

Public Works (1898) Department.

G.O., No. 1127 W

DATED 5 May 1898

7/5/98

[Despatch Abstract.]

Bridge . Revised estimate of Rs 14,275 for
constructing a ~~bridge~~ across the Kattuvani in the
16th mile of road no. 11 in the Trichinopoly Dt,
sanctioned in supersession of the one sanctioned in
G.O. No. 2953 N, d/19th October 1896.

90/4 5/5

2/5/98

Revised estimate of Rs. 14,275 for constructing a — across the Kattuvvari in the 16th mile of road No. 11 in the Trichinopoly district, sanctioned in supersession of the one sanctioned in G.O., No. 2953 W., dated 19th October 1896.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers :—

From Lieut.-Colonel O. V. BODDY, R.E., Superintending Engineer, VI Circle, to the Chief Engineer, Public Works Department, dated Trichinopoly, 12th October 1897, No. 1880 T.C.

I have the honour to forward herewith, for the sanction of Government, a revised estimate amounting to Rs. 10,000 for constructing a bridge across the Kattuvvari in the 16th mile of road No. 11.

In G.O., No. 2953 W., dated 19th October 1896, an estimate for this bridge amounting to Rs. 11,500 was sanctioned and for the iron work it was proposed to adopt standard design No. 13, dated January 1888.

It is now proposed, for reasons given in the report attached to the estimate, to construct the iron work of a simpler and less costly design, and considering the class of road I consider the iron work now provided to be amply strong enough.

It has been found necessary to excavate the foundations to an additional one foot in depth to meet the kunkur soil, and this entails an increased quantity of brick in soorki.

The total saving on the original estimate comes to Rs. 1,500, and I have the honour to recommend that sanction be accorded to the revised estimate.

As the present rate of exchange favours the early purchase of the iron work, I request that, if this revised estimate is approved, early sanction may be accorded to it.

From Lieut.-Colonel O. V. BODDY, R.E., Superintending Engineer, VI Circle, to the Chief Engineer, Public Works Department, dated Trichinopoly, 12th March 1898, No. 410 T.C.

With reference to your memorandum, dated 3rd ultimo, No. 635 C., returning for further revision the revised estimate of Rs. 10,000 for the iron girder bridge across the Kattuvvari in the 16th mile of road No. XI, I have the honour to forward for orders copy of letter from Local Fund Engineer, No. 279, dated 22nd February 1898, bearing endorsement No. R.C. 13 of 1897, dated 5th March 1898, from President, District Board, and a letter in original from Messrs. Richardson and Cruddas, No. 162/3127, dated 14th idem. Messrs. Richardson and Cruddas are of opinion that there is not sufficient margin of strength in section $18" \times 7" \times 75$ lb. per foot run, and that if only three beams are to be used the section should be $19\frac{3}{4}" \times 7\frac{1}{4}"$ of 95 lb. per foot run. Personally I am of opinion that the original design with five girders is the best, but that, as three girders only are to be used, the sections recommended by Messrs. Richardson and Cruddas may be adopted.

2. In regard to paragraph 2 of your memorandum referred to above, the Local Fund Engineer states that the foundations have been already put in, in accordance with the provision of the estimate as sanctioned in G.O., No. 2953 W., dated 19th October 1896, and from his report it appears that these foundations are sufficient.

3. The plan and estimate are resubmitted for reference.

Note by the Chief Engineer, Public Works Department.

It is recommended that the estimate for a girder bridge across the Kattuvvari, Trichinopoly district, be sanctioned with the following modifications, which have been made in this office, with the result that the total of the estimate is increased from Rs. 10,000 to Rs. 14,275 :— 10,240 -

(a) Three main steel beams to be provided for each span, having a section $19\frac{3}{4}" \times 7\frac{1}{4}"$, and weighing 95 lb. per lineal foot.

(b) Provision to be made for painting the iron work.

2. The Superintending Engineer reports that the foundations of the bridge have already been put in, in accordance with the provision made in the estimate sanctioned in G.O., No. 2953 W., dated 19th October 1896.

(Signed) W. B. DEWINTON,
Ag. Chief Engineer.

27th April 1898.

