Dr. James Kilgour, Mayor, Thames, to the Hon. the Minister for Public Works, Wellington. Council Chambers, Thames, 9th July, 1878.

I have the honor to enclose copy of a resolution of the County Council of Thames relative to the retention by the Government of 10 per cent. of the proceeds of the sale of Crown lands within Thames and Waikato Railway District. The object of the course here recommended is not stated, but, assuming it to be a fund the interest of which should be applied towards the reduction of the guarantee by the Government and local bodies—as provided for in the draft Bill which I lately sent to you for the consideration of the Government—the idea may be worth thinking about, supposing it I have, &c., could legally be carried out.

JAMES KILGOUR,

The Hon. the Minister for Public Works.

Mayor.

Enclosure.

Resolutions: "That, in the opinion of this Council, in any Bill introduced into Parliament for the construction of a Thames Valley line of railway, a contribution of 10 per centum should be made by the Government from the proceeds of all Crown lands sold within the district to be benefited by the

"That the County Chairman be requested to transmit the foregoing resolution to the Chairman of the Thames Valley Railway Committee, asking him to urge this course upon the Government."

Memorandum for Mr. Blackett re Hamilton and Thames Survey.

Public Works Office, Auckland, 22nd July, 1878.

I MADE no detailed report on the above railway survey, but only sent, on 5th March last, a covering memorandum, No. 230-78 (copy of which is enclosed). Reference in the monthly reports was from time to time made regarding the route and character of the works likely to be necessary. I purpose now to report in detail, so as to allow you all the data I can think of for the purpose of estimating the cost. You will observe that no curves have been run, but only tangents and straights. This will make some difference in the location at Hamilton junction, and I, in pencil, marked the curve on the tracings sent to you; in other places it will not matter. From Hamilton Station to the Waikato Crossing the line is through grass paddocks and unoccupied township land. By unoccupied I mean unbuilt on, as most of it is in private hands. A good site for a station at Hamilton West would be at 60 to 75 chains. I sent you an enlarged and natural scale section of the Waikato crossing, which is a difficult one, and I still lean to the opinion that a single span of 350 feet should be adopted for this, and I think the cost would be about £30,000 for a bridge for a double line. It is from a partial calculation only that I state that price, but I have gone sufficiently far into the matter to enable me to speak with considerable confidence. From the river-crossing to 2 miles the line is through grass land and bush. The main road at present in use for north and south traffic, east of the river, is crossed at 2 miles The main road at present in use for north and south traffic, east of the river, is crossed at 2 miles 6 chains; thence to 2 miles 46 chains is, I believe, Government land; at 3 miles 8 chains is crossed a road, which is, I believe, marked, on old Waikato plans, "Tramway," and was intended to connect Taupiri and Cambridge. At about 4 miles the Waikato County Council road is struck and followed to the Swamp Company's road at 4 miles 76 chains. This road and a continuation of it are followed to 13 miles 45 chains. I have kept the centre line about 15 feet from the edge of the left-hand ditch, which will allow of about half a chain each for road and railway; but I think land should be acquired giving at least one chain to each. At 9 miles a station should be placed; one will also be required between Hamilton East and this point, but I am not sure of the best position. From 13 miles 45 chains to 15 miles 68 chains the line is, with the exception of 15 chains, where it skirts the base of a hill, a level swamp of rather dryer and better nature than the first part which is ditched. The creek at 16 miles 70 chains has no drift timber, and one 20-feet span would clear all the water. I The creek at 16 miles 70 chains has no drift timber, and one 20-feet span would clear all the water. caused an alternative line to be run from 16 miles 13 chains to 17 miles 74 chains to avoid severing the grass fields, but I think the red line on the whole the best, if the land is not to be too dear.

The Piako is crossed at 18 miles 60 chains. One span of 80 feet is necessary, and land spans. At 19 miles 10 chains the great Piako and Waitoa Plain is struck, and left again at 25 miles 35 chains. This plain is a good swamp—nearly all a good clayey and sandy subsoil, and easily drained. The Waikarakeke Creek carries no drift timber, but will require long piles. The Waitoa River has abundance of drift timber, and I think no understrutting should be used on the first part of the flooded area, 24 miles 53 chains to 59 chains. The other part, at 24 miles 5 chains, may be small spans of any convenient construction. I think no drift timber flows in the next creek at 24 miles 30 chains. The Matamata Road joins the Hamilton and Thames Road hereabouts, and a station will be wanted

about 25 miles.

After crossing the Saddle at 25 miles 65 chains the line passes over good country, rather swampy,

but with a good hard subsoil. The creek at 27 miles does not carry drift timber.

The Omahu landing on the Thames is at 30 miles 40 chains, half a mile down river from where the direction of the straight part of the line would strike the river. If the line is to be carried on to the Thames Townships-Ohinemuri, Shortland, and Grahamstown-the crossing should be at 30 miles 15 chains on the straight direction, or thereabouts.

From the above you will see that $9\frac{1}{2}$ miles are already formed and ditched, and about another

14 miles requiring only ditching and forming, and the remainder very ordinary earthworks. With the exception of the Waikato one, the bridges are all easy, and under the average length per mile.

JAMES STEWART, District Engineer.