M.R. O. 1—32,000—16-10-29.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. R 717 Press ~~Mis.~~

413-15
Dated 26-10-~~19~~ 1868

Not to be folded or roughly handled

Read the following :—

No. 413. Proceedings of the Board of Revenue, dated 21st April 1868, No. 2,928.

Read the following letter from the Collector of Tanjore, to the Secretary to the Board of Revenue, dated Point Calimere, at Tritrapundi Talook, 14th January 1868, No. 9.

1. With reference to paragraph 8 of the Proceedings of the Board of Revenue, dated 26th August 1867, No. 5,508, I have the honor to report on the question of a light railway between Needamungalum and Combaconum, which was discussed some years ago.

2. In 1862, Mr. Carr, the then Chief Engineer, at the request of the Chairman of the Great Southern of India Railway, addressed a letter to Government, with the desire to ascertain whether they would grant permission to a Company, (to be formed in England, and to raise capital there without a guarantee,) to lay down a line of railway, from the Needamungalum station to the town of Combaconum, on certain conditions, of which the principal were the following, namely :—

Vide Proceedings of Government in the Financial Department, dated 22nd October 1862, No. 588.

1*st.*—The Company to undertake to lay a line of light rails to the Indian gauge along the existing road at their own expense.

2*nd.*—The working of the line to be subject to such regulations as the Government might consider necessary.

3*rd.*—The Government to straighten and metal the existing road ; to make the approaches to their bridges easy ; to give so much of the road as might be necessary for the laying down of the rails ; and to widen the road, or give more land when required, free of cost.

3. This letter was referred to the Public Works Department for consideration and report, and the Government subsequently, in their Proceedings, dated 31st January 1863, No. 59, offered, subject to the approval of the Government of India, the following terms, namely:—

1*st.*—That, in consideration of the formation of the railway doing away with the necessity for the construction of a metalled feeder to the Great Southern of India Railway, Government should give 50,000 Rupees as a grant-in-aid.

2*nd.*—That the Company should be allowed to make use of the existing road embarkment to such an extent as might be practicable without reducing the width of the cart road to less than six yards.

3*rd.*—That the sharp bends in the road should be reduced to moderate curves, the Government providing land, but the Company carrying out such alterations at their own expense, and taking care that the cart road was maintained or re-formed with a width of six yards.

4*th.*—That the Government bridges might be used by a railway, provided the rails were so laid down over them as not to obstruct the cart traffic.

4. These terms were communicated to the promoters of the scheme in England; but they, after careful consideration, arrived at the conclusion that the necessary capital could not be raised upon the terms named, and the project, therefore, fell to the ground.

5. Now, with regard to the above failure in 1863, to raise the necessary capital for the light railway in question, I have no hesitation in saying that it arose solely from the fact that no interest was guaranteed on the capital required, and the question, therefore, which remains now to be considered is, whether it would not be more advantageous to guarantee five per cent. interest, from the Local Funds of this district, on the amount of capital required for forming a light railway between Needamungalum and Combaconum, than to make a metalled road between these places from the same funds.

6. Mr. Betts, the Agent of the Great Southern of India Railway, with whom I have been in communication on this subject, writes as follows :—

"I would strongly recommend, if the construction of an iron road is at all "to be considered, that a light railway of the Indian gauge should be adopted, "instead of a bullock tramway. The traffic never could be so cheaply or so satis- "factorily worked by bullocks as by a light locomotive, and in feast times, if we "had the former power only, things would come to a dead lock.

"If Government sanction the construction, from the capital account of the "Great Southern of India Railway, of a light railway from Needamungalum to Com- "baconum, I feel sure that my Directors, who are fully sensible of the value which "such a branch would be to their main line, will authorise my putting the work in "hand.

