

# CONSTRUCTION BUSINESS

BC & ALBERTA'S CONSTRUCTION MAGAZINE

SPRING 2026 Vol. 23 No. 2



## PNE AMPHITHEATRE

RYAN TONES, PETER KIEWIT SONS ULC

BONDING, INSURANCE, SURETY | INFRASTRUCTURE

PM 40063056

# BC CONSTRUCTION DIRECTORY 2027

RESERVE YOUR AD NOW FOR THE 2027 EDITION...

Contact Dan Gnocato, Publisher

[dang@mediaedge.ca](mailto:dang@mediaedge.ca)

T: 604 549 4521

Brought to you by:

**CONSTRUCTION BUSINESS**

BC & ALBERTA'S CONSTRUCTION MAGAZINE





# Risky Business

WITH THE START OF 2026, the one word I keep hearing is risk. I have been writing about construction for more than 20 years and I don't remember one word dominating conversations as much as "risk" is today.

There has always been risk in construction. But the increasing complexity and scale of projects combined with market conditions is taking that word to a whole new level. Many factors are contributing to this rise in risk - inflation, technology, supply chains - which inevitably lead to project delays and/or cost overruns.

In this issue, risk management is a common theme throughout our features, whether it is obtaining insurance, undertaking alternative delivery models or navigating legal obligations.

While risk is inherently associated with uncertainty, it is also what drives opportunities and innovation. Our feature project, the PNE amphitheatre, is a great example of the risk and challenges taken on by the design team to produce an iconic structure.

Set to open this summer, the amphitheatre required unique and complex engineering to make the mass timber roof structure possible. The project pushed the boundaries of construction and design to deliver a one-of-kind venue for Vancouver.

For our profile, I spoke with Ryan Tones at Kiewit. The company has a long history in Canada, delivering some of B.C.'s most high-profile and complex infrastructure projects. Connecting communities and constructing essential services is a legacy that the company continues to build on.

A handwritten signature in black ink, appearing to read 'Cheryl Mah'.

Cheryl Mah  
Managing Editor

An advertisement for WMB Insurance Services. The background is a construction site with a large excavator bucket in the foreground and a cloudy sky. The text is overlaid on the image.

**SERVING**  
THE CONSTRUCTION INDUSTRY

**WMB**  
WILSON M. BECK  
INSURANCE SERVICES

CONSTRUCTION & COMMERCIAL INSURANCE  
PERSONAL & AUTO INSURANCE  
SURETY BONDING

**We Care. We Help.**

☎ 1-888-437-1100  
🌐 [www.wmbeck.com](http://www.wmbeck.com)  
✉ [info@wmbeck.com](mailto:info@wmbeck.com)



**PRECISION | CRAFTSMANSHIP | STRENGTH**

**ALBERTA | BRITISH COLUMBIA | CALIFORNIA**

**LMSGROUP.CA**



# DIVERSIFIED STRENGTH

BY CHERYL MAH



Ryan Tones has been involved in major infrastructure and heavy civil projects across Western Canada for almost three decades.

His career with Peter Kiewit and Sons ULC (Kiewit) has taken him to communities like Fort St. John, Castlegar, Calgary and Edmonton where he worked on numerous complex projects including the Port Mann/Highway 1 Improvement, the Sea-to-Sky Highway Improvement, the Southwest Calgary Ring Road, and the Trans Mountain Expansion Project.

As one of North America's largest employee-owned firms, Kiewit focuses on several markets including: transportation, water/wastewater, LNG, oil and gas, pipeline, marine, power and building.

"We're very diversified as a business," says Tones, Kiewit Western Canada district manager and presi-

dent. "I'm very proud of our diversification strategy and it's a personal legacy I hope to leave behind."

Tones joined Kiewit in 1999, after obtaining a Bachelor of Applied Science in civil engineering from UBC and a civil technology diploma from BCIT. He has held different positions within the company, rising through the ranks before being appointed to his current role in 2014.

"I started in the office and then moved into the field. My first project was the Keenleyside Powerplant before spending a few years in Alberta and then coming back to B.C. in 2004 to work on the Sierra Yoyo Desan Road project," says Tones, who provides executive management and oversight for operations in Western Canada as well as the infrastructure markets and strategy group across Canada.



Growing up in Maple Ridge, his interest in construction was sparked at an early age. From sweeping floors in a lumberyard to running equipment, Tones

was given opportunities to explore different work in the industry before deciding to pursue engineering. At Kiewit, he has been able to grow his passion for building while leading some of the province's most significant infrastructure and transportation projects. He counts being asked on to go on the Discovery Channel to talk about the Sea-to-Sky Highway project as a career highlight.

"I enjoy the things we build and the people we build it with," he says. "When I started, the company had 100 people in our Western Canada district."

With main offices in Burnaby and Calgary, Kiewit has more than 800 staff and 1500 skilled craft workers today in B.C. and Alberta. The company also owns and is expanding a marine facility in Coquitlam.

"In B.C., we're one of the largest marine contractors and one of the premier road and bridge builders," says Tones. "We specialize in technical, complicated fast paced schedules."

Another advantage that he believes differentiates Kiewit is their in-house permanent design engineering department with about 4,000 designers across the company. The ability to integrate design directly with construction and procurement expertise allows Kiewit to greatly reduce risks and accelerate schedules.

Design engineering was particularly critical when Kiewit was tasked to repair the Coquihalla Highway after the devastating atmospheric river flooding of November 2021. More than 20 sites along 130 kilometres of the highway between Hope and Merritt were damaged along with six bridges.

"When there's an emergency or something really hard to do, that's when we get a phone call," says Tones. "When the Coquihalla got flooded out, Kiewit got the phone call to help re-establish that corridor. We completed that project on an unprecedented timeline."

Incorporating highly specialized engineering techniques, the emergency repair of the highway allowed the critical corridor to reopen in just 35 days. KEA5, a joint venture between Kiewit and Emil Anderson Construction, also completed the subsequent B.C. Highway Reinstatement Program which involved the construction of six new permanent bridges and 4.5km of highway two months ahead of schedule in 2023. The emergency and permanent projects were recognized with multiple awards for their innovative, fast-tracked, and collaborative approach.

"We have a long history with the B.C. government helping out with roads and bridges. We built the first George Massey Tunnel," says Tones, noting they are currently working on the 264th Street Interchange in Langley.

The Langley project is a part of the \$2.3B Fraser Valley Highway 1 Corridor Improvement Program, which features a new diverging diamond interchange — the first of its kind in British Columbia. Kiewit began construction in late 2024 with completion expected in 2027.

Other projects keeping crews busy include the Cheekeye Debris Flow Barrier Project, Woodfibre LNG (completing the marine operations), CN Za-



■ **Top:** Westridge Marine Terminal. **Middle:** YVR North Runway Program. **Bottom:** B.C. Highway Reinstatement Program

## Kiewit considers its people its greatest asset and emphasizes that everyone goes home safely.

nardi Rapids Bridge Project, and the Phillips Reservoir UV Disinfection Facility project.

Kiewit recently completed the demanding six-month YVR North Runway Program, upgrading one of Canada's busiest runways. The \$133 million project was completed in eight-hour shifts overnight, allowing for minimal disruptions. Kiewit constructed the original North Runway in 1996.

"It's an incredibly exciting time to be in construction and engineering," says Tones. "If you're in this sector and you see the investment our country is making into establishing or renewing economic corridors — getting our resources to market, shifting trade — everybody wants to be a part of that."

The federal government's significant announcement of \$115-billion investment in core infrastructure over the next five years and the establishment of the Major Projects Office could mean a construction boom on the horizon.

While Tones is optimistic, he stresses, "there's still a real challenge to getting projects to yes. If we as a

nation want to protect our economy and push these major projects ahead, we have to figure out a way to make the permitting and approval timelines faster."

If these new "nation-building" infrastructure projects do move forward, another challenge is labour capacity. Tones feels there is capacity today with all the recent completion of major projects like Site C, but there is a "potential for a labour shortage in the next couple of years."

Kiewit understands the importance of investing in people and focuses on training, development, retention and career growth. Another key pillar is building strong Indigenous relations and supporting reconciliation.

"Our success is about the people. We're celebrating 85 years with more than 4,000 staff and craft across Canada. As we grow, we want to help with this 'Build Canada' momentum and do it safely," says Tones.

Kiewit considers its people its greatest asset and emphasizes that everyone goes home safely. That safety commitment, boasting a total recordable in-

cident rate well below industry average, was recognized with a 2025 Canadian Construction Association National Safety Award.

Tones also represents Kiewit on the new Canadian Construction Safety Council (CCSC). The council was launched in 2025 by the country's top 12 general contractors with a mission to elevate safety performance, reduce fatalities and leverage innovative new industry technologies. Among CCSC's inaugural initiatives are the adoption of Type II safety helmets, new fall protection standards and a Critical Risks Guideline.

"It is about sharing best practices and pushing each other to make our industry safer for everyone," says Tones.

Having served as a board member for a variety of organizations, Tones has given back extensively to the industry and community. He says he is most proud of his involvement with Kinsight, a non-profit that builds children's centres in his community.

