

# The Canadian Engineer

A Weekly Paper for Civil Engineers and Contractors

## Proposed Development of Hamilton Harbor

Report Presented This Week to Hamilton Harbor Commission, Recommending Creation of 1,250 Acres of Park and Residential Property, 1,198 Acres of Industrial Land, 6.26 Miles of Docks and 16.98 Miles of Boulevard

By JOHN M. WILSON

District Engineer, Public Works Department of Canada

HAMILTON harbor, situated at the westerly end of Lake Ontario, possesses natural advantages that are not surpassed by any other harbor on the Great Lakes. Its present area at normal Lake Ontario level (elevation 246 above mean sea level, New York), is 6,973 acres, varying in depth from shallow water in the marshes to 80 ft. in the harbor proper. Of this total area, 4,500 acres has an existing governing depth of 18 ft., or sufficient to take care of present Welland canal draught. The harbor is land-locked with the exception of a channel (maintained by the Dominion government) at the entrance to Lake Ontario, and has a normal shore line of 32.78 miles.

A casual reference to the plan showing the existing conditions (see page 538), and consideration of same in reference to the size of the city of Hamilton, conveys the impression that complete development of Hamilton harbor involves a cost disproportionate to the size and needs of the community affected. This was taken into consideration during the early stages of the investigation into the possibilities of Hamilton harbor, and it was thought wise to make the proposals as complete as possible, looking to the future growth of the city. The work projected on the plan on page 539 may not be completed for a number of years, but if the scheme as a whole be adopted, the foundation will have been laid for continuity in planning construction operations to be undertaken from year to year as finances will permit.

In the year 1873 the population of Hamilton was 30,000; the (municipal) census of 1919 gives a population of 110,000. Using the rate of growth shown by these figures, a curve might be projected into the future in order to determine the probable population at any given time, but I do not believe that any such estimate would be conclusive. Hamilton's location as a logical manufacturing and distributing centre should attract a large percentage of the immigration that I am reliably informed will shortly come to this country from the British Isles, and this, together with the natural development of Canada during the next few years, should greatly accelerate the city's growth.

### Provides for 30-Ft. Draught

In planning for the future in works of this nature it is necessary to consider the requirements of a community many years in advance, and to take into account what the possibilities of an inland port situated as is Hamilton, will be when the St. Lawrence and Welland canals are deepened and ocean tonnage is brought to the Hamilton docks. I may say that a very strongly organized movement is now under way to bring about the deepening of the St. Lawrence canals, and Hamilton would particularly benefit on account of the very large export tonnage that would be handled over the harbor.

An essential to the successful development of a harbor, from an industrial and commercial standpoint, is public control of the waterfront properties. In this regard the Hamilton Harbor Commission is not in the position it should be.

A large portion of the waterfront property is privately owned or controlled, and in order to put the commission in possession of assets that would form a sound basis for negotiation with private interests, and furnish lands for industrial development, it was deemed expedient to recommend the establishment of a new harbor headline in accordance with the limits of the work outlined on the development plan.

The scheme in general provides for ships drawing 30 ft. of water, or ultimate Welland canal draught, to dock in slips at the city of Hamilton and alongside wharves constructed in what is at present the waters of the harbor, and serving lands created by reclamation with material dredged and pumped from the bed of the harbor; the serving of these industrial lands with steam and electric transportation, concentrated on what is termed a marginal way; and the creation of new park lands and recreation centres, coupled up with a boulevard drive 16.98 miles long, encircling the entire waterfront.

### Nineteen Tentative Plans Studied

A complete survey of the harbor and vicinity has been made, soundings taken over the dredging and reclamation areas, and borings made to ascertain the nature of the material to be moved, and nineteen tentative study plans were prepared before the layout suggested herein was adopted.

The decision to concentrate to a large extent the industrial development to the east of James street was made after a careful study of existing conditions, embodying the natural advantages of the land in that section of the harbor, its accessibility to service, its adaptability to reclamation, and its relative ease of acquirement.

This industrial development is divided into two main districts: (1) The one lying south of Burlington street, between Wellington and Wentworth streets; and (2) the one lying within Gage avenue, Burlington street and Beach road.

This leaves the waterfront development of the property between Wentworth street and Gage avenue (where large industrial plants are now located), a matter for future consideration and negotiation. The latter property lends itself to incorporation in the general scheme, as shown dotted on the waterfront development plan, but its failure to be brought into the general scheme does not deprive the other districts of adequate transportation facilities, it being possible to render service from existing lines. There is also the possibility of extension to the west of Wellington street as far as the Desjardins canal, but it is not anticipated that anything in the nature of permanent works would be required beyond James street for many years, although it would seem desirable for the commission to acquire control of the property.

The area that it is proposed to develop industrially is shown in solid outline, hatched, on the waterfront development plan on page 539, and more particularly detailed on the sketch on pages 546 and 547, showing cross section at foot of