

CONCRETE HIGHWAYS

HIGHWAY 16 INTERSECTION - LLOYDMINSTER, AB



PROJECT TEAM

ENGINEERING CONSULTANT:

EBA Engineering Consultants Ltd.

CONTRACTOR:

Alberta Asphalt

SUB-CONTRACTORS:

Proform Concrete Services Inc.

CONCRETE SUPPLIER:

Feldspar Excavating and RediMix

OWNER:

The City of Lloydminster

THE OPPORTUNITY

Highway 16, part of the Trans-Canada Highway system, is a major inter-provincial and international trade corridor. It passes through The City of Lloydminster and is a key component to the growth of the area's heavy oil and oilsands industries. Increased heavy truck traffic has led to severe rutting at four signal-controlled intersections along this corridor. This was typically dealt with by milling and inlaying or rut filling with standard asphalt mixes. In Lloydminster, this would last only two to four years.

THE SOLUTION

The City of Lloydminster wanted to find a durable pavement solution with minimized maintenance and extended service life. Similar problem areas in Edmonton, Medicine Hat and Grande Prairie have shown concrete pavement to be a suitable solution for heavy truck and high traffic intersections. Using a slip-form paver, full depth concrete was placed at four intersections extending 100 meters or more at two side by side lanes. Construction of the new concrete pavement was completed while traffic was easily rerouted around the intersection.

PROJECT DETAILS:

- Four Hwy 16 intersections at 52 Ave, 54 Ave, 70 Ave and 75 Ave
- Lengths of 125 m, 100 m, 145 m, and 125 m respectively, side by side lanes
- Widths of 7.9 m in each direction
- 240 mm concrete pavement
- Flexural strength of 4.2 MPa
- Dowels at 4.5 m joints with tie bars at 900 mm between lanes

ABOUT THE CEMENT ASSOCIATION OF CANADA (CAC)

The CAC is the voice of Canada's cement industry. A vital contributor to the country's economy and infrastructure, the industry provides a reliable, domestic supply of cement required to build our country's sustainable communities and is committed to the environmentally responsible manufacturing of cement and concrete products. Visit www.cement.ca for more information.

ABOUT CONCRETE ALBERTA

Concrete Alberta represents over 93% of the concrete producers in Alberta, and is fully funded by the membership of Producers, Associates and Affiliates. Visit www.concretealberta.ca for more information.



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