"If we can give back, it's the right thing to do," he says. **CB**



■ The Port Mann Bridge was the largest infrastructure project in B.C. when it completed.

# PUSHING BOUNDARIES

BY CHERYL MAH

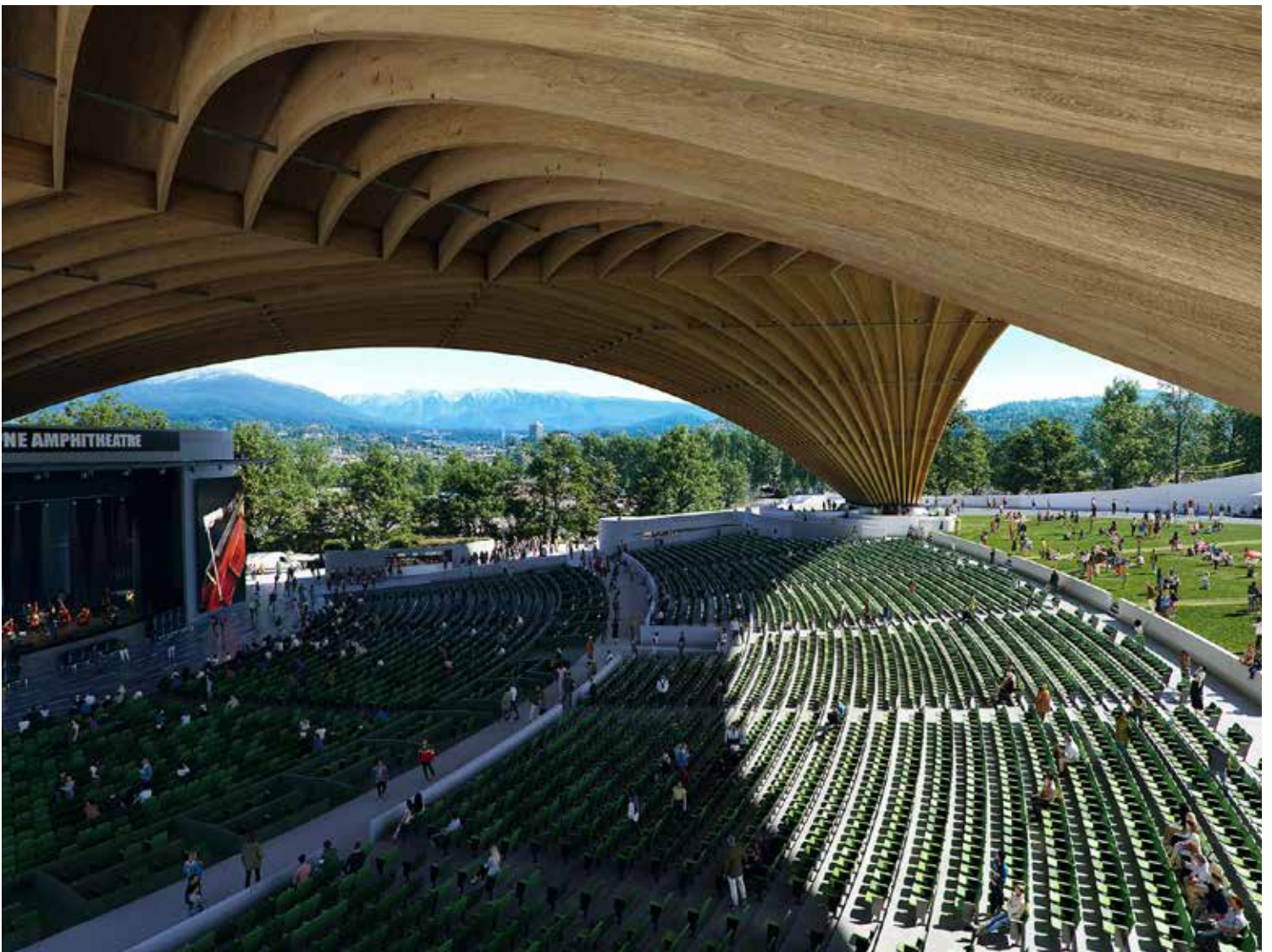


PHOTO CREDIT: Mir

The goal was simple: replace an aging Vancouver outdoor amphitheatre to accommodate more concerts and events all year round. But building an extremely complex mass timber roof structure to achieve that goal was not.

When it opens in summer 2026, the dramatic PNE amphitheatre at Hastings Park will be one of the world's largest free-span mass timber structures and Vancouver's first net-zero carbon cultural project.

The world-class venue, known as the Freedom Mobile Arch, will feature a permanent stage, a three-storey back-of-house building, flexible seating and expansive lawn areas to host up to 10,000 guests for a wide range of programming. The massive roof arches elegantly over the audience, offering an open-air experience that maximizes views of Vancouver's North Shore Mountains.

"We wanted to create a unique experience for both the audience and performers, in a world-class amphitheatre," said Revery Architecture's Venelin Kokalov.

To bring the unique canopy design by Revery Architecture to life demanded early collaboration, ingenuity, problem solving and thinking differently right from the outset.

Robert Jackson, partner at Fast + Epp, said the structural design concept went through multiple iterations with the final form inspired by the 1956 CNIT building in Paris. But instead of a concrete shell structure, it was re-imagined with a mass timber design.

The arch features glue-laminated timber (glulam) beams and cross-laminated timber (CLT) panels to form a canopy that spans more than 360 feet. 180

glulam beams are arranged in six barrel-vaulted segments that intersect at diagonal planes, creating a starburst-shaped roof that's both visually striking and structurally efficient. The entire curved roof structure, rising 80 feet high, is supported only by three massive concrete anchor points.

The extremely complicated geometry (intersecting barrel vaults with no internal columns) and sheer scale of the project posed significant engineering, fabrication and construction hurdles. Considerations included beams sizes, wind loads and the logistics of being able to ship these massive pieces to the site, said Jackson, during Buildex Vancouver, where he presented the structural design of the project.

The structural form was also designed to address Vancouver's rainfall. An innovative stormwater management system, fully integrated with the roof assem-



PHOTO CREDIT: Mir

bly and buttress footings, will capture and filter the first 48 mm of rainfall within any 24-hour period.

EllisDon began major construction work in spring 2024 with the final mass timber beam for the roof raised and installed in August 2025.

It was a long, intense and complicated design-assist process before construction even began, according to Mark Gaglione, director, construction sciences, EllisDon.

“When you look at the structure, it’s more like building a bridge than it is building a normal building. It’s like three bridges leaning up against each other at all times,” he explained.

Figuring out how to construct the roof structure from the unique geometry and decking to every nut and bolt required extensive pre-planning, meticulous attention to details and assembling a team with a high level of expertise, he added.

The team included Nordic Structures who supplied and prefabricated the glulam arches in Quebec, and Walters Group who was responsible for the structural steel elements and installation of key components of the amphitheatre’s steel and timber roof and stage structure.

Gaglione outlined the months of discussions around sequencing strategies to reach a workable construction solution to ensure the stability of the structure at each phase of erection.

“We had to break down this complicated canopy structure into bite size chunks that we called sprints,” he said. “We also had to make sure every piece that was going to arrive could actually be lifted by a crane that was on site.”

Following the formation and pouring of the self-consolidating concrete buttresses, the three “King Arches” – the steel support arches for the canopy – were installed. To connect the mass timber and steel elements, embedded head unit frames were installed within the concrete buttresses, said Gaglione. “The buttresses are a monster element...each like a four-storey building.”

The project required significant, precision lifts to install the record-setting timber roof. EllisDon used two specialized cranes – one to the north, one to the west – to lift the steel and timber components.

Next was the erection of 15 shoring towers, described Gaglione, with the stage used as the 16th tower. This temporary system provided the necessary support during the assembly of the roof structure and after the CLT panels were in place, they were removed.

Each beam was milled off-site and craned into place, locking together with CLT panels to form a continuous shell. This approach accelerated construction and ensured precise alignment—critical for a structure of this scale and complexity. In total, the project used more than 800 tons of structural steel and 900 tons of glulam and cross-laminated timber.

To streamline installation and for safety, the conduits and lighting fixtures were pre-installed before the roof beams were lifted into place, said Gaglione.

In total, Houle Electric installed 2.2 kilometres of linear lighting fixtures on the roof, 393,000 feet of



PHOTO CREDIT: David Krocak DroneCam Studio

wiring, 4,709 lighting fixtures, and 22,141 metres of feeder cables across the site.

Other challenges on the project included cost escalation for materials and labour and unforeseen ground and soil conditions. This has driven the budget up to \$184 million - nearly triple the original estimate.

Despite unexpected circumstances and technical complexities, the project is nearly at the finish line with occupancy and final fit-out scheduled for May 2026 — just in time for the highly anticipated FIFA Fan Festival and the 2026 PNE Fair later in the summer.

Designed as a landmark space, the amphitheatre will transform the city's entertainment landscape. The venue is expected to host 75 performances per year, including community arts and culture shows, commercial shows, corporate shows and the popular PNE Summer Night Concerts.

"The amphitheatre will be a jewel in Vancouver's crown of spectacular venues," said PNE president and CEO Shelley Frost. "The project will showcase British Columbia building products and engineering while adhering to the highest standards of environmental sustainability."

