

Anvil Centre

New Westminster, BC, Canada (2014)

PRODUCTS USED:

Krytol Internal Membrane™ (KIM®) Krytol® Waterstop System

DEVELOPERS:

Kingswood Capital Management, L.L.C.
CRS Group of Companies

CONSTRUCTION MANAGER:

PCL Constructors Westcoast Inc.

ARCHITECT:

Musson Cattell Mackey Partnership

ENGINEER:

Glotman Simpson Group of Companies

READY-MIX SUPPLIER:

Ocean Concrete

BACKGROUND

On September 14, 2014, the Anvil Centre became open to the public in the heart of downtown New Westminster, British Columbia, Canada. Unique in both appearance and structure, the building is a civic center and office tower that makes use of natural limestone and modern glazing to look contemporary and still match the aesthetics of nearby heritage buildings. It's also the only building in the area designed with a three-level underground parkade.

All of the other surrounding buildings went with aboveground parkades. The main reason for that was because the area is known for having poor soil conditions and a close proximity to the Fraser River, which meant the area's water table was not only high but also significantly influenced by the tide.

Despite this obstacle, the construction team for the Anvil Centre planned to keep the center's parkade safe from flooding by waterproofing the shoring walls with an external membrane. But while the team was excavating the worksite for the parkade, the underground water and high tide from the Fraser River ended up flooding the area. As a result, the shoring walls were far too wet for the use of a membrane.

SOLUTION

Looking for a better alternative, the construction team went with Kryton's Smart Concrete® solutions. By using those solutions, they were able to preserve the original design of the Anvil Centre with its three levels of underground parking.



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All they had to do was use Kryton's concrete waterproofing admixture, KIM, and the Krytol Waterstop System. KIM was added to the foundation wall concrete mix, giving the concrete walls the ability to chemically react to and block water. And the Krytol Waterstop System was used in the underground parkade's construction joints, simplifying the construction process and giving them double water ingress protection with the application of Krytol Waterstop Grout™ and Krytol Waterstop Treatment™.

Eventually, the KIM admixture took effect during this process, ensuring that the residual water leakage in the parkade self-sealed over time. To add to this pleasing end result, Ralph Herten from PCL Constructors Westcoast Inc. also stated the following:

We were impressed with Kryton's high level of customer support for the duration of the work.

In the end, the construction team's chosen system proved to be an effective, long-term waterproofing system that kept the Anvil Centre safe and impermeable and helped it earn LEED Gold certification.

