# Superbuild:

## Infrastructure's new framework

by Dwight Hamilton

David Lindsay, president and CEO, Superbuild

Despite having one of the highest living standards in the world, Ontario may be headed for a challenge in maintaining its high ranking, thanks to its very prosperity. With economic growth measured at 5 per cent annually for the past four years and a population expected to grow faster than any G-7 country until at least 2028, it's likely to place serious demands on hospitals, roads, schools, utilities, jails and just about everything else in public use. About 85 per cent of the projected population increase is likely to occur in the Greater Toronto Area and central Ontario region.

To compound the challenge, Ontario's retired population will probably double during this time. To take a more strategic approach to meeting these anticipated infrastructure needs, the provincial government has created SuperBuild Corp., a finance ministry agency that facilitates public/private partnerships (P3s). Because Queen's Park believes that traditional methods of generating infrastructure financing are insufficient to maintain current and anticipated future service levels, it's joining a growing number of governments worldwide in seeking new methods. SuperBuild intends to double its war chest of $10 billion with private sector funding to refurbish, maintain and construct Ontario's lifelines. A little over a year into SuperBuild's five-year mandate, *Engineering Dimensions* Associate Editor Dwight Hamilton talked with its President and Chief Executive Officer David Lindsay.

**ED:** *One of the broad issues in implementing a P3 approach is that citizens might not trust the private sector as much as the public sector for infrastructure delivery. Is this a problem? People have been used to government providing services, with a tacit understanding that they can trust it.*

**Lindsay:** The challenge will be to demonstrate to the public that it's not the ownership that is the issue, not the financing that's the issue—it's the regulatory controls over the services. The food we put on our table is delivered through a lot of private-sector companies, but we have government regulations for health and safety standards. So why is it okay for the food to be delivered by the private sector, but the water and the gas right next to it have to be delivered by the public sector? That's a question we need to challenge the public to think about.

And there is another challenge that all governments face, which I refer to as an infrastructure deficit. For about 20 years, we've been investing in infrastructure slower than the growth of our economy.

**ED:** *The Professional Engineers Act holds PEO members accountable for the ramifications of their professional engineering work on life, health, property or the public welfare. Whether they are employed by the public or private sector, they have to adhere to strict rules, technically and ethically. Is that an advantage to SuperBuild's mandate?*

**Lindsay:** Definitely. Reminding the public or instilling in [it] a sense of confidence in professional engineering standards and capabilities helps to bring credibility to the table for all construction projects. Whether it's a piece of public infrastructure or whether it's a private-sector elevator going up and down the TD Tower in downtown Toronto, the public wants the confidence that it's structurally sound and it's been signed off by people who understand the business.

**ED:** *Can you prioritize the province's infrastructure needs?*

**Lindsay:** There are pressures and demands on all fronts. When the government first came to office back in 1995, our highways were in a terrible state of repair. The government has spent almost six billion dollars in the last six years to bring these roads up to an acceptable, optimal state of repair.

Shifting to our workforce, the new economy requires more sophisticated education, more understanding of computers and biotechnology and all the wonderful new sciences that are changing the modern economy. And because we are phasing out grade 13, in 2003 there will be two years of high school students graduating. Recognizing that this is coming, last year we put a big emphasis on additional college and university space. That's a huge (roughly $1.5 billion) construction project that's underway now.

A third piece that's taken some considerable amount of money and focus is implementing our health care reforms. There's significant hospital construction going on out there right now (last year we put a billion dollars into hospitals).

For obvious reasons, there's also now a lot of attention being focused on sewer and water [infrastructure]. On a go-forward basis, transit is becoming an issue. They're all important infrastructure needs, and we need to do them all, but you can't do everything at once, so we've tried to roll it out on that basis. But they're all going along at various stages now, so we've got movement on all these fronts. But we're still looking for creativity and new ways to do things faster, more efficiently, and at less cost to the taxpayer.

**ED:** *How does the Brownfields Statute Law Amendment Act fit into SuperBuild's goal?*

**Lindsay:** In the inner parts of our urban centres, there are lots of abandoned manufacturing facilities and land sites that are not being used right now. But the road network, the sewer network and the electricity network go right past these sites. So we have infrastructure in place that is not being used optimally.

Meanwhile, people want to build a new green field site, into which we have to put new sewers and highways. If we can liberate the brownfields—get them redeveloped—not only does it revitalize the cities, it's also an efficient use of infrastructure.

The Toronto waterfront is the biggest example: You have the synergies of redeveloping a whole region, rather than just individual blocks. The redevelopment plan allows for the pipes, the roads, the fibre-optic cabling—all the infrastructure—to be networked and to be planned on a holistic basis, rather than on a piecemeal basis. The inner cites of Hamilton and Kingston also have downtown lands that are not being used optimally right now. [Redeveloping] brownfields also allows us to take some of the pressure off sub-urban sprawl by re-concentrating growth in the inner cities. If we can refurbish these sites, we'll be saving on our costs and we'll have an aesthetic improvement to the region as well.

**ED:** *One of the statistics in a report of yours is that Canada has one of the lowest percentages of engineering and architecture graduates from their university population of all the OECD countries. Ontario's percentage of engineering and technology grads (7 per cent) is about equal to the national average, putting Ontario's rate below almost all OECD jurisdictions. On top of this, civil engineering as a discipline of choice for engineering students is on the wane. How would you inspire a young engineer to make a career in infrastructure?*

**Lindsay:** If you think about Canada's history, our infrastructure has been a very large determinant of who we are, where we settle and how our economy works. The building of the railway, a significant piece of infrastructure if ever there was one, linking Canada from sea to sea [for example]. Prior to that it was the waterways and the canal networks that were the common mode of transportation. Highways and the information highway are the next generations of infrastructure development.

So by working in infrastructure, you're really helping to build a country and helping to build a society. Whether it's the St. Lawrence Seaway or the CPR in Sir John A. Macdonald's time, building our infrastructure has been an important element of building our society. If you think about it as just doing the engineering design work for a construction project, it doesn't sound sexy. But when you really think about how we built the backbone of our economy, it's been on our infrastructure. It's the nerves, the sinew, the bones and the fibre. ◆

**Our infrastructure, from utilities pipes to highways, is the backbone of our economy.**