(1) பக்கங்களின் எண்ணிக்கை 32.
(2) புதுக்கித் திருப்பிய நாள் -5-1988
(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம் bw ✓

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

பொதுப்பணி துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	527 — W	**அச்சகம்** பலவகை
நாள் :	16-2-1888	198—.

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

கேசு

ஆவண, கா-1—18,006—15-6-87.

16th February 1888, No. 527 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers:—

From Colonel H. M. VIBART, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Shatiatope, 26th January 1888, No. 4496.

With reference to paragraph 1 of G.O., No. 2636 W., dated 9th October 1886, I have the honor to submit for sanction, under paragraph 8 of G.O., No. 3211 W., dated 6th December 1882, plans and estimate of Rs. 1,66,000 for constructing an iron girder bridge of 13 bays of 62 feet span each and roadway of 18 feet clear across the Gadilam river at New Town of Cuddalore in lieu of the masonry bridge destroyed by floods of 1884, together with the covering letter of the President of District Board, South Arcot, No. 1, dated 6th January 1888.

2. The plans and estimate have been prepared in accordance with your memorandum, No. 3074 C., dated 13th September 1887, with the exception that the corrugated iron floor sheets available in the Public Works Stores are not to be used because each sheet is only 2′ 2″ broad and therefore they cannot be used without having the cross joists 2′ 2″ apart which would throw great extra weight on the bridge as regards fixed load and increase the expenditure as regards the cost of cross joists.

3. The President suggests that a Special Engineer should be appointed to supervise the construction of the Gadilam and Ponniár bridges, an estimate of Rs. 1,66,100 for the latter bridge having been sanctioned in G.O., No. 3148 W., dated 21st November 1887. I support the suggestion of the President and recommend that a Special Engineer may be sanctioned, as it will be impossible for either the Executive Engineer of South Arcot division or Local Fund Engineer to give sufficiently close attention to the works.

Note by the Chief Engineer, Public Works Department.

The waterway allowed approximates to that of the railway bridge above, and is considered sufficient.

2. Wells are allowed under the foundations 32 feet deep, because at a boring made in the river bed clay was reached at this depth. It is understood that only one boring was made (the position is not stated), and it seems probable that clay will be found at a considerably less depth in other parts of the section. If, as the report states, it is expected that clay will be found at no great depth below ground surface at the sections of the wings, it is not probable it will be 32 feet below the wings. The depth of the wells must therefore be decided when the work is commenced, and it will probably be considerably less than the estimate provides for.

3. The estimate is recommended for sanction.

Chepâk,
10th February 1888.

(Signed) J. O. HASTED, Colonel, R.E.,
Chief Engineer, P.W.D.

ORDER—dated 16th February 1888, No. 527 W., Public Works.

The estimate, amounting to Rs. 1,66,000, for constructing an iron girder bridge across the Gadilam river at Cuddalore, is sanctioned.

2. Attention is drawn to paragraph 3 of G.O., dated 23rd January 1888, No. 199 L., Local and Municipal Department, with reference to the suggestion that a special officer be deputed to supervise the construction of the Gadilam and Ponniár bridges.

3. This sanction has been registered as Local, No. 44 W. of 1887-88.

(True Extract.)

Captain, R.E.,
Under Secy. to Govt., P.W.D.

To the Local and Municipal Department, with twenty enclosures.
" Superintending Engineer, V Circle.
[illegible]

Exd. J. Moses.
Spare Copies

527/2

8.

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated February, 16th.

Recd. *Encl.*

G.O., 16th Feb. 1888, No. 527 W.

FEBRUARY.

Bridge across the Gadilam River at Cuddalore

Estimate for constructing an iron girder —, sanctioned with remarks.

9TH OCTOBER 1886, No. 2636 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper :—

G.O., dated 4th October 1886, Mis. No. 1006 M., Financial.