ORDER—No. 1127 W., dated 5th May 1898. 10,240

The revised estimate amounting to Rs. 14,275, as altered by the Chief Engineer, Public Works Department, for constructing a bridge across the Kattuvvari in the 16th mile of road No. 11 in the Trichinopoly district, is sanctioned in supersession of the estimate of Rs. 11,500 sanctioned in G.O., No. 2953 W., dated 19th October 1896.

2. This sanction has been registered as Local No. 6 W. of 1898-99.

(True Extract.)

Under Secretary to Government.

To the Superintending Engineer, VI Circle.
„ Local and Municipal Department, with plans and estimate.

No. 11274, dated 5th May 1898
Papers to be read in Proceedings:—

Issue
4P

Again G.O., dated 189 , No.
Again G.O., dated 189 , No.
Current No. 10222 of 1897, dated 15th October, from the S. & W. Circle
" " 2406 " 1898, " 15th April, " " Do "
" " " 1898, " 27th April, " the Chief Engr. P.W.D.

ORDER.

The revised estimate amounting to Rs. ^{10,240} ~~11,275~~, as altered by the Chief Engineer P.W.D., for constructing a bridge across the Kattuvari in the 16th mile of road No. 11 in the Trichinopoly District, is sanctioned in supersession of the estimate of Rs. 11,500 sanctioned in G.O. No. 2953 Wd/19th October 1896.

2. This sanction has been registered as Local No. 6 Wd/1898-99.

To The L & M. Deptt for favour of counter initials

Flagged I

T. K. B. P. W. D.

APR 27. 4.

To The S. & W. Circle
" L & M. Deptt with plans and estimate. (13)

27. 4. 98
28. 4. 98
27. 4. 98

Note

This estimate is dealt with in the accompanying technical note.

27. 4. 98

1122 [P.W.D.] 23. 4. 98

No. 1127 of 5.5.98
30

note by the Chief Engr

It is recommended that the estimate for a girder bridge across the Katturani, which is distant, be sanctioned with the following modifications, which have been made in the office, with the result that the total of the estimate is increased from Rs 10,000 to Rs 11,275 (a) 3 main steel beams to be provided for each span, having a section $19\frac{3}{4} \times 7\frac{1}{2}$ and weighing 95 lbs per linear foot.

(b) Provision to be made for painting the ironwork.

2. In the circumstances mentioned by the S.E. that the foundations of the bridge have already been put in, in accordance with the provision made in the estimate sanctioned in C.O. 2953 W, dated 19 Dec/96,

Agd
22.4.98. *[Signature]*
27.4.98
E. W.

*Check these figures.

Figures checked -
10165-0
+ 1200 as per my figures
+ 75 for painting
11275 10240.

As
17/5/98

Current No. 2406
Letter No. 410 T.C.
Dated 12th March 1898
From the Superintending Engineer VI Circle

NOTE BY TECHNICAL SECTION.

Name of work Iron girder bridge
across the Kattavari Trichinopoly Distt.
The S. E. VI Circle with his letter No 1880 T.C.
dated 12th October 1897 submitted for sanction
of Govt a revised estimate amounting to
Rs 10,000 for constructing a bridge across
the Kattavari in the 16th mile of road No 11
in the Trichinopoly District in lieu of
of the estimate of Rs 11,500 sanctioned
in G.O. No 2953 W dated 19th October 1896.

This revised estimate was dealt with in
the Technical section of this office vide
notes dated 15-1-98 and 19-1-98
and returned with this office memorandum
No 635 C dated 3rd February 1898 for
revision on the following lines.

- (1) To reduce the number of girders for
each span from 5 to 3 by increasing the
section from $15\frac{3}{4} \times 6\frac{1}{8}$ weighing 62 lbs a
foot run to 18×7 weighing 75 lbs a foot.
- (2) As the foundations are considered shallow
to take them deeper unless the soil is very good.

The estimate should be altered
and sanctioned in accordance
with the modifications
laid down in the accompanying
note

AsK

22.4.

W. H. B. 27.4.98

to L.E. with his letter No 410 T.C of 12.3.98
 resubmitting the same estimate forwards
 copy of letter from the S. F. Engineer
 No 279 of 22.2.98 and a letter in original from
 Richardson and Cruddas No 162 of 14.3.98
 or orders and is of opinion that the design
 with 5 girders is the best and recommends
 stronger section otherwise as was recommended
 by R and C.

