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MADRAS RECORD OFFICE.

Government of Madras.

Education DEPARTMENT.

G.O. No. 255-51

Press
Mis.

165-07
Dated

18/2. 1872.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
6th February 1872.*

No. 105. Read the following letter from the Acting Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 11th January 1872, No. 14 :—

I HAVE the honour to submit a revised estimate of the cost of the Neilgherry branch line amounting to Rupees 18,55,802,* or Rupees 48,625 less than the aggregate amount hitherto sanctioned. The revision of the estimate is caused by the changes in earthwork, ballast, etc., ordered by the Government of India† and by the alteration in the site of the Terminal Station.

With drawings.	
* Sanctioned in G. O., No. 467, dated 15th February 1871	RS. 18,88,216
Sanctioned in G. O., No. 1,498, dated 1st June 1871	16,000
This office letter No. 574, dated 19th October 1871	211
	19,04,427
Revised estimate now submitted	18,55,802
	48,625

† G. O., No. 1,498, dated 1st June 1871.
‡ No. 748, dated 12th December 1871.

2. A summary of the points of difference between the revised and original estimates is given in the Agent's letter‡ (enclosed).

3. As no additional expenditure is asked for, I recommend that the sanction of the Government be accorded to the estimate, as now modified, amounting to Rupees 18,55,800.

From the Agent and Manager of the Madras Railway Company, to the Acting Consulting Engineer for Railways, dated Madras, 12th December 1871, No. 748.

WITH reference to your letter No. 251 of the 3rd June last, and to G. O., No. 1,498, dated 1st idem, I have the honour to forward herewith revised drawings* and an estimate of the cost of the buildings and works required on the Neilgherry branch line; and request that you will be good enough to communicate to me the sanction of Government for the required expenditure, namely, Rupees 18,55,802.

2. I also enclose copy of a letter* from the Chief Engineer, in which he explains that the revised estimate is rendered necessary owing to the changes in earthwork, ballast, etc., ordered by the Government of India, and by the alteration in the site of the Terminal Station; and gives a summary of the points of difference between the original estimate and the one now submitted. The latter it will be observed shows a saving of Rupees 48,625.

* No. 631, 24th November.

From the Chief Engineer, to the Agent and Manager of the Madras Railway Company, dated Madras, 24th November 1871, No. 631.

I HAVE now the pleasure to forward the revised estimate of the Neilgherry branch line which was rendered necessary by the changes in earthwork, ballast, etc., mentioned in G. O., No. 1,498, of 1st June 1871, as well as the alteration of the site of the Terminal Station.

2. The following is a summary of the points of difference between the revised and original estimate.

3. *General Route.*—The line as originally laid out crossed the Bowany river three-quarters of a mile north of the town of Mettapollum and terminated at Kullar Station, which is 2½ miles beyond the Bowany river, the total length of the branch being 28 miles 43 chains. The Government of India decided that the line should stop at south bank of Bowany river on account of the expensive

G. O., No. 2,294, 22nd September 1870.

*Proceedings of the Madras Government, Public Works Department,
6th February 1872.*

nature of the works between that and Kullar. This being the case it was found desirable to divert the line at 23 miles and bring it much nearer the town of Mettapollium than originally intended, the only objection to such a route being that the crossing of the Bowany will not be so favourable should it be found desirable hereafter to continue the line across the river. The new route has the advantage of being 14 chains shorter than the one originally proposed, and will cost about Rupees 28,000 less.

To Acting Agent and Manager, No. 254, 16th May 1871.

4. *Waterway.*—During the progress of the works it has been found desirable to make the following alterations in the waterway of the bridges :—

<i>Originally proposed.</i>	<i>Now proposed.</i>
2-34—Single 9 feet openings.	Single 20 feet openings.
3-28—Single 2 do. do.	Single 6 feet rail girder.
5-68—Three 50 do. do.	Four 64 feet openings.

5. It is also proposed to use the Mitchell's screw piles which are no longer required for the Huggary bridge for piers at the following bridges, for which screw piles appear particularly well adapted :—

To Acting Agent and Manager, No. 259, 5th June 1871.

