M.R.O. 1—23,409—23-11-38.

# MADRAS RECORD OFFICE.

## Government of Madras.

Public Works DEPARTMENT.

Dec 1856

G.O. No. 2159 Press Mis.

3384

Dated 11—10— 1856

**Not to be folded or roughly handled**

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*Fort Saint George, Public Works Consultation of 19th October 1858.*

No. 33. Read the following letter from Major E. LAWFORD, Officiating Chief Engineer; to the Secretary to Government, dated 2nd September 1858, No. 3363.

SIR,

1 Copy of a letter from the Acting District Engineer of Tinnevelly.
1 Sketch
1 Section.
1 Abstract Estimate.

I have the honor to forward for submission to Government a Sketch, Section, and Supplemental Estimate amounting to Rupees (250) two hundred and fifty, for deepening the bed of the channel for draining the Tharavay Lake into the Carumaney river in the District of Tinnevelly, as it amounts to more than 5 per cent of the Original estimate.

2. The excavation of the channel commenced in February 1857, the progress of the work was arrested by the operation of the restrictive orders, resumed in December 1857, and completed in February 1858.

* Budget No. 2, of 1856-57 No 285.

3. The estimate originally sanctioned* for this work amounted to Rupees (3,263) and a further sum of Rupees (700) was granted by the Trustees of the Trichendoor Pagoda as their share towards the excavation of the channel, thus raising the amount of the estimate of Rupees (3,963.)

* No. 108, dated 7th August 1858.

4. As the causes that principally led to the excess are satisfactorily explained by the Acting District Engineer in the accompanying copy of his letter*, and as the rates of the estimate now submitted are moderate but sufficient, I beg to recommend that Government will be pleased to sanction the same for immediate execution.

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Letter from Lieutenant R. F. OAKES, Acting Civil Engineer Tinnevelly; to Major E. LAWFORD, Officiating Chief Engineer, dated Courtallum, 7th August 1858, No. 108.

SIR,

I have the honor to forward for sanction a Bill amounting to Rupees (2.054-3-6) two thousand and fifty-four, annas three, and pice six for excavating a channel for the drainage of the Tharavay Lake.

2. The sum of Rupees (1,390-9-3) was expended upon this work in the year 1856-57, for which a bill was submitted in February 1858. In addition to the sums mentioned above Rupees (700) which formed the share due by the Trustees of the Trichendoor Pagoda have been expended, making a total of Rupees (4,144-12-9) or nearly 4-6 per cent in excess of the estimated amount.

3. The work was commenced on the 15th February 1857, and was completed on the 28th February 1858. On the issue of the restrictive orders of July, the work was stopped and it was resumed again in December 1857, much trouble however was experienced in procuring coolies for the work from other Talooks for as the Inhabitants of the Neighbourhood are sharers, no assistance was given by them and the work consequently progressed but slowly.

4. As mentioned in my Diary of May 1857, the excavation of the channel was commenced nearer to the Caramaney river than was originally intended, this, as I explained, was owing to the fact of the plan shewing, that the excavation was to commence at a point 4-5 above the level of the bed of the river, while in point of fact the original starting point was not the lowest portion of the bed but a slab of Rock 2½ feet above that point, but as I also mentioned but little excavation was required for a distance of some 750 feet, after which the bed of the channel rose almost abruptly to a height of 4 feet and as only a portion of this had been excavated when Mr. McNair assumed charge of the work, but little was excavated in excess of what was originally intended as will be seen from the accompanying section*. At a distance of 1970 yards from the river several deep pits appear in the channel bed, this is to be attributed to Mr. Smith's neglecting to use the boring staves with which I had provided him and to his having excavated to the same depth where the ground fell as he had in passing through a small undulation of the ground, for this he was severely reprimanded as mentioned in my Diary, subsequently Mr. McNair assumed charge of the work and levelled up the channel from time to time so as to prevent the possibility of any further mistake on Mr. Smith's part, I had also taken levels and driven in pickets to shew how deep the channel was to be excavated, but Mr. Smith stated that these pickets had been removed by the

* Plan and section sent separately.

proprietors of the land, however there was no excuse for his having neglected the levels, for I had taught him to use the boring staves and had ascertained that he could use them correctly before I entrusted him with the charge of the channel. The work was executed satisfactorily after Mr. McNair assumed charge of it, the pit dug in the vicinity of the Kunnoo Tharavay was excavated to procure earth to form a bank to prevent the water from the channel flowing into the Kunnoo Tharavay.

5. The channel has been opened out to the Tharavay but at a distance of 225 yards from its falling into that Lake, Kunkar and gravel appear in the bed of the channel for a distance of 570 yards cropping up from $\frac{1}{8}$ to $\frac{1}{2}$ yard above the proper level of the bed, this has not been removed as the amount already expended upon the work has exceeded the estimate.

