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Contributors
THE CHALLENGE SERIES TEAM
Roger Bayley
Principal, Roger Bayley Inc.

Sarah Cheevers
Writer and Project Manager
Sarah Hay
Communications Coordinator
Mizu Creative
Graphic Design

Rachel Moscovich
Writer and Project Manager
Nina Winham
Editorial Director and Writer

GUEST WRITER
Blair McCarry



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Millennium Southeast
False Creek Properties Ltd.

Millennium Group is an award-winning Vancouver-based team of professionals and the developers of Millennium Water Olympic Village. They are renowned for their disciplined commitment to high quality architecture and luxurious design. At 1.4 million square feet, Millennium Water is the largest single-phase development in Canada. It is designed to be Canada's largest LEED Gold neighbourhood and a leading model of how to build a sustainable residential community.



The City of Vancouver

The City of Vancouver prides itself as being one of the most livable cities in the world. The City has now also adopted the target of being the "Greenest City" in the world by 2020. Vancouver has received several awards for its various services and programs, including a United Nations (UN) award for Innovation in Public Service and being among the four inaugural cities invited to join the UN's Carbon Neutral Network. To further support these goals Vancouver has spent over a decade in conceiving, and now developing, the South East False Creek Olympic Village as a global model for sustainable urban development.



Metro-Can Construction
(OV) Ltd.

Metro-Can Construction is among the top 50 general contractors in Canada and the top five in British Columbia. Focusing on turning visions into buildings and delivering value to their clients, Metro-Can has completed over 280 institutional, commercial and multi-family residential projects. Since placing the first foundations on the Millennium Water project in June 2007, Metro-Can has proceeded to construct 10 LEED Gold buildings incorporating 540 condominiums, 250 social housing units, 60,000 square feet of retail space and a LEED Platinum community and boating centre.



ITC Construction Group

ITC Construction Group has proven capabilities in multi-unit residential, commercial and social housing construction projects. Established in 1983, they have successfully completed over 100 projects for private developers and public initiatives in BC and Alberta. ITC is proud to be the General Contractor of the eight luxury waterfront towers at Millennium Water. These LEED Gold certified structures consist of 315 condominiums and will be complemented by 13,619 square feet of commercial/retail space at the ground level. Quality Counts.



Rennie Marketing Systems

Rennie Marketing Systems (RMS) proudly leads the sales and marketing campaign for the residential component of Millennium Water. Led by Bob Rennie, RMS works closely as 'Millennium's representative' to bring to market the most innovative sustainable community in North America. Maintaining the project's identity of environmental awareness, RMS utilizes eco-friendly elements throughout the marketing campaign. RMS marketing objectives extend beyond sales achievements and include increasing global awareness of a new standard of development.



Durante Kreuk
Landscape Architects

Durante Kreuk is an award-winning landscape architectural firm with over thirty years' experience in the private and public realms of design and development. A broad perspective and diverse thinking are the key to creating a wide range of sustainable, people-focused urban places. At Millennium Water, the unique challenge of creating a sustainable neighbourhood through an integrated design process was both complex and rewarding. The result speaks for itself.



Olympic International Inc.

Olympic International creates comfortable, healthy and energy-conscious indoor environments. As a manufacturers' representative, they are committed to bringing the world's most innovative and sustainable technology to local markets. The Millennium Water project utilizes radiant heating and cooling technology, which will substantially reduce energy consumption and system noise, increase available ceiling height and improve overall thermal comfort and indoor air quality.



Enerpro Systems Corp.

Enerpro Systems Corp. are market leaders in intelligent energy management for new construction and infrastructure upgrades to existing buildings. Since 1996, BC's only customizable energy management programs have been providing no-cost, full-service solutions that maximize efficiencies in energy and water use, reduce consumption and provide numerous economic benefits. This groundbreaking innovation has spurred a series of firsts in energy management, such as the ability to view a real-time display of all energy and water consumption within 1,100 housing units at Millennium Water.



Keith Panel Systems

Keith Panel Systems (KPS) is North America's leader in the design, manufacture and installation of rainscreen wall systems. They are proud to be part of constructing Millennium Water. The wall systems installed by KPS will preserve the performance integrity of the exteriors, reduce the heating and cooling loads, provide an extended service life and are virtually maintenance free. Alucobond®, Swisspearl® and specialty glass are the quality exterior finish products featured on proprietary systems by KPS.



Wilco Landscape Westcoast Inc.

Wilco has become expert in the construction and delivery of built landscapes. Offering project management and landscape construction services for civil, parks and development projects, Wilco is a leader in successfully delivering complex projects to its clients. Wilco thrives on diversity and challenges and seeks out projects that require the depth of experience and knowledge that they have accumulated through the vast array of projects the company has built throughout BC and Western Canada.

GOLD



VANOC



Merrick Architecture



gBL Architects



Cobalt Engineering Co. Ltd



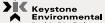
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Next Chapter: Water + Landscape

Chapter 6 looks at how we can manage water and build landscapes that will be more sustainable. Although British Columbia is known for its abundance of water, as the population increases the need to reduce water use – as well as learn to use it in smarter ways – has become critical. Topics include stormwater management, rainwater collection for toilet flushing and irrigation, water metering, green roofs and the role of urban agriculture and community gardens in sustainable communities.

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Information Sources

pages 12-13: http://vancouver.ca/sustainability/building_neu.htm; pages 18-19: Report on the Application of BEKA Radiant Heating/Cooling Systems using Katube Capillary Mats. Submitted to Millennium by Merrick Architecture.