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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	<i>1071</i>	Press
	<i>07 08</i>	Mis.
Dated	<i>17/11/37</i>	18

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
17th April 1871.*

No. 207. Read the following letter from the Consulting Engineer for the Madras Irrigation and Canal Company, to the Secretary to Government, Public Works Department, dated Madras, 16th March 1871, No. 138:—

I HAVE the honour to acknowledge the Order* of Government communicating the Proceedings of the Board of Revenue regarding the insufficiency of the bridges

* No. 655, 6th March 1871.

provided for the villages of Byup Coodoor on the main canal, and calling on me to report on the necessity for improving the means of crossing the canal, and on the expediency of widening the third-class bridges to adapt them for cart traffic.

2. In reply, I beg to state that the village of Byup Coodoor is situated between the 90th and 100th mile on the main canal, about midway between two cart bridges of the second class, which are four miles apart, and, as the only crossing provided for the immediate accommodation of the village is a third-class bridge for foot passengers and cattle, it follows, as represented by the Collector, that as the village is on the west of the canal, and the ryots cultivate 850 acres immediately opposite on the east side, besides 1,000 acres in other villages also on the east side, carts with agricultural produce must make a detour of about two miles to get a crossing, and must travel four miles extra in each trip between the village and the fields.

3. When the position of crossings at this part of the canal was determined, the Consulting Engineer reported as follows:—

“At the end of the 90th or beginning of the 100th mile a third-class bridge

“will be required for Byup Coodoor to

G. O., No. 3,586, 17th November 1868.

“enable the villagers to reach the bund

“of their tank and those fields which lie to the eastward of the canal;” and, in reporting on the revised estimates for the 7th Section, he mentioned that some additional crossings would be necessary, “and these have now, I think, been provided on a sufficiently liberal scale, and the convenience of all the villages situated near the canal has been considered.” From these remarks I would infer that the Consulting Engineer was not aware how large a breadth of cultivable land, belonging to the ryots of Byup Coodoor, was severed from the village by the construction of the canal, and I am of opinion that the figures given by the Collector clearly show that sufficient bridge accommodation has not been provided at this particular place.

4. With respect to adapting third-class bridges for cart traffic, I do not think there would be any practicable difficulty, though the expense may be serious in making easy approaches, but I have referred the matter to the Chief Engineer and will report more fully hereafter.

5. In regard to the question on whom the cost of making the improvements should fall, it seems to me that, if the villagers' reasonable demands are not complied with, their redress will be in a civil action against the Irrigation Company, and I apprehend that the Company's plea of having supplied all crossings, which the Government required up to the present time, would not be admitted as any justification. The Government, having abstained from insisting on more crossings than appeared necessary at first, cannot absolve the Company from responsibilities that afterwards appear to properly attach to them, and the sentiments of the Govern-

*Proceedings of the Madras Government, Public Works Department,
17th April 1871.*

ment on the general question have been too clearly recorded to leave any doubt what was considered fair towards the people. I here quote from some of the earlier orders of Government:—

“ Captain Randall will, therefore, be requested to inform the Chief Engineer, through the Agent, that where the District Engineer (Department Public Works) states that bridges are necessary they *must* be built.

“ The Government do not agree with the Consulting Engineer in his opinion that bridges are to be restricted to *traffic* roads; when the canal interrupts the communication between villages of any size or importance, a bridge or tunnel must be provided.

“ The rule that when the District Engineer states that bridges are necessary they *must* be built by the Irrigation and Canal Company will still hold good, and be acted upon as regards the rest of the canal.”

Paragraph 9.—“ When at Kurnool, the attention of the President was called to the deficiency in the means of crossing the Irrigation Company’s Canal, only one bridge having been provided below the aqueduct, although another was urgently required. It was also pointed out to His Excellency that below the anicut and between it and Kurnool no steps had been taken to secure to the ryots the means of crossing the canal, so that, if the water were allowed to enter the canal, the space between it and the river would be cut off from all communication with the rest of the country except by way of the passage under the aqueduct at Kurnool. * * *

“ The Consulting Engineer will understand that water cannot be allowed to enter the canal until satisfactory means have been provided for crossing it and enabling the ryots to move without trouble or difficulty to and from their fields and their villages.”

6. Since that order was issued, many bridges have been added in the portion of canal more immediately referred to, but chiefly in lieu of ferries which had been intended, and the average number has been increased in the sections later sanctioned; but the principle kept in view appears to have been affording ready access between villages, and I fear the wants and rights of villagers, who have been severed from large holdings, have not been sufficiently attended to.

