Eco-Solar Home Tour 2019

Sunday 9 June Noon to 4:30 pm

Symons Gate Passive House

Tour Day: Sunday Jun 9th
Address:
Hosts: Brookfield Residential
Parking: On street
Energuide Rating:

Summary:

- The home is so energy efficient it doesn't even need a furnace
- This home is a pilot project demonstrating some the building code, bylaw and cost barriers to achieving 2030 energy code 'targets'.

What will people see and learn about at your home?

- Heated by its south facing triple-pane, R8 window
- Low carbon prefabricated structural wall, roof and floor systems
- Super-insulated walls, windows & doors alongside an incredibly air-tight envelope, eliminate the need for conventional heating systems
- An ERV paired with a small electric heater ensures warmth and clean air for families

What are the main things people will see at your home?

- You will notice how quiet and secure the home feels.
- The wood in the home is Cross-Laminated Timber that holds heat, helping keep the home at the perfect temperature.
- This energy efficient home is also a luxury home; providing an unmatched level of quality, comfort and security.

Are there main items that they can't see?

- Breathable Walls; Mass Timber
- Solar panels on the roof of the home

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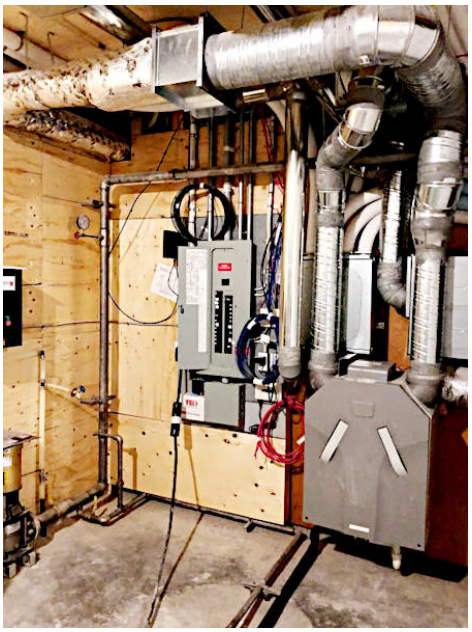
Symons Gate Passive House

Why is this home on the tour?

The Symons Gate Passive Haus is on the tour because it showcases the Global Passive House standard. The standard stands for quality, comfort, and energy efficiency. The home is 90 percent more energy efficient than today's average home in Alberta. So efficient that it doesn't need a furnace. The goal of the Passive Haus is to help further our knowledge and expertise in advanced energy-efficient design and building techniques with the future in mind. We also wanted to showcase challenges and barriers to affordability that accompany building to the Passive House standard. Most importantly the project has emphasized the level of change that the housing industry is facing in the next 10 years and risk to affordability and housing choice if alterative construction methods are not implemented.



What features save on energy costs?

- R45 walls made of cross-laminated timber
- Austrian-built R8 windows – triple pane, solar glazed
- Vapour diffuse, low carbon, prefabricated structural wall, roof, and floor system
- Airtight building envelope
- Thermal insulation
- Solar panels
- Energy efficient appliances

Are there any other special features you want to highlight?

- Heat it with a candle, cool it with an ice cube. The home utilizes R45 walls made of cross-laminated timber, the Austrian-built R8 windows, and the "super" insulated floors and roof give the home insulative values that are 200-300 percent more than what is required by code.
- Cross-laminated, prefabricated timber makes up the entire structure of the home.
- First designed in CAD and then redrawn using a 3-D computer aided manufacturing (CAM) software called Dietrich's. Brookfield contracted the manufacturing of the cross laminated panels, wood fiber-board insulation and windows to a supplier that was experienced in Passive House design.
- 90% more efficient than the average home today, so efficient it does not even require a furnace
- Pilot project – we worked closely with trade partners, manufacturers and suppliers, academics and government to better understand the challenges in meeting the 2030 targets.