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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.
in 10/4/60

G.O. No.	<u>712</u>	Press <u>Mis.</u>
Dated	<u>4-4-1860</u>	

Not to be folded or roughly handled

3-14-38

*Proceedings of the Madras Government, Public Works Department,
for the month of April 1860.*

No. 74. Read the following letter from Colonel J. H. BELL, Chief Engineer, to J. D. BOURDILLON, Esq., Secretary to Government, dated Chepauk, 5th March 1860, No. 11,037 :—

With reference to my letter No. 10,136, dated 9th February 1860, and to the Proceedings of Government, dated 28th ultimo, No. 431, thereon, I have the honor to forward herewith two detailed estimates received from the Acting District Engineer of the Krishna District, of the cost of completing the Masulipatam Canal according to the line originally sanctioned, and to that subsequently approved of by Government in their Proceedings under acknowledgment. The Estimate for the former work amounts to Rupees 1,44,220, and that for the latter, to Rupees 1,38,200.

2. In addition to the advantages contemplated from the suggested change in the termination of the above Canal as reported in my letter of the 9th ultimo, No. 10,136, the District Engineer brings to notice that the new line of Canal will be cheaper than that originally proposed.

3. In the item of excavation a saving of Rupees 6,020, caused chiefly by a saving of distance, will be effected.

4. A sum of Rupees 10,000 is allowed in the Estimate for the new line of Canal as the appraisalment of property and cost of removing buildings; but the Collector is of opinion that Rupees 9,000 would be a liberal compensation. There will thus be a further saving of 1,000 Rupees.

5. The Canal as originally proposed would terminate in the Masulipatam Creek. Lieutenant Virtue is of opinion that to render this Creek navigable and accessible to boats at all stages of the tide, an expenditure of at least Rupees 20,000 over and above the original sanctioned Estimate would be necessary. This sum is, therefore, a third item of saving which may be expected from adopting the new line of Canal, making an aggregate saving on the cost of the old line, supposing the latter to be completed to the Sea, of Rupees 27,020.

6. In their Proceedings under acknowledgment, the Government sanction the alteration of the line of the Masulipatam Canal on the condition that the original sanctioned Estimate is not exceeded; but I beg to explain that, whereas it was at first intended that the line of Canal should lock into tide water a little way above the Basin at Masulipatam, it is now proposed to carry it to the mouth of the Creek which is about three miles distant from the above point. There will, therefore, be an excess above the sanctioned Estimate, the exact amount of which I am unable to report, as the District Engineer does not state what the actual expenditure up to the date of preparation of his present Estimate was. From his Progress Report, however, it appears that up to the end of January 1860, Rupees 1,15,094 had been spent, to which, if the amount of the Estimate now recommended be added, it will give a total of Rupees 2,53,294; and if the sanctioned amount of the original estimate viz. Rupees 2,37,107, be deducted from this sum, an excess of Rupees 16,187 over and above that Estimate appears. This excess, however, is due to the extension of the Canal to the mouth of the Creek. Were it to stop at the point originally intended, viz., at the Basin at Masulipatam, instead of being an excess there would be a saving on the sanctioned estimate.

7. It has already been shown that to complete the old line to the mouth of the Creek, a sum of Rupees 20,000 in excess of the sanctioned estimate would be required. The Estimate for the new line, therefore, though in excess of the sanctioned estimate, would yet be about 4,000 Rupees cheaper than the line which it is to supersede.

8. Under the above explanation, I request that the Estimate of Rupees 1,38,200 herewith submitted, may be sanctioned. The rates allowed therein have been examined and found correct.

Proceedings of the Madras Government, Public Works Department,
for the month of April 1860.

No. 75. ORDER THEREON, 4th April 1860, No. 712.

With this letter, the Chief Engineer submits two Estimates of 1,44,220 Rupees and 1,38,200 Rupees respectively, the former being for completing the Masulipatam Canal according to the line originally sanctioned, and the latter for effecting the alteration approved by Government in their Proceedings, 28th February 1860, No. 431.

2. The Estimate entered in the Budget for the Masulipatam Canal is altogether 2,37,107 Rupees; and the expenditure on it to the end of January 1860 was 1,15,094 Rupees, and if to this sum be added the estimated cost of completion according to the plan subsequently approved, the total probable cost will be 2,53,294 Rupees, being Rupees 16,187* in excess of the original estimate. But the present
- | | Ra. |
|--|----------|
| * Amount expended... | 1,15,094 |
| Add approved Estimate for completing the work... | 1,38,200 |
| | 2,53,294 |
| Deduct original Estimate... | 2,37,107 |
| Excess Rupees.... | 16,187 |

estimate includes the extension of the Canal to the Creek, whereas the former one stopped it at the present Masulipatam Petta Basin, going much out of the direct line in order to reach that Basin.