"I estimate, on a rough calculation, that the cost of a light railway (of the "Indian gauge) between Needamungalum and Combaconum, laid over the existing "road and bridges, with stations at Valangaman and Combaconum, and including "an electric Telegraph line, will be Rupees 40,000 per mile, or say, Rs. 6,00,000, "Government undertaking to find extra land for straightening the road where "necessary, and land for station purposes, and approaches to bridges.

"If you are disposed to recommend Government to sanction this undertaking "with a guarantee from the Road Cess Fund of five per cent. upon its cost, and "under the same conditions as those entered in the existing contract between the "Great Southern of India Railway Company and the Secretary of State for India, "I will at once put the preliminary survey in hand, and communicate with my "Directors on the subject.

"I would propose that the Great Southern of India Railway Company should "work and maintain the line for fifty per cent. of its receipts.

"The average receipts per mile on this line last half year amounted to Rupees "2,492, or 4,584 per annum. Assuming the receipts per mile on the branch line "amounted to only Rupees 4,000 per annum, and deducting therefrom the fifty per "cent. for working charges, the net earnings, would produce five per cent. upon the "estimated capital cost of the branch. I fully believe, however, that the line will "be made for less than Rupees 40,000 per mile."

7. The advantages of a railway over a metalled road are too obvious to be dilated upon. In the present case, supposing even that the earnings of the proposed line should not leave any margin at all as a set-off against the guaranteed dividend, and that the full amount of the guarantee, namely, Rupees 30,000 per annum, has to be paid, the proposed railway, even in such a case, will still be but very little more expensive to the Local Funds than a metalled road. In Colonel O'Connell's esti-

Proceedings of the Madras Government, Revenue Department,
26th October 1868.

mate, submitted with my letter of the 9th July 1867, No. 124, the cost of metalling the road in question, exclusive of the sidings from the Railway station to the quarrying ground, was put down at Rupees 6,802-8-0 per mile ; but the estimated cost, as now carefully calculated by Captain Oakes, (*vide* Memorandum herewith enclosed,) comes to Rupees 8,785-4-0 per mile, thus making the total cost of the whole road amount to Rupees 1,31,778-12-0. Now, the annual interest on this capital outlay at five per cent. per annum gives Rupees 6,589, and to this must be added Rupees 22,350, the annual maintenance allowance as estimated by Captain Oakes, thus making an aggregate of Rupees 28,939, against Rupees 30,000, the full amount of the five per cent. guarantee required for the construction of a light railway.

8. The revised estimate of the cost of metalling, as given in detail in Captain Oakes's Memorandum, includes cart hire for conveying gravel from the quarrying ground to the Railway station at Tanjore, on account of its having been found necessary to provide for this item, in consequence of the proposition of forming a railway siding from the quarry having had to be abandoned because of the small quantity of gravel procurable in any one place. This item, however, makes very little difference, and scarcely affects the calculation of interest on the original outlay, as a set-off against the guarantee on the cost of the railway.

9. As regards the land to be provided for straightening the existing road where necessary, as well as for stations and approaches to bridges, I am not in a position to state exactly what the cost of this item will exactly amount to, but at any rate it will not exceed 10,000 Rupees. The extent of land thus required, as ascertained by Captain Mullins, the District Engineer, in 1863, with reference to the Order of Government above quoted, was 33-14 Acres for the line, and 14-86 Acres for stations, thus making altogether 48 Acres. The land required for the line consists mostly of wet cultivation, and that for the stations, of dry cultivation and waste. The value of this land, as calculated in 1863, was estimated at 7,000 Rupees, but allowing a margin for possible contingencies I think that the total cost for this item may be safely set down at Rupees 10,000, and be paid by the District Local Fund.

10. The Board will thus perceive that, by guaranteeing five per cent. annual interest out of the Local Funds of this district on a capital outlay of 6,00,000 Rs. for constructing a branch line from Needamungalum to Combaconum, and by paying the sum of 10,000 Rupees once for all as compensation for extra land out of the same fund, the important and populous town of Combaconum, and the rich adjacent country, can be brought into direct communication by rail with the Great Southern of India Railway.

