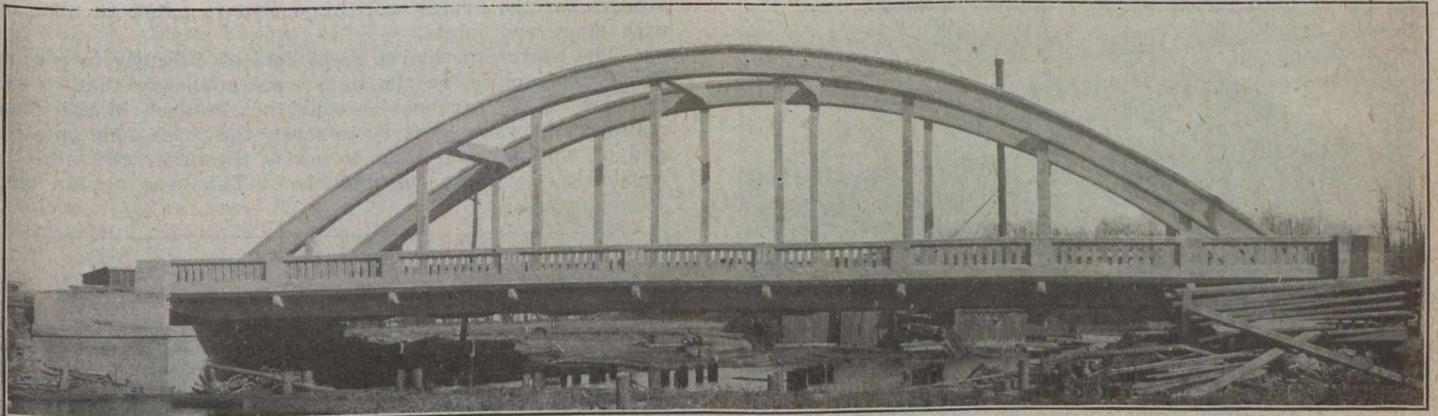


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CONCRETE TRUSS BRIDGE OVER THE TWELVE-MILE CREEK AT BRONTE ON THE TORONTO-HAMILTON HIGHWAY

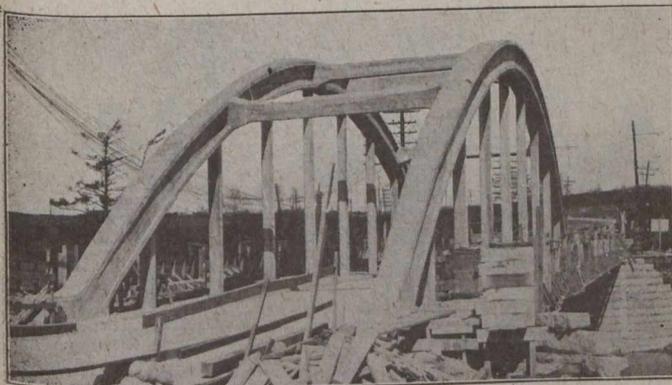
Canada's Longest Reinforced Concrete Trusses

Are the Two Bridges That Carry the Toronto-Hamilton Highway Across the Etobicoke River and Bronte Creek—Each 119 ft. 1½ in. Clear Span, With 20 ft. Roadway and 16 ft. Overhead Clearance—Arches Rise 26 ft. Above Floor Level

TWO reinforced concrete truss bridges have been completed on the Toronto-Hamilton Highway, each with a clear span of 119 ft. 1½ ins. between abutment faces. These are the longest concrete truss bridges in Canada. They carry the highway over the Etobicoke River and over the Twelve-Mile Creek at Bronte. The superstructures of these two bridges are identical. Work has also been started on a third bridge of identical superstructure to span the Credit River at Port Credit, and the abutments have been constructed for a bridge of practically the same design to span Mimico Creek, near Toronto, but the Mimico bridge will have a clear span of only 96 ft. 10 ins., although it will have a roadway with a clear width of 26 ft. as compared with 20 ft. for the three longer bridges.

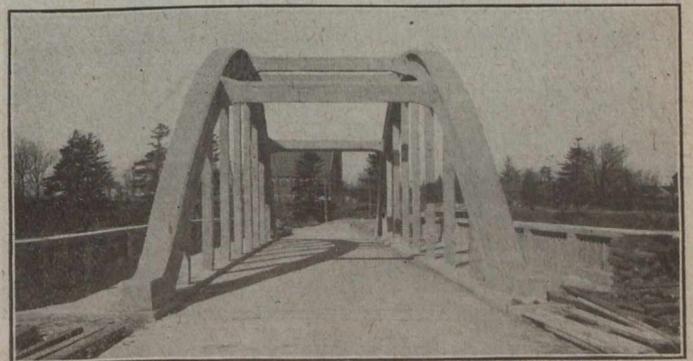
in such good condition that it was thought that with some alterations they could be used again for a truss bridge similar in the main to the old steel bridge which they formerly supported.

The following description of the Bronte bridge will serve equally well as a description of the Etobicoke and Credit bridges, as the dimensions and details of construc-



THE ETOBICOKE BRIDGE

Concrete truss bridges were chosen for all these situations because in three of them there was insufficient headroom for under-deck arches, and also the considerable depth to hard foundations would have required more costly abutments had arches been chosen. In the case of the Etobicoke bridge, there was sufficient room for an arch but the old Longford limestone abutments of coursed rubble seemed to be



THE BRONTE BRIDGE

tion are the same throughout excepting in regard to abutments.

The Bronte bridge contains 91 cu. yds. of concrete in decking (1:1¼:3½), 36 cu. yds. in sidewalks (1:1¼:3½), 30 cu. yds. in parapets (1:1¼:3½), and 113 cu. yds. in arch ribs, ties, hangers and bracings (1:2:4), or a total of 270 cu. yds. of concrete exclusive of the abutments. (The abutments were 1:2½:5 concrete, 365 cu. yds. at Bronte, 215 cu. yds. at Etobicoke, 306 cu. yds. at Credit and 736 cu. yds. at Mimico).

According to the original design, there was to be 23.9 tons of steel reinforcing in the decking, sidewalks and ties; 19.3 tons in the arch ribs, hangers and bracings; and 1.8 tons in the parapets; or a total of 45 tons, exclusive of the approaches, abutments and piles.