



On-Site

CANADA'S CONSTRUCTION MAGAZINE

AUGUST 2014

MEGAPROJECTS TRANSFORM TRANSIT

COHERENT TRANSIT POLICY DRIVES
CONSTRUCTION BOOM

MEGAPROJECTS TRANSFORM TRANSIT

BY JIM BARNES

Canada's hit or miss history of mass-transit projects is being transformed. In contrast to the boom-and-bust cycle of the past, longer-term planning and financing as well as bigger projects are slowly becoming the norm in Canada's major urban centres.

Canada's biggest cities are dealing with a transit deficit. "Long daily commutes—more than 75 minutes on average in Canada's biggest cities—are hurting our economic competitiveness. Fast, efficient, and convenient public transit is essential to reducing traffic gridlock and putting a stop to runaway commute times," says Brad Woodside, president of the Federation of Canadian Municipalities (FCM), Ottawa, and mayor of Fredericton, N.B.

Transit proponents say investments in transit infrastructure offers a net benefit to the economy. According to data cited by FCM, every dollar spent on infrastructure garners about \$1.20 in real GDP growth. According to the federal government, every billion dollars invested in infrastructure creates about 11,000 direct jobs.

Some projects are being executed on a scale unthinkable a decade ago. Nearly a dozen projects in Canada, under construction or in the works, are worth a billion dollars or more.

"Never before in my career have I seen so much activity across the country," says Michael Roschlau, president and CEO, Canadian Urban Transit Association, Toronto.

COHERENT
TRANSIT
POLICY DRIVES
CONSTRUCTION
BOOM



Vancouver's Skytrain.

FEAST AND FAMINE

Canada has had a feast-and-famine cycle of infrastructure investment in the past, catering to political realities and economics.

That is an issue for transit projects, which are inherently bigger and require a lot more time to develop and plan than other kinds of infrastructure. Municipalities need to think 10 or 20 years into the future—the life cycle for most infrastructure. The key element is predictability, which enables municipalities to allocate funds and enables the private sector to work efficiently.

"All levels of government are starting to realize that you can't let the governments in power re-evaluate projects," says James Haldenby, a director in EllisDon's civil division, Toronto.

"In Toronto over the past 20 years, the responsibility for expanding the public transit infrastructure has been given to the municipal government. Often, when that government is replaced, the plan is reconsidered," he says. As an example, he cites the Scarborough RT—Toronto's current mayoral candidates strongly disagree on whether to replace it with an LRT or a subway. The election is in October.

"It is helpful to get guidance at the federal, provincial and regional levels to make these decisions and get going with these highly beneficial projects," says Haldenby.

"There's nothing worse for contractors and construction and engineering companies than to have an on-again, off-again business environment. Promises get broken and there are changes in direction. It does not inspire confidence, nor does it serve the public's interest," says Roschlau.

FEDERAL FUNDING

The federal government has made infrastructure investment a linchpin of its 10-year Economic Action Plan (EAP). The \$53-billion Building Canada Plan (BCP) calls for massive investments in collaboration with the provinces and municipalities over a decade and transit projects are eligible for all components of the plan.

"We are really pleased to have a 10-year program in place—I think that's the longest we've ever seen," says Roschlau.

One component of EAP is the Community Improvement Fund—\$32.2 billion, consisting of an indexed Gas Tax Fund and the incremental Goods and Services Tax (GST) Rebate for Municipalities for public transit, roads and other community infrastructure across Canada.

Second comes the New Building Canada Fund (BCF), with \$14 billion in support of major economic infrastructure projects. It has two components.

- A \$4-billion National Infrastructure Fund, for projects like public transit, highways and gateway and trade corridor-related infrastructure.
- A \$10-billion Provincial-Territorial Infrastructure Fund that supports national, regional and local projects including public transit, highways and waste water systems, among others.

Many in the industry suggest that the New BCF is off to a slow start.

The previous incarnation of BCF involved framework agreements with the provinces and territories. These agreements enabled the federal government to negotiate with each province on total investment, eligible categories and how to apply to the fund, among other issues. Those framework agreements are gone.

Now, each province has to administer the programs itself, leading to some confusion and uncertainty at all levels of government. Most elements of the new plan were not communicated until just before the launch in March. The result has been difficulty in establishing an application process, according to FCM.

"Municipalities want to work with the federal government and provinces and territories to cut through the confusion and delays surrounding the New BCF program, and get the work started. Canadians expect all levels of government to work together to get the job done," says Woodside.

The P3 Canada Fund also supports transit projects. This fund allocates \$1.25 billion to support innovation in using public-private partnerships to build infrastructure projects. →

For some municipalities, though, there is a road-block. P3 screening is mandatory for any project worth more than \$100 million that is put forward for BCF consideration.

Screening is not a rapid process. According to FCM, every proposal must include a preliminary assessment. If it looks promising in terms of P3, then a more substantial business case must be made. The federal government suggests it will take between six and 18 months to run through the process, which puts a damper on this construction season.

