M.R.O. 1—77,006—8-5-37.

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(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 3894 Press ~~Mis.~~

148-149

Dated 10 — 12 — 1866.

Not to be folded or roughly handled

No. 148. Read the following letter from the Consulting Engineer for Irrigation and Canal Company, to the Secretary to Government, Department Public Works, dated Madras, 27th November 1866, No. 96 :—

1. I have the honor to submit for the consideration of Government a letter, No. 327 of the 23rd instant, from the Agent and Manager Madras Irrigation and Canal Company, transmitting a corrected estimate, Rupees 8,286,* for irrigation sluices in the bank of the Main Canal, 4th Section, or Nagatore Division.

2. In Proceedings Madras Government of the 10th June 1862, No. 1,307, Rupees 10,000 were sanctioned for distribution works in connection with the lands situated in the valley of the Bowanassy. These lands are under the Main Canal in the 4th and 5th Sections, and the Chief Engineer wishes it to be considered that of the above sum, Rupees 6,000 are the proportion of the former sanction belonging to the 4th Section, and to this arrangement there is no objection. The Chief Engineer, however, has overlooked the sanction, Rupees 218, given for Sluice No. 7 in Government Order of the 14th December 1864, No. 3,576, and I have accordingly made a deduction on that account, at the foot of the estimate, so that the supplemental sanction required is Rupees 2,068, and I beg to recommend that this be given.

3. With the exception of the two deep sluices, Sluice No. 4, and the lifting gear, the other works provided for in this estimate have been entirely or nearly completed ; the expenditure being Rupees 2,803-5-11.

4. The distribution works of the present estimate are very different to those included in the estimate, Rupees 10,000, originally sanctioned. The abstract attached thereto by Colonel Rundall shows that it allowed for—

		Rs.	A.	P.
34,000	Cubic yards earth-work	1,428	4	6
1,44,000	Lineal yards of minor channels...	3,000	0	0
15	Sluices...	2,301	8	0
120	Small regulating sluices for minor channels.	2,400	0	0
	Contingencies and Superintendence	870	3	6
		10,000	0	0

This, however, was a rough estimate, and it was shown at the time that the levels, on which alone the channels could be arranged and estimated for, had not been taken.

1 Letter from Agent, dated 15th June 1866, General No. 118.
1 Letter to Agent, dated 23rd June 1866, No. 55.
1 Letter from Agent, dated 25th July 1866, General No. 215.
1 Letter to Agent, dated 1st August 1866, No. 92.
1 Letter from Agent, dated 22nd August 1866, General No. 313.
1 Letter from Agent, dated 23rd Nov. 1866, General No. 556.
1 Plan of Irrigation Sluice No. 1.
1 Do. of do. Nos. 2,3,6, and 7.
1 Do. of Low level Sluice in the 54th and 58th miles.
1 Estimate for do.
1 Detailed Estimate for Sluice No. 4.
1 Abstract Estimate.

* After adding the amounts required for lifting gear as included in the estimate previously received.

5. The present estimate provides for sluices only, but it will be seen from the correspondence marginally noted,* and which is enclosed, that estimates, amounting to Rupees 708-11-10, were sent in for channels from four of the sluices. I considered, however, that the arrangements proposed were not sufficiently complete, and that the information afforded as to the mode of distribution intended to be adopted, was too incomplete to make it advisable that these estimates should be sanctioned; and the Chief Engineer has arranged, in accordance with my suggestions, for the division of the area to be watered into moderately sized sub-divisions, and the estimates for these will provide for all the works necessary for their complete irrigation.

* From Agent, No. 69, 15th June 1866.
To do. ,, 55, 23rd ,,
From do. ,, 135, 25th July ,,
To do. ,, 92, 1st August ,,
From do. ,, 191, 22nd ,, ,,

6. It has not been expressly stated for what purpose the two low level sluices in the 54th and 58th miles are to be constructed, but I believe the intention to be the utilization of the very considerable supply of water which these tanks will retain below canal bed level, and this water may enable more valuable crops, such as sugar-cane, to be irrigated, than would be practicable were the water of the canal proper to be alone available.

