

(1) Number of pages_____

(2) Date of repair_____

(3) Initials of the Referencer_____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENTG.O. No.
B.P. No.

3530

Press
Mis.

Dated

23-12-1956

Not to be folded or roughly handled

No. 557. Read the following endorsement of the Consulting Engineer for Railways,
dated Madras, 19th December 1876, No. 628 :—

Note on Cheyair Embankment.

THE Chief Engineer for Irrigation has been misinformed apparently as to the effect of the flood of 1874 on the southern approach to the Cheyair bridge; the railway bank here was badly breached, 200 yards of line were completely obliterated, and communication was interrupted for nineteen days.

See Proceedings of Madras Government, 12th February 1875, No. 395.

2. In my opinion, owing to the levels of the country here, this can only be prevented by the construction of a river embankment, either from the south wing of the bridge to the nearest point of the neighbouring hill, or, as suggested by the Chief Engineer for Irrigation, from the rocky promontory $1\frac{1}{2}$ miles above the railway, parallel to the river bank. On the former alignment the embankment would be less costly, more secure and, as effective, so far as railway interests are concerned; but on the latter alignment, the clearing of the river channels would be saved, the villages would be protected from flood, and the land from being buried in sand; it would entail far more work, and therefore provide employment for more people (if this be an object).

3. An embankment on the north bank would secure the railway bank from injury and certainly be of value to the bridge as tending to control the direction of the river currents. In my opinion every bridge over a river with a shifting sandy bed should be thus led up to; and, if employment is needed for the poorer classes, this locality has the advantage of "abundance of water," "good supervision," and "propinquity to the railway," and the work is of a character fitted for "relief work," the soil being sandy and easily worked, and the distance to be carried great, thus affording employment for many women and children. When I first suggested the work, I did so under the belief that the great object of Government at the present time was to "hut," "feed," and "keep in good health" some thousands of people who would otherwise die, and, if possible, to get some return for the assistance afforded, and I proposed to Mr. West that he should build huts for 4,000 people in eight hamlets, each containing five sheds, $150' \times 9'$, with wells in the river-bed, latrines, grain stores, &c., the arrangements being for foreign labor entirely.

4. I estimated that he would require—

1 Cashkeeper.
8 Maistries, 1 per hamlet.
8 Timekeepers.
32 Peons.
2 Inspectors.
2 Apothecaries.
16 Scavengers.

A Military or Police guard.
40 Sheds.
8 Grain Stores.
1,000 Mamooties.
500 Crow-bars.
16,000 Baskets.
16 Pot-wells.

*Proceedings of the Madras Government, Public Works Department,
23rd December 1876. No. 3,530.*

5. From what I learnt when with the Collector on the spot I should not expect to find that remunerative work from a revenue or purely pecuniary point of view could be found for 4,000 people for five months. The clearing of the channels, the removal of river sand from the fields, and the injury sustained by flood all fall on the villagers; but there can be no question as to the general utility of the work as affecting the well-being of the villagers. It appears to me the work may be regarded from the same point of view as "clearing away prickly-pear" or deepening village wells.

6. I would recommend that the Chief Engineer, Madras Railway, be invited to undertake the south embankment of this river above the bridge at once, the Government supplying the funds on condition that the laborers be lodged and fed. That the District Engineer of Cuddapah be asked to send in the estimates and surveys for the north bank for consideration, and that the Chief Engineer of the Madras Railway be also invited to submit proposals for similarly embanking on like terms the Paupugnee and Naggery or other rivers, with a view to improve the hydraulic conditions of the railway bridges.

7. I venture to urge that the present opportunity be taken for increasing the earthwork section of such tanks and river channels as affect by their breaching the railway bridges and banks, in order that all such works may be placed beyond the possibility of failure. I would instance the Munnoor supply channel, the Munnoor Kitchamah tank, and the Zemindar tank, on which abuts the "Naggery" river embankment lately made by the Railway Company. An order to the District Officers (for instance, by increasing the usual height given to a bund above maximum water-level and by making the rear slope at least two to one) would I believe lead to money being well laid out, and afford employment near the houses of the suffering poor of a kind they would fully appreciate.

130 Inches.
131 "
60 "

MADRAS,
19th December 1876.

