

Builders' Digest

Toronto Construction Association's Quarterly Perspective

Vol. 2 No.3 Fall/Winter 2008-2009

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Construct Canada 2008



John G. Mollenhauer, President
Toronto Construction Association

EVERY YEAR, ABOUT THIS TIME, CANADA'S LARGEST BUILDING design and construction exposition attracts up to 25,000 visitors, and some travel to Canada from as far away as China and Russia. This year, Construct Canada celebrates 20 years as the nation's premier trade show, and despite the ailing economy, George Przybylowski, Jackie Elliott and the extraordinary team supporting them have once again managed to attract more than 1,100 exhibitors. Add to that the 450 speakers and the more than 200 presentations and technical demonstrations, and it is no small wonder Construct Canada 2008 is the most comprehensive exposition for design, construction and property management in Canadian history. Not bad, George! And to you, Jackie, whatever will we do without you?

For those of you who haven't had the privilege of meeting George's long-time partner Jackie Elliott, she is Batman to George's Robin. (Sorry, George. And yes, I am having difficulty imagining you in tights!)

On a serious note for a moment, Jackie Elliott is retiring this year and I would like to thank her on behalf of the literally hundreds of thousands of industry beneficiaries who now have a better sense of new products, innovative technologies and lucrative market opportunities as a direct result of her passion and commitment. We will miss you, Jackie, and we wish you continued success and good health. (And, George, you are not nearly as pretty as Jackie but we also very much appreciate all your hard work.)

In terms of this year's exposition, it is difficult not to be preoccupied with our failing economy, which in some respects is a shame. I'm not suggesting for a moment that the economy isn't our number 1 priority. After all, we certainly can't sustain a \$220-billion dollar industry during a prolonged recession with lenders imposing nearly unattainable borrowing thresholds and projects being cancelled or deferred in very large numbers. I am, however, suggesting that we need to stay focused despite all the doom and gloom, and redouble our efforts to learn about new procurement methods (AFP, for example); pay closer attention to recommended environmental best practices; develop more energy-efficient corporate strategies; research related products and services; and keep a very sharp ear to the ground, because there are market opportunities in every economy. And don't forget - Construct Canada brings all the players together under one roof. Where else can you find 25,000 of your professional colleagues in what has oft been described as a networking paradise?!

And, even at the risk of being repetitious, a grateful TCA again thanks Jackie for 20 years of extraordinary service. | **BD**

John Mollenhauer

Respectfully,
John Mollenhauer

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The shell for the addition is expected to be completed by March 2009

WORKERS Dig DEEP

BY DAN O'REILLY

SO MOUNT SINAI HOSPITAL CAN GO UP

Seismic upgrades key to expansion program



One of the most physically challenging aspects of the project has been the 10- to 14-foot deep hand excavation of earth around the elevator pits to install the 12,000-pound post tensioning anchor plates and formwork

CONSTRUCTION WORKERS AT TORONTO'S MOUNT SINAI HOSPITAL HAVE been burrowing away at bedrock for the past several months so that a six-storey wing with a dramatic steel and glass curtain wall overlooking University Avenue can be added to this pre-eminent academic health centre.

They are busy installing an innovative bottom-to-top post-tensioning cable engineering system required to support and integrate the addition with the existing hospital, as well as erecting the shell.

Designed by Toronto-based G+G Partnership Architects and overseen by general contractor Vanbots Construction Group, this two-phase multimillion-dollar expansion will enable the hospital to significantly expand its women's and infants' programs.

"The project will modernize facilities; right size patient rooms; enhance the ability of the hospital to operate in the event of an infectious disease outbreak; facilitate technology at the patient bedside; facilitate patient and family-centred care; and provide a healing environment,"

Photos on this page courtesy of Vanbots Construction Group

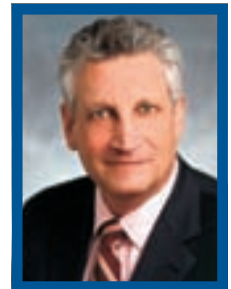
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A mother/baby patient room in the Mount Sinai Hospital addition

Photos on this page courtesy of Mount Sinai Hospital



A new dramatic six-floor addition under construction will enable Mount Sinai Hospital to significantly expand its women's and infants' services

said Vladislav Pavliuc, principal, G+G Partnership.

With approximately 6,700 births annually, Mount Sinai Hospital is the largest maternal and newborn care health provider provincially and one of the largest nationally. Its Women's and Infants' Health Program is designated as one of only two Level III maternal and newborn centres in the Greater Toronto Area, caring for the tiniest most vulnerable infants, said Laura Macdougall, Mount Sinai's director of capital projects.