Read—the following letter from the Chairman, Municipal Council, Cuddalore, dated 31st August 1886, No. 383 :—

I have the honor to forward, herewith, copy of a resolution passed by the Municipal Council at their meeting held on the 24th instant bearing on the subject of constructing a bridge across the Gadilam, and request that the Government will be pleased to consider favorably the application of the Council for undertaking the work from the Provincial funds.

Endorsement on the above.

No. 334.

Submitted to Government with the remark that the reconstruction of the bridge over the Gadilam is a work of the first importance. The bridge is that which connected the railway with the civil station of Cuddalore. In consequence of its destruction in the floods of November and December 1884, cart-traffic is frequently suspended, although a temporary causeway has been constructed. Both sides of the river are within the municipal limits. The District Board is at present unable to render any assistance, being itself dependent upon Provincial grants for the restoration of flood damages.

(Signed) H. P. GORDON,
Collector.

6th September 1886.

ENCLOSURE.

Proceedings of the Municipal Council of Cuddalore passed at a meeting held on the 24th August 1886.

* * * * * *

Read again G.O., 5th June 1886, No. 616 L.F., reviewing the Local Fund budget of the South Arcot district for 1886-87.

10. Recorded—the Council observe that the Provincial finances have now improved and avail themselves of this opportunity of appealing to Government to take into consideration the construction of a new bridge across the Gadilam, which is roughly estimated to cost 2 lakhs of rupees—*vide* G.O., 29th January 1885, No. 237 W., Public Works.

The Council regret that their resources are such as will never enable them to contribute towards a structure of this kind.

* * * * * *

(Signed) S. DEVANAYAGA MUDELLIAR,
Chairman.

9th October 1886, No. 2636 W., Public Works.

er—dated 4th October 1886, Mis. No. 1006 M., Financial.

Transferred to the Public Works Department for consideration in connection with Provincial Public Works budget for 1887-88.

(True Extract.)

(Signed) E. S. LAFFAN,
Under Secretary.

---

er—dated 9th October 1886, No. 2636 W., Public Works.

Communicated, with advertence to G.O., No. 237 W., dated 29th January 1885, ne Superintending Engineer, V Circle, who will, in communication with the cipality and the District Board, submit plans and estimates for reconstructing the dam bridge.

2. On receipt of the estimate, the question of providing funds for the work will nsidered.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

e Superintending Engineer, V Circle.
Financial Department.
Revenue Department.
Chief Engineer for Irrigation.

A. Aubert.
Copies

527/4

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1886) Madras.

PUBLIC WORKS.

Dated October, 9th.

Recd. *Encl.*

G.O., 9th Oct. 1886, No. 2636 W.

OCTOBER.

Gadilam Bridge

Plans and estimates for reconstructing the — at Cuddalore, called for.

21st November 1887, No. 3148 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers :—

From Colonel H. M. VIBART, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Bangalore, 19th October 1887, No. 2917.

I have the honor to submit, for sanction, under paragraph 8 of G.O., No. 3211 W., dated 6th December 1882, plans and an estimate of Rs. 1,66,100 for constructing a masonry bridge of 16 arches of 60-feet span across the Ponniar immediately to the north of Cuddalore, on the road to Pondicherry, together with the covering letter of the President of the District Board, South Arcot Circle, No. 57, dated 27th September 1887.

2. The proposed bridge is to replace the old bridge, which was destroyed during the heavy floods of 1884. The new bridge will provide 17,070 square feet waterway, which is nearly 22 per cent. in excess of the waterway of the old bridge.

3. The waterway allowed for the railway bridge, South Indian Railway, some 20 miles up the river, is 16,575; but a great deal of this water, after passing the railway bridge, spills over the north bank of the river before it reaches the site of the road bridge. The wells are estimated to be sunk 30 feet throughout, so as to reach stiff clay. From the section it would appear that very hard stiff soil is met at 13 feet depth under seven piers and abutments, and that in only seven cases is the clay at a greater depth than 20.

