Scotiabank Convention Centre

Niagara Falls, Ontario

The Scotiabank Convention Centre has been designed to meet or exceed many of LEED's sustainable criteria. This highlights the Scotiabank Convention Centre's commitment to providing both a healthy and comfortable environment for the building occupants, as well a commitment to environmental stewardship.

Occupant Comfort and Welfare

During construction, an Indoor Air Quality (IAQ) Management Plan was implemented and only low VOC (volatile organic compound) materials were used in the interior of the building to minimize indoor air contaminants. Additionally, all composite wood products used were free of any added urea-formaldehyde resin. After construction, an indoor air quality test was performed to ensure good indoor air quality and low exposure to contamination due to construction activities.

In all densely occupied spaces, Carbon Dioxide (CO_2) monitors, as well as thermal comfort monitors, were installed to ensure that adequate fresh air and thermal comfort is provided to these areas. The building's HVAC and refrigeration equipment do not contain HCFCs in order to reduce ozone depletion.

PROJECT TEAM

Client:
Scotiabank Convention Centre
Architect:
CS&P Architects Inc.
Contractor:
Bondfield Construction Company Ltd.
Project Manager:
MHPM Project Managers Inc.
Civil Engineer:
Upper Canada Consultants
Mechanical Engineer/ Electrical Engineer:
MCW Consultants Inc.
Landscape Architect:
NAK Design
Building Science Professional
Trow Associates Inc.
Commissioning Agent:
Global Commissioning Services Inc.
LEED Consultant:
Jain Sustainability Consultants Inc.

Energy Savings

The building's mechanical system was designed to be extremely energy efficient. The building is equipped with high efficiency gas-fired modulating boilers and variable speed circulation pumps and heat recovery units to improve the overall energy efficiency of the HVAC system by extracting heat from the air leaving the building and adding it to the fresh air entering the building, thereby pre-heating it. Also, other energy saving strategies such as low emissivity glazing, reduce lighting power density, and installing occupancy sensors. Overall the building has been designed to achieve annual energy savings of 55%, by cost.

Water Efficiency

To reduce the building's use of potable water, low-flow plumbing fixtures, including low-flow toilets and low-flow urinals, were specified throughout the building. Overall, the building will achieve water savings of over 44%; saving 6,760,000 Litres of water per year. The landscaped areas were planted with native and adaptive species which will require no irrigation.

Sustainable Building Materials

The building's roof is highly reflective such that it reflects much of the sun's rays, thereby reducing the heat island effect. Over 13% of the building materials used in construction were manufactured from recycled materials. To reduce the environmental impacts associated with the transportation of materials, 25% of materials were locally extracted and manufactured. Furthermore, a Waste Management Plan implemented during construction succeeded in diverting 85% of construction waste from landfill.

Green Building Operations

A green housekeeping program has been implemented, which ensures that only environmentally friendly cleaning products are used. Moreover, a green education program has been developed to take advantage of the educational value of the building's green features. The program includes interior building signage as well as a guided tour of the building, both highlighting some of the sustainable features incorporated into the design and implemented during the construction of the building.