11. In paragraph 7 I have shown that, if this branch line only pays its working expenses, and does not return any dividend at all, it will even then only cost the Local Funds but a little more each year than the construction and maintenance of a metalled road. There is, however, not the slightest reason for supposing that the traffic will not be as great on this line as on the Great Southern of India Railway, for Combaconum is a very large and populous town, from which, and the adjacent country, much rice is exported to Negapatam and Muttupettah, and to which salt is brought in large quantities from Adrampatam. I therefore fully agree with Mr. Betts in thinking that the net earnings of this branch railway will produce five per cent. upon the estimated capital.

12. My residence and experience in this district has long since made me come to the conclusion that the Great Southern of India Railway made a mistake in not constructing their line round from Trivalore *via* Nannilam and Combaconum to Tanjore, instead of direct from Trivalore to Tanjore, for the country between Trivalore and Combaconum is the richest and most populous part of the Tanjore District, and the Railway would thus have passed right through it. However, this mistake can be rectified if the Government will allow five per cent. interest to be guaranteed out of the Local Funds of this district on the capital required for the construction of a branch line from Needamungalum to Combaconum; for if the net earnings of this line produce five per cent. on the estimated capital, (which, as I have stated before, I am confident they will produce,) other branch lines may also hereafter be constructed on the same terms, and this rich fertile district will thus in time be covered with a net-work of economical railways, which will bring all its centres of trade into rapid, certain, and economical communication with the sea coast on the one hand, and the main lines of the empire on the other.

13. I beg, therefore, most earnestly to recommend this scheme to the consideration of the Board of Revenue, and trust that they will forward it, with their full approval, to Government for sanction.

Memorandum showing the probable cost of metalling the road from Needamungalum.

1st.—To Combaconum.

Quarrying and screening	2	Annas.
Loading	$\frac{1}{2}$	,,
Conveying to station, nine trips for 3 cubic yards, at 12 Annas	4	,,
Filling trucks	$\frac{1}{2}$	,,
Unloading and filling at Needamungalum	$1\frac{1}{2}$	,,
	8	Annas per cub. yd.

	Rs.	A.	P.
For 2,640 cubic yards, at 8 Annas	1,320	0	0
Quantity half cubic yard per lineal foot of road, or 2,640 cubic yards per mile conveying by rail 2,640 × $\frac{4}{5}$	2,112	0	0
Bandy-hire 3 per cubic yard, a trip 7½ miles and back (average) 2,640 × 3 = 7,920, at 10 Annas...	4,950	0	0
Laying and spreading 2,640 cubic yards, at 2 Annas	330	0	0
Sand over surface 1 inch 1,760 × $\frac{1}{6}$ = 293, at 4 Annas	73	4	0
	8,785	4	0

Abstract.

Roads.	Cost per mile.					Length of each road in miles.	Total cost.
	Quarrying, loading, and unloading.	Railway charges.	Cartage.	Laying, spreading, and sanding.	Total cost per mile.		
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.
Needamungalum to Combaconum ...	1,320 0 0	2,112 0 0	4,950 0 0	403 4 0	8,785 4 0	15	1,31,778 12 0
*	*	*		*	*		

(Signed) R. F. OAKES, Captain, R. E.,
Superintending Engineer, 6th Division.

Proceedings of the Madras Government, Revenue Department,
26th October 1868.

Before submitting the Collector's proposals for the consideration of Government, the Board desire to know whether it is intended to give up the present road from Needamungalum to Combaconum for the proposed line of railway, or only a portion of it as originally proposed.

No. 414. Proceedings of the Board of Revenue, dated 18th September 1868, No. 6,644.

Read again letter from the Collector of Tanjore, dated 14th January 1868, No. 9, recorded in Board's Proceedings, dated 21st April 1868, No. 2,928.

Read also the following letter from the Collector of Tanjore, to the Acting Secretary to the Board of Revenue, dated Vallam, 2nd May 1868, No. 105.

