

Kenneth C. Rowe Building

6100 University Avenue

Alex Walker and Peter Howitt

www.management.dal.ca

Introduction

Education facilities have a great responsibility to inspire young people and prepare them for the future. It is important that they set a good example for the next generation by promoting and encouraging environmental awareness and sustainable living. We can applaud Dalhousie University for joining other education facilities around HRM by including green features in their buildings. The Kenneth C. Rowe Building was built in 2005. It measures 122 000 ² feet and has several green features.

Heat Pumps

The Rowe building has a heat pump system that heats and/or cools the interior. Heat pumps are a sustainable method of temperature control because they have the ability to move energy from areas where it is not needed to where it is needed (ie. take hot air to a cold area or vice versa). The Rowe building's HVAC system includes 173 water source heat pumps that are connected through a water loop. These pumps require less energy to run than a typical oil or gas system because each individual pump is responsible for and responds only to the heating or cooling demand of its specific zone.



Passive Solar Energy

The Rowe building uses a unique but simple method to supplement their heating and cooling system. Horizontal overhanging grates are installed above the exterior windows. In the summer they block excess sunlight so the building does not overheat, but in the winter the sun is lower and overhanging grates do not interfere. With this simple technique the building is able to make careful and efficient use of the sun's heat and light.

Daylighting

The open five-storey atrium and large skylight allow for natural light to provide daylighting for the lobby area and staircases of the Rowe building, minimizing dependence on electricity.



“Greening the Campus”

Dalhousie University has taken a number of eco-friendly steps to improve the campus. Across campus a source separation waste management system is used, which requires that students and staff sort their waste into organics, recyclables, paper and garbage. Efficient T8 light bulbs have been installed in most buildings and are set to a motion sensor in low-use areas such as bathrooms. Low-flush toilets have been set up in the newer buildings to minimize water consumption. The university has also made an attempt to minimize off-gassing and is dedicated to using low VOC paints and carpeting.

Sustainable Transportation

Dalhousie University encourages sustainable transportation with Metro Transit’s U-Pass and also by installing bike racks across campus, including a rack on the east end of the Rowe building.

Future Initiatives

The roof of the Rowe building was designed with the technology to have a green roof so don’t be surprised if you think you see grass and other plants peaking over the edge in the near future!