There has been, however, a pressing need to expand and modernize those services since the late 1990s when the Ontario government's Health Services Restructuring Commission ordered the transfer of units from Toronto Hospital's (now the University Health Network) obstetric and gynecology services to Mount Sinai.

While some of that increased service workload could be accommodated through renovations, not all of it could and more sufficient space was critical to provide patients with the best care, according to Macdougall.

The question was: Where would that space be found?

"We're landlocked. There was only one way to go and

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that was up," says Macdougall, in describing the only option possible for the facility.

With the new building code and seismic design changes that have been introduced since the hospital was first built in the mid-1970s, that wasn't a straight forward process. The structural loading of the planned addition had to be carefully and painstakingly evaluated.

"The entire hospital had to be (computer) modelled column by column and beam by beam," says G+G's Vladislav Pavliuc. "it took half a year to conduct a full analysis."

A major conclusion was that the addition be designed using very light steel construction and glass curtain wall cladding to reduce the loading on the existing building, which was built of precast and cast-in-place concrete.

At the heart of the integration, however, are the seismic upgrades that include the construction of new concrete shear walls at several locations on all levels and the post-tensioning cable engineering system, he said.

Designed by structural consultant Halsall Associates Limited and considered a first for Canada, this system is comprised of a series of cables extending down the elevator shafts and anchored into the bedrock, says Pavliuc. "The building is, in fact, strapped to the bedrock," he says.

Achieving that bonding has been long and often difficult, according to Vanbots project manager Errol Dubé.

The main elevators consist of three banks, each with a cable system that's anchored from the lower level of the hospital 50 feet into the bedrock. Then from that lower level up to the 20th floor — which is the roof of the existing building — another set of cables are anchored to post tension plates. The cables are post-tensioned up to a pressure of 40,000 pounds, says Dubé.

One of the most physically challenging aspects of this phase of the project has been the 10- to 14-foot deep excavation of earth around the elevator pits to install the 12,000-pound post tensioning anchor plates and formwork. "All the work is done by hand. There is absolutely no room for any machines," says Dubé.

While not quite as physically demanding, another crucial task is the need to post-tension the cables in the elevator shafts at different times to minimize disruption to the hospital. The post-tensioning requires shutting down the elevators banks one at a time.

Using a combination of hospital staff and signage visitors are redirected to operating elevators. For the most part there has been little confusion, says Mount Sinai's Laura Macdougall, who attributes the reason to the detailed planning that went into the project long before construction started, plus the flexibility of staff.

Every aspect of neonatal patient care was accounted

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for in that design process that included extensive consultation and input from medical and other staff, plus patients, family members and former patients, she points out.

“The new floors will include larger patient rooms, more windows, patient and family lounges with kitchenettes, a parent resource room and an

early-labour lounge so expectant mothers who are close to labour have a comfortable and calming space to wait,” says Macdougall.

As just one example she refers to the planned new 56-family room neonatal intensive unit. Parents will be able to stay the night on a cot in their baby’s room, which current space cannot

comfortably accommodate. In addition, care by parent rooms will be available so that parents can learn how to care for their special-needs infants in a supervised environment before taking their babies home.

Other units that will be housed there include an operative birthing area, an antenatal unit and a 958-inpatient bed mother/baby unit.

The rooms will all be located on the perimeter of the floors to take advantage of natural light; equipment will be suspended from the ceiling to eliminate the risk of tripping for patients, families and staff; sound and light levels will be set to improve the infant’s health and development; and monitoring technology will be networked to ensure nurses have remote access to each patient’s vital information.

Setting the parameters of the interior design was the need to create a human health environment that is warm, welcoming and calming and creating a truly healing space using the principles of evidence-based design, says Roberta Diachok, interior design director with Brisbin Brook Beynon Architects, the interior design partner.

Natural-looking materials will resonate throughout the addition starting at the elevators, then working its way into the corridors and then the patients’ rooms.

As part of a strategy to minimize confusion for patients and visitors, the way-finding signage program will demonstrate the same warmth using a combination of natural elements, integrated colour-coded corridors, plus signage with braille and pictograms. As well, patient areas will be defined with ceiling canopies and defining flooring elements to distinguish them from caregiver zones, says Diachok.

Those design concepts will be transformed into reality within the next couple of years.

