



# Cutting Ties to the Past

Stringless paving makes a difference in massive Vancouver (Canada) airport expansion project



When major facility upgrade work was needed at Vancouver International Airport (YVR), the status quo took a back seat to the latest GNSS-based paving solutions available. Using Topcon Millimeter GPS, LaFarge Canada, got impressive results in production, was able to keep crew size down, saved huge in capital equipment costs, and met a challenging window for completion.

The project on which LaFarge brought the millimeter-grade solution to bear was creation of a remote stand operation (RSO), a gateless area at which aircraft — in this case aircraft heading to and from the U.S. — park upon landing. The fact that LaFarge opted for a stringless approach to paving the RSO is testimony to how confident they were in the solution itself. Mike Darby, the company's operations manager, said the contract actually called for stringline as the process of choice.

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## Company

LaFarge Canada, Inc.  
Mississauga, Ontario, Canada

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## Project

Vancouver International Airport (YVR)  
Vancouver, British Columbia, Canada

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## Topcon Products

Millimeter GPS

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## Topcon Dealer

Brandt Positioning Group  
Surrey, B.C. Canada

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“We knew how we wanted to do it and felt strongly enough about it that we opted to give YVR a credit through Jacob Bros. (the GC) as an incentive to allow us to switch to Millimeter GPS,” he said. “Our reasons were many: using stringline, we would have had to add at least another four workers and a couple pieces of equipment. In addition, staging of the project becomes very difficult when dealing with string, particularly when the paving window is as compressed as this one was at six weeks.”

Working off the base Jacob Bros. used for the excavation and grading operation — which included use of a high-speed John Deere 764 HSD dozer with GPS machine control for most of the subgrade work — LaFarge set up a pair of lasers. When combined with the GNSS function of the paving system, they provided all the coverage needed to ensure paving stayed within the prescribed specs of 5 mm on a 5 m straightedge. The cost of the solution represented a small fraction of the capital costs they would have incurred with a competitive system they’d considered. Production rates were excellent as well according to Nick Leuzinger, LaFarge’s general superintendent.

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“We were shooting for production rates in the 1,100 tons per day range — we’ve regularly been breaking 1,200 and 1,300 tons with a maximum of 1,550 tons. A good deal of the credit for our success out here is because of the help we’ve gotten from Mark Piotto and Brandt Positioning. Some of our team members were apprehensive about switching from the way they’d normally paved but Mark and his guys helped them learn to trust the technology. Once they were over that hurdle, they took to it quickly, which for a system none of them had used before, is pretty impressive.”

Even the most sophisticated technology sometimes has to take a back seat to good old-fashioned visual inspection and that’s the case as Darby looks back at work already done.

“Thus far, we haven’t had to go back and repair any milling deficiencies,” he said. “Despite how complex the composition is and what it has to support, this is essentially a flat parking lot, and typically when we do something like this, there will be deficiencies. Using this solution with three lifts of asphalt, we haven’t had anything. That’s speaks volumes to the accuracy of the solution.”





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