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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 2394	Press Mis.
420-421	
Dated 20 - 8 -	18 64.

Not to be folded or roughly handled

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*Proceedings of the Madras Government, Public Works Department,
20th August 1864.*

No. 420. Read the following letter from Captain J. MULLINS, R. E., Consulting Engineer for Irrigation and Canal Company, to Colonel C. A. ORR, R. E., Secretary to Government, Department Public Works, dated Madras, 9th August 1864, No. 66:—

SIR,

1. I have the honor to submit a supplemental Estimate amounting to Rupees 1,21,145, for revetting the single banks of the Main Canal in the 4th Section together with the letters as per margin, from the Agent* and Chief Engineer†.

* No. 835, 5th August 1864.

† No. 424, 18th July 1864.

‡ Sanctioned with 5th Section, No. 736 of the 11th April 1862.

2. The original Estimate‡ provided for square yards 1,38,259 at 2 Annas a square yard, Rupees 17,282-6-0, and probably a proportion of sundries added to this would approximate to the sum Rupees 19,027-2-0, mentioned by the Chief Engineer in paragraph 1 of his letter. This original rate is, now, certainly too low, but I do not think the rates entered in the supplemental Estimate are required, and I am quite certain that one rate is not right from the 44th to the 53rd mile. I believe this Estimate was made out by the Executive Engineer prior to my inspection, and when I was enquiring as to rates at Puggydial, I told that Officer that it would be a great pity to allow such extreme rates to be paid. In the 47th mile revetment has recently been done at 7 Annas, and in the 50th and 52nd miles at 6 Annas a cubic yard, and even to get the work pushed on it can hardly be necessary to pay twice as much as before. Prices have risen greatly, but the great rise occurred some time ago, and work done after the rise affords some data for fixing a rate.

3. The Estimate also appears to me to be imperfect in several respects. The 54th mile would seem to be 8,000 feet in length, and the average height, unless I was misinformed, is nearer 20 feet than 30 feet. Only a few yards of revetment are required in the 56th mile. Double banks recommence at the 34th chain of the 59th mile, so that the first two items of revetment in that mile would appear alone to belong to it, and the last two items in the Estimate are left unexplained. In addition to these corrections the average thickness of the revetment should be reduced. Where the water is not very deep a revetment two feet thick at base and one foot at top will, if properly constructed, do very well; at the deeper parts it might average 2½ feet, and only in the very deep places need the average reach one yard. The height too can be reduced, the revetment need not be as high as the top of the bank; two feet below that level would answer every purpose.

4. I should not have forwarded this Estimate without previous communication with the Chief Engineer, had it not been for the inconvenience which delay in providing funds to commence the work might occasion. What has to be done is mentioned in paragraph 77§ of my letter

§ 2nd Clause.

No. 40, of the 2nd July 1864, and there is but little time to spare. I would recommend there-

fore that an advance of Rupees 25,000 be sanctioned, and that the Chief Engineer be requested to revise the Estimate as soon as possible with reference to the above remarks.

No. 421. ORDER THEREON, 20th August 1864, No. 2,394.

The Government agree with the Consulting Engineer. In accordance with his recommendation, the Estimate will be returned to the Chief Engineer of the Irrigation Company, for revision with reference to Captain Mullins' remarks. To prevent delay in the prosecution of the work, the Government sanction an immediate advance of Rupees 25,000.

(True Extract.)

(Signed) J. H. M. SHAW STEWART, Major, R. E.,
Deputy Secretary to Government.

To the Consulting Engineer, Irrigation and Canal Company.

„ Agent for do. do.
„ Secretary and Treasurer, Bank of Madras.

Exd. S. T. Augustin.

Consulting Engineer's Office,
Irrigation & Canal Company,
Morris, 9 August 1864.

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N^o 66.
To, Captain J. Mulline, R. E.
Engineering for I. & C. Company.

The Secretary to Government
Department of Pub. Works.

