GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers :—

From the Superintending Engineer, IV Circle, dated 3th February 1895, No. 57 W.
" " " " " 7th April " " 146 W.
" " " " " 19th June " " 241 W.

Office-note from the Examiner, Public Works Accounts, dated Madras, 14th August 1895, No. 2820 D./A.

[Your office-note No. 2414 C., dated 31st July 1895.]

Returned with the following remarks.

2. The outlay has been checked and found correct, but the supplemental estimate of Rs. 1,030 sanctioned in G.O., No. 2524 W., dated 11th October 1894, has not been included in the completion report.

3. The bonus of Rs. 200 may be sanctioned by Government, if the work was special and outside the ordinary course of the officer's duties and it did not interfere with the discharge of those duties—*vide* Civil Service Regulations article 89 (*a*).

Note by the Chief Engineer, Public Works Department.

Submitted to Government with the recommendation that the Examiner may be authorised to pass the excess over the sanctioned estimate.

2. I regret that I cannot share the Superintending Engineer's view that this large excess "was unavoidable and could not readily have been foreseen;" that it was unavoidable, in so far as the whole expenditure incurred was really necessary may be admitted, but the necessity should certainly have been foreseen.

3. The nature of the soil in which the abutments had to be founded was known, as well as the character of the river, and the experience gained in connection with the abandoned girder bridge should have enabled a much more accurate estimate to have been framed than the one actually submitted.

4. I do not consider that the details of construction are of sufficient importance to justify the printing of Mr. Lewis' notes; there was nothing special or extraordinary about the work, and the only point of professional importance brought out during its construction is one that was perfectly well known before, namely, that in a wire rope bridge the saving in the cost of the suspension ropes effected by increasing the deflection beyond about $\frac{1}{12}$ of the span is more than compensated by the inconvenience arising from the difficulty of attaching the roadway carriers to a steeply sloping rope.

5. The good service rendered by Overseers Ramachendra Sastri and Gilbert is satisfactory, but I am unable to support the recommendation for a bonus to the latter.

Such grants should only be made under wholly exceptional circumstances, such as do not exist in this case; the work done by Mr. Gilbert was simply that for which he was engaged and paid.

OOTACAMUND,
30th August 1895.
(Signed) J. PENNYCUICK, Colonel, R.E.,
Chief Engineer, P.W.D.

ORDER—dated 7th September 1895, No. 2228 W., Public Works.

The Examiner is authorised to admit the outlay of Rs. 12,476 incurred in excess of the estimates of Rs. 43,530 for constructing the suspension bridge across the Kullar river sanctioned in G.Os. Nos. 2548 W. and 2524 W., dated 7th October 1893 and 11th October 1894, respectively.

2. His Excellency the Governor in Council concurs in the remarks of the Chief Engineer recorded above.

(True Extract.)

Under Secy. to Govt., P.W.D.

To the Superintending Engineer, IV Circle, with enclosures.
" Examiner, Public Works Accounts.

Exd. Shaik Karim.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1895} Madras.

PUBLIC WORKS.

Dated September, 7th.

Recd. *Encl.*

G.O., 7th Sept. 1895, No. 2228 W.

SEPTEMBER.

Suspension bridge across the Kullar river

The Examiner authorised, with remarks, to admit the outlay of Rs. 12,476 incurred in excess of the estimate of Rs. 43,530 for constructing the —.

No. 57/W

Supg. Engineer's office, 4 Circle,
Coimbatore, 6th February 1895.

From,

J. Hannan, Esq.,
Supg. Engineer, 4 Circle,

To,

The Chief Engineer,
P. W. Department.

Enclosures.
1 Completion Report.
1 Notes by Mr. Lewis.
1 Photo.

