M.R.O. 1—77,006—8-6-37.

(1) Number of pages 28

(2) Date of repair 12 . 12 . 38

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Cons. 20-1-1860

G.O. No.	108	Press / Mis.
47-48 Dated	13-1-	1860.

Not to be folded or roughly handled

12/12/38

No. 47. From Lieutenant-Colonel J. H. BELL, Chief Engineer; to J. D. BOURDILLON, Esq., Secretary to Government, dated 5th January 1860, No. 8812.

I have the honor to forward an estimate amounting to Rupees 16,520 for the restoration of the bridge, over the Aiár, at the point of its junction with the Cauvery, on the high road from Trichinopoli to Salem, in the Trichinopoli district, carried away by a large tree floating down the stream, during the heavy floods of November 1858.

1 letter from District Engineer, dated 22nd November 1859.
1 Sketch.
1 Abstract estimate for Rupees 16,520.

2. The Aiár was formerly spaned by 5 arches, of 30 feet span each, of brick in chunam work, but the District Engineer with the view of allowing more waterway, and preventing a similar occurrence, has proposed the restoration of the communication by the construction of a lattice bridge of 3 bays 65 feet span each, of the same form &c., as described in my letter,† submitting the revised estimate, for reconstruction of the Cúdumúrti bridge in the same district.

† On the Cúdumurti bridge.

3. At present, there is one abutment with wing walls left standing, portions of foundations to piers there are also, but too much shaken to be of any use. The abutment, with a little addition, will be made use of, in the reconstruction of the bridge, in the proposed plan, but two new piers and the western abutment 16 feet in height of brick in chunam, will be built anew, with a good apron, between retaining walls, and extending 30 feet to the rear. The proposed plan has my approval and the estimate has been examined and found correct.

4. This line is a very important one connecting and forming the only means of communication, between the two large towns of Bangalúr and Trichinopoli viâ Salem.

5. I have explained in my letter of this date, No. 8311, that the order of Government of the 30th March 1859, has been so lately brought to my notice that I have not had time to make the complete comparison required by Government. I have, however, no doubt of the superior advantages of the lattice bridge. I therefore request the early sanction of Government for the accompanying estimate amounting to Rupees 16,520, to be defrayed from the funds allotted for repairs in the district for the current year.

No. 48. ORDER THEREON, 13th January 1860, No. 108.

With these letters the Chief Engineer submits for sanction two estimates amounting together to Rupees (31,520) thirty-one thousand five hundred and twenty for constructing lattice bridges, in lieu of the masonry ones destroyed by the late floods, over the Cúdumúrti and Aiár rivers on the high road from Trichinopoli to Coimbatúr and Salem respectively.

2. In paragraph 2 of their order March 30th 1859 No. 743 the Government expressed their expectation of receiving with these estimates full explanation of the comparative advantages and cost of each mode of structure. The required report has not, however, been submitted owing to the central office establishment having omitted to apprise the Chief Engineer of the requisition of Government; but Colonel Bell states that he is "decidedly of opinion that the advantage to be gained from the proposed plan, which gives greater length and height to the bays of the bridge, render it much to be preferred to one of brick arches."

3. On this assurance, the Government sanction the two estimates of Rupees 15,000 and 16,520 respectively. They still, however, desire to be furnished with the comparative statements in question at an early date.

4. The expenditure now sanctioned will be defrayed, as proposed, from the repair funds allotted to the district for the current year.

(Signed) T. PYCROFT,
Chief Secretary.

Proceedings of the Madras Government, Public Works Department, for the month of January 1860.

Read the following letters.

No. 46. From Lieutenant-Colonel J. H. BELL, Chief Engineer; to J. D. BOURDILLON, Esq., Secretary to Government, dated 5th January 1860, No. 8811.

1 Letter from the District Engineer, Trichinopoly, No. 414.
1 Specification.
1 Plan.
1 Sketch
1 Abstract estimate.

With reference to Extract Minutes Consultation, No. 2722, under date 18th December 1858, granting authority for the reconstruction of the Cúdumúrti bridge on the high road from Trichinopoly to Coimbatúr and the Nilgiri hills viâ Caroor, I have the honor to forward a revised plan and estimate amounting to Rupees 15,000, for its reconstruction, as a lattice bridge with 3 bays of 65 feet span each, instead of brick in chunam, on the original plan of 5 arches of 30 feet span each.

