

Il eyes are on the year ahead, as a tumultuous 2017 winds down. Oil prices remain low, edging towards a mild recovery but not expected to come close to the highs of 2013-2014. And prospects for pipeline construction remain mixed, with TransCanada withdrawing its high-profile Energy East application in mid-autumn. At the opposite end of the spectrum, real estate prices in some of Canada's biggest cities are skyrocketing, with vacancy rates to match. And, with strong nationalist

sentiments coming from the Trump administration in the US, the North American Free Trade Agreement remains mired on the chopping block. So, with 2017 headed for the history books as a wild ride on economic and political fronts, *On-Site* asked economists and industry watchers what we might expect for 2018.

Michael Burt, director of industrial economic trends with the Conference Board of Canada, characterized 2017 as a bottoming out and strikes a note of cautious optimism for the country's

construction sector. "We saw two — and if our forecast holds for this year — probably three consecutive years of decline in spending on construction activity in Canada. But we seem to be reaching a nadir in terms of the downturn in the industry over the last couple of years. We actually see growth in the range of three per cent going forward into 2018 in terms of spending on structures and engineering projects."

Citing Statistics Canada's forecast of a nearly three per cent increase in Canada's

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gross domestic product next year, Burt said the construction sector and the national economy are poised to grow. He added, though, that he doesn't foresee a return to the highs of 2013-2014, after which oil prices plunged and stalled many of the economic improvements that had taken place following the recession of 2008-2009. Business spending on building and engineering reached \$155 billion in 2014 but looks to be less than \$100 billion this year. "Most of the decline in the last couple of years can be tied directly or indirectly

to the drop in commodity prices in mining and oil and gas. That's been the main drag on construction activity in Canada over the last couple of years," says Burt.

Still, he notes degrees of stability. "Oil prices have actually improved modestly and, when you talk about things like industrial metals, those industries are no longer a drag on construction activity. They're not adding a lot of growth, but that switch from being a major thing slowing down construction activity to being at least neutral and even slightly positive is a big

step towards seeing growth in construction activity again."

Canadian Construction Association past-president Michael Atkinson said stabilizing energy prices are a positive sign but ongoing government commitment to infrastructure investment makes a huge difference. "We expect to see more of that in 2018," he says. "Some of the programs reach out seven to ten years, so that's something we believe will provide some spin-off and be a major mainstay of construction demand in the ICI sector

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going forward." Atkinson is particularly buoyed that the federal Liberals have not only continued but added to the previous Conservative government's infrastructure plan. "We promote the idea of long-term infrastructure programs and plans because they're less likely to get completely abandoned by successive governments. We hope governments see that infrastructure is so important and so key to their future economy and social wellbeing that successive governments won't jeopardize that future by cutting prudent infrastructure investments."

While Atkinson sees the Canadian construction sector holding its own and the national economy faring better than earlier projections suggested, he laments the withdrawal of Energy East. "The refineries in eastern Canada need the crude, and we put up so many hurdles that I'm surprised those guys stuck around as long as they did. We've got to do a better job of ensuring that Canada remains a nation where investment and development are encouraged, not where we're putting up a big sign saying closed for business."

Peter Hall, chief economist with Export Development Canada, said domestic policies are crucial, yet global events and pressures influence international financing and have a strong impact on Canada's economy. "There's been significant anti-trade rancour and rumblings all over the place," Hall said. Brexit might seem half way around the planet, yet Canada is undergoing a showdown of

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Association

proportions
with the US
over the possible renegotiation
or termination of
NAFTA. "It throws business into confusion," says Hall.
"Businesses haven't been investing at a

mammoth

normal pace throughout the entire post-recessionary period and they're bumped up against capacity constraints, so they're more inclined to invest now than they have been in the last seven years. The trouble is, when you inject uncertainty and don't know what our trade super-structure is going to look like over the next little while, you get very hesitant investors."