* 835-5th Aug/64.
* 424-18th July/64.
+ sanctioned with 5th
section N^o 736 of 18th
11/5/62

1. I have the honor to submit a supplemental estimate amounting to Rupees 124,145 for revetting the single banks of the Main Canal in the 4th section together with the letters as per margin from the Chief Engineer.

2. The original estimate provided for square yards - 138259 at two annas a square yard, Rupees 17282-6-0, and probably a proportion of sundries, added to this would approximate to the sum Rupees 19027-2-0 mentioned by the Chief Engineer in para: 1 of his letter. This original rate is, now, certainly too low, but I do not think the rates entered in the supplemental estimate are required, and I am quite certain that one rate is not right from the 44th to the 52nd mile. I believe this estimate was made out by the Executive Engineer prior to my inspection, and when I was enquiring as to rates at Puzgudial, I told that officer that it would be a great pity to allow such extreme rates to be paid. In the 47th mile revetment has recently been done at 1 anna and in the 50th and 52nd miles at 6 annas a cubic yard, and even to get the work pushed on it can hardly be necessary to pay twice as much as before. Prices have risen greatly, but the great rise occurred some time ago and work done after the rise affords some data for fixing a rate.

3. The

3. The estimate also appears to me to be imperfect in several respects. The 5th mile would seem to be 8000 feet in length, and the average height, unless it was misinformed, is nearer 20 feet than 30 feet. — Only a few yards of revetment are required in the 5th mile. Double banks recommence at the 3rd chain of the 5th mile, so that the first two items of revetment in that mile would appear alone to belong to it, and the last two items in the estimate are left unexplained. In addition to these corrections the average thickness of the revetment should be reduced. Where the water is not very deep a revetment two feet thick at base and one foot at top will, if properly constructed, do very well, at the deeper parts it might average 2 1/2 feet, and only in the very deep places need the average reach one yard. The height too can be reduced, the revetment need not be as high as the top of the bank, 2 feet below that level would answer every purpose. —

4. I should not have forwarded this estimate without previous communication with the Chief Engineer had it not been for the inconvenience which delay in providing funds to commence the work might occasion. What has to be done is mentioned in para. 77 of my letter No. 40 of the 2nd July 1864, and there is but little time to spare. — I would recommend therefore that an advance of Rs. 25,000 be sanctioned, and that the Chief Engineer be requested to revise the estimate as soon as possible with reference to the above remarks. —

I have the honor to be,
 Sir,
 Your most obedient servant,
 Wm Mullins Captain,
 Genl Engineer S. F. Company.

Ed. M. Brock

No. 2294- 36

The Govt. agree with the Consulting Engineer. In accordance with his recommendations, the estimate will be returned to the Chief Engineer of the Irrigation Company, for revision with reference to Captain Mullins' remarks. To prevent delay in the prosecution of the work, the Govt. sanction an immediate advance of Rs. 25,000 —

Wm Mullins
 J. C. Co. With 2/3 funds. ✓
 1. In Agent. do ✓
 3. " Secy & Treasurer Bank of Madras. ✓
 20th Sept 1864
 22nd August 1864

3. The estimate also appears to me to be imperfect in several respects. The 5th mile would seem to be 8,000 feet in length, and the average height, unless I was misinformed, is nearer 20 feet than 30 feet. Only a few yards of revetment have been shown.

P.O. 11th April /62 No 205-206
 Copy in a letter to Eng?
 D/10: October 1862 of 1864.
 1864 Date
 No of 1864 for 1864
 No 3532
 The Comdg of the S.C. Co.
 The Secy to Comdt. D.C. Works
 (5)

(12)
 Dated 9th August 1864
 Recd 11th

Enclosed estimate. Yours letter
 C-2.
 No 2394 - 20th August /64.

88-420 & 421.
 Submit for sanction
 a supplemental estimate
 Rs. 124,145 for revetting the
 single banks of the Main Canal
 in the 4 sections. See spec.

I have the honor to be,
 Sir,
 Your most obedient servant,
 John Mullins Captain,
 Secy. Engrs. S.C. Co.

Wm. Brock