

Sunova | credit union

Main Street - Winnipeg, Manitoba

Investing in Sustainable Community

Eco•Facts



sunova

PRAIRIE
ARCHITECTS INC.

Creating Sustainable Futures

The building has been submitted to the CaGBC for LEED certification and expects to be certified at the Silver level.



Prairie Architects Inc.
200-141 Bannatyne Avenue
Winnipeg, Manitoba R3B 0R3
Phone: 204 956.0938
<http://www.prairiearchitects.ca>

This new 7500 square foot franchise building is located on 2526 Main Street in the growing Riverbend area of Winnipeg. Designed to achieve a LEED® Silver rating, the building features a geothermal system, radiant in-floor heating, operable windows, occupancy sensors, energy efficient lighting, water saving fixtures and materials with recycled content. The main architectural feature is the building's dramatic, curving roof. The expressive glulam structure is visible from the exterior and is contained within a glazed atrium exposing the interior spaces – banking hall, members' lounge, and meeting rooms – to high levels of natural light and extensive views of the surrounding area. The lower volumes – the credit union's meeting rooms and an adjoining insurance agency - embracing the atrium are clad in rustic tyndall stone and wood texture fibre cement paneling which is continued as a horizontal band above the stone which wraps around the entire building. The building was designed to serve as a prototype landmark building that could be duplicated in other locations around Manitoba. A second building was concurrently built in the town of Oakbank, 30 minutes northeast from Winnipeg. Both locations opened to the public in the summer of 2011.

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The following is a summary of the health, performance and environmental features of the building based on the LEED (Leadership in Energy and Environmental Design) criteria:



Sustainable Sites

Sunova Credit Union is built on an **previously developed parking lot site** in the Riverbend Area. The site is located **within 300m of 2 bus routes**, encouraging alternative transportation methods for students and staff. **Shower facilities and bike storage** have been provided for building staff to encourage cycling to work. The heat island effect was mitigated by using a **light coloured roofing material** on the entire roof area. Careful thought and planning was put into interior and exterior lighting design on the building so as to reduce **light pollution** being emitted from the building.



Water Efficiency

The building maximizes water efficiency by the use of **aerator faucets and dual flush toilets**. These measures contributed to a total **water use reduction of 49%**. There is no permanent irrigation equipment needed for the site's vegetation, as they have been designed with **native, drought-tolerant species** that will not require irrigation once established.



Energy & Atmosphere

Elements of the building design were selected to maximize employee productivity and comfort and minimize energy consumption. Sunova achieved an **energy cost savings of 45.9%** compared to a baseline building designed with the Model National Energy Code for Building's standards.

To minimize the impact of the building on the depletion of the ozone layer, **all systems are CFC and HCFC free** and the fire suppression system contains **no halons**. Increased energy efficiency reduces environmental impact in relation to energy production and building systems emissions.



Materials & Resources

During construction, **94%** of construction wastes were diverted from the landfill and were either recycled or salvaged. Over **18%** of new materials, including carpet, concrete and steel, contained recycled content and **17%** of new building materials used were extracted and manufactured within an 800km radius of the project site or transported by rail within a 2400km radius.

A **durable building** ensures the selection of durable materials and components, quality control during construction, and increasing the service life of the building.



Indoor Environmental Quality

Sunova Credit Union is a non-smoking building and has been designed with optimal ventilation that includes a 100% fresh air ventilation system, to provide excellent indoor air quality for staff and visitors. All carpet, adhesives, sealants, paints, and coatings used in the building were specifically chosen to have a low level of Volatile Organic Compounds (VOC). VOC's can cause irritating effects or health issues for the installers as well as the building occupants. All composite wood used including bamboo veneer, plywood, MDF, and particleboard contains no added urea-formaldehyde.

An **Indoor Air Quality Management Plan** was in effect during construction including measures such as covering openings in ductwork, keeping a clean worksite, and scheduling, to protect the indoor air quality of the building during construction. The building was designed so that **over 90%** of regularly occupied spaces receive **natural daylight**. In addition, **over 90%** of spaces have direct **views** to the outdoors.



Innovation & Design Process

Sunova Credit Union has hired a janitorial company that offers "Green Cleaning" services. They were chosen to maintain high standards of cleanliness and protect occupants' health while minimizing negative impacts to the environment. This will be achieved, broadly, by ensuring that cleaning products used are certified by either Environmental Choice (Canada) or Green Seal (US), and by performing janitorial duties in accordance with Green Seal's GS-42: the Environmental Standard for Cleaning Services. *checking main streets company for compliance* Sunova is proud of their efforts in sustainability and committed to communicating the importance of green building and sharing the lessons they have learned with their staff and members of the community. The **Environmental Education Program** implemented includes tours of the building and a high-quality brochure on the building that is available to staff and any visitors to the building.



LEED CHECKLIST

