

It will be seen that Route No. 3 is 1,940 feet longer than Route No. 2; or, in other words, it would add over a third of a mile on the distance between Hamilton and Toronto.

Until a thorough investigation has been made and a careful detail estimate of costs prepared it will be impossible to properly compare the advantages of the various routes.

There is still another consideration which will have an influence on the choice. It may be possible for the proposed Hydro-Electric Radial Lines to utilize to good advantage part of Route No. 3, including the two overhead crossings. If this could be arranged it might so reduce the cost of Route No. 3 to the city and the Highway Commission as to give it a strong preference. Furthermore, if in conjunction with the Hydro-Electric Radials and the municipalities lying north of Hamilton a plan could be agreed upon which would give a high level entrance for all this district, and form a starting point for the continuance of the provincial road system westward, the extra

district. Fig. 4 gives some idea of the possibilities along this line.

The artist, Lawrence Munro, of Hamilton, has pictured a bird's eye view of the territory shown on the map (Fig. 2) as it would appear if the Route No. 3 is adopted, and this is reproduced as Fig. 1.

Whether it is worth while for Hamilton to spend something in thus building an imposing portal, and how much, should be considered in the final decision.

The writer is greatly indebted to R. K. Palmer, C.E., chief engineer of the Hamilton Bridge Works Co., and J. J. Mackay, president of the Canadian Engineering and Contracting Co., for surveys and other data used in the compilation of this article.

CANADIAN RAILROAD FINANCING IN NEW YORK

As a result of Premier Borden's visit to New York, on his way to Washington, Wall Street has many stories as to forthcoming Canadian railroad loans. A New York despatch of last week, read as follows: "Prospects of a large loan by a group of New York bankers to Canadian railways, approximating \$100,000,000, was the chief topic of discussion in Wall Street banking circles to-day. Canadian borrowing in this market has met with popular approval here, and it was predicted that if the negotiations for the loan were carried through the issue would be marketed with as great success as the numerous Dominion and municipal issues which are now closely held by American investors.

"Members of a group of bankers, it was said, have assured Premier Borden that they stand ready and willing to furnish the necessary capital, providing the Canadian government will guarantee the issue when it is made. These bankers, it is said, assured Premier Borden and his committee that the loan with Canada in back of it could be sold to investors here on an interest basis almost as low as the Canadian government bonds."

Premier Borden journeyed to the United States with the object of obtaining the advice and services of practical railroad men in regard to the Canadian railroad situation. A commission of railroad experts, probably three, will study this matter and report to the government. There is little doubt that the premier discussed with leading New York bankers the financial phases of our railroad problem, which, whether or not nationalization is ultimately favored, are among the most important factors and those leading to the present situation. With the good record of Canadian securities and credit generally, especially in the New York market, since the outbreak of war, it is quite probable that the premier received assurances that if a large Canadian railroad loan were decided upon, it would have the support of leading New York bankers. Inquiries by *The Canadian Engineer* at Ottawa seem to indicate that the question has not been under consideration by the government.

A Canadian Northern issue of \$6,000,000 6 per cent. 1 and 2-year notes was sold by Wm. A. Read and Company, New York, and the Dominion Securities Corporation, Toronto, in the New York market last week in one day, and other financing, of which *The Canadian Engineer* is not at liberty to write at present, is in contemplation.

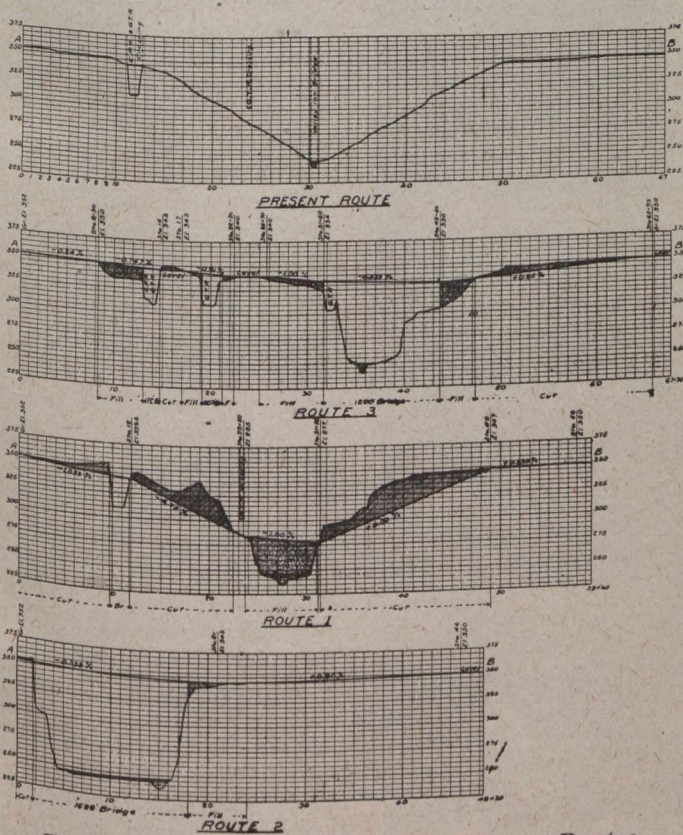


Fig. 5.—Profile of Present and Proposed Routes, Toronto-Hamilton Highway Entrance.

cost of Route No. 3 would be a good investment. This side of the question is now being investigated but definite information regarding it is not available at the time of writing.

Finally, no investigation can be considered thorough that does not take into consideration the artistic point of view. The scenery in this neighborhood is very picturesque and the proposed bridge would not only be seen by all travellers entering the city from this direction but it would be in full view from many points in the city and on the "mountain." In fact, it could easily be made part of, or a continuation of, Hamilton's beautiful park system, while the completion of the highway will open up the whole north shore of Burlington Bay which promises to become one of the finest park and residential sites in this

In the category of world-famous dams Elephant Butte dam stands pre-eminent as a flood conserver. Its height, 318 ft., is topped by Arrowrock dam, 350 ft., and Shoshone dam, 328 ft., are service achievements. Elephant Butte in the capacity of its reservoir, however, ranks every other storage dam in the world completely controlled by man. Its reservoir when full will contain 856,000,000 gal., or enough to cover Delaware 2 ft. deep. This is a third more than is stored by the \$17,000,000 Assuan dam in Egypt and two-thirds more than the combined capacity of all the reservoirs built or projected for Greater New York City.