Once the shell construction and seismic upgrades are completed, the fit out for the addition will be tendered. This is expected to occur next spring and will include the renovation of about 125,000 square feet in the existing hospital. Project completion is scheduled for 2012. **BD**



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Financial crises pose challenging times for Ontario contractors

Higher credit costs expected



BY PAUL FERLEY, ASSISTANT CHIEF ECONOMIST, RBC ECONOMICS RESEARCH

THE ECONOMIC ENVIRONMENT THE ONTARIO construction sector will be operating within over the next couple of years will be a difficult one, contending with both weak growth and high funding costs. Though the root cause of these pressures may seem distant, the ramifications will definitely be felt locally. Specifically, the financial market turmoil, which is taking hold around the globe, stems from the uncertainty as to the holdings by various financial market players of assets related to the United States sub-prime mortgage market.

This uncertainty has resulted in less willingness for those who have funds to provide them to those that need financing, thus driving up funding costs. The attendant credit tightening has weighed on economic growth globally and has already pushed the United States economy into recession. Tight credit and weak growth there have had a dampening impact on growth in Canada

and more particularly export-oriented Ontario.

The length and depth of this economic weakness will be a function of the speed with which this financial crisis can be reversed and the cost of credit starts to ease. To address this very difficult situation aggressive policy initiatives have been undertaken such as the \$700-billion rescue package by Congress, which includes taking equity positions within the banking sector, and sizeable liquidity injections by the Federal Reserve.

European governments have undertaken similar measures while in Canada, given our relatively stronger banking sector, actions to date have been more limited to the Bank of Canada keeping financial markets liquid. RBC believes that these extraordinary initiatives will prove successful at calming financial markets. This should come in time to prevent our economy from following the U.S. economy into recession although

growth in Canada will be weak this year and next, rising 0.9 per cent and 1.5 per cent, respectively.

The slightly stronger performance in Canada is a reflection of the lingering effects of commodity prices that surged to record levels in several cases earlier this year. Given that Canada is a major exporter of many of these commodities, the domestic economy will continue to benefit from the boost to incomes that came from higher export revenues, although declines in commodity prices lately will gradually moderate that thrust.

The situation is less upbeat for Ontario, which is a net consumer rather than a net producer of many of these commodities. As well, the province is a major exporter to the floundering American market. Sharp declines in motor vehicle sales in recent months bode poorly for the province's auto industry and, more generally, its manufacturing sector.

As a result, we are expecting negligible growth overall in the province of zero per cent and 0.4 per cent over this year and next, respectively. Ontario builders most closely aligned with industries responding to the U.S. market will likely be more adversely affected.

In contrast, builders servicing areas of the economy benefiting from the recent strong commodity markets – where high commodity prices chiefly mean enhanced revenues rather than higher costs – will likely fare better.

With respect to credit tightening, though we expect a significant easing, we do not foresee the cost of funds dropping back to levels that prevailed prior to the onset of the financial market crisis in August 2007. Those earlier funding costs did not fully reflect the inherent risks that have clearly manifested themselves in the period since then. The upheaval and disruptions that have played out in recent months will likely prevent any kind of underpricing from re-emerging going forward.

Thus, Ontario builders will not only have to contend with weaker economic conditions but also more expensive funding costs over the next couple of years.

*As Assistant Chief Economist, Paul Ferley is responsible for the analysis and forecasting of macroeconomic and financial market developments in Canada, the United States and key overseas economies and is a regular contributor to a number of RBC publications. | **BD***



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Carillion Canada acquires Vanbots Construction Group

Corporate identity will remain the same, says Keith Gillam

BY DAN O'REILLY

ANOTHER CHAPTER IN THE LONG HISTORY OF Canadian construction leader Keith Gillam was turned recently with the purchase of his Vanbots Construction Group by Carillion Canada inc, a subsidiary of Carillion plc, the large U.K.-based services organization.

"I consider this a win-win situation," says Gillam of the acquisition that was completed in October after several months of negotiations.

As part of the agreement Gillam has assumed the position of Carillion Canada's chairman.

While it will be described as a division of Carillion, the Vanbots name will still appear on its project sites and its culture and corporate identity will remain the same, says Gillam, who was the chairman, CEO and the largest single shareholder of each of the individual organizations with the group.

"What the acquisition will do is enable Carillion to be even more aggressive in its pursuit of P3 projects," he says.

"It had been a partner in the William Osler and The Royal Ottawa (hospital projects). What it was missing was a permanent builder. It is now a fully integrated company."

Some civil engineering projects in Alberta and Ontario that Carillion had been involved in will probably be rolled over to Vanbots, he says.

With the economic downturn and credit squeeze surety companies are becoming more stringent in their bonding requirements and demanding construction companies provide more cash for bonding, says Gillam in a summary of the factors that led to the sale.

