M.R.O. 14—13,000—27-9-24.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 2054 Press ~~Mis.~~

299. 300

Dated 13 - 8 - ~~19~~ 1866

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department,
13th August 1866.

No. 299. Read the following Proceedings of the Madras Government in the Public Works Department :—

Sanctioning the revised estimate, prepared by the Chief Engineer of the French Settlements in India, for certain modifications and improvements of the Vicravandy anicut and channel in South Arcot District. } (Here enter 6th August 1866, No. 2,464.)

No. 300. ORDER THEREON, 13th August 1866, No. 2,054.

Miscellaneous.

Communicated to the Board of Revenue.

(True Extract.)

(Signed) J. GROSE,
Under Secretary to Government.

To the Board of Revenue, with Proceedings Public Works Department, No. 2,464.

Exd. S. T. Augustin.

No. 94. Read the following letter from the Superintending Engineer, 5th Division, to the Secretary to Government, Department Public Works, dated Cuddalore, 14th July 1866, No. 71:—

1 Section.
1 Letter from the Governor of Pondicherry.
1 Report.
1 Estimate for earth-work.
1 Do. for masonry dams.
1 Detailed do. for do.
1 Report.

1. I have the honor to report, that on the receipt of the Order of Government of the 26th of October 1865, No. 3,230, I put myself in communication with Mr. Lamairesse, the Engineer of the French Government, and promised to name an early day, after my arrival at Cuddalore, for a Meeting at which the alterations proposed to be made to the Vicravandy channel, should be decided on.

2. In the letter of His Excellency the Governor of Pondicherry, recorded in the Proceedings of Government of the 26th October, the probable cost of altering the channel is stated to be 10,000 Rupees. I applied for a copy of the estimate, and on being furnished with it, found that the amount was made up as follows:—

For removing rock in the upper part of the channel...	Rs.	4,375
For earth-work in the rest of the channel	,,	4,453
For two sluices and sundries	,,	2,005
Total...	,,	10,833

The original estimate of the Vicravandy channel was Rupees 10,000, and for that sum an anicut and two calingulahs were built, and the main channel and several branches cut. Mr. Lamairesse has always maintained that the channel was not cut with the slope originally agreed upon, and yet his estimate for giving the channel (that has already been cut) that slope amounts to no less than 8,828 Rupees. It is therefore very clear, that the channel could not possibly have been cut with the slope now proposed to be given to it, out of the original estimate.

3. All this I pointed out to Mr. Lamairesse at our Meeting at Pondicherry on the 5th of March, also that the channel was not worth such a large outlay. At the same time, I offered to withdraw my opposition to his scheme for improving it, provided he revised his estimate, so as to reduce the amount very considerably. I also suggested that the revised estimate should be based on a fresh section of the channel, as that taken in 1859 could not now be expected to be correct.

4. Mr. Lamairesse agreed to have the channel levelled over again, and to reduce his estimate to a minimum. The estimate and section which I forward with this letter, I received through the Collector of South Arcot last month. The estimate now amounts to 14,350 Francs, or 5,978 Rupees, made up as follows:—

For removing rock at the upper end of the channel...	Rs.	833
For earth-work in the rest of the channel...	,,	4,562
For the sluices...	,,	583

The section of the channel appears to have been taken with great care, and it is accompanied by a sheet of cross sections showing the proposed deepening and widening, at short intervals, all the way down the channel.

5. If the work is carried out in accordance with this estimate, there is no doubt that the tanks at the lower end of the channel, (mostly in French Territory) will receive a better supply, than they do at present. But the supply to the tanks

at the upper end in English Territory will be cut off by deepening the main channel. To remedy this, two masonry dams with shutters are to be built in the main channel. The shutters are to be kept down during the time the tanks at the upper end are entitled to take water from the channel, and raised afterwards.

