M.R.O. 1—4,002—16-9-48.

(1) Number of pages_____

(2) Date of repair_____

(3) Initials of the Referencer_____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No. 2797 2800 (Ry) Press
B.P. No. 2800 Mis.

Dated 29-7 1875.

Not to be folded or roughly handled

No. 628. Read the following letter from Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Madras, 20th September 1875, No. 522 B :—

WITH reference to the Order of Government, dated 27th October 1874, No. 3,062, I have the honor to forward, for the sanction of the Government of India, a final estimate* of the cost of the new bridge over the Cheyaur river at the 136th mile, North-West Line, Madras Railway.

* With plan No. 188.

2. The amount of the estimate, Rupees 8,58,824, provides for fifty openings, as recommended by Sir John Hawkshaw in his report embodied in the Proceedings of Government, dated 25th June 1875, No. 1,776, and also for the improved arrangement of permanent way. This latter, it will be observed, adds considerably to the estimate, and should be borne in mind in making comparisons with the cost of former bridges constructed on the Madras Railway. The girders are of the usual type used by this Company, being 140 feet in length continuous over two openings, and the thickness of piers being 6 feet the clear span is 64 feet. A sum of Rupees 13,724 is entered for strengthening the bracing frames of the original girders of the old bridge. The headway of the bridge has been raised 3 feet and the four extra openings are to be at the south end in continuation of the masonry portion of the bridge.

3. A statement hereto annexed shows that the total cost of the new bridge, allowing for the girders to be obtained from the old structure, is estimated to be Rupees 9,33,477, or at the rate of Rupees 267 per running foot, the cost of the new permanent way accounting for about Rupees 33 per foot. Contingencies charged at 10 per cent. amount to a large sum, and it was considered that the English portion of this item (Rupees 44,804) might be omitted, as the rates entered being those at which nearly the whole of the material has already been delivered on the ground, no margin need be provided. The Chief Engineer, however, explains that the diving dresses will be charged to this head, and a portion of the cost of the pneumatic apparatus if it be found possible to employ these here; he is therefore of opinion that, though there will probably be a saving, it is not impossible that the total amount may be required. The cost of labor in embedding the cylinders in the rock is included in the estimate of Rupees 15 per lineal foot for sinking.

4. The new approaches to the bridge are estimated to cost Rupees 18,348, and an estimate* is also enclosed of the cost of constructing a single 12 feet opening with wrought iron girders, in lieu of a single 12 feet arch in the south approach.

* With plan No. 169.

The total amount now requiring sanction is Rupees 3,43,549, as follows :—

	Rs.
New bridge	8,40,386
Approaches	18,438
12 Feet girder opening	3,957
	8,62,781
Amount sanctioned in G. O., 10th January 1872, No. 68	5,19,232
Amount requiring sanction ...	3,43,549

5. One-sixth part of the cost of the large bridge is being charged to Capital in accordance with the Order of Government, dated 12th November 1873, No. 2,750, and funds to meet this expenditure are available from Schedule A of the Budget Estimate for 1875-76. Of the cost of the small bridge the sum of Rupees 654 is chargeable to Capital, and will be met from the head "Works not specially provided for" Schedule C of the Budget for 1875-76. In both cases the sanction will lapse at the end of the eighth quarter after the receipt of sanction.

Nos. 629 & 630. ORDER THEREON, 29th September 1875, No. 2,799.

RAILWAY, No. 49.

ORDERED that the final revised estimate for the Cheyaur bridge received with these papers be forwarded for the sanction of the Government of India.

(Here enter No. 2,800, dated 29th September 1875.)

(True Extract.)

Major-General, R.E.,
Secretary to Government.

To the Consulting Engineer for Railways.

PUBLIC WORKS DEPARTMENT,
OOTACAMUND, *29th September* 1875.

No. 631. No. 2,800.

FROM

MAJOR-GENERAL G. W. WALKER, R.E.,
Secretary to the Government of Madras,
Public Works Department,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
Public Works Department.

RAILWAY, No. 50.

