

MADRAS RECORD OFFICE.

Government of Madras.

Public *Relations* DEPARTMENT.

G.O. No.	2981	Press
163-64		Mis.
Dated	8-12	18-7-57

Not to be folded or roughly handled

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I HAVE the honour to submit plans, estimates, and all other usual documents, connected with the first irrigation project under the 8th section of the Madras Irrigation and Canal Company's Main Canal, all of which are particularized in the margin and accompanied by the Agent's letter, No. 445, 19th October 1870.

Letter from the Agent, dated 19th October 1870, with Chief Engineer's letter, No. 1,463, dated 11th idem.

19 Plans.

1 General Abstract.

1 Abstract Estimate.

1 Detailed "

1 Tabular Statement.

3. The particulars of the main channels are as follow, and they are shown on the four sheets of drawings:—

Four sheets of drawings:—						M.	C.
No. 1.	Goompamundinny	...	...	...	Length	1	4
" 2.	Hurrywaram	...	...	...	"	10	55
" 3.	Nullatinanpilly	...	..	...	"	1	29
" 4.	Saklajumla	...	...	...	"	0	54
" 5.	Adjanapooram	...	...	...	"	1	67
" 6.	Boora Reddypilly	...	..	...	"	3	74
" 7.	Nullagutla	...	...	...	}	4	57
" 7A.	Coondapooram	..	...	...			
" 8.	Donapaud	...	...	...	"	1	37
" 9.	Chintacoonta	...	...	...	"	6	20
Total...						31	77

4. The masonry works are eleven irrigation sluices in the Main Canal, forty-two culverts for the passage of channels under roads, or of drainage under the channels, and seventeen "overflows" of variable fall, for lowering the water from the level of one reach of a channel to the next.

Drawings.

Nos. 4, 5, 6 is a Sketch Map of area to be irrigated.

Sheets Nos. 1 to 4.—Courses of the several channels.

One sheet.—Irrigation Sluices in the Main Canal.

Two sheets.—Minor Masonry Works.

Eleven sheets.—Longitudinal and Cross Sections of channels, showing their fall, area of cutting, and of banks, and all other necessary particulars.

The rates are—

The rates are—	RS.	A.	P.	
Masonry rubble stone-in-chunam	4	8	0	per cubic yard.
Dry stone or stone-in-clay	1	8	0	„ „
Earthwork—excavation and banks	1	0	0	per 12 cubic yards.

*Proceedings of the Madras Government, Public Works Department,
8th December 1870.*

The particulars of the estimate are—

	RS.
Eleven irrigation sluices in Main Canal	3,320
Nine main channels, earthwork	9,080
Minor masonry works	3,418
Subsidiary channels for the immediate delivery of water to the fields at 6 Annas per acre... ..	1,782

Total... 17,600

for the irrigation of 11,737 acres, being an average of Rupees 1-8-0 an acre, which is very moderate, and is in a great measure owing to the minor masonry works being very properly of the simplest kind. The channels are designed to carry a maximum quantity of water, in accordance with the principles approved of by Government in Order No. 2,882, 10th September 1868. The scheme is very complete, well arranged, and carefully got up, and I have no objections to raise, except that it is proposed to build some of the culverts of dry stone, or of stone-in-mud, at Rupees 1-8-0 a cubic yard. This, I think, is bad economy, and that rubble stone-in-chunam had better be substituted at Rupees 4-8-0 a cubic yard, which will raise the estimate by Rupees 1,600, making the total Rupees 19,200; and, taking the acreage to be irrigated at the Chief Engineer's figures, 10,000, the average will be Rupees 1-14-8. I also disapprove, in the absence of any explanation, of the distance the banks are placed apart as shown in the cross sections, whereby the water in a channel with only 4 feet bed has a surface width of 26 and 28 feet. See Section A, Channel No. 7. I have asked for an explanation on this point, but the estimated cost of the works will not be affected by any change in the design in this particular.

5. I recommend the estimate for sanction, corrected total Rupees 19,200, noting that the sum of Rupees 3,320 in part thereof was sanctioned as an advance for the eleven sluices for the Main Canal in Government Order No. 2,372, 1st October 1870.

LIST OF PLANS AND ESTIMATES.