4. It is probable, therefore, that a considerable saving will be made in sinking the wells, as having reached the clay, it will be unnecessary to continue the wells about 2 or 3 feet into the clay. The retaining walls should, I think, be built deeper, say, 8 feet instead of 6; they need not, I think, be more than 3 feet thick. The afflux will only be a few inches. It is unnecessary to recapitulate the grounds on which it has been decided to build a masonry bridge in preference to an iron bridge, which are sufficiently given in the report and the letter from the President, Local Board.

Note by the Chief Engineer, Public Works Department.

The waterway allowed appears to be ample, as in extreme floods much of the water spills over the country.

2. The depth the wells are to be founded appears excessive. If very hard stiff clay is to be found at depths shown in the cross section of the river, it will be sufficient to sink the wells, as suggested by the Superintending Engineer, 2 or 3 feet into the clay; this will effect a considerable reduction in the estimate.

3. The flooring might be improved, as the Superintending Engineer has also suggested, by increasing the depth of the retaining wall.

4. The spandril arches should, it is recommended, be omitted; they are not ornamental, are above high-water mark, and are in the position with reference to the arch where weight is desirable.

5. The cut-waters to the piers are not of good shape; they would look better and be less obstructive if curved as shown in pencil on the plan.

6. The rates for the following descriptions of work are somewhat in excess of the Public Works rates current in the district:—Brick-work, arch-work, dental cornice, plastering, laterite boulders in mortar.

With these remarks the estimate is recommended for sanction.

(Signed) J. O. HASTED, Colonel, R.E.,
12th November 1887. Chief Engineer, Public Works Department.

Order—dated 21st November 1887, No. 3148 W., Public Works.

The estimate, amounting to Rs. 1,66,100, for constructing a masonry bridge across the Ponniar river, immediately to the north of Cuddalore, on the road to Pondicherry, is sanctioned.

2. The attention of the District Board will be drawn to the remarks of the Chief Engineer, Public Works Department.

3. This sanction has been registered as Local, No. 34 W. of 1887-88.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretray to Govt., P.W.D.

To the Local and Municipal Department, with 15 enclosures.
" Superintending Engineer, V Circle.

Erd. E. Fernandez
Spare Copies

527/6

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of [1887] Madras.

PUBLIC WORKS.

Dated November, 21st.

Recd. Encl.

G.O., 21st Nov. 1887, No. 3148 W.

NOVEMBER.

Masonry Bridge across the Ponniar River

Estimate for a —, north of Cuddalore, on the road to Pondicherry, sanctioned, and attention of the District Board drawn to the remarks of the Chief Engineer, Public Works Department.

527
527/1

The waterway allowed approximates to that of the Railway Bridge close and is considered sufficient.

Wells are allowed under the foundations 32 feet deep because at a boring made in the river bed clay was reached at this depth. it is understood that only one boring was made (the position is not stated) and it seems probable that clay will be found at a considerably less depth in other parts of the section. If, as the report states, it is expected that clay will be found at no great depth below ground surface at the returns of the wings, it is not probable it will be ~~at a depth of~~ 32 feet below the wings. The depth of the wells must therefore be decided when the work is commenced & it will probably be considerably less than the Estt. provides for.

The Estt. is recommended for sanction.

10/2/88

PWC No 9417, 527/8

The Estimate of 1,66,000 for construction of an iron girder bridge on the [illegible] river S Bank, may be sanctioned.

The details for the foundations & piers have been carefully worked out, and as the girders and in fact the whole of the iron work, will be obtained through the Indian Office; there is no object in discussing the class of girder most suitable; probably the Whipple Murphy type will be decided on.

