

Materials and Resources

- storage and collection / separation of recyclables provided
- diversion of 75% of the construction waste from landfill
- use of recycled content and regional materials for new construction



Indoor Environmental Quality

- achieved required indoor air quality
- provided environmental tobacco smoke control
- provided carbon dioxide monitoring
- employed indoor air quality management plan during construction and before occupancy
- indoor materials are low V.O.C. (volatile organic compounds): to minimize off-gassing and to exclude urea formaldehyde
- provided high level of thermal comfort, and controllability of ventilation and lighting system, by occupants
- provided natural daylight for 75% of occupied spaces

Innovation and Design Process

- provided green and sustainable house keeping
- secured ongoing sustainability education program for public
- achieved exemplary performance with 40% reduction of water use
- design team included LEED accredited professionals
- provided an integrated pest management plan

*LEED (Leadership in Energy and Environmental Design) is a North American rating and certification system that evaluates energy performance and sustainable building practice. Canada Green Building Council.



GREEN FEATURES OF KILLARNEY COMMUNITY CENTRE



Photos by Nic Lehoux

ENERGY
ATMOSPHERE
MATERIALS
RESOURCES



vancouverparks.ca

Vancouver Board of Parks and Recreation
Planning and Operations Department
2099 Beach Avenue, Vancouver, BC V6G 1Z4



Background

The Killarney Ice Rink and Lobby Addition is a replacement of an existing lobby and ice rink, and a new addition to Killarney Community Centre, which will continue to incorporate a pool facility, an ice rink, and a community centre. The new addition will comprise of an ice rink, convertible to NHL or Olympic dimensions, as well as a lobby and supporting facilities. The total floor area of the new portion of the building is 3658.8 m² (39,383 ft²). The new lobby was constructed on the footprint of the old lobby and foundation, and the new ice rink was constructed



in the approximate location of the old ice rink. The project has been designed to take advantage of inherent synergies between new and existing building systems. The new mechanical system connects into the existing pool system. This interconnection allows for the new system to harvest waste heat from the ice plant and use the waste heat to heat the new building, as well as to provide domestic hot water preheat in the existing pool, and energy to the pool heating systems.

During the 2010 Olympic and Paralympics Winter Games, the ice rink will be used as a speed skating training facility that will maintain an international-sized ice sheet with 250 spectator seats. However, during Legacy mode after the Olympics, the ice surface will be converted to a narrower NHL sized configuration and the 250 seats will be retained but reconfigured. The remainder of the facility will remain unchanged by the conversion.

Killarney Ice Rink

In keeping with the Park Board's ongoing commitment to sustainability, this facility is built to high environmental standards, targeting LEED* Gold certification. This includes the following features:

Sustainable Sites

- erosion and sediment control plan
- appropriate site selection
- public transportation access
- bicycle storage and change rooms provided
- sustainable parking strategies provided: car-pooling
- maximum reduction of heat island effect at roof: to reduce the impact on wildlife habitat
- light pollution reduced through sustainable electrical design: to improve night sky access

Water Efficiency

- Use of low-flow water efficient fixtures, including dual-flush water closets
- 40% reduction in water use
- water-efficient landscaping provided - requiring no additional irrigation

Energy & Atmosphere

- optimized energy performance: more than 38% in energy cost saving
- excess heat from ice slab cooling is used to heat the rink and pool
- ongoing measurements and verification of building systems: to verify efficiency of energy use
- best practice building commissioning: to optimize efficiency of energy use
- elimination of HCFC and Halons in HVAC equipment: to reduce green house gas emissions

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