SIR,—With my letter of the 27th October 1874, No. 2,063, was forwarded a revised estimate, amounting to Rupees 6,81,550, for the new bridge over the Cheyaur river on the North-West Line of the Madras Railway, and it was then stated that, as soon as the value of materials obtained from the old bridge and the cost of levelling rock had been ascertained, a final estimate of the cost would be submitted. Since that date the Company have placed themselves in communication with their Consulting Engineer in England as to the measures necessary for the security of the large river bridges on their line, and the present estimate provides for carrying into effect the recommendations made by Sir John Hawkshaw in respect to the Cheyaur bridge.

2. The sum now requiring sanction is Rupees 3,43,549, as shown below:—

	Rs.
New bridges	8,40,386
Approaches	18,438
12 Feet girder opening	3,957
	8,62,781
Deduct amount sanctioned in Government of India, No. 2,482-R., dated 8th December 1871	5,19,232
Balance	3,43,549

and to this amount I am to request the sanction of the Government of India.

3. Paragraph 5 of the Consulting Engineer's letter shows the allocation of expenditure and the source from which funds are to be provided, as well as the date from which sanction will lapse.

I have the honor to be,
Sir,
Your most obedient servant,

Major-General, R.E.,
Secretary to Government.

Exd. E. C. Shunker.

Spare Copies

30

Railway Department. CONSULTING ENGINEER'S OFFICE.

No. Madras 20th September 1875

From

LIEUT.-COLONEL J. H. M. SHAW STEWART, R.E.,

Consulting Engineer for Railways,

To

Major General

~~Colonel~~ G. W. WALKER, R.E.,

Secretary to Government,

Public Works Department,

Fort Saint George.

SIR,

With reference to the Order of Government dated 27th October 1874, N°. 3062, I have the honour to forward for the sanction of the Government of India a final estimate with plan N°. 188. × -mate of the cost of the new bridge over the Cheyaur river at the 136th mile, North-West line, Madras Railway.

2. The amount of the estimate Rs. 8,58,824 provides for fifty openings as recommended by Sir John Hawkshaw in his report embodied in the Proceedings of Government dated 25th June 1875 N°. 1776 and also for the improved arrangement of permanent way. This latter it will be observed adds considerably to the estimate, and should be borne in mind in making comparisons with the cost of

former

former bridges constructed on the Madras Railway. The girders are of the usual type used by this Company being 140 feet in length, continuous over two openings, and the thickness of piers being 6 feet the clear span is 64 feet. A sum of Rs. 13,724 is entered for strengthening the bracing frames of the original girders of the old bridge. The headway of the bridge has been raised three feet, and the four extra openings are to be at the south end in continuation of the masonry portion of the bridge.

3. A statement hereto annexed shews that the total cost of the new bridge, allowing for the girders to be obtained from the old structure, is estimated to be Rs. 9,33,477 or at the rate of Rs. 267 per running foot, the cost of the new permanent way accounting for about Rs. 33 per foot. Contingencies charged at 10 per cent amount to a large sum and it was considered that the English portion of this item (Rs. 44,000) might be omitted, as the rates entered being those at which nearly the whole of the material has already been delivered on the ground, no margin need be provided. The Chief Engineer however explains that the saving thereon will be charged to this head, and a portion of the cost of the pneumatic apparatus if it be found possible to employ these here, he is therefore of opinion that though there will probably be a saving, it is not impossible that the total amount may be required. The cost of labour in embedding the cylinders in the rock is included in the estimate of Rs. 15 per lineal foot for sinking.

4. The new approaches to the bridge are estimated to cost Rs. 18,048 and an estimate is also enclosed of the cost of constructing a single 12 feet opening with wrought iron girders, in lieu of a single 12 feet arch in the south approach. The total amount now requiring sanction is as follows:

	Rs.
New bridge	8,40,306
Approaches	18,438
12 feet girder opening	3,957
	8,62,701
Amount sanctioned in G.O. 10th January 1873, No. 68.	5,19,232
Amount requiring sanction	3,43,549

6th Flws 169

5. One sixth part of the cost of the large bridge is being charged to Capital in accordance with the Order of Government dated 12th November 1873, No. 2750, and funds to meet this expenditure are available from Schedule A of the Budget Estimate for 1875-76. Of the cost of the small bridge the sum of Rs. 654 is chargeable to Capital, and will be met from the head "Works not specially provided for" Schedule C of the Budget for 1875-76. In both cases the sanction will lapse at the end of the eighth quarter after the receipt of sanction.