G. O., No. 2,897, 5th October 1863. Paragraph 7.—Consulting Engineer’s report.
“ It is certainly to be regretted that the opinion of the Collector was not taken at first on a subject so intimately affecting the interests of the district, but it appears that the Consulting Engineer, whose expressed opinion was that a crossing should be provided at every mile of the canal (which would, I think, have been an ample provision), was directed to obtain the views of the District Engineer on the subject, and thence was probably led to suppose that the question of the sufficiency of means of communication was to be judged of by that Officer as was that of the non-interference of the canal with existing works of irrigation.”

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17th April 1871.*

7. In May 1864 the Government took into consideration the whole question of the crossings proposed for the upper seven sections of the main canal, being a length of 112 miles, and approved of a total number of eighty, being bridges, ferries, aqueducts, tunnels, and locks, and which the Collector of Kurnool is reported to have considered sufficient, provided bridges were in some cases substituted for ferries. This was done, and from time to time other changes were made, chiefly in the substitution of bridges for ferries and tunnels until the sanction which had been for—

Bridges	...	...	...	10
Ferries	...	...	...	22
Aqueducts	...	...	...	4
Culverts or tunnels	...	...	...	39
Locks	...	...	...	5
Total	...	...	...	80

G. O., No. 511, 20th Feb. 1871. became, as shown in a recent report—

Bridges	...	...	...	36
Ferries	...	...	...	1
Aqueducts	...	...	...	4
Culverts or tunnels	...	...	...	14
Locks, included under bridges	...	...	...	—
Total	...	...	...	55

8. It will thus be seen that, while in one respect a great improvement has been made in the nature of the crossings, the number has been greatly reduced, and, more than that, third-class bridges for foot passengers and cattle have taken the place of tunnels, which, having been intended to be of the uniform width of eight feet, were, I presume, to accommodate cart traffic, those bridges have also, in some cases, taken the place of ferries, and while in some respects preferable, are bad substitutes for rafts that would carry loaded carts which all such means on a canal ought to be adapted for.

9. It must be borne in mind also, in considering this question, that if under-communications, whether called tunnels, aqueducts, or culverts, have proved unsuitable for cart traffic, and bridges from the narrow roadways and steep approaches are equally unfit for wheeled vehicles, they in no way meet the wants of ryots who have been cut off from their fields, and that their demands for passages for their carts with agricultural produce cannot be silenced by pointing to foot bridges.

10. I forward, herewith, a list of crossings proposed by the Chief Engineer, referred to in paragraph 7 above, dated Kurnool, 4th March 1864, and am clearly of opinion that a passage for carts should be provided by the Company for the village of Byup Coodoor, either by improving the existing third-class bridge, or by supplying a ferry raft for carts.

No. 208. ORDER THEREON, 17th April 1871, No. 1,071.

IRRIGATION, No. 11.

THE Government will defer the consideration of these papers until they have before them the further report which the Consulting Engineer for the Madras Irrigation and Canal Company

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17th April 1871.

promises in paragraph 4 to submit on the question of adapting the third-class bridges
on the Company's Canal for cart traffic.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Consulting Engineer for the Madras Irrigation and Canal Company.
Revenue Department.

Est. E. C. Shunker.

1st, 2nd and 3rd Sections.
Passages.
a chain — 4 — 16th — Bridge.
24 — do — 3rd — do — Ferry.
77 — do — 3rd — do — Ferry.
0 — do — 6th — do — Ferry.
66 — do — 6th — do — do —
30 — do — 9th — do — 10 feet Tunnel.
34 — do — 12th — do — Ferry.
30 — do — 14 — do — do —
76 — do — 14 — do — do —
77 — do — 15 — do — do —
20 — do — 18 — do — Aqueduct 13 Arches 60 feet, road way under
first Arch.
20 — do — 19 — do — Bridge.
0 — do — 20 — do — Ferry.
38 — do — 21 — do — 40 feet Tunnel.
36 — do — 23 — do — Aqueduct 3 Arches 35 feet 2000 way under one
(Proposed not sanctioned) creek.
74 — do — 30 — do — (Ferry)
77 — do — 31 — do — do —
74 — do — 33 — do — 15 feet Tunnel under Canal.
(Proposed not sanctioned)
40 — do — 35 — do — Aqueduct of 4 Arches of 25 feet, flooring of
cut with an a higher level and digg minimum
cabin except in high floods (Proposed
not sanctioned)
78 — do — 38 — do — Ferry —
78 — do — 40 — do — do —
8 — do — 41 — do — do —

Removal
to K. March 1864.
M. Cotton
Chief Engineer
4/2/64

4th Nelson Passage.
Passages

2 Chain of 45 fathoms — Bridge No 1.

4 — 6 — 46 — 6 — 8 fathoms — No 1

4 — 6 — 48 — 6 — 6 — 6 — No 2

4 — 6 — 50 — 6 — 6 — 6 — No 3

70 — 6 — 52 — 6 — Ferry No 4.

