

# Project Spotlight

Dawson Road Office Parking Lot



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## Lafarge's UltraSeries™ FiberPlus Steel replaces rebar in concrete paving.

### Project Details

**Owner:**

Lafarge North America

**Location:**

Winnipeg, Manitoba

**Contractor:**

Maple Leaf Construction Ltd.

**Innovative Products:**

UltraSeries™ FiberPlus Steel

**Volume of Innovative**

**Products:**

300m<sup>3</sup>

**Date of Construction:**

August 2<sup>nd</sup>, 2001

#### The Opportunity

When a gravel area in front of Lafarge's Dawson Road office in Winnipeg, Manitoba needed to be improved into a larger parking area to accommodate the office's needs, Lafarge recognized an opportunity to test the performance of UltraSeries™ FiberPlus Steel as primary reinforcement in concrete paving versus conventional rebar.

#### The Goal

Winnipeg, Manitoba is home to some of the most severe weather in Western Canada - making maintenance a concern for various roadways and parking lots. The goal was to construct a parking area that would not only demonstrate the performance qualities of UltraSeries™ FiberPlus Steel versus conventional rebar, but that would also remain free of the need for maintenance for many years to come.



#### Concrete Paving vs. Asphalt

In order to minimize the need for maintenance, Lafarge paved the Dawson Road office parking lot with concrete. As a paving material, concrete provides many benefits that include:

- Better long-term performance
- Improved mileage on roadways
- Increased reflectivity and, therefore, better visibility.

Additionally, using concrete as a paving or building material can help owners earn credits towards LEED certification. For more information, please visit the Canadian Green Building Council at [www.cagbc.org](http://www.cagbc.org).



**“Steel fiber reinforcement in place of conventional rebar clearly improves the productivity of my crew.”**

**- PHILIP MARTINS  
CONCRETE SUPERVISOR  
MAPLE LEAF CONSTRUCTION LTD.**

#### **The Lafarge Solution**

To test the performance of both UltraSeries™ FiberPlus Steel and conventional rebar, half of the parking area was paved using conventional rebar as primary reinforcement while the other half was paved using UltraSeries™ FiberPlus Steel. The parking lot in front of Lafarge's Dawson Road office has been in service for over 10 years with both halves effectively withstanding Winnipeg's harsh winter climate. To date, neither half of the Dawson Road office parking lot has required any maintenance. This means that the long-term performance of both conventional rebar and UltraSeries™ FiberPlus Steel are comparable. The difference between these two forms of reinforcement lies in the ease of placement at installation.

By replacing conventional rebar with Lafarge's UltraSeries™ FiberPlus Steel, a contractor can eliminate the need for the additional labour required to install rebar layers. By eliminating the need for rebar, work site safety and crew productivity are increased as crews no longer have to work while stepping through rebar mats. Additionally, contractors do not need to worry about concrete segregating as it passes through rebar. This reduction in labour and increase in quality and safety can create savings for both the contractor and the owner.

This image shows a close up of Lafarge's Winnipeg office parking lot. The top half of the image shows the side reinforced with UltraSeries™ FiberPlus Steel, and the bottom half shows the side reinforced with rebar.



After being in service for over 10 years, both halves of the parking lot in front of Lafarge's Winnipeg office exhibit minimal cracking and wear and tear.



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