

RBC Industry Update

A green light for opportunity

Much of the economic stimulus being undertaken by governments has sustainability at its core – a trend that will only grow, even as economies recover. For architects, it means the opportunities that are likely to arise over the next several years could be the most rewarding of a generation.

A green light for opportunity

The economic outlook may still be uncertain, but glimmers of hope are beginning to become evident. In fact, the opportunities that are likely to arise over the next several months could represent the growth opportunity of a generation.

The fall of 2008 was a watershed in terms of both public and industry awareness that world economies were slowing. While not every architecture firm had the same experience, many felt an immediate impact, with a decline in projects, a reduction in project scale and many project cancellations.

There's no doubt that the downturn has been widespread and hard-hitting. According to Statistics Canada, the Canadian economy contracted at an annualized rate of 5.4% in the first quarter of 2009 and 1.4% in that quarter alone, the worst quarterly performance since 1991.

The situation was even more negative outside of Canada. The U.S. economy showed a decline of 1.6% in the first quarter of 2009, the European Union 2.5% and Japan an astonishing 4.0% plunge.

While the numbers are indeed bleak, a change has begun. Though the world remains in a recession and many firms continue to struggle, signs of recovery are expected to emerge later this year. Firms that are able to align their business strategies with these emerging opportunities — and retain their key talent during the lean times — could see extraordinary growth in the months ahead.

Opportunities for growth — a closer look

With new growth opportunities emerging, the economic stimulus spending announced by federal and provincial governments is very promising for the architecture sector. One of the key reasons for this is that a growing portion of

infrastructure spending will involve the development, design and construction of green buildings and technology.

In addition, there are significant external pressures on both the private and public sectors to reduce the size of their carbon footprint — with some of this being legislated. This will require the extensive involvement of architects in designing new systems and structures and in retrofitting old ones.

In terms of the short-term economic stimulus spending that's been announced, the numbers are substantial. The federal government has accelerated and expanded its *Building Canada* spending, and has added almost \$12 billion in new stimulus funding over the next two years.

Provinces have followed suit. British Columbia's recent budget committed almost \$13 billion to infrastructure projects, Alberta designated \$21.4 billion in spending over three years to build health facilities, schools and roads, and Ontario's 2009 budget allocated \$27.5 billion to infrastructure projects over the next two years.

South of the border, the U.S. *American Recovery and Reinvestment Act* became law in February 2009, with a US\$150 billion investment in roads, bridges, mass transit systems and energy. Progress of the initiative can be tracked online at www.recovery.gov.

While all governments want their stimulus spending to have lasting value — and avoid any quick-fix “bridge-to-nowhere” scenarios — plans are moving forward rapidly.



“There’s significant pressure at all levels of government to fast-track spending as much as possible, so some of these infrastructure opportunities are already in development,” explains Paul Ferley, Assistant Chief Economist for RBC Royal Bank®. “But there’s still a lot of spending to come — and plenty of opportunities for the architecture industry will emerge over the next several years.”

Federal infrastructure accounts for only about 5% of public infrastructure in Canada,¹ so much of the infrastructure spending is happening at the provincial and municipal levels. Often, two or more levels of government will provide funding for a project.

“Firms need to keep their ear to the ground at the local level, as that’s where a lot of the infrastructure action is taking place,” says Ferley. “There’s certainly work to be had. Statistics Canada released its survey of businesses and governments earlier this year and it showed the public sector intended to increase spending by 9.5% in 2009, and that was before the budget stimulus measures were announced. So there are a lot of projects coming down the pipeline.”

Look for an increase in P3 arrangements

While governments alone are funding many infrastructure projects, a number of future developments will be delivered through public private partnerships, or “P3” arrangements, as they are widely known.

P3 arrangements are development projects that allocate responsibilities and risks between government and business partners through a business contract. Typically, the private sector is responsible for the more commercial functions of a project, such as design, construction, finance and operations.

