Public Works (1890) Department.

RAILWAY BRANCH.

G.O., No. 1752 Rys.

DATED 11th November

[Despatch Abstract.]

Villupuram-Guntakal State Railway—Proceedings in the Financial Department, Communicating to accountant-Genl, with instructions, Public Works proceedings, regarding proposal of the Govt of India to refund Rs 1,31,067 of the amount spent from Provincial funds on earthwork on the—between Guntakal & Dharmavaram, Communicated to the consulting Engineer for Railways.

Indexed.

[P. W. Ry. 500—8-5-00.]

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

GOVERNMENT OF MADRAS.

FINANCIAL DEPARTMENT.

READ—the following paper :—

G.O., dated 9th September 1890, No. 1341 R., Public Works.

Read—again the following paper :—

G.O., dated 7th June 1890, No. 792 R., Public Works.

Read—again the following papers :—

G.O., dated 21st February 1890, No. 276 R., Public Works.

Read—again the following paper :—

G.O., dated 24th January 1890, Nos. 140-41 R., Public Works.

Read—also the following paper :—

From the Government of India, Public Works Department, dated 15th February 1890, No. 140 A.R.

I am directed to acknowledge the receipt of your No. 141 R., of the 24th January 1890, forwarding the capital revised and budget estimates of the Villupuram-Guntakal State Railway for 1889-90 and 1890-91, respectively, and with regard to the allusion made in the notes to the adjustment of the old famine relief expenditure incurred on the Hindupur extension, I am to say that the question should be taken up separately as it cannot be conveniently considered in connection with the budget estimate.

Order—dated 21st February 1890, No. 276 R., Public Works.

Communicated to the Consulting Engineer for Railways with reference to his endorsement No. 52, dated 22nd January 1890.

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

G.O., dated 11th April 1890, No. 494 R., Public Works.

From the Consulting Engineer for Railways, dated Madras, 3rd March 1890, No. 151.

Office-note from the Examiner, Guaranteed Railway Accounts, to the Consulting Engineer for Railways, dated Madras, 1st March 1890.

In my reply to your office-note No. 73 on the Villupuram-Guntakal State Railway budgets, I noted that it was desirable to obtain orders as to what was to be done with the expenditure charged off to famine relief which had been incurred on the Hindupur extension.

2. India in their No. 140 A.R., dated 15th February 1890, to the Madras Government, desire that this question be referred for orders as a separate question as it is not convenient to consider it in connection with the budget estimate.

3. The question that requires to be decided between the Local Government and the Government of India is whether the amount so expended (or any portion of it) and charged off finally against famine relief by the local Government, shall be transferred to Imperial and debited against the Villupuram-Guntakal State Railway undertaking.

4. The estimates for the Hindupur extension that have been submitted for sanction are based on Mr. Geoghegan's original estimates and naturally provide for the cost of earthwork. A certain portion of this earthwork had been completed some time ago as a famine-relief work and forms the subject of this reference.

5. The total expenditure appears from Madras G.O., No. 558 R., to be Rupees 2,85,327-1-7 inclusive of establishment charges and plant.

6. If no charge is to be made for this, the extension estimates could be relieved to that extent.

7. It is believed that some of this expenditure has been incurred upon the portion of the extension that has not yet been handed over to the Villupuram-Guntakal State Railway. A rateable reduction will have to be made on this account if the transfer takes place.

Submitted for the orders of Government with reference to Proceedings of Government, No. 276 R., of 21st February 1890.

Order—dated 11th April 1890, No. 494 R., Public Works.

Communicated to the Financial Department with the remark that the Hindupur extension having been started as an Imperial State Railway, the outlay upon it from Provincial Funds has to be recouped and the estimate therefore cannot be relieved as proposed.

2. The Examiner, Guaranteed Railway Accounts, will be requested to give particulars of the expenditure and how much of it is normal value.

(True Extract.)

(Signed) SIDNEY SMITH, Major, R.E.,
Under Secy. to Govt., P.W.D.,
Railway Brnnch.

G.O., dated 14th April 1890, No. 495 R., Public Works.