3. The Estimate for completing the original project to the Canal Basin is 1,44,220 Rupees; and the Chief Engineer states (paragraph 5) that it would take 20,000 Rupees to make the present narrow and tortuous Petta Canal to the Creek equal to the new Canal. On the whole he calculates (paragraph 5) that the cost of completing the old project to the Creek would be 27,020 Rupees in excess of that of the new project. Another advantage of the alteration, it is stated, will be that the new line will be much less expensive to clear and maintain, because much shorter and less circuitous than the one originally proposed, and that it will go through the town of Masulipatam instead of round it.

4. The present project, therefore, will not only cost much less than the original one would do if fully carried out, but it will effect the same object in a much more perfect manner. The Government, therefore, sanction the revised project now recommended; and desire the work may be prosecuted with all practicable expedition.

5. The Chief Engineer will point out to the Acting District Engineer his omission to specify clearly the amount of the actual expenditure with reference to which these completion estimates were prepared. The Chief Engineer will ascertain and report this: it would have been better if he had ascertained it before sending up the estimates. The absence of this information makes it uncertain what is intended as the total estimated cost of the work; but this is of minor importance, because the excess of one project over the other remains the same.

6. The Estimate now sanctioned includes 10,000 Rupees for compensation for land and houses in Masulipatam; but the Collector thinks that the amount actually payable will not exceed 9,000 Rupees. The Government desire that no time may be lost in settling and paying the value of the property so taken; it should be paid for in every case before being taken.

7. The Estimate includes no provision for connecting the two parts of the town now to be separated by the Canal. A bridge is absolutely necessary, and the Chief Engineer will obtain and submit an Estimate for it without delay. It should be built at the same time that the Canal is excavated; and should be adapted in dimensions and style of construction to the probable traffic over it.

(Signed) J. D. BOURDILLON,
Secretary to Government.

Central Office of Mr.
Sephakham
5th March 1860

Chepauk
No. 11037

From
The Chief Engineer
To
The Secretary to Government

Public

With reference to my letter No. 10136 dated 9th February 1860 and to the Proceedings of Government dated 28th Ultimo, No. 431, I have the honor to forward herewith two detailed Estimates received from the Acting District Engineer of the Masulipatam District, of the cost of completing the Masulipatam Canal according to the line originally sanctioned, and to that subsequently approved of by Government in their Proceedings under acknowledgment. The Estimate for the former work amounts to Rupees 1,44,220, and that for the latter to Rupees 1,38,200.

Enc. 6.
1. Letter from the District Engineer
2. Detailed Estimate
1. Abstract of
2. Plans

2. In addition to the advantages contemplated

contemplates from the suggested change in the termination of the above Canal as reported in my letter of the 9th ultimo, No. 10136, the District Engineer brings to notice that the new line of Canal will be cheaper than that originally proposed.

3. In the item of excavation a saving of Rupees 6,020, caused chiefly by a saving of distance, will be effected.

4. A sum of Rupees 10,000 is allowed in the Estimate for the new line of Canal as the appreciation of property and cost of removing buildings; but the Collector is of opinion that Rupees 9,000 would be a liberal compensation. There will thus be a further saving of 1,000 Rs.

5. The Canal as originally proposed would terminate in the Masulipatam Creek. Lieutenant Virtue is of opinion that to render this Creek navigable and accessible to boats at all stages

6,020
1,000
20,000
27,020

stages of the tide an expenditure of at least Rupees 20,000 over and above the original Sanctioned Estimate would be necessary. This sum is therefore a third item of saving which may be expected from adopting the new line of Canal, making an aggregate saving on the cost of the old line supposing the latter to be completed to the sea of Rupees 27,020.

