

CASE STUDY - HEAVY CIVIL CONSTRUCTION

GORDIE HOWE BRIDGE

Michigan Region



PROJECT OVERVIEW

High Cal Limestone for Bridge Support Towers and Deck.

Bridge Concrete Stone 200K Tons 6AA (19mm)

- International crossing between Detroit, MI and Windsor, ON.
- Stringent Ready Mix Design for bridge support towers and deck.
- American side of structure specified stone from US based quarry.
- Limestone sourced from Port Inland Quarry in Gulliver, MI met stringent tests.
- Lake vessel based delivery direct to contractors' docks.

Gradation (3rd party testing)

Sieve Size (ASTM C136, MTM 109)	% Passing	Passing Spec. (MDOT 6AA)
1 1/2"	100	100
1"	99	95 - 100
1/2"	36	30 - 60
#4	2	0 - 8
#200	1.2	0 - 2

Meets MDOT gradation specifications
for a #6AA aggregate

PARTNER DOCKS



PROJECT BACKGROUND

Built in 1929, the Ambassador Bridge accounts for approximately 25% of all merchandise trade between the U.S. and Canada, with thousands of trucks transporting hundreds of billions of dollars in goods annually. Between 2000-2001 a cross-border traffic study warned that the Ambassador Bridge would not meet future traffic demands. In 2012, the Windsor-Detroit Bridge Authority was established to manage the creation of a new border crossing that could handle the predicted uptick in demand. By 2018, a \$5.7 billion (CAD) fixed-priced contract had been reached with Bridging North America to build the Gordie Howe International Bridge.

THE CHALLENGE

The design plans called for the construction of two massive A-frame bridge towers that stand 722 feet (220m) above the Detroit River. These concrete structures would need to support a 1.5 mile (2.5 km) bridge deck carrying six lanes of traffic and a multi-use pedestrian path, while standing up to the regions harsh winters. In order to ensure an expected 125-year service life, a very strict concrete mix design would need to be adhered to. Additionally, the project had to navigate a complex "Buy America" domestic sourcing mandate for all materials used on the U.S. side of the project. Despite widespread testing of SW Michigan/NE Ohio based limestone materials, no nearby inland suppliers could meet the project's rigorous specifications.

THE SOLUTION

6AA (19mm) High Cal limestone from our Port Inland Operation, in Gulliver, MI was able to meet the rigorous specifications required by both the U.S. and Canadian sides of the bridge. Valued for its lighter weight and superior physical properties, our Port Inland 6AA (19mm) limestone underwent extensive 3rd

[LET'S BUILD TOGETHER]

GORDIE HOWE BRIDGE

party testing and emerged as the only viable option for the project's structural concrete needs. This stone was used as part of the mix design for both Canadian and U.S. towers as well as the bridge deck, which are critical to the bridge's stability and longevity.

IMPLEMENTATION

To meet the logistical demands of this landmark binational project, a total of 200,000 tons of 6AA (19mm) limestone was produced and delivered from our Port Inland operation, via high-capacity lake vessels to both sides of the border. On the Canadian side, the material was transported to the Canadian Building Materials (CBM) dock, where CBM served as the ready-mix concrete (RMX) supplier for the Canadian side of the bridge. Simultaneously, on the U.S. side, deliveries were made to the SRM Concrete dock in Detroit, with SRM acting as the primary RMX provider. The intricate coordination of these crossborder supply operations was managed through our dock partners, Southwestern Sales (CAN) and Detroit Bulk Storage (U.S.), ensuring a reliable flow of material and uncompromising quality control essential for the bridge's lifetime. Construction of the bridge began in 2018 and was completed in early 2026.

RESULTS

Opening in mid 2026, the Gordie Howe International Bridge is a 1.5 mile long cable-stayed bridge that connects Interstate 75 in Detroit, Michigan to Highway 401 in Windsor, Ontario. Built to enhance international trade and travel, the bridge is the largest land port of entry along the U.S.-Canadian border. It features 6 lanes for vehicle traffic as well as a 12-foot wide multi-use path for cyclists and pedestrians that connect to the Great Lakes Waterfront Trail in Ontario and the Iron Belle Trail in Michigan.

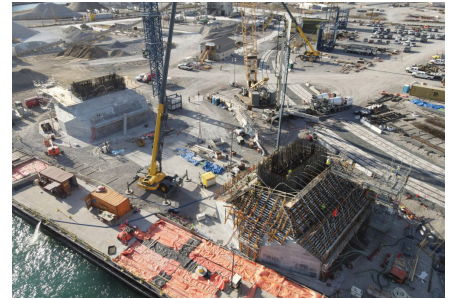
CUSTOMER TESTIMONIALS

Carmeuse's consistent product quality, dependable supply, and technical support make them a strong partner on major infrastructure projects such as the Gordie Howe International Bridge.

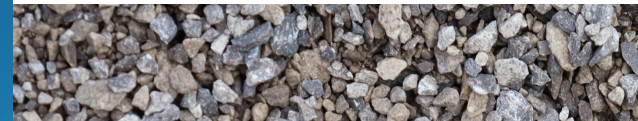
NOEL FRYE
DETROIT BULK STORAGE, INC.

Carmeuse's commitment and support to their Canadian and American partners, helped shape the Windsor-Detroit skyline with one of the most historic and collaborative projects between our two nations. We were proud and confident to partner with Carmeuse and proud to play a role in bringing the Gordie Howe International Bridge to life.

DAN BARRIAULT
SOUTHWESTERN SALES CORP. LIMITED



For more information about how Carmeuse can help you achieve your project goals check out:
[construction.carmeuse.com](https://www.construction.carmeuse.com)



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