6. The excess has resulted partly from Mr. Smith's error, partly from my having had the channel excavated straight in some places across bends of the old channel (slight traces of which existed) but chiefly owing to the channel having filled up considerably since the Original estimate was made, for the quantity of earth calculated to be excavated was cubic yards 82-908¾, while that actually excavated was 145-817 $\frac{9}{16}$ a sum of Rupees 36-8-3 was also expended in clearing out accumulations which had taken place during the time the work was in progress in the portions of the channel first excavated.

7. The slope of the bed of the channel from the Tharavay Lake to the Soondancottay Tharavay is 1-5″ in 1000 and thence to the Caramaney river the slope is 1′ in 1000 feet. The side slopes of the channel for a distance of 4263 yards from the Tharavay are 1½ to 1 and for the remainder of the distance 2 to 1, the former were reduced to 1½ to 1 in order to reduce the cost of the excavation as it appeared probable that the estimate would otherwise be exceeded.

8. This channel enters the Lake at a level of 9 feet above the ordinary high water mark and 5 feet below the extraordinary High water mark. No water has flowed down it since its completion and I fear that if water does not flow through it within a year or two that the shifting sands will soon fill it and render it useless, but I imagine that if heavy rain fell and the Tharavay once filled the large volume of water which the channel would have to discharge would soon form an adequate opening for itself through the sandy soil through which the channel passes.

9. Heavy showers of rain only have the effect of forming deep ruts in the banks the sand from which blocks up the channel to a height of from 2 to 3 feet.

10. The original estimate framed for the excavation of this channel amounted to Rupees (10,294) but it was reduced to 3,808* as Mr. Bird and Major Horsley did not wish to recommend to Government the expenditures of so large a sum as the former on a project the result of which was problematical.

* The amount was increased either in the Central Office of P. W. or by Government to Rupees 3,963.

11. The original estimate should have allowed for planting thorn-hedges at intervals or thorn-bushes for a distance of 20 or 25 yards on the windward side of the channel to prevent the sand from filling in the channel, this I proposed in my Diary General Observations for May 1857.

12. Owing to the scarcity of rain during the last 5 years, the water in the Tharavay has hardly risen so high as its ordinary level. The bed of the channel, is now 9 feet above that level and the obstructions of Kunker would raise the water to 1½ feet higher before it could escape by the channel I would therefore recommend the sanction of the enclosed estimate of Rupees (250) for the removal of the rock &c.

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No. 31. ORDER THEREON, No. 2159; dated 14th October 1858.

The Governor in Council sanctions the supplemental estimate amounting to Rupees (250) two hundred and fifty, submitted by the Officiating Chief Engineer with his letter above recorded for deepening the Channel recently excavated for draining the Tharavay lake into the Carumaney river in Tinnevelly by removing kunker and gravel.

2. The planting of thorn hedges on the windward side of the channel alluded to in para. 11 of the District Engineer's letter is worthy of notice and should receive the attention of the Officiating Chief Engineer.

(Signed) T. PYCROFT,
*Chief Secretary.*

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Revenue
Irrigation
No. 31.

Central Office of P.W.
Fort Saint George
2nd September 1858

No. 3363.

From
The Offg. Chief Engineer

To
The Secretary to Government
Public Works Department

Sir,

I have the honor to forward, for submission to Government, a sketch, election, and supplemental Estimate amounting to Rupees (250) two hundred and fifty, for deepening the bed of the Channel for draining the Tharavay lake into the Caramaney river in the District of Tinnevelly, as it amounts to more than 5 per cent of the original Estimate.

2 The excavation of the Channel commenced in February 1857, the progress of the work was arrested by the operation of the restrictive Orders, resumed in December 1857, and completed in February 1858.

\+ Budget Ft 2 of 1856/58 P. 285

3 The Estimate originally sanctioned for this work amounted to Rupees 3,263 and a further

Sum

sum of Rupees 700 was granted by the Trustees of the Trichendoor Cazada, as their share towards the excavation of the Channel, thus raising the amount of the Estimate to Rupees 3963.—

4 As the causes that principally led to the excess are satisfactorily explained by the Acting District Engineer in the accompanying Copy of his letter, and as the rates of the Estimate now submitted Fs. 1085 4 2 1858 are moderate but sufficient, I beg to recommend that Government will be pleased to sanction the same for immediate execution.—

I have the honor to be,
Sir,
Your most Obedt. Servant
Offg. Chief Engineer

Fort Saint George
2d September 1858

To
The Secretary to Government
P. W. D.

No 108

Mayor &c. Lawford
Officiating Chief Engineer
Department of Public Works
Fortification Frange

Sir

Dated [illegible]

I have the honor to forward for
sanction a Bill amounting to Rupees
120854 - 3 - 6 / Sun Thousand and fifty four
Rupees three and five six for Examining a
Channel for the drainage of the Swamp
Adjacent to the Lal Kot.

