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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	2125	Press
B.P. No.		Mis.
421-422		
Dated	25.8.	1873.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
25th August 1873.*

No. 421. Read the following endorsement of the Chief Secretary to Government, Financial Department, dated 10th June 1873 :—

Read the following Proceedings of the Board of Revenue, dated 4th June 1873. From O. B. IRVINE, Esq., President of the Local Fund Boards, Chingleput District, to J. GROSE, Esq., Secretary to the Board of Revenue, dated Saidapet, 19th May 1873, No. 38.

ADVERTING to the Proceedings of the Board, dated 27th February last, No. 283, communicating the sanction of the Government of India to the grant of a loan of Rupees 1,05,420 for the construction of an iron girder bridge across the Cortelliar on the Great Northern Trunk Road, I have the honour to forward copies of letters received from the District Engineer, dated 26th March and April 1873, Nos. 1,085 and 216.

2. From these it will be seen that in consideration of the delay that must occur in getting iron girders from the Public Works Workshop, and of the greater durability of the structure in brick-in-chunam, Colonel Moberly recommends that the iron girder bridge already sanctioned should be abandoned, and a masonry one constructed instead, as originally proposed. His proposal was accepted by the Local Fund Board, as will appear from the enclosed extract of their Proceedings, dated 16th April 1873.

3. The original estimate for the masonry work amounted to Rupees 1,46,590, and in revising it since, it has risen to Rupees 1,53,500, or Rupees 6,910 more than the original estimate, owing to the recent freshes having shown the necessity of raising the piers 3 feet. Deducting from this sum Rupees 68,077, being the value of work already executed, the sum still required for completion is only Rupees 85,423, or Rupees 20,000 less than the loan which has been granted.

4. The Board will see from the second letter above quoted that there are errors in the estimate for the iron bridge, which, if rectified, will raise its cost to Rupees 1,83,500, or Rupees 10,000 in excess of the sum sanctioned.

5. Under the above circumstances, I beg to enclose estimates, plans, etc., as per margin, and request that the Board will be good enough to submit, for the favourable consideration and early orders of Government, the proposal to abandon the girder and proceed with the masonry bridge.

2 Original Estimates.
2 Revised "
2 Comparative Statements.
3 Original Plans.
2 Revised "

SUBMITTED for the orders of Government.
(True Copy and Extract.)

(Signed) J. GROSE,
Secretary.

REFERRED to the Department Public Works for early remarks.
(Signed) W. HUDLESTON,
Chief Secretary.

No. 422. ORDER THEREON, 25th August 1873, No. 2,125.

CIVIL WORKS, No. 38.

THE President of the Chingleput Local Fund Board reports that in consideration of the representations made

*Proceedings of the Madras Government, Public Works Department,
25th August 1873.*

by the District Engineer, that a delay of two years must occur in getting iron girders, and that brick-in-chunam arches will be more durable, the Board have resolved that a masonry bridge shall be substituted for the iron girder bridge which it was their intention to have built over the Cortelliar river; and to complete which the sanction of the Government of India has been obtained for a loan of Rupees 1,05,420, Rupees 68,077 having already been spent on the foundations, flooring, and piers of the structure.

2. The District Engineer's objection to iron as a far less enduring material than masonry is not well founded; and it is believed that the erection of an iron superstructure will not take longer than that of masonry arches. On the other hand, he has ignored the reasons which led the Government to approve of the substitution of the former for the latter. These are recorded in the correspondence printed with G. O., No. 2,504, of 2nd October 1871; and it is still considered that an iron superstructure will be much easier of construction, less likely to meet with accident during erection, and less liable to failure from defect of material or supervision.

3. The subject, in fact, has been very imperfectly discussed by the District Engineer. The strongest ground for rejecting an iron girder bridge is undoubtedly its greater estimated cost: and he might have strengthened his objection on that score by having the estimate, prepared by the Superintendent of the Government Workshop, revised with reference to existing prices of iron. On the other hand, he has omitted to contrast the superintendence available without extra charge for carrying out the iron structure, with the special agency which no doubt he will demand to enable him to build the masonry arches; and the cost of which, if it can be provided at all, is fairly debitable against the work on which it will be exclusively employed.

4. It is finally remarked that in the event of its being determined that the masonry arches shall be built, the plans submitted appear to require careful scrutiny with reference to the thickness to be allowed to the piers at the springing of the arches; the former having been built up to their present height on the supposition that they were to be 6 feet lower than is now intended. The thickness given to the crowns of the arches in the most recent plan also appears insufficient.