From the Consulting Engineer for Railways, dated Madras, 25th March 1890, No. 216.

From the Agent, South Indian Railway, to the Consulting Engineer for Railways, dated Trichinopoly, 15th March 1890, No. 392.

I forward herewith a provisional estimate, and note thereon, of the cost of the Dharmavaram-Guntakal section of the Villupuram-Guntakal State Railway, and I solicit the sanction of Government to audit against the amount therein shown, viz., Rs. 44,76,082.

2. In forwarding to me these papers the Chief Engineer has thus reported:—

"I have the pleasure to forward a note and abstract of estimate for the portion of the Villupuram-Guntakal State Railway which originally formed a part of the Hindupur Extension project.

"At present the work is being carried on without an estimate of any kind which is of course objectionable, and I have therefore prepared the enclosed provisional estimate of the probable cost in anticipation of the regular estimates which will take time to prepare.

"The mileage rate comes to Rs. 71,049, and agrees very closely with the result obtained on the Villupuram-Pakal estimate. Comparing this estimate with the estimate framed by the Engineer-in-Chief, Madras State Railway Surveys, in December 1886, the mileage rate is practically the same except under the item major bridges where there is a very large increase of nearly 13,000 per mile. From the list furnished in the note it will be seen that in the project the major waterways were largely under-estimated.

"I shall be obliged if you will obtain provisional sanction to this estimate so that expenditure may be duly audited.

"Exchange figures have been taken at Rs. 14·65 per £1 sterling."

Enclosures.

Provisional Estimate of Villupuram-Guntakal State Railway section from Dharmavaram to Guntakal, 63 miles.

	Rs.
I. Preliminary expenses	63,000
II. Land, 500 per mile	31,500
III. Construction of Line—	
(1) Earthwork	2,28,955
(2) Bridgework—	
(*a*) Minor bridges	3,87,280
(*b*) Major bridges	13,53,147
(3) Tunnels	..
(4) Level-crossings	50,400
(5) Fencing	18,900
(6) Electric telegraph	6,300
IV. Ballast and Permanent-way—	
(1) Ballasting	1,05,000
(2) Permanent-way	14,00,000
V. Stations and Buildings—	
(1) Stations and offices (2) Workshops and store buildings (3) Staff quarters (4) Station machinery	3,27,600
VI. Plant—	
(1) Engineering	63,000
(2) Locomotive	31,500
(3) Carriage and wagon	18,900
(4) Station and office furniture	12,600
VII. Steam ferries	..
VIII. Rolling-stock—	
(1) Locomotive (2) Carriage and wagon stock	63,000 3,15,000
IX. Establishment	44,76,082
Total	44,76,082

$\frac{44,76,082}{63}$ = Rs. 71,049 per mile.

Trichinopoly, 11*th March* 1890.

(Signed) W. S. BETTS, *Agent.*

(Signed) D. LOGAN, *Chief Engineer.*

Note on the Section of Hindupur Extension between miles 0 and 62½, being the portion included in the Villupuram-Guntakal State Railway.

Alignment.—The result of the investigation shows that the alignment can be adopted except as noted below:—

(*a*) *From mile* 10 *to* 12.—The alignment here consists of numerous sharp curves limited by a radius of 600 feet and on a grade of 1 in 100. On the remainder of the Villupuram-Guntakal Railway the limiting curve is 1,146 radius and it appears unwise to hamper the working of this section by the introduction of sharper curves, especially as investigations have shown that this can be avoided practically without extra expense.

(*b*) There are at other points of the line 5 curves which are of less radius than the existing ruling curve, and it is believed that these can be flattened without any undue expense.

(*c*) As the Pannamairoo river, 46 miles the crossing proposed on the original project requires and appears to be capable of improvement, investigations are in progress and will very

shortly be submitted which it is thought will show that a crossing higher up the river will enable us to guard against the submergency of a large area of cultivated land, which lies on the right bank at a lower level on the valley than the bed of the river, which submergence if not avoided would necessitate the provision of another bridge in addition to that over the Pannamairoo.

