Terrace End. When you asked me if I had anything further to say in regard to the scheme outlined in red on Plan No. 26630, there is another matter which has to be considered, and which is more a in red on Plan No. 26630, there is another matter which has to be considered, and which is more a question of working-expenses, and on which possibly the General Manager and possibly the Chief Traffic Manager would be able to give evidence of more weight than myself; but you have to face this position: that at the present time, excluding all through trains—that is, the Main Trunk train, the Napier train, and the Wanganui train—you have forty trains a day coming into Palmerston North and going out—twenty trains each way. In working out such a scheme as has been outlined in red with the sorting-yard, you must make the sorting-yard your terminal for all trains, which means that every train must run five miles extra. If you take forty trains a day five miles, there are 200 train-miles extra every day, which amount to, say, 60,000 or 70,000 train-miles a year, which is an extra expenditure on account of having the sorting-yards farther out. At the present time the average cost of a train-mile in New Zealand is something like 12s. Putting it at, say, 10s. a mile, there is £35,000 a year which you have to capitalize. In addition to that, at the present time we have two shunting-engines working double shift at Palmerston North. These two engines would have to be transferred to the sorting-yards to do all the shunting and marshalling. In addition to that you must have a shunting-engine at the Palmerston North Station to deal with the traffic there, and in addition to that you must have an engine which is running backwards and forwards between the station and the sorting-yard. The cost of a shunting-engine under normal conditions for a single shift is about £1,500 a year. A shunting-engine at this place would probably run into more; but, taking it at £1,500, that would amount to £3,000 a year for the shunting-engines alone and the crews. In addition to that you must have extra shunting gangs, which would amount to, say, £3,000 for the two engines. That is for a double shift—namely, £6,000, and the shunting gangs at £3,000 a year, while with the extra traffic at times you could put it down at £10,000 a year. If you summarize that you have your train-mileage taken at 10s. per train-mile, which is £35,000 a year; double shifts and gangs, £10,000; and holiday traffic which has to be provided for and which I put at £5,000: that means £50,000 altogether. If you capitalize that at 5 per cent. there is £1,000,000; so that the scheme would cost in the first place £400,000, plus £1,000,000 for the increase in working-expenses, as against the net amount of £500,000 for the new scheme. I might say in regard to this new scheme that if we curtailed the facilities, eliminated the bridges and provided level crossings, and gave somewhat less for the conveniences for the general public in the way of the size and nature of the buildings and verandas, we could curtail to a certain extent the cost.

But you would not recommend that ?—No, but we could cut off £100,000.

It follows that in your mind there is no doubt as to what is the best scheme?—No doubt at all. As I said, I have given the matter most anxious consideration, and in every way I could look at it this scheme presented to my mind, from the Railway Department's point of view in the first place, and just as much in the interests of the population of the Borough of Palmerston North and the general travelling public, the only solution of the problem, and I recommended the General Manager accordingly.

And I think you have said that that is a problem that must be solved quite irrespective of any question of the Main Trunk diversion?—Absolutely. You have got to deal with this problem itself, and it is apart from any diversion at all. You have a certain amount of traffic that you must

·deal with no matter what diversion is made.

Can you say approximately how long it would take to complete this scheme of diversion as shown on Plan No. 26453?—The preliminary surveys would have to be made, and detailed designs, but if the labour were available and up-to-date appliances were used I think it would take four years. That is putting it on the safe side.

You know that there was an agitation in 1916, which apparently is being revived now, for the

diversion of the Main Trunk line from Levin to Marton?—Yes.

That would involve the construction of railway mileage of how much?—Approximately fifty

miles. There are no detailed surveys, but it would be about fifty miles.

Involving bridges as well as ordinary construction?—I gave certain figures at the time, but did not know the whole line. Since then I have been over the whole route. It is difficult to say what bridging would be required. An enormous amount of bridging would be required, but I am of opinion that that railway could not be made properly until the Manawatu River was altered; otherwise, instead of something like 30 chains of bridging, which might be sufficient for the Manawatu River, you might have to put in at least double that if the river were not confined into a permanent course.

Seeing that there would be an enormous amount of bridge-construction, could you give the Commission any idea of how long you think it would take to do that work?—Well, I think the Public Works Department would probably be able to answer that, but judging from past experience I should say you might expect it to take twenty years.

Of course you have taken into consideration that other railways in New Zealand are also being constructed ?—Yes.

And in the meantime may we take it that Palmerston North must be dealt with as absolutely necessary?—Yes. You have got to do the work at Palmerston North. You could not possibly wait till then.

I suppose the construction of the fifty miles of railway between Levin and Marton would cost a good deal of money?—You could not expect to do it under \$1,000,000.

good deal of money?—You could not expect to do it under £1,000,000.

That is the roughest estimation?—Yes. In a railway like that you know exactly what you have to do. We have been spending, for instance, between Auckland and Mercer in improving the railway about £10,000 a mile. Well, for a main line such as this to be constructed with such a heavy amount of bridging you could not get it at under £20,000 a mile.