2. The platform of the bridge will be supported by two piers 5 feet in breadth at top and 70 feet per centre to centre, with a heading of cut stone work, on which will rest the wall plate $18 \times 1 - 6 - 1$ (the ends supported by struts $1' \times 6'' \times 6''$ let into the piers and abutments) and abutments of brick in chunam 18 feet in height. One pier and one abutment, are still standing, but are not sufficiently high for the proposed work, and will be raised accordingly. The north abutment will be rebuilt at a distance of 45 feet to afford greater waterway. The platform will consist of 2 lattice girders placed 16 feet apart and 218 feet in length. The girders will be composed of a upper and lower beam of teakwood, braced together with wooden struts, and iron ties; the two lower beams of the girders, will be similarly braced together; the upper beams will consist of two timbers 8 inches square each and a lower of three timbers the centre 7" by 10 inches and side pieces 4 by 10 each.

3. The struts will be 6 inches square to abut on woodden blocks, let in one inch into the upper beams and resting on the lower beams 7 inches from centre to centre.

4. The ties of one inch rod will run through the upper beams 4½ inches from the outside, and through the timber of the lower beam fastened by a plate of iron and large pin at each end.

5. The joists (scantling 10 by 4) will rest upon the lower beams, secured at each end by an iron rod passing through and between the centre and outside timbers of the lower beams 2 feet 3 inches from centre to centre.

6. The planking for the roadway will be placed on the joists diagonally and well screwed down.

7. This plan has been proposed with the view to giving additional water way to floating masses, such as stacks of straw, large trees, &c. which have twice been the cause of the destruction of the Cúdumurti bridge.

8. It is only within the last few days that the order* of Government as per margin has been seen by me. There is no time now to prepare the complete comparative statements required by Government, and as I am decidedly of opinion that the advantage to be gained from the proposed plan which gives greater length and height to the bays of the bridge render it much to be preferred to one of brick arches, I request the early sanction of Government for the accompanying estimate, amounting to Rupees (15,000) fifteen thousand, to be defrayed from the funds allotted for repairs in the district for the current year. In intimating to the District Engineer the order of Government conveyed in Extract Minutes Consultation, under date 18th December 1858, granting authority for the immediate reconstruction of the bridge, the officiating Chief Engineer requested the District Engineer to consider, the expediency of substituting a trussed or lattice bridge with bays of 60 or 90 feet in lieu of its reconstruction of brick in chunam, and that officer prepared the plan and estimate now submitted accordingly.

* Extract Minutes Consultation, No. 743, 30th March 1859.

Central Offices of P.W.

Vepáikkam

5th January 1860.

No. 8811

From,

The Chief Engineer

To,

The Secretary to Government

P. W. D.

Public Communications.

Sir,

With reference to Extract Minutes Consultation No. 2722 under date 18th December 1858, granting authority for the Reconstruction of the Coorloomoorly Bridge on the High Road from Trichinopoly to Coimbatore and the Nilgiri Hills viâ Caroor, I have the honor to forward a revised Plan and Estimate amounting to Rupees 15,000, for its reconstruction, as a Lattice Bridge with 3 bays of 65 feet span each, instead of Brick in Chunam, on the original Plan of 5 Arches of 30 feet span each.

2. The Platform of the Bridge will be supported by two Piers 5 feet in breadth at top and 70 feet per Centre to Centre, with a heading

of

says that the order of Government as per margin has been seen by me. There is no time now to prepare the complete Comparative Statements required by Government, and as I am decidedly of opinion that the advantage to be gained from the proposed plan which gives greater length and height to the bays of the bridge render it much to be preferred to one of brick arches, I request the early sanction of Government for the accompanying Estimate amounting to Rupees /15,000/ Fifteen Thousand, to be defrayed from the funds allotted for repairs in the District for the Current Year. In intimating to the District Engineer the order of Government conveyed in Extract Minutes Consultation under date 18th December 1858, granting authority for the immediate reconstruction of the Bridge, the Officiating Chief Engineer requested the District Engineer to consider, the expediency of

× Extract Mins Cons: No: 743 30th March 1859

of substituting a trussed or Lattice Bridge with bays of 60 or 90 feet in lieu of its reconstruction of Brick in Chunam, and that Officer prepared the Plan and Estimate now submitted accordingly.

I have the honor to be
Sir,
Your Most Obedt. Servt.
J. H. Dell Lieut.-Colonel
Chief Engineer.

Central Office of P.W.D.
Tepukkam —
5th January 1860.

W. L. Lt. Col.
Dy Chief Engr. S.B.

To,
The Secretary to Government
P. W. D.

Ex Library

Roads. (New Work)

Abstract of Estimate No. of 185 /5.

District — Trichinopoly

Talook — Coniaud. Village —

Work — Constructing a Lattice Bridge over the Coodamooty instead of resting the old masonry Bridge.

