

expenditure to construct approach roads across the shallow portion of Shoal Bay to connect Northcote with O'Neill's and Stanley Points. Even if the bays were cut off by the construction of such roads, the distance from Queen Street to the centre of Devonport by way of a bridge on site B would be between 6 and 7 miles, as compared with a little over 2 miles by the present ferry service. A scheme was submitted for the formation of such access across both branches of Shoal Bay for the purpose of connecting Birkenhead, Takapuna, and the northern portion of Devonport. We are of opinion that some such scheme of forming roads carrying tram services would be an essential adjunct to the bridge, but that these works should be designed and executed so as to reduce as little as possible the tidal compartment of the harbour.

Notwithstanding the objections that can be justly made as to interference with the full use of the harbour if a high-level bridge were constructed on site B, we are of opinion that unless the exigencies of the Railway service demand that site A must be chosen for the bridge, site B is the site most suited for a connection across the Waitemata, and that the inconvenience to the shipping if a large-span high-level bridge were built would have to be borne, in view of the public convenience.

Site C does not appear to us to be worthy of consideration, because of the great difficulty and enormous cost that would be involved in obtaining access to and constructing approaches to a high-level bridge from the Freeman's Bay site, and a low-level bridge could not be entertained owing to interference with the shipping.

For a roadway-bridge, with provision for carrying tramways, upon site B, the estimate shows that the cost would be approximately £950,000. Present-day prices for labour and material have been adopted in estimating, but if there should be any considerable reversion to pre-war conditions, then a corresponding reduction in cost might be expected.

If provision be made for a single line of railway in addition to the roadway and tramways on the bridge, the cost on site B would be raised to not less than £1,500,000.

Upon site A the estimate for a combined bridge to carry a single line of railway as well as a roadway shows that the cost could not be considered as less than £2,000,000.

In view of the probability of a main arterial road being constructed from some point near Northcote to the far north, and also in view of the advent of increased electric current for tramway-extension purposes, we are inclined to the opinion that a bridge erected on site B, constructed to carry a single line of railway with a roadway above the line of rails, having a width of 40 ft. and with provision for a double track of tram-cars, would probably be the scheme best suited to all the conditions. Such a bridge, exclusive of road approaches and of the tramways and railway, might be erected at a cost which for the purpose of this inquiry should not be taken at less than £1,500,000.

The cost of management, maintenance, and upkeep on such a bridge would be a fairly heavy one, probably $1\frac{1}{2}$ per cent. on the total cost; and, assuming that the money could be borrowed at 6 per cent., with a sinking fund of $\frac{1}{2}$ per cent., the annual charge would amount to £120,000. This sum would have to be obtained partly from special rates struck over the area to be benefited, and partly from such moneys as might be derived from tolls on vehicular, tramway, and railway traffic.

However desirable it is from many aspects to construct a bridge over the Waitemata, the expediency must be judged by the question as to how the annual charges can be met. Whilst some evidence was tendered from residents on the northern side of the harbour of their willingness to be rated in proportion to the benefits they would derive, no material evidence was received from the citizens of Auckland in support of the proposal, and it is therefore reasonably assumed that they do not look for any substantial benefits to be derived by them from the construction of a bridge, and consequently would not be willing to be rated for it.

The population of the boroughs of Northcote, Birkenhead, Takapuna, and Devonport may be put down at 17,000, and the scattered country population