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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	3452	Press
B.P. No.		Mis.
Dated	16 - 9 - 1876	195 -

Not to be folded or roughly handled

No. 907. 1

SP 3

MADRAS RAILWAY.

AGENT AND MANAGER'S OFFICE.

Madras, 2nd September 1876.

From

R. B. Clavin Esq.
Agent and Manager, M. R. Co.

To

Major C. J. Smith, R.E.
Offg. Consulting Engineer for Railways.

Sir,

I have the honour to enclose for the information of Government a copy of the Acting Chief Engineer's letter of 4th date the 1st instant in which he states that he finds it will be necessary to submit revised Estimates for the Huggley and Chepauk Bridges, as the amounts already sanctioned will be insufficient for the completion of the works.

I regret very much to have to make this communication, but it must be borne in mind that the work which it is found will be more expensive than was anticipated, namely, the levelling of the rock for the reception of the cylinders, is one in which the Company's Officers have had no previous experience, and they therefore cannot be blamed for having underestimated the cost.

The revised Estimates for the

3
two bridges will be submitted with as
little delay as possible.

I have the honour to be

Sir

Your most obedient servant

W. G. Brown

Agent & Manager

P.W.D.
24KV76
NR. 8532

*Regarding the revision
of the estimates for
the bridge and
Buggi Bridges.*

Dated 2nd Sept 1876
Recd. 4th Oct
No. 907.

The Consulting Engineer
for Railways.

To
The Agent and Manager.

MADRAS RAILWAY.

RAILWAY DEPARTMENT.

CONSULTING ENGINEER'S OFFICE,

Madras, 22nd November 1876.

No. 574

From

LIEUT.-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,

Fort Saint George.

SIR,

I have the honour to submit for the sanction of the Government of India a third revised estimate for the bridge over the Buggi River, on the Bellary branch of the Madras Railway.

2. The sum sanctioned for this work in the Proceedings of Government dated 18th June, 1875, No. 1712, is Rs. 7,01,174. The estimate now framed amounts in all to Rs. 9,07,429, of which Rs. 85,822 represent the cost of the new sys-

-tem

-tem of permanent way, consisting of flat-footed steel rails, on longitudinal banks, carried by cross girders. The excess over the sanctioned estimate is thus reduced to Rs. 1,20,433, which is accounted for in detail in the enclosed letters from the Agent and Manager. The difficulty experienced in benching out the rock foundations for cylinders, under the advice of the Company's Consulting Engineer in England, was brought to notice in the inspection reports by this Office embodied in the Proceedings of Government.

N^o. 2972 dated 18th October 1875, & N^o. 1883 — 25th July 1876; and additional expenditure under this head was anticipated.

The

N^o. 2972 dated 2nd September 1876, with enclosure from Chief Engineer N^o. 1139 — 16th November do do

The other items of excess appear also to be satisfactorily accounted for, and it may be observed that there will probably be a saving under the head "Plant".

3. The total amount of the estimate now submitted gives a rate of Rs. 381 per foot run of bridge, of which Rs. 35 are due to the new permanent way. The work of cylinder-sinking being nearly completed, it may I think be safely assumed that the bridge will be constructed according to the revised design within the amount of the sanction now applied for.

4. The estimate for the above work has not been included in any of the half-yearly schedules. Rupees 8,000 of Indian expenditure will be met from the provision made for the protective works for the Paine, Palar, and Gariattum bridges, in schedule A of Budget for 1876-77, —

and

and the sanction will lapse on the
30th June 1877.

I have the honour to be

Sir

Your most obedient servant

Walter A. Beattie Esq,

Consulting Engineer for Railways

P.W.D.

24th July

8532

EO 30-4-75 No 1206 & 1207
" 18-6-75 " 1712
" 18-10-75 " 2572
" 4-1-76 " 17
" 25-7-76 " 1883

Aug 29-11-76

Technical Staff
under the direction of the
Chief Consulting
Engineer of Railways

Dated
24th July
Received 23rd
1876

Exhibit No 574

The Secretary to Government,
P. W. Department,
Fort Saint George.

To

From

The Consulting Engineer

for Railways,

RAILWAY DEPARTMENT.

S.P.A.

Sp 648.

Madras Railway Company
Chief Engineer's Office
Madras 1st September 1876.

The Agent and Manager,
Dear Sir,

I find that the cost of the Huggrey
bridge will considerably exceed the amount
sanctioned owing to our item, that of "fitting and
sinking Cylinders" having been very much
underestimated. "Fitting and sinking Cylinders"
which was estimated to cost Rs 15 per linear foot,
has cost Rs 60, owing to the difficulties encountered
in removing boulders, and bedding the Cylinders
in rock. I am having a revised estimate pre-
pared and will forward it to you for submission
to Government in a few days.

The same rate I find has been
allowed for fitting and sinking the Chepauk
Cylinders, and the cost per foot up to date is
Rs 14.14.3. As all these Cylinders have still to
be bedded on rock by divers or with the help of
the pneumatic apparatus a revised estimate
for this bridge will also be prepared and forwarded.

