

1921

KENYA

452

43270

FROM

CROWN AGENTS

DATE

29TH AUGUST 1921

30 021

FOR CIRCULATION —

SUBJECT

UASIN GISHU RAILWAY

- Mr.
- Mr.
- Mr.
- Mr. Grindle
- Sir H. Lambert
- Sir H. Road
- Sir G. Fiddes
- Mr. Wood
- Mr. Churchill

Submit observations of Consulting Engineers on survey results and the Contractors' estimate of cost of construction. They have no hesitation in recommending adoption of Nakuru route via the Nels Valley and yink line can be built for amount estimated by Messrs Griffiths & Coy.

Previous Paper

MINUTES

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42/30 m.c.

Everybody is now agreed
that the route is the
best.

C. P. Mather has seen

Ch. + W. Road. 100/10

W.S.

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at

Copy 002 1343 - 3 Sept 21

See to

11/10/21

Subsequent Paper

CO
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416/6.



G. D.
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4. MILLBANK
WESTMINSTER
LONDON, S.W. 1.

ALL COMMUNICATIONS
TO BE ADDRESSED TO THE
LOCAL AGENTS FOR THE COLONIES,
THE ABOVE REFERRED AND THE
TEXT OF THIS LETTER BEING QUOTED.
TELEGRAMS, "CROWN, LONDON"
TELEPHONE, 7780 VICTORIA

29th August, 1921.

453

Sir,

With reference to the third paragraph of our letter
dated 10th August on the subject of the Uasin Gishu Railway,
I have now the honour to enclose for the information of the
Secretary of State a copy of the observations of the Consulting
Engineers on the results of the survey and on the Contractors'
estimate of the cost of constructing the line.

2. Messrs. Rendel Palmer & Tritton it will be seen have
no hesitation in recommending the adoption of the Nakuru
route via the Mele Valley as now projected and, so far as they
are in a position to judge, the line can be built for the
amount estimated by Messrs. Griffiths & Company.

I have the honour to be,

Sir,

Your obedient Servant,

W. G. A. G.

for Crown Agents.

The Under Secretary of State,
Colonial Office,
S.W.1.

MESSRS. RENEWAL PALMER & TRITTON TO CROWN AGENTS (CHIEF ENGINEER)

RRG/B.

12 - 14, Dartmouth Street,
Westminster,

London, S.W.1.

22nd August, 1921.

Uasin Gishu Railway Survey.

454

Sir,

In reply to your letter No.E.416/6 dated 4th August, 1921, we have the following observations to make:

The detailed survey carried out by Messrs. Griffiths & Co. under the direction of Col. Robertson, Survey Engineer, has resulted in the location of a line which avoids the heavy bridging between mile 32 and mile 86 of the survey of 1915. The new alignment is some 2 miles longer, and the summit level is 610 feet higher (9,130 feet against 8,520 feet) than on the 1915 route. The saving on this section in earthwork and bridging, at present prices, is estimated to amount to £2368,600, against which has to be put the cost of working over the two miles of additional distance and the 610 feet of additional height. It has, however, since been reported in a cable dated July, 1921, from the Chief Engineer Surveys that a lower saddle at Narasha has been found, and this additional height may be somewhat reduced.

From Nakuru, the starting point of the line, there are alternative routes to Ravine Ridge, an obligatory point on this alignment. The relative advantages of the alternative routes have been discussed by Col. Robertson in his report, and although the steps by which Col. Robertson has arrived at his conclusions have been criticised by Mr. Couper, General Manager of the Uganda Railway, and Col. Hammond, Special Commissioner for Railways, Eastern Africa, both of these officers agree with his

/ conclusion

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The saving on this section in earthwork and bridging, at present prices, is estimated to amount to £368,600, against which has to be put the cost of working over the two miles of additional distance and the 610 feet of additional height. It has, however, since been reported in a cable dated July, 1921, from the Chief Engineer Surveys that a lower saddle at Narasha has been found, and this additional height may be somewhat reduced.

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/ conclusion

conclusion that the line from Nakuru, via the Molo Valley, to Ravine Ridge should be adopted.

Similarly, we think that in comparing the capital cost of the two routes, it is not justifiable to take the cost of track reconstruction from Nakuru to Mau at £274,123, its cost to-day, but that the present value of this sum, which it may be assumed would be required for this purpose in 10 years' time, may fairly be taken against the capital cost of the Mau route. The present value of this sum at 6 per cent, is £153,056, and inserting this figure in Col. Robertson's estimate of the cost of the Mau route in place of £274,123, the capital cost becomes £668,808, as compared with £787,651, the estimated cost of the Nakuru route, or an advantage in first cost of £118,843 in favour of the Mau route.

We think, however, that the better traffic which will undoubtedly be obtained by the Nakuru route, combined with the important advantage of securing 1.5 per cent. grades, and thus eliminating the 2.0 per cent. grades on this portion of the through route to Uganda, far outweighs the additional cost. The adoption of the Nakuru route, moreover, obviates the disadvantage of working a short Branch from Nakuru to the Molo River.

We have therefore no hesitation in recommending the adoption of the Nakuru route via the Molo Valley, as now projected.

In detail, we note that it is proposed to place the engine changing station at Elgorat, 127 miles from Nakuru. This is a long run under the conditions of working which are likely to obtain for many years on this railway. It appears from the plans that a site with a good water supply may be

/ obtained

obtained at about mile 98-99, and if after investigation this proves to be the case, we think it preferable as giving reasonable hours of duty of the running staff.

The length of the line from Nakuru to Turbo is 145.47 miles by the line recommended, and the cost is estimated at £2,202,414.

With regard to the estimate, we observe that the earthwork quantities under formation are estimated from a "paper" line, and we understand that the quantities calculated from sections over the line as actually set out will not be appreciably different. The rate for earthwork appears to be ample.

Under Ballast & Permanent Way, Ballast is estimated for throughout. We recommend that cuttings only should be ballasted in the first instance. The banks should be given time to settle and consolidate, and ballasting on banks can probably be deferred indefinitely. This will reduce the estimate to some extent.

The estimate is exclusive of Rolling Stock.

Under Plant, there is a provision of £115,810 for new rolling stock, consisting of 7 locomotives and 100 waggons for use during construction. We think it should be considered whether second-hand rolling stock should not be supplied by the Uganda Railway for this purpose, and new stock to this amount purchased by the Uganda Railway.

Under the head of General Charges are included, Transport of Labour, Materials & Plant on the Uganda Railway, Contingencies and Contractors' Profit, items which do not usually come under this heading, and General Charges consequently appear unacceptably high, amounting, as they do, to 27 per cent of the total cost. We are not in a position to criticise the rates for work in Kenya Colony, but so far as we are able to ascertain from

enquiries, they are ample, and we think there is little doubt the line can be built for the estimated amount.

We may suggest that the lower summit already referred to should be thoroughly investigated, as well as the possibility of a site for an engine changing station at about mile 98-99, before the survey is entirely closed. The line should also be marked by level-pitting the final line and by permanent marks, and this is no doubt being done.

Yours etc.,

Rendel, Palmer & Tritton.

(Sgd) R.R. Gales.