Sir,

I have the honor to submit herewith the Completion Certificate for the 200 feet suspension Bridge over the Kullar River. The excess over the sanctioned Estimate of Rs 42,500 is Rs ~~13,246~~ 13,471 or about ~~25~~ 31 per cent. I have gone very carefully into the matter and am satisfied the excesses were unavoidable and such as could not have been readily foreseen. The principal excesses are under baling, excavating foundations, additional depth to foundation of wing walls, additional masonry in anchoring tunnels to give them stability, the sanctioned design being insufficient in this respect.

2. At my request Mr. Lewis has drawn up a note on this work which I submit and which is of professional interest and might if you think fit be printed. It

It explains the difficulties encountered in laying the foundations and successfully surmounted. There are also some points in connection with the versed sine of the suspension cables which he notes and which should be attended to in similar works. A photo of the Bridge is also enclosed.

3. This Bridge has been carried out entirely under Mr. Lewis' personal supervision and is I consider a most creditable piece of work.

4. I have to bring to your notice the good services rendered in connection with this work by Overseer Ramachendra Sastri. I have in the Recommendation Roll now being submitted recommended him for special promotion.

5. In my letter No. 311 W, dated 29th July 1894 X I have also asked that a pecuniary remuneration of Rs 200 might be granted to Mr. Overseer Gilbert who supervised the erection of the iron work.

x Replied with 764 D
11-8-94

I have the honor to be,
Sir
Your most obedt. servant

Supg. Engineer, 4 Circle.

From

The Supg. Engineer,
4th Circle

Dated 6th
Despd 7th } February 1895

No 57/W.

Enclos: 4 (1 photo)

Suspension Bridge over the Kullar river.

Forwards a Completion Report for the Construction of explaining for the excess which was unavoidable.

2524 W
11.10.94

P. W. CURI. o. 968

Enclos: 4 (1 photo)

Recd: 9.2.95

[illegible] from C

No 2414 C d/ 31.7.95

For Examination

12/2/95

13.II.95

No. 1342

EXECUTIVE ENGINEER'S OFFICE,
COIMBATORE DIVISION,
COIMBATORE, 4th April 1895.

EXAMINER
2 AUG 1895
P. W. ACCOUNTS

FROM
W. C. Lewis Esq
EXECUTIVE ENGINEER,
COIMBATORE DIVISION.

TO
THE SUPERINTENDING ENGINEER,
FOURTH CIRCLE, COIMBATORE.

SIR,

Enclosure. 1

In continuation of this office No 281 of 24th January 1895, I have the honor to forward herewith a revised Completion Report for constructing a new Suspension bridge of 200 feet span and 10 feet roadway across the Kullar river, and to inform you that its submission is rendered necessary as the General Superintendent P. W. Workshops has, by an oversight, omitted to debit Rs 35 until March last, for making some bolts and washers in his workshops.

I have the honor to be
Sir
Your most obedt. servant

Executive Engineer

E. 3

P. W. CURRENT No. ~~2890~~

6260

P. W. D.

Kallar Bridge

From

The Executive Engineer,
Coimbatore Division.

To

The Supg. Engineer,
Fourth Circle,
Coimbatore.

SUPG. ENGINEER'S OFFICE P.W.D.
No. 2700
5 APR. 95
Enclo:
FOURTH CIRCLE.

Dated 4th
Despatched 4th } April 1895.
Received

No. 1342

ENCLOSURES 1

SUBJECT.

Kullar Suspension bridge

Forwards revised completion report for — with explanation for its necessity

No. 146/W d/7-4-95

Submitted to the Chief Engineer P.W.D. with reference to this Office No. 57W d/ 6th February 1895

J Hammer

Supg. Engr. 4th Circle

Enclo:
1 Comp: Report.

Encls 1

Recd: 10. 4. 95

No. 2414 C. dated 31st July 1895.

To C

2/8

For favour of verification of the completion report.

2. Please also report whether the proposal to grant a bonus of Rs: 200 to Mr: Gilbert may be sanctioned by this Govt: under Article 89 (a) and (b) Civil Service Regulations.

C.M.

24/7/95

D.W.