6. The alterations are not exactly what I should have proposed, had the channel been entirely in English Territory, for as the anicut has been raised three feet since the channel was first cut, I do not think so much deepening in the rocky part at the head of the channel is needed. But as the controversy regarding this channel has been going on since 1859, and there is now a prospect of its being ended to the satisfaction of the French Government, I beg to recommend that the estimate be sanctioned, and that the amount to be contributed by the British Government be granted from this year's "Reserve." The expenditure on this work to the end of March is estimated by the French Engineer at Rupees 3,423, two-thirds of which, viz., Rupees 2,282 is the amount for which sanction is now solicited.

From His Excellency the Governor of Pondicherry, to the Collector and Special Agent, dated Pondicherry, 18th June 1866.

1. I have the honor to forward a project for the construction of a dam (flood gates) across the Vicravandy channel, together with the papers connected with it, as also a project for repairing the flooring of the said channel. The expenditure for the whole of the work now to be carried out will amount to 14,350 Francs, of which two-thirds should be borne by your Government.

2. You will observe that in both these new projects drawn out by the Chief Engineer, the remarks made by Colonel Foord on the first project, submitted by the Service of the Ponts et Chaussées, have been taken into consideration.

3. However, as the English Government will have to bear the largest portion of the expenditure, it is therefore indispensable that we should come to an understanding, previous to the execution of the proposed work, and I request that you will be good enough to acquaint me of what has been done by your Administration for the settlement of this long pending affair.

(True Translation.)

(Signed) C. W. READE,
Special Agent.

TRANSLATION.

No. 1.

PUBLIC WORKS DEPARTMENT OF PONDICHERRY.

Vicravandy Canal Report.

1. At the last conference I had at Pondicherry with Colonel Foord, it was arranged that we should attempt a project which would reconcile the necessity for the introduction of water at a higher part of the canal, which was objected to by me, with the wants of economy and a reduction of expense, as proposed by him.

2. With this view, I made Mr. Lomerez, an Overseer practised in levelling, take with much care and in the greatest detail the section in length, the sections in breadth, and some geological sections of the entire length of the canal, so as to render a complete account of the works originally executed, of the obstructions since overcome, and the nature of the excavations to be made.

3. I have thus been enabled to project a line, which is, for the greatest part of its length, that which must have been adopted when the works were executed, for this line by its declivities extended, joins the foundations of the bridges constructed over the canal.

4. The cross sections at different points have accordingly been calculated in proportion to these declivities, and of the quantity of water to be introduced.

5. The sluice regulators which exist across the canal at 550 metres from the influx of the water, having only two openings each 1·40 metre in size, will be done away with in consequence of the insufficiency of the flow. The re-construction of this work with other dimensions is not indispensible, seeing that the three waste sluices will permit of the easy discharge of all surplus water which may enter the canal.

6. On the supposition that we execute the work with our ordinary economic, the cost of the earth-work for the whole of the canal will on this project be 12,950 Francs, or Rupees 5,180, two-thirds of which, or Rupees 3,551, will be paid by the British Government, and the other third by the French Government. (Detailed Estimate No. 1).

7. There will be besides two dams with sluices constructed in the canal, one at Seitouvanam and the other at Monguilpeth, in order to retain water in connection with the branch canals at Tadapooram, Seitouvanam, Caltapeth, and Monguilpeth. The expense of 1,400 Francs, or Rupees 560, will likewise be borne in the same proportion by the two Governments. (Detailed Estimate No. 2).

8. There will also be made from two to four head-sluices where the water enters, is passed on, or retained. For each of these, there will be an expense from 200 to 250 Francs (Rupees 80 to 100). This expense might be charged to the Ryots interested.

9. I am constrained by this solution to satisfy all interests. In order that the estimates may not be exceeded, it is essentially necessary that the Public Works Department should be entrusted with the work, and that it should be executed by the pupil Overseer Gnanadicom, who is at all times on the spot, under the direction of the Field Overseer.

10. It is necessary to communicate this proposal to Mr. Foord, through the Collector. When the works are completed, the regulation of the water can be provided for.

PONDICHERRY,
7th June 1866.

