

Eco Building



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GREEN
@ the Library

Our Mission

The Gaynor Family Regional Library is a destination like no other. Space to relax and read, enjoy a conversation or take in a class. All the while knowing that every effort has been made to reduce the buildings impact on your environment. The Library is designed and constructed to meet the requirements of Manitoba's Green Building Policy. The building and process has been independently verified and recognized as Power Smart and designated with a three Green Globe rating.

These ratings are based on the design of new and renovated buildings. How the building is constructed and how it performs from an environmental, energy and CO² reduction status.

Our facility is 38.7% more efficient than the Model National Energy Code for Buildings (MNECB).



Site/Urban Prairie

The Library encourages non personal vehicle use, through public (bus) transportation with a pick up and drop off location, bike racks and pedestrian only walkways.

The high efficiency parking lot lighting is controlled by the WattStopper system, which functions only as required.

A parking lot avoids heat islands with considerable green space.

All rain water and parking lot drainage is handled on property using the natural prairie as a filter. A partnership with Lake Friendly Manitoba and the East Interlake Conservation District has been created an Urban Prairie oasis.

Local farmers helped provide the composted biomass for the soil used in the Urban Prairie.

The structure was strategically oriented to capture the regional prairie vista. In the landscape, a system of bio-swales were introduced to direct water to the existing natural drainage

The total size of the project is just under five acres, three acres of which are dedicated to the Urban Prairie reserve. Over 50 different local and natural grasses and flowers were used to return the property to its original historical state.

Welcome to your Library



Reuse Where Possible

All Library shelving was repurposed from the following sources:

- our existing metal and wood shelving from old Main Street location.
- Provincial surplus metal shelving
- Wooden shelving from bankruptcy sale

Used existing site infrastructure:

The existing paved lane from a failed development was used to create the rear walkway and path. This reduced site waste and saved the environment and cost of replacing it.

Recycled materials used:

- Reclaimed woods used throughout the facility and furniture.
- Our local Gerdau Steel mill uses all recycled metals. The steel was purchased from the Iron works they supply.
- Composite counters used recycled glass
- Carpets were made from 100% recycled carpets.
- Flooring was from recycled materials
- Ceiling tiles from recycled materials

Local Sourced Materials

The base of the building is comprised of local **Manitoba Tyndall stone** from nearby Gillis Quarries, laid out in a layered, repeating random ashlar pattern to maximize material efficiency and reduce wastage

Reclaimed wood (ash and fir) was from local Manitoba sources.

The contractor, subcontractors and professionals hired were all from within 50km of the worksite which reduced the impact on the environment for commuting and no long distance travel was required.

Construction materials were sourced locally whenever possible with the majority within 100km of the site.

Designed Green

Design was tested using computer modelling to maximize saving and reduce environmental impact.

Extensive use of windows to provide natural light and reduce energy use. Careful modeling of the sun allows the windows to maximize heat in the winter and the extended roof reduces this heat in the summer

Ground source closed loop geothermal heating and cooling system; 87% estimated annual energy cost savings versus a conventional system

Built green

Construction waste was minimized throughout the process and excavation soils were used on the property as part of the drainage system.

High Tech Savings and Comfort

Computer modelling during design.

Delta DDC (direct digital control) – Computer controlled HVAC to maximize energy efficacy and increase comfort

WattStopper – Programmed lighting system to reduce energy use

Fresh air is handled by three separate heat/energy recovery ventilators (HRV/ERV). These units reduce energy processing by exchanging the energy contained in exhausted building air and using it to treat (precondition) the incoming outdoor ventilation air. CO² levels are monitored throughout the building.

All bathroom fixtures (toilets and sinks) are low water use and are powered by ambient light (via solar cells) to turn on water and flush.

High Efficiency Lighting c/w motion sensors, supplements the abundance of natural daylight provided by both the clerestory and full height windows

Maintaining Green

Green cleaning policy which means that only green eco certified products are used to clean the facility. This insures that we are lake friendly and avoid adding non biodegradable compounds into our environment.

We do not burn any fossil fuels in the building.

Only Low VOC/emitting paints, sealants and finishes used.

