M.R.O. 1—77,006—8-6-37.

(1) Number of pages_____

(2) Date of repair_____

(3) Initials of the Referencer_____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works **DEPARTMENT.**

G.O. No. 3948 Press / Mis.

274-275

Dated 14 - 12 - 1866.

Not to be folded or roughly handled

1d.

Proceedings of the Madras Government, Public Works Department, 14th December 1866.

No. 274. Read the following letter from the Consulting Engineer for Irrigation and Canal Company, to the Secretary to Government, Department Public Works, dated Madras, 3rd December 1866, No. 98:—

1. I have the honor, with reference to Proceedings Madras Government, No. 3,474, of the 31st October last, to report that the Chief Engineer Madras Irrigation and Canal Company has brought to my notice a very serious error in the calculations appended to the Sections given in paragraph 11 of my letter of the 1st idem, No. 70, arising from the omission to multiply the areas of the sections in square feet by 3 before reduction to cubic yards.

2. The cost of the Sections should therefore be—

No. I.

				RS.	A.	P.
Removing bank and revetment,	54	cubic yards	at 2 Annas	6	12	0
Puddle	28⅓	do.	at 3 cubic yards the Rupee	9	7	3
Re-placing soil	25⅓	do.	at 6 do. do.	4	5	0
Do. revetment	9⅓	do.	at 4 Annas	2	5	6
			Contingencies	2	2	3
				25	0	0

No. II

Removal of bank and revetment,	61⅓	cubic yards	at 2 Annas	7	11	3
Puddle	28⅓	do.	at 3 yards the Rupee ...	9	7	3
Re-placing	33⅓	do.	earth at 6 do. do. ...	5	10	0
Do. revetment	9⅓	do.	at 4 Annas	2	5	4
			Contingencies	2	14	2
				28	0	0

No. III.

Removing bank and revetment,	49$\frac{4}{7}$	cubic yards	at 2 Annas	6	2	3
Wall	19$\frac{2}{3}$	do.	at 2¾ Rupees	54	1	3
Re-filling behind wall	40$\frac{2}{3}$	do.	at 6 yards the Rupee	6	13	0
Do. in front of wall ...	7$\frac{5}{7}$	do.	at do. do.	1	4	3
			Contingencies	6	11	3
				75	0	0

3. This correction does not affect the comparative merits of the sections, but unfortunately it shows that the real cost per mile of stopping the leakage through the banks of the second section will be about two and a half times as much as I had supposed when my report was written.

4. I should add, however, that the Chief Engineer mentions that he proposes to reduce the expense by omitting the removal of any part of the bank, and only stripping off the revetment, laying down the puddle, and re-placing the revetment, and the cost of this would be for a depth of 30 feet of water about as follows:—

	RS.	A.	P.
Puddle	9	7	3
Stripping revetment at 2 Annas	1	2	8
Re-packing do. at 4 do.	2	5	4
Contingencies	1	4	9
	14	4	0

Proceedings of the Madras Government, Public Works Department,
14th December 1866.

The probable efficiency of this arrangement will be further considered when the drawings and estimate are received. The cost, as will be seen, is about one-half of the plan shown in Section No. 2 of my letter, and if the puddle can be made, and kept water-tight without any other covering than the revetment, the saving will be great. It would, however, be bad economy to run any considerable risk of failure.

No. 275.

ORDER THEREON, 14th December 1866, No. 3,918.

CIVIL WORKS, No. 52. Ordered to be recorded.

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

To the Consulting Engineer for the Madras Irrigation and Canal Company.
" Manager for do. do.

Exd. S. T. Augustin.

Consulting Engineer's Office
Irrigation & Canal Company
Madras, 3rd December 1866.

No. 98.

From

Captain J. Ballie R.E.
Consulting Engr. for I. & C. Co.

To

The Secretary to Government
Department of Public Works.

Sir,

1. I have the honor, in reference to Proceedings of Madras Government, No. 3474 of the 31st October last, to report that the Chief Engineer Madras Irrigation and Canal Company has brought to my notice a very serious error in the calculations appended to the Sections given in para. 11 of my letter of the 1st idem No. 70, arising from the omission to multiply the areas of the Sections in square feet by 3 before reduction to cubic yards.