7. The letter from the Executive Engineer, Nagatore Division, appended to Mr. Henslowe's letter No. 327, explains and corrects some differences between the cost of similar sluices which had been noticed in paragraph 9 of the letter No. 55 of the 23rd June last, from this office. As now reported, the cost of sluices Nos. 1 to 6 is perhaps not much more than should have been the case, but the expenditure on revetments, Rupees 416-4-0 for Sluice No. 1, and Rupees 462 for Sluice No. 3, was, as the present Executive Engineer states, far larger than was necessary, but how far the excess is due to rate and how much of it to dimensions larger than were needed, such as the three feet thickness at top, mentioned by Mr. Knorpp, I cannot say. The cost Rupees 489-2-0, or, exclusive of extras, Rupees 367-8-0, of Sluice No. 7 or 1 A, is much greater than it should have been. The plan of this is the same as for Sluices Nos. 2, 3, and 6, which cost 273, 272, and 304 Rupees respectively, and I find that the quantity of masonry, 89 cubic yards, included in the measurements, is at least 50 per cent. in excess of the requirements of the sluice according to the plan. As much is admitted by the Executive Engineer. The rate, 12 Annas; for excavation to the sluice channel is, I have little doubt, about three times as high as was necessary, the soil being shale sufficiently good to make one foot foundations sufficient.

8. The sanction, Rupees 2,068, required should be given under "Distribution."

No. 149. ORDER THEREON, 10th December 1866, No. 3,894.

CIVIL WORKS, No. 28.

Under the circumstances explained by the Consulting Engineer for the Madras Irrigation and Canal Company, and on the recommendation of that Officer, the Government sanction under the head "Distribution" the further sum of Rupees 2,068 which is required for irrigation sluices in the bank of the 4th Section of the Company's Main Canal.

(True Extract.)

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

To the Consulting Engineer Madras Irrigation and Canal Company,
With four Estimates, three Plans, and seven Letters.
,, Manager for do. do.

Exd. S. T. Augustin.

V

Consulting Engineer's Office
Irrigation & Canal Company
Madras, 27th November 1866.

No. 96.

(13)

From,

Captain, J. Mullins, R.E.
Cons. Engr. for I. & C. Co.

To,

The Secretary to Government
Department of Pub. Works.

Sir,

1. I have the honor to submit for the consideration of Government a letter, No. 327 of the 23rd instant from the Agent and Manager, Madras Irrigation and Canal Company, transmitting a corrected Estimate Rupees 8,286 for irrigation sluices in the bank of the Main Canal, 4th Section, or Nagalapuram Division.

adding the amount required for the year as included in the Estimate previously received.

2. By Proceedings Madras Government of the 10th June 1862 No. 1,307 Rupees 10,000 were sanctioned for Distribution works in connection with the lands situated in the valley of the Bowanasy. These lands are under the Main Canal in the 4th and 5th Sections and the Chief Engineer wishes it to be considered that of the above sum, Rupees 6,000 are the proportion of

of the former sanction belonging to the 4th Section and to this arrangement there is no objection. The Chief Engineer however has overlooked the sanction, Rupees 218, given for Sluice No. 7 in Government Order of the 11th December 1862 No. 3576, and I have accordingly made a deduction on that account at the foot of the estimate, so that the supplemental sanction required is Rupees 2068 and I beg to recommend that this be given.—

3. With the exception of the two deep sluices, Sluice No. 4, and the lifting gear the other works provided for in this estimate have been entirely or nearly completed; the expenditure being Rupees 2,803-5-11.—

4. The distribution works of the present estimate are very different to those included in the estimate Rupees 10,000 originally sanctioned.— The Abstract attached hereto by Colonel Rundall shews that it allowed for:

