

Gisborne-Napier (South End).

Eskdale Section (length, 11 miles 36 chains).—The works carried out on this section comprise the construction of the Westshore Bridge and approach banks, crossing the Inner Harbour at Napier.

The Westshore Bridge is the largest structure of its kind in the Dominion, consisting of twenty-one 50 ft. spans, five 25 ft. spans braced to resist longitudinal pressure, and one 57 ft. bowstring truss span having extra height above water-level to enable boats to pass under it. The whole structure is of reinforced concrete, and carried on reinforced-concrete pile piers. The bridge is of unusual width, having side by side a 6 ft. footpath, an 18 ft. roadway, and a 14 ft. space for the railway-line. The manufacture of the piles was commenced in July, 1915, and the first pile was driven in March, 1916. Progress was rather slow at first owing to scarcity of suitable labour, but as the workmen gained experience and the organization was perfected progress was accelerated, and the whole structure is now complete. Some idea of the magnitude of the work may be obtained from the following figures: Reinforced-concrete piles made and driven, 598; temporary (timber) piles driven, 658; steel placed in position, 494 tons; concrete placed, 5,672 cubic yards. The work was carried out by the Department, without the intervention of a contractor, at a cost which was over £4,000 below the estimate, and in a manner which reflects the greatest credit upon the officers concerned.

The Napier Harbour Board is forming the southern approach bank under contract with the Department. The Board's dredge has been engaged upon this work throughout the period. Stone pitching is being done on both sides of the bank, and to facilitate this work a service tramway is being laid from a quarry at Pandora Point. The northern approach bank was completed some time ago. The Board's contract includes a diversion of the Tutaekuri River and some incidental works.

STRATFORD—MAIN TRUNK RAILWAY.

West End.

Tahora Section (37 m. 53 ch. to 47 m. 40 ch.; length, 9 miles 62 chains).—The length from Whangamomona to Kohuratahi (42 m. 26 ch.), which was practically completed last year, was handed over to the Railway Department on the 7th January last. Formation is in progress on the rest of the section, and may be said to be approaching completion to 47 m. 22 ch., in Tahora station-yard. A considerable amount of earthwork is required at Tahora, with extensive road-deviations, including five small bridges, which are in course of erection. A number of culverts and water-tunnels have been constructed, also four private crossings. Permanent-way has been laid from 45 m. 19 ch. to 46 m. 72 ch., with one lift of ballast. No more ballast is available at present. A portion of the main Ohura Road between Toi Road junction and Tahora Township has been maintained as a service road. A telephone-line is complete to 46 m. 72 ch., and the fencing of the railway reserve is in hand.

This line has made poor progress owing to the prevailing scarcity of labour, there being only about fifty men employed at present.

East End.

Matiere Section (0 m. to 10 m. 21 ch.).—Some additional reinforced-concrete work has been carried out in connection with the Ongarue River Bridge. Two large and one small culverts were completed, also the excavation for a 12 ft. arch culvert at 6 m. 64 ch. A water-tunnel at 5 m. 17 ch. was lined with brickwork. Road-deviations at 6 m. 60 ch., 8 m. 76 ch., and 10 m. 30 ch., totalling 24 chains, were completed, and the main Ohura Road between Okahukura and Matiere was maintained as a service road. An explosives-magazine was constructed at Okahukura. The contractors for the construction of the Okahu Tunnel carried on under difficulties until June, 1917, when the Department took over the unfinished work. This has been continued, but progress is slow, only a small party of men being available. Prospects for the coming year are somewhat brighter. The bottom headings have met, and the work in hand is enlargement to full size and lining. A service tramway is being constructed at the western end of the tunnel. The contractor for the smaller tunnel at 8 m. 35 ch. also abandoned his contract in 1916. In June, 1917, the Department resumed the work, finished the excavation, lined $5\frac{1}{2}$ chains of tunnel, and built the portals. The manufacture of bricks for tunnel-lining, culverts, &c., has been continued, and the output of the works has been improved by the introduction of a new process. A platelayer's cottage has been erected at Matiere station-yard to accommodate the staff.

RAETIHI BRANCH RAILWAY.

The works carried out during the year comprise the completion of the ballasting, water-services for Makaranui and Raetihi Stations, and erection of station buildings. The line, which is 8 miles 50 chains in length, including 15 chains of duplication of the North Island Main Trunk Railway, was handed over to the Railway Department on the 18th December, 1917.

OPUNAKE BRANCH RAILWAY.

Kapuni Section (0 m. 6 ch. to 7 m.; length, 6 miles 74 chains).—The earthwork on this section is near completion. All culverts and drains were completed some time ago. Two overbridges for private crossings were erected, and the Hastings Road overbridge and approaches were completed. At the site of the Waingongoro River Bridge (0 m. 25 ch.) some further concrete-work was done, but it was found necessary to sink cylinders as a foundation for two of the piers, and preparations were made accordingly. No work has been done at the Mangatoki and Kapuni Bridges. To the length of this section must be added 54 chains of duplication of the existing line, to reach Te Roti Station.