The project is designed to LEED Gold and targeting Zero Carbon Building certification through the Canada Green Building Council. It will be 100 per cent electric and powered by renewable (hydroelectric) energy. It is also targeting Salmon Safe certification, reflecting a commitment to minimizing impact on local ecology and waterways.

The use of mass timber not only offers significant aesthetic appeal but also acoustic performance, weather resilience and fire safety. The timber acts as a carbon sink and allows the project to achieve a 40 per cent reduction in embodied carbon compared to the baseline. The amphitheatre has already received numerous awards for its innovative, sustainable mass-timber design.

"This was a high-water mark project in my career so far," said Gaglione. "It required creativity, discipline and trust. It pushed us to our technical limits and reset the bar for teamwork." **CB**



PHOTO CREDIT: Site Partners

# Subdivision Bonds Unpacked

BY JAKE LUDER



Every developer knows the many steps and processes involved in starting a project and building communities. It's not easy. One of these steps is securing the subdivision agreement obligations. There is good news on this front — as there are more options evolving to improve the pace and efficiency of development.

The bond itself is a surety bond used to secure applicable obligations as laid out in the subdivision agreement between the developer and the municipality.

In Canada, subdivision bonds had been in use to varying degrees and in select situations, mostly in Ontario and Alberta, but also on occasion in B.C. However, over the years and decades the vast majority of subdivision obligations were secured by Letters of Credit (LC) provided by banks.

The landscape is changing, in a positive way. The City of Calgary and some neighbouring municipalities had been accepting bonds for decades. Calgary formally amended their Master Development Agreement in 2019 to update, expand and formalize their ability to accept bonds from approved sureties.

Through advocacy from developers, surety brokers and the Surety Association of Canada — we have seen an expanding list of municipalities institute pilot programs where they become familiar with the product and fine tune wordings and processes. And then eventually expand to where the Subdivision Bond is fully acceptable as security. We expect this

trend to continue to expand to more municipalities and more products where it makes sense.

Banks typically take specific security to secure every dollar of the LC amount. The mainstay base security agreement for a surety company is an Indemnity Agreement and typically does not tie up the assets of the developer or impinge on their overall debt capacity — capacity they probably need to finance and advance the project. The surety may need other guarantees or security measures depending on each developer's financial strength and specifics of the project. However, in most cases, the surety company will not tie up valuable resources to the extent the bank will to provide an LC.

For the municipality, the benefits are speeding up the pace of development and construction. In British Columbia's province led push for density and affordable housing, municipalities are increasingly held accountable by the province or assigned specific new housing unit requirements. With the developer able to use more of their resources in the project rather than for security for the municipality, projects are built faster and the tax base for the municipality is accelerated.

From a surety's perspective, these are longer term financial guarantee instruments. On the surety's risk gradient, they are at the higher end of the spectrum. As such, the surety will complete a comprehensive review of the developer's financial position and operating capacity. This includes an assessment of

financial strength of the developer and in addition, the surety evaluates the underlying project's viability, the developer's experience and track record, and applicable macroeconomic conditions at the time of underwriting. In some cases, the surety may look at alternative means of securing the obligation beyond indemnity alone.

Given the complexity of the risk profile and niche nature of the product, the first step for a developer looking to obtain bonding support is engaging with a surety broker with the product knowledge and market breadth to assemble and present the information to the surety company.

As previously alluded to, the acceptance of "on demand" surety bonds has expanded beyond the use of securing subdivision and servicing obligations. Effective January 1, 2026, the Province of British Columbia implemented changes to the Development Cost Charge and Amenity Cost Charge (Installments) Regulation, formally expanding the use of on demand surety bonds on a province wide basis.

Development cost charges (DCCs) and amenity cost charges (ACCs) are growth related cost recovery tools imposed on developers to fund the infrastructure and community amenities required to support increased density. These charges help municipalities deliver roads, utilities, parks, and public amenities without relying on general taxation.

Prior to the 2026 amendment, developers were required to pay a portion of these charges in cash at the time of building permit issuance — typically one third — with the remaining two thirds payable in equal one-year installments. The deferred portion was secured by a letter of credit held by the municipality. While effective from a municipal risk perspective, this structure reduced a developer's borrowing capacity or tied up capital that could otherwise be deployed toward construction and project delivery.

Under the revised framework, developers may now secure these obligations using an on demand surety bond, providing an alternative to traditional LCs. The payment structure has also been modified, requiring only 25 per cent of the charges to be paid at permit approval, with the remaining 75 per cent due at occupancy or within four years, whichever occurs first. Collectively, these changes ease the financial burden of the developer, freeing capital and borrowing capacity to allow them to focus on delivering homes.

All in all, for the professional well-capitalized developer, the landscape for securing their contractual obligations has improved significantly. It is encouraging to see the changes and the trends evolve in a positive way in the last few years. And why not, the municipality is secured by companies attuned to the industry and it helps the developer build the communities we need to support our province's growth. **CB**

**Jake Luder is senior underwriter at Trisura Guarantee Insurance Company in Vancouver.**

# How Risk is Impacting B.C. Projects

BY SARAH HANSON AND HAMZA JAMAL

**B**ritish Columbia's development pipeline is under pressure. Interest rates, labour constraints and shifting buyer demand dominate headlines. But behind the scenes, another factor is shaping outcomes just as significantly: insurance capacity.

In 2026, financing, construction timelines and insurance are no longer separate conversations. They move together, and the projects that recognize this early are the ones most likely to maintain momentum.

## A CHANGING RISK ENVIRONMENT

Greater Vancouver presents a uniquely complex underwriting environment. Seismic exposure, dense project values and insurer accumulation limits make capacity deployment more cautious. With earthquakes common in B.C., and their ability to cause cascading impacts such as liquefaction, fires and infrastructure disruption, the built environment carries a higher risk profile than many other regions in Canada.

At the same time, the total cost of risk has risen. Canada's catastrophe losses continue to influence insurer appetite and terms. CatIQ's early 2026 reporting notes 2025 insured catastrophe losses of CAD \$2.4B and underscores that catastrophe frequency remains high even in "lower" loss years compared to record-breaking periods. The Insurance Bureau of Canada has also highlighted how extreme weather losses have become a persistent affordability and availability issue for the market.

Uncertainty itself has also become a risk factor. Geopolitical pressures, trade policy shifts, material lead times and equipment availability make construction timelines harder to defend. Meanwhile, condo presales are softer than in previous cycles, and some projects are not transitioning cleanly from planning to construction.

In response, more developers are leaning into purpose-built rental as for-sale economics tighten. That shift changes both the risk profile and the operational mindset. Developers are increasingly building assets they intend to hold and operate, and insurance must evolve accordingly.

## WHY INSURANCE NOW INFLUENCES FINANCING

Insurance has become a structural input that influences whether a lender will advance funds, questions if the contractual risk allocation is financeable, and decides if a schedule is credible.

Public and private lenders are also taking a deeper look than before. Many now hire third-party consultants and scrutinize coverage terms more closely. Some are willing to revisit insurance requirements, but only when supported by strong rationale and defensible risk controls. Within the CMHC ecosystem as well, we're seeing clearer policy direction and more emphasis on construction risk documentation and mitigation.



Projects stall most often at the intersection of viability and proof: when pro formas are strained and the insurance submission cannot clearly demonstrate disciplined execution.

## COMMON MISCONCEPTIONS ABOUT UNDERWRITING CONSTRUCTION RISK

A common misunderstanding among developers is thinking that the insurance decision is primarily about the premium. Premium matters, but underwriters are really evaluating risk clarity. They want to know the answers to these questions: Who holds what risk contractually? How is the project phased, and what is the real exposure at each stage? What technology and controls are in place to prevent high-frequency losses (especially water damage)? How will delays be managed and communicated?

When brokers are brought in too late, there is less room to structure risk effectively, particularly on contractual risk allocation and lender-driven insurance conditions that can be negotiated with evidence and context. Engaging early is often the difference between flexibility and friction.

## LESSONS FROM A MAJOR BURNABY DEVELOPMENT

A recent large, multi-phase development in Burnaby illustrates the pressures the market is facing.

Positioned beside rapid transit and planned as a high-density, mixed-use community, the project required complex insurance structuring for several reasons.

One, it sits in a high earthquake-exposure region where insurers are mindful of geographic accumulation. It also includes significant underground work and multiple towers built over shared infrastructure, creating concentrated values at key construction stages. And it required the insurance program to adapt to scope changes and schedule realities.

The solution was to structure coverage around actual phased exposure, aligning declared values and limits to what was truly at risk at each stage, rather than insuring the entire completed project from day one. This approach helped insurers deploy capacity progressively and gave lenders greater confidence that coverage would remain responsive as the project evolved.

Across B.C., and increasingly across the country, projects that are moving forward tend to share several traits: They quantify and communicate risk early. Values-at-risk analysis, NatCat and seismic considerations are addressed upfront, making underwriting more predictable. They adopt technology that prevents losses, not just documents them. Water mitigation sensors reduce claims and increase insurer confidence because they demonstrate proactive management. And they treat risk advisors as part of the project team. Early engagement reduces late-stage surprises that jeopardize timelines and financing.