(Signed) LAMAIRESSE,
Chief Engineer.

No. 2.

Detailed Estimate of the earth-works to be performed at the Vicravandy Canal.

Description and nature of the works.	Cubes or quantities.	Rates.	Total of each item.	General total.
Earth-work.		Fr. C.	Francs.	Francs.
Excavation in rocky ground traversed by the Canal	500	4 0	2,000	
Ordinary excavation throughout the whole course of the Canal	73,000	0 15	10,950	
				12.950

PONDICHERRY,
7th June 1866.

(Signed) LAMAIRESSE,
Chief Engineer.

No. 3.

Detailed Estimate of the works of construction of a dam with moveable sluices to be placed across the Vicravandy Canal at the head of the Monguilpeth Branch Canal.

Description and nature of works.	Cubes or quantities.	Rates.	Total of each item.	General total.
Earth-work.		Fr. C.		Francs.
Ordinary excavations to be made for laying the foundations of the work	8,800	0 15	1·32	
Masonry.				
Masonry with mortar composed of two parts of sand and one of chunam	14,594	17·03	248·02	
Hydraulic Masonry.				
Hydraulic masonry composed of one part of hydraulic cement, one part of chunam, two parts of sand, and of bulpum in the proportion of two parts of bulpum to one of mortar ...	2,106	10·40	21·90	
Carpentry.				
Teak-wood of the first quality for use in making the sluice gear	1,017	210·	213·57	
Iron works.				
Iron of the first quality for making the gear, bolts, &c.	150 k·	1·25	187·50	
Painting.				
Daubing with tar all exposed parts of the sluice	35 m·	0·30	10·50	
			682·81	
Contingencies	.....	.....	17·19	
Total...	.....	.....	700·	
A similar dam	.....	.....	700·	
General Total...	.....	.....	.....	1,400

Pondicherry,
7th June 1866.

(Signed) LAMAIRESSE.
Chief Engineer.

Proceedings of the Madras Government, Public Works Department,
6th August 1866.

Specification of the works of construction of a dam with moveable sluices to be placed across the Vicravandy Canal at the head of the Monguilpeth Branch Canal.

Description and nature of the works.		Dimensions.	Surfaces.	Cubes or quantities.	Totals in each case.
Earth-works.					
Excavation for laying the foundations of the masonry which support the body of the dam.	Length... ...	7·60	7·60	7·600	
	Breadth ...	1·00			
	Depth	1·00			
Excavation for laying the foundations of the sustaining walls.	Width altogether	4·00	2·00	1·200	
	Breadth ...	0·50			
	Depth	0·60			
Cubic total of Earth-works ...		.....	.....	.....	8·800
Masonry.					
Foundation of the principal wall.	Breadth ...	7·50	6·750	6·750	
	Length... ...	0·90			
	Depth	1·00			
Foundations of the supporting walls.	Length... ...	4·00	3·20	3·200	
	Breadth ...	0·80			
	Depth	1·00			
Height of principal wall ...	Length... ...	4·00	2·00	1·200	
	Breadth ...	0·50			
	Height... ...	0·60			
Revetment	Length... ...	4·00	1·60	2·400	
	Breadth ...	0·40			
	Height... ...	1·50			
Volume of the flooring which overlays the hydraulic cement work.	Length... ...	2·00	7·80	1·014	
	Breadth ...	3·40			
	Thickness ...	0·13			
Total bulk of Masonry ...		.....	.....	.....	14·564
Hydraulic Masonry.					
Layer of cement over the whole surface under the flooring.	Length...	2·00	7·80	2·106	
	Breadth ...	3·40			
	Thickness ...	0·27			
Cubic total of Hydraulic Masonry ...		.....	.....	.....	2·106
Carpentry.					
Frame of the sluice centre post.	Length... ...	3·50	0·760	0·190	
	Breadth ...	0·20			
	Height... ...	0·25			
A similar frame		.....	.....	0·190	
Corner post	Length... ...	3·50	0·875	0·131	
	Breadth ...	0·25			
	Thickness ...	0·15			
A similar post		.....	.....	0·131	
Coping	Length... ...	3·80	1·12	0·224	
	Breadth ...	0·40			
	Thickness ...	0·20			
Sluice	Length... ...	0·75	0·84	0·050	
	Breadth ...	1·12			
	Thickness ...	0·06			
Two similar sluices...		.....	.....	0·101	
Total volume of Carpentry ...		.....	.....	.....	1·017