"We were a company at a crossroads. Were we to grow larger it might have put us at an unnecessary risk," says Gillam.

When Carillion made a "reasonable offer" to buy Vanbots last winter he accepted. Other large organizations had also expressed interest in purchasing the company, he says.

In commenting on the current

financial situation Gillam says this is the time for senior levels of government to accelerate not decrease spending on infrastructure projects as method of propelling the economy and keeping construction active.

"It's a shame this recession has happened, but I think the United States will pull us out of this," says Gillam.

A graduate of the Brixton School of Building in his native England, Gillam purchased Vanbots Construction in 1991 and then built it into the Vanbots Group, one of Canada's largest private construction companies with annual managed business volume exceeding \$800 million.

Just some of its construction management projects include the \$200-million Crystal expansion of the Royal Ontario Museum and the \$54-million Art Gallery of Ontario expansion.

With that portfolio have come several awards including the British Construction Industry Award for the construction of Honda's new European car plant. It was the first and still is the only time a non-British firm has won the award.

As part of its overall contributions to the industry and society in general, Vanbots has promoted the role of women and aboriginal people in construction. In a limited liability partnership with the Chippewas of Mnjikaning it formed Rambots, the continent's largest First Nations construction company.

Another initiative has been enhancing industry education. Next year Gillam will receive an honorary degree from George Brown College for his efforts in establishing the college's Construction Science and Management Program.

Gillam was the Toronto Construction Association's 2000-2002 chairman. **BD**



“What the acquisition will do is enable Carillion to be even more aggressive in its pursuit of P3 projects”

Keith Gillam,
Vanbots Construction Group

CLIMATE CHANGE AND THE BuiLT ENVIRONMENT



BY RON DEMBO

Reducing your carbon footprint
on the construction site



THE MOVEMENT TOWARD “GREEN” AND THE EFFORT to mitigate the effects of climate change are no doubt defining developments of the 21st century. Individuals and organizations are being asked to monitor their carbon footprint as they do their wallets. With the recent Canadian election, the fluctuating economy, and multiple car plant closures, North American green initiatives have been focused on developing sustainable methods of transportation, carbon taxes and a call for the population to consume less. While this is an excellent start, there is another green movement on the horizon: the greening of existing built space.

In 2006, commercial, residential and institutional buildings were responsible for 70 million tonnes of CO₂ emissions in Canada. The construction industry alone consumes approximately 40 per cent of the global material flow and generates about 33 per cent of the North American solid waste stream.

In the same year, gasoline and diesel cars were responsible for 51 million tonnes of Canada’s CO₂ emissions. By creating smart, ecologically sustainable infrastructure, buildings could have a more powerful impact than removing all the cars on the road. It’s that simple.

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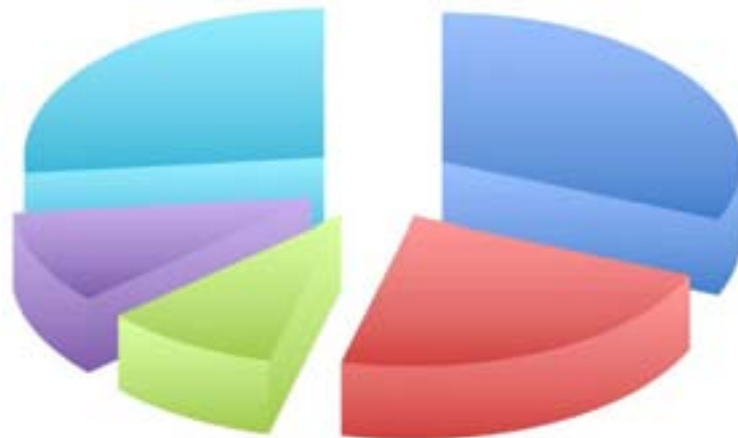
The key to significantly reducing the carbon footprint of a new or existing building is analyzing the building as an entire system rather than just focusing on individual components. Engineers, architects, designers and contractors can work together to develop a strategy to reduce the environmental impact

Canadian Emissions 2006

source of Emissions	Tonnes of Co 2
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Gasoline and diesel car	51,000,000
Waste	21,000,000
Plane Flights	22,000,000
Agriculture	60,000,000

- **Commercial, residential and institutional buildings**
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right from the project's inception. Each partner can then determine opportunities to implement energy efficient, durable, locally sourced, or recycled products into the project.