(*d*) An alteration is required near mile 41, the line at present runs up the bed of a nullah and it will be cheaper to divert the centre line.

(*e*) An alteration of alignment is required near the junction with the Dharmavaram section in order to obtain a better crossing of the Dhadalur nullah and also to place the Dharmavaram station on better ground and position with regard to the town.

The whole of these alterations, which aggregate nearly 6 miles, are expected to conduce to economy in constructing and working.

Earthwork.—The earthwork, executed some years ago as a famine relief work, has as a whole stood fairly well; in places it has been washed away and some alterations are necessary in the gradients. These are shown in the progress section.* They are mostly unimportant, the principal ones being near Kaderpet station, mile 20, where the existing bank was topped and at 2013 where it is considered advisable to raise formation 4 feet. As already advised the difficult portion of the earthwork, chiefly in rock or hard cutting, has not been executed. The total quantity of earthwork done on the whole of the Hindupur extension is recorded as 29,211,215 cubic feet, and taking out the portions done between Dharmavaram and Hindupur I arrive at 21,653,737 cubic feet as quantity done between Guntakal and Dharmavaram. With reference to the estimate rate I have valued this at Rs. 4 in place of Rs. 7-1-2 shown in completion report in G.O., No. 411 R., dated 10th May 1886, and the difference should be accordingly added to the estimate. Owing to the alteration proposed in alignment some of the work done in miles 46, 47 and 48 (Pannamairoo) and miles 60, 61 and 62 (Dhadalur) will be abandoned, but this will be duly considered when proposals are forwarded for sanction. The average rate for earthwork in Mr. Geoghegan's estimate is accepted subject to the alterations noted for the work done.

* See tracing.

Minor Bridges.—The result of the investigation into the minor bridges provided in the estimate is that although changes will have to be made in the location yet the total provision will suffice. The project figures are accepted.

Major Bridges.—The major bridges have all been investigated; proposals have been submitted for the Pennar bridge. The following table shows the waterway provided in estimate and now proposed and sanctioned:—

Chain.	Name.	Mile.	On project.	Now proposed.
440	....	9	1—40 feet.	1—40 feet.
582	....	11½	1—60 ,,	3of 15 ,,
601	....	12	5—20 ,,	2—20 ,,
656	....	13	5—20 ,,	4—10 ,,
731	....	14½	1—40 ,,	2—15 ,,
804	....	15½	5—20 ,,	2—25 ,,
1003	Kaderpet	19½	5—20 ,,	5—20 ,,
1210	....	23½	1—60 ,,	2—40 ,,
1250	Pennar	24	15—100 ,,	13of 150 ,,
1807	Lawlar	34¾	5—40 ,,	4—40 ,,
2098	Thaulkulairoo	40	12—40 ,,	8—64 ,,
2138	Nuddum-Vanka	41	3—60 ,,	4—64 ,,
2416	....	46	3—20 ,,	1—40 ,,
2432	Pannamairoo	46½	12—40 ,,	14—64 ,,
2569	Kandukúr	49	3—20 ,,	3—40 ,,
2899	Chickerla	55½	3—20 ,,	3—20 ,,
3082	Dhuplet	59	5—40 ,,	3—64 ,,
3143	....	60	1—20 ,,	1—40 ,,
3221	Dhadalur	61½	7—40 ,,	11—40 ,,
..	Palacoonta	62	..	3—20 ,,

Some of these spans may be varied on further investigations, but it appears certain that the lineal feet of waterway will be required; this amounts to 5,191 in place of 3,440 lineal feet provided in project; in the project there are included under the minor bridges 3 of 40 feet and 1 of 60 feet which reduces the difference by 180 feet; the rate in the project for major bridges is Rs. 252 per lineal foot. On the Villupuram-Pakal estimate they were found to cost Rs. 227 and that rate is accepted in this provisional estimate. The bridges noted have been fixed on the average area, a discharge obtained therefrom by Dickens' formula with the velocities and depth permissible as estimated on the ground.

Level-crossings.—The estimate rate in Villupuram-Pakal estimate is Rs. 796¼ per mile, for the purpose of this estimate it is assumed as 800 per mile.