Despite ongoing friction in the real estate market, insurance capacity exists. The market can support development, especially where risk is well-managed.

## THE BOTTOM LINE

Insurance is actively shaping B.C.'s development future by forcing early conversations around risk structure, resilience and execution quality. Financing, timing and insurance capacity are now one conversation. Projects that start that discussion early are better positioned to maintain momentum and deliver the housing and infrastructure outcomes the province needs. **CB**

**Sarah Hanson is senior vice president and B.C. and Alberta regional leader for Property and Casualty at NFP, an Aon company. Hamza Jamal is vice president and account executive at the same company.**

# Navigating Bonding Challenges

BY BROCK LAWSON

As British Columbia continues to address the growing need for affordable and supportive housing, BC Housing is expanding its development agenda with increasingly complex and capital-intensive projects. With this growth has come heightened scrutiny around financial controls, accountability with project delivery, and long-term performance security. Surety bonds have become a central requirement in this environment, providing assurances that contractors and developers will complete their obligations and protect public funds. For many project proponents, the path to obtaining these bonds is not always straightforward.

Surety bonds, primarily performance and labour and material payment bonds, serve as critical safeguards for BC Housing developments. They are fundamentally different from traditional insurance, as they provide a financial guarantee of contract performance backed by a third party assessment of the applicant's financial capacity, organizational structure, and operational capability. This rigorous underwriting process is essential for BC Housing, which must ensure that the parties delivering these projects possess the resilience and resources necessary to manage evolving risks including rising construction costs, labour shortages, and supply chain volatility. The complexity of affordable housing projects, which often involve multi-phase delivery schedules, modular components, layered funding arrangements, and sensitive occupancy timelines, makes the assurance provided by surety bonds even more vital.

Despite their importance, many developers and project contractors encounter significant challenges securing surety bonds, particularly when their business models differ from traditional general contractors. Surety underwriting is financially intensive and relies heavily on demonstrated strength in working capital, equity, liquidity, historical profitability and proven success of project delivery. Developers, whose balance sheets are frequently asset heavy and oriented toward long-term investments, may not present financial statements in a way that aligns with a surety's expectations. This misalignment can lead to delays or insufficient capacity at critical project stages. Modern housing delivery models are increasingly placing bonding requirements on developers rather than general contractors. While common in public-private partnerships or design-build structures, this can complicate underwriting because sureties must understand not only the financial health of the developer but also how risk is allocated between the developer, builder, subcontractors, and lenders.

When projects are executed through project specific entities, as is typical in real estate development, sureties may hesitate unless additional guarantees or cross-company financial information is provided. Even when a developer is financially strong, the use of these project specific entities can create the perception of insufficient capitalization if not properly



explained. Capacity challenges are also growing as project sizes increase. Large, multi-building developments can require bonding levels that stretch established programs, particularly when multiple BC Housing submissions occur simultaneously.

This is where the role of a specialized surety broker becomes essential. A broker acts as a translator, strategist, and advocate, helping developers navigate the underwriting process and present their financial and organizational information in a format that resonates with surety providers. Financial statements that satisfy lenders or equity partners may not necessarily satisfy surety underwriters, whose focus is on liquidity, leverage, backlog management, and long-term operational continuity. A knowledgeable broker reframes financial data to highlight true strength, clarifying intercompany relationships, identifying available liquidity, and providing context around capital deployment that might otherwise be misunderstood. Because contractual structure is also central to underwriting, brokers help developers adjust agreements, clarify obligations, and design risk-transfer frameworks that align with what sureties require to support a project. This may include revisiting indemnity agreements, strengthening developer to contractor interfaces, or clarifying how cost overruns, change orders, and financing triggers are handled. By addressing these issues proactively, brokers help avoid last minute bottlenecks that could jeopardize project funding or scheduling.

Surety brokers also play a pivotal role in accessing the right markets. The surety industry is relationship driven, and each carrier has distinct preferences related to project type, applicant structure, financial threshold, and delivery model. Brokers maintain active relationships with numerous surety companies, giving developers and general contractors access to a wider range of underwriting perspectives and capacity. This is especially important for large or complex projects where capacity constraints may require syndicated or layered bonding solutions. The advocacy

provided by a specialized broker ensures that the developer or builder's story is told accurately and persuasively, reducing the risk of declination based on incomplete or misunderstood information.

Beyond initial bonding, brokers continue to provide their support throughout the project lifecycle. As housing projects evolve, it is common to see budgets shift, schedules change, and financing terms being adjusted for which each of these developments can have bonding implications. A strong broker stays engaged, advising clients on how operational changes affect their bonding facility and helping to navigate any issues that arise with subcontractor performance, claims, or amendment requests. This ongoing support aligns with the broader philosophy of specialized risk advisory services, where clients value practical, real-world guidance that extends beyond bond issuance. The combination of technical expertise, financial understanding, and contract knowledge provides an indispensable advantage in navigating BC Housing requirements.

In today's environment, housing delivery is urgent and public accountability is paramount. Surety bonds are no longer a formality, they are now a core component of project success. For developers, general contractors, nonprofit providers, and project sponsors entering BC Housing procurement streams, understanding the importance of these instruments and preparing strategically for the underwriting process is essential. With the support of an experienced surety broker, the complexities of bonding can be transformed from a barrier into a competitive advantage, ensuring that vital housing projects move forward with confidence and stability. **CB**

**Brock Lawson is a surety account associate at Wylie-Crump Limited, a Navacord Broker partner located in Vancouver. Wylie Crump's core competency exists within the construction and real estate sector where they offer extensive industry expertise across Western Canada.**

# Risk and Resilience in Construction

BY CRAIG SPENCE



**T**he Canadian construction industry is experiencing a structural shift. Projects are getting bigger, timelines longer, stakeholders more numerous, and delivery models more sophisticated. From a surety's standpoint, this increase in construction project complexity is not just an operational trend; it is fundamentally reshaping contractors' risk profiles, demands on their balance sheets, and ultimately their bottom line.

Across Canada, major infrastructure, institutional, and mixed-use development projects are expanding in size and complexity. Whether tied to public transit, healthcare, industrial sites, or residential builds, these projects have seen contract values escalate dramatically. Many modern projects are large enough to represent several years' worth of a contractor's typical revenue. With scale comes significant concentration risk. When one contract accounts for a significant portion of annual billings, the exposures tied to that job can materially impact the company's entire balance sheet. Cost overruns, delays or disputes on a major project can quickly erode working capital, causing strain to bank and bonding facilities. This shift is forcing underwriters to scrutinize backlog composition, work-in-progress schedules and single-job concentration more closely than ever.

Sureties evaluate not just technical expertise but financial and management capabilities that need to grow commensurately with job size and complexity. Contractors who aggressively pursue large projects without strengthening their financial foundations or partnering with capable trades may find themselves stretched thin, operationally and financially, and potentially unable to meet their contractual obligations.

Many modern construction projects are veering away from the traditional hard bid tender. Alternative delivery models, including design-build, at-risk construction management, integrated project delivery, and the currently popular alliance model, are becoming increasingly common. While these structures promote collaboration and efficiency, they also

shift and expand risk allocations. Contractors are often assuming greater design responsibility, performance guarantees, and long-term warranty obligations than is typical. Furthermore, contractual language has grown more sophisticated and onerous. Liquidated damages provisions, expanded warranty periods, strict scheduling milestones, and heightened performance metrics are frequently embedded into agreements. In a volatile construction environment, these provisions increase the likelihood that otherwise manageable project challenges will escalate into significant financial consequences.

Over the past several years, contractors have contended with unprecedented supply chain disruptions. Global material shortages, transportation bottlenecks, labour constraints, and geopolitical instability have contributed to pricing volatility and scheduling uncertainty. Even as some markets stabilize, the underlying fragility of supply networks remains a concern. Long lead times for critical components, mechanical systems, electrical equipment, and specialty materials can jeopardize project timelines. Escalating material prices also create risk when contracts lack adequate price adjustment clauses. Fixed-price contracts signed in one market environment can become financially burdensome when input costs rise significantly. Contractors who absorb these increases may see margins evaporate. This volatility heightens the need to evaluate contingency planning, procurement strategies, and escalation provisions within contracts. Strong financial forecasting and conservative margin assumptions are important indicators of resilience.

In Canada, statutory holdback already delays a portion of payment; however, in reality, many projects are experiencing extended holdback timelines due to disputes, administrative delays, or layered contractual structures. For contractors, longer holdback periods tie up working capital. On large projects, the cumulative value of retained funds can be substantial. When multiple projects operate concur-

rently under similar structures, the impact on liquidity compounds. Cash flow strain is one of the most significant pressures we observe from a construction-focused brokerage. While income statements may reflect profitability, insufficient liquidity can impair a contractor's ability to fund payroll, purchase materials, or pursue the next opportunity. This tension directly affects bonding capacity, as sureties place heavy emphasis on working capital and cash flow adequacy. In addition, subcontractors face similar pressures, increasing the risk of downstream defaults. When a key subtrade encounters financial distress, the general contractor may inherit both schedule disruption and financial exposures. Having an established subtrade risk management plan can help mitigate the unseen challenges a critical trade contractor may be facing. Subtrade performance bonds are a great product to help keep your project on track.