In addition to material choices, smart buildings by definition utilize networked technologies to keep building temperature within a specified range; provide appropriate levels of light based on occupancy; and monitor the building's system performance. Smart building technology enhances environmental savings and simultaneously relieves operators from maintaining regulatory functions within a building.

Comparatively, it is typically more expensive to add smart technology to the existing built environment than new buildings, but the significant return on investment in both instances outweighs the initial cost.

A commitment to use energy efficient and environmentally sustainable products and an investment in smart building technology will showcase the building industry as a leader in the fight against

climate change and rapidly increase the development of smart buildings.

WHAT ARE SMARTER BUILDINGS MADE OF?

In the near future the environmental impact of a building will be featured in entrances for visitors to see. Smarter buildings will become a norm and the carbon footprint of heavy industry can be dramatically reduced.

Buildings that are intended to have long life spans, or that have been

designed for deconstruction after an optimum amount of time, reduce the demand for raw materials. The aim is to keep each element of the building within the use cycle as long as possible without the need for frequent repairs or replacement.

The potential life span of a building depends heavily on the durability of constituent materials and connections between them. When the entire project development team is involved

“ Finding new ways to use existing material reduces the volume of waste produced, diverts waste from landfills, cuts costs and adds aesthetic value to the project ”

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from conception, design criteria can factor in exposure to weather conditions, environmental stresses, and other concerns that may normally be outside the realm of the aesthetic. The same factors should be considered when retrofitting or greening existing built-space as the choice of materials and processes can greatly impact the lifespan and environmental impact of those changes.

When it comes to choosing construction materials for smarter building sourcing products that are energy efficient, reclaimed, durable or are locally based are among the most effective strategies to minimize the environmental impact.

Finding new ways to use existing material reduces the volume of waste produced, diverts waste from landfills, cuts costs and adds aesthetic value to the project. Using salvaged material also reduces the impact associated with the production and delivery of new building materials.

if it is not possible to salvage existing material, rapidly renewable materials such as poplar and bamboo, or wood certified by a third-party such as the Forest Stewardship Council, minimizes the impact on natural resource consumption. The Canadian Standards Association provides a set of recommendations to assist designers in creating durable buildings.

Beyond material selection, new buildings can be designed to reduce energy use anywhere from 75 to 90 per cent compared to current practice and comprehensive retrofits of existing buildings can reduce energy use by 50 to 75 per cent compared to the building's existing energy use.

The key to achieving such dramatic reductions in energy use is to create an efficient building envelope. Buildings must include appropriate levels of insulation and high-performance windows, optimal building shape and the use of passive solar energy for daylight, heating, cooling and ventilation can

also contribute to efficient energy use. The environmental footprint of existing built environment can be dramatically improved by constructing a new "skin" around the outside, which acts as a protective envelope and can house new systems and conduits for efficient systems such as ground-source heating.

Just as members from the development team need to work together, it is important to encourage energy-conscious human behaviour among staff and individuals using the building. The support of patrons combined with energy-efficient materials on every level, such as motion detectors to shut off lights, create an atmosphere where energy conservation is embraced and environmental practices are heralded as achievements.

WHAT DOES IT TAKE TO MOVE TOWARD SMARTER BUILDING?

In order to facilitate such a sweeping turn to smarter building and energy conservation, members all along the development chain need access to comprehensive resources to navigate the green building world. Zerofootprint recently proposed a new institute – a convergence centre to aggregate for all carbon reduction initiatives in the built space.

The primary goal of The Institute For Intelligent Building is to concentrate green building efforts, provide resources to interested parties, and provide a home to incubate a new economy around retrofitting the built space. The institute would be located in Toronto, but would serve clients worldwide.

As a team of informed professionals organizations and individuals, the building industry has the power to affect the global carbon footprint.

For more information on getting involved with the Institute or Zerofootprint's Enterprise Carbon Management Solutions, contact info@zerofootprint.net.

Ron Dembo is the Founder & CEO of Zerofootprint, an organization dedicated to a mass reduction in global environmental impact. Zerofootprint provides software and services to individuals, governments, universities and corporations that measure and manage carbon footprint and engages employees and citizens worldwide in combating climate change. | BD

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INVESTING IN COMMUNITY COLLEGES IS A NATIONAL IMPERATIVE



BY MICHAEL ATKINSON

Increasing the supply of skilled workers in Canada

CANADIANS ARE TRULY BLESSED. OUR ABUNDANCE of natural resources, vast spaces, and industrious population are three pillars upon which we have built a truly modern and efficient economy and created one of the highest standards of living in the world.