Fencing.—The amount in the project is accepted.

Electric telegraph.—Is omitted except for cost of temporary line, say Rs. 100 per mile.

Ballast.—This has been assumed at Rs. 1,500 per mile.

Permanent-way.—The permanent-way adopted is the same as that provided for the Villupuram-Pakal estimate. Mr. Geoghegan's estimate of Rs. 20,000 per mile is accepted. This is higher than Villupuram-Pakal estimate, but the rates at home have risen from £4-10-0 to £7 per ton.

Station Buildings.—The project estimate shows provision for watering arrangements on the section at Kaloor and Anantapur, but no weighing machines, turn-table, dating press, goods shed or engine shed. In short, makes no provision for any goods traffic or for any accommodation whatever at Guntakal station. The amount provided including Dharmavaram station is Rs. 3,31,335. Dharmavaram station is included in the Kadiri extension and Hindupur projects; now that all become one railway the double provision is unnecessary and the amount thus set free will meet all the deficiencies noted. The mileage rate of Rs. 5,200 per mile is accepted.

Plant Engineering.—The works on this short length are heavy. A sum of Rs. 1,000 per mile is entered for plant.

Plant Locomotive.—A mileage rate of Rs. 500 per mile is entered as in Villupuram-Pakal estimate.

Plant Carriage and Wagon.—A mileage rate of Rs. 300 as in Villupuram-Pakal estimate.

Plant Station and Office furniture.—Mileage rate Rs. 200.

Establishment.—As per Mr. Geoghegan's estimate Rs. 5,000 per mile.

(Signed) D. LOGAN,
Chief Engineer.

Trichinopoly,
14*th March* 1890.

Submitted to Government for transmission to the Government of India.

2. The estimate is submitted in its present incomplete form with a view to regularize the expenditure now being incurred on the work. There is a heavy increase of, under major bridges, Rs. 13,000 per mile over the estimate framed by the Engineer-in-Chief, Madras State Railway Surveys, in December 1886. This question is now under consideration, and on receipt of fuller information will be thoroughly investigated.

3. The estimate will be effected by the cost of the earthwork executed as a famine relief work. This was paid for at an average rate of Rs. 7-1-2 per 1,000 cubic feet, while in the present estimate it is only valued and entered at the normal rate of Rs. 4. The Government of India in its letter No. 140 A.R., dated 15th February 1890, desired that the whole question of the famine relief work expenditure might be referred to them as a separate question, consequently the earthwork rate entered in the estimate is that for which the work could now be done, and has no reference to the price actually paid. The estimate amounts to Rs. 44,76,082 or Rs. 71,049 per mile.

Order—dated 14th April 1890, No. 495 R., Public Works.

Ordered to be forwarded to the Government of India who will be separately addressed regarding the adjustment of the famine relief expenditure.

(Here enter No. 496 R., dated 14th April 1890.)

(True Extract.)

(Signed) SIDNEY SMITH, Major, R.E.,
Under Secy. to Govt., P.W.D.,
Railway Branch.

Endorsement—dated 14th April 1890, No. 496 R., Public Works.

Forwarded.

(By Order.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

Read—also the following papers:—

From the Consulting Engineer for Railways, dated Madras, 17th April 1890, No. 264.

Office-note from the Examiner, Guaranteed Railway Accounts, to the Consulting Engineer for Railways, dated Madras, 16th April 1890, No. 153 V.G.

With reference to G.O., No. 494 R., dated 1st April 1890, I hear from the Government Examiner at Trichinopoly that there is nothing to show that any classification between "Normal" or "Famine" was ever made. According to the completion reports this expenditure is recorded as "Normal," and consequently, under the Madras Famine Code, it should have been charged wholly to the Public Works Department.

2. The expenditure has, however, been charged wholly to the *Civil Department*—*vide* G.O., No. 108 R., dated 5th February 1886.

Submitted to Government with reference to para. 2 of G.O., No. 494 R., dated 11th April 1890.