From our perspective, one of the most important conversations with contractors today revolves around balance sheet strength. As projects become larger and more complex, financial resilience becomes a competitive advantage. Strong retained earnings, prudent debt usage, diversified backlog, and disciplined bidding practices enhance surety relationships, allowing for greater bond support. Conversely, aggressive growth without adequate capitalization can restrict access to bonding support.

Insurance programs must be structured carefully to address blended professional and construction exposures. As contractual language becomes more complex and additional obligations are shifted, working with a dedicated construction broker who can assist with detailed contract reviews and ensure alignment between contractual obligations and insurance coverages becomes an essential service rather than optional value-add.

Risk management is no longer confined to purchasing insurance. It encompasses contract negotiation, project selection discipline, robust and timely financial reporting, internal controls, and proactive claims management. Our company's role has expanded beyond transactional placement to strategic risk advisors. Early engagement allows for identification of insurability issues, coverage gaps, and bonding implications on large and intricate construction projects. We are helping clients navigate an environment where operational decisions, financial structure, and contractual risk allocation are deeply intertwined.

In this era of heightened complexity, thoughtful risk strategy is not merely protective; it is foundational to sustainable profitability and long-term success, so surround yourself with individuals fluent in risk mitigation. **CB**

**Craig Spence, CPA, CMA, is an account executive at Wilson M. Beck Insurance Services (FV) Inc. Based in Langley, he brings more than 15 years of experience in the insurance and financial sectors, specializing in surety bonding and financial risk management for contractors. Contact him at: [cspence@wmbeck.com](mailto:cspence@wmbeck.com).**

# Green Infrastructure: Past and Future

BY KIM A STEPHENS AND RÉMI DUBÉ



**W**hen you think of the issues we face today — weather extremes, drying rivers, degraded streams, frequent wildfires, population growth, housing affordability — they are no different than they were in the 1990s and the 2000s. They are just more complex and more urgent.

## THE GEORGIA BASIN INITIATIVE LEGACY

With hindsight and perspective, 1994 represents a watershed moment in the history of the Lower Mainland and east coast of Vancouver Island. The bioregion was at a crossroads and faced critical choices: “Will it be development that controls us or development that sustains us?”

As a foundation piece for its response, the provincial government of the day launched the Georgia Basin Initiative in partnership with local governments. The influence of the Georgia Basin Initiative is intergenerational. It spawned initiatives and programs flourishing today.

The legacy program is the Georgia Basin Inter-Regional Education Initiative (IREI), launched in 2012 as a successor program, and led by the Partnership for Water Sustainability. Three decades and counting is an amazing legacy.

The Chronicle of Green Infrastructure Innovation in Metro Vancouver is a sweeping narrative of an exciting period in local government “convening for action” history. The Chronicle is about elected leaders and a host of others who rose to the moment and championed the “mission possible” goal: settlement, economy, and ecology in balance!

## A REGIONAL TEAM APPROACH

What’s in a word and/or a phrase? Regional approaches have been around for decades. However,

in 2008 insertion of the word team in “regional approach” changed everything in terms of what “convening for action” means in practice. Team implies there is personal commitment; it also suggests there is a game plan and a coachable context. Success ultimately depends on the right players being in the right places at the right time, and over time.

The Regional Team Approach is founded on partnerships and collaboration and seeks to align efforts at three scales — provincial, regional and local — for the common good. Everyone needs to agree on expectations and how all the players will work together. After that, each community can reach its goals in its own way.

Collaborative leadership across boundaries is powerful. Champions bring essential ingredients for mission impact, notably: passion, commitment, perseverance. Collaboration is energizing. Collaboration creates critical mass. Collaboration overcomes barriers and enables practices that would sustain communities, not control them.

## LESSONS FROM THE PAST INFORM THE FUTURE

The Chronicle started out as a chronology of “convening for action” events. And then it grew into something bigger in scope. Through a conversational interview process, the stories behind the story came into focus. The Chronicle weaves quotable quotes into a 700-page storyline. It serves as a legacy resource for the past three decades. The Chronicle is a tome!

The passage of time provides perspective. And awareness of time and place helps answer this two-part question: What did we learn along the way and where did that lead each time? Themes emerged. Four distinct eras define the past three decades of experience in the Metro Vancouver region, with the period of time for each varying between six and nine years.

Over time, the region has regressed from a situation where many things were in alignment to one where few are in alignment. A post-pandemic reality is organizational amnesia compounded by more and more information but less and less knowledge and understanding.

Today’s frontline staff are finding it more difficult to share their knowledge and vision, perhaps due to a political climate that is less receptive to data-based solutions.

## WITH A NETWORK, EVERYONE GOES FURTHER

Deep knowledge is being ignored or dismissed at an alarming rate. Our world seems to be getting more wobbly, more unstable, more uncertain, and for all sorts of reasons. Storytelling is needed more than ever. It matters how we share information to ensure concepts are conveyed to, and understood by, the people who need to know. Solutions to the issues of our time lie in WHAT stories we tell and HOW we tell those stories.

Frontline staff in local government need safe spaces where they can...one, tap into insights from alumni who are retired from leadership positions...and two, share experiences with their peers as a way to turn problems into solutions. This is exactly what the our Partnership did this past January. We hosted a “safe space forum” for conversations between past, current and future leaders.

In planning the forum, our goal was to foster strong connections among the attendees. We did not want this gathering to be like many professional gatherings where interactions are polite, efficient, but surface level. We deliberately planned exercises that focused on listening, learning, and reflection.

## THE WAY FORWARD

“Work is easier, more effective, and more fun when people work in community with each other,” states Berkeley University’s Dr. Jane Wei-Skillern, network leadership thought leader.

The Partnership mission is to build a network that fosters support in developing solutions to today’s water sustainability challenges. These range from sharing accurate, scientifically grounded knowledge to weeding through political agendas and misinformation; and from the status quo to embracing a holistic, environmentally sound wisdom.

The takeaway message is that we can support each other to make everyone’s work easier by creating a knowledge network. In these busy times, there is tremendous value in networks to help solve problems together. We are all yearning for cooperation that will help buttress this wobbly world. **CB**

**Kim A Stephens is executive director of Partnership for Water Sustainability and Rémi Dubé is a Partnership director. He retired from the City of Surrey having held managers’ positions in the City’s Engineering and Planning Departments.**

# Digitalizing Infrastructure Delivery

BY CHERYL MAH

The opportunity for digital transformation in construction is huge. Digital tools such as BIM, digital twins and artificial intelligence (AI) are game changers that can address common industry challenges to improve productivity and profitability.

But the fragmented nature of the industry means construction companies have not been able to leverage the many benefits of digitalization compared to other sectors. The result is information loss, duplicated efforts, poor communication and inefficiencies across the project lifecycle.

Significant cost growth and schedule delays are becoming the norm on construction projects, according to Dr. Sheryl Staub-French, professor of civil engineering at the University of British Columbia.

“Construction is an extremely under-digitized sector,” she said, noting construction ranks below every sector in terms of digitalization except for agriculture and hunting.

“We have small and medium enterprises. We have a lot of uncertainty that we deal with. There is good reason for our slow adoption of technology. But it also speaks to the real opportunity that we have.”

A repeatable root cause is what she described as “sub-optimal project organization.” She explained that on every project there is information loss throughout the lifecycle. “Every phase we’re generating so much information but that information is not being shared. And if it’s being shared, it’s not being shared in a way that’s useable for those downstream users. It gets recreated, re-verified and re-entered and those errors multiply.”

Project handovers today are through the digital delivery of thousands of PDFs, but the quality of data is variable. To get to digitalization, projects need well-structured information that can be automated and streamlined.

“We’re talking culture change, organizational change, transforming the way organizations work and the way they strategically look ahead and what the value proposition is,” stated Staub-French, who was the keynote speaker at this year’s Transportation Conference, hosted by the Association of Engineering Consulting Companies.

To achieve digitalization transformation, the three critical components are: BIM, digital twin and AI. BIM is at the core of digital delivery and used for all phases of a project, explained Staub-French, citing advantages include 10-20 per cent reduction in construction cost; 20-28 per cent productivity boost and 30 per cent reduction in design changes.

While BIM is being used extensively in design and construction, there are shortcomings in the operation phase.

“This is where we still have a long way to go. Right now we’re chasing paper documents — we’re chasing PDFs. We’re not able to leverage all that useful information,” she said, adding that ideally digital information needs to be integrated from shop drawings to maintenance manuals.



The increasing emphasis on digital twin and the promise of digital twin for operations is profound. Digital twins bring the model to life with real-world data, giving a live representation of the facility.

“We have not seen a lot of BIM uptake in operations. Digital twin will be a game changer for enabling that,” said Staub-French, citing Toronto and YVR as great examples for how they are using digital twins for projects and decision making.

When it comes to how AI is being used, the industry is not surprisingly still very early in implementation. The technology, along with BIM and digital twin, offers lots of opportunities for improvements on construction projects.

“AI shows so much promise in addressing the challenge of the information tsunami that comes with BIM delivery. There needs to be a way to analyze and dissect that information that we’re handing over,” she said. “AI is the last piece that we’ve needed to make this whole ecosystem work.”