DISTRIBUTION WORKS.

8th Section.

- 1 Plan of Sluices in Canal Bank.
- 1 „ of Masonry Works, standard drawings.
- 1 „ of „ „ „
- 1 „ of Goompamundinny, Nullatinarpilly, Adjanapooram, Nullagutla, and Coondapooram Channels.
- 1 „ of Hurrywaram, Saklajumla Nos. 1 and 2, Boora Reddypilly, and Donapaud Channels.
- 1 „ of part plan of Hurrywaram Channel.
- 1 „ of Chintacoonta Channel.
- 1 Sketch Map to accompany Report.
- 1 Plan of Goompamundinny Channel, 1870.
- 1 „ of Hurrywaram Channel, 1870.
- 1 „ of Chintacoonta Channel, 1870.
- 1 „ of Nullatinarpilly Channel, 1870.
- 1 „ of Saklajumla Channel, No. 1, 1870.
- 1 „ of Adjanapooram Channel, 1870.
- 1 „ of Saklajumla Channel, No. 2.

*Proceedings of the Madras Government, Public Works Department,
8th December 1870.*

- 1 Plan of Nullagutla Channel, 1870.
- 1 „ of Boora Reddypilly Channel, 1870.
- 1 „ of Donapaud Channel, 1870.
- 1 „ of Coondapooram Channel, 1870.

19

Estimates.

- 1 Tabular Statement.
- 1 General Abstract Estimate.
- 1 Abstract Estimate.
- 1 Detailed „

4

From the Agent and Manager of the Madras Irrigation and Canal Company, to the Consulting Engineer for the Madras Irrigation and Canal Company, dated Madras, 19th October 1870, No. 445.

19 Plans.
4 Estimates.

I HAVE the honour to forward plans and estimates for distribution works in the 8th section, and to request you will obtain the sanction of Government thereto.

2. I enclose copy of Chief Engineer's letter, No 1,463, dated 11th October 1870.

From the Chief Engineer, to the Agent and Manager of the Madras Irrigation and Canal Company, dated Kurnool, 11th October 1870, No. 1,463.

I HAVE the honour to submit, for sanction, the plans and estimated expenditure of Rupees 17,600 of a scheme of distribution to 10,000 acres in the 8th section of Main Canal below the 121st mile stone. On the latter an advance of Rupees 3,320 for sluices was sanctioned by G. O., No. 2,372 on the 1st instant.

2. The size of the channels will be regulated in order to meet the views of Colonel Carpendale, approved by Government.

3. There are 518 cubic yards of dry stone-in-mud in small drains at Rupees $1\frac{1}{2}$ = Rupees 777, and 492 of masonry at Rupees $4\frac{1}{2}$ = Rs. 2,214; these may perhaps be modified without exceeding the total of Rupees 2,991.

1 General Abstract.
1 Abstract Estimate.
1 Detail.
1 Tabular Statement.

4. The papers enclosed are marginally noted.

No. 164.

ORDER THEREON, 8th December 1870, No. 2,981.

IRRIGATION, No. 18.

THE Consulting Engineer for the Madras Irrigation and Canal Company submits with this letter an estimate of

Rupees 17,600 which has been prepared by the Company's officers for the distribution works of the 8th section of the Main Canal between the 121st and 130th miles.

2. The area commanded by that section is stated to be 11,737 acres, and the estimated cost of distribution averages, therefore, Rupees 1-8-0 per acre, which His Excellency the Governor in Council concurs with the Consulting Engineer in considering very moderate. While remarking that the scheme is very complete, and approving generally of its arrangements Colonel Carpendale suggests that, in the construction of the culverts, rubble stone-in-chunam should be substituted at Rupees 4-8-0 a cubic yard for dry stone or stone-in-mud provided for in the

*Proceedings of the Madras Government. Public Works Department,
8th December 1870.*

estimate at Rupees 1-8-0 per cubic yard. This modification, which His Excellency the Governor in Council considers essential, will raise the estimate to Rupees 19,200, and assuming that the area to be irrigated will be 10,000 acres, as stated by the Chief Engineer, the average cost of distribution will be Rupees 1-14-8.