Specification of the works of construction of a dam, &c.,—*(Concluded)*

Description and nature of the works.	Dimensions.	Surfaces.	Cubes or quantities.	Total in each case.
Iron work.				
Flat iron for making the valve rods, &c., for raising the sluice gate, &c., &c.	.....	.....	90 k	
Round iron for making large and small bolts...	.....	.....	60 k	
				150 k
Total ...	.....	.....	.....	
Painting.				
Tarring all the exposed parts of the sluice ...	.....	.....	35 Square metres.	

PONDICHERRY,
7th June 1866.

(Signed) LAMAIRESSE,
Chief Engineer.

Reply to the observations made by Colonel Foord on the subject of the Vicravandy Canal.

1. The observations of Colonel Foord refer to the Chief Engineer, Mr. Lamairesse's original project, which has since been modified. This last project was submitted to the Government on the 7th of this month : it entirely meets the objections raised by Colonel Foord, who was not aware of it, when he wrote his letter.

2. In the third paragraph of his report, Mr. Lamairesse in speaking of his last trace of the line of the bed of the canal, expresses himself thus: "I have thus been enabled to project a line, "which must have been, for the greatest part of its length, that which was adopted when the works "were executed, for this line by its declivities extended, joins *the foundations of the bridges* "*constructed over the canal.* The cross sections at different points have accordingly been calcu- "lated in proportion to those declivities and of the quantity of water to be introduced." The section in length showing the trace of this line was in the packet submitted on the 7th of this month. Colonel Foord will perceive that it plainly meets his objections.

PONDICHERRY,
11th June 1866.

(Signed) A. CARRIAL,
The Colonial Sub-Engineer in charge of the Public Works Department.

(True Copy.)

(Signed) E. A. FOORD, Lieut.-Colonel, R. E.,
Superintending Engineer, 5th Division.

No. 95. ORDER THEREON, 6th August 1866, No. 2,464.

CIVIL WORKS, No. 14.

1. Under the circumstances explained in this letter, and on the recommendation of the Superintending Engineer of the 5th Division, the Government sanction the revised estimate of Rupees 5,978 which has been prepared by M. Lamairesse, the Chief Engineer of the French Settlements in India for certain modifications and improvements of the Vicravandy anicut and channel in the South Arcot District.

2. The expenditure on the work during the current official year being estimated at Rupees 3,423, the amount to be contributed by the Madras Government is Rupees 2,282, which will be provided from the Reserve under "Agricultural."

Ordered that the following letter be sent:—

(Here enter No. 2,465, dated 6th August 1866.)

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 5th Division.
" Controller of Public Works Accounts.
" Accountant General.
" Revenue Department.

Ex'd. T. O'Connor.

No. 26th Oct/65 No 678 & 682

Rev = 1866. West.
Proc.s of Govt. for August
No. 2436.

Proceedings of the
Madras Govt. in
the P. W. Depart.

Dated 6th August
Received 8th " 1866.

No. 2464.
Board's Pro. 28 Sept/66 & No 3166

Sanctioning the revised
Estimate prepared &
by the Chief Engineer of the French
Settlements in India, for certain
modifications and improvements
of the Vicravandy Anicut and
Channel in South Arcot Dist.t.

No. 2054.

Communicated to
the Board of Revenue

LM
13th August/66.

14. To the Board of Revenue Pro. Cons. dated 13th Aug. 1866

A 299 & 300

No 2054 13th Augt.

W. Order L