Another important component for enabling digitalization is collaborative delivery through contract models like alliance contracts and integrated project delivery (IPD). They focus on key principles such as shared risk and rewards, transparency and trust, resulting in on time, on budget delivery. “These are the mechanisms to facilitate collaboration through digitalization,” she said.

Globally, many countries have BIM mandates and are adopting digital twins, offering Canada important lessons. “The challenge is we’re the only G7 country without a national mandate for BIM,” noted Staub-French, citing UK as an ex-

cellent “model of leadership and collaboration” for Canada.

In the UK, BIM mandates are coupled with industry training and support, data standards and requirements. Similarly, the US has required digital delivery on many projects for more than 20 years.

“On most BIM projects in Canada, we still refer to the 2D documents as a legal deliverable. For this shift to happen, we have to start moving to model as a legal document,” she stressed.

She also highlighted that there are many examples, roadmaps and resources available for B.C. to adopt to drive digitalization. The National Research Council of Canada is investing millions of dollars into the Canadian industry to support digitalization.

“This is a unique time in Canada’s history where we actually get funding to support these innovative endeavours,” said Staub-French, who also cited Québec as being a leader in driving digital transformation in construction.

She concluded by saying to move digitalization forward, government, industry and academia must work together. Government leadership must institutionalize requirements, standards and embed digital delivery in procurement.

Ultimately, organizational change requires systemic changes to work practices and delivery models. It is about starting out small and focusing on information commissioning, advised Staub-French.

“We realize it’s going to be hard but stay the course. Don’t shift back to status quo,” she said. “We have to come together to support the digital transformation that is needed within our industry.” **CB**

# Diversity Delivers Better Projects

BY VANESSA WONG

Conversations about diversity aren't new in engineering. Too often, they start and end with a focus that's limited to representation. These discussions are important, but they can easily miss another slice of reality: how the composition of any project team can dramatically change the way our infrastructure is ultimately delivered.

Engineering projects rarely succeed because of a single person's expertise. They succeed when teams identify risks early, resolve design conflicts efficiently, and coordinate across disciplines before problems even reach construction. In my experience working on multidisciplinary teams, diverse crews often do all the above more effectively.

Early in my career, many of the project teams I worked on followed a traditional structure, with team members who had similar backgrounds and experience levels. At the time, projects were often simpler, with fewer moving parts and constraints, and were well-suited to more prescribed approaches.

Fast forward almost 20 years and multiple promotions later, I feel inspired by how much change I have personally seen on projects. I have increasingly worked on teams with a broader mix of perspectives. By broader, I mean more differences when it comes to seniority, culture, gender, race, and other identity-defining puzzle pieces. What I have noticed across the board is that these teams carve more space for creativity. When people don't feel like outliers, they are more willing to share ideas verbatim, question assumptions, and explore solutions that challenge the status quo.

That openness can make all the difference on complex projects.

Modern buildings call for intensive coordination not only between structural, architectural, mechanical, and electrical teams, but across a broader group of project stakeholders, including clients, user groups, and contractors. When these stakeholders work together to resolve a challenge, diverse perspectives and experience help identify conflicts earlier and lead to practical solutions faster.

As a structural engineer, I collaborate closely with other project team members to integrate building systems and achieve a highly efficient structure that meets all project requirements. These conversations work best when team members feel comfortable asking questions and proposing new approaches that might seem unconventional at first. This back-and-forth dialogue ultimately leads to stronger outcomes for the entire building.

Diverse teams also approach risk differently. When people share similar backgrounds or experiences, they may naturally analyze problems through the same lens. A team with varied perspectives is more likely to consider multiple possibilities and identify risks and opportunities that might otherwise be overlooked.

In infrastructure projects, that matters. Early design decisions influence cost, schedule, and long-



term building performance. The sooner potential issues are identified, the easier they are resolved.

I'm hopeful the engineering space will keep making progress in this realm. Teams today often include a wider range of voices than they did a decade ago. Younger professionals are entering the field, more women are participating in technical discussions, and people from different cultural backgrounds are contributing new perspectives.

However, challenges remain.

One issue consulting firms continue to face is retention. When we look at the pool of engineers-in-training entering the profession, diversity is often strong. But as careers progress, that diversity can narrow. This pattern is sometimes referred to as the "leaky pipeline."

In my experience, one of the biggest factors influencing retention is flexibility.

Engineering consulting can be demanding, especially during critical phases of a project. For many professionals, particularly those raising families, maintaining a long-term career in consulting requires workplaces that provide both flexibility and trust. Flexibility allows people to manage competing responsibilities, while trust ensures that different working arrangements do not become barriers to advancement.

For me personally, the ability to continue working in consulting while raising two young children has depended on that balance. Without both flexibility and understanding from my organization, it would be

difficult to sustain the pace required by the industry. At our company, that support has allowed me to take on leadership roles on complex projects while maintaining the flexibility to be present for important moments outside of work.

On March 8, I joined a community of 750 plus in celebrating International Women's Day. More than just one day, it was an opportunity to reflect on gender equality, how far our profession has come, and the representation gaps we need to keep closing 365 days a year. Where we are now is far from perfect, but examples of women building successful careers as engineers are far more likely than two decades ago when I joined the field.

If there is one takeaway that I hope the industry recognizes is that diversity and optimal project outcomes are married. It is not about filling quotas. It is about creating environments where different perspectives are encouraged, ideas are shared openly, and professionals feel supported in building long-term careers.

When that happens, the benefits extend beyond individuals or EDI benchmarks. They appear in stronger collaboration, vibrant visions, and infrastructure that serves communities best because it was crafted by people who reflect their unique demographics. **CB**

Vanessa Wong is an associate at RJC Engineers in Vancouver.

# Carbon Offset Driving Fleet Innovation



**A**cross North America, the roadbuilding industry is already in the middle of a quiet shift. Contractors are replacing aging diesel fleets with diesel electric drive systems and all electric equipment. For most companies, the motivation is practical: lower fuel costs, improved reliability, and equipment that reflects where the market is heading.

These investments are already delivering operational benefits. What has been missing is a practical way for the industry to recognize and monetize the emissions reductions they create.

The CleanRoads Innovation Program is designed to address that gap.

Led by the BC Road Builders and Heavy Construction Association, through the CleanRoads Innovative Infrastructure Society, the program provides a structured pathway for roadbuilding and maintenance companies to generate verified carbon credits from real operational improvements such as equipment electrification and energy efficiency upgrades.

For an industry that operates large fleets and consumes significant fuel, the opportunity is straightforward: translate measurable emissions reductions into a recognized environmental asset.

## BUILDING AN INDUSTRY BASED APPROACH

Carbon markets are not new, but they have historically been difficult for small to mid-size construction companies to access. Developing a carbon credit project typically requires specialized expertise in greenhouse gas accounting, project validation, and registry management.

The CleanRoads Innovation program was created to remove these barriers.

Rather than expecting each contractor to develop its own carbon offset project, the program aggregates activities from participating companies into a single grouped project under the Verified Carbon Standard administered by Verra.

This model allows participating companies to focus on what they already do best: operating equipment and delivering infrastructure projects. The Society manages the technical aspects of the carbon

program, including data aggregation, third party verification, and credit registration.

“For many contractors, a key challenge is demonstrating emissions reductions in a way the market recognizes,” says Matt Pitcairn, president of the BC Road Builders. “CleanRoads was created to bridge that gap, ensuring the improvements companies are already making can be clearly measured, independently verified, and ultimately recognized for their value.”

The result is a practical pathway for companies of different sizes to participate in the voluntary carbon market without having to build internal expertise in carbon project development.

## FROM EQUIPMENT UPGRADES TO CARBON CREDITS

At its core, the program is built around a simple principle. When companies replace conventional diesel equipment with electric or diesel hybrid alternatives, measurable greenhouse gas reductions occur.

Under the program, participating companies track operational data such as fuel consumption, electricity use, and equipment activity. This information is submitted to the program administrators and incorporated into a formal monitoring and verification process.

After verification by accredited third parties, the resulting emissions reductions can be issued as Verified Carbon Units. Each credit represents one tonne of carbon dioxide equivalent that has been avoided or reduced.

Once issued, those credits can either be sold in the voluntary carbon market or transferred to the participating company for retirement as part of its own sustainability reporting.

## A SHARED MODEL FOR REVENUE

One of the defining features of the program is its shared structure.

The Society is responsible for marketing and selling credits generated through the program. When credits are sold, participating companies receive a majority percentage of the net revenue associated with the credits generated by their activities.

The remaining portion supports program administration, including verification, registry management, and ongoing program development.

For companies that prefer to retain the environmental benefits internally, there is also the option to have their credits transferred to their own registry account for retirement rather than sale.

Importantly, participation does not involve an enrollment fee. Companies are responsible for collecting operational data, while the program handles the complex elements of verification and credit management.

## STARTING WITH REAL WORLD PROJECTS

The CleanRoads Innovation program is built around the kinds of changes that are already happening across the sector.

Electric service vehicles, hybrid heavy equipment, and improved drive systems are becoming more common as contractors look to manage fuel costs and modernize their fleets. By creating a mechanism to quantify those improvements, the program ensures the environmental benefits can be formally recognized.