With governments currently funding many projects directly and credit markets still tight, there may be a bit

of a lull before new P3 projects begin to appear. But credit markets are already showing some signs of loosening, and as stimulus programs run their course, governments will be looking for cost-effective ways to tackle the backlog of aging infrastructure repair and new development that’s needed. This trend is already emerging in the hospital sector.

“BC, Alberta, Ontario and Quebec are the leading provinces using the P3 model for development,” notes Tim Murray, Director, RBC Capital Markets. “Governments like it because it lets them focus on what they do best — policy and planning — while letting the private sector do what it does best, such as finding efficiencies and managing projects to cost.”

There has been a variety of projects built using P3 — hospitals, schools, government buildings, detention centres, courthouses — so there’s a wide range of expertise needed from a design standpoint. But because the projects tend to be both large and complex, architecture firms bidding on P3 projects may need a degree of scale to compete. However, there are often opportunities for smaller firms to partner with larger firms on bids, and for those that do, P3 projects can generate a stream of reliable business income.

“While there’s a great deal of fiscal discipline to these projects — including the management of margins — they are typically well-run operations and can be a profitable source of business for all parties involved,” says Murray.

The leading edge of green

The green movement, which architects have been at the forefront of for some time, has now taken centre stage on every front — social, political, business and industrial.

Consumers are voting with their wallets, compelling organizations large and small to build sustainability into their practices. In addition, the high energy prices of 2008



have convinced many that conservation produces as big an economic benefit as an environmental one.

Green building and design are being woven into an increasing number of projects, and architecture firms have been quick to identify the opportunities that are emerging.

Climate-change regulations

The federal government and all provinces (except PEI) have either enacted or are planning climate-change regulations. At the federal level, emissions-intensity targets have been set for main industrial emitters, with a goal to reduce greenhouse gas emissions to 20% below 2006 levels by 2020 and 60% to 70% below 2006 levels by 2050. Provinces also have targets, along with strategies to meet those targets, from incentives for energy-efficient retrofits to plans for extensive light rail transit.

The introduction of climate-change laws is likely to give rise to numerous opportunities in the architecture sector. For example, the portion of the federal gas tax promised to municipalities is available only to those that earmark the money for sustainable infrastructure. This will result in higher demand for architectural expertise in the transit sector, with governments focusing more funding on public transit systems and light rail development projects.

Architects will also play a key role in helping large industrial greenhouse gas emitters — and organizations that want to be seen as doing something good for the environment — redesign their workspaces and functions to reduce these emissions.

Building green

Climate-change awareness and regulations are also changing the way we build structures — and architects are at the forefront of this movement. According to the *Canada Green*

Building Council, buildings account for almost one-third of Canada's annual greenhouse gas emissions, closely paralleling energy use. So it's not surprising that all levels of government are making funds available to retrofit buildings to make them more energy-efficient.

Architects will be instrumental in designing ways to improve the energy efficiency of older buildings — whether industrial, institutional or residential — and in ensuring that new systems and technology are properly and cost-effectively implemented.

Designing for energy efficiency in older buildings will go beyond updating mechanical systems. An example of this is the launch of the *Tower Renewal Project* in Toronto, whose aim is to revitalize the city's aging highrise buildings and kick-start a wave of design-savvy retrofits.

Toronto has more than 1,000 apartment buildings, second only to New York in North America, a noteworthy portion of which are of the inefficient concrete-slab variety built during the 1960s and 1970s. These buildings are responsible for a significant portion of the city's greenhouse gas emissions. The *Tower Renewal Project* will look at ways to re-skin the buildings and redevelop the land that surrounds them to create more sustainable communities. The hope is that the model will be replicated in cities across North America and around the world.

For new building projects, there is growing awareness of and demand for buildings that meet the Leadership in Energy and Environmental Design (LEED) rating system standards. Numerous local, provincial and federal government agencies are adopting LEED as their *de facto* building standard for both their retrofits and new buildings.

