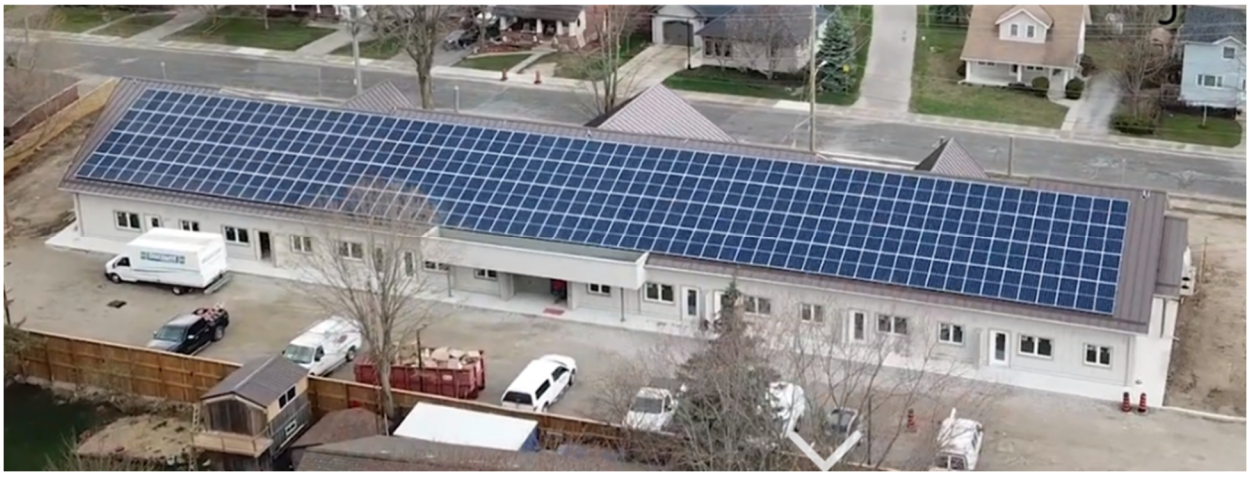
13 SANDERS STREET
Net Zero Energy Affordable Housing



Services Provided:

- Mechanical Engineering
- Photovoltaic System Engineering
- Air Tightness Testing

Project Details

Location: Tillsonburg, ON

Status: Completed in May 2019

Client: Tillsonburg Non-Profit Housing

Building Area: 1,100 m² (11,800 ft²)

Value of project: $2,847,500

Project duration: 10-month design phase, 10-month construction duration

Project Personnel

Greg Leskien – Project Principal

Stuart Evans – Lead Mechanical Engineer

Scott Rivard – Plumbing & Drainage Design

Andrew Gartshore – Photovoltaic Engineer

Cameron Desmarais – Photovoltaic Designer

Target Energy Use Intensity (EUI):
102 kWh/m²/year

PV System Size:
88.4 kW DC

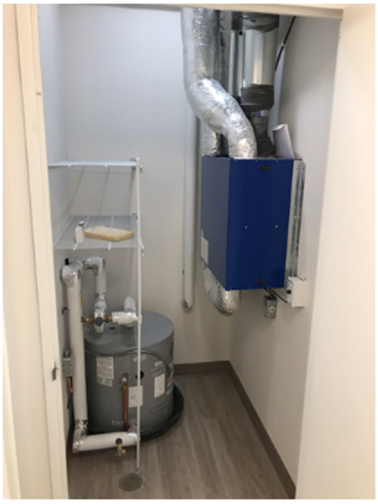
Developer Contact:

Bradley Good
Reid and Deleye Contractors Ltd.
Partner / Project Manager
o. 519-688-2600
c. 519-933-9381
e. brad@reid-deleye.com

Project Description

13 Sanders Street is a 100% electrically powered, Net Zero affordable seniors housing building owned by Tillsonburg Non-Profit Housing. The facility contains sixteen (16) 1-bedroom units that include individual exterior access. The building includes a centralized laundry room that contains multiple condensing dryers, eliminating the need for make-up air in the laundry room and significantly lowering the clothes drying energy.

The building is heated and cooled via a heat recovery variable refrigerant flow (VRF) system, allowing each suite to be in heating or cooling mode independent of the rest of the building. Suites feature ducted VRF fan coil units, allowing proper delivery of heating and cooling air into the bedrooms. Individual Energy Recovery Ventilators (ERVs) and electric water heaters are provided for each suite. Zon Engineering Inc. provided a full range of mechanical design services, as well as, designed a 72 kW AC solar photovoltaic rooftop array. Air tightness testing was also carried out by Zon staff, and the final result achieved was 0.75 air changes per hour at 50 PA, which was well below the 1.0 ACH@50Pa target set for the building.