Hall didn't predict any significant surge in commodity prices. "We're not looking for oil prices to turn too far from the \$50 threshold, and base metals will be pretty tame as well," he said. As for the Canadian Dollar, which was briefly at parity with the US Dollar a few years ago before plunging back towards .70 cents, Hall said values of roughly .78 cents in October may drift into the lower to mid .80 cents range through 2021.

How might the multitude of factors impact Canada's ICI construction sector this coming year? "The recession came after a period of over-investment, and when activity dropped there was all kinds of spare capacity in the economy," Hall said. "Our rate of under-investment over the last seven-plus years has kept us from adding to our capacity, so the increase in

activity has used up what we have and we're getting close to very tight measures of capacity constraints. That's what actually kicks off new spending on buildings and equipment in the industrial and commercial space."

Saul Chernos is a Toronto-based freelance writer. Send comments to editor@on-sitemag.com.

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DID YOU KNOW?

- Business spending on building and engineering looks to be less than \$100 billion this year compared with \$155 billion in 2014.
- Vancouver is looking to capture and treat
 90 per cent of the city's average annual rainfall by implementing green infrastructure tools and design guidelines on public and private properties.
- The Yukon Resource Gateway Project is on track to build infrastructure and open up mineral-rich areas for economic development.
- Maritime prospects include the Mactaquac dam in New Brunswick and Husky Energy in Newfoundland.
- Downtown office vacancy rates in Canada's biggest cities ranged from 4 per cent in Toronto to 27 per cent in Calgary this past fall.



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Midstate Site Development owner Glenn Korner says having Volvo on the job won them a school job by allowing them to propose a slide rail system. It required a machine powerful enough to drive the slide rail system into the ground. It saved

the customer \$250,000 — and got Midstate in, out, and on to the next job in just two months.

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Top 10 construction trends in 2018

BY SAUL CHERNOS

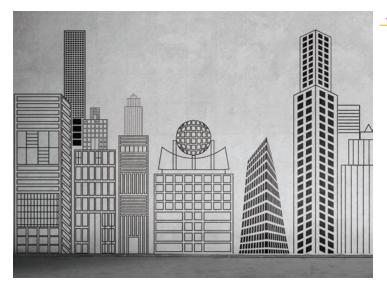
Ichael Atkinson met in late summer with a group of Canada's top construction leaders to gauge the state of the industry. With another year-end in sight, the now-past president of the Canadian Construction Association recounted a range of concerns — some naggingly familiar, others coming to the fore. These are trends that stand to influence construction in 2018:

- **Aging Workforce:** We're not getting younger. As workers retire, they're taking vast stores of knowledge with them.
- Relentless Technological Change: Augmented reality, 3D printing, driverless equipment and more stand to change the way we plan, design and build. New skill-sets are constantly needed.
- **Project Size and Complexity:** Bigger isn't always better, but it's going that way, especially with massive hydroelectric and mining projects involving broad consortia in far-flung, remote locations.
- **Globalization:** Firms from outside Canada are increasingly getting in on the action here.
- **Gobble-ization:** Mergers and acquisitions are involving all segments of the industry. These pressures are contributing to the slow death of the small and medium size firm.
- One-Stop Shopping: Clients often want to integrate the entire plan-design-build process, plus property maintenance.

- **Deteriorating Designs:** Documents, specs, drawings and plans are becoming increasingly ambiguous, contradictory and lacking specific important details and coordination.
- Deteriorating Payment Practices: Contract terms are being extended, with 30 days becoming 60, 90, even 120 days. Will this lead to a new trend demand for legislation reform?
- Procurement Helter-Skelter: Owners are turning to non-traditional ways to obtain design and construction services. Because of the growing lack of capacity, knowledge and experience within their own ranks, some owners and clients are looking to be less involved in the process. The risk? New practices might not be appropriate or even applicable.
- **Risk Adversity:** Risks and responsibilities traditionally borne by clients are being transferred to contractors.

"A lot of these things are related," Atkinson explained. Compound Canada's aging workforce with rapid technological change, for instance, and companies might find it challenging to anticipate the skills new personnel will need.