Other infrastructure programs will provide about \$6 billion to provinces, territories and municipalities.

Provincially, the situation is varied.

QUEBEC

Quebec has entered austerity mode with the election of the Liberals in April. Despite campaign promises to spend some \$15 billion on infrastructure over the next 10 years, Finance Minister Carlos Leita said a look at the books convinced the government to “rethink that particular promise, because the increase in debt will be too fast.”

The existing Quebec Infrastructures Plan calls for spending of about \$7.6 billion over the next 10 years on public transit.

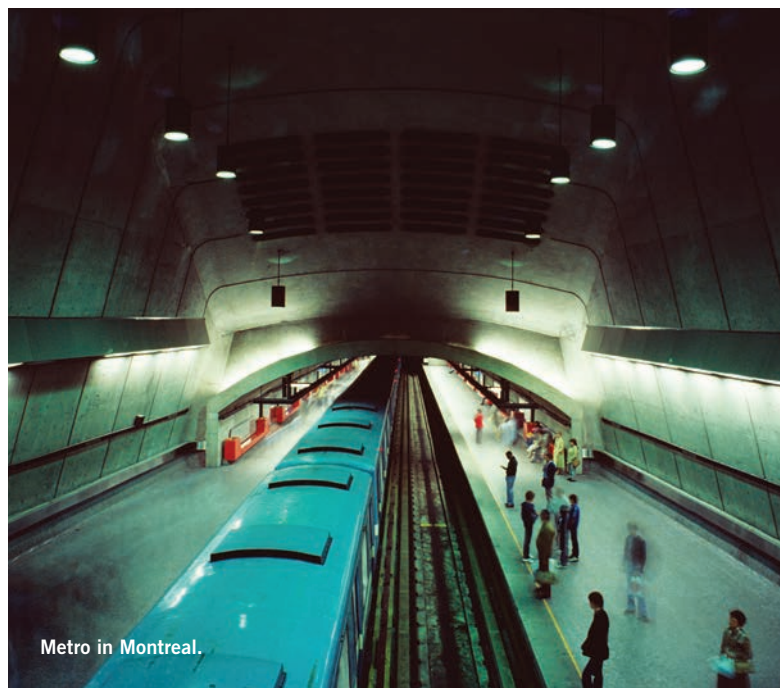
One high-priority project is improvement to West Island transit, between the western suburbs and the city. Buses, trains and light-rail transit are being considered as alternatives, with costs that range from \$1.8 billion to \$4 billion. Studies are still underway.

Current projects will be maintained (for example, new subway cars in Montreal and the Train de l’Est). In real terms, eight per cent of total infrastructure investment will go to public transit, according to an analysis by CAA Quebec.

ALBERTA

Alberta’s \$2-billion GreenTRIP program was launched in 2008 to support sustainable public transit alternatives. The March budget allocated \$162 million to the program for 2016-17, bringing funding commitments to \$667 million over the next three years—basically, meeting industry expectations.

To date, Alberta has approved \$1 billion for transit projects in 15 municipalities. A second round of funding has a Nov. 3 deadline.



Metro in Montreal.

A centrepiece of transit construction will be Edmonton’s \$1.8-billion Valley Line LRT project, which will be funded by \$800 million from the City of Edmonton, \$600 million from the province (including \$300 million from GreenTRIP), and \$400 million from the federal government—\$250 million from PPP Canada funding and \$150 million from the New BCF.

Stage 1 of the 27-km line will include 11 street level stops and one station. Another 14 street-level stops and two stations are planned for later stages.

Alberta transit projects are also eligible for its Municipal Sustainability Initiative (MSI), which will invest \$3.7 billion in municipal infrastructure projects, \$1.24 billion of it in 2014-15.

B.C.

The provincial government is committed to supporting the South Coast British Columbia Transportation Authority, commonly known as TransLink. Created in 1999 to manage the region’s transportation system as a whole, it delivers services through operating companies and subsidiary transit agencies as well as contractors. The organization has a 30-year regional transportation strategy and a fully funded, 10-year investment plan.

One standout megaproject is the \$1.4-billion Evergreen Line, a 10.9-km SkyTrain service that will connect Coquitlam to Vancouver via Port Moody and Burnaby. The Mayors’ Council approved it in 2011 as part of the Moving Forward 2012 Supplemental Plan.

Funding will come from the province (\$583 million), the federal government (\$417 million) and TransLink (\$400 million). Six SkyTrain stations will be built and two existing stations upgraded. Construction is well underway and the line is expected to be open for business in the summer of 2016. →



CONCRETE MAKES FOR ENERGY EFFICIENT PAVEMENT. ALLOWING US TO BREATHE A LITTLE EASIER.

Over a 50-year period, the construction, maintenance, and repair of a concrete pavement uses one third the energy required for an asphalt pavement.