6. In their Proceedings under acknowledgment the Government sanction the alteration of the line of the Masulipatam Canal on the condition that the original sanctioned Estimate is not exceeded; but I beg to explain that, whereas it was at first intended that the line of Canal should lock into the water a little way above the basin at Masulipatam, it is now proposed to carry it to the mouth of the Creek which is about 3 miles distant from the above point. There will therefore be an excess above the

the sanctioned Estimate, the exact amount of which I am unable to report as the Assistant Engineer does not state what the actual expenditures up to the date of preparation of his present Estimate was. From his Progress Report, however, it appears that up to the end of January, 1860, Papes 15,094 had been spent to which if the amount of the Estimate now recommended be added, it will give a total of Papes 253,294, and if the sanctioned amount of the original Estimate viz Papes 2,81,107 be deducted from this sum, an excess of Rs. 16,187 over and above that Estimate appears. This excess, however, is due to the extension of the Canal to the mouth of the Creek. Were it to stop at the point originally intended, viz at the basin at Masulipatam instead of being an excess there would be a saving on the sanctioned Estimate.

Lt

7. It has already been shown that to complete the old line to the mouth of the Creek, a sum of Rs. 20,000 in excess of the sanctioned Estimate would be required. The Estimate for the new line, therefore, tho' in excess of the sanctioned Estimate would yet be about 4,000 Papes cheaper than the line which it is to supersede.

8. Under the above explanation I request that the Estimate of Rs. 1,38,200 herewith submitted may be sanctioned. The rates allowed therein have been examined and found correct.

Separatum

5th March 1860

Esq. Major

By Ch. Secy M. C.

To the Secretary to

Government P. B. D.

W. C. F. H. 1860

I have the honor to be,
Sir,
Yours most obedt. Servant
H. Bell, Esq.
Chief Engineer

Revenue Irrigation. (New Work)
 Abstract of Estimate No. of 185 / 5
 District Krishna
 Talook — Village —

Work — Completing the Masulipatam Canal from the
 Crops bund above the Site of the Ankumarroo Lock to Tide water near the
 mouth of the Masulipatam Creek according to the new line.

Quantities.	Description of Work.	Rate.	Amount.	Amount of each part.
		No. a R. Rupees.	Rupees.	Rupees.
C. Yards.				
44840	Cutting along the first 1 1/2 Miles			
	Below the Crops bund 1 st Yard 1 st ft.	10	2335	
44840	Partly Cutting & partly embank-			
	ing in — 1 st — 2 nd Yard — 1 st ft.	1	2802	
100320	Cutting in 3 Miles of tolerably			
	high ground — 1 st Yard — 1 st ft.	10	5225	
68640	— 1 st — 1 st — 2 nd — 1 st — 1 st	1	1290	
83600	Cutting and embanking in 2 1/2			
	Miles of Salt water swamp.			
	1 st Yard — 1 st ft.	1	5225	
57200	— 1 st — 1 st — 2 nd — 1 st — 1 st	1 2	1171	
48400	Partly Cutting & partly embank-			
	ing in Swamp & high sandy			
	ridge near the Sea 1 st Yard 1 st ft.	1	3025	
35200	— 1 st — 1 st — 2 nd — 1 st — 1 st	1 2	2567	
15000	— 1 st — 1 st — 3 rd — 1 st — 1 st	1 4	1250	
	Constructing at Ankumarroo a			
	first Class Lock & Catapult			
	Similar to the one which has			
	been erected at Virinchi —			30000
	— 1 st — 1 st — at Gilkalindi —			30000
	Carried Over		90890	

No. 11037
 Office of the Chief Engineer
 of the Masulipatam Canal
 Masulipatam
 20th Nov 1855
 1274
 C. 232 Masulipatam
 18712-18713
 18712-18713

Quantities.	Description of Work.	Rate.		Amount.	Amount of each part.
		Rs.	A. P.	Rupies.	Rupies.
C. Yards.	Brought Over			90890	
	Constructing a double under drainage tunnel where the Channel crosses the Sultanagram Swamp			5323	
	For Small irrigating Sluices as per Estimate dated 35 th September 1854 deducting the amount expended for Sluices which already have been erected			14245	
	Sundries Extra Establishment and Contingencies at 10 th per cent			7742	
					118200
	To be repaid to the Proprietary Channel Estimate				10000
	Probable value of the buildings and land in the price of the Pettah which the Canal would occupy				10000
	Total Rupies				138200

Central Office of P.W.
Sipahkani.
5th March 1860

Approved by Colonel
Chief Engineer P.W.

Enclosure

In a letter

From

The Chief Engineer
D. P. W.

To

The Secretary to Govt.
D. P. W.

000621/60.