30 — 6 — 53 — 6 — 8 fathoms — No 4.

18 — 6 — 58 — 6 — Ferry No 2.

55 — 6 — 59 — 6 — 8 fathoms — No 5.

50 — 6 — 60 — 6 — Bridge No 2.

Bureau of
26 February

Pennock
4 March 1864

Alton
Chief Engineer
J. B.

104 108 112

104 108 112

7th Section Papages

Chain of 92'	Do	Bridge N ^o 1 over back water
57 Chain of 92'	Do	Tunnel N ^o 3 (8 feet)
48 Do of 93'	Do	Bridge N ^o 2
5' Do of 94'	Do	Tunnel N ^o 5 (8 feet)
78 Do of 95'	Do	Ferry N ^o 1
8" Do of 99"	Do	Tunnel N ^o 11 (2 vents 20 ft)
9 Do of Do	Do	Ferry N ^o 2
43 Do of Do	Do	Tunnel N ^o 12 (8 feet)
9 Do of 101	Do	Do N ^o 13 (8 feet)
17 Do of Do	Do	Do N ^o 16 (8 feet)
49 Do of Do	Do	Do N ^o 17 (8 feet)
81 Do of Do	Do	Do N ^o 18 (8 feet)
47 Do of 102'	Do	Ferry N ^o 3
37 Do of 103'	Do	Tunnel N ^o 20 (8 feet)
15 Do of 104'	Do	Do N ^o 19 (8 feet)
11 Do of 105'	Do	Do N ^o 3 (3 vents of 8 ft)
21 Do of 109'	Do	Do N ^o 4 (2 vents of 8 ft)
40 Do of 109'	Do	Bridge N ^o 1
19 Do of 108'	Do	Tunnel N ^o 5 (8 feet)
44 Do of 109'	Do	Do N ^o 8 (8 feet)
75 Do of 110'	Do	Do N ^o 7 (3 vents of 8 ft)
19 Do of 112'	Do	Bridge N ^o 2

Tunnel
 4 C. Marsh 1864.
 W. Cotton
 Chief Engineer

Canal Engineering Office
Tiruchirappalli Canal Company
Madras, 16 March 71.

No 130

Sir,

Colonel J. G. P. P. P.
Commanding Officer
The Secretary to Government
Public Works Department.

No 655-6 March 71. I have the honor to acknowledge the
Order of Government communicating the Pro-
ceedings of the Board of Revenue regarding the
insufficiency of the bridges provided for the vil-
lage of Ryup Coodoor on the Main Canal, and call-
ing on me to report on the necessity for improving
the means of crossing the Canal, and on the ex-
pediency of widening the 3rd Class Bridges to
adapt them for cart traffic.

2. In reply, I beg to state that the village
of Ryup Coodoor is situated between the 90th
and 100th mile on the Main Canal, about midway
between two cart bridges of the 2nd class which
are four miles apart, and, as the only crossing pro-
vided for the immediate accommodation of the
village is a 3rd class bridge for foot passengers
and cattle, it follows, as represented by the Collector,
that

that as the village is on the west of the Canal, and the ryots cultivate 350 acres immediately opposite on the east side, besides a thousand acres in other villages also on the east side, carts with agricultural produce must make a detour of about two miles to get a crossing, and must travel four miles extra in each trip between the village and the fields.

3. When the position of crossings at this part of the Canal was determined the Consulting Engineer reported as follows:-

"At the end of the 99th or beginning of the 100th mile a 3rd class bridge will be required for Byup Coodoor to enable the villagers to reach the bank of their tank and those fields which lie to the eastward of the Canal."

and in reporting on the revised estimates for the 1st Section he mentioned, that some additional crossings would be necessary, and these have now I think been provided on a sufficiently liberal scale, and the convenience of all the villages situated near the Canal has been considered.

From these remarks I would infer that the Consulting Engineer was not aware how large a tract of cultivable land belonging to the ryots Byup Coodoor was severed from the village by construction of the Canal, and I am of opinion

that the figures given by the Collector clearly show that sufficient bridge accommodation has not been provided at this particular place. With respect to adapting 3rd class bridges for cart traffic, I do not think there would be any practicable difficulty though the expense may be serious in making easy approaches, but I have referred the matter to the Chief Engineer and will report more fully hereafter.

