

The Canadian Engineer

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BILLINGS BRIDGE OVER RIDEAU RIVER, OTTAWA

DETAILS OF DESIGN OF THIS PLATE GIRDER BRIDGE NOW UNDER CONSTRUCTION—NOTES ON SUBSTRUCTURE WORK AND ERECTION METHODS.

THE general features of the then proposed steel bridge to replace a 35-year-old wooden structure on one of the chief roads leading into the city of Ottawa, were given in *The Canadian Engineer* for January 29th, 1914. It is situated on the boundary be-

about 78 ft. in length and resting on piers and abutments extending 10 to 15 ft. to rock, the north abutment being of U shape and piled, and the south abutment constructed with wing walls. The bridge will carry two electric car tracks, two 15-foot roadways and two 6-foot cantilever sidewalks. Each roadway is carried on a 4½-inch reinforced concrete slab, with a 4-inch creosoted

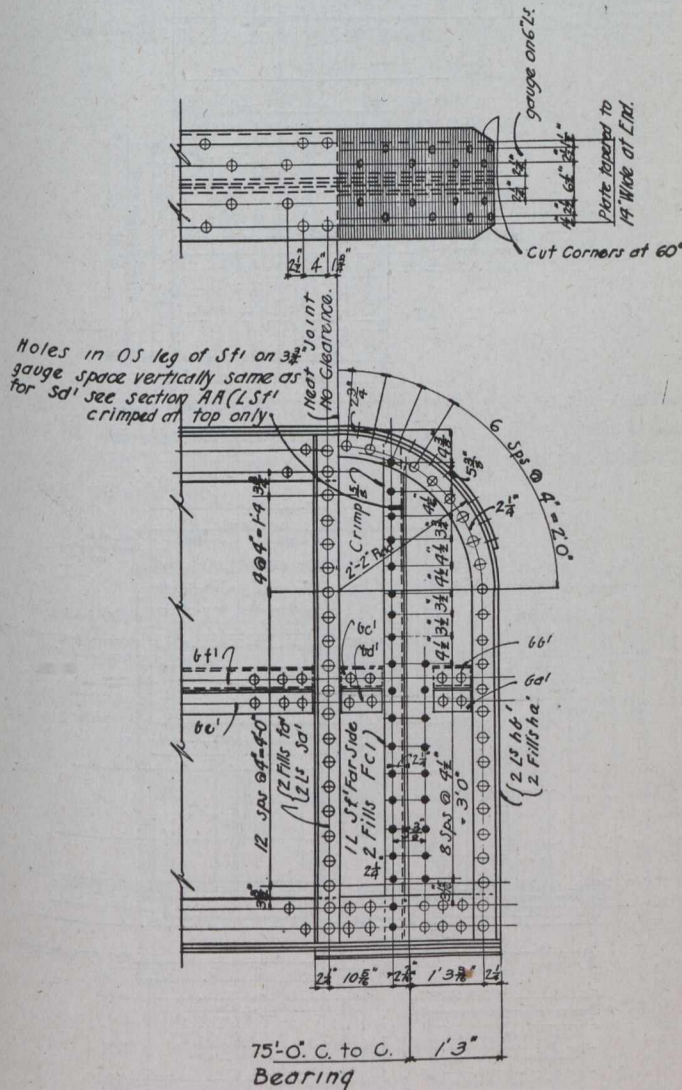


Fig. 1.

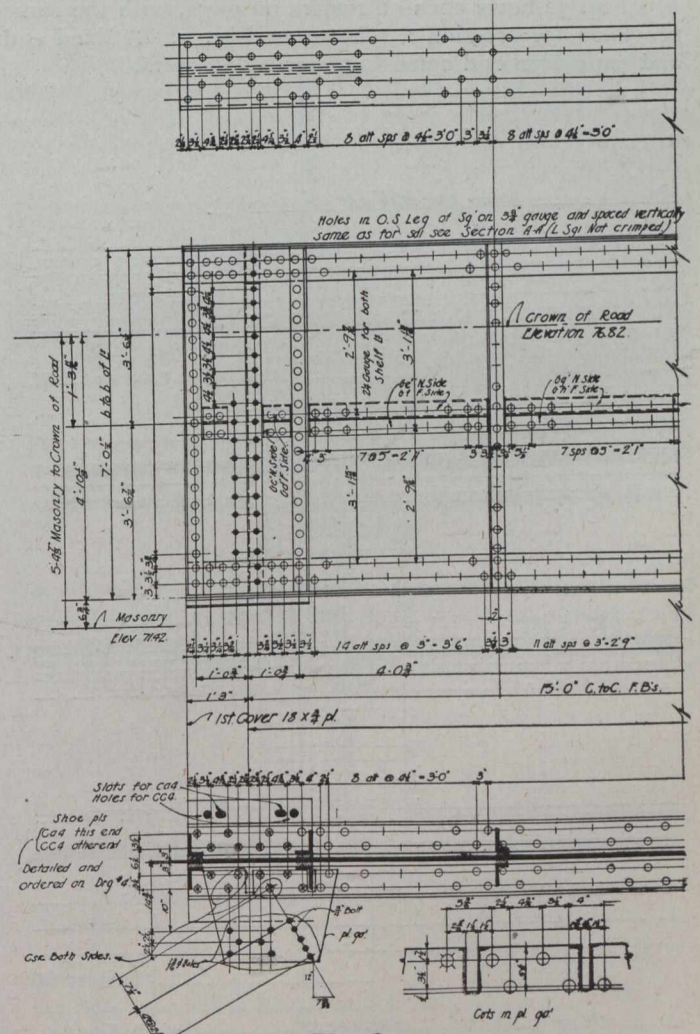


Fig. 2.

tween the city and the township of Gloucester, and is subjected to considerable traffic, chiefly conveyances of farm produce. Briefly, the superstructure is of heavy through plate girder construction, with five spans, each

wood-block wearing surface. Sidewalks consist of a 3-inch reinforced concrete slab. The railway loadings used are those of Diagram "B" of the Dominion Government electric railway specifications. The traffic loading pro-