In reply to the Board's Proceedings, dated 21st April 1868, No. 2,928, I have the honor to state that I have consulted with Mr. Betts, the Agent, and Mr. St. John, the Resident Engineer, and they both are of opinion that an extent of ten feet of the road-way will be sufficient for the proposed light railway between Needamungalum and Combaconum. In some portions the remaining width of the road-way after giving up the ten feet may not be quite sufficient for cart traffic; but in such portions the road can be widened from the sum of Rupees 10,000, provided in paragraph 9 of my letter, recorded in the Proceedings under reply, for this and other like charges.

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1. In a letter, dated 9th July 1867, No. 124, the Collector forwarded, for sanction of Government, his Budget Estimates of Local Funds for the official year 1867-68, and among the proposals then submitted was one for expending Rupees 1,00,000 on metalling the road from Combaconum to Needamungalum, fifteen miles in length.

2. The Board approved of the metalling of so important a line of road; but having regard to the heavy cost, requested the Collector to inform them what had been the result of the discussions which they were aware had taken place some years previously, regarding the expediency of substituting light tramways for metalled roads in the Tanjore District.

3. The first of the letters recorded above contained the Collector's reply.

4. He stated that the arrangement then projected, namely, the construction of a tramway or light railroad from Combaconum to Needamungalum by the Great Southern of India Railway Company had been abandoned, owing to the impossibility of raising the requisite capital without a State guarantee of interest.

5. Mr. Morris then brought forward his present proposal, namely, that another effort should be made to construct the railway, and that the District Road Fund should furnish the required guarantee.

6. The Agent of the Great Southern of India Railway Company roughly estimates that a light railway of the Indian gauge worked by locomotives would cost, in construction, Rupees 40,000 per mile, or Rupees 6,00,000 for the entire distance, exclusive of the price of land which, as the rails would be laid on the existing road, would cost only Rupees 10,000.

7. He estimates the gross receipts at not less than Rupees 4,000 per mile, and proposes that the Railway Company shall work and maintain the line on condition of receiving half the receipts.

8. On these calculations the net receipts of the line would amount to Rupees 30,000 per annum, or five per cent. on the capital, the exact equivalent of the proposed guarantee.

9. Mr. Morris observes that the annual cost of maintaining and metalling the road, (irrespective of the expenses of the proposed railway,) would amount to Rupees 28,939; so that, if this calculation be correct, (although the sum named appears to the Board excessive for the maintenance of fifteen miles of ordinary road,) a very trifling amount of traffic over what is necessary to cover the working expenses would save the Road Fund from loss, on account of the guarantee of Rs. 30,000 per annum.

10. In this calculation, Mr. Morris has omitted to notice interest on the cost of the land required for stations, &c., and also the expense of keeping up that part of the road which will not be occupied by the railway, and will be used for ordinary traffic. This will then, of course, be of a far less expensive description than at present; but it will be necessary that it should be kept up.

11. Probably, the loss to the Road Fund, if the railway only covers its working expenses and maintenance will be about 11,000 Rupees. Estimating the cost of maintaining the metalled portion of the road at Rupees 10,000, the expense to be borne by the Road Fund in case of an ordinary road only being maintained having been calculated at Rupees 28,939, the guarantee of 30,000 Rupees, together with the 10,000 Rupees required to keep up the ordinary road in case of the adoption of a railway, will amount to Rupees 40,000.

12. The Board, however, have not been furnished with any means of judging for themselves what reliance is to be placed on the estimates of cost, traffic, and working expenses, on which the calculations above alluded to have been founded.

13. The Collector's second letter, dated 2nd May, states, (in answer to the Board's question as to whether the whole road was proposed to be given up to the railway,) that a width of ten feet will be required for the railway.

14. This, it will be observed, leaves only eight feet for the width of the cart road, which, according to the estimate for metalling it and forwarded with Mr. Morris's letter of 9th July 1867, was designed to be eighteen feet only in width.

