



A TRANSITIONAL YEAR?  
PG. 14

REGIONAL PERSPECTIVES  
PG. 16

TRENDS TO WATCH  
PG. 18

# 2024 FORECAST

TEMPORARY DELAYS EXPECTED

PHOTO: © ELENA THE WISE / ADOBE STOCK





LINDY PRUDEN HSE ADMINISTRATOR, BIRD

# Software for construction, **by construction.**

**Making construction easier.**

Take control of project outcomes, minimize risk, and protect profits with Procore's top-rated construction management platform.

**PROCORE**

[procore.com](https://procore.com)



## Looking Ahead

**P**rocore is proud again this year to sponsor *On-Site Magazine's* Canadian Construction Forecast. The past year has been dotted with challenges ranging from the labour shortage to economic volatility. However, the construction industry is no stranger to challenge, and despite these headwinds, we see companies and individuals continue to innovate. As such, there has never been a better time to embrace digital transformation.

In a recent survey among Canadian construction leaders, respondents said that they are turning to data to drive better business decisions, and tech to help with everything from operational efficiencies, to cost controls and project performance. Looking for solutions that make data and information easily accessible is not surprising, as respondents to the survey said that 17 per cent of time on a typical project is spent looking for data and information.

While construction technology continues to push forward at break-neck speed, digital transformation is an evolving journey. Successful transformation is methodical and strategic – applying the right technology, platform, or solution to meet your needs today and in the future. We know that ongoing innovation is required to keep pace with increasing complexity, business demands and economic instability.

Regardless of where you may be on your journey toward digital transformation, Procore is your partner, helping you to connect all stakeholders on a single platform with access to relevant data and insights to drive profitability, business operations, and reduced risk.

The Canadian Construction Forecast provides an opportunity to better understand the state of our industry, and build enduring processes, investments, and businesses as a result. As we move into the next year, there will be challenges, but there will also be opportunities. Let's work together to move this incredible industry into the future.

Sincerely,

**Nolan Frazier**  
Regional Director, Canada  
Procore



# TRYING TO HOLD STEADY

Companies in most segments are busy at the moment, but 2024 could see the pace dip prior to a re-energized 2025.

BY ADAM FREILL

**G**overnment spend on construction projects is happening almost everywhere in the country right now, and more is on its way, but the question remains whether pending private and publicly funded projects will happen soon enough to avoid an overall slowdown in Canada's construction economy in 2024.

"If you look at all of the programs that are under construction, being developed, and are being proposed over the next five to 10 years, the level of investment is beyond anything I've seen here in the last 35 years," said Gerard McCabe, managing director, Canada, at Turner and Townsend during a recent conversation with *On-Site*.

"I think the proverbial message right now is that people are busy," said Chris Atchison, president of the B.C. Construction Association (BCCA). "They're pleased that

they there is there's lots of work, and work for the foreseeable future, but based on what we know about proposed construction and the trends we've been seeing for the past couple of years, there is a flattening and concern about a slowdown in 2024."

Rick Moffat, partner and head of operations at HKA Canada, is also seeing a slowdown developing, but acknowledges that there is activity expected again around the corner, especially in certain pockets of the construction industry.

"As we close out 2023 and look forward to 2024, HKA has seen the construction market remain steady for ongoing projects but has seen fewer new construction project starts as compared to previous years. With several large energy and industrial jobs wrapping up this year, there is a decrease in overall volume heading into 2024," he

explained. "We do see continued strength in infrastructure investment across Canada, with several mega-projects currently in the design or pre-tender stages. We anticipate that 2024 will include further development of future energy and industrial projects."

Canada's level of construction activity does have machinery moving, which puts the country's construction sector in a more robust spot than many other jurisdictions, says David Orlan, country manager for Machinio in Canada.

"Looking at data from Machinio Members across Canada and around the world, we see that Canada has held stronger in the amount of inventory trading across multiple sectors relative to other markets in North America and Europe."

Of course, sometimes numbers can mask underlying issues.

PHOTO: KINAPJAMES / ISTOCK / GETTY IMAGES PLUS / GETTY IMAGES





"The demand for construction remains high. But government investment in construction projects is obscuring the real situation," stated Atchison, who explained that institutional and government construction are the core growth segments in non-residential construction. "The overall investment in the industrial, commercial and institutional construction sectors has essentially been flat through the first half of this year, and it still remains at about 10 per cent below its pre-pandemic levels."

