Archives 1—10,006—6-10-76.

(1) Number of pages 1

(2) Date of repair 9-5-86

(3) Initials of the Referencer [illegible]

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No. / B.P. No.	Press. / Mis.
215	
Dated 17.1.1879	197 .

Not to be folded or roughly handled

215/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

24th December 1878, No. 1,045 I.

Irrigation.
Account.

Read the following papers :—

No. 43.

No. 68. MEMORANDUM.

With reference to G.O., No. 871 I, of the 31st ultimo, the undersigned having had an opportunity of examining the design for the new head sluice for the main canal, Godavari Central Delta, has the honor to inform the Superintending Engineer, First Circle, that the site selected by Mr. Walch for the sluice, as shown on the site plan, is approved, and the design subject to the following modifications :—

1. Foundations.

(*a*) Front retaining wall. The wells are shown as going down to 18·00 or 14 feet below the sill. They should be carried lower if practicable, *i.e.*, if clay is not met with at that level, and the excavation between the two rows of wells in which the concrete is to be laid should be put down as low as possible within the limit of 2 feet above the curb of the wells. It will be desirable, if practicable, to put the concrete down to 20 feet below sill. What may be practicable will depend upon the quantity of water met with, and the extent to which pumping may be practicable without endangering the stability of the wells.

(*b*) Rear retaining wall. The wells under this should likewise be carried down to 12·00 or to 20 feet below sill if clay be not met with. The spaces between the wells should be closed by piles to prevent any sand passing through these spaces. The piles to be driven in contact with each pair of wells on the upstream side. The piles to be of Godavari teak or of wood to be depended upon to last under water.

(*c*) All wells, as soon as built, to be marked with a gauge painted with tar or otherwise upon them so as to show clearly the exact depth to which each well may be sunk. All additions to the height of any well to be similarly marked. The wells to be numbered consecutively on the plan and the depth to which sunk to be recorded on the working plan, and afterwards transferred to the record plan and reported to the Chief Engineer for Irrigation.

(*d*) The rear retaining wall to be carried to the ends of the returns of the rear wings.

(*e*) Under the body of the sluice, *i.e.*, from 1 foot in front of the line of the front cutwaters to the same distance behind the rear cutwaters, the depth of the concrete below the cut stone apron or floor to be increased from $3\frac{1}{2}$ to $4\frac{1}{2}$ feet; from the latter point to the rear retaining wall the thickness of concrete to be 2 feet instead of $3\frac{1}{2}$ feet. Under the wing walls also the depth of concrete to be $4\frac{1}{2}$ feet, and the width of concrete on the outside of the footing of the superstructure to be 2 feet.

2. Superstructure.

(*a*) The level of the roadway of the sluice to be 57·25 or 4 feet above maximum known flood level, viz., that of 1861, and the width of the roadway between the parapets to be 9 feet instead of 15 feet as in the design.

(*b*) The distance from the rear end of the short piers to the outer edge of the rear retaining wall to be not less than 40 feet.

(*c*) The wing walls to be 8½ feet thick at sill level and 2½ feet thick at top.

(*d*) The shutter platform to be at the level 55·33 shown on the design, that level being suitable to the gear already prepared.

(*e*) The rear face of the abutments to be carried up to 6 feet above springing and the surface of the backing to be a tangent to the arches from that level.

(*f*) The rear rough stone apron to be 3 feet instead of 18 inches thick. It will extend to the old sluice a distance of about 50 feet.

(*g*) The front rough stone apron to be 2 feet thick and not less than 18 feet wide.

3. Unwatering of foundations.

Mr. Walch has two steam pumps available. It is probable that they will be adequate, but it is considered desirable that a third steam pump should be provided as a reserve, and Mr. Walch has been advised to apply at once to the Superintendent, Public Works Workshop and Stores, for a portable engine and rotary (centrifugal) pump.

4. With regard to the latter part of paragraph 2 of the Acting District Engineer's letter, No. 2,545, of the 3rd instant, the substitution of the concrete for puddle is approved, but it may be noticed that unexceptionable clay for puddle is obtainable from near the Lolla and Balli Locks 8 miles down the main canal, and it is believed also that this clay will be found more suitable for burning to mix with the lime to form hydraulic mortar than is the clay now in use.

5. It is considered that the work referred to in paragraph 9 of the Acting District Engineer's letter should so far as immediately required be charged to the head sluice.

6. In order to obtain as definite information as possible as to the circumstances of the site about half a dozen trial bores should be made without delay on the lines of the front and rear retaining walls respectively down to at least 25 feet below sill level and the results recorded on sections. Should any modifications of arrangement of foundations be then deemed necessary they should be reported.

DOWLAISHVARAM,
23rd November 1878.

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation,
On Special Duty.

Copy for Acting Chief Engineer for Irrigation.

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation,
On Special Duty.

No. 68-A. From the Acting Chief Engineer for Irrigation, dated 4th December 1878, No. 357 I.

No. 68-B. From G. T. WALCH, Esq., Acting District Engineer, Godavari, to the Acting Chief Engineer for Irrigation, dated Dowlaishvaram, 5th December 1878, No. 2,947.

I HAVE the honor to forward herewith sheets 1 and 2 of plan and estimates for head sluice, Central Delta, revised in accordance with the instructions contained in No. 43,* dated 23rd November 1878.

Two Plan Sheets Nos. 1 and 2.
One Detail and one Abstract Estimate.
* Signed by Lt.-Colonel John Mullins, R.E.

2. Sheet No. 3 of the plan which accompanied my No. 2,545, dated 3rd November 1878, requires no alteration.

3. The collection of materials for the work is going on, and I hope that the actual excavation for the work will be in hand by 1st January and, unless I receive orders to the contrary I will go on with the work according to the plans and estimates now sent.

No. 68-C. Note by the Acting Chief Engineer for Irrigation, dated 14th December 1878, No. 369 I.

No. 69. ORDER THEREON, 24th December 1878, No. 1,045 I.

THE estimate forwarded by the District Engineer, Godavari, amounting to Rupees 57,000, for constructing a new head sluice to the Central Delta will be submitted for the sanction of the Government of India, and the Superintending Engineer will be authorised to commence the work in anticipation of sanction.

2. Ordered that the following letter be sent:—

(Here enter No. 1,046 I, dated 24th December 1878.)

(True Extract.)

Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, First Circle.
" Chief Engineer for Irrigation.
" Revenue Department.
" Examiner of Public Works Accounts.
" Collector of Godavari.

Exd. E. C. Shunker.
Spare Copies

Rec'd 19 Sept

No 385

IRRIGATION.

ACCOUNT.

Rec'd 17 Jany 79 No 215

Govt. of (1678) Madras.

PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,
FIRST CIRCLE,
&c, &c, &c.

Rec'd December 1878.

Issued

Rec'd 13 Jan'y Rec'd

G. O., 24th December 1878, No. 1,045 I

DESPATCHED

Rec. 12-12-78.

To Read Public, Canal Dept. &c. &c.
The estimate for the construction of the
original to be forwarded to the Government
of India.

No 215

11 Feb. Order 2nd Oct. 80.

No 215

No 215, Comm. to the Board of Revenue.
17 Jany/79 hill