3. The estimate of Rupees 19,200 is accordingly sanctioned. An advance of Rupees 3,320 was authorized in G. O., No. 2,372, dated 1st October 1870.

(True Extract.)

Colonel, R. E.,

Secretary to Government.

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

Exd. S. T. Augustin.

N^o 90

Consulting Engineer's Office
Irrigation and Canal Co.
Madras 10th November 1870.

From

Colonel J. Carpendale R.E.
Consulting Engineer, Irrigation and Canal Co.

To

Colonel C. A. O. R.E.
Secretary to Government P.W.D.

Sir,

I have the honor to submit plans, estimates, and all other usual documents, connected with the first irrigation project under the 8th Section of the Madras Irrigation and Canal Company's

to from the Agent dated
1st October 1870 with Chief
Engineer's letter N^o 1463 da.
at 11th Decem. —
Plans. —

General Abstract. —
Abstract Estimate —
Detailed Estimate —
Tabular Statement. —

Main Canal, all of which are particularized in the margin and accompanied by the Agent's letter N^o 445. 19th October 1870.

2. The area proposed to be irrigated consists of 11,737 acres which is shown on the Sketch map, and lies between the 121st and the 130th mile on the Main Canal, and the project consists of nine main Channels from sluices N^{os} 1 to 9 and two small subsidiary Channels from sluice N^{os} 10 and 11. —

3. The particulars of the Main Channels are as follows and they are shown on the 4 sheets of Drawings.

S. T.

N ^o 1. Goomjammundim.	length	1. 4
N ^o 2. Kurjwarum		10. 55
N ^o 3. Nullatinampilly		1. 29
N ^o 4. Saklajumla		0. 54
N ^o 5. Adjanapoorum		1. 67
N ^o 6. Pora Reddy Paly		3. 74
N ^o 7. Nullagutta		
N ^o 7a. Kondapoorum		4. 57
N ^o 8. Sonapaud		1. 37
N ^o 9. Chintacounta		6. 20
Total		31. 77

4. The Masonry works are eleven Irrigation Sluices in the Main Canal.

42 Culverts for the passage of Channels under roads, or of drainage under the Channels, and 17 'Overflows' of variable fall, for lowering the water from the level of one reach of a channel to the next.

Drawings

N^o 4 & 5, is a Sketch Map of area to be irrigated.
 Sheets N^o 1 to 4. Courses of the several Channels.
 One Sheet. Irrigation Sluices in the Main Canal.
 Two Sheets. Minor masonry works.
 Eleven Sheets. Longitudinal and Cross Sections of Channels showing their fall - area of cutting - and of banks - and all other necessary particulars.
 The Rates are -
 Masonry rubble stone in Chumam N^o 4-8-0 per Cubic yard

Dry stone or stone in Clay N^o 1-8-0 per Cubic yard
 Earthwork. Excavation & Banks - 1-12-0 per Cubic yard

The particulars of the estimate are -

11 Irrigation Sluices in Main Canal 3320.

9. Main Channels Earthwork 9080.

Minor Masonry works 3418.

Subsidiary Channels for the immediate delivery of water to the fields at 6 annas per acre 1782.

Total 17600

for the irrigation of 11737 acres being an average of Rupees 1-8-0 an acre which is very moderate, and is in a great measure owing to the minor masonry works being very properly of the simplest kind. The Channels are designed to carry a maximum quantity of water in accordance with the principles approved of by Government in Order N^o 2882-10th September 1868. The scheme is very complete, well arranged, and carefully got up, and I have no objections to raise, except that it is proposed to build some of the Culverts of dry stone, or of stone in mud, at Rupees 1-8-0 a Cubic yard. This I think is bad economy, and that rubble stone in Chumam had better be substituted at Rupees 4-8-0 a Cubic yard, which will raise

raise the estimate by Rupees 1600 making the total Rupees 19200; and, taking the average to be irrigated at the Chief Engineer's figures 10000, the ^{average} will be Rupees 1-14-8. I also disapprove, in the absence of any explanation of the distance the banks are placed apart as shown in the cross sections, whereby the water in a Channel with only 4 feet bed has a surface width of 26 and 28 feet see section A Channel N. 7. I have asked for an explanation on this point but the estimated cost of the works will not be affected by any change in the design in this particular.

