

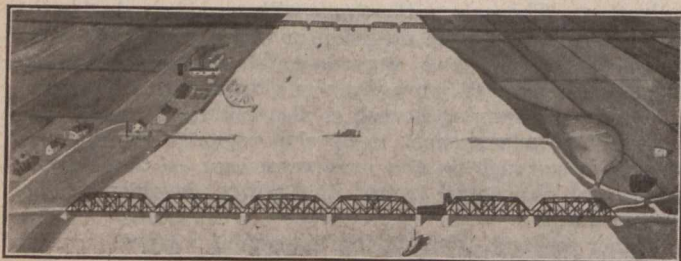
STEEL BRIDGE REPLACES BATISCAN FERRY

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WHEN contracts were awarded recently to the MacKinnon Steel Co., of Sherbrooke, for the superstructure, and to Jos. Gosselin, Ltd., of Levis, for the substructure, approaches and concrete floor for a new steel bridge across the Batiscan River at St. Francois-Xavier de Batiscan, in Champlain County, Que., a definite step was taken toward closing the last gap in the Montreal-Quebec Highway. The bridge will replace the hand-operated ferry, which is now the only means of transportation across the river, excepting when the stream is ice-covered. The nearest bridge to the highway is at Ste. Genevieve, six miles away, therefore a 12-mile detour must now be made by all traffic when the wind is too strong or the water level too high for the operation of the ferry. The accompanying photograph is of a painting by which the writer has endeavored to present a bird's-eye view of the proposed bridge; while this painting is acknowledged to be far from a masterpiece of its kind, it may interest engineers throughout Canada, in that it gives a fair idea of how the structure, when built, will appear.

From face to face of abutments, the total length of the bridge will be 1,211 ft. The superstructure will consist of six through trusses, each 192 ft. long overall, and one plate-



BIRD'S-EYE VIEW OF THE BATISCAN BRIDGE NOW BEING BUILT BY THE QUEBEC GOVERNMENT

From painting by F. B. Painchaud. C.P.R. bridge in background. Present hand-operated ferry is shown between the two bridges.

girder bascule span, of Strauss type, 65 ft. long. The leaf is necessary as the Batiscan is a navigable river. There will be six concrete piers and two concrete abutments, built on wooden piles. The upstream sides of the piers will be protected by steel plates against impact of logs or ice. The piers will be from 25 ft. to 37 ft. 4 ins. high. They will be 6 ft. wide at top, excepting the piers for the bascule span, one of which will be 7 ft. and the other 8 ft. wide.

The bascule span will be floored with 4-in. planks, carrying a wooden wearing surface 1½ ins. thick, but the other spans will be floored with a reinforced concrete slab 6 ins. thick at the curbs and 7½ ins. in the middle. The clear width of the roadway will be 18 ft. No sidewalks will be provided at present, as the pedestrian traffic will be practically negligible.

The bridge floor will be 34.22 ft. above mean sea level. This is rather high compared with the level of the surrounding territory (the approaches will be 6% grade), or compared with ordinary high water level, but it was desired to place the floor above the reach of even such floods as occurred in 1865, 1885 and 1896, which were caused by ice jams across the St. Lawrence River above Quebec. The Batiscan flows into the St. Lawrence a short distance downstream from the proposed bridge, which, by the way, is about a half mile downstream from the Canadian Pacific Railway bridge. The accompanying photograph shows the C.P.R. bridge in the background, and, between the two bridges, the present hand-operated ferry. It will be noted that the bridge will be built a short distance downstream from the ferry crossing.

The trusses for the fixed spans will be of the Pratt riveted type, with "curved" top chords and sub-divided panels. These trusses have been designed in accordance with the specifications of the Department of Public Works and Labor, Province of Quebec, and of the Engineering Institute. No electric power is now available at the bridge site, so the Strauss span will be hand operated, but the machinery will be so arranged as to permit of conversion to electric operation at any time.

The bridge will be built and paid for by the provincial government as a part of the Montreal-Quebec Highway. Four structural steel companies submitted bids on the superstructure and seven general contractors tendered on the substructure. In both cases the contracts were awarded to the lowest bidders. The bridge will cost approximately \$250,000. It will be constructed under the direction of Ivan E. Vallee, chief engineer of the Department of Public Works and Labor, Province of Quebec.

CANADIAN GOOD ROADS CONVENTION

SPECIAL efforts are being made by the executive of the Canadian Good Roads Association to ensure the success of the Seventh Annual Good Roads Convention, which will be held June 1st to 3rd, inclusive, in the Royal Alexandra Hotel, Winnipeg, because this will be the first convention that the association has held west of Ontario. The program, which is now in course of preparation, will be arranged to appeal specially to the western municipalities. Apart from the general papers on different methods of paving, there will be addresses dealing particularly with road conditions and problems in the prairie provinces.

The lieutenant-governor of Manitoba, Sir James A. M. Aikins, has been invited to formally open the convention, and invitations are being extended to the premiers of every province and their ministers of highways.

The deputy ministers of highways from all the provinces are being specially invited, as it is intended to hold special meetings for them for the purpose of discussing road laws, traffic regulations, automobile taxation, systems of construction and maintenance of highways and similar problems, with a view to arriving, so far as possible, at a uniform system of regulations for the whole Dominion. Representatives of the federal government will also be present at this conference, which will commence on the second day of the convention and proceed concurrently with it.

Information has already been received by the association's secretary, George A. McNamee, that delegations will be sent from the Ontario Good Roads Association, Eastern Ontario Good Roads Association, Good Roads League of British Columbia, New Brunswick Automobile Association, Halifax Good Roads Association, Quebec Automobile Club, Automobile Club of Canada, Central Canada Colonization and Highways Association of Fort William, Pacific Highway Association of Maryhill, Wash., and other organizations. Special Pullman cars are being arranged at all the big centres for the conveyance of delegates to the convention. Ladies are being invited to join the party, and the railway companies are arranging several trips from Winnipeg to points of interest in the west.

The annual meeting of the Canadian Automobile Association will be held at Winnipeg during the convention, and will be attended by representatives from all the recognized automobile organizations in the Dominion.

In future the Toronto city architect's department will be known as the Department of Building, and the city architect as the Commissioner of Building.

Hamilton newspapers state that it is the intention of draughtsmen in that city to follow the lead of the Toronto draughtsmen and organize a labor union. W. H. West, organizer for the unions, states that he will call a meeting of the draughtsmen at the earliest date that the labor hall is available.