To learn more visit rediscoverconcrete.ca



Cement
Association
of Canada

CONCRETE
even smarter than you think™

ONTARIO

Ontario is a transit construction juggernaut, with several, billion-dollar projects in the works. The Ontario budget, introduced in July, is strongly transit-oriented.

The Moving Ontario Forward plan will commit nearly \$29 billion over the next 10 years to public transit, transportation infrastructure and other infrastructure projects. It comprises two funds: a GTHA fund of up to \$15 billion for investment in transit and a \$14-billion fund for roads, bridges, transit and other critical infrastructure in the rest of the province.

The Ontario Northland Transportation Commission will see investment in rail refurbishment infrastructure.

One prominent project is Stage Two of the \$2-billion Ottawa LRT, which is scheduled for substantial completion by 2017. The 12.5-km Confederation Line will get a provincial investment of up to \$600 million from the Moving Ontario Forward program.

Another is an \$818-million expansion of the 36-km Kitchener-Waterloo LRT to Cambridge. It will also be eligible for a \$300-million investment under Moving Ontario Forward. The adapted bus rapid transit (aBRT) component of

the project is planned for completion by early 2015.

Metrolinx, an agency of the Ontario government, is responsible for a mind-boggling array of transit infrastructure in the Greater Toronto and Hamilton Area.

"The average person in Toronto now spends 82 minutes commuting into the downtown area. It is one of the longest commutes in North America. It costs the local economy about \$6 billion a year, just in lost productivity," Jack Collins, executive vice-president, Rapid Transit Implementation at Metrolinx, Toronto told an Ontario Construction Secretariat conference in Toronto in March.

The organization was founded in 2006 to develop and implement integrated transportation. It launched The Big Move, a 25-year, \$50-billion Regional Transportation Plan, in 2008. The Government of Ontario has committed \$8.4 billion in support of new transit for Toronto.

The overall value of currently funded projects is \$16 billion. Toronto transit projects account for about \$8.7 billion of that. Some 60 transit projects—short-, medium- and long-term—have been identified. →



Brand New Bombardier Streetcars for Toronto.



GOT A BEAST OF A JOB?

RIDE COMFORTABLY INTO BATTLE...AND OUT OF IT.

Weak suspensions can put you in a very uncomfortable position. Roller Suspension™ gives you the more comfortable ride you want with the durability of an all-steel design. You'll never back down from a monster job, even when rolling through harsh materials.



Bobcat

One Tough Animal.



ROLL OVER YOUR BEAST.

Scan the code or visit Bobcat.com/Beast1 and see how Roller Suspension helps you win the battle every day.

1.877.745.7813

Bobcat® and the Bobcat logo are registered trademarks of Bobcat Company in the United States and various other countries.
©2014 Bobcat Company. All Rights Reserved. I 1239M-0



Extending the subway line in Toronto's northwest end is one of a handful of ongoing projects to reduce commuter times across the Greater Toronto Area.

Among the major transit projects underway:

The \$1.2-billion Georgetown South Project will provide GO Transit infrastructure improvements as well as accommodate VIA Rail service, CN freight train service and the new Union Pearson Express. Completion is scheduled for 2015.

The Union Station Revitalization project, estimated at more than \$715 million, is a massive endeavour to expand and upgrade Toronto's major downtown transportation hub. "We expect substantial completion by 2015 and full completion by 2016," Collins said in March.

The \$456-million Union Pearson Express service will connect Union Station with Terminal 1 at Pearson International Airport. The 25-km rail line includes a new three-km rail spur. Trains will be running in the early part of 2015, in time for the Pan Am games in Toronto.

The Eglinton Crosstown LRT will add 19 km of new transit at an estimated cost of \$4.9 billion. Completion is expected by 2020.

The 11-km Finch West LRT should be completed in 2020 at a cost of a billion dollars.

The billion-dollar, 13-km Sheppard East LRT should be complete by 2021. That will be the last piece in the current wave of projects.

A \$1.4-billion investment is on the books to

upgrade and extend the Scarborough RT.

Construction should be complete by 2020.

The Toronto-York Spadina Subway extension is an 8.6-km extension of the Yonge-Spadina subway line. Total capital cost is approximately \$2.6 billion and the line should open in late 2016.

More than 34 km of dedicated bus lanes are planned for the \$1.4 billion York Region vivaNext Rapidways program. About three km is already in operation and the project will be complete by 2018.

The \$259-million Mississauga Bus Rapid Transit project involves 18 km of two-lane, grade-separated road and 12 new stations.

The next wave of projects will see another \$34 billion in spending. These projects include:

- > Expansions to GO service
- > Brampton Queen St. RT
- > Dundas St. BRT
- > Durham-Scarborough BRT
- > Hamilton RT
- > Hurontario-Main LRT
- > East Bayfront LRT
- > TTC Relief line
- > Yonge North Subway expansion to York Region

Jim Barnes is a contributing editor to On-Site.