

LIBRARY AS A PLACE

GREEN TECHNOLOGY: OPPORTUNITIES AND IDEAS FOR LIBRARIES

A photograph of the Halton Hills Public Library Acton Branch at night. The building is a modern structure with large glass windows and doors, illuminated from within, showing bookshelves and interior decor. The exterior features wood paneling and a stone wall on the right side. A set of stairs leads up to the entrance. The foreground is covered in snow, and the background shows dark trees and a clear night sky. The text "LIBRARY AS A PLACE" and "GREEN TECHNOLOGY: OPPORTUNITIES AND IDEAS FOR LIBRARIES" is overlaid at the top. The building's name "HALTON HILLS PUBLIC LIBRARY ACTON BRANCH" is visible on the exterior wall.

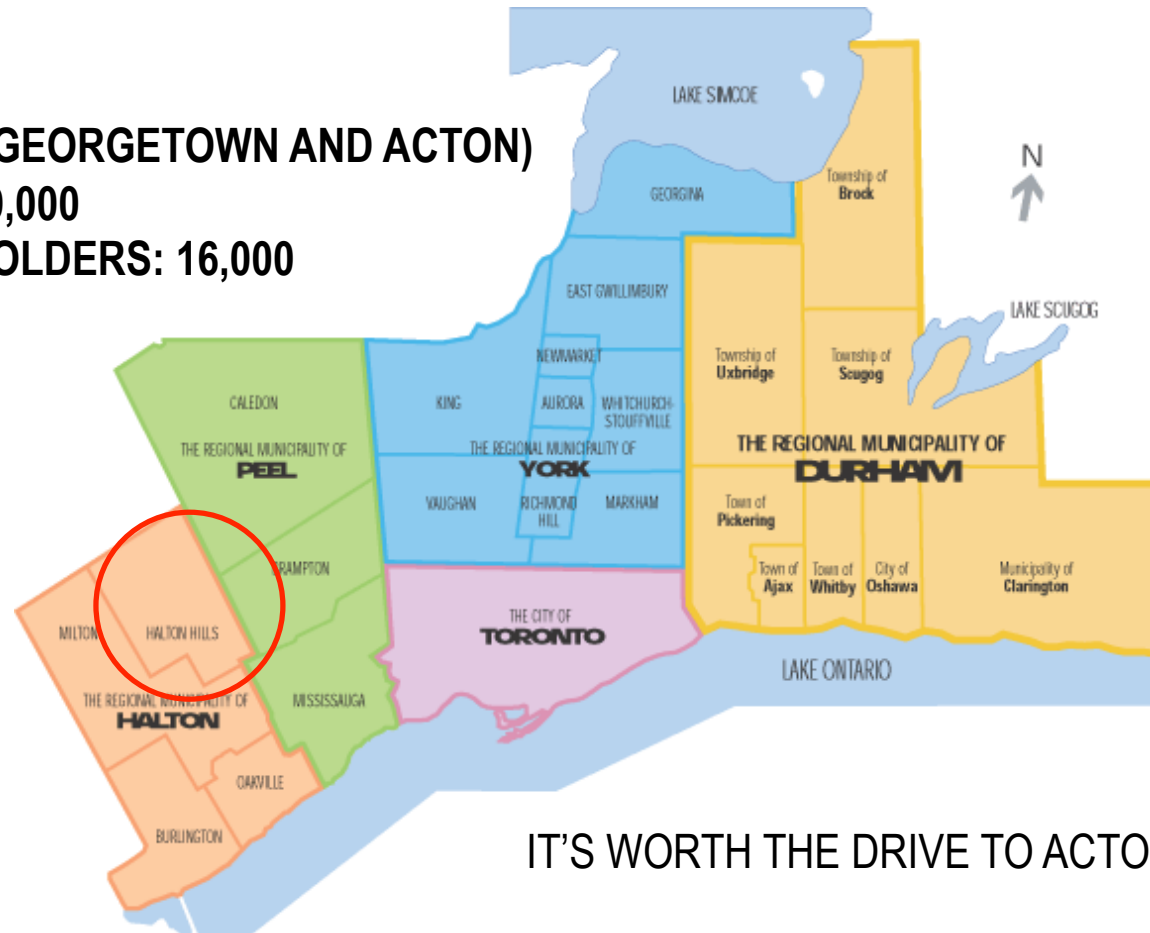
Chamberlain
Architects
Constructors
Managers

Chamberlain Architect Services Ltd.

