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GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No. / ~~B.P. No.~~	701	Press / ~~Mis.~~

Dated 10.4.1875 ~~196~~ .

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701/1

Travancore.

No. 65. Read the following letter from G. A. BALLARD, Esq., Resident in Travancore and Cochin, to the Hon. W. HUDLESTON, Chief Secretary to Government, Fort St. George, dated Trevandrum, 19th March 1875, No. 38 :—

I have the honor to submit, for the information of Government, extracts from a report* from the Acting Chief Engineer, Travancore, on the continuation of the Peermade Ghaut road across the hills to Goodaloor at the head of the Goodaloor Ghaut into the Cumbum Valley, Madura. The report is, I think, very satisfactory.

* No. R, dated 13th instant.

2. Few carts have as yet crossed from Madura. The ghaut on the British side, I believe, has been hardly trafficable by laden carts from the damage done last monsoon and the repair works that have been in progress ; but when the through communication is thoroughly opened, I am confident a considerable cart traffic will rapidly establish itself.

EXTRACT from a letter from the Acting Chief Engineer, Travancore, to the Diwan of Travancore, No. R, dated 13th March 1875.

I have the honor to report the result of my inspection of the new road across the plateau from Peermade to the Goodaloor Frontier.

2. The road throughout the 24 miles, which is the distance between the two points mentioned, is now freely open for cart traffic, and has been so, by the report of the Assistant Supervisor, since November last. I learn that loaded carts have passed through in December.

3. The present width of the road may be generally taken at 14 feet in ordinary clay cuttings, and 12 feet in rock cuttings. The principal streams have had ramps cut down their banks for the passage of carts in and out during the fair weather ; temporary jungaurs will be provided for their safe passage in times of flood. The Perriar, the only considerable or formidable stream crossing, will be worked throughout the year by means of a jungaur. Temporary and, in some cases, permanent culverts have been constructed to deal with the smaller cross drainage.

4. No metalling has in any instance been spread upon the present surface, and as some of the soil through which the road has been cut is of a very rotten and instable nature, traffic can only be maintained under present condition during fair weather. This bad soil is especially noticeable along the section from the Perriar to the frontier, and unquestionably this section of the road will have to be metalled throughout, the soil from Peermade to the Perriar is of a much stronger and stony character, and may stand the traffic of, say, ten or fifteen bandies a-day without being much affected. The difference in the soil of these two sections may be accounted for by the fact that the road from Peermade to the Perriar runs through a perfectly open district over hills covered with short grass and stones, while that from the Perriar eastward is generally through dense jungle, the product of rich and deep soil.

5. The expenditure upon this 24 miles of road has now reached Rupees 65,000 or thereabouts, being equivalent to an average rate of Rupees 2,300 per mile. To entirely complete the road will probably cost Rupees 60,000 more, so that in round numbers it may be said that the road will have been completed at a rate under Rupees 5,000 a mile. To render the road complete it is intended to widen the formation to a width of 16 feet in clay cuttings and 14 feet in rock cuttings ; to metal a width of 12 feet where absolutely necessary with a layer of broken stone 4 inches in thickness ; to construct dry stone parapet walls 2 feet in height along precipitous places, and to thoroughly bridge and drain the road throughout (with the exception of the Perriar above noted).

6. Taking into consideration the difficulty of procuring labor, the high prices paid, (*viz.*, 8, 9 and 10 C. Rupees for ordinary coolies) the comparatively high salaries paid to members of the temporary establishment chargeable to the works, the excessive rain which interrupts work so detrimently to its economical execution, and lastly, the very heavy work in the shape of rock blasting and revetting that occurs in almost every mile, I think it will be acknowledged that the estimate is a most reasonable one.

The detailed estimate is now being prepared and will be submitted in a few days. In rom[illegible], however, it may be said that the whole project will be accomplished for [illegible] of Rupees.

8. I have adopted a width of 16 feet in ordinary ground for the roadway, under the belief that this width will be ample for many years to come for the requirements of traffic.

9. If at any time traffic so increase that it be found desirable to bridge the Perriar, I may here note that such a structure could be erected with considerable ease and at a comparatively small cost. I would roughly estimate a Warren girder bridge to cost Rupees 50,000.

* * * * * *

15. The Budget allotment of Rupees 10,000 for this road work for the current year having now been expended, I have generally suspended work along the line. There are, however, some revetment walls which are in course of erection, which it is necessary should be completed; to effect this and adjust outstanding accounts will probably require another Rupees 2,000, which sum, I trust, will be sanctioned over and above the allotment. It is to be hoped that Government will see fit to spare a more liberal allotment during the ensuing year when the most necessary items of metalling and permanent cross drainage may be taken in hand.

* * * * * *

18. The work done both as to cost and quality is most creditable to Mr. Sinclair, and I would therefore recommend that the *bonus* may be disbursed to him.

19. In conclusion, I have great satisfaction in being able to report so favorably on the work already done. Great care has been exercised not only to attain good and stable work, but to do so at as small a cost as possible. Great difficulties have had to be contended against, and they have been satisfactorily overcome.

20. I can also speak with satisfaction of the alignment and tracing of the road, considering the extraordinarily broken and undulating nature of the plateau, the line has been most successfully laid down. And I think the Department has just cause to be proud of the work.

21. To give an idea of the broken character of the country I note the following as the distance by road between Peermade, the Perriar and the Frontier, compared with the direct line measured as the crow flies :—

	Direct line.	By road.
From Peermade to the Perriar ...	8 miles 2,160 feet.	14 miles 2,180 feet.
From the Perriar to the Frontier...	6 ,, 870 ,,	9 ,, 3,100 ,,
Total ...	14 miles 3,030 feet	24 miles.

or an increment of a little less than 9¼ miles or about 60 per cent. against the road. Notes as to the various elevations and depressions crossed by the line have already been given by Mr. Barton in a previous report, and it is unnecessary therefore for me to refer to this. The limiting gradient is generally 1 in 20 throughout.

(True Extract.)

(Signed) G. A. BALLARD,
Resident.

No. 66. ORDER THEREON, 31st March 1875, No. 198.

Communicated to the Department Public Works.

2. The Governor in Council congratulates the Sirkar on the successful prosecution of the work which he doubts not will prove highly beneficial to the people affected.

(True Extract.)

To the Public Works Department.
,, Revenue Department.
,, Resident in Travancore and Cochin.

Extd. T. O'Connor.

No 1286
Revenue Department

Govt. of {1875} Madras.

POLITICAL.

To

THE PUBLIC WORKS DEPARTMENT.

&c., &c., &c.

Dated March 31st.

Issued 9th

Recd. 9th Inst.

G.O., 31st March 1875, No. 198.

MARCH.

Nos. 65-66.

Travancore.—Letter from the Resident, submitting extracts from a report from the Acting Chief Engineer on the continuation of the Peermade Ghaut road into the Cumbum Valley, Madura, communicated to the Public Works Department; and the Sirkar congratulated on the successful prosecution of the work.

No 701
Comm.d to the
Board of Revenue
10 April 75

* Encl. to Board's Rev. Dis. 14 April