

Exemplary Green Communities...a "snapshot"

Drake Landing Solar Community in Okotoks, Alberta, fifteen minutes south of Calgary, is being built by Sterling Homes. The first of its kind in North America, the 52 homes will be heated solely by warm water circulating through insulated, underground pipes. The solar thermal energy is collected in the summer, stored underground and returned to the homes as

heat during the winter. The project will be built to R-2000 and BuiltGreen™

Alberta "gold" standards, with each home saving 4.5 tonnes of greenhouse gas emissions per year.

BuiltGreen™ (www.builtgreen-canada.ca) is an industry driven, voluntary program promoting building practices that reduce the impact that building has on the environment. Currently available in Alberta and British Columbia, ratings are on a bronze/silver/gold basis with an eight point criteria: energy guide, operational systems, building materials, exterior and interior finishes, indoor air quality, wa-

ter conservation, waste management and business practices.

Windmill Developments, a leader in green building has received recognition for its groundbreaking development, Dockside Green, on Vancouver Island. To be built over the next 10 -12 years, the development will be comprised of 26 buildings incorporating the very highest in green standards. Their project, The Currents in Ottawa, is scheduled for completion in January 2007, and is being built to a LEED™ Gold certified target with a goal of 45per cent less energy and water usage, "smart" building technologies and innovative water, air, energy and waste management systems. The Vento in Calgary, a 20-unit town home development, is expected to earn a platinum certification, which would make it the first platinum LEED™ certified residential complex in the nation.

BY SANDI
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Formaldehyde Free Plywood

Columbia Forest Products manufactures hardwood plywood throughout the United States and Canada. Columbia is now in the process of converting all of its standard hardwood plywood production to produce formaldehyde free panels called PureBond™. The PureBond is a soybased natural formula, enhanced with a proprietary resin and will also enable Columbia to eliminate formaldehyde from its standard veneer-core decorative panel production. EcoColors™, a new line of decorative surfaces from Columbia Forest Products, adds colour and texture to interiors. Manufactured from their own fsc certified M3-grade particleboard, panels are finished both sides with a durable, zero emissions UV acrylic surface tinted in a range of colour options. The texture adds warmth and the usage is both commercial and residential interiors.

The Jazz

Incorporating the building façade of the 115-year-Club into 28-story Tower development no easy feat

By Don Procter



Project Team
General Contractor:
Deltera Construction Ltd.
Structural Consultant:
Jablonsky, Ast and Partners
Facade Restoration/replication:
Clifford Restoration Ltd.
Mechanical Consultant:
M.V. Shore Associates Ltd.
Electrical Consultant:
M.V. Shore Associates Ltd.
Interior Design:
esQape Design Inc.
Landscape Architect:
NAK Design Group
Geotechnical Engineer:
VA Geotech Ltd.
E.R.A. Architects: Heritage
Architectural Consultant

the street to minimize its impact. "One way to mitigate against these very tall buildings is to make the podium identifiable with the street – human scale. I think this is a great example," says E.R.A.'s Edwin Rouse.

Called The Jazz, the \$45 million tower is a development by B.C.-based Concert Properties Ltd. General contractor is Deltera Construction Ltd. Mario Cimicata, senior project manager for the Deltera, says before the rear of the Athenaeum Club could be demolished, steel shoring was installed to the full height behind the facade. Extensive remedial work was required on the foundation, bricks and existing windows of the facade. "The demolition had to be done by hand, a very slow and tedious procedure. "The facades of the two adjacent historic buildings were beyond repair in-situ so they were disassembled, taken off site for replication by Clifford Restoration Ltd. Sam Trigila, of Clifford, says it was the most economical method because shoring a façade can add 30-50 per cent to the contract price tag.

Before disassembling the facades, Clifford took photographs and created detailed measured drawings of the buildings. A complex cataloguing system ensured that every element -- right down to the individual bricks -- went back in

When plans were drawn for a 28-storey residential tower on Church Street in downtown Toronto, the objective was to design a building that fit into the street fabric. No easy task considering the Church Street suuoundings consists mostly of small Victorian commercial buildings.

What architect Burka Varacalli Architects Inc. did in conjunction with heritage consultant E.R.A. Architects Inc. was incorporate the building façade of the 115-year-old Athenaeum Club and two replicas of adjacent Victorian commercial buildings into the development and step the highrise tower back from



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the same place, Trigila says.

While facadism increases overall construction costs, owners often see a quick payback because they can charge higher lease and rental rates on a new building with historic features," Trigila claims.

The tower was one of Deltera's more difficult construction challenges in part because of the large seven-storey podium that features recreational facilities and 22-32 suites per floor. The challenge was

"While facadism increases overall construction costs, owners often see a quick payback because they can charge higher lease and rental rates on a new building with historic features," Trigila claims.

that the windows in the heritage facades dictated the placement of floor plates. While the end result was "very unique residential units", the problem was that varying floor plates ruled out the use of flyforms; everything was done with knock-down forms. "There was very little repetition in construction," says Cimicata.

The Jazz is one of the first residential highrises in Toronto to feature a green roof. "Twelve types of pre-cultivated sedum cover about 200 square metres of the 7th floor podium roof," says Sibylle von Knobloch of Nak Design Group, the development's landscape architect.

The plants are rooted in a one-inch deep vegetation blanket. Underneath is a felt layer which retains moisture, minimizing watering needs. Such green roofs are

typically installed directly over the roof's insulation layer with gravel spread over the sedum plants or the sedum can be added over the gravel ballast layer.

The roof system was supplied and installed by Xero Flor Canada Ltd., the Canadian office of Wolfgang Behrens Systems Development of Germany. A pioneer in green roof development, the company has designed sustainable roof gardens throughout Europe over the past 35 years.

The Jazz meets high energy efficiency standards through enhanced exterior wall insulation and high-efficiency boilers with variable speed motors that provide hot water heat on demand. Occupancy lighting sensors are installed in common areas such as the parking garage.

"We evaluated the building



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from an energy perspective against LEED criteria and found it would have been pretty close to a Silver," points out Brian McCauley, senior vice-president of Concert Properties. Concert owns the project in conjunction with OMERS (Ontario Municipal Employees Retirement System).