HALTON HILLS (GEORGETOWN AND ACTON)

POPULATION: 59,000

ACTIVE CARD HOLDERS: 16,000



IT'S WORTH THE DRIVE TO ACTON

Library as a Place

Green Technology: Opportunities and Ideas for Libraries



Long Standing Commitment

Green Plan

**Water
Efficiency**

**Policy
Leadership**

**Building Retrofits
& Operations**

**Energy
Conservation**

**Public
Engagement**

**LEED
Development**

**Recycling
& Reuse**

Green Products

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Green Technology: Opportunities and Ideas for Libraries



Focus: The Corporation

- **Conservation policies**
- **Development standards**
- **Anti-idling policy**
- **Energy performance**
- **Rain barrel incentive**
- **LEED standards**
- **E-meetings**
- **Renewable energy**
- **Green procurement**
- **Sustainability Coordinator**

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Old Acton Branch



- Built in 1967
- 3700 Square Feet
- Not Accessible
- Limited Natural Light
- Insufficient Space - collection and study
- Not Energy Efficient

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New Acton Library



- Infrastructure Stimulus Fund
- Price tag: \$4.1 Million
- 9000 Square Feet

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ACTON LIBRARY



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ACTON LIBRARY



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ACTON LIBRARY



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*“Unless someone like you cares a whole awful lot,
nothing is going to get better. It’s not.”*

- Dr. Seuss, from The Lorax

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GREEN DESIGN



HOW DID WE GET THERE

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A PROCESS involving the Owner, Architect and Constructor, IPD combines the talents, experience and knowledge of all parties to ensure measurable project success



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and Ideas for Libraries

Green Technology: Opportunities and Ideas for Libraries

Green Technology: Opportunities and Ideas for Libraries



BIM = A PROCESS involving the generation and management of digital representations of physical and functional characteristics of a building



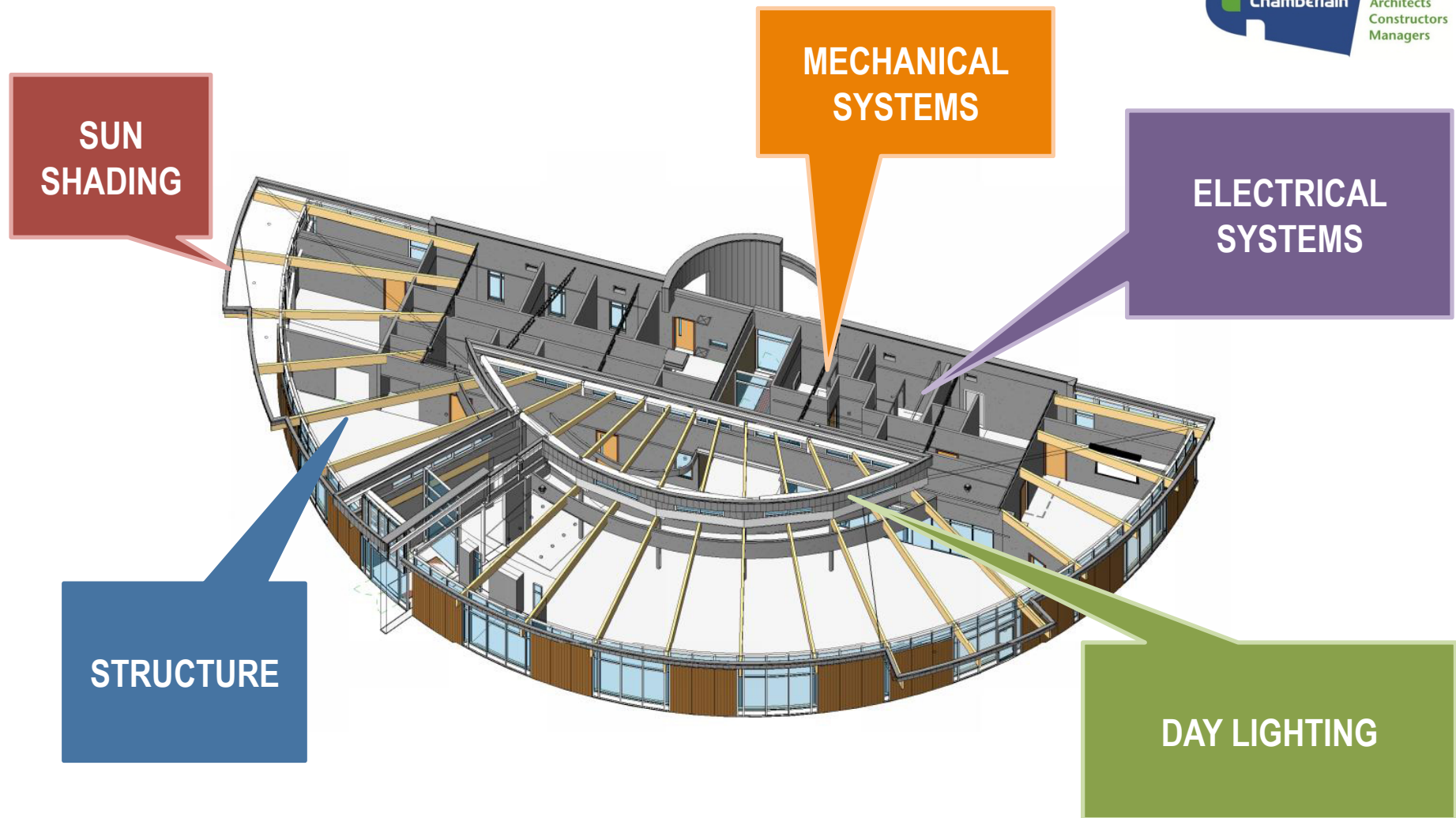
REVIT = A SOFTWARE TOOL which enables the process

