INTEGRATED LEARNING CENTRE, QUEEN'S UNIVERSITY: KINGSTON, ONTARIO

Firm's Role

Sustainable Design Consulting

Description

The Integrated Learning Centre at Queen's University is a building designed to both house student facilities as well as to provide a multidisciplinary learning environment for students to integrate engineering theory and practice with a focus on sustainable design. The 7400 m^2 (79,600 ft^2) facility will house administrative offices, group workrooms, labs, workshops, and a computer plaza. The client's key requirements, sustainability, and energy efficiency were met through extensive integrated design, Athena-guided low embodied energy construction, and BREEAM evaluation.

Features

- Photovoltaic electricity generation
- North daylighting atrium
- Enthalpy recovery ventilation and displacement ventilation
- Ventilation controlled by CO_2 concentration monitors
- Lighting controlled by light level and occupancy sensors
- Breathing Wall providing biofiltered air
- Living Building concept allowing students to learn by monitoring the building's performance as part of their curriculum
- Raised floor, providing informational connectivity by facilitating the 'invisible' connection of the computer network and a fully instrumented building monitoring system
- Social connectivity via interior street links, interconnected spaces, and informal gathering nodes

Architect: Bregman + Hamann Architects

Owner: Queen's University

- 37% energy savings over MNECB
- 4-Leaf BREEAM rating