34,000 cubic yards Earthwork	Rupees 1,428-4-6
144,000 lineal yards of minor channels	3,000--
15 Sluices	2,301--
120 Small regulating sluices for minor channels	2,400--
Contingencies and Superintendence	870-3-6
	10,000--

This however was a rough estimate, and it was known at the time that the levels, on which alone the channels could be arranged and estimates for, had not been taken.— (H)

5. The present estimate provides for sluices only, but it will be seen from the correspondence marginally noted, and which is enclosed, that estimates, amounting to Rupees 708-11-10, were sent in for channels from 4 of the sluices. I considered however that the arrangements proposed were not sufficiently complete, and that the information afforded as to the mode of distribution intended to be adopted, was too incomplete to make it advisable that these estimates should be sanctioned; and the Chief Engineer has arranged, in accordance with my suggestions, for the division of the area to be watered into moderately sized subdivisions, and the estimates for these will provide for all the works necessary for their complete irrigation.—

x From Agent No. 69-15 June 66.
To — do — 55-23 —
From — do — 135-25 July —
To — do — 92-1 Aug. —
From — do — 191-22 —

6. It has not been expressly stated for what purpose the 2 low level sluices in the

57th and 58th miles are to be constructed, but I believe the intention to be the relinquishment of the very considerable supply of water which these tanks will retain below Canal bed level, and this water may enable more valuable crops, such as sugarcane, to be irrigated, than would be practicable were the water of the canal proper to be alone available.—

7. The letter from the Executive Engineer, Nagpore Division, appended to Mr Hendersons letter No 327, explains, and corrects, some differences between the cost of similar sluices which had been noticed in para: 9 of the letter No 55 of the 23rd June last from this office.— As now reported the cost of sluices Nos 1 to 6 is perhaps not much more than should have been the case, but the expenditure on Tenements, Rupees 446-4 for sluice No 1, and Rupees 462 for sluice No 3, was, as the present Executive Engineer states, far larger than was necessary, but how far the excess is due to rate and how much of it to dimensions larger than were needed, such as the 3 feet thickness at top mentioned by Mr Knowles, I cannot say. The cost Rupees 489-2-, or, exclusive of extras, Rupees 367-8-, of sluice No 7 or 1A, is much greater than it should have been. The plan of this is the same as for sluices Nos 2, 3 and 6 which cost 273-272 and 304 Rupees respectively, and I find that the quantity of masonry, 89 cubic yards, included in the measurements is at least 50 per cent in excess of the requirements of the sluice according to the plan. As much is admitted by the Executive Engineer.— The rate 12 annas for excavation to the sluice channel is, I have little doubt, about 3 times as high as was necessary, the soil being shale sufficiently good to make 1 foot foundations sufficient.—

8. The sanction Rupees 2,068 required should be given under "Distribution".—

I have the honour to be
Sir
Your most obedient servant
[illegible] Captain R.E.
Consulting for C.P. Comp[illegible]

Rec'd 1866 & Copied

Transf. to Govt for December

Cir.

No. 4832

The Consulting Engrs.
P. W. D.

To

The Secretary to Govt.
P. W. D.

Dated 27 November 1866
Rec'd 29

E-14

Submits for the consideration of Govt a letter from the Agent to P. W. C. transmitting a corrected estimate Rs. 8086 for Irrigation Sluices in the bank of the main Canal 4th Section or Nagatoor Div.

No. 3894 - 10th Decr 1866

With an Order

No. 140 - 149

Rec'd 1st Decr 1866 R. 5th

3894

No. 3894

Under the circumstances explained by the Consulting Engineer for the Madras Irrigation and Canal Company, and on the recommendation of that Officer, the Govt. sanction under the head "Distribution" the further sum of Rs. 2068 which is required for irrigation sluices in the bank of the 4th Section of the Co's main Canal.

To Consg Engr with letter, three plans and seven letters

2. Manager
Fort St George
10th Decr 1866

Dispd 11th December