2. The expenditure incurred on the Hindupur extension seems to be normal, and chargeable under the provisions of the Famine Code (paras. 138, 139, chapter IV) to the Public Works Department.

G.O., dated 28th April 1890, No. 328, Financial.

Read—G.O., dated 11th April 1890, No. 494 R., Public Works.

Order—dated 28th April 1890, No. 328, Financial.

The report called for in para. 2 will be awaited as well as particulars of the expenditure over that portion of the extension which has not yet been handed over to the Villupuram-Guntakal State Railway.

(True Extract.)

(Signed) J. F. PRICE,
Chief Secretary.

Order—dated 7th June 1890, No. 792 R., Public Works.

Ordered that the Government of India be addressed.

(Here enter No. 793 R., dated 7th June 1890.)

(True Extract.)

(Signed) SIDNEY SMITH, Major, R.E.,
Under Secy. to Govt., P.W.D.,
Railway Branch.

Letter—From the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated 7th June 1890, No. 793 R.

In continuation of endorsement No. 496 R., dated 14th April 1890, I am directed to address you in connection with the claim of the Provincial Government to be reimbursed the amount spent from Provincial revenues on earthwork on the Villupuram-Guntakal Railway between Guntakal and Dharmavaram.

2. I am to say that the Madras Government claims reimbursement in full of the sums then spent on work done between these places, together with percentages for establishment and tools and plant as debited in 1886.

3. In the note accompanying the provisional estimates forwarded with the above endorsement, the Chief Engineer, Villupuram-Guntakal Railway, proposes to deduct from the recorded quantities of work done such portions as are not utilized, owing to change of alignment, in the line as now under construction and to allow for the balance only 4 rupees per 1,000 cubic feet instead of the rate Rs. 7-1-2 recorded in the completion reports in G.O., dated 19th May 1886, No. 411 R., of which copy is enclosed. A reference to those reports will show that the figures dealt with in the Chief Engineer's note refer to the third completion report recorded in that order, and that he makes no mention of the other two items, the first of which, that for training banks, &c., at the site of the Pennér bridge, undoubtedly covers work done between Guntakal and Dharmavaram. Work between Dharmavaram and Hindupur is of course properly deducted.

4. With regard to exclusion of claim for work discarded on account of change of alignment, I am to submit that the Provincial claim is not affected. The work was done in 1886 on sanctioned estimates and alignment and by the Government of India Engineers; and those of the present day, if a change of alignment seems to them good, must take into consideration in deciding as to its advisability, the cost of abandoning the work already done. The Provincial Government cannot fairly be put to loss because Engineers differ, nor can the Government of India with justice refuse to carry out its promise to repay so far as the work done was in accordance with the sanctioned surveys and estimates. The same argument applies to the work done at the Pennér bridge site.

5. With regard to the rate, I am to point out that that given in the completion report is recorded specifically as being the normal rate at the time, and that the fact, if it be a fact, that the work can be done now 5 years later, at Rs. 4 per 1,000 cubic feet, does not affect at all the Provincial claim. The Government of India is bound by the certificate of its then Engineer-in-Chief. The normal cost which was agreed to be repaid was ascertained and recorded at the time in anticipation of the present case; and I am to submit that the Provincial Government is entitled to repayment in accordance with the record then made.

Read—also the following paper:—

From the Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, 14th August 1890, No. 719 R.C.

I am directed to acknowledge the receipt of your letter No. 793 R., dated 7th June 1890, regarding the claim of the Government of Madras to be reimbursed the amount spent from Provincial funds in 1884-85 and 1885-86 on earthwork on the Villupuram-Guntakal Railway between Guntakal and Dharmavaram.