It also allows companies to scale their participation over time by adding new equipment or activities that meet program criteria.

“This program is focused on recognizing the investments contractors are already making in more efficient equipment and ensuring those improvements can generate real value for the companies leading the way,” says Matt.

## A NEW OPPORTUNITY FOR THE ROAD-BUILDING SECTOR

Infrastructure construction has always been driven by innovation in materials, machinery, and project delivery. The shift toward lower emission equipment is simply the next stage in that evolution.

Programs like CleanRoads are helping translate those real-world improvements into verified environmental value, ensuring the industry’s progress is recognized not only on the jobsite, but in the broader economy.

In doing so, they create a practical opportunity for contractors to better capture the value of the improvements they are already making, without losing focus on building and maintaining the infrastructure communities rely on. **CB**

For more information, visit [www.roadbuilders.bc.ca](http://www.roadbuilders.bc.ca) or [info@cleanroads.ca](mailto:info@cleanroads.ca)

# Data Centre Gold Rush

BY THERON DAVIS AND BILL WOODHEAD

Canada's data centre industry is experiencing a full-blown gold rush. Across the country, from coast to coast, hyperscale and colocation facilities are proliferating as cloud platforms, artificial intelligence (AI) deployments, financial services and government workloads drive demand for digital infrastructure. Canadian data centre capacity is rapidly expanding: analysts estimate the country hosts well over 200 facilities, with major expansions planned and hundreds more in early pipeline stages as hyperscale cloud players and sovereign compute projects take shape. Canada's competitive mix of low-cost clean energy, stable government, cool climate, and strong connectivity advantages further fuels this boom.

Market forecasts underscore this momentum: Canada's data centre construction market alone was valued at over USD 3.3 billion in 2025 and is projected to nearly double by 2031. Meanwhile, the broader data centre market's size and infrastructure requirements — spanning Tier 3 and Tier 4 facilities, advanced cooling systems, and on-site power resiliency — reflect the broader urgency to capture digital infrastructure investments and AI-ready capacity.

This surge has attracted not only domestic investors and developers but also significant global capital, including large sovereign and private equity stakes tied to major hyperscale builds. Combined with government initiatives (for example, strategy efforts explicitly targeting sovereign AI compute capacity), Canada's data centre sector has become emblematic of a new industrial frontier.

## LEGAL FLASHPOINTS IN THE DATA CENTRE BOOM

As with any rapidly growing industry, legal issues are emerging ahead of regulatory frameworks and established planning norms. One of the most visible examples comes from Kelowna, where a developer's lawsuit challenging a zoning refusal for a planned AI data centre underscores how land use and classification issues can stall projects. In that case, the developer argued that the proposed server farm and associated power plant should be considered a utility under existing zoning bylaws, but the regional district maintained that industrial rezoning would be required — leading to litigation over procedural fairness and the interpretation of land use definitions.

This case highlights a recurring theme in Canadian data centre disputes: zoning and land-use certainty. Municipal zoning bylaws are not always written with modern, high-density computing facilities in mind,

yet data centres require specific allowances for heavy power use, cooling infrastructure, and auxiliary systems. Unclear or inappropriate zoning can derail projects, complicate financing, and deter investors.

Beyond zoning, broader regulatory challenges include grid connection approvals, environmental and energy permitting, and navigating federal and provincial regimes governing electricity infrastructure. For example, power interconnection requirements under provincial bodies like Ontario's Independent Electricity System Operator or Alberta's grid authorities can introduce delays or additional requirements.

While clear judicial decisions on data centre litigation remain limited, these early disputes — often rooted in planning, classification, or interpretation of existing statutes — reveal a sector widening faster than the legal and regulatory housekeeping needed to support it.

## IMPORTANCE OF COMMUNITY SUPPORT

Along with regulatory challenges, proponents of data centres should be aware of the major role that community support or opposition can play in the success of a project. Municipalities and regulators are placing greater importance on local acceptance, environmental stewardship, and transparent engagement when deciding whether to approve a project. Owners cannot rely solely on a project's economic benefits to gain approval where communities are concerned about environmental impacts and lack of transparency.

The Alberta Utility Commission's (AUC) rejection of the Synapse Data Centre (Synapse) in Olds, Alberta illustrates these dynamics. Residents expressed concerns about a lack of clarity and transparency, unknown pollution, wastewater management and environmental remediation. Neither Synapse nor the town of Olds could provide meaningful answers since potential negative effects had not been assessed. The AUC's rejection arose directly from this lack of information and community consultation.

## WHY CONTRACTS AND DUE DILIGENCE MATTER MORE THAN EVER

In a landscape characterized by rapid investment and evolving technologies, good contracts and sound procurement practices are not mere administrative overhead — they are project success mechanisms. The complexities of data centre development require contracts that anticipate risk, define responsibilities, and provide certainty for parties ranging from landowners and developers to utilities, construction firms and end users.

Here's why this matters in today's Canadian context:

### 1. Regulatory and Planning Risks

Zoning, permitting and environmental approvals vary substantially across provinces and municipalities. A contract that fails to allocate risk for delayed permits or changing interpretations of land-use rules can leave a developer exposed to cost overruns or litigation. Clearer entitlements and risk-sharing provisions can reduce uncertainty and mitigate exposure.

### 2. Utility and Power Agreements

Data centres are uniquely energy-intensive. Contracts with utility providers or grid operators must be negotiated with detailed attention to connection costs, load commitments, and contingency provisions — all of which are mission-critical to operations. A misstep here can jeopardize service commitments or financing for the entire facility.

### 3. Construction and Supplier Procurement

Given advanced cooling, power resiliency and specialized infrastructure needs, data centre procurement often involves globally sourced equipment and sophisticated build-to-requirements contracts. Procurement strategies must ensure supply chain continuity, risk allocation for delay, and clarity around performance specifications.

### 4. Investor and Financing Confidence

Investors and lenders demand certainty. Well-drafted contracts provide confidence that projects will meet timelines, budgets and regulatory obligations, which in turn supports capital raising and favourable financing terms.

### 5. Timing is Everything

Completing projects early means owners can start making money sooner. As a result, performance incentives and cost underruns sharing mechanisms are key contracting tools to keep everyone pulling in the same direction.

## CONCLUSION

Canada's data centre industry stands at an inflection point — a gold rush of opportunity with vast economic promise. But this boom also exposes early stage and mid-project risks, particularly around zoning, regulatory approvals, and infrastructure dependencies. Thoughtful legal frameworks and robust contract and procurement practices are essential for securing outcomes that stand up to scrutiny, minimize disputes, and deliver value to investors, communities and end users alike. In a race this fast, there's no substitute for meticulous planning and sound legal foundations. **CB**

**Canada's data centre construction market... is projected to nearly double by 2031.**

Theron Davis and Bill Woodhead are partners at Borden Ladner Gervais LLP in Calgary. Theron focuses primarily on drafting and negotiating construction contracts and advising on risk management. Bill focuses his practice in the areas of procurement and construction law.

# Reducing Climate Change Risk

BY REBECCA CLEARY AND JENAYA COPITHORNE



**W**hen heavy rainfall causes damage and delay to a current or completed project, who should bear the cost? This question is being litigated more frequently as extreme rainfall events become increasingly common.

Heavier-than-normal rainfall is becoming a foreseeable risk that project owners, consultants, and contractors should consider when drafting contracts, setting schedules, developing designs, and implementing means and methods. Both total annual precipitation and five-day maximum precipitation are expected to increase in B.C. over the next three decades, by 9 per cent and 13 per cent respectively, while the frequency of a 200-year flood event is expected to increase to once every 50 years. These changes increase the risk of floods that overtop drainage systems, storms that overwhelm temporary enclosures, water accumulation that leads to shoring failures, and landslides that carry project debris into neighbouring properties.

Taking a proactive approach to plan for anticipated changes in climate not only helps to prevent damage and delay, but also reduces the risk of future liability resulting from extreme weather events.

## RISK OF LIABILITY

A party can be held liable in negligence for damage resulting from extreme weather if the court determines that the risk of such damage was reasonably foreseeable, that a reasonable person in the position of that party would have acted differently to prevent the risk of harm, and that the damage would not have occurred but for the act or omission of that party.

The risks of extreme weather become more foreseeable as projected weather trends increase in reliability and are available for public access. However, in the absence of previous reported decisions directly on point, the questions of what parties to a construction project

need to do to meet their standard of care, and what evidence is required to prove a causal relationship between a party's lack of care and the damages at issue, remain to be decided by the courts on a case-by-case basis.

Below are some steps that owners, consultants and contractors can take to reduce their exposure to liability flowing from climate-related challenges.

## PROJECT OWNERS

Project owners can mitigate their exposure to climate-related risk through the project scoping and procurement process. Owners are responsible for determining the level of climate-related risk they are willing to accept over the lifespan of a project, and defining the goals that a project is expected to meet with respect to safety, resilience, service delivery, and cost. With their project goals and organizational risk tolerance in mind, owners should consider assessing, or requiring the successful bidder to assess the consequences of the project becoming damaged or unusable due to extreme weather, and whether changes in weather patterns could increase the likelihood or frequency of such events.