Atkinson attributed deteriorating designs, in part, to a general lack of experience, with more knowledgable workers retiring. But technological changes tie in, too. There are also links between project size and complexity, increased foreign competition and a rise in mergers and acquisitions. "They manifest themselves in different ways but they're all trends our members are seeing."



""Montreal is
busy because Montreal
is always busy."

— Bob Blakely, Canada's
Building Trades Unions.

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Green infrastructure sprouting up

BY SAUL CHERNOS

With scientists forecasting increasingly turbulent weather, builders developers and governments can expect heightened pressure in 2018 to green their infrastructure.

The Ontario Ministry of Environment and Climate Change, for instance, is developing new measures for stormwater run-off volume control.

"It will require that in any new construction or redevelopment work all projects will have to manage on-site the 90th percentile of rainfall events," said Clara Blakelock of Green Communities Canada. That translates into about the first 25 millimetres of rain, depending on exactly where you are in the province, she explained.

The problem is twofold. Water carried off-site doesn't recharge local water tables, and heavy rains sweep debris, residues and other waste into waterways.

Ontario's rules date to the 1990s and acknowledge the importance of managing rain on-site. But the province has still been approving catch basins and storm sewers. "Now they're coming back and saying people really need to change the way they're doing things," Blakelock said. "There's pretty strong language about what's going to be required for new developments."

British Columbia is also promoting stormwater management on-site, and municipalities are also getting on-board. Vancouver has just come out with a strategy to manage 90 per cent of its rainfall close to where it falls, Toronto has a green roof bylaw and other guidelines, and Halifax and Kitchener, Ont. charge stormwater fees based on a property's impervious area.

"A lot of communities get their drinking water from groundwater aquifers, so if these aren't being recharged through infiltration then they can start to dry up," Blakelock said. "And the pollution from runoff closes beaches and affects fishing, tourism and drinking water."

Tangible measures include permeable pavement and trees as well as landscaping such as rain gardens and bioswales. "Underground infiltration galleries can be completely invisible underneath a parking lot," Blakelock said.

Green infrastructure can increase property values, make streets more walkable, improve air quality, provide habitat for pollinators, reduce the urban heat island effect and help mitigate huge costs arising from storm damage.

"Cities across the country are seeing increased flooding and other impacts," Blakelock said. "These are ways of building resiliency into our cities."

Regional Outlook

BY SAUL CHERNOS

From Sea to Sea may be a Canadian motto and unifying force. However, economic conditions vary considerably across the country. *On-Site* looks at prospects for 2018 region by region.

BRITISH COLUMBIA: Vancouver and the province are faring quite well. However, provincial commitment to the Site C hydroelectric project is uncertain, and proponents withdrew several proposed liquefied natural gas projects. Still, considerable infrastructure work is underway. "The simple fact that people want to reside in that area means considerable uptick on commercial and institutional work," said Bob Blakely of Canada's Building Trades Unions.

ALBERTA: Paul Cashman of the Alberta Roadbuilders & Heavy Construction Association forecasts a lean year. "There was a lot of overbuilding before the recession hit (in 2014), and a lot of office and industrial space is still coming onto the market. It's going to take time to absorb that capacity." Infrastructure projects such as Calgary's Ring Road and Edmonton's Yellowhead Trail Freeway have "acted as a shock absorber," Cashman added. Blakely

said the fallout from TransCanada nixing plans to build its Energy East pipeline will be significant. "With nothing new on the go we're going to be much worse off." He added that "a couple of the biggest shut-downs that Alberta has ever seen" — including the Fort Hills oil sands project north of Ft. McMurray — will employ many people but for just a limited time.

PRAIRIES: Potash is doing well enough in Saskatchewan, but the province is affected by low oil prices and the loss of Energy East, said Blakely. He added Manitoba has two significant hydro projects underway — Keeyask and Keewatinoow — plus some high-rise and office tower work in Winnipeg.