Investment in infrastructure is making up for lost time, and helping Canada navigate population growth, however.

"I think there's a lot of catch-up to do on the infrastructure side to accommodate this rapidly growing population that we're seeing," said Rachel Battaglia, an economist with RBC. "Investing in infrastructure was a

major theme in a number of the provincial budgets this year."

That investment is going to be necessary as Canada's population continues to grow, explained Nolan Frazier, regional director for Canada with Procore.

"There should be a baseline of core infrastructure that is going to have to be built or rebuilt," he said. "In 2022, the Canadian population grew by 2.7 per cent... According to Canada Mortgage and Housing Corporation (CMHC), 3.5 million additional housing units will be needed to restore affordability by 2030. And all this won't be possible without core infrastructure like hospitals, roads, and schools. These are the building blocks of the community."

Rising mortgage rates and heightened inflation have created an unusual combination of a growing population facing a housing shortage, rising home prices and slowing starts figures. Demand exists and is rising, but shovels are not breaking ground quickly.

"There's obviously lots of demand for residential, but there are clear challenges on the financing side, with rates being where they are," said Battaglia.

That said, Canada is a country of regions, and not all follow the same path on the same timeline.

"We're definitely seeing a slowdown in new residential, but I think it depends on the market you're in," stated McCabe, explaining that Calgary's residential demand has developers looking at converting empty commercial space into condominium housing. "That wouldn't be happening in Toronto right now, because it's a different market."

Hoping to spur the residential sector into action, and to add to Canada's stock of available housing, federal and provincial governments have rolled out tax exemptions on purpose-built rental housing.

"That particular effort is welcome news and will likely stimulate more purpose-built rental projects, but that'll hardly be the silver bullet for a housing crisis," stated Battaglia. "The biggest issue is houses don't get built overnight."

Just as regional differences exist for projects, demand and backlog enhancement for 2024 will likely vary by segment as

well. Office space is still in a lull, but other segments, including retail, are showing some resilience. Data centres, projects related to electric vehicles, and power generation have a lot of wind in their sails, however, and are viewed as growth opportunities.

"We're going to have to start investing in power network upgrades to support EVs and data centres," advised McCabe.

"There's also carbon capture, and the other big thing that's really heating up, not only in Canada, but globally, is this whole discussion around hydrogen," said Eric Peissel, global director for transport and infrastructure at WSP.

There are also opportunities within the existing building stock.

"In the office sector, new build is not out there, but with the energy transition, we're actually seeing a lot of demand for bringing buildings up to up to modern standards and being green," stated Peissel.

Different companies will have different strategies as the 2024 slowdown hits.

"One of the interesting points in our recent stat pack was the value of proposed construction projects in B.C. We are anticipating in the neighborhood of \$174 billion," said BCCA's Atchison. "That seems like a staggering amount, but for the past five years that proposed construction project inventory has been north of \$200 or \$220 billion. So, almost \$50 billion has removed itself."

McCabe's advice is to, "Fill your book early." Even for contractors who are busy at the moment, he says lining up future work now could prevent heightened competition for projects if a slowdown is pronounced.

Also beneficial during a downturn, prolonged or not, is to seek out efficiencies.

"The situation is fluid, and largely outside of companies' control. It remains important to look for efficiencies and to make sure everyone working on a project has timely access to materials information and other data," advised Frazier.

"I think productivity enhancements are always a plus," added Battaglia. "If you can change the way that you build to be more efficient, to me, that is that is the way forward." □



# Construction on deck in all regions

While some projects are wrapping up, new projects are coming into view in all regions of Canada.

## BRITISH COLUMBIA

With current construction projects valued at roughly \$157 billion, and some \$174 billion in proposed projects, as reported in the BCCA's Fall Stat Pack, most contractors are busy, although many of the projects listed in Infrastructure B.C.'s most recent major infrastructure projects brochure, including the Burnaby Hospital Phase 2 and BC Cancer Centre, won't start actual construction until 2025. Key B.C. projects include Roberts Bank Terminal 2, the Highway 1 – 264th Street Interchange Project, and the \$4.15-billion Fraser River Tunnel Project.