15. The Board have recently had a conference with the Consulting Engineer for Railways, Major Shaw Stewart, on the general question of the extension of the railway system, with reference to Government Order, dated 8th January 1868, No. 61.

16. It was then decided that the construction of this branch line under a State guarantee should be recommended to Government.

17. Under these circumstances, the Collector's proposition does not admit of decision at present.

No. 415. ORDER THEREON, 26th October 1868, No. 2,717.

Miscellaneous.

The question of the proposed railway from Needamungalum to Combaconum having been referred to the Board of Revenue in paragraph 5 of the Order of Government in the Public Works

Proceedings of the Madras Government, Revenue Department,
26th October 1868.

Department, dated 19th September 1868, No. 2,967, the Collector should bring the present proposition under the notice of the Board when they have placed themselves in communication with him, as has been directed in the Order above quoted.

(True Extract.)

(Signed) R. A. DALYELL,
Acting Secretary to Government.

To the Board of Revenue.
,, the Public Works Department.

Exd. F. R. Bantleman.

Pro 22 October 1868 No 86-7 Fort St. Geo.
31 Lany 68 — 109 116 Do
10 Sept 167 No 158-7 Rev.
8 Lany 68 — 117-18 Sept 72
19 Sept 68 — 358-83

Rev. 1868. Department.
Pro of Govt for October

No. 3037

PROCEEDINGS OF THE BOARD OF REVENUE,

Dated 18th September 1868.

Sept 22
Oct 23
C.I.

No. 6,644.

S. Occ 2717. 26 Oct.

Passing remarks on proposition of Collector of Tanjore that a Tramway or Light Railroad should be constructed from Combaconum to Needamungalum, and that guarantee of interest should be furnished from District Road Fund to Railway Company, and stating that this proposition does not admit of decision at present.

For order with S.O. at Rubrique in Proceedings

With copy of Board's Letter, No. 2717, dated 26th October 1868,

To the Collector of Tanjore.
" the Consulting Engineer for Railways.

Recd. J. Wright.

2717

414
C 25 Sept 1868 Octr

Govt. of India Railways.

REVENUE.

To

THE BOARD OF REVENUE,

&c., &c., &c.

Dated October, 26th.

Recd.

Read.

G. O., 26th October 1868, No. 2,717.

OCTOBER.
Nos. 413-415.

Railway from Needammungalam to Combaconum in Tanjore District.—Collector to bring the proposition to the notice of the Board to whom the question has been referred.

REVENUE DEPARTMENT.

No. 3037.

~~From~~ Offg: Secy: to the Bd of Revenue

Dated 18th September 1868.

FOR ORDERS.

The question of the proposed Railway from Pedamanpalam to Poonamallee, having been referred to the Bd of R by the order of Govt dated 19 instant, No 2967, the Collector showed how the present proposition under the notice of the Bd when they have placed themselves in communication with him, as has been directed

25 Septr 68.

Order

Rev. Department

No. 2717

Proceedings of the Madras Government

Under date the 26 October 1868.

Read the following Proceedings of the Board of Revenue.

Passing remarks on proposition of Collector of Tanjore that a Tramway or Light Railroad should be constructed from Combaconum to Needamungalum, and that guarantee of interest should be furnished from Distt. Road Fund to Railway Company, and stating that this proposition does not admit of decision at present.

(R. C. 18th Sept. 1868 No. 6644)

The question of the proposed Railway from Needamangalam to Combaconum, having been referred to the Board of Revenue by in para 5 of the order

Order of Government in the Public Works Department dated 19th September 1868 No. 2967, the Collector should bring the present proposition under the notice of the Board when they have placed themselves in communication with him, as has been directed in the order above quoted.

11 Copies Lotho Dept Rec'd Dec'r 27.
21 " " Dept'l

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Revenue 1868 Departt
Proof Grant for October

No 66 L4

Proof the Madison Grant
Of 25th October 1868

No L13 & L15

L 113 & 115