It is a question whether the width of 18' for the roadway might not be increased; but it is entirely a question of traffic: with slow traffic 18' is ample, with fast combined with numbers of foot passengers, I should

527/10

we [illegible] be able to

by [illegible] insufficient
the district board have
approved of the [illegible].
It would be advisable to
appoint a special
Engineer to look after
the construction of the
Ponnani Bridge & the
Gadilam Bridge, and
I would suggest that
Mr O'Connell be appointed.
He is not here until
October, but perhaps
there will be some
delay before work is
commenced on these
bridges.

9.2.88

Public Works Department.

Current No. 944
Letter No. 4496
Dated 26th January 1888
From the Supdg. Engineer II Circle

Cur/ 9.2.88 Sanctioned

NOTE OF REMARKS.

The Estimate under review amounting to Rs 1,66,000 provides for constructing an iron lattice girder bridge over the Gadilam river at Cuddalore in the South Arcot District to replace the masonry bridge which was destroyed by floods in 1884.

The proposed bridge will consist of 13 spans each 60 feet spanned by Whipple Murphy's wrought iron girders which will rest on

provided is stated

are laid on a cast
iron bed plate furnished
with rollers to admit
of expansion and con-
traction and at the
the other end are on
plates and iron plates
The bottom flanges
of the girders will be
2-4-8 ft above H. F.
of November 1868.

The width of the
roadway will 18 ft
and the roadway
will be covered by
buckle plates on
wrought iron cross
girders and riveted
joints.

The piers will be
21 feet in height from
river bed to bottom
flange of girder and
will be 6 ft thick
at top and 8'.6" at
bottom founded
on wells of 4 feet
diameter which

527
10

527/10

are to be sunk to
a depth of 32 feet
below river bed into
clay. The abutments
also will be founded
on wells varying
in diameter from
10 ft to 7'-6"—

A flooring is provided
and will be 50' wide
including the retaining
walls of which there
will be three the
centre one is to
be dry packed like
the apron but the
outer ones are to
be built with bricks
set in surki mortar.
The apron will project
10'-3" beyond the
Cutwaters on both
sides—

The water-way
provided is stated

5 ch. 75 sq. ft
7670 sq. ft
umerous piers
d.
the arrangement
retaining walls
aprons perhaps
d be wall
cross walls
ment therein
They would
the outer
ment towards
h the dry
in position.
structions
d in the
ans No 3074 C
pr /84 appears
letter attending
other are fair,
can be checked
Offr.
principle be
retaining and
ment of
Board. [illegible] 4/2/88

527/11

* According to plans it is only 2 ft above H.F.

SUPERINTENDING ENGINEER'S OFFICE.

to Rs 16,584.75 [illegible]

527/W

No. 4496.

SUPERINTENDING ENGINEER'S OFFICE,
V Circle, Madras,
[illegible] ~~Camp~~, 26th January 1888

527/12

FROM
Col. H. M. Vibart R.E.
SUPERINTENDING ENGINEER, V CIRCLE,

TO
THE Chief Engineer
P. W. Deptt.

SIR,

Enclosures.
- 1 Copy of letter No. 1 of 6 January 1888 from the President Munl. Board to the Chief Secy. to Govt.—
- 1 Resolution copy of the M. Board No. 33 17 January/87
- 1 Extract from Cuddalore circuit Proct. 9.9.6.12.87
- 1 Lists of Vouchers
- 1 C Estimate of Bridge Rs 166000.
- 1 Do. wrought iron work to Rs 81354.
- 1 Do for Well curb.
- 1 Sketch.
- 1 Data.
- 1 Report.
- 1 Calculation sheet.
- 1 Report of Mr. [illegible] dated 10.2.87.
- 1 Survey (tracing)
- 1 Plan of elevation.
- 1 Do of Bridge.
- 2 Plans showing details of Iron Girders (tracing)

With reference to para 1 of G. O. No. 2636 W. dated 7th October 1886, I have the honor to submit for sanction under para 8 of G. O. No. 3211 W. dated 6th December 1882, Plans & Estimate of Rs 166000 for constructing an Iron Girder Bridge of 13 bays of 62 ft. span each and road way of 18 ft. clear across the Gaddilam River at New Town of Cuddalore in lieu of the masonry (Bridge) destroyed

by

388.