5-68—Four 64 feet openings.
6-16—Triple 30 do. do.
11-7 —Four 64 do. do.
19-4 —Four 64 do. do.

Four 64 feet openings with W I girders.
Triple 30 do. do.
Single 12 inches C.I. pipe.

6. Revised drawings are forwarded herewith as well as a plan and section of the diversion.

7. The waterway on the diverted portion is almost similar to that proposed for the original route, with the exception that arches have been substituted for girders, the streams being the same in both instances. A statement of the comparative mileage is given below :—

	As formerly proposed.	As proposed at present.
M. Chs.		
23 20		Single 6 feet arch.
23 23	Single 6 feet rail girder	Single 12 feet arch.
23 41	Single 12 feet openings	Single 12 feet arch.
23 43	Single 12 feet openings	Single 12 feet arch.
24 59	Single 12 feet openings	Single 12 feet arch.
24 11	Single 12 feet openings	Single 12 feet arch.
24 16	Single 12 feet openings	Single 12 feet arch.
24 24	Single 9 feet openings	Single 12 feet arch.
24 46	Do. do.	Single 12 feet arch.
24 72	Single 6 feet rail girder	Single 12 feet arch.
25 25		

8. *Earthwork and Ballast.*—These are being carried out in accordance with the instructions of the Government of India, as conveyed in G. O., No. 1,498, of 1st June 1871. I beg, however, to say that I am unable to arrive at the amount which the Government of India state is the saving effected by the reduction of the width of ballast, namely, Rupees 15,860 (Rupees 31,860 less Rupees 16,000), and I have, therefore, made my calculations for ballasting on independent data.

G. O., No. 467, 15th Feb. 1871.
" " 1,498, 1st June 1871.

9. *Ironwork.*—The rate for ironwork has been reduced from Rupees 330-15-9 to Rupees 299-1-11. The former rate had been adopted when the price of ironwork delivered in Madras

*Proceedings of the Madras Government, Public Works Department,
6th February 1872.*

was much higher than at present, and the grounds on which Mr. Going justified it (*vide* his letter No. 535 of 10th October 1870) when called upon for explanation, are fully detailed in letter No. 95 of 21st February 1871.

10. *Carriage of Materials.*—The different rates shown for carriage of materials are thus explained.

Small ironwork, woodwork, etc., made in the Terminal Workshops have to be carried from Madras at Annas 1-6 per ton per mile. From Beypore girders will be carried at same rate, that being the traffic charge at present in force, and permanent-way material according to tariff. The Mitchell's screw piles must be carried from the Huggary.

11. *Bungalows.*—As the whole branch is under the charge of one Resident Engineer, the usual bungalow allowance for one section only has been allowed.

12. To sum up, the total estimate, as originally sent forward, amounted to Rupees 23,79,042—District 1, Rupees 7,05,211, with letter No. 515, of 13th Dec. 1869.
Do. 2, " 7,66,311, " " " 28, of 19th Jan. 1870.
Do. 3, " 9,07,520, " " " 181, of 8th April "

This sum was reduced to Rupees 19,04,216 in the amended abstract estimate sent forward consequent upon the decision of the Government of India, as conveyed in G. O., No. 2,294, of 22nd September 1870. To this has to be added Rupees 211 for the alteration of gradient between 8 miles 40 chains and 9 miles 10 chains, making a total of Rupees 19,04,427.

13. The revised estimate now submitted amounts to Rupees 18,55,802, showing a saving of Rupees 48,625.

No. 106. ORDER THEREON, 6th February 1872, No. 355.

RAILWAY, No. 7.

THE Government sanction the modified estimate for the Neilgherry Branch, amounting to Rupees 18,55,802.

(True Extract.)

(Signed) J. CARPENDALE, Colonel, R.E.,

Secretary to Government.

No. 107. DOCKET No. 356, dated 6th February 1872.
COPY of the above forwarded to the Government of India.

(True Extract.)

Colonel, R.E.,

Secretary to Government.

Exd. E. C. Shunker.

ep 631.