## ALBERTA

Construction of the West Calgary Ring Road is expected to wrap up in 2024, as is the BMO Centre Expansion. Projects getting underway this year will include the West Runway Rehabilitation Project at the Calgary airport, and a new \$800-million home arena for the Calgary Flames. The \$9-billion high-speed rail line between Edmonton and Calgary is still in the proposed stage, as is Heidelberg Materials' \$1.4-billion Carbon Capture Utilization and Storage hub. Construction is underway on a new light rail transit vehicle garage and two stations.

## SASKATCHEWAN

Saskatchewan's Major Capital Action Plan includes key infrastructure investments

in the health, education and government services sectors. Key projects include a new \$100-million 35-bed Weyburn General Hospital, the \$100-million La Ronge Long Term Care Centre, the \$45.9-million St. Frances Cree Bilingual School in Saskatoon, and a new Regina Urgent Care Centre.

## MANITOBA

As of press time, True North Real Estate Development had yet to decide on a \$550-million proposal to redevelop downtown Winnipeg's Portage Place mall. If that proceeds, the city will see two new towers in the coming years. Underway is a \$34-million rehab of the Rivers Dam located on Lake Wahtopanah and plans to build nine new schools are being reviewed.

## ONTARIO

Ontario is flush with notable projects that will have construction firms busy for years to come. The Windsor area has a \$4-billion EV battery plant in the works and the \$6-billion Gordie Howe Bridge. Looking north, Bruce Power is exploring the adding 4.8 gigawatts of capacity to its plant, which would make it the largest nuclear plant in the world. Infrastructure Ontario currently has 29 projects in active construction, 15 it is procuring, and another 15 slated to begin procurement next year. Construction is underway on the South Niagara Hospital project and

Volkswagen Group is building its first North American EV battery cell gigafactory in St. Thomas. In Toronto, major projects include the Ontario Line subway, Ontario Place's revitalization plan, major renovations at Rogers Centre and Scotiabank Arena, and the Go rail network is expanding.

## QUEBEC

The Province of Quebec increased its allocation to the Quebec Infrastructure Plan (QIP) 2023-2033 to \$150 billion, an increase of \$7.5 billion from last year's rolling 10-year plan. A little over \$80 billion of that planned investment is allocated to infrastructure maintenance. Expansion of Montreal's Réseau Express Métropolitain continues, and back in the news is a possible transportation tunnel linking Quebec City and Lévis. The expansion of the Maisonneuve-Rosemont Hospital appears to be moving forward, and the l'Île-aux-Tourtes Bridge is in need of replacement.

## ATLANTIC CANADA

Energy is likely to create a number of new construction projects on Canada's East Coast. Wind projects are in the works, and a recent application for a new \$1.4-billion transmission line linking Nova Scotia and New Brunswick could see work start as early as next year. Highways are also attracting spend throughout the region.



# We're finding low-carbon energy in unlikely places

Like biogas captured from wastewater to create Renewable Natural Gas<sup>1</sup> (RNG). It's a low-carbon energy<sup>2</sup> that can be used in homes and businesses across the province—and we're adding more to our supply every year.

Our natural gas delivery system can provide RNG to buildings and developments to reduce greenhouse gas emissions. This means buildings can meet strict emissions guidelines without expensive upgrades or retrofits.

Find out more about RNG at [fortisbc.com/rngbuild](https://fortisbc.com/rngbuild).

Connect with us @fortisbc



<sup>1</sup>Renewable Natural Gas is produced in a different manner than conventional natural gas. It's derived from biogas, which is produced from decomposing organic waste from landfills, agricultural waste and wastewater from treatment facilities. The biogas is captured and cleaned to create Renewable Natural Gas (also called biomethane). <sup>2</sup>When compared to the lifecycle carbon intensity of conventional natural gas. The burner tip carbon intensity of FortisBC's current RNG portfolio is 0.29 gCO<sub>2</sub>e/MJ. FortisBC's current RNG portfolio lifecycle emissions are negative 22 gCO<sub>2</sub>e/MJ. This is below B.C.'s low carbon threshold for lifecycle carbon intensity of 36.4 gCO<sub>2</sub>e/MJ as set out in the 2021 B.C. Hydrogen Strategy.



# TOP 10

## CANADIAN CONSTRUCTION TRENDS TO WATCH IN 2024

What are some of the continuing and emerging themes to watch for in the coming 12 months? Canadian Construction Association president Mary Van Buren shares some of the items on her radar.

