

(1) Number of pages 6(2) Date of repair 26-6-42

(3) Initials of the Referencer \_\_\_\_\_

# MADRAS RECORD OFFICE.

## Government of Madras.

*Public Works* DEPARTMENT.

|          |       |               |
|----------|-------|---------------|
| G.O. No. | 633   | Press<br>Mis. |
| 601-602. |       |               |
| Dated    | 21-3- | 1862.         |

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,  
31st March 1862.*

No. 601. Read the following Endorsement of the Acting Deputy Chief Engineer, Northern Circle, dated Chepauk, 11th March 1862, No. 202/N. 45.

Read the following letter from Captain JOHN MULLINS, District Engineer, Nellore, to Lieutenant-Colonel J. OUCHTERLONY, Acting Deputy Chief Engineer, Northern Circle, dated Nellore, 17th February 1862, No. 311 :—

SIR,

1. With reference to paragraph 2 of my letter No. 1,992 of the 30th October 1861, reporting that a portion of the arch of a newly erected bridge of one arch of thirty feet span on the Trunk Road No. 6, near Ulavapadu had fallen, I have the honor to inform you that on the 3rd instant I inspected this bridge, and I found that, as already reported, about two yards in width of the arch had fallen, and that for about another yard there are cracks extending for some distance on either side of the crown parallel to the face of the arch.

2. On referring to my letter it will be seen that the first report stated that the bridge was struck by lightning. The Collector, however, who directed some enquiries to be made, reports that depositions were given to the effect that there was no thunderstorm there on the night of the accident to the bridge. On the other hand, I am informed that the Telegraph Department report a severe storm and the Assistant Superintendent of Police at Ongole told me that he was out at Vullur about fifteen miles north of the site of the bridge, at the time, and that a very severe storm occurred.

3. The bridge was completed except the plastering and the turn channel not having been closed or the protecting bund removed, no water passed under the bridge. The abutments have not settled, the western half of the arch is in perfect form, there are no transverse cracks in the arch any where, and the only sign of settlement, which I could discover after a minute examination, was a slight crack in the face wall nearly directly over the face of one abutment. The only deviations from the plan are that the backing of the arch is not carried quite so high up the extrados as was allowed in the plan, and that the arch decreases in thickness from the springing to the crown gradually, instead of abruptly by a step as shown in the plan, the latter change is beneficial rather than otherwise, and the former could have had no influence on the stability of the arch. The bricks used though not so good as are now required to be prepared for all masonry works, are fully equal to those which have heretofore been made use of, and they were inspected\* and approved by the late Acting District Engineer in June 1861.

\* Vide Inspection Report, dated 4th July 1861.

4. It can hardly be supposed that one-half of the arch of a bridge should be so badly built as to tumble down and the other so well constructed as to retain exactly the correct form of the arch, without exhibiting any signs of settlement. The position and direction of the cracks in the outer part of the arch still standing are not such as would show themselves from a subsidence of any portion of the curve, or its supports, lines of rupture being always transverse to the face of an arch, and singular therefore as such an occurrence must be considered, I am disposed to think that the arch was destroyed by the storm, which, notwithstanding the information obtained by the Collector, I have no doubt did occur as reported.

5. There is nothing whatever the matter with the western half of the arch and I have accordingly instructed the Assistant Overseer in charge of the range to take down the remainder of the damaged portion of the eastern half, and to rebuild it, taking care that his materials are very good, and that the mortar joints are as thin as possible, so that there may be no difference between the surfaces of the intrados of the two half arches, when the centring is removed. The cost will be debited to the original estimate and this report referred to in explanation of the additional cost.

*Proceedings of the Madras Government, Public Works Department,  
31st March 1862.*

1 Letter from District Engineer Nel-  
lore, No. 311, dated 17th February  
1862.

1. Submitted to Government in continuation of Endorse-  
ment No. 6,955, dated 8th November 1861.

2. There seems little room to doubt that the damage  
caused to the Kaviedu Bridge on Trunk Road No. 6 was caused  
by lightning.

(Signed.) J. OUCHTERLONY, Lieut.-Colonel,  
*Acting Deputy Chief Engineer, Northern Circle.*

No. 602.

ORDER THEREON, 31st March 1862, No. 633.

1. From the particulars given in the District Engineer's letter the Government are dis-  
posed to consider that the accident is attributable to the cause assigned.

2. The Government approve of the measures taken to rebuild the arch, but the District  
Engineer should forward an estimate of the additional expense likely to be incurred consequent  
upon the above accident for the sanction of Government.

(Signed) W. H. HORSLEY, Lieut.-Colonel,  
*Secretary to Government.*

P. W. D.

No. 633

*Proceedings of the Madras Government  
Under date the 31<sup>st</sup> March 1862*

*Read the following letter  
from the Deputy Chief Engineer  
N. Circle.*

*Submitting letter from  
the District Engineer, Nellore, re-  
porting the result of his inspec- (Here enter 11<sup>th</sup> March 1862 at 202.  
tion of the damaged bridge)  
over the Harijoddi supplying  
channel on Trunk Road at 6.*

*From the particulars  
given in the District Engineer's  
letter the Govt. are disposed to  
consider that the accident  
is attributable to the cause  
assigned.*

*The Govt. approve of  
the measures taken to re-  
build the arch, but the District Eng.  
should forward an estimate  
of the additional expense  
likely*

*Wd*

*Wd*

*Wd*

likely to be incurred consequent upon the above accident for the sanction of Govt.

L. J. J. J.

13 Copies

To

The Deputy Chief Engineer N. C. Cole.  
Recd 2<sup>d</sup> April

Regarding the damaged  
Bridges over the Karivadu  
Channel in Villore.

Public Works 1862 Dept.  
Pro: of Govt. for March

No 6303  
Pro: of the M. Govt.  
D/31<sup>st</sup> March/12

Agreeing with the  
District Engineer Villore  
as to the Cause of the  
Damage to the Karivadu  
Bridge on Trunk Road  
N.C.

No 601 & 602