

(1) Number of pages _____

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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	7241	Press Mis.
226-228		
Dated	10-2-	1864.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
10th March 1864.*

Read the following letters:—

No. 236. From Lieutenant-Colonel G. W. WALKER, R. E., Superintending Engineer, 7th Division, to Colonel C. A. ORR, R. E., Secretary to Government, Department Public Works, dated Siarady, 17th February 1864, No. 335.

SIR,

1. Under date the 16th December last, a report was made to me by the Sub-Engineer in charge of Cannanore Range that the Kakatodoo Bridge on Trunk Road No. 4 had given way just as it was being completed. I have only lately received the complete Plan and Estimate for its re-construction, at a cost of Rupees 3,270, which I have now the honor to submit, reporting at the same time the very peculiar circumstances attending the fall of the bridge.

2. It appears to have been originally planned for 2 arches of 35 feet each, springing from a height of 6 feet, and with a rise of one-fourth the span. The original structure was given on contract in October 1859; the Contractor having died, his security completed the arches in May 1861. One of them fell in the following month, was re-built by the same man, and again fell the following season. Afterwards it was nearly completed by Overseer Soobrayah at the security's expense, but not being finished before the monsoon, was carried away by the first flood. The Contractor being dead and his security ruined, an estimate of Rupees 1,920 for the substitution of a timber platform for the ruined arch was sanctioned by Government in February 1863, and carried out this season. But while the road-way was being filled in over the branches of the first built arch, it broke down with the weight.

3. The arches were of brick, and of that lately fallen, Mr. Bailey, having first reported his fear lest its exposure for three monsoons had rendered its material incapable of bearing the weight, subsequently states that it could never have been properly burnt for he had no difficulty in crushing the bricks to pieces in his hands. But Captain Vertue, Mr. Bailey's successor, reports the same of the laterite used in the piers and abutments, attributing the failure of the work entirely to the badness of the materials used.

4. The most singular circumstance connected with the structure is that the pier which stood the thrust of an arch of such span and rise, without counterpoise, should after its destruction have given way and fallen, not outwards as having been affected by such thrust, but inwards as having been kept by it alone, upright on defective foundations. Vide Mr. Bailey's sketch herewith submitted. The subsidence of the pier is said not to have followed instantly, but gradually, on the fall of the arch.

5. The ultimate cause of these repeated failures is the unhealthiness of the locality at the foot of the Periambody Ghât, but that hindrance will not affect the construction of the platform bridge now designed so much as of masonry arches. The structure must be re-placed, and the sooner the better; Captain Vertue, therefore, after providing the means of temporarily crossing the Nulla, has commenced making bricks immediately. If good laterite is to be got near at hand he might safely use it for such low abutments and pier, and so light a superstructure. Funds are available from the allotment of Rupees 6,800 for the Irrity Todoo, which will suffice for as much as can be done to both works this season.

No. 237. From L. BOWRING, Esq., Commissioner for the Affairs of Coorg, to the Secretary to Government, Public Works Department, Fort Saint George, dated Camp Belloor, 22nd February 1864, No. 5.

SIR,

I have the honor to enclose for the information of His Excellency the Governor in Council, and for such orders as he may deem fit to issue, the report regarding the present condition of the Periambody Ghât, furnished by the Officiating Chief Engineer in Mysore in his letter No. 2,486, dated 16th February 1864.

Proceedings of the Madras Government, Public Works Department,
10th March 1864.

From Major R. H. SANKEY, R. E., Officiating Chief Engineer in Mysore, to the Secretary
to the Commissioner for the Affairs of Coorg, dated Bangalore, 16th February 1864,
No. 2,486.

SIR,
The Assistant Engineer in charge of Coorg having brought to notice that very great inconvenience is experienced by the traffic of the Periambody Ghât from breaks in the line on the Malabar site at the Kakatodoo river, and two small nullahs between it and Mowkotah, I have the honor to report the matter for the Commissioner's information should he consider it desirable to move the Government of Madras to hasten on the works now in progress at these points.

(Copy.)

(Signed) L. BOWRING,
Commissioner.

No. 238.

ORDER THEREON, 10th March 1864, No. 724.

1. With the foregoing letter, the Superintending Engineer, 7th Division, submits an Estimate amounting to Rupees 3,270, for the re-construction of the bridge over the Kakatodoo river, at the foot of the Periambody Ghât, in the Malabar District.
2. Under the circumstances detailed by Colonel Walker, the Governor in Council sanctions the Estimate for immediate execution; the funds required during the current year to be provided out of the allotment of Rupees 6,800 for the bridge over the Irrity Todoo river. It is to be hoped that special care will be taken in the selection of good materials for the pier and the abutments.
3. Colonel Walker's attention is called to the two other breaks in the line, reported by Major Sankey to exist between the Kakatodoo river and Mowkotah; and he is requested to take immediate steps to restore the communications along this important road.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 7th Division.
" Controller and Auditor of Public Works Accounts.
" Accountant General.

Exd. S. T. Augustin.

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N^o 5.

Coorg Commissioner's Office

From
The Commissioner for the
Affairs of Coorg.

To
The Secretary to Government
Public Works Department
Fort Saint George
Camp Belloor 22nd February 1864.