BY MARY VAN BUREN

**A**s we continue to navigate one of the more tumultuous economic periods in Canada's history, both within the construction sector and in general life, the end of the year is a good time to take stock and reflect on some of the trends, needs, and developments that are likely to influence the next year of our lives. Here are some of the trends that we have been watching at the Canadian Construction Association (CCA), which we think could have a significant impact on where 2024 takes the industry.

### 1. BREAKTHROUGH OF WOMEN.

The industry's focus to include more women and other under-represented groups to join the construction workforce is paying off. With the industry committed to providing properly fitting PPE, training and education, making improvements to on-site sanitary conditions, creating inclusive workplace cultures, and the increased use of modular construction, barriers are reducing.

Female construction employment

made important gains in September 2023 (+7,800 workers; +3.9%), according to Statistics Canada's Labour Force Survey, bringing the female construction workforce to an all-time-high of 206,000 workers. The trades are also getting a boost – 47 per cent of first-year apprentices applying to be part of the Canadian Apprenticeship Service program were from equity-deserving groups.

These are fantastic gains, and the industry is keen to keep up the momentum. With a need for tens of thousands of additional workers and promoting diversity and inclusion, more women, new Canadians, and other underrepresented groups will put construction on their career radar.

### 2. GOVERNMENTS RECOGNIZE NEED IS FOR HOUSING, PLUS...

Building an incremental 3.5 million units of affordable housing is a challenge unto itself! Now add in the investment and workforce required to connect that housing to clean water and sewage, the electrical grid, upgrade transportation, expand clinics,

hospitals, and schools...and other essential infrastructure to support communities.

A successful housing strategy will include funding that goes beyond the number of units needed to accommodate our growing population and the workforce we need. It will also support and align with our municipalities who carry the brunt of investment and maintenance. The positive economic impact of construction is clear, and governments recognize the industry is foundational to building a stronger Canada.

### 3. SECURE DIGITAL CONTRACTING LEAPS FORWARD.

Canadian Construction Documents Committee (CCDC) and Canadian Construction Association (CCA) guides and documents are consensus documents valued by the industry because they are developed by the industry, for the industry. With CCA's new digital contract purchasing and management platform launching in 2024, they will be even easier to use, leading to wider adoption.

### 4. GENERATIVE AI IS FOR CONSTRUCTION TOO!

Not just a cool tool for other industries; leading firms will move beyond experimentation to including generative AI tools like ChatGPT and GPT-4 in their







processes. Complementing a stretched project management and administrative workforce, some immediate applications include drafting RFIs, sifting through reports for common themes, or drafting reports. While ChatGPT and other generative AI tools may help with real-time analysis of construction data and simplified communication, there are limitations and risks to its use. Companies will create policies and processes to mitigate these risks while harnessing the benefits.

## **5. WINDS OF POLITICAL CHANGE: WILL THEY WORK FOR OR AGAINST CONSTRUCTION?**

A federal long-term infrastructure strategy that addresses Canada's aging infrastructure, invests in the economic growth potential of trade-enabling infrastructure, and plans for housing-enabling infrastructure that aligns with provincial, municipal and Indigenous communities is long overdue.

With a possible change in the federal government on the horizon, the industry will seize the opportunity and responsibility to bring more attention to this urgent issue; focusing on the benefits of job creation, a green economy, and affordable housing – themes important to Canadians.

## **6. COLLABORATIVE CONTRACTING TAKES ROOT.**

With the workforce shortage, high financing costs and large number of projects to advance Canada's economy in the pipeline, owners, contractors and labour will have an incentive to work collaboratively. This will ensure we keep our labour force employed, reduce risks, drive innovation and deliver the essential projects Canada needs to remain a competitive country, and great place to live and work.

## **7. BUILDING GREEN ENTERS INTO THE EARLY STAGES OF "BUSINESS AS USUAL."**

No longer an idea on the horizon, contractors have been gaining experience and expertise over the last few years to build more sustainably. No longer is it unusual or notable when a project incorporates an environmental aspect into the plans. Green is an expectation; notable are the projects, companies and industry sectors that are continually setting the bar ever higher (or lower, if you are assessing based on carbon, greenhouse gases, and energy use).

Manufacturers like the cement producers have committed to ambitious carbon reduction targets, and others are also reducing their emissions. The role of governments in providing incentives, tools to make it easier

for the industry to comply like Environmental Product Declarations (EPDs), and updating the building code will help move the needle.