37
Madras Railway Company
Chief Engineer's Office
Madras 24th November 1871.

The Agent and Manager,
Dear Sir,

I have now the pleasure to forward the revised Estimate of the Kilgherry Branch Line which was rendered necessary by the changes in earthwork, ballast &c. mentioned in G. O. ep. 1498 of 1st June 1871 as well as by the alteration of the site of the terminal station.

2. The following is a Summary of the points of difference between the revised and original estimate.

General Route. 3. The line as originally laid out crossed the Rowany River $\frac{3}{4}$ of a mile north of the town of Mettapollium and terminated at Kullar station which is $2\frac{1}{2}$ miles beyond the Rowany River: the total length of the Branch being ²⁸ ^{chs.} ⁴³. The Government of India decided that the line should stop at South Bank of Rowany River on account of the expensive nature of the works between that and Kullar. This being the case it was found desirable to divert the line at 23 miles and bring it much nearer the town of Mettapollium than originally intended the only objection to such a route being that the crossing of the Rowany will not be so favorable should it be found desirable hereafter to continue the line across the River. The new route has the advantage of being 14 chains shorter than

G. O. ep. 2294
25th Sept 1870.

To ag. agent
and manager
ep. 254. 16th May
1871.

the one originally proposed and will cost about Rs. 28,000 less.

Waterway. 11. During the progress of the work it has been found desirable to make the following alterations in the waterway of the bridges.

- | | | |
|---------|----------------------------|--------------------------|
| | <u>Originally proposed</u> | <u>Now proposed</u> |
| 2. 34 - | Single 9 feet opening | Single 20 ft. opening |
| 3. 28 - | Single 2 feet | Single 6 ft. Rail girder |
| 5. 68 - | Three 50 feet opening | Four 64 ft. openings |

To ag. agent
and Manager
at 538-2nd Oct 11

5. It is also proposed to use the Mitchell's screw piles which are no longer required for the Huggrey Bridge for piers at the following bridges for which screw piles appear particularly well adapted.

- 5. 68. Four 64 feet openings.
- 6. 46. Triple 30 feet openings.
- 11. 7. Four 64 feet openings
- 19. 4. ———— 20 ———— 20 ————

To ag. agent
and Manager
at 289-5th June 1871

6. Revised drawings are forwarded herewith as well as a plan and section of the diversion.

Four 64 ft. openings with W. I. girders.
Triple 30 ft. openings with W. I. girders.
Single 12 inches - C. I. Pipe.

7. The waterway on the diverted portion is almost similar to that proposed for the original route, with the exception that anchors have been substituted for girders, the streams being the same in both instances, a statement of the comparative mileage is given below.

ms.	chs.	As formerly proposed	As proposed at present	Remarks
21	20		Single 6 ft. arch	
22	23	Single 6 ft. Rail Girder		
23	41		Single 12 ft. arch	
23	43	Single 12 ft. opening		
23	59		Single 12 ft. arch	
23	62	Single 12 ft. opening		
24	11		Single 12 ft. arch	
24	16	Single 12 ft. opening		
24	34		Single 12 ft. arch	
24	46	Single 9 ft. opening		
24	72	Single 9 ft. opening		
25	25	Single 6 ft. Rail girder		

Earthwork. 8. These are being carried out in accordance with the instructions of the Government of India as conveyed in G. O. No. 1498 of 1st June 1871. I beg however to say that I am unable to arrive at the amount which the Government of India state is the saving effected by the reduction of the width of ballast viz: Rs. 15,860 (Rs. 31,860 less Rs. 16,000) and I have therefore made my calculations for ballasting on independent data.

G.O. No. 467
1st Feb 1871
G.O. No. 1498
1st June 1871

Iron work. 9. The rate for iron work has been reduced from Rs. 330.15.9 to Rs. 200.0.0 per ton. The former rate had been adopted when the price of iron work delivered in Madras was much higher than at present and the grounds on which it is justified.

it (vide his letter No 555 of 10th October 1870) when called upon for explanation are fully detailed in letter No 95 of 21st February 1871.
Carriage of Materials. 10. The different rates shown for carriage of materials are thus explained.