2. It is observed that the refund claimed amounts to Rs. 2,23,943, and is made up of the following items:—

		Rs.
(1)	Pennér training works, 4,214,838 cubic feet, at Rs. 5-14-7 per 1,000 cubic feet	= 24,918
(2)	Collection of ballast, 141,541 cubic feet, at Rs. 1-4-4 per 100 cubic feet	= 1,801
(3)	Earthwork, 29,211,215 cubic feet, *less* 7,557,478 cubic feet (presumably) used on Dharmavaram-Hindupur section, 21,653,737 cubic feet, at Rs. 7-1-2 per 1,000 cubic feet ..	= 1,53,155
(4)	Percentage for establishment (23) and plant (1½)	= 44,069

3. The Government of India is prepared to refund to the Government of Madras the value of the entire work on the railway between Guntakal and Dharmavaram, which was borne by Provincial funds in the first instance, in accordance with Revenue and Agricultural Department telegram, dated 28th January 1885, but considers that the amount to be reimbursed should be calculated on the rates at which work could have been done at in time of plenty and not on the normal rates prevailing at a time

of famine. It is thought therefore that, in the absence of any reason for supposing that the cost of labor has considerably decreased since 1886, the amount to be refunded should be based on the present actual value of the work, any increase in cost due to the employment of unskilled or famine labor being borne by the Provincial Government.

4. Calculated on the above basis, the sum which the Government of India proposes to refund to the Government of Madras in satisfaction of its claim is Rs. 1,31,067. This amount is arrived at as follows :—

	RS.
(1) Pennér training works, 4,214,838 cubic feet, at Rs. 4 per cent.	= 16,859
(2) Collection of ballast, 141,541 cubic feet, at Rs. 1-4-4 per cent.	= 1,801
(3) Earthwork, 21,653,737 cubic feet, at Rs. 4 per cent.	= 86,615
(4) Percentage for establishment and plant, at 24½ per cent. ..	= 25,792

Order—dated 9th September 1890, No. 1341 R., Public Works.

Communicated to the Consulting Engineer for Railways with reference to his endorsements as under :—

No. 151, dated 4th March 1890.
„ 216 „ 25th „ „
„ 264 „ 17th April „

2. The Government accepts the offer of the Government of India to reimburse the sum of Rs. 1,31,067, being a portion of the amount expended from Provincial funds in 1884-85 and 1885-86 on earthwork on the Villupuram-Guntakal Railway between Guntakal and Dharmavaram.

3. The Financial Department will arrange to finally debit the Provincial Government with the balance of the claim (viz., Rs. 92,876) made by this Government in Proceedings Nos. 792-93 R., dated 7th June 1890.

(True Extract.)

(Signed) SIDNEY SMITH, Major, R.E.,
Under Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Examiner, Guaranteed Railway Accounts.
„ Examiner, Public Works Accounts.
„ Financial Department.

ORDER—dated 15th October 1890, No. 720, Financial.

Communicated to the Accountant-General who will take credit for the payment from Imperial funds, amounting to 1·31 lakh, in the revised estimate under *I. Land Revenue—Adjustments.*

2. The remainder of the original debit to Provincial funds will hold good.

(True Extract.)

Frederick Price

Chief Secretary.

To the Accountant-General.
„ Public Works Department (Railways).

ENDORSEMENT—dated 15th October 1890, No. 720A, Financial.

Copy to the Government of India, Department of Finance and Commerce.

J. F. PRICE,
Chief Secretary.

Exd. P. L. Pereira.

Govt. of {1890} Madras.

FINANCIAL.

G.O. 1341 Ra/9.9.90 (conf) 30 Sc.

Issued

Recd. 29.10.90 Encl.

G.O., &c., 15th October 1890,
Nos. 720, 720A.

B No. 1752 R dy 11th Nov/90:

OCTOBER.

Villupuram-Guntakal State Railway.

Communicating to the Accountant-General, with instructions, Public Works Department proceedings communicating, with remarks, to the Consulting Engineer for Railways, proposal of the Government of India to refund Rs. 1,31,067 of the amount spent from Provincial funds on earthwork on the — between Guntakal and Dharmavaram.

Stw. 30 + 90

B No. 1752 R dy 11th Nov/90.

Ltf 6/11/90.

Communicated to the Consulting Engineer for Railways for information with reference to Proc: no: 1341 R dated 9th Septr 1890.-

To The Consulting Engr for Rys
— Ex. Engr Guntakal
— do — P. Wks Accts

P.C. 13-4

11/11/90