5. In regard to the question on whom the cost of making the improvements should fall, it seems to me that if the villagers reasonable demands are not complied with, their redress will be in a civil action against the Irrigation Company, and I apprehend that the Company's plea of having supplied all crossings which the Government required up to the present time, would not be admitted as any justification. The Government having abstained from insisting on more crossings than appeared necessary at first, cannot absolve the Company from responsibility. It is that afterwards appear & properly attach to them, and the sentiments of the Government on the general question have been too clearly recorded to leave any doubt what was considered fair towards the people. I here quote from some of

"Captain Rundall will therefore be requested G.O. N^o 1758-20
Sept/61.
"to inform the Chief Engineer through the Agent
"that where the District Engineer J.D. W. J. states
"that bridges are necessary they must be built."

"The Government do not agree with the
"Consulting Engineer in his opinion that bridges
"are to be restricted to traffic roads; when
"the Canal interrupts the communication be-
"tween villages of any size or importance, a
"bridge or tunnel must be provided."

"The rule that when the District Engineer G.O. N^o 1834-5
Oct/61.
"states that bridges are necessary, they must be
"built by the Irrigation and Canal Company, will
"still hold good, and he acts upon as regards
"the rest of the Canal."

Para. 9 "When at Turnool, the attention of the G.O. N^o 2668-15
Sept/63.
"President was called to the deficiency in the means
"of crossing the Irrigation Company's Canal, only
"one bridge having been provided below the Aqueduct
"but although another was urgently required -
"It was also pointed out to His Excellency, that
"below the Aqueduct and between it and Turnool
"no steps had been taken to secure to the ryots
"the means of crossing the Canal, so that if the
"water were allowed to enter the Canal, the space
"between it and the river would be cut off from
"all communication with the rest of the country
"except by way of the passage under the Aqueduct
at

at Turnool + + + + +
"The Consulting Engineer will understand
"that water cannot be allowed to enter the Canal
"until satisfactory means have been provided
"for crossing it, and enabling the ryots to move
"without trouble or difficulty to and from
"their fields and their villages."

b. Since that order was issued many bridges
in the portion of Canal more immediately referred to
have been added, but chiefly in form of ferries
which had been intended, and the average number
has been increased in the Sections later sanction-
ed; but the principle kept in view appears to have
been affording ready access between villages, and
I fear the wants and rights of villagers, who have
been severed from large holdings, have not been suf-
ficiently attended to.

G.O. N^o 2897-5 Oct/63. Para: Consulting Engineer's report.
"It is certainly to be regretted that the
"opinion of the Collector was not taken at
"first on a subject so intimately affecting
"the interests of the District, but it appears
"that the Consulting Engineer, whose expressed
"opinion was that a crossing should be provided
"at every mile of the Canal, (which would I think
"have been an ample provision) was directed to
"obtain the views of the District Engineer on the
"subject, and thence was probably led to suppose
"that the question of the sufficiency of means of
communication



P. M. D.

Proceedings of the Madras Government
Read the following
From,
The Comptroller, M. S. & C. Co. (H. E. & Co. 138 of 16th March 71)

The Government
will defer the consideration
of these papers until they
have before them the further
report which the Com-
-puting Engineer for the
Madras Irrigation and
Canal Company prom-
-ises in para. 4 to submit
on the question of adapting
the third class bridges on
the Company's Canal
for cart traffic.

38
The Comptroller, M. S. & C. Co.
Revenue Department
Desp. 18/4/71

For: 5. 24/1/71 1043-44
16. 24/1/71 216-317
5. 24/1/71 107-208
27. 24/1/71 654-605
17. 24/1/71 314-315
20. 24/1/71 437-458
64. 24/1/71 120-129

Public Works 1871
From the Comptroller, M. S. & C. Co.
The Comptroller, M. S. & C. Co.
The Secretary, S. D. & C. Co.

Recd. 16th March 71
Recd. 27th March 71

Encs. 5

Reports on the necessity
for improving the means of
crossing the Canal on the
extending of widening the 3rd
class bridges & about 1st class
for and traffic as called on
by Comptroller, M. S. & C. Co.
Desp. 18/4/71 -
Desp. 18/4/71 -

1871

6. 25 March 1871 3rd

11/07/88

Govt of 1871 Madras.

PUBLIC WORKS.

The Consulting Engineer,
for the Madras
Irrigation & Canal
Company

Date

Recd.

17th April 1871

Nos. 207 & 208

Madras I. & C. Canal. The con-
sideration of the papers on the
subject of the sufficiency
or otherwise of the means ^{provided} for
cropping the Madras I. & C.
Canal deferred with re-
marks.