

MADRAS RECORD OFFICE

Government of Madras.

SECRETARY DEPARTMENT

G.O. No.

Press

Dated

18

Not to be folded or roughly handled

Fort Saint George, Public Works Consultation of 10th March 1857.

No. 31. Read the following letter from Colonel C. E. FABER, Chief Engineer; to J. D. BOURDILLON, Esq., Secretary to Government, dated 24th January 1857, No. 9719.

SIR,

1. With reference to Extract Minutes of Consultation No. 1974, dated 25th October 1856, returning a supplemental estimate of Rupees 19,900, prepared by Lieutenant Blagrave, District Engineer of Kurnool, for completing the bridge of 19 arches across the river Hindree, for the construction of which, a sum of Rupees 30,744, was entered in the Budget of 1855-56. I have now the honor to forward, in connexion with that work, original correspondence noted in the margin.*

2. A revised plan, and estimate for completing the bridge in question, with the increased width of roadway, ordered by the Right Honorable the Governor, (to be obtained by springing the arches from the salient points of the cutwaters, instead of from the end of the pier, agreeably to Colonel DeHavillands, practice in his Madras "bell mouthed" arches,) having been prepared in the Central office, it does not appear necessary to review particularly the whole of the correspondence that has passed between this Office, and Major Boileau, and Lieutenant Blagrave.

3. The letters calling for notice are, one from Major Boileau, No. 710, dated 10th November 1856, in support of the data, on which he framed the original estimate, and another No. 341, dated 15th December 1856, from Lieutenant Blagrave, furnishing detailed data for the rates on which the estimate now submitted, has been prepared.

4. Major Boileau states, that his data were determined on the spot, in communication with the Maramut Superintendent of the District, the only person at that time (1851) competent to give information on the subject.

5. It will be seen by the accompanying comparative statement, that the rate for stone work in chunam, as originally fixed by Major Boileau, is now admitted by Lieutenant Blagrave to be sufficient, and the latter Officer has also reduced his data for brick arch work, from annas 4 to annas 3 pice 7 $\frac{1}{2}$ cubic foot.

6. The cost of bricks is necessarily high, those of a good quality having to be brought from a distance of 8 $\frac{1}{2}$ or 10 miles. If made of the earth near Kurnool, South of the river, they would be cheaper by 12 annas, but not more, as the firewood has to be carted a long distance. If made north of Kurnool, the best procurable, they have to be carted across the Toombuddra, and on an average half across the Hindree, and probably could not be made at the same rate.

7. It is as well to observe, with reference to para. 3 of the order of Government before quoted, that Lieutenant Blagrave in his letter No. 303, dated 10th November 1856, gives the data on which he calculated that the brick arch work would cost 4 annas $\frac{1}{2}$ cubic feet, as allowed in his supplemental estimate, having taken for his guide, the quantity of materials allowed in "Foords" book for 38 cubic feet of arch work at Mercara, and allowed $\frac{1}{2}$ a man cooly, and 2 women extra, for carrying materials half across the river or an average distance of 200 yards.

8. Referring to para. 4, of the same order Lieutenant Blagrave observes that the data of 12 annas $\frac{1}{2}$ cubic feet, for stone when dressed for arches, was framed on the high rate of wages paid to the few stone cutters at that time procurable, but he states, the probability that such wages might be considerably reduced by an influx of numerous competitors. In which case, the actual cost of the stone would perhaps not exceed that of the brick arches.

9. Lieutenant Blagrave further points out, that the data given in "Foords" book for brick work at Bangalore, and Mercara, is 3 annas 6 pice $\frac{1}{2}$ cubic feet, at the former place, bricks costing Rupees 3 and at the latter Rupees 2-6 $\frac{1}{2}$ 1000, and in acknowledging that, the rates allowed by him may have been somewhat excessive, he gives as his reason the fear of his estimate proving insufficient, an error which he probably, though most mistakenly considered, on the best side. But there is such a tendency to work up to estimated rates, and even quantities, that economy is unattainable, if Lieutenant Blagrave's principles be generally acted upon after as-

Carried over Rupees

47057

Port Saint George, Public Works Consultation of 10th March 1857.

certaining the upset prices, the District Engineer should have felt confident in his own power to keep within that rate, without adding other contingent liabilities to diminish his own executive risk.

