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MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	28-32	Press
B.P. No.		Mis.
Dated	21 - 7 -	4876 195

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
21st September 1876. No 2,532.*

No 363 Read the following letter from Major C J SMITH, R E, Officiating Consulting Engineer for Railways, to Major-General G. W. WALKER, R E, Secretary to Government, Public Works Department, dated Madras, 9th September 1876, No 450 —

I HAVE the honor to submit the following report upon the present condition of the works in progress upon the section of the South Indian Railway between Tindivanam and Cuddalore, which has been inspected by me within the last few days in company with Mr. White, the Acting Chief Engineer

2 It is probable that the bridge of two 30 feet arches at Tindivanam in the 76th mile will be ready to pass an engine early next week, by which time the gap in the permanent-way from 80½ miles to 82 miles will have been closed and the engine be able to run to the Thondyar bridge in the 55th mile

3 This bridge will consist of two spans of 100 feet, the masonry pier and abutments being founded on brick cylinders 12 feet in external diameter. One of these cylinders is already sunk to a depth of 20 feet, but it is proposed to carry it deeper until some more stable stratum than has yet been met with is found, the other five cylinders are sunk to a depth of about 10 feet each; the smaller wells to carry the wings are not yet commenced.

The Acting Chief Engineer proposes to erect a small temporary bridge, on wells, spanning the deep bed only of this river, and to carry the traffic over this, as at the Palar, pending the completion of the permanent structure. The character of the stream is in favor of this arrangement

4. The next bridge of any importance is that over the Gungee river in the 86th mile, this is now all but complete and the girders most of them are erected

There remain to be finished in this district but eight small works aggregating 362 cubic yards of masonry, for which material is in hand.

5 There will then be but the gap in the permanent-way of about 5 miles to complete the line as far as Villapooram, the 99th mile

The gap is being regularly diminished to the extent of about a mile a week, but there would be no difficulty in closing up more quickly were it required. It is probable that the line will be ready for an engine to run through from the north during October should there be any object in opening temporary communication over the Thondyar river (85th mile) during the monsoon month

6 Engines have already been running for some weeks from Cuddalore to Villapooram, but there yet remains a large quantity of masonry to be built, in fact over 2,000 cubic yards, to complete the bridges which it is proposed to finish before opening the line. The work, however, is so thoroughly "in hand" and the arrangements in every respect are so complete that there is every reason to hope that, in spite of the monsoon, the task will be accomplished, and all masonry works, except the Pooniar and Guddelum bridges, be completed before the end of the year

7. The Pooniar bridge, seventeen 100 feet spans in the 105th mile, has made good progress, and only 17½ lineal feet remain to be sunk of the eight unfinished cylinders

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21st September 1876. No. 2,532

8 The cylinders of the Guddelum bridge of ten 100 feet spans in the 124th mile have occupied much time and were difficult to sink, but the foundations are progressing towards completion.

9. The station buildings at Vickravandy, Villapooram, Panrooty, and Cuddalore are all commenced, and if the supply of wood-work can be maintained for roofing, station, machinery, &c, I see no reason why the line should not be opened for public traffic to Cuddalore, over the "beds" of the Thondyar, Pooniar and Guddelum rivers, early in the coming year, and the bridges be completed in time for the south-west monsoon rains in the following June.

10 I venture to ask attention to the fact that the portion of this line from the 102nd to the 110th mile, even with the seventeen 100 feet spans of the Pooniar bridge, will certainly be closed to traffic and terribly injured in any river season approaching in severity that of 1874. The masonry works have been so well founded and floored that we may hope to find them all standing when the flood subsides, but several thousand feet in length of bank were washed away in 1874, and would probably be again.