Quantities.	Description of Work.	Rate. Rs.	a	p.	Amount. Rupees.	Amount of each part. Rupees.
C. Feet						
5,040	Packed rough stone	-	-	10½	276	
16,077	Brick in Chunam	-	1	6	1507	
96	Cut-Stones	-	8	-	48	
3,062	Teakwood wrought	3	8	-	10719	
70	Maunds of round Iron	6	-	-	420	
5	Cwt of Iron Nails	25	-	-	125	
10,350	Removing Abutments &c	-	-	6	323	
45	Sq. Plastering	1	8	-	68	
	Embankment & baling water	-	-	-	500	
	Scaffolding	-	-	-	300	
	Excavation	-	-	-	500	
	Extra Establishment & Sundries	-	-	-	214	
						15,000
					Total Rupees	15,000

Central Office 9th
Septr Kotn
5 January 1860

J. R. Bell Lt Col.
Chief Engineer D.P.W.

P.W. Cons. 21. Dec.r/58.

No. 35-58.

1. Abstract & Est. No. 122-123

Dated 5th January 1860.

Presented 6th January 1860.

6-5-0 Returned No. 8811

No. 108. 13th January 1860.

Submitting for sanction Plan and Estimate amounting to Rupees 15,000 for constructing a Lattice Bridge over the Coodamooty in the District of Trichinopoly

C10 Copy R12.

Enclosure.

In a letter

From

The Chief Engineer

D.P.W.

To

The Secretary to Govt.

D.P.W.

Dated 5th January 1860.

Received. 6th January 1860.

No 8811.

Abstract Estimate for Constructing a Lattice Bridge over the Coodamurtoo in the District of Trichinopoly amtg to Rupees 16,000—

Central Office 4th Jany 1860

No 8812

Sepaktam

5th January 1860

From

The Chief Engineer

To

The Secretary

to Government D.P.W.

Public Communication

Sir,

I have the honor to forward an Estimate amounting to Rupees 16,520 for the restoration of the Bridge over the Iyan at the point of its junction with the Causey on the high road from Trichinopoly to Salem in the Trichinopoly District, carried away by a large tree floating down the Stream during the heavy floods of November 1858. —

2. The Iyan was formerly spanned by 6 Arches of 30 feet span each of Brick in

Chunam

Enclosures 3

1 Letter from Distt Engr dated 22nd 11/59

1 Sketch

1 Abstract Estimate for Rupees 16520.

Chunam work, but the District Engineer with the view of allowing more waterway, and preventing a similar occurrence, has proposed the restoration of the Communication by the construction of a Lattice Bridge of 3 bays 65 feet span each, of the same form &c. as described in my letter, submitting the revised Estimate, for reconstruction of the Coodroomooty Bridge, in the same District. —

* On the Coodroomooty Bridge

3. At present, there is one abutment with Wing Walls left standing, portions of foundations to Piers there are also, but too much shaken to be of any use. — The abutment, with a little addition, will be made use of, in the reconstruction of the Bridge, in the proposed plan, both two new piers and the Western abutment 16 feet in height of Brick in Chunam, will be built anew, with a good apron, between retaining walls, and extending 30 feet to the rear. The proposed plan has my approval and the Estimate has been examined and found correct. —

4. This line is a very important one connecting and forming the only means of communication, between the two large towns of Bangalore and Trichinopoly viâ Salem. —

5. I have explained in my letter of even date No. 8811. that the Order of Government of the 30th March 1859 has been so lately brought to my notice that I have not had time to make the complete comparison required by Government. I have however no doubt of the superior advantages of the Lattice Bridge I therefore request the early sanction of Government for the accompanying Estimate amounting

amounting to 1 Rupees 16,520 to be defrayed
from the funds allotted for repairs in the
District for the current Year.

Central Office of P.W.
Sikh Ram
5 January 1860

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

W. B. Lieut Coll.
Dy Ch. Engr. S.C.

J. M. Bell Lieut Colonel
Chief Engineer

G. D. Shray

Public Road (New Work)

Abstract of Estimate No. of 185 /5

District Trichinopoly

Work Constructing a Lattice Bridge over the Iyar instead of restoring the old Masonry Bridge on the Road from Trichinopoly to Salem.

