highway into Hamilton it probably presents the ideal solution.

Route No. 3 has been proposed by J. J. Mackay, O.L.S., president of the Canadian Engineering and Contracting Co., acting in the capacity of secretary of the local Town Planning Commission. This route is also a high level one, but follows the old road across the valley and is 15 feet lower than Route 2. Its principal structure would be a bridge 1,200 feet long, but in addition to this there would be two overhead railroad crossings and considerable cut and fill. The grades and curves would be very slight.

There have been other routes or modifications suggested but they have all been abandoned for one reason or another.

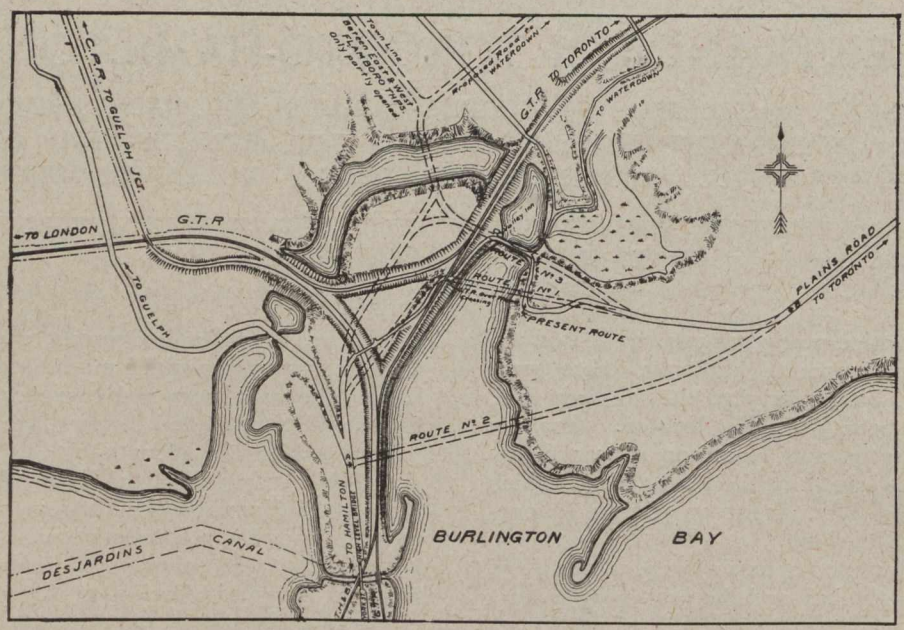

Fig. 2.—Map Showing Present and Proposed Routes of Toronto-Hamilton Highway Entrance into Hamilton.

In comparing these routes from a practical point of view there are many things to take into consideration. While Route No. 1 is apparently the simplest and cheapest, Hamiltonians look dubious at the mention of a fill. It is remembered that the Grand Trunk, when the line was first brought into Hamilton, found it an extremely expensive and difficult piece of work to construct a fill across this same ravine at a point only 300 yards away. Old-timers yet tell how on four separate occasions their fill sunk out of sight into the water over night from a height of about 60 feet; how that great quantities of brush, logs, whole trees, and at last many sacks of wool were thrown into the embankment in a vain attempt to hold it. A boring made near the site of the proposed fill shows 65 feet of silt before hard clay is reached and what is supposed to be rock at 96 feet.

Under these conditions a fill 40 feet high might easily over-run by a large amount the estimated cost. This uncertainty, coupled with the fact that so little would be accomplished toward eliminating grades and that the route would be practically useless for electric railway development, make this solution unsatisfactory.

The principal objection that can be raised against Route No. 2 is its cost. Foundations for a bridge on this formation would be a rather expensive item even for a steel bridge, while a concrete structure would be out of the question.

By adopting Route No. 3 the size of the main structure would be much reduced and as it would rest on the old fill which now forms the Valley Inn Road it is probable that better foundations could be obtained. Two additional bridges would be required, however, for the railway crossings, one a 172-foot and one a 207-foot bridge. These would have to be of shallow floor construction and expensive for their size.

Other details which enter into a comparison of the two routes are given below. In order to reduce them to the same basis the whole route between the points marked A and B (Fig. 2) is considered in all cases. The profiles (Fig. 5) are also drawn on this basis.

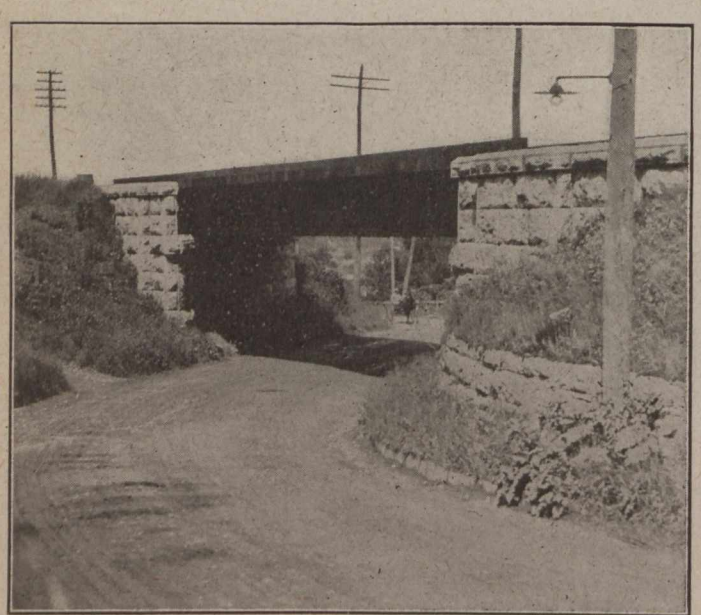

Fig. 3.—The G.T.R. Overhead Crossing on the Valley Inn Road. The Fill Called for by Route No. 1 Would Begin at the Far Side of This Bridge.

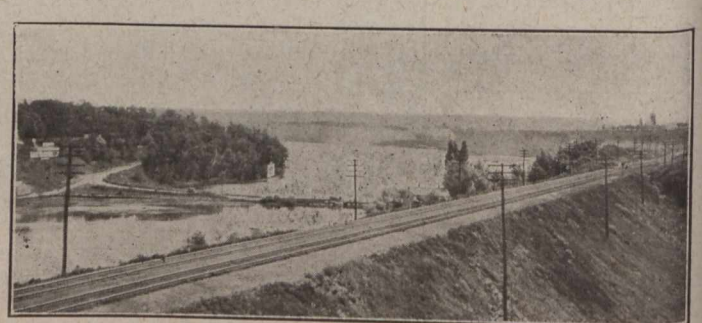

Fig. 4.—The End of Burlington Bay, Looking South Toward Hamilton, Showing the Valley Inn Road and the G.T.R. Fill.

	Length.	Extra land required.
Present route	6,700 feet	
Route No. 1	5,940 feet	3.21 acres
Route No. 2	4,830 feet	4.14 acres
Route No. 3	6,770 feet	2.70 acres