

EASTERN ALBERTA TRANSMISSION LINE PROJECT



HIGHLIGHTS:

LOCATION:

Eastern Alberta (Brooks to Hanna and Gibbons to north of Vegreville)

PROJECT TYPE:

Transmission Line foundations

AUTHORIZED CONTRACTOR:

Valard Construction (A Quanta Services Company)

LAFARGE CLIENT:

Sharps Construction (A Quanta Services Company)

DEVELOPER/OWNER:

ATCO Electric Transmission Division

EPCM:

Bechtel

VALUE:

\$1.8 B

PROJECT TIMELINES:

April 2013 – October 2015

MATERIALS SUPPLIED:

16,000 m³ Agilia™

4,000 m³ Chronolia™

ATCO Electric builds, operates and maintains a network of transmission and distribution power lines in northern and east-central Alberta. ATCO Electric's Transmission Division is accountable for growth, planning, engineering, construction, operations and maintenance of transmission facilities. The company owns and operates about 11,000 kilometres of transmission lines. Over 400km of these were built from 2013-2015 as part of the Eastern Alberta transmission line project.

Large Project with Complex Requirements

ATCO built planned to build the new 500kV transmission line over a period of 14 months, spanning 488 kms, from Brooks Alberta to Gibbons Alberta. The project involved 1,490 steel lattice transmission towers, 1,280 augured grillages and 1,000 caissons, totaling close to 40,000 m³ of concrete. This was a large job with multiple delivery points.

Just In Time Delivery Needed

Holes for the tower concrete foundations cannot be drilled in advance, so close attention to working with Sharps' schedule was required. The concrete had to arrive as the drilling was completed just in time for each pour, and with the right consistency to be poured at that moment. The project ran 7 days per week and the schedule changed under the demands of the project, increasing the complexity. Lafarge brought in additional drivers and a quality control technician to ensure its product and service met with Sharp's needs in the field.



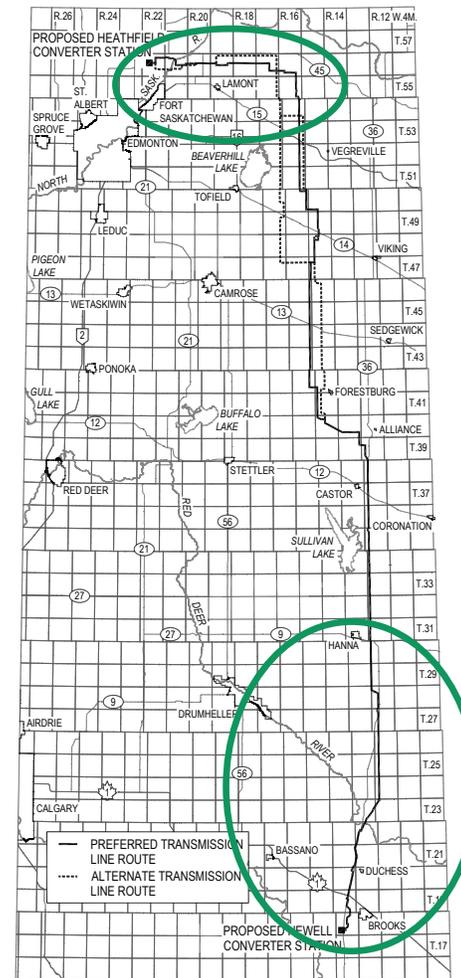
Specialized Concretes Save Time

The use of Agilia™ self-consolidating concrete and Chronolia™ very high early strength concrete allowed Sharps to save time in the field. These value added products were shipped up to 130 kms from the Brooks Plant to the tower sites thanks to Lafarge's in-depth understanding of concrete delivery and concrete mix design.

Successful Project

From May 2013 through September 2014, the Brooks to Hanna leg of ATCO's Eastern Transmission Line was built. Lafarge's Brooks, AB plant delivered over 16,000 m3 of concrete to the tower drill sites along the right of way for the new line.

A similar process was followed for the 4,000m3 of Agilia poured on the Gibbons to Vegreville portion of the transmission line.



"The project required 7 day service and just-in-time concrete delivery to the tower drill sites. We were able to use our expertise to ensure that the Agilia delivered for every pour met the specs in the field, up to 130 kms from our plant."

Anna Starke, Plant Manager
Brooks Ready-Mix Operation
Lafarge Canada Inc.

"Lafarge was able to provide a constant supply of trucks and operators, as well as QC support, to ensure that our product was delivered in a timely and efficient manner."

Alex Budzinski
Project Manager,
Sharps Construction



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