Stanley Park Seawall Gets a Facelift with MAPEI's *Planitop® 12*

Stanley Park is a more than a landmark to the citizens of Vancouver. It is a cherished place that brings the city's residents memories of their best moments and happiest times, a green space where they can leave behind everyday cares. The 1,000-acre park is host to nearly eight million visitors a year – six million of that number during the summer months.

Between the weather in the Pacific Northwest and the vast numbers of visitors, Stanley Park gets a lot of wear and tear. Recently, the seawall that runs around the 10.5-kilometer perimeter of the park began to show signs of deterioration near the Brockton Point Lighthouse. The Vancouver Parks & Recreation Department tapped Fricia Construction of Abbotsford, BC, to do the repairs and restore the retaining wall on that section of the seawall to its original looks.

The area to be repaired included the concrete coping at the top of a retaining wall that divided a parking area above from a walkway along the seawall below. The original product specified for the project was difficult for the Fricia team to work with and the resulting color was too dark to blend well with the rest of the wall. Ron VanDer Meulen, the project manager for Fricia, contacted his distributor Richform Construction Supply and asked what other products might be available to do this type of work. Glenn Best of Richform suggested that he consult with MAPEI's technical sales representative, Dave Randall.

After discussing the repair project, Randall suggested to VanDer Meulen that he try MAPEI's *Planitop 12,* a fiber-reinforced cementitious mortar with excellent thixotropic (nonslip) characteristics. Randall provided technical support by taking a sample of *Planitop 12* to the jobsite and performing a demonstration. Fricia's concrete finisher immediately saw the advantages of the single-component repair mortar, noting how easy it was to apply and finish. (*Planitop 12* is shown in the center of the picture at left.)

The original coping atop the seawall had become too eroded and damaged from exposure to the harsh sea air for the renovators to apply the *Planitop 12* directly to the wall. Before beginning the

repair, the coping was hydroblasted to remove all of the loose concrete and to profile the surface so that it was ready to accept a topping repair material.

Dave Randall helped customize the repair by suggesting that the finisher apply a slurry bond coat composed of *Planicrete*® *AC* mixed with *Planitop 12* in a 1:1 ratio. (*Planicrete AC* is a concentrated liquid latex admixture that can be used to enhance the performance of repair mortars.) The finisher followed this preparation with a coating of *Planitop 12* at a minimum ¼ inch thickness. The cured repair produced a color that closely matched the rest of the retaining wall.

The demonstration was very successful, so the next step was to convince the engineering consultant to approve the use of *Planitop 12* rather than the originally-specified material. Oon-Soo Ooi of Golder and Associates was pleased with the compressive strength, flexural strength, resistance to salts, polymer content and final color of the *Planitop 12* repair, "…but expressed concerns with the shrinkage that occurs with cementitious mortars exposed to wind and sun when curing." Randall suggested the use of a wet-curing method using burlap to lower the amount of shrinkage that could occur in the Vancouver climate. Everyone agreed on this proposed solution, and the project was completed using *Planitop 12*.