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BIM MODEL



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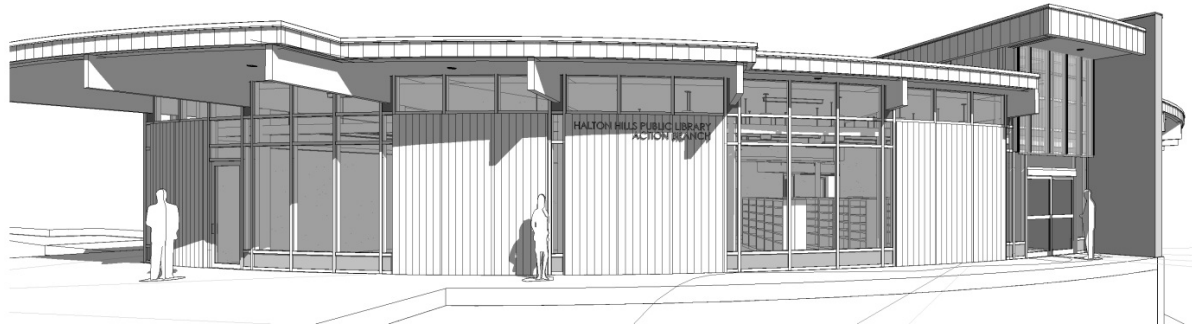


Architects
Constructors
Managers



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BUILDING MODEL



BUILDING



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GREEN INITIATIVES



HOW DID WE GET THERE

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GREEN BUILDING=

A RESPONSIBILITY involving the advancement of green building and sustainable community development practices in Canada



LEED= A PROGRAM that sets a benchmark for the way built environments are designed, constructed, and operated

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CONSTRUCTION



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What is a **Green** Library?



It saves energy.

We have reduced energy consumption by 55% with automatic sensors for lights. Now, we only use them when we need them.

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What is a **Green** Library?



It has a low carbon footprint.

We use geo-thermal energy to heat and cool this building. This saves money and reduces carbon emissions.

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What is a **Green** Library?



It's a healthy space.

We used low VOC (Volatile Organic Compounds) materials in our carpet, paint and adhesives. Everyone can breathe a little easier.

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GOAL

ACHIEVEMENT

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GOAL

ACHIEVEMENT

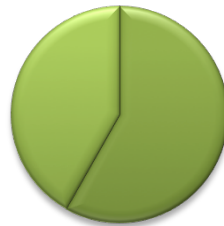
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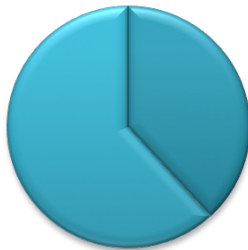


ENERGY SAVINGS

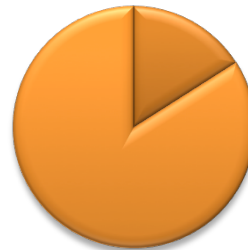
%59



INDOOR WATER SAVINGS %42



RAW MATERIALS SAVINGS %16



LEED® Project Facts

Gross Floor Area: 854 (m²)

Energy Density: 172 (kWh/m²)

Category	% Performance	
Water Savings		
Irrigation	100	%
Indoor Use	42	%
Energy Savings		
	59	%
Waste Diversion		
	92	%
Recycled Content		
	16	%
Regional Content		
	28	%
Daylighting		
	87	%

LEED® Gold



LEED NC Gold Certified
Completed 2011
Acton, Ontario

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