There is good reason for this, as LEED-certified buildings generate a number of benefits — higher rents, better tenant retention, improved indoor air quality, plus reduced energy and water costs. In the U.S., many areas are adopting mandatory programs that require green schools, because of their link to improved learning. All of this will help

accelerate the already rapid rate of adoption we're experiencing in the commercial and residential sectors. And because this standard for sustainable green building design can be applied worldwide, architects with experience in meeting these standards can increase their potential opportunities abroad.

Whether it's local or abroad, new or retrofit, building green requires a renewed focus on design and the design process. The systems in green buildings are more interdependent than in conventional buildings and therefore demand an integrated design approach where members of the project team are brought together earlier in the design process to ensure projects achieve their maximum potential.

Leading this facilitation process presents an opportunity for the architect with the correct skills. The current economic slowdown is an excellent opportunity for firms to begin to develop these skills so they are better positioned to take a leadership role in projects in which this type of facilitation is needed.

Controlling urban sprawl

Many major urban centres have contributed to greenhouse gas problems through urban planning policies that have permitted the sprawl of low-density developments into surrounding agricultural lands.

Times are changing. Whether the natural topography of a city has limited expansion beyond existing boundaries (Vancouver, Montreal) or legislation has restricted development to defined areas (*The Ontario Greenbelt Act*), urban intensification within existing boundaries will be needed to accommodate growing city populations.

Architectural expertise will be essential in designing creative, higher-density developments, often using land — such as recovered “brownfield” industrial space — that was previously uninhabitable.

A new way of working

Whether a firm is looking to utilize new green designs, access P3 developments or enter markets abroad, architecture firms need to remain open to new ways of doing business — including partnering with engineering, construction or other architecture firms on projects as opportunities arise.

With the economic slowdown and the tightening of credit markets limiting consolidation in many cases, there is a greater desire to partner on a project-by-project basis or enter into strategic alliances that enable firms to compete more effectively. In addition, many clients are now seeking design-build capabilities when tendering, so architecture and construction firms must either have design expertise in-house or seek a design partner.

These alliances can be an excellent way to expand into new markets. For example, if a firm is small, but has highly specialized expertise, it can gain the ability to bid on larger contracts by partnering with a larger firm that has the capabilities to fulfil any requirement.

In addition to strategic alliances, it may also pay to keep an eye on work prospects abroad. While most world economies were knocked off course by the global financial crisis at roughly the same time, recovery rates may vary significantly from region to region. The next surge in demand for architectural expertise could start halfway around the world. Developing nations alone currently make up 25% of the \$3 trillion global construction market² and these could be the international markets of choice when looking at opportunities abroad.

Prepare for growth — upgrade technology

One of the benefits of a slower market is the time it can give a business to examine its practices and look for efficiencies and growth opportunities.

One of the key opportunities for architecture firms in gaining efficiencies and preparing for future growth is by phasing building information modelling (BIM) software into their practice.

BIM is a digital representation of the building process that allows for three-dimensional visualization, simplified collaboration and exchange of information with others, and models that can be easily exported to costing spreadsheets and common drawing formats.

While the integration of BIM into a firm takes time, you do not have to take an all-or-nothing approach. Because BIM is compatible with other design formats, its use can be phased in, with a gradual move from visualization, to production drawings, to coordination with other professionals and beyond. Many firms have had success adopting a small “beta” project as their BIM starter, with a couple of BIM champions developing expertise that can later be shared with others within the firm.

The BIM Practice Builder published by the Royal Architectural Institute of Canada provides a comprehensive overview of the BIM process and the software that’s available. It’s available at www.raic.org and can be a good starting point for the integration of BIM into a firm’s practice.

With the increasing expectation for collaboration among the many stakeholders involved in a project — architects, designers, engineers, consultants, developers and occupants — and with many firms working on projects located beyond local boundaries, the use of BIM software that allows for more robust modelling and ease of collaboration can provide an important foundation for business growth in the years to come.

