

Waipa River Bridge, Whatawhata.—It consists of three 111 ft. and two 25 ft. spans, all in hardwood. All is now completed except the stringers, decking, and handrails.

Rangiriri Hills Deviation (Waikato County).—Practically all the formation work on the deviation has been completed, and most of the formation, and the remainder, as far as Rangiriri Township, is already well in hand. Up to date approximately $4\frac{1}{2}$ miles have been metalled between Whangamarino Creek and Tekauwhata Junction. There is metal already delivered for a further 3 miles, and arrangements have been made for the delivery of metal necessary for the completion of all metalling between Mercer and Huntly. These supplies of metal are coming from four distinct sources, and it is confidently anticipated that the whole will be completed before next winter.

Lichfield—Atiamuri Deviation (Taupo County).—4 miles 12 chains of 16 ft. dray-road have been completed and made available for traffic since February last.

Gisborne—Wairoa via Morere (Cook and Wairoa Counties).—A very large amount of work has been done on this important link. Many improvements in alignment and grading between Kopua, at 21 miles, and Tarewa, at 38 miles, have been carried out. Seven miles of road have been metalled by means of a fleet of sixteen lorries, with leads up to 7 miles. The whole length of the Wharerata and Tarewa hills has now been metalled; 16 chains have been sealed with bitumen, and sufficient materials delivered for a further 4 miles of sealing. Arrangements are now being made for the supply of materials for the sealing of the balance of the road along the main range, measuring approximately 7 miles.

Rotokautuku Bridge (Waiapu County).—This bridge has four 144 ft. spans on reinforced-concrete piers founded on cylinders. All cylinders have been sunk, and two piers are finished. All material for the superstructure is on the site, and a contract for erection has been let.

Wairoa—Waikaremoana Road (Wairoa County).—The metalling from 19 miles to 32 miles, which was in hand last year, has been completed, and the whole length handed over. The renewals of four bridges on concrete piers and with hardwood superstructure have been completed. The road is now fit to carry the heavy machinery which will be required in connection with the Waikaremoana hydro-electric development.

Mimi—Mokau (Clifton County).—Improvements in formation by deviating, widening, and regrading have been effected, notably to the north of the Tongapoutu River. A new quarry of limestone, 3 miles up the Mokau River, has been opened up, and a barge service installed; 1 mile 77 chains of metal laid, and 29 chains grouted with bitumen.

Patea River Bridge, Stratford.—This bridge, consisting of a reinforced-concrete arch, 64 ft. span and 97 ft. 6 in. wide, has been completed.

Dummy Hill Deviation (Akitio County).—31 chains of dray-road formed and 538 lineal feet of "Armco" and concrete culverts constructed.

Rimutaka Hill (Hutt and Featherston Counties).—The widening and metalling of both sides of this hill have been completed, together with 6 miles of fencing.

Mungaroa Hill (Hutt County).—1 mile 40 chains of formation and metalling on very heavy side-ling almost completed.

Ruamahunga Bridge (Featherston County).—A reinforced-concrete bridge, consisting of four 55 ft. and five 27 ft. spans, with a width of 18 ft., has been completed.

Paekakariki Hill (Hutt County).—The widening of 2 miles of this road in very heavy country has been almost completed, and partly fenced.

Branch River Bridge (Marlborough County).—Approach embankments and stop-banks have been raised and widened; abutments protected by stone gabions, and all material at site for five 40 ft. steel-joist spans on hardwood piers.

Karamea River Bridge (Buller County).—This bridge, consisting of four 112 ft. spans in hardwood is now under construction by contract.

Greymouth—Westport Coast Road (Buller and Grey Counties).—6 miles 60 chains of dray-road formed, and 35 chains of metalling completed, thus leaving only 2 miles in the whole length that is still impassable for vehicular traffic. A great deal of bridging is still to be done.

Inangahua Junction Bridge (Inangahua County).—This bridge, consisting of nine 60 ft. spans, is now under construction by contract. It consists of superstructure of rolled-steel joists and hardwood decking upon cylinder piers and concrete abutments.

Waitangi River Bridge, Main South Road (Westland County).—This bridge of five 61 ft. spans, has been completed. It consists of hardwood superstructure on hardwood piles.

Double Hill Runs Road (Ashburton County).—Formation of 6 miles of dray-road and $4\frac{1}{2}$ miles of metalling have been completed.

Pomahaka River Bridge (Clutha County).—This bridge, consisting of two 121 ft. spans, has been completed. It consists of hardwood superstructure on central cylinder pier with concrete abutments.

HYDRO-ELECTRIC WORKS.

ARAPUNI.

The principal work done in connection with this scheme during the year was the letting of a contract for the construction of practically the whole of the hydro-electric development from the water up to the outgoing feeders. Tenders were invited for the work, divided into two contracts—No. 1 being more essentially the hydraulic development, including diversion tunnel, with its regulating-gates, temporary dams, permanent dam, head-race, spillway weir, and the gates giving access to the