

Waikiekie Section (96 m. 20 ch. to 107 m. 25 ch.; actual length, 10 miles).—Formation-work between 96 m. 20 ch. and 100 m. 40 ch. is well in hand, and from 100 m. 40 ch. to the end of the section is practically complete, except for the removal of a large number of slips. The difficulty of railway-building in this country may be understood from the fact that there is only one cutting in the whole section that has not slipped. There is nothing better than the steam-shovels for removing the slips, and three of the seven shovels working on this section are engaged on slip-removal. The largest work on this section now is the cutting at 96 m. 37 ch., where a steam-shovel is engaged, and on which another is to be placed in order to complete the cutting by January next. The whole of the other formation work should be finished simultaneously with this cutting. Between 102 m. 48 ch. and 103 m. 9 ch. a deviation of the line had to be made, as practically the whole country was slipping, large cuttings after excavation having been completely filled in again.

The formation of the Taipuha station-yard is in hand, but is being delayed by severe slips. The formation of the Waikiekie and Waiotira station-yards is practically completed, the latter station requiring a filling of over 30,000 cubic yards to make it up. The filling and the approaches to an overbridge across the station have been done by two steam-shovels. The employment of a large number of steam-shovels has been of inestimable value in the heavy formation work along this section, and very poor progress would have been made without them.

Fencing is well on towards completion on the section.

The Mareretu Tunnel was completed last Easter. Owing to slides and heavy ground the piercing of this tunnel was an exceedingly difficult operation. Very heavy timbering, closely placed, had to be used right through, and concrete lining varying from 18 in. to 2 ft. thick had to be used with an invert section. It was only by vigorous pushing-on of the work and close following-up with the concrete lining that the country could be held. All the material for the south end of the tunnel had to be hauled up by a cable tramway over the top of the tunnel. At the tunnel, huts, cookhouse, bath houses, septic tanks, and a large recreation-hall were built.

The understructure of the Managawai River Bridge is practically completed. Considerable difficulty was experienced in obtaining a foundation on account of the soft ground, which necessitated cradling and lengthening the piles by splicing. The Kikowhiti Stream Bridge is now well under way, all the staging and preliminary work having been completed. An overbridge at the north end of Waiotira station-yard has been finished, and work is in hand on the erection of the overbridge at the south end of the yard. Ironbark and other hardwood timbers have been received to do all the remaining bridges on the section.

Platelaying has been completed from Waiotira Junction station-yard (107 m. 9 ch.) southwards to 102 m. 12 ch. The temporary line south of 102 m. 12 ch. is now being lifted and replaced with the permanent rails. The sidings are now being laid in Waiotira and Waikiekie station-yards. The first lift of ballast has been placed from Waiotira station-yard to 102 m. 12 ch., and the second lift to 106 m. 12 ch. From 102 m. 12 ch. to 100 m. a small lift of ballast was placed under the temporary track laid between these points. A few culverts were completed, but most of them were left until the rails were laid and materials therefore more cheaply obtained. Work is now proceeding on these culverts that were left. During the year sixty-eight single huts and eighteen married men's quarters were erected for the workmen.

The construction of cable tramways over the tunnels on this section has greatly facilitated the handling of materials, and expedited the formation work and ballasting. A considerable saving was also made in cartage costs by these and other temporary tramways at grade level. A number of small construction locomotives were purchased and used to haul materials over these temporary tracks, as well as to handle earth excavated by the steam-shovels. Passenger and goods traffic has been run between Waikiekie and Waiotira Stations for the last few months.

Kirikopuni Section (107 m. 25 ch. to 121 m. 40 ch.; length, 14 miles 15 chains).—A temporary tram-line was completed from the Wairoa River to the Omana Tunnel. A lift of ballast was put on this track to enable heavy traffic to be carried safely. A limestone quarry was opened up and a crushing plant installed in order to obtain this ballast. A small construction locomotive is used to run ballast and other material and attend a steam-shovel. The northern approach cutting to the tunnel, which consisted of a heavy sticky pug, was taken out by a steam-shovel. This shovel is now engaged in taking out the cuttings between the Wairoa River and the tunnel. A start was made on the tunnel, but owing to the treacherous nature of the ground it was impossible to commence driving in the usual way, and it was therefore decided to build three lengths of special reinforced-concrete section of lining. One of these lengths has been constructed. A large quantity of timber and slabs have been delivered for the tunnel excavation. Forty-six single huts and eight married men's quarters, together with a cookhouse and bath houses, have been erected for the men in the tunnel and vicinity. An adequate water-supply has also been installed, as well as a septic tank and other sanitary appliances. All timber was procured from the Department's sawmill at Whatoro.

It is proposed to divert this line to cross the Wairoa River at Omana instead of at Kirikopuni, and a start is about to be made on the survey of this deviation.

WHANGAREI BRANCH RAILWAY.

Oakeleigh Section (5 m. 27 ch. to 7 m. 60 ch.; length, 2 miles 33 chains).—A deviation was made at 7 m. 15 ch. to avoid a very bad slip in a cutting at this point. The banks at 7 m. 7 ch. and at 7 m. 23 ch. have both slipped badly, and necessitate constant repairs to keep the line open for traffic. A steam-shovel was engaged for seven months removing a slip at 6 m. 18 ch. The steam-shovel is now on other work, but later on will be needed again to remove slips in this cutting. The fencing of the railway reserve has been finished. The rails have been laid throughout the section, and ballasting is practically completed. Goods traffic is now being handled over this section.