Managing talent during the downturn

Whether a firm’s future growth plans are focused on pursuing work overseas, taking advantage of green opportunities or participating in infrastructure building and renewal, architecture firms will need the appropriate talent to bid on projects and see them through to completion.

And therein lies the challenge. Architecture is truly a knowledge-based industry, and payroll is the largest expense for most firms. Until infrastructure spending kicks into high gear and world economies begin to recover, lower business volumes will force many firms to reduce their payroll costs. The key question is: how does a firm manage this cost during a soft market but still ensure the talent is there when growth opportunities begin to emerge?

A March 2009 survey³ of more than 500 Canadian small-business owners (between two and 100 employees) offers some intriguing strategies for consideration :

- › **Offer flexible work arrangements.** Flexible work hours (such as coming in later or leaving earlier), or other forms of reducing work hours (such as four-day work weeks or a week off every few months without pay) allow firms to keep talent in place, while reducing their ongoing payroll cost. (*Caution: be sure to get legal advice before instituting any mandatory arrangement so as to avoid potential claims of constructive dismissal.*)
- › **Expand staff with temporary new hires.** The contract staff option provides maximum flexibility to adjust staffing levels later without disrupting the current employee base, should growth be less sustainable than hoped.
- › **Forgo salary.** For smaller firms, a business owner’s salary can represent a significant portion of total payroll expense — and forgoing personal salary can be an effective first step to reduce a firm’s ongoing costs while still keeping the talent on hand. While this represents an enormous cost to the owner over the short term, it could provide the resources to retain talent and allow the firm to capitalize more quickly on growth opportunities as they emerge.
- › **Raise capital.** Larger firms may want to consider corporate financing options or issuing equity to raise capital to cover cash flow gaps over the short term.

- › **Draw on personal assets.** Another option is investing or lending personal assets to the company to free up cash for employee retention. Thirty-four percent of business owners reported investing personal assets in their business during the current downturn.
- › **Offer equity or a partnership stake.** Providing valued employees with an ownership or partnership stake in the business is one way to ensure they'll be with the firm for the longer term. With profits and workload likely at lower levels, it may be possible to structure the new ownership arrangement in a way that costs the business nothing today but can pay off for the firm's new partners as the business grows in the future.

Communication is critical

Communication within a firm — whether formal or informal — is always a critical element of employee engagement and satisfaction. People who are kept “in the loop” are better able to align their actions to the firm's strategy and further its business goals. In times of uncertainty or crisis, communication takes on even greater importance as the “me” questions come to the fore.

- › Is my job safe?
- › Are there better opportunities out there?
- › Will my role be cut back in any way?

In order to retain employee support, it's essential to answer these questions as directly and forthrightly as possible: are layoffs possible; is job-sharing an option; is the firm well-capitalized and able to withstand the downturn?

There's no need to focus solely on the negative, however. Nothing encourages optimism like a plan of action. By letting employees know about the firm's strategy for future growth and the actions it's taking to maximize opportunities, the firm provides both direction and optimism — and gains much greater potential for employee retention.

Putting plans into action

While no one can predict the speed of economic recovery with any certainty, it is encouraging to see positive economic data today as there was none in late 2008. While there are certainly risks to putting growth plans into action at an early stage, there can be an even greater risk in delay. Those who adopt a holding pattern may lose opportunities to those who are “recovery-ready” and quicker off the mark when the rate of construction and infrastructure spending increases.

Whether firms are expanding their expertise into growth areas, entering new markets or simply taking steps to retain their talent, the extent and strategic nature of a firm's actions today will go a long way to determining the rewards it is likely to reap during the months and years to come.

¹ Canada's Economic Action Plan, Budget 2009.

² First Research Industry Profile: Engineering Services, Quarterly update, February 9, 2009.

³ American Express Small Business Monitor, conducted by Angus Reid Strategies.

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