2 The sum of Rupees 1390 - 9 - 3 were
Expended within this month on the repair 1866/67
for cutting a Bridle road Submitted in February
1858 - the addition to the Lines marked the letter
above Rupees 700 which formed the Estimate —
due by the Sanctioned of the Fortifications
Superintendent Expended in carrying a
Total of Rupees 41444 - 12 - 9 as nearly 41 - 6 per
Sanction Accepts of the Estimated Amount.
The work was commenced on the
3. 15th February 1867 and was completed on the
15th February 1868 On the Surface of the Road.
28th February 1868 the work was stopped
Building Season of July, the work was stopped
and will was resumed again in December
1867 much trouble however was Experienced
in

Rs. Ans. 16 Sept/36 pp 44-45
— a 5 June a — a 32-33
— a 16 Oct/55 a 41-42

No 33.

Dated 2nd } February 1858.
Received 9th }

C/3363

Sub: A Returned enclosing
pp 44-58
Dft No: 2159 - 11th Bolton Bdr.

Submits, for sanction, an
Supplemental Estimate amounting to
Rupees 250 for deepening the bed of
a Channel for draining the Swamp
lake near the Carimaney river in
the District of Tinnevelly.

2nd Oct. R 12th

in procuring Coolies for the work from other Talooks for as the Inhabitants of the Neighbourhood are Shaners no assistance was given by them and the work consequently progressed but slowly.

4. As mentioned in my Diary of May 1857 the Excavation of the Channel was commenced nearer to the Baramancy River than was originally intended, this, as I Explained, was owing to the fact of the plan shewing that the Excavation was to commence at a point 4-5 above the Level of the bed of the River while in point of fact the original starting point was not the lowest portion of the bed but a Slab of Rock 2½ feet above that point, but as I also mentioned but little Excavation was required for a distance of some 750 feet after which the bed of the Channel rose almost abruptly to a height of 4 feet and as only a portion of this had been Excavated when Mr McNair assumed charge of the work but little was Excavated in Excess of what was originally intended as will be seen from the accompanying section† — At a distance of 1970 yards from the River several deep pits appear in the Channel bed this is to be attributed to Mr Smiths neglecting to use the boring Canes with which

† Plan and section sent separately

which I had provided him and to his having Excavated to the same depth where the ground fell as he had in passing through a small undulation of the ground for this he was severely reprimanded as mentioned in my Diary - Subsequently Mr McNair assumed charge of the work and levelled up the Channel from time to time so as to prevent the possibility of any further mistake on Mr Smiths part. I had also taken Levels and driven in pickets to shew how deep the Channel was to be Excavated, but Mr Smith stated that these Pickets had been Removed by the Proprietors of the Land however there was no Excuse for his having neglected the Levels for I had taught him to use the boring Canes and had ascertained that he could use them correctly before I entrusted him with the charge of the Channel. The work was Executed satisfactorily — after Mr McNair assumed charge of it, the pit dug in the vicinity of the Rumnoo Tharaway was Excavated to procure Earth to form a bank to prevent the water from the Channel flowing into the Rumnoo Tharaway.

5. The Channel has been opened out

out to the Haraway but at a distance of 225 yards from its falling into that Lake Hunkar and gravel appear in the bed of the Channel for a distance of 570 yards cropping up from ⅛ to ½ yard above the proper level of the bed this has not been removed as the amount already expended upon the work has exceeded the Estimate....

6. The Excess has resulted partly from Mr Smiths error partly from my having had the Channel excavated straight in some places and so lands of the old Channel (slight traces of which existed) but chiefly owing to the Channel having filled up considerably since the Original Estimate was made for the quantity of Earth calculated to be excavated was Cyds 82.908¾ while that actually excavated was 145,817⅞ - a sum of Rupees 36-8-3 was also expended in clearing out accumulations which had taken place during the time the work was in progress in the portions of the Channel first excavated.

7. The slope of the bed of the Channel from the Haraway Lake to the Soondanuttay Haraway is 1.5' in 1000 and thence to the Baroomaney River the slope is 1' in 1000 feet The side slopes of the Channel for a distance of 4263 yards from the Haraway are 1½ to 1 and for the remainder



remainder of the distance 2 to 1 the former were reduced to 1½ to 1 in order to reduce the cost of the excavation as it appeared probable that the Estimate would – otherwise be exceeded.

8. This Channel enters the Lake at a level of 9 feet above the Ordinary High water Mark and 5 feet below the Extraordinary High water Mark. No water has flowed down it since its completion and I fear that if water does not flow through it within a year or two that the shifting sands will close it and render it useless, but I imagine that if heavy rain fell and the Haraway once filled the large volume of water which the Channel would have to discharge would soon form an adequate opening for itself through the sandy soil through which the Channel passes.