Small ironwork, woodwork &c made in the Terminal workshops have to be carried from Madras at Rs. 8 per ton per mile. Iron & steel girders will be carried at same rate, that being the Traffic charge at present in force, and Permanent way material according to tariff. The Mitchell screw piles must be carried from the Huggly.

Pungulow. 11. As to the whole Branch is under the charge of one Resident Engineer the usual Pungulow allowance for one section only has been allowed.

12. To sum up, the total estimate as originally sent forward amounted to Rs. 237,904.2.
(District 1. Rs. 705,211, with letter No 515 of 13th Decr 1869.
District 2. Rs. 766,311, with letter No. 28 of 19th Jan'y 1870.
District 3. Rs. 907,520, with letter No. 181 of 8th April 1870.)
This sum was reduced to Rs. 190,421.6 in the amended abstract estimate sent forward consequent upon the decision of the Government of India as conveyed in G. O. No. 2294 of 22nd September 1870. To this has to be added Rs. 211 for the alteration of gradient between 8 hrs. 40 chs. and 9 hrs. 10 chs. making a total of Rs. 190,442.7.

13. The revised estimate now submitted amounts to Rs. 185,500.2 shewing a saving of

of Rupees 48,625.

5+ 506

Yours faithfully
J. B. Anderson
Chief Engineer

1 True Copy

[Signature]
Agent & Landowner

P. W. 163/72.
 P. W. 163/72 L. 165.

Railway Department.

CONSULTING ENGINEER'S OFFICE.

From

To

Major H. S. Prendergast R. E.
 Consulting Engineer for R. E.

Colonel J. Carpendale R. E.
 Secretary to Government,

Public Works Department,

Fort Saint George.

Sir,

I have the honor to
 acknowledge the receipt of the
 estimate of the cost of the railway line
 amounting to Rs. 18,55,800 or Rs. 48,625
 less than the aggregate amount
 hitherto sanctioned. The revision
 of the estimate is caused by the
 changes in earthwork, ballast &c.,
 ordered by the Government of India
 and by the alteration in the site
 of the terminal station.

Estimated in G. O. on 26/7/15, by 1871 — 18,55,800
 & 109/10/100 — 18,55,800
 This official letter on 5/6/19, G.O. — 19,04,427
 Revised Estimate now submitted — 18,55,800
 * G. O. 12/12/19, 1919

2

A summary of the points of difference between the Revised and original estimates, is given in the Agents letter (enclosed).

1871
December 18/1.

No additional ex-
penditure is asked for, I recommend
that the sanction of the Government
be accorded to the estimate as now
modified amounting to Rs. 18,55,800.

Madras
11 January
1872

I have the honour to be
Yours most obedt^t &c

Howland's fast Major! &
My: love: wife: for: &c

P. W. 1872 Dept
Pring of Govt for the Ry.
 RAILWAY DEPARTMENT.

No 163.

From The Consulting Engineer
 for Railways,

To The Secretary to Government,
 P. W. Department,
 Fort St. George.

Dated *11 Jan 7* 1872.
 Received *12*

Encl. *13.* No. *14*

*Submitting
 Revised Estimate
 of the Nilgerry
 branch.*

No 358 to 361 b. 6 Feb 72

*The Government sanction the construction
 of the Nilgerry branch, amounting to Rs. 18,55,812.*

No 355

Con. Engr. to Govt. Secy. 1872

Recd 8/1/72

Copy of the order forwarded to Mr.

1872 8/1/72

Copy of the order forwarded to Mr.

19 Jan 72 A. 190

2/2/3 10 X

Govt. of 1872 Madras.
 PUBLIC WORKS.

To *Chief Consulting Engr for
 Railways*
 And
 To *The Secretary to Govt.
 of Madras*
 Dated
 Recd. Encl. *2*

G. 6 Feb 72 1872 355-356

Nos. 105-106 & 107

*Nilgerry branch
 The modified estimate,
 amounting to Rs. 18,55,812,
 for the Nilgerry branch
 of the Madras Ry. sanctioned*

Tuned

*Estimated to be
 18,55,812, for the
 Nilgerry branch of
 the Madras Ry.*

Sanctioning the modified estimate