11. I would urge that the regulation of the Pooniar river is no longer a question of mere "Irrigation improvement," the cost to Government of a "break" in the traffic on a line of railway may be estimated from the experience gained on the Madras Railway in 1874, when the falling off in the receipts amounted to 2½ lakhs of Rupees and the repairs were estimated at 3½ lakhs. Although this latter sum covers the cost of some bridge repairs which, in the present instance, we might hope to be spared, the far greater danger of the main river deserting its present bed and the bridge built for it, foreshadows an expenditure and an inconvenience to trade which it is difficult to estimate.

12 With all deference I would submit that the investigation of a project like the regulation of a small portion of this river, inconsiderable as the task really is, can only be dealt with satisfactorily by the employment for a short time of a full staff of skilled surveyors, and that the interests now involved are sufficiently important to warrant some special measures for the collection of the facts that will enable the District Engineer to deal with the project. Years will elapse if the work be at once taken in hand before the line of railway can be secured against accident, and each year will certainly find the land more valuable and the injury by floods both to private property and the Railway more costly to the State.

No 364. ORDER THEREON, 21st September 1876, No. 2,532.

RAILWAY, No 33

ORDERED to be recorded.

2. It is observed that steps have already been taken for carrying out the preliminary investigations necessary for considering the works required for the regulation of the Pooniar river. In G O, No. 190, dated 23rd January 1875, an estimate amounting to Rupees 1,100 for surveys and levels in connection with the embanking of the river as proposed by the Chief Engineer for Irrigation was sanctioned. This sanction was increased in G O, No 3,248, dated 13th November 1875, by Rupees 360; and

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21st September 1876 No. 2,532

instructions were issued for fixing all bench-mark stones, and plotting on the survey the levels which had been taken by the Railway Levels and sections of the Korayaur branch of the river were also ordered to be obtained The Chief Engineer for Irrigation will report the present position of the project

(True Extract.)

Colonel,

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

To the Consulting Engineer for Railways
" Chief Engineer for Irrigation.

Exd S T Austin.
Spare Copies

RAILWAY DEPARTMENT.

CONSULTING ENGINEER'S OFFICE,
Madras, 9th Sept 1876.

No. 1150

From

MAJOR C. J. SMITH, R. E.,

Offg Consulting Engineer for Railways,

To

MAJOR-GENERAL G. W. WALKER, R. E.,

Secretary to Government,

Public Works Department,

Fort Saint George.

SIR,

I have the honour to
submit the following report upon the
present condition of the works in pro-
gress upon the section of the South
Indian Railway between Tindivanam
and Cuddalore which has been in-
spected by me within the last few
days in company with Mr. White the
Acting Chief Engineer.

2

It is probable that the
bridge

bridge of two 30 feet arches at Chindavaram in the 76th mile will be ready to pass in engine early next week, by which time the gap in the permanent way from ^{miles} 80 ^{miles} 72 to 82 will have been closed and the engine be able to run to the Shondyar bridge in the 85th mile.

3 This bridge will consist of two spans of 100 feet, the masonry pier and abutments being founded on brick cylinders 12 feet in external diameter. One of these cylinders is already sunk to a depth of 20 feet, but it is proposed to carry it deeper until some more stable stratum,

stratum, than has yet been met with, is found; the other five cylinders are sunk to a depth of about 10 feet each - the smaller wells to carry the wings are not yet commenced.

The Acting Chief Engineer proposes to erect a small temporary bridge, on wells, spanning the deep bed only of this river; and to carry the traffic over this, as at the Palav, pending the completion of the permanent structure. The character of the stream is in favour of this arrangement.

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river in the 86th mile this is now
all but complete and the girders
most of them are erected.

There remain to be
finished in this district but eight
small works aggregating 362 cubic
yards of masonry for which material
is in hand.

There will then be
but the gap in the permanent way
of about 5 miles to complete the line
as far as Vellapooram the 99th mile.

The gap is being
regularly diminished to the extent of
about 10 miles a week, but there
would be no difficulty in closing
up

up more quickly, were it required.
It is probable that the line will
be ready for an engine to run through
from the north during October -
should there be any object in opening
temporary communication over the
Thondiyar river / 85th mile / during
the monsoon months.