5. I recommend the estimate for sanction, corrected total Rupees 19200 noting that the sum of Rupees 3320 in part thereof was sanctioned as an advance for the eleven sluices for the main Canal in Government Order N^o 2372 - 1st October 1870.

I have the honor to be,

Sir,

Your most obedient servant
J. G. P. M. S. — Colonel R. E.
Consulting Engineer S. & C. Co.

E. M. B.

List of Plans and Estimates S^o Distribution works 8th Section 5

1. Plan of Sluices in Canal Bank.
1. — of masonry works standard drawings.
1. — of — — — — —
1. — of Goompamundinny, Nullatianpully, Adjanapoorum, Nullagutta and Coondapoorum Channels.
1. — of Hurrywarum, Saklajumla N^o 1 and 2, Bora Reddy Pully and Donapaud Channels.
1. — of Part plan of Hurrywarum Channel.
1. — of Chintacoota Channel.
1. Sketch map to Accompany Report.
1. Plan of Goompamundinny Channel 1870.
1. — of Hurrywarum Channel 1870.
1. — of Chintacoota Channel 1870.
1. — of Nullatianpully Channel 1870.
1. — of Saklajumla Channel N^o 1. 1870.
1. — of Adjanapoorum Channel 1870.
1. — of Saklajumla Channel N^o 2.
1. — of Nullagutta Channel 1870.
1. — of Bora Reddy Pully Channel 1870.
1. — of Donapaud Channel 1870.
1. — of Coondapoorum Channel 1870.

19. — — — — — Estimates.

1. Tabular Statement.
1. General Abstract Estimate.
1. Abstract Estimate.
1. Detailed Estimate.

4

E. M. B.

Public Works Department
 No 2981
 Proceedings of the Madras Government
 Under date the 8th Decr 1870
 Read the following
 From The Consulting Engineer S. C. C. J. H. E. No 90 of 12th November 1870

The Consulting Engineer
 for the Madras Irrigation
 and Canal Company
 submits with this letter
 an estimate of Rs 17,600
 which has been prepared
 by the Company's officers
 for the distribution
 works of the eighth sec-
 tion of the main Canal
 between the 121 and 130 miles.

The area commanded
 by that section is stated
 to be 11,737 acres, and the
 estimated cost of distribution
 averages

Public Works Department
 No 90 of 12th November 1870
 The Consulting Engineer S. C. C. J. H. E.
 No 17 of 17th Decr 1870
 The Consulting Engineer S. C. C. J. H. E.
 No 19 of 19th Decr 1870
 O 24
 Submitted to the Committee
 for the first irrigation
 proposed under the 8th section
 of the main Canal with
 certain remarks.
 No 163
 No 2981-8th Decr 1870
 No 26 of 26th Decr 1870

averages therefore Rs 1-8
per acre, which His
Excellency the Governor
in Council concurs
with the Chief Engineer
in considering very mo-
-derate. While remarking
that the scheme is very
complete and approving
generally of its arrange-
-ments Col. Carpendale
suggests that in the
construction of the Culverts
rubble stone in Chunar
should be substituted
at Rs 2-8 a cubic yard
for dry stone or stone
in mud provided for
in the estimate at
Rs 1-8 per cubic yard.
This modification which
His

His Excellency the Governor
in Council considers
essential, will raise
the estimate to Rs 19,200,
and assuming that the
area to be irrigated will
be 10,000 acres as stated
by the Chief Engineer,
the average cost of
distribution will be
Rs 1-14-8.

The estimate of
Rs 19,200 is accordingly
sanctioned. An advance
of Rs 3,320 was autho-
-rized in G. O. No. 2372
dated 1st October 1870.

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To
Thafmg: Engr I & CC^o with
Twenty four rupees
Manager for Do
Rs 24/3/0

W. H.

24/85

Govt. of 1870 Madras.

PUBLIC WORKS.

To the Consulting Engineer
for the Madras
Irrigation
Company.

Dated

Recd.

Recd.

G. O. 3rd Dec 1870, No. 2981

Nos. 1121/64-

Particulars Works the site.
of Rs. 17,200 for the
Particulars Works the
"Section the Madras
Irrigation Company,
continued with remarks.