However, like so many other Western countries, Canada has a declining population base and over the next decade will experience significant skilled worker shortages brought on by the unprecedented retirement of our aging baby boomer workforce. Unless policy makers come to grips with this reality soon, our economy will face significant challenges in the years ahead and struggle to remain globally competitive.

Like most other sectors of the

economy, the construction industry is not immune to skilled worker shortages. The boom in activity experienced over the past several years, particularly in Western Canada, has exposed some of these tensions in a very real way. Skilled worker shortages have become a way of life and, with increasing demand for new construction, the sector is struggling to keep up.

As global demand for natural resources increases, not only will Canada need to improve our production infrastructure, it will need to improve the public infrastructure upon which these products are transported to market such as our roads, bridges, highways, waterways, ports, airports and border facilities.

“ Skilled worker shortages have become a way of life and, with increasing demand for new construction, the sector is struggling to keep up ”

With such high demand for new construction not surprisingly, Canada's non-residential construction industry in 2007 grew by an estimated 7.9 per cent – a staggering number for any industry of our size.

While the global economic crisis of the past few months will undoubtedly have some impact on the sector, any resulting slowdown will be but a brief reprieve and not indicative of a longer-term trend.

To appreciate better the magnitude of the challenge, one need only look at recent statistics Canada data. Between April 2007 and April 2008, employment in the construction sector grew by 113,000 jobs alone, which translates into a more than 10 per cent increase in just one year.

in fact, the increase in construction employment more than offset the 111,000 jobs lost in Canada's manufacturing sector, with many of these

displaced workers now finding lucrative and fulfilling careers in the construction industry.

Furthermore, the June 2008 Construction sector Council employment outlook found that over the next eight years the sector will need to add 260,000 new workers by 2016 just to keep up with anticipated growth and replace those existing workers expected to retire.

so, where are these new workers going to come from? The most likely source will be new immigrants, but with increasing competition for skilled workers around the world, Canada cannot rely solely on immigration to meet future needs and must do a better job of training skilled workers domestically.

The pending skills shortage crisis has been at the forefront of the Canadian Construction Association's federal lobbying activities for many years. And,



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it appears, the federal government is listening. In the 2006 Budget, it introduced the federal apprenticeship tax credit and, most recently, the Prime Minister promised to expand upon this initiative and offer apprenticeship graduates a \$2,000 completion bonus.

While measures such as these are important incentives to boost interest in apprenticeship training, they are wasted efforts if Canada's aging community colleges and polytechnics are unable to accommodate increased enrolment demands.

Colleges are dramatically under funded with the result many potential new construction workers have been turned away, or worse, turned off a career in the sector forever due to enrolment limitations.

As well, a growing number of colleges are overstretched and do not have the faculty of class availability to accommodate additional students.

Moreover, many are using equipment that is so outdated employers are increasingly required to spend significant time and resources upgrading the skills of new graduates upon their entry into the workforce.

At a time when the construction industry is in desperate need of new people, a lack of training capacity, particularly within our college system, is simply unacceptable.


The CCA has been working with the Association of Canadian Community Colleges and other national associations to help address the pressing need for additional post-secondary educational training.

While we appreciate education is the purview of the provinces, Ottawa has demonstrated repeatedly, especially over the past decade, its willingness to provide direct financial support to post-secondary institutions.

However, the current lack of funding

balance remains problematic. Most federal dollars flow directly to universities to help fund research and development activities. While funding university research is important, it should not come at the expense of community colleges. This imbalance in funding must be addressed if Canada is to overcome the skills shortage crisis.

The CCA and its members will work closely with the government to help restore balance to post-secondary funding. While on its own, this will not be a panacea for skills shortages, it will go a long way to helping Canada increase the domestic supply of skilled workers and ensure the construction sector can continue to supply the facilities and infrastructure Canadians require to enjoy a strong and prosperous economy in the years to come.

Michael Atkinson is president of the Canadian Construction Association (CCA). | 



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Partners in Project Green:
A Pearson Eco-Business Zone will improve environmental practices

THE NEXT OPPORTUNITY AREA FOR TORONTO
Construction Association members may be literally right around Pearson International Airport.

Earlier this fall the Pearson Eco-Business Zone was launched by the Toronto Region Conservation Authority and the Greater Toronto Airports Authority.

This multi-layered program is designed to spearhead green initiatives in the 12,000-hectare industrial and commercial zone circling Pearson International Airport. With an estimated 12,500 businesses employing 355,000 people, it is Canada's largest employment area.

It's specifically targeted at businesses to help them improve the environmental practices and their financial bottom line, says Chris Rickett, water-

shed planning project manager with the conservation authority.