As regards taking foundations deeper, the L.E.
 states that the S. F. Engineer reports
 that the foundations have already been laid
 and are sufficient. See last 2 paras of the
 S. F. Engineer's letter No 279 of 22.2.98.
 From para 2 of the L.E.'s letter under reference
 it is understood that the foundations have been
 executed as was sanctioned but from the remarks
 in the comparative statement item No 1 and in
 the detailed estimate under the subhead brick
 in Surki mortar it is apparent by the provision
 of 2.59 in depth instead of 1.59 in the sanctioned
 estimate from level + 264.00, that the brickwork
 is 1 foot deeper and similarly Concrete foundation
 was taken 1 foot deeper than originally sanctioned
 and the level of floor is therefore at + 261.41
 and bottom of concrete at + 258.41 which
 seems favourable considering the depth to which
 this deep bed will silt up. If silted up to 264.00
 the foundation may be considered as 5 1/2 feet deep.
 No provision is made in the estimate for painting
 ironwork of the bridge and as it is necessary
 a lump sum of Rs 75 will be added for the purpose
 if ordered.

The rates entered in the revised estimate are
 the same as sanctioned except some decrease in
 lump sum items
 The L.E. in his letter No 1880 T.C concluding
 para requested early sanction to the revised
 estimate owing to favourable rate of exchange

in the purchase of iron work, and as the
 estimate has been countersigned by the President
 of the H. Board and sanctioned in Board's
 Proceedings Resolution No 45 of 14.7.98.
 The estimate has been checked and is submitted
 for sanction if approved of 5 girders for each span.
 H. S.
 S. D
 15-4-98

There is to be some the depth of water.
 - way has been increased by one foot
 viz from 14.59 to 15.59.

It is submitted that
 the estimate may be same.
 - provided for 3 girders 19 1/2" x 7 1/2"
 weighing 95 lbs per foot each, instead of 3 girders
 18" x 7" weighing 75 lbs as
 suggested in their office
 Memo No 635 C dated 3.
 April 98 as the load to be
 carried by the centre girder
 was erroneously calculated
 in the notes dated 15th & 19th
 Jan last, owing to the weight
 of masonry being taken at

Centres of bearings 32' apart
 Load in tons 19.5 (say)
 Constant for load = 19.5 + 3 1/2
 (see table C.C. 450, W of 1.3.95)
 And a section 18" x 7" allowing a
 limiting stress of 7.5 tons per sq.
 inch is sufficient. As Indian
 firms will not guarantee steel
 beams at this standard, the next
 higher dimensions can be adopted,
 viz 19 1/2" x 7 1/2"
 as recommended by Richardson
 & Cruddas.

Proportion of depth of girders
 to span = $\frac{20 \times 12}{19.75}$
 = $\frac{1}{18}$ in
 which is just within the
 permissible limits for deflec-
 tion
 Start main girders 19 1/2" x 7 1/2",
 weighing 95 lbs. will do
 A.C.K.
 23.4.

o.s. 35 p 5/7

Taken at 125 lbs instead of 146
 lbs per cwt & Harbours flooring
 plates 15 lbs instead of 16.5 lbs
 per sq ft.
 The load the carried on the
 centre girder, as now revised,
 will be as under:-
 Harbours flooring plates 1 x 30' x 6 1/2" x 16.5 = 3352
 including 1 x 30' x 6 1/2" x 6" x 146 = 14828
 Guard attachment & bolts 1 x 30' x 6 1/2" x 3.5 = 711
 Live load 1 x 30' x 6 1/2" x 120 = 24375
 Total load in lbs 43266
 Or 19.31 Tons.

By formula
 W = WL
 = 19.31 x 30 = 579.30
 for which a section 19 1/2" x 7 1/2"
 weighing 95 lbs will suffice &
 if this section be approved
 the amount of the estimate
 will be increased by Rs 1200
 namely, i.e. from Rs 10,000 to
 Rs 11,200.

19.4.98.

Public Works (1898) Department.

CURRENT No. 2406

Order

From

The Supg Engineer
b: Circle.

No. 410 T.C.

Dated 12: ~~February~~ March 1898
Received 15th March 1898.
Enclosures 13. 2 plans.
Spare copies —

SUBJECT.

Iron Girder Bridge across the
Katturaxi in the 16: mile of
Road No. 21. in the Tichinopolis.
Resubmits the revised estimate
of Rs 10000 for the —

1/ for note
numbers.
C. 16/3/98
13/5/98

BACK PAPERS.