Yours faithfully
W. R. Robinson
Chief Engineer.

1 True Copy

W. R. Robinson
Agent & Manager.

No. 1159.

58 11 6
MADRAS RAILWAY.

AGENT AND MANAGERS' OFFICE.

Madras, 16th Nov 1876.

From

Robt. B. Quinn Esq.
Agent and Manager. MR.

To

Lieut Colonel J. H. M. Shaw Stewart
Consulting Engineer for Railways. RLB

SIR,

With reference to my
endorsement No 1125 of the 8th instant
I have the honour to forward herewith
a Revised Estimate of the cost of
the Bridge over the Huggary river
and request that you will be so good
as to communicate to me the sanction
of Government for the required expenditure
viz Rs 9,07,429.

2.

I also enclose copy of a
letter from the Acting Chief Engineer -
No 801 of the 11th instant - with which
he forwards a Comparative Statement
showing the differences between the several
items of the sanctioned and revised
Estimates, and furnishes explanation

in reference thereto.

3. With regard to the excess (Rs 5737-9-9) under the head of Loading and Unloading Charges, the Acting Chief Engineer, whose attention was called by me to the matter, offers the following explanation.

I have to explain that the damaged Bridges have already been debited with the charges incurred for loading and unloading the materials transferred to them from the Tugger.

The case stands thus.

properly
Mc

+
H.D. have included
the cost of unloading
+ Tugger - that was part of the cost
of that material

correctly
Mc

- (a) Materials were in the first instance sent from Madras to the Tugger - loading and unloading charges debited to Tugger Bridge.
- (b) Materials were transferred from the Tugger to the damaged Bridge - loading and unloading charges debited to the damaged Bridge.
- (c) Materials subsequently received from England to replace those transferred as above, sent from Madras to the Tugger - loading and unloading charges debited to the Tugger Bridge.

8
 "The Muggery Bridge has
 - "thus been debited with double the
 "amount it would be charged with
 "under ordinary circumstances. When
 "the last charges were received the
 "Estimates for the damaged Bridge
 "were closed and the amount could not
 "be charged to those sanctions."

"In further explanation of
 "the large expenditure under the item
 "in question I may mention that about
 "600 tons of old rails were sent from
 "various parts of the line to the Muggery
 "for weighting the Cylinders. The charges
 "incurred in loading and unloading
 "these rails form a portion of the above
 "mentioned expenditure."

4. Information as to provision
 in the Budget and the date on which
 the sanction will lapse, is given on
 the Estimate.

I have the honour to be
 Sir, very respectfully,
 Yours,
 The Agent and Manager
 Agent Manager

MADRAS RAILWAY.

From

The Agent and Manager.

To

The Consulting Engineer

for Railways.

Dated

187

Recd.

No.

forwarding a re-
vised ^{summary} of the Haggis
Bridge for the
Sewellson of Green
mead.

Filed 163 Nov 167
Recd. 17. 1899
No. 115-9.

The Consulting Engineer
for Railways

The Agent and Manager.

MADRAS RAILWAY.

1090.

SP
Madras Railway Co.
Chief Engineer's Office
Madras 11th Nov 1876.

The Agent and Treasurer.
Dear Sir,
Revised Estimate for the Haggery Bridge.

Yours of 1886 of this date.
I herewith forward a comparative
statement showing the differences between the
several items of the two Estimates.

Particulars	Sanctioned Estimate	Revised Estimate	Excess
Bedding Cylinders on Rock—	Rs 66,000	Rs 66,000	
Plants—	37,712	59,070	21,358
Concrete—	15,760	18,912	3,152
Roading and Unloading Charges	334	6,071	5,737
Contingencies—	37,286	61,471	24,185
New Permanent way—	67,920	85,822	17,902
		Total Excess	138,335

Bedding Cy lindres on Rock. It is stated in my letter
 of 7th inst. that no provision appears to have been
 made for this work in the sanctioned Estimate.

Plant. Nearly all the plant is required to bed the Cylinders on rock. The Pneumatic apparatus was the only item of Plant provided for in the former estimate. The cost of Engines and Tackle necessary for working the apparatus and of Dredges, Excavators &c., used in sinking the Cylinders has now been included. I may here mention that most if not all the machinery will be available for use after the Bridge is completed. The value then

set on it will be credited to the Bridge in due course, but, in the meanwhile, I think the item should be shown in the Estimate.

Concrete. The Resident Engineer informs me that owing to the high price of fuel at the Huggery, the rate of Rs. 5 per cubic yard for concrete has proved to be insufficient, I have therefore increased the rate to Rs. 6.

Loading and Unloading Charges. As stated in the revised Estimate the sum provided is the actual amount expended.

This large expenditure is owing to the continual shifting of material in the bed of the river rendered necessary by the frequent freshets, and also to the cost of returning or replacing material which had been transferred to other bridges damaged by the floods in 1874.

Contingencies. A note is made in the Estimate in explanation of this item. 20 per cent has been allowed, instead of 10 per cent as before, to meet certain special charges. The Bridge having been under construction for six years it may be expected that the charges under contingencies will be higher than usual.