"Much of the area is built up, but there are infill areas and certainly there will be renovation and retrofit work," says Rickett, when asked about potential opportunities for the construction industry.

Over 75 per cent of the properties in the zone are leased or are multi-tenant buildings and this presents an opportunity to introduce green programs on a large scale due to the concentrated land ownership, he points out.

Several business green project teams identified in an initial planning study are critical to the program's success.

An example is a green building project team that will bring together large property owners and manage-

ment firms to identify methods to lower operating costs and to improve the marketability of the properties. It will be consulting closely with the Clinton Climate initiative, the foundation created by former U.S. President Clinton to reduce energy consumption in buildings.

Other teams include one that will investigate the potential to create a district energy system and a byproduct reutilization group to help businesses to reduce waste, says Rickett.

A \$150,000 donation from Peel Region, the support of more than 200 businesses, and planning input from the region and the area's three other municipal jurisdictions – the cities of Toronto, Brampton and Mississauga – helped launch the program. | **RD**



The 12,000-hectare industrial and commercial zone circling Pearson International Airport will be going green with the launch of Partners in Project Green: A Pearson Eco-Business Zone

Photo courtesy of Toronto Region Conservation Authority

West Village Suites in Hamilton, Ont., is the first LEED-Platinum student housing in Canada. Often building owners find that green features are important to potential tenants and higher rental fees can be charged

Photos courtesy of Enermodal Engineering

Green buildings offer lower operating costs, positive publicity and economic payback



BY STEPHEN CARPENTER

WHY GOING GREEN IS EVEN MORE IMPORTANT IN TOUGH TIMES

DURING THIS ECONOMIC DOWNTURN PEOPLE often ask about how things are going for those in green building design and construction. The assumption is that during times of uncertainty developers are less likely to invest in greening their projects and revert to traditional practices or perhaps not build at all.

The first reason has to do with supply and demand. In shaky economic times there is a greater supply of building space than businesses or people looking to rent or purchase. In such a market buyers and potential lease holders can be picky when it comes to selecting a building. Green buildings offer improved operating costs and indoor environments that are increasingly popular. A recent Costar study found LEED buildings outperform their peers in terms of marketplace demand, occupancy rates, rental rates and sale prices. According to the study, they commanded an \$11-per-square-foot rental rate and had 3.8 per cent

higher occupancy rates. (see: www.costar.com/news/Article.aspx?id=D968F1E0DCF73712B03A099E0E99C679)

While in today's tight market that lease premium may not be achievable, the alternative is a conventional building left empty, which is not cost-effective.

In a buyer's market, it is even more important to catch the attention of prospective tenants or owners. Many developers want to position themselves as green in the eyes of their shareholders and the public.

As there are only about 100 LEED buildings in Canada, certification is likely to catch the attention of interested parties and generate a lot of media attention and possibly an article in a local publication or trade journal.

Every one of the 35 LEED certified projects that Enermodal Engineering has worked on has received positive publicity as a result of their green measures. This exposure is essentially free advertising, bringing in potential

buyers and, possibly, higher lease or purchase prices. In downtown Toronto, all new office buildings are being designed for LEED certification with the result owners of non-LEED buildings will have a hard time attracting interest from tenants.

Another reason green buildings are looked upon favourably by the market in uncertain times is the economic payback over the course of building ownership. Total related building costs are typically less than five per cent of typical construction costs, depending on building size, with LEED buildings often achieving between 25 and 70 per cent energy and water cost-savings.

Thus, it usually takes only a few years to recoup the extra costs and realize significant operational savings. Lower operating costs means tenants are more likely to stay in a building. As part of its work for a large company that leases space across Canada, Enermodal Engineering is currently



Fifth Town Cheese Co. in Picton, Ont., is the first industrial building to be a LEED-Platinum candidate. going green was important to Fifth Town (and its customers) as an organic, socially and environmentally responsible cheese maker

benchmarking all its energy costs. This particular firm will not renew leases in the spaces with the highest operating costs and actively seeks out new space with low operating costs.

How do building owners ensure that their buildings will have lower operating costs? in the case of green building, LEED certification is a quality control system that ensures green intentions are matched by green practices. it protects the developer's investment because certification requires applicants ensure that proper equipment has been installed and acceptable commissioning procedures followed. When designers and constructors know that design and construction will be reviewed by third party auditors, they are more likely to deliver what an owner wants.

so even though tough times may lead some developers to pursue cost-cutting schemes, this is the very time to invest in a greener building, in particular a LEED certified one. not

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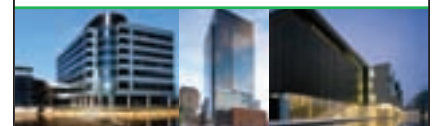
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only will the green features pay for themselves in time, there is no point in building something that generates few prospective occupants. if you build it green, they will come.

