Community Wellness Centre

Komoka Ontario

Designed by CORNERSTONE ARCHITECTURE

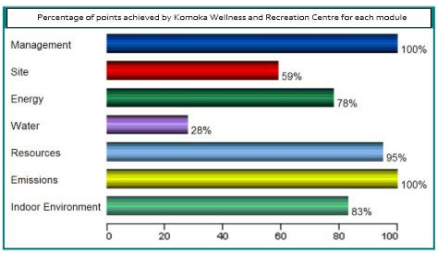
Certified August 2010

Community Wellness & Recreation Centre

The quiet community of Komoka, just outside London is now the proud home to a wellness and recreation centre that stands head and shoulders above the rest. By implementing a number of innovative, energy-saving technologies, such as ecochillers, a vast PV array and a thoughtful collection of passive features, Cornerstone Architecture was able to create a facility that will provide the public with the resources they need, without a crippling operating budget.

Light and airy interior spaces provide a healthy and comfortable space for people to enjoy sports, leisure activities and social gatherings. With two NHL-sized ice rinks, a double gymnasium, a library, activity spaces and plenty of office space, the public has access to many facilities for learning, exercise, socializing and work.

With a modeled annual energy use forecast of 140 *e*kWh/m², the design was on the path to success from the outset. Now constructed, and the target energy intensity realized, the occupants are delighted that such an efficient building has not compromised on thermal and indoor comfort. Thoughtful design in the general orientation of the structure as a whole and the placement of glazing made it possible to meet lighting and ventilation needs naturally, which resulted in lower energy demand of active systems. Shading was integrated to block unwanted solar heat gain during the summer months, while still allowing the winter sun to penetrate deep into the building. The addition of a huge 300 kW PV array has added further efficiency, value and revenue for the building, producing in excess of 350 MWh a year of green energy. Komoka was able to attain the maximum available points under the Green Globes Management section by following an integrated design process throughout. By integrating all the stakeholders and trades, cohesiveness was ensured and strategies developed to achieve a wide range of sustainability objectives including reduced costs associated with modifications to systems in the building during and post-construction. This building stands as proof that when sustainability and quality is demanded, the result can still be efficient while also providing all the resources a community needs.



Project Highlights

- 80% more energy efficient than the MNECB
- T5 Lighting
- Innovative shading
- EcoChiller Cooling
- EnergyStar RTUs
- Integration of passive features
- On-going Commissioning
- Low-Flow Water Fixtures
- Condensing Boilers
- Pervious Pavers
- Maximized solar and wind exposure through orientation
- 300kW Rooftop photovoltaic array
- Complete Building Automation System
- Energy Modeled Design
- 80% of interior spaces day lit