886. together with the
tes of the President of
ted South Arcot
January 1888.
the plans and est-
e been prepared
ce with your Mem-
d 13th September 1887.
tion that the cor
ion of lower Sheets
the P.W. Stores are
d because each
2" broad and
cannot be used
g the cross joists
hich would throw
weight on the
ards fixed load,
se the expenditure
cost of cross joists.
President suggests
al Engineer should
be

527/13

be appointed to supervise
the construction of the Gad-
-dilam and Ponniar Bridges
an Estimate of Rs 166100 for
the latter bridge having been
sanctioned in G.O. No. 3148 W
dated 21 November 1887. I sup-
port the suggestion of the
President and recom-
mend that a Special
Engineer may be sanction-
ed as it will be impossible
for either the Executive Engineer
of South Arcot Division
or Local Fund Engineer
to give sufficiently close at-
tention to the works.

388

I have the honor to be
Sir
Your Most Obedient Servt

Henry M Vibart
Coll. R.E.

Superintending Engineer
5th Circ

Nº 3711 W d/6.12.82
" 1040 I d/21.11.84
" 1097 R d/8.12.84
" 3027 W d/29.11.84
" 33 R d/12.1.85
" 111 I d/5.2.85
" 82 C d/14.1.85
" 237 W d/29.4.85
" 1757 W d/29.7.85
" 2636 W d/9.10.86
" 3074 C d/18.9.87
" 3168 W d/21.?.87
" 599 W d/4.2.88

9/

From,

The Superintending Engr.
5th Circle —

To,

The Chief Engineer
P. W. Department —

Dated 26th }
Received — } January 1888.

Enclosures of 26

No. 4496.

Iron Girder Bridge
across the Gaddilam
River.

Submitting, with
certain suggestions, Plans
and Estimates for the Above
for Constructing ———
at New Town of Cuddalore

P. W. D.

p 3

52/14

Note by the Chief Engineer Public Works Department.

The waterway allowed approximates to that of the Railway Bridge above, and is considered sufficient.

Wells are allowed under the foundations 32 feet deep because at a boring made in the river bed, clay was reached at this depth. It is understood that only one boring was made / the position is not stated, and it seems probable that clay will be found at a considerably less depth in other parts of the section. If, as the report states, it is expected that clay will be found at

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at the sections of the
it is not probable it will
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ted when the work is
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estimate is recommended
ction.

11.2.88

Jdu
11/2/88

B F R
Works

PUBLIC WORKS DEPARTMENT.

527/15

No. 527 W

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 16th Feby/88

READ the following

Letter from the Superintending Engineer V Circle H.E. No. 4496 d/26th January 1888.
Note by the Chief Engineer P. W. Department .. No. d/10th Feby/88

The estimate amounting to Rs 166,000, for constructing an iron girder bridge across the Gadilam river at Cuddalore, is sanctioned.

2. Attention is drawn to para 3 of G. O. dated 23rd January 1888, No 199 L, Local and Municipal Department, with reference to the suggestion that a special officer be deputed to supervise the construction of the Gadilam and Ponniar bridges.

3. This sanction has been registered as Local No. 44. W of 1887-88.

11. 2. 88

388.

To

The Local & Municipal Department
with 20 enclosures

" Suptg Engineer V Circle
" Ex: P. W. Acct 24/2/88
(The Chief Secy for favor of Commr initials)

D 24/7

Jdu
11/2/88

527/16

947

Govt. of 1888 Madras

PUBLIC WORKS.

17/12

Dated 5 June

Recd. Recd.

G.O. 16 Feby 1888 No. 527 W

Bridge across the Gadilam river at Cuddalore

=

Estimate for constructing an iron girder — sanctioned with remarks

~~65~~

65/14

-88

2-1888.