No.	Date.
635C	3-2-98
480 W	1-3-95
2953 W	19-10-96

FURTHER PAPERS.

No.	Date.

No. 410. T.C.

OFFICE OF THE SUPERINTENDING ENGINEER,

6th CIRCLE,

Trichinopoly, 12th March 1898.

From

Lt Col. C.V. Boddy R.E.

Superintending Engineer,

6th Circle.

To

The Chief Engineer,

SIR,

13. ENCLOSURES.

- 1. Brief plan of bridge
- 1. Plan of Iron works
- 1. Original Estimate
- 1. Revised Estimate comprising
- 1. Abstract Estimate
- 2. Det. Measurement sheets
- 1. Comp. Sheet
- 1. Report
- 1. Specification
- 1. Data
- 1. Resolution
- 1. Copy of letter from Messrs. Richardson & Cruddas No. 162/3127 of 14-2-98
- 1. Copy of L.F. Engr's letter No. 279 dated 22-2-98
- St. Off. Circulars No. R.C. 13997 of 5-3-98.

13

With reference to your Memorandum of 3rd ultimo, No. 635C returning for further revision the revised estimate of Rs. 10,000 for the iron girder bridge across the Kattu-wari in the 16th mile of Road No. X1. I have the honor to forward for order Copy of letter from Local Funds Engineer, No. 279 of 22nd February/98 bearing Endorsement No. R.C. 13997 of 5th March/98 from President, St. Board, and a letter in original from Messrs. Richardson & Cruddas, No. 162/3127 dated 14th idem. Messrs. Richardson and Cruddas are of opinion that there is not sufficient margin of strength in section 18" x 7" x 75 lbs per foot run, and that if only 3 beams are to be used the section should be 19^{3/4}" x 7^{1/4}" of 95 lbs per foot run. Personally I am of opinion that the original design with 5 girders is

Works Department.

Current No. 10222

Letter No. 18807C

Dated 12 October 1867

From the Survey Engineer VI Circle.

NOTE BY TECHNICAL SECTION

Name of work... Iron garden bridges across
the Kathwaray - Trichinopoly Dist.

Wm

In continuation of my note
dated 15th inst. I beg to submit
the following:-

That by adopting the original section for the girders, viz. $18" \times 7"$ weighing 75 lbs in lieu of $15\frac{1}{4}" \times 6\frac{1}{8}"$ weighing 62 lbs as proposed by the S.E., there will be no saving whatever and as this section ($18" \times 7"$) with girders placed $3' 4\frac{1}{16}"$ apart is too heavy for the load it has to carry, viz. 8.87 tons, it is submitted, that 3 girders spaced $6' 9\frac{1}{2}"$ for each span, be provided instead of 5 girders as proposed.

The board then to be carried by the Centre garden will be as follows:-

Flouring plates	$30 \times 6 \frac{9}{16} \times 15$ lbs	—	3047
Drinking —	$30 \times 6 \frac{9}{16} \times \frac{1}{2} \times 125$ lbs.		12,695
Line board —	$30 \times 6 \frac{9}{16} \times 120$ lbs	—	2437

or 17.9 Tons. Trial # 40,117

W. The water way (one allowed
one general design for the
bridge were settled by the
chief Engineer in his note
dated 3-10-96. (Signed W)

The revised est. now submitted is for a lighter bridge than was allowed for in the ~~est~~ sanction in G.O. No 2953 W of 15.10.51

2. This revised Est. allowed for 5 girders $15\frac{3}{4}" \times 6\frac{1}{8}"$ section but this was far stronger than necessary, so I have cut out two girders increasing the section of the remaining three to $18" \times 7"$, which is quite strong enough.

From
20/1/58

[P W. 60]
[250-30-9-27.]

the best, but that as 3 girders only are to be used the sections recommended by Messrs. Richardson & Crutcher may be adopted.

2. In regard to para 2 of your Memo
referred to above the Local Fund Ec-
-ciser states that the foundations
have been already put in in accordance
with the provision of the estimate as
sanctioned in G.O. No. 29535 of 1900.
Tobias 1906 and from his report it appears
that these foundations are sufficient.

3. The plan and estimate are resubmitted for reference.

I have the honor to be
Sir,

Yours truly &c. L. Servant.

