglab.com.

EDS: Please find attached a jpeg of the Wilden Living Lab homes

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