O.L.S. 254
R 31/7

P. W. D.

SUPG. ENGINEER'S OFFICE P.W.D.
No. 435
14 JUN. 95
Enclo:
FOURTH CIRCLE

AUG 1895
W. ACCOUNTS

From

The Executive Engineer,
Coimbatore Division.

To

The Supg. Engineer,
Fourth Circle,
Coimbatore.

to No. 9 68/T sent to d/12/12/95

Dated 12th
Despatched 13th } June 1895.
Received

No. 2303

ENCLOSURES —

SUBJECT.

Kullar Suspension Bridge

Letter from Mr. H. W. Gilbert enquiring what orders have been passed by Government about the bonus for his services rendered in connection with the — Forwarded for recommending the same

On the back

No. 241/W d/ 19-6-95

Submitted to the Chief Engineer P.W.D. adverting to his Memorandum No. 744 D d/ 11th August 1894 with a recommendation that Mr. Gilbert may be allowed a bonus of Rs 200 in recognition of his special services rendered by him in the erection of the Suspension bridge at Kallar.

J Hammer

Supg: Engineer
4th Circle

Enclo: 1.

No. 744 D d/ 11-8-94
989 D d/ 8-9-94
3118 W d/ 5-12-94
2524 W d/ 11-10-94
2298 W d/ 11-9-94
2211 W d/ 5-9-94
1905 W d/ 1-8-94
2548 W d/ 7-10-93
2345 W d/ 11-9-93
761 D d/ 28-8-93
675 D d/ 9-8-93
1185 W d/ 1-5-93
1396 W d/ 11-6-95
668 W d/ 19-3-95
305-6 W d/ 7-2-95
106 C d/ 12-1-95
2414 C d/ 31-7-95

P. W. CURRENT No. ~~4773~~

2-1

6[illegible]/95

Acc: 21-6-95

2278W

OLS. 254
R 31/7

KEEP-WITH CURRENT No.

dated 189 .

E. No. 27.
500—2-11-94.

GOVT. OF MADRAS. } 1895. { P. W. DEPT.

EXAMINER, P. W. ACCOUNTS.

Madras, 14th August 1895.

OFFICE NOTE No. 2820 $\frac{9}{A}$

To

W.

Your office note No. 2414 C. dated 31st. July 1895.

Returned with the following remarks:-

2. The outlay has been checked and found correct, but the supplemental estimate of Rs. 1030 sanctioned in G.O. No. 2524 W. dated 11th. October 1894 has not been included in the Completion Report.

3. The bonus of Rs. 200 may be sanctioned by Government, if the work was special and outside the ordinary course of the officers duties and it did not interfere with the discharge of those duties - vide C.S.R. article 89(a).

14/8

C.

12/8

P. W. CURRENT No. 6246

Endst 4
Accs: 15.8.95

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

[illegible]

From the Suptg: Engineer IV Circle, No 57 W d/6 February 1895.
— Do ——— do ——— No 146 W d/ 7th april 1895
— Do ——— do ——— No 241 W d/ 19th June 1895
Office Note from the Examiner P.W. Accounts } No 2820 O/A d/ 14 august 1895.

The Examiner, P.W. Accounts, is authorised to admit the outlay of Rs 12,476 incurred in excess of the estimate of Rs 43,530 for constructing a suspension bridge across the Kullar river, sanctioned in G.O. Nos 2548 W and 2524 W dated 7th october 1893 and 11 october 1894 respectively.

2. Attention is drawn to para 7 of the Examiner's office note recorded above.

3. His Excellency the Governor in Council accepts + the Superintending Engineer's statement that the excesses were

+ Note for W. Please see note on G.O. 1905 W d/ 1-8-94 + 2211 W d/ 5-9-94.
Ca

(40—1,000—21-4-94.)

the Ootacamund Municipal Council, and the Govern-ment considers that his services may fittingly be rewarded by the grant of an honorarium. The amount proposed is within the powers of sanction of this Govt: under art: 89 (b) C. S. Regulations, but as the service rendered cannot be said to have been outside the ordinary course, Mr Gilberts duties, the case does not fall under art 89 (a) and it is therefore submitted for the sanction of the Government of India

I have &c

W

CWNS 28/8 95

Cm

HB.