10. Under the circumstances explained both by Major Boileau, and Lieutenant Blagrave, it may justly be conceded, that they were both led into error, from not being able to obtain correct information in forming their data, no large works having hitherto been undertaken in the Kurnool District.

11. The rates now given in Lieutenant Blagrave's letter No. 311, dated 15th December 1856, may be considered fair, and I have given preference to the brick arches, as being more easy of construction than stone, in a District where skilled masons are not procurable.

12. With this explanation I trust, that Government will accord early sanction for the additional sum of Rupees (18,700) eighteen thousand, and seven hundred, being the difference between the sanctioned estimate of Rupees 30,744, and the revised estimate now submitted amounting to Rupees (49,414) forty-nine thousand, four hundred and forty-four.

No. 32. ORDER THEREON, No. 416; dated 4th March 1857.

In the Budget of 1855-56, a sum of Rupees 30,744 was sanctioned by the Government of India for a bridge across the river Hindree at Kurnool. On the 27th September last the Chief Engineer sent up a supplementary estimate for this work amounting to Rupees 19,900; the excess being attributable to the insufficiency of the rates allowed in the first estimate.

2. Before forwarding this estimate to Calcutta for sanction, the Government in Extract Minutes Consultation dated 25th October 1856 No. 1974, called for a full report as to the data on which the original estimate for the bridge was framed and also required explanation on some items in the supplemental estimate.

3. In reference to this order, the Chief Engineer now submits correspondence between himself and the local Officers on the subject of the rates allowed in the two estimates, and states that as a revised estimate for completing the bridge with "the increased width of roadway ordered by the Right Honorable the Governor" when on his late tour, has been prepared in the Central office, it does not appear necessary to review the whole correspondence. He however gives a summary of these documents in paras. 3 to 9 and observes that the local Officers who prepared the estimates were led into error from not being able to obtain correct information in forming their data; no large works having hitherto been undertaken in the Kurnool District.

4. Under the explanation submitted in the papers above referred to, the Right Honorable the Governor in Council sanctions the entry, in the Budget of 1857-58 in the Government office, of the additional sum of Rupees 18,700, being the difference between the sanctioned estimate of Rupees 30,744 and the revised estimate amounting to Rupees 49,444 now submitted for completing the bridge with an increased width of roadway from 18 to 22 feet.

(Signed) H. FORBES,
Acting Secretary to Government.

Public (roads) (New Work)

Abstract of Estimate No. of 1857/5

Road No.

District. Kurnool

Work. Constructing a Bridge of 19 Arches with roadway 22 feet broad across the River Hindree.

Quantities	Description of Work	Rate		Amount	Amount for each part
		R ^s	a ^d p.	Rupees	Rupees
C. Yds.					
197302	Left Stone in Churnam. p ^{er} ft	"	1	12331	
82000	" Arch work in Churnam.	"	3 7	18383	
10156	" Left stone in Churnam.	"	6	3809	
	4 Guard Stones	3	"	12	
	12 Masonry Pillasters complete	2	"	84	
2180	Left of Balustrades complete	1	"	2180	
	Excavating foundation			470	
	Centerings			1000	
	Baling			5000	
	Approaches to Bridge				
	road to Dr. Vranthen dams			1500	
	Jelly flooring between this with				
	1 foot of well laid rough				
	stone work			300	
	New stone facing on north side				
	for 340 yards			500	
	1 masonry for 24 months p ^{er} month	25	"	600	
	1 masonry for 24 months	7	"	160	
	1 Overseer for 12 months	60	"	720	
	Carried over Rupees			47057	