(Signed) C. J. SMITH, Major, R.E.,
Dy. Consq. Engr. for Railways.

SUBMITTED for the information of Government, with reference to their Proceedings, No. 3,349, dated 11th December 1876.

(Signed) C. J. SMITH, Major, R.E.,
for Consulting Engineer for Railways.

No. 558.

ORDER THEREON, 23rd December 1876, No. 3,530.

IRRIGATION, No. 44.

ORDERED to be recorded, with reference to G.O., No. 3,504, of 20th December 1876.

2. The Consulting Engineer for Railways will request the Railway Authorities to send in the proposals alluded to in

*Proceedings of the Madras Government, Public Works Department,
23rd December 1876. No. 3,530.*

paragraph 6 of Major Smith's report. The attention of the Chief Engineer for Irrigation is called to paragraph 7.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

To the Consulting Engineer for Railways.
" District Engineer, Cuddapah.
" Chief Engineer for Irrigation.
" Revenue Department.
" Financial Department.

Exd. E. C. Shunker.
Spare Copies

Now

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1874 on the Southern approach to the

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In my opinion, owing

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tion of a river embankment; either from

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see Pro. of March
Foot 12 Feb 4/75
No 395

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An embankment on
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 and I proposed to Mr. West that he should
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- 1 Cash Keeper
- 8 Maistries
- 8 Lane Keepers
- 32 Peons
- 2 Inspectors
- 2 Apothecaries
- 16 Scavengers
- a military or police guard

- 20 sheds
- Grain stores
- 1000 Manohies
- 500 Crow bars
- 16,000 Bachelors
- 16 Pot wells

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I would recommend that the Chief Engineer, Madras Rail. may be invited to undertake the earth embankment of this river above the bridge at once. the Government supplying the funds on condition that the labourers be lodged and fed. That the District Engineer of Coimbatore be asked to send in the estimates and survey for the north bank for consideration, and that the Chief Engineer of the Madras Railway be also invited to submit proposals for

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Officers to raise the margin of safety
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 2 to 1 / would I believe lead to money
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 suffering poor of a kind they would
 fully appreciate.

P.W.D.
 2011076

NR-24

Ch. Smith Esq. R.E.

By Secy. Engr. for Railways

19 Dec 1876

557

No. 628

SUBMITTED FOR THE information
 with references to their Proceedings
 No 3349 dated 11th December 1876

Ch. Smith Esq.

Consulting Engineer's Office,
 Malacca

19th Dec

1876. For Cons. Engineer for India

To

The Secretary to Government.

Public Works Department

Fort St. George

G.O. 12-2-75 No 336.
 " 24-5-76 - 1300.
 " 20-7-76 - 1840.
 " 11-12-76 - 3349.
 " 13-12-76 - 3400.
 " 12-2-75 -
 " 20-12-76 - 3504.

RAILWAY DEPARTMENT

P.W.D.
1876

From The Consulting Engineer
for Railways,

To The Secretary to Government,
P. W. Department,
Fort St. George.

Dated 19 December 1876.

Received

No. 628.

ENCLOSURES 1/4

Submitting note
 by the Engineer
 upon the authority of
 the bank and the
 the Chief Engineer

Cir 20-12-76, 22-12-76

No 3530 Public Works Department

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the

Read the following:—

23/12/76

From

The Consulting Engineer
for Railways

(N.B.) No 628 of 19 Dec 1876

Ordered to be record-
 ed with reference to
 G.O. No 3504 of 20 Dec
 1876.

The Consulting En-
 gineer for Railways will
 request the Railway authori-
 ties to send in the pro-
 posals alluded to in para
 6 of Major Smith's report.
 The attention of the
 Chief Engineer for
 Irrigation

Irrigation is called
to para. 7.

Amv.

92/4

Govt. of 1876

PUBLIC WORKS

To

The Cons. Eng.

Dated

Issued

Recd.

Encl.

G. O. 23rd Dec. 1876, No. 3520

Hes. 5

Chegar river submits Memorandum
Endorsement by the
Consulting Eng. for
Railways submitting
a Note by the S. Y. Com.
Eng. on - recorded with
remarks -

Sub in B. P.

10537/58

Filed in *20-12-76*