I have the honour to be
Sir
Your most obedient servant

Major, RE,
for Cons. Engineer for Railways

Enclosure

Rel

Public Works Dept.

No 2799

Proceedings of the Madras Government

Under date the 23rd Sept 1875

Read the following

From the Govt of India No 522 dated 13th Sept 1875

Railways

Forwarding for the

favorable consideration

of the Govt of India

the annexed Memorial

from the Municipal Council

of Cuddalore praying

for the construction

of a bridge over

the Gadilam River on

the proposed Cuddalore

Extension Railway

P. W. 1875 Sept.

Railway Department.

No. 6043

From

The Consulting Engineer,

for Railways,

To

The Secretary to Government,

P. W. Department,

Fort Saint George.

Dated 20 September 1875

Recd. 21 September 1875

No. 522 B

5 enclosures

GO-29 September/75 No 2799

Forwarding for the

favorable consideration of the Govt

of India a detail

estimate of the cost

of the new bridge over

the Gadilam River on

the S. W. Line of the

Madras Railway

GO 12-Nov/74 No 230-241.

Same Despatch No 8 of 15-Nov/74.

GO 19-Dec/74 No 419-420.

" 13th Jany/75 - 422-426.

" 12th Febry/75 - " 282-284.

Home Despatch No 1 of 12/2/75

GO 25-June/75 No 508-509.

GO 12-Nov/74 No 217-218.

" 17th " " - 318 & 320.

" 25th Febry/75 - 528.

" 17th " " " - 528-549.

" 20th March/75 - 702-703.

" 30th June " - 516-517.

" 20th Octr " - 312 & 315

" 10th Jany/72 - 131-132

" 11th " " " - 136-137

" 22nd June " - 336-338

" 9th Augt " - 143-144

" 28th " " " - 681-682

" 7th Sept/73 - 156-157

" 19th Augt " - 304-305-306

" 12th Novr " - 173-174.

" 20th Febry/74 - 401 & 403

" 8th April " - 43-45.

" 21st May " - 451-452

" 28th " " " - 540-541

" 16th June " - 304-306

" 29th " " " - 607-608

" 31st July " - 719-720.

" 1st Septr " - 1-3.

" 23rd Octr " - 494-496.

" 27th " " - 693-695

" 4th Decr " - 85 A.

Cpi. 26-9-75 Rly. J. 29-9-75

Despatch 30-9-75 R 1-10-75

12/225

of the 27th October 1874 No. 2063 was forwarded a revised Estimate amounting to Rs 68,1550 for the new bridge over the Cheyaur river on the North West line of the Madras Railway, and it was then stated that as soon as the value of materials obtained from the old bridge and the cost of levelling rock had been ascertained a final Estimate of the cost would be submitted. Since that date the Company have placed themselves in communication with their Consg. Engineer in England as to the measures necessary for the security of the large river bridges on their line, and the present Estimate provides for carrying into effect the recommendations made by Sir John Hawkshaw in respect to the Cheyaur bridge.

The sum now requiring sanction is Rs 3,43,549 as shown below.

New bridge	Rs 8,40,386
Approaches	16,438
12 feet girder opening	3,957
	8,62,781
Deduct amount sanctioned in Govt of India No. 2482 Rly Dept.	5,19,232
Balance	3,43,549

cont

and to this amount I am to request the sanction of the Govt. of India

Para 5 of the Engr. Engrs. letter shows the allocation of expenditure and the source from which funds are to be provided, as well as the date from which sanction will lapse.

Govt

24/2

6 sc + 6 sc of Mewars
sent to Calcutta
11-10-75

Plans and Estimates
sent to Govt of India

No 628-630

6045

Govt. of India

PUBLIC WORKS

Dated

Received

Read

No. 2729

No. 85 of 75

B.R. — 620

R.T.

Forwarding for sanction the final revised estimate of Rs. 52,701 for the new bridge over the Cheyaur river on the N.W. Line of the R. Ry.

Cheyaur bridge, N.W. Line, R. Ry. — Intimating that the final revised estimate of Rs. 52,701 for the bridge has been forwarded for the sanction of the Govt. of India.

Govt. & Genl. Office
11-10-75