Quantities	Description of Work	Rate			Amount	Amount for each part
C. Mts.		Rs	a	p	Rupces	Rupces
	Brought over Rupces				47057	
	Scaffolding and Sundries at about ———— Cent	5	"	"	2387	
					49444	
	Deduct former Estimate				30744	
		Total Company's Rupces			18700	
		Eighteen thousand & seven hundred				
Central Office of P. W. Fort St. George 24 Aug. 1857		Mr. Major Colonel Chief Engineer &c.				
Note - The Cost of increasing the width of the Roadway from 18 to 22 feet is Rs 5000						

Enclosure
In a letter

To

The Chief Engineer
D. P. M.

To

The Secretary to the
D. P. M.

Dated. 24th May 1877
Received
P. M. 158/54
No. 17/14

Abstract Revised Estimate
of the expense of constructing
a Bridge of 19 arches with
roadway 22 feet broad across
the River Hindree in the
District of Kurnool. No.
No. for Rs 10700—

Comparative Statement of the Expense of Constructing a Bridge
of 19 Arches across the River Hindree at Kurnool. 18 feet roadway

Original Estimate
Submitted by
Capt. Boileau

Revised Estimate
Submitted by
Lieut. Blagrove.

203085	Cy of Stone in Chumam	1	12692 15 4	1	12692 15 4
65835	D. of Archwork in D.	2	10286 11 6	3	14744 5
10156	D. of Cut stone in Chumam	3	1992 4	6	3808 8
1	Guard Stones	3	12	6	12
	Excavating foundation		300		470
	Centerings		800		800
	Dairling		1000		5000
	Approaches to Bridge & Earthwork Dams		1200		1500
	Selly flooring & Rough stone work		250		300
	New stone facing on north side		450		500
	Ministry for 12 months	25	300	25	600
	1 Comissary for 12 months	7	84	7	108
	Scaffolding and Sundries		1463 15 10		2128 1
	1 Overseer for 12 months			60	720
					13413 12

Total Papers - 10743 12 8
Difference of Rs 12762

Particulars of Excess in Lieut. Blagrove's Estimate

Archwork	4487 10
Cut stone in Chumam	1004 4
Excavating foundation	170
Dairling	4000
Approaches to Bridge	300
Flooring with Selly &	50
New stone facing	50
Ministry's Pay	300
Commissary's Pay	84
Scaffolding & Sundries	661 2
Overseer's Pay	720

Total Papers - 12700

Central Office of P. M.
Fort St. George
24th January 1877

Received
by
Lieut. Blagrove

Memo on P.W. No 158 for Orders

Among other works in the

Budget of 1855/56 the Government of India

* 1st June 1855 para 24
and to para 10 July
No 321 para 7.

sanctioned a bridge over the Hindoo river
at Rurnool at an estimated cost of Rs 3070

This bridge and on the 27th September last the Chief
Engineer forwarded a Supplementary Estimate
for the work to the amount of Rs 19,900. The
Cause of this large additional outlay
was not any considerable unforeseen accident,
but merely the insufficiency of the rates
allowed in the first estimate.

Before forwarding this supplementary Estimate to Calcutta for
sanction, the Government called for a
full report from Major Poileau as to
the data on which his original estimate
for the Bridge was framed, and also required
explanations on some items in the Supplementary Estimate prepared by Lt.
Colonel Poileau.

The

Enclosure with your
Memo Chief Engineer
to the Secretary to Govt.
P.W.D.

Dated 24th
Dec 1855

P.W. 158/57

Supplementary Statement
of the expense of constructing
a bridge of 10 arches over
the river Hindoo at
Rurnool 18 feet roadway
According to Govt. to P.W.D.