5. In order that the subject may be fully considered in the Financial Department, the Inspecting Engineer for Communications will re-submit the estimate for an iron girder bridge carefully revised according to ruling prices, and report on the other points above alluded to as requiring further consideration.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Inspecting Engineer for Communications.
" District Engineer, Chingleput.
" Board of Revenue
" Financial Department.

Exd. S. T. Austin.
Spare Copies.

*Extract from the Proceedings of a
Meeting of the Local Fund Board.
for the Saidapet Circle dated 16th
April 1873.*

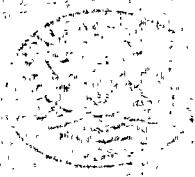
Present.

*O. B. Sraine Esq. President
S. Veja Bayanalar Chetty Esq. Secy.
Col. F. J. Mahony D. O.
W. A. Goodchap Esq.
M. Venkatarasain Pillay Esq.*

*14. Read letter from the District
Engineer, Chingleput, dated 25th March
1873 No 1085, recommending the construc-
tion of a masonry in substitution of an
iron girder bridge over the Cortelliar.*

*Resolved that a copy of the
above letter be forwarded to Government
with the recommendation of the Board
that the course proposed by the District
Engineer be adopted.*

*Signed O. B. Sraine
President.
True Extract/
M. Venkatarasain
President.*



Chief of District
Engineers Office

City 26 March 1875

No 1085

From The District Engineer
Chief of District
To The President Local Land Board
Lyden.

Sir
Referring to your letter of 5th
March 1875, I have the honor to inform
you that in reply to my inquiry
at the Public Works Workshop regarding
the iron girders for the Cortland Bridge,
I was told that they were not begun
and that they would not be ready
for 2 years. I am under the impression
that the Board think that they are
nearly ready.

2. It appears to me therefore
judicious to suggest a reconsideration
of the subject. The masonry bridge
originally

1874 5/28/75

We a letter from the

President of the Board

of the District dated 19th May

1875 No 38.

File No. 2703/73

File 1022/75

originally proposed was estimated
at Rs. 146,570; the iron bridge will cost
Rs. 178,500. to both a small addition
must be made for raising the piers
3 feet to get them above such high
floods as we had last year.

The Board are perhaps not
aware that masonry is a far more
enduring material than iron. I
believe 25 years is considered a fair
time for a girder bridge to last
without considerable repair. Masonry
nearly 100 years old is to be seen in
very fair order on the bridges across
the Coomra river Government house
and the Fort.

It appears to me very
questionable whether we should
not do more wisely, if we adhered
to the original plan. I regret that
I do not know, and therefore
cannot discuss the reasons
for

for the change. I trust this may be
in time to be brought before the next
meeting of the Board.

I have for
(S) F. J. Moberly C.E.
Dist Engineer
Chingleput

(S) J. J. Moberly
(S) O. B. Evans
President

(S) J. J. Moberly

Joint
Secretary

C. J. Moberly

Chief of District
Engineer's Office
Kalamazoo
26 April 1875

N-216

From
The District Engineer
Chippewa

To
The President of Local Board
Chippewa

Sir
In Confirmation of my Oct. 1874
Ex. 11
2. Original Estimate dated 26 March 1875, I have the honor
2. Revised do to bring to your notice, that the floods
2. Comparative Plans in the Corbular during the past year
3. Original Plans rose 2 feet higher than any previously
2. Revised do recorded, at the site of the bridge
on the Northern Road, as a considerable
body of the river water breached
the banks and passed over the country
and as the piers are still unfinished,
and consequently don't yet cause
as much obstruction as they will,
when completed, I think 3 feet is
the smallest height, which we can
at the

Enclosure
Proceedings of the
Board of District
Engineers. Chippewa
dated 26 June 1875.
AS the Chief Engineer
Kalamazoo. 2. 1875
1775/975/3
Copy to the
from the District
Engineer. Chippewa
relating to Engineer's
about the river grade
for the Corbular bridge

7. 1022/75

add to that previously allowed.
In the case of the girder bridge, the
flood would have been on a level
with the tops of the piers.

The Cost of this addition will be Rs. 7,520, but I find that there are errors in the Estimate for the iron bridge made in the late Superintending Engineers Estimate in alterations to the Range Officer's Estimate, which will cause an excess of Rs. 10,000 over the sanctioned amount or Rs. 18,520 in all. The amount estimated for the masonry bridge will be Rs. 1,53,500, Rs. 6,910 in excess of the amount formerly named.

