



THE EDDY



BACKGROUND

Ottawa-based Windmill Developments, Canada's greenest condominium developer, commenced work July 2013 on The Eddy, a modern, six-storey, sustainable infill condominium building in the heart of Hintonburg.

With its innovative approach to sustainability, The Eddy is one of the few LEED Platinum condominiums in Canada. It harnesses innovations that optimize the use of land, water, air, energy and building materials towards a goal of zero ecological footprint buildings. All of Windmill's projects have achieved LEED certification, which is an internationally accepted benchmark for the design, construction and operation of high performance green buildings.

Contracting and construction management company Pomerleau led the development of this project. The team selected Alliance as the mechanical contractor for The Eddy project for its design-build experience and geothermal knowledge.



THE GOAL

To achieve LEED Platinum status and to build six storeys of green, urban condominiums that will set new standards for architecture, design and smart, healthy living. A model for green innovation, The Eddy with its unique shape includes:

- Geothermal heating and cooling
- Rain water collection and recycling

GEOTHERMAL HEATING AND COOLING

A ground-source geothermal heating, ventilating and air conditioning (HVAC) system for heating and cooling. This comprises fourteen 510 foot (155 metres) boreholes with tubing loops that capture the ground's consistent 55° F (13°C) temperature and transfers it to the building. Energy Recovery Units installed throughout the building help with heating, cooling, ventilation and dehumidification.

RAIN WATER COLLECTION AND RECYCLING

Rainwater is harvested from around the site and stored in a 60,000-gallon (272,800-l) underground tank. This is then used for interior irrigation and toilet flushing. Ultra-low flow plumbing fixtures ensure that the collected water is used sparingly.



THE RESULT

With a team approach to designing and implementing this 52-unit building, it was completed successfully in 2015. It incorporates Ontario's first (and Canada's second) underground puzzle parking system, which will use 60% less space and keep emissions outside the building, and will also be among the first condominium projects to include a geothermal heating system.

Windmill Developments won the 2015 Community Energy Builder Award for the "Real Estate Sector" for The Eddy Condominium as it offers six storeys of a green, urban condominium that sets new standards for architecture, design and smart, healthy living in Ottawa, exceeds energy efficiency standards by 50%, and incorporates a geo-exchange heating/cooling system.



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