ONTARIO: Proponents have long talked about the Ring of Fire. This potential mining hotspot in the northwest would need roads and other infrastructure. Will 2018 be its year? Andrew Cheatle of the Prospectors & Developers Association of Canada said his hopes are "within the next decade if not sooner." Still, mining remains strong from Thunder Bay through to Sudbury and the region is holding its own, though the cancellation of Energy East means no

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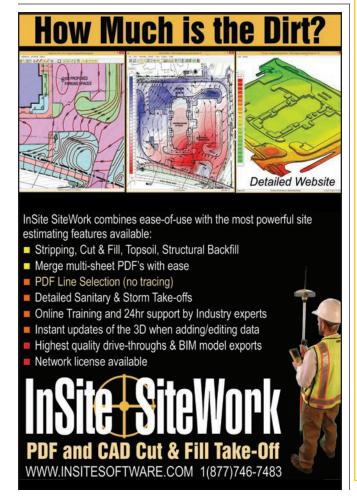
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new pumping stations. The Toronto area and southwestern Ontario are experiencing a strong building boom and large public transit projects are underway there and in Ottawa.

QUEBEC: Plan Nord, a 25-year natural resources extraction strategy, remains a major source of optimism. Cheatle said he sees work commencing within the next few years. Blakely said the province is vying for LNG activity, and there's "a real question" of what's going to happen to refineries in Quebec with the failure of Energy East. Infrastructure is strong in populated centres, with significant road and bridge work, including the new Champlain Bridge in Montreal. "Montreal is busy because Montreal is always busy," said Blakely.

MARITIMES: Blakely said the loss of Energy East dashed refinery hopes in New Brunswick, but some smaller mine projects remain underway and there's potential hydroelectric work with NB Power wanting to reinvigorate the Mactaquac dam. In Nova Scotia, there's significant commercial-institutional work in the Halifax area and ongoing activity in the shipbuilding sector. Newfoundland and Labrador is holding its own with Husky Energy following on the footsteps of Hebron with a planned \$2.2-billion offshore oil project. Iron ore and nickel mining also offer promise, a Vale smelter is nearly completed, and the Muskrat Falls hydroelectric project is ongoing.



THE NORTH: Nunavut, the Northwest Territories and the Yukon are largely sustained by mining and modest infrastructure activity. Work on the Nanisivik Naval Facility on Baffin Island holds some promise and Iqaluit wants to replace diesel with more eco-friendly generation, but these aren't big jobs. "When you have small numbers of people you have a tough time building anything," explains Blakely. In 2017, the federal government committed to the Yukon Resource Gateway Project. PDAC's Cheatle said this includes upgrading roads and is designed to enhance existing infrastructure, help access known deposits and open up areas for economic development. □

Vacancy rates vary

BY SAUL CHERNOS

Downtown office vacancy rates in Calgary were as high as 27 per cent compared with just 4 per cent in Toronto and 8 per cent in Vancouver this past fall.

Altus Group, a real estate services firm, tracks real estate development in some of Canada's biggest cities, and Ray Wong, a company vice-president, said he expects some flattening in Calgary's rate in 2018.

In Vancouver, on the other hand, there's simply not enough space to meet demand. "Vancouver is surrounded by ocean and mountains and there's a shortage of available land," Wong said. He added that a couple of new office projects should alleviate some demand constraints in the next year and a half.

The economy, of course, is a direct factor, too. "As people gain employment, that has a positive impact on the retail sector with increased demand and spending of sectors impacting on retail and commercial store demand," adds Wong.

Other cities mostly fell in between. Halifax was 15 per cent, Edmonton was 13.4 per cent, Ottawa was 11.4 per cent, Montreal was 11 per cent and Quebec City was 8.4 per cent.

Generally, the percentages were higher for areas outside a downtown, and Wong cautioned there is nuance in the numbers. For instance, he pointed out, Montreal's rate sounds high but the current office vacancy rate is expected to decrease based on demand in the technology and business services sectors. "Montreal's tech sector, especially on the gaming side, has been growing, so that 11 per cent rate is a little bit misleading because there's good demand in that marketplace."

For the coming year, nationally, Wong said he anticipates continued demand from the commercial sector. "It should go at the same pace — not exorbitant growth but a good reasonable demand for space."

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