Shepherd's attention to this matter, as the season is advancing, and it is important that we should get as much work done as possible before the rains. I have &c.

I have recd
 (B.) J. J. Mohr Col. R.E.
 (Thurs) D. T. Engineer. Chm. Dept.
 (S.) O. B. Irvine
 President.

(True Copy) J. E. P. L.

We will be very happy. We

Enclosure in
Proceedings of the
Board of Revenue
dated 26 June 1873
to the Chief Secretary to
Government. P.D.
157.4578/73

Copy of letter
from the District
Engineer, Chingleput
regarding the
carrying out of the
Castellias bridge
work before the
rainy season.

157.4578/73
157.4578/73
14.25 Aug 1873
157.4578/73
14.25

Revenue Department
Proceedings of the Board of Revenue
dated 4 June 1873

Read the following:-
No. 30.

From O. S. Irvine Esquire
President of the Local Fund Board
Chingleput District
To J. Cross Esquire
Secretary to the Board of Revenue
Madras.

Sir, Adverting to the Proceedings
of the Board dated 27 February
last No. 283 Communicating the
sanction of the Government of India
to the grant of a loan of Rs. 1,05,420 for
the construction of an iron girder
bridge across the Castellias on the
Great Northern Link Road, I have
the honor to forward Copies of letters
received from the District Engineer
dated 26 March and April 1873 Nos.
1085 and 216.

2 From these it will be seen
that

That in Consideration of the delay that must occur in getting iron girders from the Public ^{Works} Workshop and of the greater durability of the structure in brick in Chumam, Colonel Michell recommends that, the iron girder bridge already sanctioned, should be abandoned and a masonry one constructed instead, as originally proposed. This proposal was accepted by the Local Fund Board as will appear from the enclosed Extract of their Proceedings dated 16 April 1873.

3. The original Estimate for the masonry work amounted to Rs. 146,570 and in revising it since, it has risen to Rs. 153,500 or Rs. 6,930 more than the original Estimate owing to the recent freshes having shown the necessity of raising the piers 3 feet. Deducting from this sum, Rs. 68,077, being the value of work already executed, the

The sum still required for completion is only Rs. 85,423 or Rs. 20,000 less than the loan which has been granted.

4. The Board will see from the second letter above quoted that there are errors in the Estimate for the iron bridge, which, if rectified, will raise its cost to Rs. 183,500, or Rs. 10,000 in excess of the sum sanctioned.

5. Under the above circumstances I beg to enclose Estimates plans &c as per margin, and request that the Board will be good enough to submit for the favourable consideration and early orders of Government the proposal to abandon the girder and proceed with the masonry bridge.

Chingleput District
C. F. Board's Office
Saidapet
19 May 1873

I have &c
(B) O. B. Irvine
President

Submitted

2 original Estimates
2 revised - do
2 Comparative S^{ts}
3 original plans
2 revised - do

Submitted for the orders
of Government

(True copy & return)

His
Secretary

The Chief Secretary to Government
Financial Department

with 14 Enclosures. Blue returned.

C. P. M. S. S.
Chief Secretary

No. 2125

C. P. M. S. S.

10 June 1893

Wednesday

Remarks. J. H. H. H.

No 426

10 June 1893

12/1873 Report
of the
No 4578

Proceedings of the
Board of Revenue

Dated 4 June 1893

Desp: 4 - " - "

Ques: 10 - " - "

ent: 18 - " - "

5 Plans for building of
of local. Proposal of Re-
= idut of Local Fund
Board, Chingleput, for
construction of a mason-
ry bridge over Corbittas
river instead of an iron
girder bridge as already
provisioned.

No 2125-25 June 1893

10/14

1-Plan - Proposed lattice girder bridge
of 23 spans of 50 ft each over masonry
piers across the Corbittas River in the
Northern trunk road.

1- Revised plan for construction of a bridge
of 23 arches of 50 ft across the Corbittas
river in the Northern trunk road.

1- Revised section elevation of a bridge of 23
arches each of 50 ft span partly
constructed across the Corbittas River
of the Great Northern trunk road.

1- Proposed lattice girder bridge of 23 spans of
50 ft each over masonry piers across the
Corbittas River in the Northern trunk
road.

1- Revised section & elevation of a bridge
of 23 arches each of 50 ft span partly
constructed across the Corbittas River
in the Great Northern trunk
road no 1 - sent to the office

of the Inspecting Engineer for
Road & communications. 6-10-93.

