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OLYMPIC BRIDGE, ISLAND PARK, TORONTO

DESCRIPTION OF A REINFORCED CONCRETE ARCH BRIDGE WITH UNIQUE AESTHETIC FEATURES—NOTES ON ITS DESIGN AND CONSTRUCTION.

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OLYMPIC BRIDGE is a footbridge connecting Olympic Island to Centre Island Park at Toronto. Being over one of the Island lagoons, and in one of the most prominent situations at Centre Island, it was necessary that the bridge should present a pleasing appearance, and, if possible, add to the beauties of Island

curve, put in to the most pleasing lines. The general dimensions are as follows: Span, 60 ft. at springing line; length, 84 ft. out to out of handrailing; width, 10 ft. over all, 8 ft. clear foot path; rise of arch ring, 9 ft.; crown thickness, 12 in. There are 16 battered and 6 vertical piles in each foundation.



Fig. 1.—The Olympic Bridge Over a Lagoon at Island Park, Toronto.

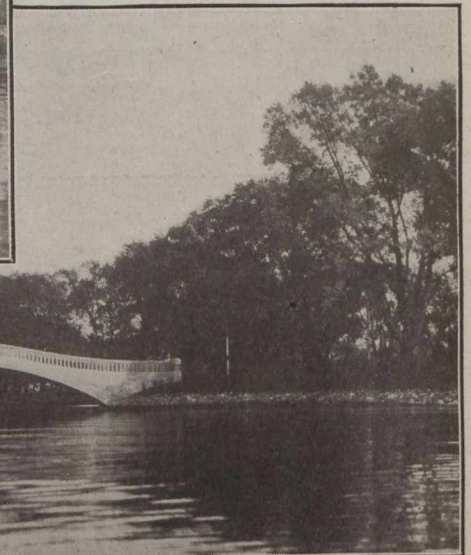


Fig. 2.—Its Artistic Lines Harmonize Well With the View from the Ferry Dock.

Park. The clear waterway was fixed at 60 feet and the clearance under the bridge at high water was required to be at least 5 ft. 6 ins. How well the civic bridge department succeeded in meeting these conditions may be judged from the following brief description. Figs. 1 and 2 show general views of the bridge.

It is a reinforced concrete arch bridge supported on battered pile foundations. The arch rib is approximately a parabola in shape, while the handrail is an irregular

The arch rib is designed for full dead load and a live load of 150 lbs. per square foot. This live load is sufficient to take care of the horse and cart belonging to the gardeners that frequently crosses on the bridge. Standard unit stresses for concrete and steel were used. The axial load per pile is 20,000 lbs.

The details of the bridge are shown in Fig. 3. The arch rib is reinforced with 17 pairs of $\frac{5}{8}$ -inch square twisted steel rods, the spandrel walls with expanded