Armed with such information, owners can evaluate bidders' competence to address climate-related risks and ensure that the project specifications are drafted to incorporate relevant requirements to mitigate risk, such as more stringent design flow standards than required by standard codes. Alternatively, the owner may wish to implement operational or maintenance strategies to mitigate climate-related risks.

Failing to consider climate impacts in project scope may not reduce project costs, as the costs of future damage and service disruption may be far greater than the incremental costs of preventing such damage.

## DESIGN CONSULTANTS

Design professionals can mitigate their exposure to

climate-related risk through proactive communication with their clients and legal advisors. A key step for consultants is to inform the client of the risks posed to the project by changing climate conditions, the potential that climate risks may not be factored into governing codes or reflected by historical data, and the options for designing to improve climate resilience. Consultants should clearly document these discussions and the client's decisions. Contract language should specify who bears the risk of loss and delay arising from climate impacts during a project. This language could include clauses related to standard of care and indemnities.

As the work proceeds, consultants can reduce climate-related risks by listing the climate change predictions and potential impacts, discussing the aspects of the project the engineer believes could be impacted, and detailing what has been done in the design to reduce those impacts, in consultation with the owner. Consultants should also consider detailing what operations, maintenance, and inspections are recommended within the service life cycle of the project, and outlining policies and procedures to restore interruptions to service, loss of functionality or repair damages from extreme weather events.

## CONTRACTORS

Contractors can mitigate their exposure to climate-related risk by ensuring their contracts include language which encompasses these risks and allocates it as intended by the parties. During construction, steps should include monitoring weather forecasts and taking steps as necessary to guard against damage within their scope of work, in communication with the owner and consultants. For example, before or during heavy rainfall events, more frequent site monitoring and water removal may be necessary to avoid overtopping of drainage systems, damage from ponding water, or water ingress through temporary enclosures. When a climate event does occur which impacts the cost or progress of work, contractors should ensure they follow the terms of their contract to ensure that they provide timely notice of any additional costs or project delays.

## CONCLUSION

Parties that take steps to acknowledge and mitigate the risks of changing weather patterns will not only protect themselves against potential legal risks down the road, but will also improve the resilience of the projects they work on, both during and after construction. Owners, consultants, and contractors are encouraged to seek out resources, professional development opportunities, and legal advice to stay up-to-date on what the standard of care requires in a changing environment. **CB**

Rebecca Cleary and Jenaya Copithorne are members of the construction and engineering practice at Alexander Holburn Beaudin & Lang LLP.

# The Construction Prompt Payment Act

## Pay-when-paid with accountability

BY DAVID VOLK

For decades, delayed payments and contentious “pay-when-paid” clauses have plagued British Columbia’s construction industry. Subcontractors and suppliers with little bargaining power to avoid pay-when-paid clauses have struggled mid-project when upstream pay-when-paid provisions deferred payment or conditioned payment on events beyond their control.

In 2025, the Province of British Columbia reformed this system with the Construction Prompt Payment Act. The Act establishes a statutory framework requiring prompt payment throughout the construction payment chain and, critically, a fast-track adjudication process for payment disputes.

While the new Act does not abolish contractual freedom, the new law will effectively neutralize the worst consequences of pay-when-paid clauses, replacing them with enforceable timelines and real-time accountability.

### THE PROBLEM WITH PAY-WHEN-PAID CLAUSES

“Pay-when-paid” clauses have historically been used to delay payment down the contractual chain until contractors receive corresponding funds from upstream parties. While these provisions purported to allocate risk, in practice they often allowed owners and general contractors to defer payments indefinitely.

Pay-when-paid clauses are commonly criticized for pushing upstream disputes (i.e. owner vs. general contractor) onto parties uninvolved in the problem. A typical scenario: an owner advances a contentious set-off or backcharge claim against the general contractor for delay. Payment to the general contractor is withheld while that dispute unfolds. Because of a pay-when-paid clause, the contractor withholds payment to subcontractors, even where the subcontractors had no involvement in the alleged delay and fully performed their work. The effect is that subcontractors become involuntary financiers of disputes between owners and contractors, carrying the cash-flow burden of claims that may ultimately prove unfounded or unrelated to their scope. Subcontractors may also face pressure to accept reduced payment in exchange for immediate funds.

Subcontractors struggle to manage these situations because they cannot force owners and general contractors to quickly resolve upstream disputes and unlock payment. Traditional dispute resolution methods such as court or arbitration proceedings can take years, carry significant costs, and require substantial time commitments.

### PROMPT PAYMENT MEANS PAY-WHEN-PAID FOR ALL

Contrary to the expectation of many who believe prompt payment means the end of pay-when-paid, the Construction Prompt Payment Act makes the entire construction payment chain operate on a



form of statutory “pay-when-paid.” Under the new regime, once a contractor delivers a proper invoice, the owner must either pay within the statutory period or issue a notice of non-payment. If the owner does not pay, the contractor may pass that non-payment down the contractual chain by issuing its own notice of non-payment to subcontractors. In those circumstances, the contractor is not required to fund payment to subcontractors simply because the owner has failed or refused to pay.

Subcontractors may still experience the practical effects of upstream payment disputes. If an owner withholds payment from the contractor, the contractor can rely on the statutory framework to withhold payment to subcontractors while the dispute is resolved.

### ACCOUNTABILITY FOR PAYMENT OBLIGATIONS

The crucial difference between typical pay-when-paid clauses and the Construction Prompt Payment Act is that the Act creates accountability.

Under the Act, a party that issues a notice of non-payment cannot allow the dispute to linger indefinitely. The legislation requires prompt referral to adjudication, where an independent adjudicator must render a binding interim determination within a short timeframe. The result is a system that recognizes the practical reality of upstream payment risk but replaces the open-ended delays historically associated with pay-when-paid clauses with a structured process that forces quick resolution.

The speed and ease of adjudication allows subcontractors to significantly improve their ability to influence timely payment, including in situations involving upstream disputes where they are not at fault.

A party can no longer indefinitely withhold payment under a pay-when-paid provision without triggering legal consequences. The legislation tightens the window for withholding and provides a defined remedy for non-payment, guarding against frivolous or strategic non-payment.

The system fundamentally changes pay-when-paid clauses: they no longer mean “pay when I feel like it or when it trickles down.” Instead, they mean “you can raise a dispute, but you must justify it promptly and face a binding decision.” Prompt payment timelines become the default, with real accountability.

### WHAT THE REFORM IS AND WHAT IT ISN'T

It’s important to recognize that the legislation does not prohibit pay-when-paid clauses in contracts outright, and it does not rewrite every contractual term. Instead, it limits their practical effect by tying payment obligations to fixed timelines and fast-track dispute resolution.

Critically for subcontractors and suppliers, the Act shifts the balance of power. Where once payment timing was a negotiated risk, it now becomes a statutory right. Where once disputes over non-payment could smoulder, they are now destined for expedited adjudication.

David Volk is a highly experienced construction lawyer at the law firm of Jenkins Marzban Logan LLP in Vancouver. David participated in and supported the B.C. Construction Association in commenting on the Construction Prompt Payment Act during the province’s drafting phase. Since the introduction of the legislation, David has participated in multiple industry-facing education sessions on the new Act and its impacts on the construction industry.

# VRCA Board of Directors 2026 – 2027

The VRCA Board provides strategic leadership to guide the Association's growth and impact – advancing VRCA's mission to unite the voice of construction through connection, advocacy, and education, while championing the strategic priorities to evolve, unite, and amplify the industry across the Lower Mainland.



**Scott Adkins**  
PCL Construction Westcoast Inc.  
Chair



**Mike Wallis**  
Flynn Canada Ltd.  
Vice Chair



**Craig Enns**  
EllisDon Corporation  
Secretary Treasurer



**Regina Marklund**  
Turner Construction Company  
Past Chair



**Ronan Deane**  
NAC Constructors Ltd.  
General Contractors  
Division Chair



**Jonathan Boyce**  
Ledcor Construction Limited  
General Contractors  
Division Vice Chair



**Jerrylynn McCann**  
Raicor Contracting Ltd.  
Trade Contractors  
Division Chair



**Elisha Mott**  
Mott Electric  
Trade Contractors  
Division Vice Chair



**Hugo Huynh**  
Flynn Canada Ltd.  
Trade Contractors Division



**Tyler VanderHoek**  
GB Group Recycling Ltd.  
Manufacturers & Suppliers  
Division Chair



**Danielle Savioz**  
Victaulic  
Manufacturers & Suppliers  
Division Vice Chair



**Sam Brezden**  
Swain Solutions  
Professional Services  
Division Chair



**Carter Hawke**  
MNP LLP  
Professional Services  
Division Vice Chair



**Nikki Keith**  
Wilson M. Beck Insurance Services Inc.  
Professional Services Division



To learn more about the VRCA Board of Directors, please scan the QR code or visit [vrca.ca](http://vrca.ca)

The BC Construction Safety Alliance is a not-for-profit association that provides services to over 57,000 construction companies employing over 220,000 workers.



PROUD MEMBER OF



Contact us today!

Email: [info@bccsa.ca](mailto:info@bccsa.ca)

[www.bccsa.ca](http://www.bccsa.ca)