Seylynn Village – Beacon Tower

Vancouver, BC, Canada (2015)

PRODUCTS USED:

Krystol Internal Membrane[™] (KIM[®]) Krystol Waterstop Grout[™] Krystol Waterstop Treatment[™]

OWNER: Denna Homes ARCHITECT: DA Architects + Planners CONTRACTOR: ITC Construction Group READY-MIX SUPPLIER: Ocean Concrete

BACKGROUND

Located in North Vancouver, the Beacon tower was the first of three buildings in the Seylynn Village development. It was part of a 20-year plan the area's district had to revitalize the Lower Lynn neighborhood. While the neighborhood itself was highly sought after, it didn't offer many opportunities for people to move in. As a result, the district turned to this three-building development. It would be the new epicenter for Lower Lynn, adding more possible housing options and bringing in more people.

As part of that opportunity, the 24-story Beacon tower was designed to welcome hundreds of new residents with its 201 luxury condo suites and five additional two-story townhomes. Those who took up residence would get to appreciate the tower's well-thought-out architecture, which takes cues from the surrounding landscape as well as the Lynn Valley area's rich industrial heritage in shipping, logging, and timber milling.

Upon the start of this tower's construction, however, the project team first had to overcome one particular challenge: building two levels of below grade parking surrounded by swampy soil conditions and a very high water table.

SOLUTION

With the hydrostatic water pressure conditions all too evident, the project team needed a permanent solution for waterproofing the concrete in the below grade levels. Doing so would ensure that the hydrostatic pressure would not create waterproofing problems through hairline cracks and joints. With that in mind, the team chose to use Kryton's Krystol[®] waterproofing solutions to fully tank the slab of the below grade parking structure.







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To start, they mixed the waterproofing admixture, KIM, with the below grade concrete mix before pouring it, rendering the entire concrete mass into a permanently waterproof barrier. That led to 12,000 m³ (423,776 ft³) of KIM-treated concrete being poured.

As a permeability-reducing admixture for hydrostatic conditions, KIM is designed to withstand hydrostatic pressure, and it grows increasingly effective over the life span of a structure.

In addition to this protection, the project team also used Krystol Waterstop Grout and Krystol Waterstop Treatment to deliver a concentrated formula of Krystol technology to the vulnerable jointing areas of the structure so that water and moisture would both be blocked from entering them and causing structural damage.

To date, this Krystol waterproofing system is performing as specified, leaving the tower in a safe, dry condition, which allowed residents to move into the completed building during the summer of 2015.