Stephen Carpenter, P.Eng., LEED AP, is the founder of Enermodal Engineering. He has over 25 years of experience in the building industry, including mechanical design, energy simulation, building research, and sustainable development.

*Enermodal Engineering is Canada's largest consulting firm exclusively committed to buildings and communities that are energy- and resource-efficient. With professional staff in Kitchener, Calgary, Denver, and Toronto, Enermodal is working on over 180 LEED buildings across North America. Besides certifying more projects than any other firm in Canada (over 30 per cent of LEED Canada buildings), Enermodal is responsible for over 85 per cent of the LEED certified projects in Ontario alone. | **BD***



Collaborative Structures Limited's new headquarters in Cambridge, Ont., became the first LEED-CS (Core and Shell) certified building in Canada. CSL uses part of the building and will rent out the rest to tenants that have to meet certain green requirements in their operations

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A New Leader

Experienced association executive Ian Cunningham takes the helm of the Council of Ontario Construction Associations



IAN CUNNINGHAM IS THE NEW PRESIDENT OF THE Council of Ontario Construction Associations (Co CA). He assumed the position in August 2008.

The 61-year-old Oakville resident is an experienced association executive having spent several years in senior management with the Ontario Chamber of Commerce and the Mississauga Crime Prevention Association, his last position.

His areas of expertise include strategic planning, board governance, strategic partnerships, government relations, public affairs, financial oversight, and staff and volunteer leadership.

"I've spent 20 years as a leader in association work and, if you add previous volunteer work, it's been 30 years," says Cunningham.

During the nine years he spent as head of the Chamber of Commerce's policy division, he became an expert on international trade and tourism. It was during this period that he also forged ties with Co CA and worked

very closely with it on matters of joint importance such as occupational Health and safety and the WsiB.

Cunningham had been retired for about a year when he learned Co CA was searching for a new president. "I had become bored and was taking stock of myself, so I threw my hat into the ring and feel very fortunate to have been selected."

Not unlike the Chamber of Commerce, Co CA is an association of associations, says Cunningham, who has been conducting a whirlwind tour of meetings with those organizations to obtain input on local concerns as well as issues that impact the construction industry on a province-wide basis.

"Our main purpose, as best I understand, is to act as an advocate for our members on issues such as occupational Health and safety and WsiB rates and to carry that message forward to governments."

"We also have to demonstrate what value Co CA brings to our membership," says Cunningham. | **ED**

Toronto Construction Association

Construct Canada 2008	Dec. 3 to 5, 2008 Metro Toronto Convention Centre, South Building
TCA Christmas Lunch	Dec. 5, 2008
TCA's 141st Annual General Meeting and "Best of the Best" Awards Presentation	Jan. 29, 2009 Location: Woodbine Race Track Fee: TCA Members - Free Non-members - This event is only open to TCA members Registration Opens: Dec. 1, 2008 Registration Deadline: Jan. 25, 2009
TCA Ski Day	Feb. 20, 2009 Location: Alpine Ski Club, Collingwood, Ont. Fee: TCA Members - Free Non-members - Free Registration Opens: Jan. 1, 2009 Registration Deadline: Jan. 1, 2009

*For further information, please contact: Mary McBride, Toronto Construction Association, 70 Leek Cres., Richmond Hill, ON L4B 1H1
Telephone: 416-499-4000, ext. 104 • Fax 416-499-8752 • Email: mmcbride@tcaconnect.com*

Young Construction Executives Club

YCEC Family Skate Day	Jan. 17, 2009 Location: Powerade Centre Fee: TCA Members - Free Non-members - Free Registration Opens: Jan. 1, 2009 Registration Deadline: Jan. 1, 2009
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For further information, please contact: Lenore Villeneuve at 416-499-4000, ext. 113 • Email at lvilleneuve@tcaconnect.com • www.tcaconnect.com

Executives Club

The Construction Institute of Canada Institute of Canada	Course: Risk Management Jan. 12, 2009 to March 16, 2009 Mondays 6:30 – 9:30 p.m.
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*For further information, please contact: Roxanne Drisdelle
Telephone: 416-499-4000, ext. 116 • Email: rdrisdelle@tcaconnect.com • www.tcic.ca*

Builders' Digest

Toronto Construction Association's Quarterly Perspective

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