

## NORTH AUCKLAND RAILWAY.

*Kaiwaka Section (62 m. 45 ch. to 81 m. 30 ch.).*—Work on this section has now been completed up to and including the Topuni Station yard at 77 m. 40 ch., with the exception of a small amount of ballasting, and includes the Te Hana and Mainene Bridges, the Mainene Tunnel and Topuni Bridge; the two latter were in hand last year. This portion of the section is now open for the carriage of goods and mails, and should be ready for handing over to the Working Railways Department for general traffic at an early date. Beyond the Topuni Station work on the remainder of the Kaiwaka Section is in an advanced stage: culvert and formation work is finished, and rails laid up to 78 m. 70 ch., which is the commencement of the cutting leading into Ross Hill Tunnel. Sleepers, rails, and fastenings are now being taken through the tunnel, and a commencement has been made with the laying of permanent-way over the finished formation towards the Kaiwaka Station yard. Work in the tunnel is being pushed forward. A length of  $10\frac{1}{2}$  out of a total of 17 chains has been fully taken out and lined; the tunnel-fronts are in, and but little of the enlarging remains to be done. September should see the tunnel completed. Beyond the tunnel, formation is finished to the end of the section at Kaiwaka Station yard. Formation of this yard is complete, and the erection of station buildings is in progress.

*Otamatea Section (81 m. 30 ch. to 83 m. 75 ch.).*—At the end of last year work on this section had just been commenced. Construction of culverts and formation throughout the section to the Otamatea Bridge at 83 m. 75 ch., near Young's Point, is now in hand, including the erection of staging to be used in building a bank and 10 ft. culvert at the Kaitara Stream. Formation of the Otamatea Station yard is also under way.

Contracts have been let for the building of a bridge over the Otamatea at Young's Point, and also for a wharf at the same place. The bridge consists of twelve 41 ft. spans and five 100 ft. spans, the short spans being supported by concrete piles and reinforced-concrete piers, and the long spans on cylinder piers. Three platelayers' cottages are in course of erection at Otamatea.

*Bickerstaffe Section (83 m. 75 ch. to 88 m. 20 ch.).*—During the year this section has been opened up and earthworks have now been more or less completed up to 86 m., being the south end of the first short tunnel on the Bickerstaffe Estate, and is now being driven and lined as it proceeds, being in somewhat dangerous ground. Some of the preceding formation, throughout a distance of 25 chains, shows a tendency to slip, though not to an unexpected degree. About a mile on from the first tunnel a tramway about a mile long is to be laid from Maungaturoto Wharf to the south end of the Muddy Creek Tunnel, in order to facilitate obtaining material by sea for lining the tunnel, as there is no suitable stone on the ground. The completion of the detailed survey of the line from 88 m. 20 ch. to McCarroll's Gap at 96 m. 40 ch. for constructional purposes will be put in hand and finished off as soon as possible.

## HUNTLY-AWARUA RAILWAY (7 m. 34 ch. in length).

On this railway, which was authorized last year, the first step has been taken in the erection of a bridge across the Waikato River at Huntly, a contract for which was let in February last, the contract sum being £17,580. The bridge is designed to carry both railway and road traffic, and consists of two 40 ft. and eight 100 ft. spans supported on concrete abutments and reinforced concrete piled piers.

## EAST COAST MAIN TRUNK RAILWAY.

*Tauranga-Paenjaroa.*

*Maunganui—Te Puke Section (13 m. 27 ch. in length).*—On the 19th July, 1910, a party of men was started on preparatory work in clearing and preparing tracks with a view to commencing active operations on the construction of this railway. At the end of that month earthworks were put in hand, and by the 10th August seventy men were at work. On the 30th June, 1911, earthworks were nearly finished, or at any rate so far advanced as to admit of the permanent-way being laid for nearly half the distance. A small wharf has been built at Maunganui for the purpose of landing materials required in connection with the works. The formation of this section was for the most part easily constructed, but carrying the line through the swamps involved extensive drain-work, and where subsidence of banks has taken place necessitated a large amount of extra work being done. The line through these swamps will probably continue to sink for some time, and therefore requires considerable work to maintain levels. Permanent-way is laid to 3 m. 30 ch. or about 1 mile out from the terminal station at Maunganui.

Various rock-deposits at and in the vicinity of Mount Maunganui were examined, and it has been decided to obtain rock from Moturiki Island and crush it for ballasting purposes. A branch line about 1 mile in length from Maunganui terminal station to this deposit has been laid out and a site fixed for the crushing plant.

Four platelayers' cottages have been built by contract at the two terminal stations of the section—viz., two at Maunganui and two at Te Puke. A temporary engine-shed, with pit, coal-store, engine-tanks, store, and shops for carpenters and blacksmiths have also been erected.

*Gisborne—Motu.*

*Otoko Section (23 m. 50 ch. to 31 m. 45 ch.—7 m. 75 ch. in length).*—At the 30th June last the bottom lift of ballast on this section was completed nearly to Otoko. Since then the line has been completely ballasted to the site of the Otoko Viaduct (31 m. 5 ch.). The Otoko Station yard, which is on the far side, cannot be ballasted until the viaduct, which is being built by contract, is available. Pending completion of the viaduct, a wire ropeway was thrown across the valley for the purpose of transporting materials on ahead. For the greater part of the year passenger and goods traffic has been regularly run by this Department. Construction-work on this section, notwithstanding its difficult nature, has stood remarkably well, and