9. Heavy showers of rain only have the effect of forming deep rents in the banks the sand from which blocks up the Channel to a height of from 2 to 3 feet.

10. The original Estimate framed for the excavation of this Channel – Amounted

amounted to Rupees 8294 but it was reduced to 3808-0-0 as Mr. Bird and Major Hornby did not wish to recommend to Government the Expenditure of so large a Sum as the former on a Project the result of which was problematical.

11. The Original Estimate should have allowed for planting thorn hedges at intervals or thorn snakes for a distance of 20 or 25 yards on the windward side of the Channel to prevent the sand from filling in the Channel this I proposed in my Diary General Observations for May 1857.

12. Owing to the scarcity of rain during the last 5 years the water in the Thannay has hardly risen so high as its Ordinary level. The bed of the Channel is now 9 feet above that level and the obstruction of Sunder would raise the water to 11 feet higher before it could escape by the Channel I would therefore recommend the Sanction of the Enclosed Estimate of Rupees 250 for the removal of the Rock &c.

Timmully Dy Engr Office
Cantallium
7th August 1858.

I have the honor to be &c
(Signed) R. F. Cashin Lt.
Ag. Dy Engr Timmully
(True Copy)

Officiating Chief Engineer

+ The Amount was increased at the Sanction of the Chief Engineer Office of C. W. R. by Government to Rupees 3963---

15

Revenue, Irrigation. (New Work)

Abstract of Estimate No of 185 5

District Tinnevelly.

Talook Punjamahl. Village

Work Deepening bed of a Channel for draining the Kharavay Lake into the Carumaney River.

| Quantities. | Description of Work. | Rate. Rs | a | p. | Amount. Rupees. | Amount of each part Rupees. |
|---|---|---|---|---|---|---|
| C. Yards. 1 | Deepening bed of Channel | | | | | |
| 640 | Gravel ——— Cy. | " | 2 | " | 80 | |
| 350 | Soft Kunker ——— Do. | " | 4 | " | 87 | |
| 150 | Hard Do. ——— Do. | " | 8 | " | 75 | |
| | Sundries ——— | | | | 8 | |
| | Total Company's Rupees — | | | | | 250 |

Central Office of P.W.
Fort Saint George.
2nd September 1858

Major
Offg. Chief Engineer D.P.W.

Entered in a Letter from the Officiating Secretary to Government to the Secretary to Govt. P.W.D.

Dated 2nd
Received 5 September 1858

No. 3513

MP 2089/58

Copy of a Letter from the Acting Assistant Engineer Tinnevelly Division to the Secretary to Government P.W.D. dated 2nd September 1858 No. 2054-36

Forwarding a Statement of the Estimate for the Deepening & Channelling the Kharavay Lake in the Punjamahl Talook in the Tinnevelly District and requesting that the Rupees 250 for Rupees Estimate of Repairs 250 for Rupees may be sanctioned for the necessary objects.

| Quantities | Description of Work. | Rate | | | Amount. | Amount of each part. |
|---|---|---|---|---|---|---|
| C Yards | | Rs. | a. | p. | Rupees | Rupees. |

Enclosure

No

From

The Offg Chief Engineer
S. Div

To

The Secretary to Govt
P.W.D.

M 2089/58

Date 2nd September 1858
Recd

No 3363

Abstract of Supplemental Estimate for Deepening bed of a Channel for Draining the Maravaey Lake in the District of Tinnevelly.

Amounting to Company's Rs 250- - -

No 2159 P.W.D.

Extract from the Minutes of Consultation

Under date the 14th October 1858.

Read the following

Letter from the Officiating Chief Engineer.

Recd the 2nd September 1858 No 3363

The Governor in Council sanctions the Supplemental Estimate amounting to Rupees (250) Two hundred and fifty submitted by the Officiating Chief Engineer with his letter above recorded for deepening the Channel recently excavated for draining the Maravaey Lake into the Cummum river in Tinnevelly by removing kunkur and gravel.

The planting of

thorn

thorn hedges on the windward
side of the channel alluded to
in para 11 of the District Engineer's
letter is worthy of notice and
should receive the attention of
the Officiating Chief Engineer.

10 Copies to the Off'g Chief Engr. Distd 15

G.W-16th Sept. /56 No. 44-45
" — 3 June — " — 32-33
" — 16th Oct. /55 — 41-42

Public Works 1858 Dept.
Do to Cons: 19th October

No. 259.

Extract Mins of Cons:
Of 14th October 1858.

From the Chief Engr. &
2d. Sept. 59. No. 2325 in Cons.

Sanctioning the
supplemental Estimate
amounting to Rs. 250 for deep:
: ening the bed of a Channel
Tinnevelly.

No. 33 & 34.