



Designed by KASIAN ARCHITECTURE

UBC Okanagan Campus

Kelowna BC



Certified October 2007

Fipke Multi-Purpose Academic & Research Facility

The University of British Columbia's Fipke Centre for Innovative Research provides 6,545m² of classroom, lecture hall and laboratory space for earth and environmental studies, biology, chemistry and ecology. Students will have access to the best resources available, made possible through generous grants from the Province of BC as well as the Fipke Foundation.

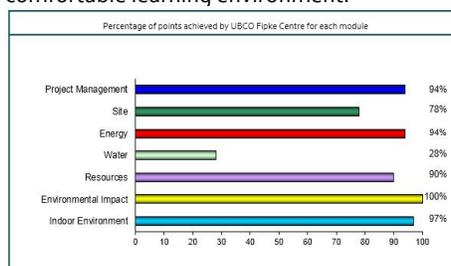
When the University of British Columbia's Okanagan Campus set out to build the new laboratory, they put sustainability at the top of their list of priorities. Since labs typically use excessive amounts of energy, they had their work cut out for them. The UBCO decided to use the Green Globes rating system to assist in guiding their design process, and to act as a barometer of their success in meeting green goals.

The Fipke Centre was the first building in Canada to receive 5 Green Globes, the maximum level of certification available. This was made possible through the thoughtful use of a variety of sustainability features built into the design. The UBC building was able to score well largely in thanks to its energy saving geo-exchange system and passive cooling features. This geo-exchange groundwater system was designed to eventually be tied in to the other existing buildings on the campus, which will result in significant energy and carbon reductions when completed.

Occupant wellbeing was also a priority when

designing the building and landscaping. By supplying natural light, fresh air, and thermal comfort using passive or low-energy technologies, this building demonstrates that energy efficiency can be achieved without compromising comfort. The landscaping integrates footpaths and wayfinding assistance, with a view to creating a pedestrian friendly campus.

Green Globes provided interactive guidance to address the principles of the integrated design process from goal-setting to concept design development and construction documentation. This ensured that all aspects of building performance were taken into consideration from the earliest stages. By addressing the use of building materials, site features, water consumption, the selection of equipment and appliances, emissions from the construction of the building and its operation, as well as design features that support good indoor air quality, thermal, acoustic and visual comfort, Fipke has achieved an efficient building and a healthy and comfortable learning environment.



Project Highlights

- 46% more energy efficient than MNECB
- 350 ekWh/m² vs. up to 800 ekWh/m² annual energy consumption on average for labs
- Innovative shading
- Geo-exchange groundwater energy system
- No VOCs
- Integration of passive features
- Building integrated wind tower, passive tech using changes in temp/pressure to force ventilation
- Regional materials and recycled steel content
- Supplementary concrete materials such as fly-ash
- Innovative layout, journey paths and routes, arrivals, orientation, crossing of paths, where and how learning occurs, emotional responses to spaces