noteworthy example of this development on a large scale is the Essex County park system in New Jersey.

Conclusions and Recommendations.

The cities and towns of Ontario, and especially those in the area between the Great Lakes, stand unique in Canada as being so grouped and favored by location as to benefit from hydro-electric power for industrial purposes. They become, in addition to their former activities, each a special industrial centre and their future depends much on this ability to expand while retaining attractive homes for their workers.

In this review of the subject of civic improvement many of the illustrations and the motives have been drawn from the experience and activity of the larger cities but, as has been pointed out, there are very many openings for the adoption of similar improvements and projects in the smaller towns and cities of Ontario. These cities can still be unique by leading in town planning and improvement as well as by leading in industrial activity.

Each city has its own specific outstanding feature. It may be its geographic situation or its transportation facilities, or its contiguous country. It may be some physical feature of landscape—a hill, a valley, a river, lake or waterfall. Whatever these features may be they can all lend themselves to practical utilization, combined with artistic and pleasing attractive treatment.

You who live in these towns and cities can, by taking thought, suggest lines along which your particular civic improvement might follow. Your civic officials, energetic and able though they may be in their proposals for improvements, probably have their hands tied by lack of public support and certainly they are powerless through inadequate laws. The civic authorities require more power and the citizens more understanding and education as to the benefits to be derived.

Much of the momentum for a movement of this character must come from the citizens themselves and from a sympathetic press which fully grasps the significance and advantages of the movement.

In order to inform and educate all our citizens it would appear that in each city, as a neucleus, a small committee or commission should be formed for the purpose of making a study—a stocktaking as it were—of the possibilities which present themselves. They might be improved, if it was thought expedient, to call in an expert to advise either on a comprehensive scheme or upon some particular detail. Any schemes arising from this preliminary study might then be discussed by the civic authorities and the citizens and some improvement programme laid out either in detail or in a comprehensive manner which might be spread over a number of years, but always conforming to a prearranged systematic plan which, when complete, will stand the city for all time.

It will, of course, be asked how such projects could be financed. The municipality may devote a definite portion of its tax rate each year for the purpose, in which each year's levy would be used for the upkeep and improvement of existing works, and for the purchase of new lands and for the construction of new works. Toronto has adopted this principle for its parks.

If it was possible to capitalize a yearly sum or a portion of it, and suitable legislation could be obtained, a capital sum might be raised by debentures and the proceeds devoted to a new work and purchases of lands, the whole managed and controlled by a special commission apart from the city council, which would be a body of a more permanent personnel. One of the great advantages of such a commission would be that it could enter into real estate transactions without publicity, and thus save money which could be put into actual improvements. Such a commission would require to be invested with special powers by the Legislature to enable it to carry on the financing of such projects; the relations of such a commission to the Ontario Railway and Municipal Board would require to be clearly defined.

For the purpose of giving effect to any proposals which might be made as a result of this and other conferences of representatives of the various municipalities of the province in seeking necessary legislation and outlining a course of action, it would seem advantageous to appoint a committee sufficiently representative to embrace the various phases to be considered.

In view of the experience acquired in the study of these questions in Toronto, and in view of the situation existing throughout Ontario it would appear opportune for the municipalities to seek, through their committee, such legislation as would facilitate those civic improvements which may be desirable. This legislation might include amongst other enactments:—

Provision for civic improvement commissions in the smaller cities.

Provision, applicable to cities smaller than already provided for in the Ontario Act, for the purchase by municipalities of lands required for opening streets, not only sufficient for the streets themselves, but for an adequate margin on each side which, after the opening has been completed, can be resold as lots, thus producing a revenue to help meet the cost of the improvement.

Provision for municipalities to secure streets wider than 66 feet on new subdivisions when necessary to conform to a town planning scheme.

A practical method for any necessary widening of business streets already built up.

An adequate control over new subdivisions so that the layout will conform to modern requirements and so that misrepresentation cannot be practiced. The embodiment of ininformation such as contours and elevations is to be recommended.

Provision for the control, through the Ontario Railway and Municipal Board, by the municipality of the layout and street planning features of subdivisions outside the city limits for a stated distance.

With respect to the two last proposals the act passed by the Legislature at the last session provide for control by the board of street planning and the size and form of the lots in subdivisions, both within and for five miles outside, of cities "of not less than 50,000" population.

TESTING A CONCRETE BRIDGE.

On a bridge recently completed in England, a rather unique test was carried out. The bridge was loaded with water. The floor system of the bridge is carried by columns on three reinforced concrete arches. The clear span is 57 feet, and the rise 8 feet 3 inches. The parapets are solid concrete with sunken panels. In preparing for the test, a clay dam 3 feet thick at the base, and 1 foot thick at the top, was built at either end, and the water was conveyed through a $2\frac{1}{2}$ -inch hose. The load was applied in 8 hours, and although it exceeded the required loading of 250 lbs. per sq. ft., the deflection at centre was only 1/16 inch. The water test load was rapidly and easily applied and removed, at a very low cost. It would be a very easy matter in situations where water service is not available to pump water from the stream which the bridge spans.