No. 2125
P. W. D.

Proceedings of the Madras Government,
Under date the 187

Proceedings of the
Board of Revenue -

Read the following:-

(H.E. 84 June 73)

The President of
the Chingleput Local
Land Board reports
that in consideration
of the representations
made by the District
Engineers that a delay
of two years must
occur in getting iron
girders, and that
brick in Chinnam

I should certainly
prefer the iron
bridge - if it does
not cost too
much - but I think
the best plan will
be to have the iron
bridge as soon as possible
according to ruling prices
and to defer the matter
xxx to xxx here in to Ch
Far well for early report. We

Report

See next page

Chingleput
I shall feel obliged
to inform you of
any when the plan of
the bridge is the
referred to in the
of 2000 rupees
to be sent to the
the District Engineer
in the C.P. but not the
plans. I am very
yours
L. P. W. D.

arches will be more durable, the Board have resolved that a masonry bridge shall be substituted for the Iron girder bridge which it was their intention to have built over the Cortellias river, and to complete which the sanction of the Govt. of India has been obtained for a loan of Rs 1,05,420, Rs 68,077 having already been spent on the foundations, flooring, and piers of the structure.

can decide finally - on the merits.

J. O. S.

The District Engineer's objection to Iron as a far less enduring material than masonry is not considered to be well founded; and it is believed that the erection of an Iron superstructure will not take longer than that of masonry arches. On the other hand he has ignored the reasons which led the Govt. to approve of the substitution

of the former for the
latter. These are recorded
in the correspondence
printed with G. O. No.
2504 of 2nd October
1871; and it is still
considered that an
Iron superstruc-
ture will be much
easier of construction,
less likely to
meet with accident
during erection, and
less liable to failure
from defect of material
or supervision.

The subject in
fact has been very
imperfectly

imperfectly discussed
by the District En-
gineer. The strongest
grounds for rejecting
an Iron girder bridge
is undoubtedly its greater
estimated cost;
and he might have
strengthened his ob-
jection on that score
by having the estimate
prepared by
the Superintendent
of the Government
Iron Works revised
with reference to
existing prices of
Iron. On the other

hand, he has omitted
to contract the super-
intendence available
without extra charge
for carrying out the
Iron structure, with
the special Agency
which no doubt he
will demand to en-
able him to build
the masonry arches,
and the cost of which,
if it can be provi-
ded at all, is fairly
debitable against
the work on which
it will be exclusively
employed.

* *

It is finally re-
marked that in
the event of its being
determined that the
masonry arches
shall be built, the
plans submitted
appear to require
careful scrutiny
with reference to the
thickness to be al-
lowed to the Piers
at the springing
of the arches, the
former having been
built up to their
present height on
the supposition

that they were to be
6 feet lower than is
now intended. The
thickness given to
the crown of the
arches in the most
recent plan also
appears insufficient.

Papers relating to
such large struc-
tures should be
submitted to Govt
through the office of
the Inspecting Engineer
for Communications.

G.M.W.

Oct 23rd 1873

12th Nov 1873

This subject has been
considered by the
Committee for the
purpose of the
works.

It is the opinion of the
Committee that the
proposed design is
not satisfactory.

The Committee has
therefore decided to
refer the subject to
the Inspecting Engineer
for his consideration.

It is requested that
you will submit the
papers to the office of
the Inspecting Engineer
for his consideration.

Yours faithfully,
G.M.W.

In order that the sub-
ject may be fully con-
sidered in the Fi-
nancial Department
the Inspecting Engineer
for Communications
will resubmit the
estimate for an Iron
Girder Bridge care-
fully revised ac-
cording to ruling
prices, and report
on the other points
above alluded to
as requiring further
consideration.

L.S.

The Inspecting Engineer for Communications
at the War Office
13th Nov 1873
The Secretary

S.C. sent 1/9/73

C/1578



Govt. of 1873 Madras.

PUBLIC WORKS.

The Inspecting Crgo for
Communications

Dated

Recd.

Encl. 8

G. O. 25 Aug 63, No. 2125.

No. 421/422

Bridges over the Cortellian
Chingleput District

Passing orders on the
Proceedings of the Board of
Revenue submitting proposal
of the President of the Local
Fund Board Chingleput, for
the construction of a masonry
bridge over Cortellian river
instead of an iron girder
bridge.

N^o 421-22.