APPENDIX C

ANNUAL REPORT ON PUBLIC WORKS BY THE ENGINEER-IN-CHIEF

The Engineer-in-Chief to the Hon. the Minister of Works. Sir, --

I have the honour to submit the following report upon the various works completed and in progress throughout the Dominion during the year ended 31st March, 1949.

RAILWAYS: CONSTRUCTION AND SURVEY

Auckland Metropolitan Railways.—Investigation into the Auckland Waterfront Railway was continued during the year. The line was amended to suit relocation of the proposed city station and the Auckland Harbour Board's port-development scheme in the upper harbour. A permanent survey between the existing Auckland Station and Te Atatu Peninsula has been completed, and the route between the latter point and Kumeu Station has been fixed from several trial lines. This railway, together with Auckland-Morningside, the Avondale-Southdown, and the Penrose-Glen Innes deviations, which have also been the subject of investigations, will be included in the review to be made by the two English authorities who have been invited to report on transportation problems in the Auckland metropolitan area.

Edgecumbe-Murupara Railway.—Following the completion of the first trial survey (37 miles 58 chains in length), several possibilities suggested themselves for deviations

which might improve the ruling gradient of 1 in 45 against the load.

These were carefully investigated, and involved 48 miles of ground reconnaissance and 90 miles of air reconnaissance with 30 miles of trial grading. The main deviation proved that a better gradient could be obtained against the load, but only by traversing much heavy terrain, resulting in a considerably longer line and prohibitive cost. It had therefore to be abandoned. Adopted minor deviations for a distance of about 5 miles south of the proposed Te Teko Station Yard will reduce the gradient against south-bound traffic to 1 in 50 compensated. Close consultations were held with the Railways Department to decide the question of these deviations.

During the year a report and approximate estimate of cost based on the trial line

survey was prepared.

Permanent-line location survey was commenced from Edgecumbe, 7 miles of field-

work having been completed at the end of the year.

Putaruru-Reporoa Railway.—The 19-mile section, Putaruru to Wawa Road, has been authorized for reconstruction to New Zealand Railways standards and two contracts have been let for earthwork and culverting on the 5-mile section between Putaruru and Lichfield. Broken weather during the last three months of the year has considerably hampered operations, but the contracts are about 60 per cent. completed. Tenders have been called for a further 8 miles of earthwork and culverts.

Satisfactory progress has been made with surveying, and $8\frac{1}{2}$ miles of permanent-line plans have been completed. Maintenance has been carried out in the Putaruru-

Wawa Road section and 17,400 tons of freight were hauled during the year.

Rimutaka Deviation.—Following adoption of a suitable route, permanent pegging was commenced, but this has so far been confined to the approaches at each end of the main Rimutaka Tunnel and of the shorter Maoribank Tunnel. The preparation of the permanent-line plans is in hand.