## **8. WE GET SERIOUS ABOUT ELECTRIFICATION.**

With the federal government's planned release of the Canada Build Green Strategy in early 2024, it will need to get serious about a national electrification strategy, working closely with all orders of government and Indigenous communities. Not only is the level of investment staggering, but we will also need a trained and available workforce.

## **9. IMMIGRATION STARTS FLOWING, BUT PAYOFF IS STILL A FEW YEARS OFF.**

The federal government has taken some positive steps, but overall has not acted quickly enough to secure the necessary construction and related workforce. Immigration is still weighted to higher education.

Accelerating approvals for applicants with skills in high-demand construction jobs, including labourers for our civil sector and skilled tradespeople, is necessary for Canada's future growth. Working closely with provincial and territorial governments will also help align workers to varying needs across the country and fill gaps.

## **10. FOCUS ON APPRENTICESHIP SHIFTS TO RETENTION AND PROGRESSION THROUGH TO JOURNEYPEPERSONS.**

The collaboration between industry, government and labour is resulting in increased applications for the Red Seal trades. This is great news. While we need to maintain this flow of talent into apprenticeships, we must pay equal attention to incenting apprentices to not only stay in the industry, but also to progress to journeypersons.

Retirements will impact our industry's ability to mentor and supervise apprentices if we don't have enough journeypersons to work effectively on projects while training apprentices. Finding good people, keeping good people, and providing these professionals with a pathway to growth is good business and great for the industry's future. □

# On-Site: Pomerleau's Predictions for 2024

**2023 WAS AN IMPACTFUL YEAR FOR POMERLEAU**, one of Canada's largest construction companies. The company witnessed immense growth within the organization and in the sizes of projects it pursues.

To prepare for industry changes in the coming years, Pomerleau is remaining agile. Sean Boyer, Vice-President of Preconstruction gives some insight into the next year and how Pomerleau is preparing for it.

## **How will the labor shortage in the construction industry be addressed in 2024?**

This year, construction costs have been stabilising across the country in the residential and non-residential sectors however, labor shortages will continue to be a struggle and might impact future construction costs if further changes are not implemented in the industry. Focusing on innovative solutions such as prefabrication, robotics and exoskeletons, to help construction trades by reducing accidents risks, improving productivity and construction conditions, are solutions we are also activating to mitigate the effects of the labour shortage.

## **What new building materials and techniques are expected to gain prominence in the construction industry in 2024, and how will they impact project costs and timelines?**

In 2024, we will see more off-site prefabrication and modular construction. As a result of some of the recent sales tax breaks announced by different governments, turning towards more cost-efficient construction methods such as off-site construction and modular buildings, could be one of the ways to help accelerate construction. The development of stronger and lighter materials will help with the transportation and installation of prefabricated components.

## **How will the demand for sustainable and energy-efficient buildings impact the design and construction of structures in 2024, and what incentives or standards are driving this shift?**

With the rising cost of energy and climate changes, we are seeing more clients seeking energy efficient infrastructure. The industry is shifting and placing an emphasis on not only construction costs but operating costs. By investing in certifications like Passive House and LEED, and creating increased environmental quality during the preconstruction phase, clients are benefiting from all aspects of the project and the environment is better protected. The University of Toronto's Scarborough Student Residence is an example of how an investment in the Passive House certification can harbour successful results, as the residence is predicted to be one of the most eco-efficient buildings in the country.

## **With the rise of offsite construction and modular building, how will traditional construction processes evolve in 2024, and what are the implications for project management and timelines?**

Pomerleau is integrating prefabrication into some of its projects to increase site productivity and site safety. Prefabrication limits the number of employees working simultaneously on-site, preventing accidents. The impact right now is more significant on construction schedules and safety than on costs. This will change when prefabrication becomes a more standardized and democratized approach in the industry. So far, the company has seen great success with these projects.

## **What emerging global trends and market forces are expected to influence the construction industry in 2024, and how is Pomerleau preparing for these changes?**

Artificial Intelligence (AI) is probably one of the biggest buzz words right now in the industry. For Pomerleau, the integration of AI in our business is based on a human centric approach. We have been developing a couple of tools with our Research and Development team that harness the power of AI for clerical repetitive tasks and help our teams focus on value-added tasks, such as analysis and decision-making. The team is developing key research on AI to explore potential solutions to industry-related challenges and is getting inspired by other technology leaders across the world.







**POMERLEAU**