J. V. Ross
Superintendent, Marine

Revision to 3 figures is "7" ^u
 approved - Attention shall be
 called to the fact that the
 bounds are very shallow
 & under the soil is very
 work it will be advisable
 to take them deeper
 which will be the

Current No. 10222
Letter No. 1880 TC.
Dated 12th October 1897
From the Super Engineer V. C. C.

NOTE BY TECHNICAL SECTION.

Name of work Iron girder bridge across
the Rathurany. Trichinopoly District.
Amount of estimate Rs 10,000.

The S.E. V. C. C. submits for the sanction of Govt. a revised estimate amounting to Rs 10,000 for construction of an iron girder bridge across the Rathurany in the 16th mile of road No 11 in the Trichinopoly District in lieu of the estimate amounting to Rs 11,500 sanctioned in G.O. No. 2,953 W dated 19th October 1896.

The original estimate for the work was based on type design No. 13 for 1st class roads, circulated with G.O. No. 1387 W dated 11th May 1896. The S.E. now proposes to provide a lighter and cheaper bridge, as the line of communication is situated where it is so important as it was since the construction of the railway which runs parallel with & quite close to the road throughout.

The bridge is now designed to consist of 10 lighter girders of a section 15 3/4" x 6 3/4" weighing 62 lbs per foot.

Per formulae W = WL
= 17.9 x 30 = 537 tons

for which a section 18" x 7" weighing 75 lbs is just the required section.

Should 6 girders be substituted for the 10 now provided, a saving of Rs 3 tons of iron work will be effected as under:-

	Tons	cwt	qrs	lbs
Steel girders 6 x 34'0" (18" x 7") 75 lbs	6	16	2	12
Beaming plates 12 x 2'0" x 1'3" x (1/2") 30 lbs	0	5	2	8
Working floor plates	6	8	1	0
Wheel guards	3	4	0	0
Rails	1	4	2	0
Nails for flooring plates	0	6	2	0
Total weight	18	5	1	20

Against the revised estimate provision of 21'6" x 3'0" showing a saving of 3'1'0" x 20'. This saving will approximately amount to Rs 500. The lump sum of Rs 5000 will then be reduced to Rs 4500 and the section charges altered from Rs 300 to Rs 250.

[Signature]

19.1.98.

P.S. The flooring plates which are of Horsburgh's Patent arched flooring appear to be sufficient strong over a clear span of 6'9 1/4". vide R.T.C. catalogue page 179.

[Signature]

19.1.98.

+ spaced $3'4\frac{5}{16}"$ apart carrying
Hobnays patent flooring plates,
with wheel guards & hand rails
8' complete.

The original design provided
for 10 girders of a section $18" \times 9"$
carrying a platform structure
of Westwood Baiden & Co. floor
ing plates 8' complete.

The load on each girder is
made up as under:-

Hobnays flooring plates, taking 15
lbs per sq ft as the weight of these
plates = $30 \times 3'4\frac{1}{2} \times 15 \text{ lbs} = 1509$

Masonry: $30 \times 3'4\frac{1}{2} \times \frac{1}{2} \times 125 \text{ lbs} = 6289$

Live load: $30 \times 3'4\frac{1}{2} \times 120 \text{ lbs} = 12,075$

Total lbs 19873

or 8.87 tons.

By formula $w = WL$.

When w = the intended load in tons
that one foot will carry

W = load in tons on the
whole span, uniformly
distributed

L = length of span in feet.

$\therefore W = 8.87 \times 30 = 266.10 \text{ tons.}$

for which a steel section $12" \times 6"$
weighing 54 lbs per foot ^{with cutting} which
corresponds nearly to a coefficient
of stress c . vide page 24, section
67, of Borman & Longs tables

By the deviation now proposed
by the S.E., a saving of a little over
50% on the ironwork will be effected
but as the depth of the girder should
not be less than $\frac{1}{20}$ the span for deflection,
it is submitted, that the original section
viz. $18" \times 9"$ may be adhered to.

The revised estimate has been
counter-signed by the President
Works Board & sanctioned in
Works Board Proceedings dated
14th July 1897.

Ths.

15.1.98.

Please see attached note
re. reduction in the number
of girders.

Ths.
18.1.98.

Public Works (1897) Department.

