

Eau Claire Tower

Calgary, AB, Canada (2016)

PRODUCT USED:

Krytol Internal Membrane™ (KIM®)

DEVELOPER:

Oxford Properties Group

ARCHITECT:

B+H Architects

READY-MIX SUPPLIER:

BURNCO Rock Products Ltd.

APPLICATOR:

Structural Shotcrete Ltd.

DISTRIBUTOR:

Cascade Aqua-Tech Ltd.

BACKGROUND

For residents and tourists alike, one of the more popular spots to be in Canada's City of Calgary is the Eau Claire neighborhood. Known as Calgary's festival district, Eau Claire often hosts community events, including a night market, music festival, and much more. No matter the event, however, this district is always up to offer people a combination of sights involving riverside condominiums, stores, restaurants, hotels, a generous plaza, and urban parkland.

Hoping to develop an equally iconic office building to workers within this area, Oxford Properties Group collaborated with B+H Architects to construct the Eau Claire Tower. Designed to cover 77,109 m² (829,994.37 ft²) and standing at 25 stories, the tower is an urban oasis, offering close proximity to a number of restaurants, shops, and transit spots. To add to this accessibility, the Eau Claire Tower is connected to Calgary's +15 network, which is one of the most extensive pedestrian skywalk systems in the world. It's also a place perfectly made to fuel worker productivity and energy to new heights with dynamic workspaces and several amenities, such as an EV charging station, fitness center, bike facilities, and group fitness classes.

When workers go to attend these features and walk through the front of the building, they are greeted with an elegant façade that incorporates a custom-designed ceramic frit. That adds to the artistic flair of the building, allowing the tower to reflect the formation and movement of clouds. It also helps to increase the tower's performance as it reduces heat gain and light reflection.

What workers don't see, however, is the watertight waterproofing system within the below grade area of the tower, keeping it safe from potential flooding. It is an especially critical component of the tower as the building is in the Elbow River region of Calgary, where floods have occurred a few times before and are likely to happen again, damaging any costly infrastructure without protection. Knowing that beforehand during the tower's development, Oxford Properties Group sought out the best waterproofing solution available.



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SOLUTION

Oxford Properties Group had to consider their waterproofing solution carefully. They were building in an area that was not only prone to flooding but had also recently suffered a particularly devastating flood disaster in 2013, costing the region billions in repairs. On top of that, Oxford Properties Group wanted to use shotcrete to form the below grade areas of Eau Claire. All of which meant that they couldn't use a concrete waterproofing solution that would easily tear like external membranes.

After consulting Cascade Aqua-Tech Ltd. about their situation, Oxford Properties Group chose to rely on Kryton's award-winning waterproofing solution, KIM, for parts of the below grade concrete in need of watertight waterproofing.

Unlike external waterproofing membranes, KIM cannot tear. That's because it is a concrete admixture that goes directly into a concrete mix. Once there, it disperses Krytol® technology, which ensures that the concrete will be able to react chemically in the presence of water, forming interlocking crystals to block up any pathways for the water and sealing small cracks in the concrete along the way.

This chemical reaction stays with the concrete for the rest of its life span and can withstand high hydrostatic pressure, giving the waterproof concrete permanent protection from fast- or slow-moving water.

At the same time, KIM is also free of volatile organic compounds, making it a great sustainable choice for builders.

All of which convinced Oxford Properties Group that KIM was the right choice for them.

In the end, their confidence was proven correct. The tower was successfully built leak-free and became an icon in not only looks but also in sustainability. As a result, the Eau Claire Tower received LEED Platinum certification, BOMA BEST certification, and a sustainability award from the *Alberta Construction Magazine*.