Completion Report
Kullar Suspension Bridge

DW/W

P. W. DEPARTMENT.

No. 2228 W of 7th September 1895

READ the following:—

Letter from the S.E. IV Circle No. 59 W d/6 Feby: 1895.
Note by the Chief Engineer P.W.D. d/30 Aug: "

FOR ORDERS.

W

20.8

CWNS 30/8 95

43—500-6-3-94.

E.1

~~#773~~

His Excellency the Governor

FOR ORDERS.

Completion Report Kullar Suspension Bridge

05 342

P. W. Dept

No. 2228 W.D. 7th September 1895

Letter from the Supt's Engineer IV Circle No. 59 W.D. 6th February 1895.

E.P.

Note by the Chief Engineer
P. W. Dept:—

Submitted to Government with the recommendation that the Examiner may be authorised to pass the excess over the sanctioned estimate.

2. I regret that I cannot share the Superintending Engineer's view that this large excess "was unavoidable and could not readily have been foreseen"; that it was unavoidable, in so far as the whole expenditure incurred was really necessary, may be admitted, but the necessity should certainly have been foreseen.

I quite agree with the C.E.
W
3 Sep

3. The nature of the soil in which the abutments had to be founded was known, as well as the character of the river, and the experience gained in connection with the abandoned girder bridge, should have enabled a much more accurate estimate to have been framed than the one actually submitted.

4. I do not consider that the details of construction are of sufficient importance to justify the printing of Mr Lewis' notes; there was nothing special or extraordinary about the work, and the only point of professional importance brought out during its construction is one that was perfectly well known before, namely that in a wire rope bridge the saving in the cost of the suspension ropes effected by increasing the deflection beyond about $\frac{1}{12}$ of the span is more than compensated by the inconvenience arising from the difficulty of attaching the roadway carriers to a steeply sloping rope.

5. The good service rendered by Overseers Ramachendra Sastri and Gilbert is satisfactory, but I am unable to support the recommendation for a bonus to the latter. Such grants should only be made

under wholly exceptional circumstances, such as do not exist in this case; the work done by Mr. Gilbert was simply that for which he was engaged and paid.

EW.

Ootacamund } 30 Aug: 1895 }.

CWBS
30/8/95

A

7 From orders

BTR
Civil works

Public Works Department.

No. 2228 W dy 7 September 1895

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

From the Supdg Engr IV Circle (H.E. No. 57 W d/ 6 Febry: 1895)
—— do —— do —— (" " 146 W d/ 7 apl ")
—— do —— do —— (" " 241 W d/ 19 June ")
Office note from the Er P.W.A. (" " 2820 D/A d/ 14 Aug ")
Note by the Chief Engr. P.W.D. (" " d/ 30 " ")

Print

HP

The Examiner is authorised to admit the outlay of Rs 12,476 incurred in excess of the estimates of Rs 43,530 for constructing the suspension bridge across the Kullar river sanctioned in G.O.s Nos 2548 W and 2524 W dated 7th October '93 and 11th October '94 respectively.

2. His Excellency the Governor in Council concurs in the remarks

(40—1,000—21-4-94.)

of the Chief Engineer
recorded above.

[illegible] 4/9/95

49

T. [illegible]
B [illegible]

DESPATCHED
13 SEP. 96

Supdg Engr. IV Circle with enclosures (6)
Examiner P.W. Accts.

5/

6246

Govt. of 18 ~~9~~/5 Madras.

PUBLIC WORKS.

Dated 9/9/95

Recd.

Encl.

G.O., 7. Sept. 1895, No. 2228W.

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the Kallar river.

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The Examiner authorised
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INDEXED.

W.W.G