New Permanent way. Longitudinal sleepers and planking for Gang way have been included in the revised Estimate. The sleepers are of the larger dimensions recently recommended by Sir John Hawkshaw and as it is very desirable that planking should be provided on both sides of the Bridge to enable the Gangmen to screw up the gang bolts, additional planking has been now estimated for.

Yours faithfully
W. R. P. Fisher
for Chief Engineer.

W. R. P. Fisher

14-11-1874

P. H. Dept.

Proceedings of the Madras Government
under date the 21/11
Read the following:

From
The Consulting Engineer
for Railways } (H. No 574 d/22nd Nov 1876)

Ordered that the
papers be forwarded to the
Government of India, and

I think the estimate must be reduced by the charges referred to - at present the estimate includes cut of materials loading & unloading which were never used at the Huggery - and it is also debited with cut of materials (loading & unloading) to replace those never used -
that sanction to the revised estimate now submitted be applied for.
2. His Grace the Governor in Council however doubts the propriety of debiting to the Huggery Bridge, loading and unloading charges which were virtually incurred on account of damaged bridges on other parts
The error appears to have arisen in making out the charge in explanatory letter to the
Sluggish - The items should be carried to the proper account. 11/2

parts of the line. Items
of cost marked (b) and (c)
in para 3 of the Agents'
letter No 1159 dated 16th
November came under this
head.

(H.R. No 4)
To

The Secretary to the
Government of India
P.W.D. (Railways)

Sir,

I am directed to
forward the accompanying
correspondence which
explains the circumstances
under which the revised
estimate for the Huggly
Bridge sanctioned in
your letter No 1404 R dated
3rd June 1875 will be ex-
ceeded. The probable
expenditure on the work

Chas Rye

is now set down at Rs.
9,07,429 or Rs 2,06,255 in
excess of the sanction above
quoted. Rupees 85,822
of the excess being due
to the new system of
permanent way, the
balance only of Rs 1,20,433
is chargeable against
construction of the Huggly
Bridge. The causes of
the excess are stated to be
such as could not well
be foreseen at the time
the former estimates were
framed. Under this
explanation, and the as-
surance conveyed in the
Consulting Engineer's letter
that no further increase
need be anticipated,
I am to recommend that
sanction be accorded to
the revised estimate

am

now forwarded:

2. The debit to the
Hugger Bridge, however,
of loading and unloading
charges incurred on ac-
count of other bridges
seems open to question

C.M.W.

The same is overruled
in approval of the
proposals regarding the
and the same is approved

Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

Read the following:—

From

The Consulting Engineer
for Railways

(H. No. 674 of 22nd Nov 1896)

Ordered that the
papers be forwarded to
the Government of India,
and that sanction to the
revised estimate now sub-
mitted be applied for.

(H. No. 41

To

The Secretary to the
Government of India
(P.W. Railway)

Sir,

I am directed to
forward the accompanying
correspondence which
explains

The estimate in which
I have proposed to pay
the same shall be
forwarded by the
Office of the
P.W.

18 Dec 1896 L 150.

No 571.

18 Dec 1896 L 150.
18 Dec 1896 L 150.
18 Dec 1896 L 150.

for copy only

Explains the circumstances
under which the revised
estimate for the Huggins
Bridge sanctioned in
your letter No 1404 R dated
30 June 1878 will be exceeded.
The probable expenditure
on the work is now set
down at Rs 9,07,429 or
Rs 2,06,253 in excess of the
sanctioned ~~estimate~~ above
quoted. Out of Rs 822
of the excess being due to
the new system of permanent
way, the balance only of
Rs 12,04,33 is chargeable
against construction of
the Huggins Bridge. The
causes of the excess are
stated to be such as could
not well be foreseen at
the time the former es-
timates were framed.

Under this explanation
and

and the assurance con-
veyed in the Consulting
Engineer's letter that no
further increase need be
anticipated, I am to
recommend that sanction
be accorded to the revised
estimate now forwarded

W.W.

H. Atch

W. V. in in

Memorandum
for the Secretary

8582

19

No 3452 Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 18 May 1876.
Read the following:—

From
The Commr. Engineer
for Railways } (H.E. No 574 of 22nd Nov 1876)

Respect the
Honourable Council
observes that the estimate
for the Muzzy Bridge
has been improperly
debited with loading
and unloading charges
incurred on account of
other bridges, and that
it should be revised
by exclusion of these
charges before sub-
mission to the Govern-
ment of India. The
estimate of the Muzzy

1876-11-26
Cm 29-11-76
W. V. m m
for the Commr. Engineer

Bridge should not
be required to bear
the cost of loading and
unloading any ma-
terials not actually
used on the work.

AMW

4532
Govt. of 1876 Madras.
PUBLIC WORKS.

To The Commr. of the Port of Madras.

Dated

Issued

Recd.

Encl.

G. O. 16th Nov. 1876, No. 3157

Nos. 211/12

Shipping Bridge, Madras
Civil Eng. — Order
issued for the revision
of the estimate for recon-
structing the —

Butt. in 1876