3. The Chief Engineer in his present letter (para 2) states that a revised plan and estimate for completing the bridge have been prepared in his office "with the increased width of roadway ordered by the Right Honourable the Governor" according to a plan of Colonel De Mevilland. He therefore does not consider it necessary to review particularly the correspondence that has passed between himself and the local Officers on the subject of the rates allowed in the two estimates. Colonel Fisher however gives a summary of the matter in paras 3 to 9 of his letter, and observes in para 10, that both the Officers were "led into error from not being able to obtain correct information in forming their data, no large works having hitherto been undertaken in the Howrah District."

4. It will be seen that the rate of 4 Rs a cubic foot for arch brickwork objected to in para 3 of the order of the 25th Feb 1856 has been reduced to Annas 3 and price in the present estimates and the component parts of this latter rate are given in para 5 of Lieutenant Blagrove's

* This plan has not been sent; and from enquiry, it appears that it was forwarded to the District Engineer of Howrah with instructions for considering the arches of the Bridge.

* Major Bileau. Lt Blagrove.

Blagrove's letter of 15th December 1856. The proposition for substituting stones for brick for the arch work noticed in para 6 of the same order has been abandoned, and the Chief Engineer (para 11) now gives "preference to the brick arches, as being more easy of construction than stone, in a District where skilled masons are not procurable."

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20
26
132

5 The amount sanctioned by the Government of India for this work in the Budget of 1855/56 was Rupees 30,744 as above stated. The Chief Engineer now sends up a revised estimate for Rs 49,444 of which Rs 5,000 is the cost of increasing the width of the roadway from 18 to 22 feet. He asks sanction for the difference Rs 18,700.

Under Section II of the Rules communicated by the Government of India with their letter of the 1st August 1856 No 3605, this Government cannot authorize the additional outlay applied for. An application for sanction must therefore be made to the Government of India, if the Revised estimate now forwarded by the Chief Engineer receive the approval of the Government.

R. B.

It. 1. 16

Excerpt from the Minutes of Council
Dated 1st March 1837.

Read the following letter
from the Chief Engineer
Here Entered Lang / 5

In the Budget of 1835
a sum of Rupees 20,744 was
sanctioned by the Govt of India
for a Bridge across the River
Shinde at Humool. On the
27th September last the Chief
Engineer sent up a supple-
mentary Estimate for this
work amounting to Rupees
19,900, the ~~sum of~~ ^{excess} being
attributable to the
insufficiency of the ^{allowance} ~~allow~~ allowed in the first Esti-
mate.

2nd Before forwarding the
Estimate to Calcutta for
sanction the Govt in Hydrabad
of 25th October / 6 No 1974

Called

At
Lang

1/6

Recd Lang

called for a full report
as to the data on which
the original Estimate for
the Bridge was framed
and also requested explana-
tion on some items in the
Supplemental Estimate.

3 In reference to the
Order the Chief Engineer now
submits correspondence
between himself and
the local officers on the
subject of the rates allowed
in the two Estimates; and
states that as a revised
Estimate for completing
the Bridge with the increased
width of roadway ordered
by the R. W. H. H. for ^{see over in late hour,} "has
been prepared in the Central
office it does not appear
necessary to review the whole
correspondence. He however
gives a summary of these
correspondence documents in paras
3 to 9 and observes that
the local officers who
prepared

prepared the Estimates
were led into error from
not being able to obtain
correct information in forming
their data; no large works
having hitherto been under-
taken in the Windsor
District.

4 Under the explana-
tion submitted in the papers
above referred to the Right
Honorable the Govt in Council
sanctions the entry in the Budget
with the Govt Office of the additional
sum of Rs 18,700 being
the difference between the
sanctioned Estimate of Rs
30,714 & the revised Estimate
of Rs 49,414 now sub-
mitted for completing the Bridge
with the increased width
of roadway from 18 to 22 feet.

W. H.

9 Copies to the Chief Eng.
with 3 Chief Engrs. Chief Secy.

Anticipating the entry of an additional sum of Rs. 65,700 in the Budget of 1837-38, in the Government office, ^{for} completing the bridge over the river Hindree at then a narrow increased width of roadway from 12 to 22 feet.