Dated 5th }
Received } March 1860

N^o 11037

Abstract Estimate for Completing
the Masulipatam Canal from the
Crop bund above the Site of the Asha-
maroo Lock to Tide water near the
mouth of the Masulipatam Creek
according to the new line in the District
of Krishna
Amounting to Rs 138,200--

N^o 712. P. P. D. 13

Proceedings of the Madras Government
Under date the 4th Feb^r 1860
Read the following letter
from the Chief Engineer

Submits two estimates
of the cost of completing the
Masulipatam Canal according
to the line ^{originally} proposed and that
subsequently approved.
(Here enter 5 March 1860 No. 11037)

I examined both
lines and entirely
approve of the
change

At Trusty go-
vide 24 March 1860

LG

Wm

With this letter, The
Chief Eng^r submits two
Estimates of 144,220 Rs and
138,200 Rs respectively, the
former being for completing
the Masulipatam Canal
according to the line origi-
nally sanctioned, and the
latter for effecting the
alteration approved by Govt
in their Pro: 28 Feb^r 1860, No. 12431.
2. The estimate entered
in the budget for the Masu-
lipatam Canal is altogether
2,37,107 Rs, & the expenditure
on it to the end of January
1860 was 115,094 Rs, and if this

This sum he added the estimated cost of completion according to ^{the} plan subsequently approved, the total probable cost will be 2,53,294 Rs, being Rs 16,187 in excess of the original estimate. But the present estimate includes the extension of the canal to the creek, whereas the former one stopped it at the present Masulipatam Pettah basin, going much out of the direct line in order to reach that basin.

3. The estimate for completing the original project to the Canal basin is 1,44,225 Rs; & the Chief Engineer states/Para 5/that it would take 20,000 Rs. to make the present narrow and tortuous Pettah Canal to the creek, equal to the new canal. On the whole

* Amount expended 1,15,094
Add approved estimate for completing the work 1,38,200
2,53,294
Deduct orig^l estimate 2,37,107
Excess Rs 16,187

he calculates/Para 5/
that the cost of completing the old project to the creek would be 2,70,200 Rs. in excess of that of the new project. Another advantage of the alteration, it is stated, will be that the new line will be much less expensive to clear and maintain, because much shorter and less circuitous than the one originally proposed, & that it will go thro' the town of Masulipatam instead of round it.

4. The present project therefore will not only cost much less than the original one would ~~have~~ done if fully carried out, but it will effect the same object in a much more perfect manner. The Govt therefore sanction the ^{revised} project now shown the ~~estimate of 1,58,200~~ Rs. ~~recommending~~ and desire ~~the add^d fund~~ will be taken from ~~that~~ ^{the}

~~to the Krishna District~~
~~the budget of 1860-61, and~~
the work ^{may} will be prose-
cuted with all practicable
expedition.

5. The Chief Eng^r will point out to the
Asst. Engineer his
omission to specify clear-
ly the amount of the
actual expenditure
with reference to which
these complete estimates
were prepared. The Chief
Eng^r will ascertain and
report this; it would
have been better if he
had ascertained it before
sending ^{up} the estimates.
The absence of this infor-
-mation makes it uncer-
-tain what is intended
as the total estimated
cost of the work; but
this is of minor importance,
because the success of one
project

project over the other
remains the same.

6. The estimate now
sanctioned includes 10,000
Rupees for compensation
for land and houses in
Masulipatam; but the
Collector thinks that
the amount actually
payable will not exceed
9000 Rs. The Govern-
-ment desire that no
time may be lost in
settling and paying the
value of property so
taken; it should be
paid for in every case
before being taken.

7. The Estimate
includes no provision
for connecting the two
parts of the Town now
to be separated by the
canal. A bridge is
absolutely necessary,
and the Chief Engineer
will

I do think the necessity
of connecting the two
parts is so obvious that
no time has been lost
before work is done
on the bridge, disconnection

to the officers etc
correct

will obtain and submit
an estimate for it with
out delay. It should
be built at the same
time that the canal
is excavated, and it should
be adapted in dimensions
and style of construction
to the probable traffic
over it.

AA

10 Copies
The Engineer Chief
with 2 more

Public Works 1860 Sept
Pro: of Govt. 10th April

No 712.

Pro: of the Madras Govt
D^y 4th April 1860

From the Chief Engineer
D^y 9th June 1860 No 1437 in
1437

Sanctioning the revised
project for completing the
Mascupatam Canal; and direct-
ing the early prosecution of the
work also calling on the Chief
Engineer to submit an estimate
for a bridge to connect the two
parts of the town to be separated
by the canal.

No 74 & 75