

Owner:

KW Homebuilders

Architect:

Snider Reichard & March

Our Services:

- Sustainable Design Facilitation
- Energy Efficiency Consulting
- Mechanical/Electrical Design
- Building Commissioning
- Building Energy Performance Measurement

Status:

Completed 1991

Recognition:

- Winner, Natural Resources Canada Advanced Houses Design Competition
- Featured in the American Institute of Architects' Environmental Resource Guide
- Winner, American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) 1996 Technology Award-Residential
- Canada's contribution to Task 13 (Low Energy Buildings) of the International Energy Agency

The Waterloo Region Green Home

Canada's Advanced House

Waterloo, Ontario

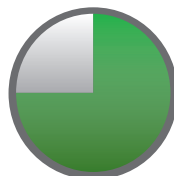


The Waterloo Region Green Home is one of the most advanced houses in the world from the viewpoint of energy efficiency, resource conservation, and environmental impact. The Green Home is a three-bedroom, 234 m², raised bungalow. Few noxious emissions resulted from the manufacture of materials used to construct or furnish

the Green Home. Construction waste was almost nil. The materials selected for the Green Home shell and interior contain a high percentage of recycled constituents. Many furnishings were reused and refurbished. No ozone-depleting CFCs or HCFCs were used to construct or operate the Green Home.

Notable Features

- Native, drought-resistant species for landscaping
- Stormwater infiltration through terraced slopes and hollow-core paving
- Precast basement walls (50% less concrete)
- Factory-built truss system for exterior walls, floors, and ceiling
- Triple-glazed windows with foam-filled fibreglass frames
- Combined gas furnace/heat recovery ventilator
- Air-conditioned by outside ground and rainwater circulated through buried plastic tubing
- Solar-heated hot water system with a PV-powered pump
- Cistern-stored rainwater for toilets, the garden, and cold laundry water
- CFC-free refrigerator/freezer with separate compressors
- Interior glass block wall for daylighting
- Recycled glass floor tiles with gypsum underlay containing waste paper



75%
Energy Savings



75%
Indoor Water Savings



~40%
Raw Materials Savings