CURRENT No. 10222

Order

From
The Superintending Engineer
M. Circle

No. 1880. T.C.

Dated 12th October 1897

Received 15-10-97

Enclosures 5 (2 plans)

Spare copies

SUBJECT.

Bridge across the Kattunai
in the 16th mile of Road No. 11.
Forwards with remarks
a revised estimate of Rs
10,000 for construction -

J

BACK PAPERS.

FURTHER PAPERS.

No.	Date.
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No.	Date.
-----	-------

No. 1880. T.C.

OFFICE OF THE SUPERINTENDING ENGINEER,
6TH CIRCLE,

Trichinopoly, 12th October 1897.
112.

From

Lt Col. C. V. Boddie, R.E.
Superintending Engineer,
6th Circle.

To

The Chief Engineer,

P.W.D.

SIR,

ENCLOSURES. 5.

1. File of previous letter with report, Specification etc Complete.
1. Tracing plan.
1. Proceedings of the Board of Works.
1. Original letter Complete.
1. Original plan of bridge.

5

I have the honor to forward herewith for the sanction of Government a revised estimate amounting to Rs 10,000 for constructing a bridge across the Kattuware in the 16th mile of Road No: 11. In G.O. No: 2953 W dated 19 October/96, an estimate for this bridge amounting to Rs 11,500 was sanctioned and for the iron work it was proposed to adopt Standard design No: 13 of January 1888.

It is now proposed for reasons given in the report attached to the estimate, to construct the iron work of a simpler and less costly design and considering the class of road I consider the iron work now provided to be amply strong enough.

It has been found necessary to excavate

the foundations to an additional one foot in depth to meet the kunkur soil, and this entails an increased quantity of brick in soorki.

The total saving on the original estimate comes to Rs. 1,500, and I have the honor to recommend that sanction be accorded to the revised estimate.

As the present rate of exchange favours the early purchase of the iron work, I request that, if this revised estimate is approved, early sanction may be accorded to it.

I have the honor to be
Sir,

Yours most obed^t Servant.

J. V. B. Kelly, Lt. Col. R.E.
Superintendent, Circle

BUILDINGS AND ROADS.
CIVIL WORKS.

Government (1898) of Madras.
PUBLIC WORKS.

Recd.

Regd.

1898.

Enclosures

Spare copies

G.O., No. 1127 W., 5th May 1898.

MAY.

Bridge

Revised estimate of Rs. 14,275 for constructing a — across the Kattuvani in the 16th mile of road No. 11 in the Trichinopoly district, sanctioned in supersession of the one sanctioned in G.O., No. 2953 W., dated 19th October 1896.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

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2. In regard to paragraph 2 of your memorandum referred to above, the Local Fund Engineer states that the foundations have been already put in, in accordance with the provision of the estimate as sanctioned in G.O., No. 2953 W., dated 19th October 1896, and from his report it appears that these foundations are sufficient.

3. The plan and estimate are resubmitted for reference.

Note by the Chief Engineer, Public Works Department.

It is recommended that the estimate for a girder bridge across the Kattuvari, Trichinopoly district, be sanctioned with the following modifications, which have been made in this office, with the result that the total of the estimate is increased from Rs. 10,000 to Rs. 14,275 :—

- (a) Three main steel beams to be provided for each span, having a section $19\frac{3}{4}" \times 7\frac{1}{4}"$, and weighing 95 lb. per lineal foot.
- (b) Provision to be made for painting the iron work.

2. The Superintending Engineer reports that the foundations of the bridge have already been put in, in accordance with the provision made in the estimate sanctioned in G.O., No. 2953 W., dated 19th October 1896.

(Signed) W. B. DEWINTON,
Ag. Chief Engineer.

27th April 1898.

ORDER—No. 1127 W., dated 5th May 1898.

The revised estimate amounting to Rs. 14,275, as altered by the Chief Engineer, Public Works Department, for constructing a bridge across the Kattuvari in the 16th mile of road No. 11 in the Trichinopoly district, is sanctioned in supersession of the estimate of Rs. 11,500 sanctioned in G.O., No. 2953 W., dated 19th October 1896.

2. This sanction has been registered as Local No. 6 W. of 1898-99.

(True Extract.)

Under Secretary to Government.

To the Superintending Engineer, VI Circle.
,, Local and Municipal Department, with plans and estimate.

Exd. C. Parthasarathy.