

# The Concord

Calgary, AB, Canada (2019)

## PRODUCTS USED:

**Kryston Internal Membrane™ (KIM®) Krytonite™ Swelling Waterstop  
Kryston Waterstop Treatment™**

### OWNER:

Concord Pacific

### ARCHITECT:

Arthur Erickson

### CONTRACTOR:

Centreville Construction Ltd.

### READY-MIX SUPPLIER:

Inland Concrete

### DISTRIBUTOR:

Cascade Aqua-Tech Ltd.

## BACKGROUND

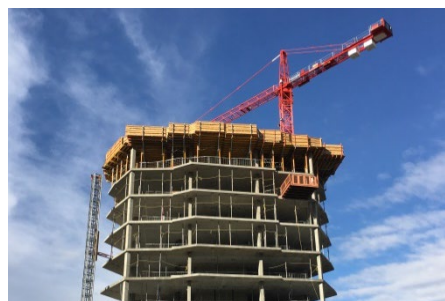
Designed by one of Canada's most well-known architects, Arthur Erickson, The Concord consists of two luxury residential towers in Southwest Calgary that stand proudly near the shores of the Bow River. In total, the two towers can hold 218 suites, with the east tower containing 113 units within 17 stories and the west tower containing 105 units within 14 stories. And they both have much to offer to the residents who live within, including a high-end garden area, an outdoor skating rink, an elegant party room, a pool, and many more amenities.

All of which would not have been constructed at all if Concord Pacific had not overcome the challenge of building these two towers in an area that has a very high water table and is part of a flood zone. In fact, not far from the region, during the 2013 Alberta floods, the East Village neighborhood in Calgary suffered significant flooding.

Keeping that in mind during the construction of The Concord, Concord Pacific and their construction team knew they needed a high-performing concrete waterproofing solution to secure their four levels of underground parking.

## SOLUTION

Having used Kryton's Smart Concrete® solutions previously in structures around Vancouver, Canada, Concord Pacific and their team turned to them for this project as well. After a review of the performance and benefits of Kryton's solutions, they chose Kryton's KIM, Krytonite Swelling Waterstop, and Kryston Waterstop Treatment. They also decided to apply them alongside an external waterproofing membrane. With Kryton's solutions and the external membrane, they were confident that they could avoid any potential water ingress in the future.



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In response, the construction team started by using KIM in the structural shotcrete mix for the below grade walls and the one-and-a-half-meter (five-foot) raft slab of the underground parking. Once in place, the Kryston® technology inside KIM would be able to start a chemical reaction at any sign of water ingress, resulting in needle-shaped crystals that would fill the concrete's capillaries and micro-cracks. That would block pathways for the water, ensuring it couldn't pass through the concrete. For extra waterproofing protection, this technology can withstand high hydrostatic pressure and will grow increasingly effective over the life span of the structure.

To complete the rest of the waterproofing, the team used the Krytonite Swelling Waterstop and the Kryston Waterstop Treatment on all the below grade construction joints.

With the Krytonite, the team's structure got a synthetic rubber waterstop that uses swelling pressure to seal construction joints and stop water. While not the only waterstop out there on the market, the Krytonite does offer superior swelling pressure and performance, which stops water better than bentonite and other competing swelling waterstops.

As for the Kryston Waterstop Treatment, it is a cementitious crystalline slurry that is applied to horizontal and vertical construction joints to provide waterproofing and to protect rebar from corrosion.

All of these Kryton products combined to form a complete waterproofing system. And the team had additional assurance with the installation of their external membrane. As a result, the team has claimed that The Concord includes state-of-the-art flood protection, and Kryton is proud to be one component in that broader protection system.