2. The cost of the Sections should therefore be:

No. 1.

Removing bank and revetment	54 cubic yds	@ 2 as.	6	12 -
Puddle	20⅔	3 Ly. the Rupee	9	7 - 3
Replacing earth	25⅔	6	4	5 - 6
Bank & revetment	9⅔	4 as.	2	5 - 6
Contingencies			2	2 - 3
			25	- - -

No. 2.

Proceedings of the Madras Government, Public Works Department,
14th December 1866.

The probable efficiency of this arrangement will be further considered when the drawings and estimate are received. The cost, as will be seen, is about one-half of the plan shown in Section No. 2 of my letter, and if the puddle can be made, and kept water-tight without any other covering than the revetment, the saving will be great. It would, however, be bad economy to run any considerable risk of failure.

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" Manager for do. do.

Exd. S. T. Augustin.

Consulting Engineer's Office
Irrigation & Canal Company
Madras, 3rd December 1866.

No. 98.

From

Captain J. Ballie R.E.
Consulting Engr. for I. & C. Co.

To

The Secretary to Government
Department of Public Works.

Sir,

1. I have the honor, in reference to Proceedings of Madras Government, No. 3474 of the 31st October last, to report that the Chief Engineer Madras Irrigation and Canal Company has brought to my notice a very serious error in the calculations appended to the Sections given in para. 11 of my letter of the 1st idem No. 70, arising from the omission to multiply the areas of the Sections in square feet by 3 before reduction to cubic yards.

2. The cost of the Sections should therefore be:

No. 1.

Removing bank and revetment	54 cubic yds	@ 2 as.	6	12 -
Puddle	20⅔	3 Ly. the Rupee	9	7 - 3
Replacing earth	25⅔	6	4	5 - 6
Bank & revetment	9⅔	4 as.	2	5 - 6
Contingencies			2	2 - 3
			25	- - -

No. 2.

The probable efficiency of this arrangement will be further considered when the drawings and estimate are received. The cost as will be seen is about one half of the plan shewn in Section No 2 of my letter and if the puddle can be made and kept water tight without any other covering than the revetment, the saving will be great. It would however be bad economy to run any considerable risk of failure.—

I have the honor to be
Sir,
Your most obedient servant,
John Jenkins Captain, H.C.
Consulting for E.I.C. Comp.

No II

Removal of bank and revetment	61⅓ Cyds @ 2 As		7–11–3
Puddle	28⅓	3 yds the Rupee	9–7–3
Replacing	33⅓	each 6 As	5–10––
Do revetment	9⅓	@ 4 As	2–5–4
		Contingencies	2–11–2
			26––––

No III

Removing bank and revetment	49⅓ Cyds @ 2 As		6–2–3
Wall	19⅓	2¼ Rs	51–1–3
Refilling behind wall	40⅔	6⅔ the Rupee	6–13––
Do in front of wall	7⅔		1–4–3
		Contingencies	6–11–4
			75––––

3. This correction does not affect the comparative merits of the Sections but unfortunately it shews that the real cost per mile of stopping the breach age through the banks of the 2nd Section will be about 2½ times as much as I had supposed when my report was written.—

4. I should add however that the Chief Engineer mentions that he proposes to reduce the expense by omitting the removal of any part of the bank, and only stripping off the revetment, laying down the puddle, and replacing the revetment and the cost of this would be for a depth of 30 feet of water about as follows:

Puddle	Rupees	9–7–3
Stripping revetment &c	2 Annas	1–2–8
Repacking Do	4	2–5–4
	Contingencies	1–4–9
		14–4–––

The

Col. McBreck

No 3948

Recorded

Fort St George
14th Decr 1866

To The Consulting Engineer
for the Madras Irrigation & Co.y
" Manager do do

Despe 15th December

No 3948 14th Decr 1866

From The Consulting Engr
for the Madras Irrigation & Co.y
To The Secretary to Govt.
P.W.D.

Dated 3rd December 1866
Rec.d 5th December 1866

Reports that the Chief Engineer Mr. M.I.C.o has brought to his notice a very serious error in the calculations appended to the sections given in para 11 of his letter of the 1st idem No 70 arising from the omission to multiply the areas of the Sections in square feet by 3 before reduction to Cubic yards.

No 274-275