Sir,
I have the honor to enclose for the
information of His Excellency the Governor in
Council, and for such orders as he may deem
fit to issue, the report regarding the present
condition of the Periambody Ghât furnished
by the Officiating Chief Engineer in Mysore
in his letter No. 2486 dated 15th February 1864.

I have the honor to be
Sir,
Your Most Obedient Servant
L. Bowring

Commissioner.

Camp Belloor
22nd February 1864.

Desd. 24/2/64.

N^o 24 86.

Mysore Public Works Department
Central Office
Current Branch

From

Major R. H. Sankey R. E.
Officiating Chief Engineer in Mysore

To

The Secretary to the Commissioner
for the Affairs of Coorg
Dated the 16th February 1864.

Sir,

The Assistant Engineer in Charge of Coorg
having brought to notice that very great inconve-
= nience is experienced by the traffic of the Perriam-
= boddy Ghaut from breaks in the line on the
Malabar side at the taking Proda River and
two small nullahs between it and Mowkotah,
I have the honor to report the matter for the
Commissioner's information should he consider
it desirable to move the Government of Madras
to hasten on the works now in progress at these
points.

Bangalore
16th February 1864

I have the honor to be,
/Signed/ R. H. Sankey Major R. E.
Officiating Chief Engineer in Mysore

/Copy/
L. Boring
Commissioner

10227

24th March 1864 A. 5th

24th March 1864 - 10th March 1864.

10227
R. H. Sankey
Officiating Chief Engineer in Mysore
for the Affairs of Coorg
Dated 22nd February
1864
Public Works Department
Mysore
16th February 1864.

Supg. Engineers Office "B"
Madras 17 February 1861

From
Lieut. Col. G. W. Walker R. E.
Superintending Engineer "B"
Col. C. A. Orr R. E.
Secretary to Government "B"
Madras.

Sir,
Under date the 16 December last
a report was made to me by the Sub Eng.
in charge of Camanore Range that the
Kakatodur Bridge on Orunk Road R. 4
had given away just as it was being com-
pleted. I have only lately received the
complete Plan & Estimates for its recons-
truction, at a cost of Rupees 3,270, which I
have now the honor to submit; reporting at
the same time the very peculiar circum-
stances attending the fall of the Bridge -
2. It appears to have been originally
planned for 2 Arches of 35 feet each, spring-
ing from a height of 6 feet, & with a rise of
one fourth the span. The original struc-
ture was given on Contract in October 1859;
the Contractor having died, his security
completed the Arches in May 1861. One of them
fell in the following month, was rebuilt
by the same man, and again fell the following
season. Afterwards it was nearly completed
by Overseer Soobrayah at the security's ex-
-pense,

N^o 335

elo. 3.

Enclosed is a letter from the Commission-
er for the Madras District to the Secretary
to Government, & further to the
Hon. Secy. of the Govt. of Madras
dated 22nd February 1861.

From
The Secretary to the Commission-
er for the Madras District
to the Secretary to the Govt. of Madras

Dated 16 February 1861.

477904/17

It is to be understood that the Commission-
er for the Madras District is not to be
held responsible for the loss of the
bridge, but only for the small sum of
Rs. 1000 which he has advanced for the
reconstruction of the bridge.

spence, but not being finished before the monsoon, was carried away by the first flood. The Contractor being dead and his security ruined, an Estimate of Rs. 1920 for the substitution of a timber platform for the ruined Arch was sanctioned by Government in February 1863, and carried out this season. But while the roadway was being filled in over the haunches of the first built Arch, it broke down as with the weight.

3. The Arches were of brick, and of that lately fallen Mr. Bailey, having first reported his fear lest its exposure for 3 monsoons had rendered its materials incapable of bearing the weight, subsequently states that it could never have been properly burnt for he had no difficulty in crushing the bricks to pieces in his hands. But Captain Tertius, Mr. Bailey's successor, reports the cause of the Laterite used in the Piers & Abutments attributing the failure of the work entirely to the badness of the materials used.

4. The most singular circumstance connected with the structure is that the pier which stood the thrust of an Arch of such span & rise, without counterpoise, should after its destruction have given way & fallen; not outwards as having been affected by such thrust, but inwards as having been kept by it alone, upright on defective foundations. Vide Mr.

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Mr. Bailey's sketch herewith submitted. The subsidence of the Pier is said not to have followed instantly, but gradually, on the fall of the Arch.

5. The ultimate cause of these repeated failures is the unhealthiness of the locality at the foot of the Perambury Ghaut, but that hindrance will not affect the construction of the platform bridge now designed so much as of masonry Arches. The structure must be replaced, & the sooner the better; Captain Tertius, therefore, after providing the means of temporary crossing by the bullock, has commenced making bricks immediately. If good Laterite is to be got near at hand he might safely use it for such low abutments and Piers, and so light a superstructure. Funds are available from the allotment of Rs. 6,800 for the Erraty Todoo, which will suffice for as much as can be done to both works this season.

I have the honor to be

Sir,
Your Most Obedt. Servant

Wm. A. L. Col. R. C.
Superintending Engr. 7th Div.

2404 1/24 - 10th March 1864