zon engineering inc

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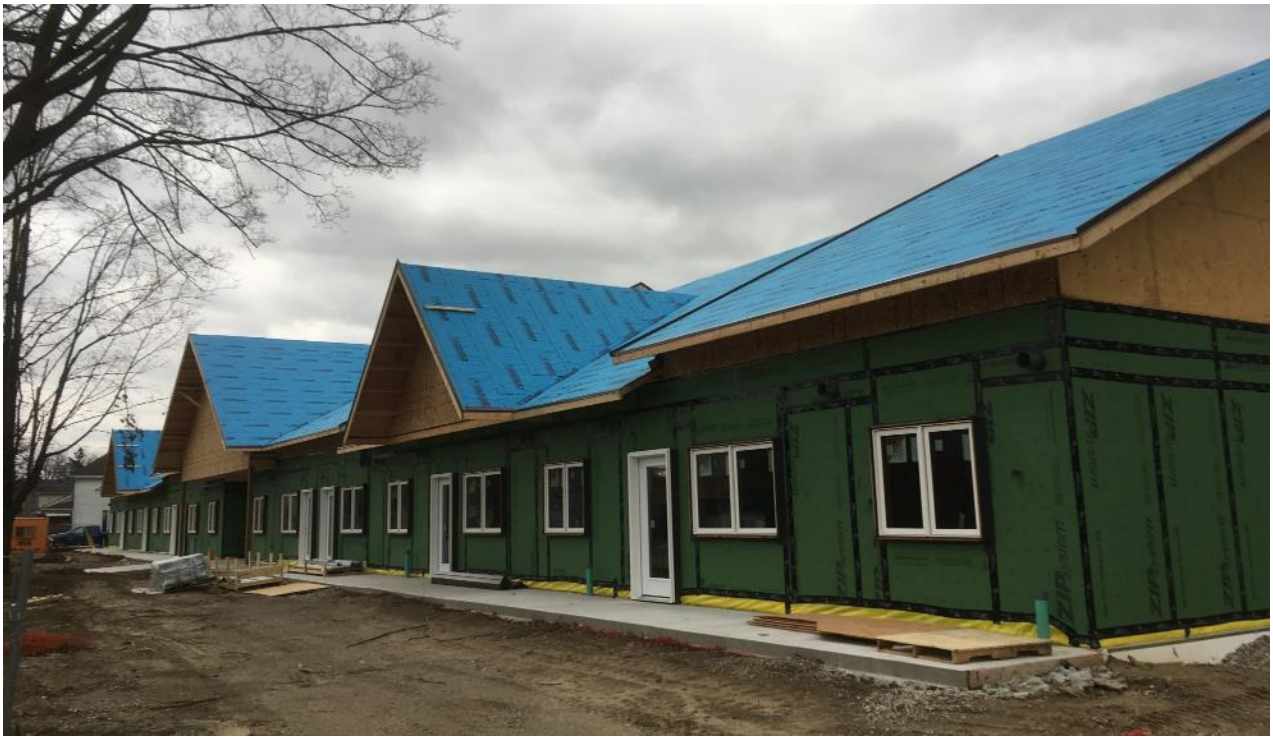

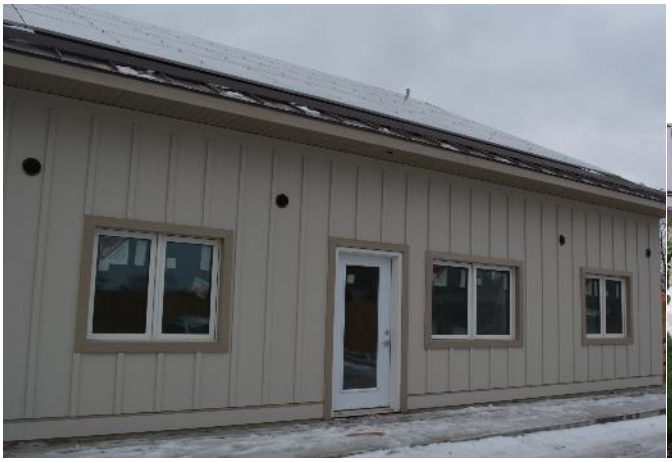

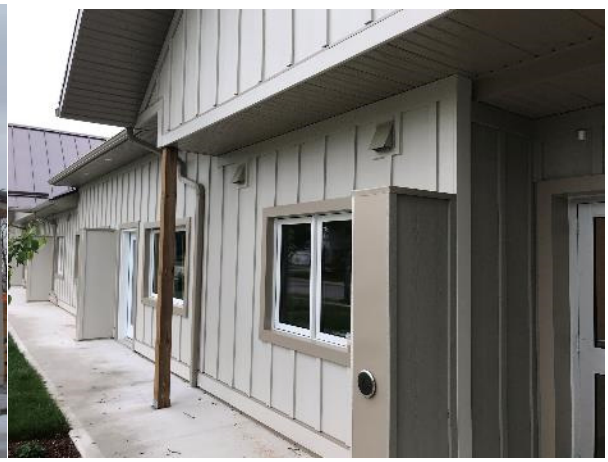

465 Pinebush Road, Unit 5 | Cambridge ON | N1T 2J4 | 1.888.338.6363 | www.zonengineering.com