

KAIHU VALLEY RAILWAY EXTENSION.

(19 m. 17 ch. to 23 m. 71 ch.; length, 4 miles 54 chains.)

All the formation work on this line has been completed; all culverts are also completed, and the fencing is practically finished. Platelaying was completed both on main lines and in station-yards during the year. Ballasting is practically completed; only a small amount has yet to be spread at the Aranga and Donnelly's Crossing station-yards.

A good deal of delay occurred in procuring materials for the bridges on the line. One bridge at Donnelly's Crossing Station is completed. The piers of the other two bridges at 21 m. 24 ch. and 22 m. 65 ch. are completed, and the steel girders are now being placed in position.

Platforms and loading-banks at the stations are finished, but no buildings have yet been erected. All timber for these buildings has been cut at the Department's new mill at Whatoro, and has been delivered on to the sites. It is intended to immediately call tenders for the erection of the buildings.

The carriage of goods, which service was started in September, 1920, to Aranga Station, was extended to Donnelly's Crossing in October, 1921. During last summer large quantities of logs and other materials were hauled over the line.

This line should be completed, with the exception of the station buildings, by the end of September.

NORTH AUCKLAND MAIN TRUNK RAILWAY.

Ngapuhi Northwards.

Okaihau Section (16 m. 25 ch. to 24 m. 45 ch.; length, 8 miles 20 chains).—Formation on this length was finished last year, but large slips in the cutting at 19 m. 68 ch. and in Okaihau station-yard have still to be removed. A steam-shovel is now engaged in removing the one in Okaihau yard, after which it will shift the slip at 19 m. 68 ch. The high bank at 19 m. 55 ch. gave further trouble, and 8,400 cubic yards of stone were placed in the bank to drain it. This has been very satisfactory, and the bank now appears to be stable. A small bank at 20 m. 17 ch. has also given trouble. The culvert under the bank was broken by a slip on the bank and had to be removed, and a new culvert has been put in. On account of the unstable nature of the material in the bank, which was derived from an adjacent cutting, most of it will have to be removed and a new bank made from scoria rock.

No further platelaying has been done during the year. The rails extend to the beginning of Okaihau station-yard, and the yard is now being laid. The large stone-crushing plant for ballast and road-metal is now in good working-order, and is turning out stone at a very satisfactory cost. From this quarry the line has received the first lift of ballast from 16 m. 25 ch. to 24 m. 14 ch., and the Okaihau yard is now being ballasted as the main line and sidings are laid. At Okaihau station-yard a concrete block platelayer's cottage is being erected, and a water-supply is being installed. Material is also on the site for the erection of a cattle-yard.

Goods traffic has been run on this line since the beginning of March last.

During the greater portion of the year very few men were employed on this section, but additional men were put on at the end of March, and better progress is now being made.

North Auckland Main Trunk Railway.

Paparewa Section (90 m. 30 ch. to 92 m. 13 ch.; length, 1 mile 63 chains).—During the year the second and third lifts of ballast were put on throughout the main line on the section. No platelaying or ballasting has yet been done in Paparoa station-yard, owing to the uncertainty as to which station would be adopted as the subterminal on this railway. The erection of the fencing and construction of the culverts were completed throughout the year. A good deal of cleaning-up work yet remains to be done, although much was done during the year.

Mareretu Section (92 m. 13 ch. to 96 m. 20 ch.; length, 4 miles 7 chains).—About 3½ miles of fencing was done on this section during the year. Five concrete and five earthenware-pipe culverts, and a large number of pipe-culvert ends, were constructed. The formation is practically completed as far as Golden Stairs Tunnel, but slips occurred in most of the cuttings. These have been cleared sufficiently to allow traffic to get through. A bank at 93 m. 14 ch. has subsided badly, and a temporary line has been made round it. In order to transport plant and materials to the northern side of Golden Stairs Tunnel for the earthwork and tunnel at that end, a service tramway, 1½ miles long, has been laid to the top of the tunnel. A cable incline is used to lower the wagons on the other side of the tunnel. The formation beyond the tunnel has been done to 94 m. 71 ch., and is well in hand from here to the end of the section. Two steam-shovels have been employed on this length. A good many of the cuttings turned out to be very heavy pug, which could only be excavated economically by steam-shovels. The formation of the station-yard at Mareretu is on particularly bad ground, and had to be abandoned until steam-shovels became available. A considerable number of plough and scoop teams have been employed, but, owing to wet weather and the heavy nature of the earth, have not worked so economically as the steam-shovels. The Golden Stairs Tunnel, which is the chief work on this line, is progressing very satisfactorily. There is now 18½ chains of tunnel completely excavated and lined with concrete, of which 12½ chains is done at the south end and 6 chains at the north end. Both ends of the tunnel are now fully manned, and the tunnel should be completed before the end of the year. At both ends the country has been in good and hard sandstone, and only light timbering has been necessary. This justified the extensive deviation made in 1920. The permanent telephone-line has been erected throughout this section. About half a mile of platelaying was done, bringing the permanent-way up to the Golden Stairs Tunnel. Ballasting on the second and third lifts was done from Paparoa Station to Golden Stairs Tunnel. No ballasting has yet been done beyond the tunnel.