Quantities.	Description of Work.	Rate. Rs.	a	Amount. P.	Rupees.	Amount of each part Rupees.
C. Yards.						
104	Sinking Wells and filling with brick Jelly and Sand — Each	7	8	.	780	
912	Cft. Cut Stone in Chunam — Cft.	"	3	"	171	
12968	" Brick work in Chunam — do	"	1	6	1216	
699	Cys. Rough Stone work — Cy.	1	"	"	699	
3062	Cft. Teakwood wrought — Cft.	3	8	"	10719	
70	Maunds of Iron — Each	6	"	"	420	
5	Cwt of Iron Nails — Cwt	25	"	"	125	
2500	Sup. ft. Plastering with 1 Coat of Chunam — Square	1	8	"	37	
	Embankment & Bailing water	"	"	"	500	
	Removing the old rubbish &c.	"	"	"	100	
	Scaffolding	"	"	"	300	
	Extra Establishment & Sundries				1453	
				Total Rupees		16520

Central Office of P.W.
Dep.t of Engineers
5th January 1860

J. H. Lieut.t Colonel
Chief Engineer D.P.W.

P.W. Journal Sheet No. 122-123.
From the Chief Engr. & Secy.
Admin. No. C. No. 28.

P.W. Office 1860 Department
Received 26th January.

Dy. No. 20.

Dy. No.
Copy for Superintendence

Dy.
Executive Engineer

Estimate Examined & Recommended for Sanction
Rs. 16520 : 1 : 2 Calcutta 5th January 1860

Received 26th January 1860.
Dy. No. 8812

Dy. 3.
2 Copies
Estimate for sanction
Estimate amounting to Rupees 16520
for erecting a Lattice Bridge
over the Iyar instead of
repairing the old Masonry Bridge
on the Road from Trichinopoly to Salem

Rs 16520

C/o Vouy 1212

No 108.

23 P.W.D.

Proceedings of the Madras Government
Under date the 13th January 1860.
Read the following letters

From the Chief Engineer

Submitting for sanction Plan and estimate amounting to Rupees 15,230 for constructing a Lattice Bridge over the Kodoomoorty river in the District of Trichinopoly.

From — to — do —

Submitting for sanction estimate amounting to Rs. 16,520 for constructing a Lattice Bridge over the Vyar instead of restoring the old masonry bridge on the road from Trichinopoly to Dalavoy in the District of Trichinopoly.

(Here enters 5th January 1860 No. 8811)

(Here enters 5th January 1860 No. 8812)

With these letters the Ch. Engr. submits for sanction two estimates amounting together to Rs. 31,520/ thirty one thousand five hundred and twenty for constructing lattice bridges in lieu of the masonry ones destroyed by the late floods, over the

Will

[illegible] Kodoomoorty river in accordance with the Executive Engineer's proposal in 1858 — and over the Vyar [illegible] Dalavoy [illegible]

Enclosure

In a letter

From The Chief Engineer
P.W.D.

To The Secretary to Govt.
P.W.D.

Dated 5th January 1860
Received 10th January 1860

Rs. 20/60

No. 8812

Abstract Estimate for Constructing a Lattice Bridge over the Vyar instead of restoring the old Masonry Bridge on the Road from Trichinopoly to Dalavoy in the District of Trichinopoly
Amounting to Rupees 16520 — 0

[illegible] documents and Plans
mines on the high roads
from Trichinopoly to
Coimbatore & Salem
respectively -

I have &
their order Mar: 30th/59
N.743. the Govt. ex-
pressed their expecta-
tion of receiving with
these estimates full
explanation of the
comparative advantages
and cost of each mode
of structure. The
required reports has-
however
not been submitted
owing to ~~neglect on~~
~~the part~~ of the Civil
Officer ~~est~~ to appraise
having on

I have the honor to forward
herewith Estimate
Plans and Sections
C.E. & Executive
for the Trichinopoly
Division Work
Estimate Co. Recommended
by Exec Engr

H. M.

the Ch: Engr. of the Depart-
ment of Sept: but
Col. Bell states that
he is "decided by the
"opinion that the ad-
"vantage to be gained
"from the proposed plan,
"which gives greater
"length and height
"to the bays of the bridge,
"under it much to
"be preferred to one of
"brick arches".

On this assurance,
the Govt. sanction the
two estimates of Rs
15,000 and 16,520
respectively. They
shall, however, desire
to

to be furnished with the comparative statements in question & request that they be submitted without delay. at an early date

The expenditure now sanctioned will be defrayed, as supplies, from the repair funds allotted to the district for the current year.-

J.P.

To Copies to the Chief Engr
Secretary & Executive Offices

C10 1st Jany 1912

Public Works 1560 Dept.
Pro: of Govt. 20th January.

No. 108.

Pro: of the Madras Govt.
Dy 13th January 1860.

From the Chief Engineer 19th
November 1859 No. 2052 in

Sanctioning the Estimates of Rs 15,000 and 16,523 for constructing Cattle bridges over the Cudumurti and Aiar rivers on the high road from Trichinopoly to Coimbatur and Salem, respectively—

No. 46 at 48.