



Conference celebrates collaborative networks in space design

by Julie Schooling, Corporate Publications Specialist

Ideas for designing landscapes that achieve sustainable communities and sites abound, but how do landscape architects translate these principles into practice? In leading off the BC Society of Landscape Architects' annual conference from May 2–3, 2008, **Patrick Condon** offered participants a very tangible and timely vision, one that considers that climate change is demanding innovative responses.

Condon holds the UBC James Taylor Chair in Landscape and Livable Environments, and is championing the Headwaters Sustainable Development Demonstration Project in Surrey. The Surrey project, as well as other case studies illustrated in the 2006 publication *Sustainability by Design* (a collaborative effort co-ordinated by the Design Centre for Sustainability at The University of British Columbia), embodies six guiding principles consistent with the Greater Vancouver Regional District's Livable Region Strategic Plan (1995):


- Good and plentiful JOBS close to home
- Different HOUSING types
- Mixed-use CORRIDORS accessible to all
- Five-minute WALKING distance
- Access to NATURAL areas and parks
- Lighter, greener, cheaper, smarter INFRASTRUCTURE

Condon emphasized that no one principle applied in isolation yields a successful physical form at either the neighbourhood or community scale. The challenge, he says, is "combining and layering these principles while trying to minimize the occasional conflicts between them." *Sustainability by Design* presents specific strategies, techniques, and targets to support achievement of each principle—it draws on the ecological concepts of corridors, edges, and nodes to paint a detailed picture of how well-designed sites can contribute to sustainable regions.

A case study of UniverCITY at Simon Fraser University, offered by **Cynthia Girling**, Chair of the Landscape Architecture Program at UBC, demonstrated how many of these approaches and techniques have been applied, and emphasized another important layer: the need to monitor the effectiveness of strategies being widely adopted in green neighbourhood development. Girling gave the example of stormwater quantity and quality. The dense development at UniverCITY aims to store and infiltrate over 90% of rainfall to closely

mimic the site's original hydrology and to minimize impact on downstream aquatic systems. Monitoring has shown that sub-standard construction site management and road salting are two practices that are impacting water quality. These findings, as well as many others, can feed back into the site's ongoing planning, implementation, and management.

Various presenters addressed benefits and challenges associated with green roofs. **Kathy Dunster**, author of the *Garry Oak Gardener's Handbook*, highlighted the largely unrecognized value of rooftops as habitat for species at risk, including birds (Killdeers nesting on a gravel roof!), insects, and plants. She encouraged city planners and designers to envision a "mosaic" of diverse rooftops at the neighbourhood and community scale. **Jamie McKay** described how the Centre for the Advancement of Green Roof Technology evaluates how well green roofs retain or delay storm water runoff and reduce heat gain (in summer) and loss (in winter) in Vancouver's climate. **Freda Pagani**, Director of Sustainability at UBC, cautioned designers to evaluate the benefits of alternate solutions for a given situation and the local climate—for example, in BC's lower mainland, insulation may be more effective than a green roof.

Kevin Connery, Sustainability Director with PwL Partnership in Vancouver, described a systems approach to landscape architecture, particularly with respect to flows of energy (via carbon) and water through cities and landscapes. He believes life-cycle assessment of specified materials, full-cost accounting (reflecting ecological costs/benefits), regenerative design (beyond sustainability), and clear ethical foundations for planning and design decisions are essential to supporting a healthy "urban metabolism." Connery points to resources available through the American Society of Landscape Architects' Sustainable Sites Initiative, which informs best practices in terms of hydrology, soils, vegetation, materials, and human well-being for application by planners, landscape architects, engineers, developers, builders, maintenance crews, horticulturists, governments, land stewards, and organizations offering building standards. The benefits of these site-level initiatives? As listed on the Sustainable Sites Initiative website, long-term benefits include reduced greenhouse gas emissions, moderated urban climate, enhanced biodiversity, water conservation, waste reduction, improved public health, and reduced energy consumption. 

For more information

Design Centre for Sustainability at UBC: <http://www.dcs.sala.ubc.ca/>

Sustainability by Design project: http://www.dcs.sala.ubc.ca/projects_sustxdesign.html

UniverCITY at SFU: <http://www.university.ca/>

Garry Oak Gardener's Handbook: http://www.goert.ca/at_home_garryoak_gardener.php

Centre for the Advancement of Green Roof Technology: <http://commons.bcit.ca/greenroof/>

ASLA Sustainable Sites Initiative: <http://www.sustainablesites.org/>