Engines have already
been running for some weeks from
Cuddalore to Vellapooram - but
there yet remains a large quantity
of masonry to be built, in fact over
2000 cubic yards, to complete the
bridges which it is proposed to
finish before opening the line. The

work

and the bridges he completed in time for the Rains. next monsoon rains in the following June.

10 I venture to attract attention to the fact that the portion of the line from the 102nd to the 110th mile, even with the entrance 100 feet spans of the Panav bridge will certainly be closed to traffic and terribly injured in any river season approaching in severity that of 1874. The masonry works have been so well founded and floored that we may hope to find them all standing when the flood subsides, but

but several thousand feet in length of bank were washed away in 1874 and would probably be again.

11. I would urge that the question of the Panav river is no longer a question of mere "Irrigation improvement", the cost to Government of a "break" in the traffic on a line of railway may be estimated from the experience gained on the Madras Railway in 1874 when the falling off in the receipts amounted to 2½ lacs of Rupees and the repairs were estimated at 3½ lacs. Although this latter sum covers the cost of some bridge repairs which in the present

present instance we might hope to be spared, the far greater danger of the main river deserting its present bed and the bridge built for it, foreshadows an expenditure and an inconvenience to trade which it is difficult to estimate.

12. With all deference I would submit that the investigation of a project like the regulation of a small portion of this river, inconsiderable as the task really is, can only be dealt with satisfactorily by the employment for a short time of a full staff of skilled surveyors and that the interests now involved are sufficiently,

sufficiently important to warrant some special measures for the collection of the facts that will enable the district Engineer to deal with the project. Years will elapse, if the work be at once taken in hand, before the line of railway can be secured against accident, and each year will certainly find the land more valuable and the injury by floods both to private property and the Railway more costly to the State.

I have the honor to be

Sir

Yours most obed^t Serv^t

Ch. Smith Major R.E.

Offg. Secy for Railways

P.W.D.
11 SEP 76
No. 6570

Q. 1st June 1876 nos
1365 & 1366
23 Jan'y /76 - No 190
13 March - 719 A
21 May - 1415 A
28 July - 2198
7 Sept - 2528
13 Nov - 3248
1 June /76 - 1366

ci-16-g-76 Mad-9-76
Supd to City II-9-76

No 363

Referring to the
the present position
of the water in the
upper the water in the
S. 1st, between the
main line of the river
at the point where the
new dam is to be built.
By the way

Dated 9. 10. 1876
Received

No. 450

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

To

From
The Consulting Engineer
for Railways,

RAILWAY DEPARTMENT.

17

No. 2532 Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 21st Sept 1876.
Read the following. -

From
The Cons. Engineer
for Railways } (No. 450 d/g to Sept 1876)

Ordered to be recorded
It is observed that
steps have already been
taken for carrying out the
preliminary investigations
necessary for the regulation
of the Periyar River. In
L. S. No 190 dated 23rd Jan-
uary 1875 an estimate a-
mounting to Rs 1100 for
survey and levels in
connection with the em-
banking of the river as
proposed by the Chief's
Engineer for Irrigation
was sanctioned. This

Auction was increased.
 in G. O. No. 3248 dated 13th November 1875 by
 Rs 360; and instructions
 were issued for fixing
 all bench marks, and
 plotting on the
 survey the lands which
 had been taken in the
 Railway. Lands and
 sections of the river
 branch of the river
 also ordered to be
 -ained. The Chief
 Engineer for Irrigation
 will report the present
 position of the project.

65702

Govt. of 1876 Madras.
 PUBLIC WORKS.

To Mr. Commr. Eng. for R.

Dated

Issued

Recd

Encl

G. O. 21st Sept 1876, No. 2582

Nos. 363/64

Smith Indian Ry.

Passing orders on the
 report of the Offr. Commr. for
 on the present condition
 the works in progress
 for the section of the line
 between Tindivanam &
 Adulne -

No. 363/64

9-10-76
 9-10-76

Xth 1876