

*Waikawa Bridge* (Vote £250).—This bridge is situated opposite the Township of Niagara, and is 80 ft. in length (four spans of 20 ft. each). The piles are each made up of two 52 lb. steel rails driven into the soft sandstone, which form a secure and permanent foundation for the super-structure. The approaches have been formed and gravelled, and the road on the east side has been formed and the bush felled, cleared, and grubbed for a length of 22 chains.

*Forest Hill* (Vote, £300).—50 chains of gravelling has been completed adjoining the Forest Hill tramway, and 150 chains formed with the road graded in Forest Hill Hundred.

*Waimatuku Bush* (Vote, £100).—The clearing of 25 chains of bush-road and the formation and gravelling of 20 chains have been done in this deferred-payment block.

*Tramway Road* (Vote, £150).—The work has just been let; it is proposed to form and gravel 35 chains.

*Lind's Bridge Road* (Vote, £100).—There have been 104 chains of ditching and one 12 ft. span completed.

## APPENDIX No. 4.

### EXTRACTS FROM REPORTS OF CHIEF AND ROAD SURVEYORS ON THE WORKING OF THE CO-OPERATIVE SYSTEM FOR THE TWELVE MONTHS ENDED 31st MARCH, 1898.

#### NORTHERN AUCKLAND.

DURING the past twelve months 284 contracts have been completed on the co-operative principle on roads in this district, and, as the weather has been exceptionally fine, the men employed have lost very little time. The work has principally been carried out by local settlers, who have been allowed to form their own gangs, and on the whole they have worked amicably together, and earned fair wages.

The highest wage earned on any contract was 9s. 8d. per day, this being an exceptionally good gang, and the lowest wage 3s. 10½d., by a gang of Maoris who knew very little about the work. The average daily wage earned throughout the year was 6s. 5½d. The total amount paid to co-operative contractors during the year was £17,535 14s. 8d.

The cost of tools, inspection, and management, including 64 miles 34 chains of engineering survey, was £1,429 8s. 8d., making a total of £18,965 3s. 4d. spent on co-operative works. In addition to this, £21 18s. 10d. was paid for fencing material.

GERHARD MUELLER, Chief Surveyor.

#### CENTRAL AUCKLAND DISTRICT.

The works have all been for road-construction, and embrace earth- and rock-cuttings and embankments; felling, clearing, and grubbing bush; drains and ditches; and sawing timber for culverts and bridges. The contracts, however, have not included the building of culverts and bridges, as I have found it more satisfactory to do this part of the works generally by experienced men on wages. By far the greater part of the work has been in bush or forest country, which is a class of work not nearly so well suited to men generally sent to co-operative works as navvy work in open country. I think the system would work better and more economically if the supply of labour were less spasmodic, but I do not see how, under the circumstances, this is to be avoided.

During the year 115 contracts have been completed. The average amount per contract has been £47 7s., and the parties have varied in numbers of members from one to eight, giving a mean of about four, which appears to be the number preferred by the men. When in larger parties they frequently disagree among themselves.

As regards the lowest wages, shown in co-operative table, one 2s. 3d. per day shown was earned on a one-man contract, where the hours worked for the 2s. 3d. amounted to only 3·8 per day, so that had he earned at the same rate for eight hours his wage would have been 4s. 9d., which is quite as much as he is worth, being a frail and feeble man who could not get mates to join him. Exactly a similar case, as regards the individual, is the minimum wage of 3s. 10d. on the Stratford-Ongarue Road. In this instance the man had worked through one contract with four mates, who would not take a second contract with him in the party. The second minimum of 3s. 3d. is a case where the original party abandoned the contract because they could not make more, being quite unfit for the kind of work. This contract was finished by another party, who at the same prices made 5s. 8d. per day, and averaged only six hours to the day's work.

The low wages earned on the Pirongia West, Kihikihi-Otorohanga-Te Kuiti, Waitetuna-Waingaro, and Waitetuna Valley Roads are entirely due to the class of men employed in the first case, and in the others to the fact that nearly all the work was done by Maoris, who when at piece-work very frequently—in fact, generally—take on with them all their friends and relations, regardless of age and fitness for the kind of work.

In regard to the maxima of 8s. 7d. and 9s. 10d., both these were bushfelling contracts, and, as the season was late and the days long and fine, the men worked quite ten hours a day, and worked hard too. I personally know that one party worked twelve hours a day for one week, but had to come down to ten, as they could not stand the twelve.