

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	<i>3407</i>	Press
B.P. No.		Mis.
Dated	<i>30. 11.</i>	<i>195</i> <i>1875</i>

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
30th November 1875.*

Read the following paper :—

No. 1,369.

No. 647. *Note by the Chief Engineer for Irrigation.*

In Government Order of the 16th July last, No. 2,020, an approximate estimate of Rupees 50,000 for the extension of the Pooniar Anicut in South Arcot was sanctioned pending the revision of the estimate,* and the District Engineer has, after making the necessary alterations in the height of the wings and head-works, transmitted an amended estimate amounting to Rupees 56,060, and has explained in the covering letter what rates have been found capable of reduction, and why other rates noticed as being apparently excessive could not be reduced. In the specification, paragraph 15, it is mentioned that the Bombay head-sluice shutters are to be 5 inches thick; 3 inches will be more than ample.

No. 159, 12th instant.
2. No further information has been received regarding the revenue under the channels supplied by this anicut.

CAMP AT ROYACHOTY,
19th November 1875.

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

AGRICULTURAL—CAPITAL—ORDINARY.

REVISED ABSTRACT ESTIMATE OF 1875-76.

Class 1, Pooniar Anicut, South Arcot District, Tirukalve Taluk, No. 1 Range.

WORK.—Lengthening Pooniar Anicut and repairing damages done to the same.

Contents.	Particulars.	Rate.	Per	Amount.	Total.
		RS. A. P.		RS. A. P.	RS.
ANICUT AND HEAD-WORKS.					
C.—MASONRY WORKS.					
<i>Lengthening the Anicut.</i>					
136	Wells of 3 feet inner diameter and 5 feet deep filled with hydraulic concrete	22 3 0	Each.	3,060 0 0	
62	Do. of 3½ do. do. do.	24 8 0	"	1,519 0 0	
13,260	Cubic feet, brick in hydraulic mortar.	0 2 2	C. ft.	1,796 10 0	
100½	Cubic yards of concrete do. do.	2 6 8	C. yd.	243 7 3	
523½	Do. of rough stone work do.	3 0 0	"	1,570 1 9	
271	Do. of cut stone work do.	13 0 0	"	3,523 0 0	
5,760	Do. of rough stone work do.	1 8 0	"	8,640 0 0	
23'80	Squares of plastering two coats render and set	3 6 0	Sqre.	80 5 2	
				20,432 8 2	

Proceedings of the Madras Government, Public Works Department,
30th November 1875.

Work.—Lengthening Pooniar Aicut and repairing damages done to the same.—
(Continued)

Contents.	Particulars.	Rate.	Per	Amount.	Total.
	<i>Constructing Under-slucies.</i>	RS. A. P.		RS. A. P.	RS.
14	Wells of 4 feet inner diameter and 6 feet deep filled with hydraulic concrete	33 0 0	Each.	462 0 0	
116	Do. of 3½ do. do. do.	28 14 0	"	3,320 10 0	
22,372	Cubic feet of brick in hydraulic mortar	0 2 2	C. ft.	3,916 0 0	
336	Do. of archwork in do. do.	0 2 8	"	56 0 0	
342	Cubic yards of concrete in do. do.	2 6 8	C. yd.	826 8 0	
95	Do. of cut stone in do. do.	13 0 0	"	1,235 0 0	
674½	Do. of rough stone work for apron	1 8 0	"	1,012 2 8	
54½	Cubic yards of rough stone work for revetment	1 8 0	"	81 10 8	
48.46	Squares of plastering two coats of hydraulic mortar	3 6 6	Sqrs.	146 10 9	
12	Beam stones	8 0 0	Each.	96 0 0	
6	Teakwood shutters (needles) with iron straps round top and bottom complete	62 0 0	"	372 0 0	
	Cost of eighteen wells which were already sunk, but abandoned to suit revised design			441 0 0	
	Excavating foundation			1,200 0 0	
	Temporary dams			800 0 0	
	Baling water			1,600 0 0	
	Sundries and superintendence	7 0 0	Cent.	35,098 2 3	
				2,451 13 9	
				37,550 0 0	
	<i>Miscellaneous.</i>				
	Temporary road to quarries...			300 0 0	
	Total, HEAD-WORKS				37,850
	MAIN CANAL AND BRANCHES				
	D.—REGULATORS, MASONRY WORKS.				
	<i>Constructing a Head-slucice for Pombay Channel.</i>				
95	Wells 3½ feet inner diameter and 5 feet deep filled with hydraulic concrete	24 8 0	Each.	2,327 8 0	
204	Cubic yards of concrete in hydraulic mortar	2 6 8	C. yd.	493 0 0	
14,102	Cubic feet of brick in do. do.	0 2 2	C. ft.	1,909 10 4	
98	Cubic yards of cut stone in do. do.	13 0 0	C. yd.	1,274 0 0	
124	Do. of rough stone work	1 8 0	"	186 0 0	
934½	Cubic feet of archwork of brick in hydraulic mortar	0 2 8	C. ft.	159 0 6	
35.75	Squares of plastering with two coats hydraulic mortar	3 6 0	Sqrs.	120 10 6	
20	Beam stones	8 0 0	Each.	160 0 0	
2,016	Lbs. of angle iron bearing	0 2 0	Lb.	252 0 0	

Proceedings of the Madras Government, Public Works Department,
30th November 1875.

Work.—Lengthening Pooniar Aicut and repairing damages done to the same.—(Concluded)

Contents.	Particulars.	Rate.	Per	Amount.	Total.
	<i>Constructing a Head-slucice for Pombay Channel.—(Concluded.)</i>	RS. A. P.		RS. A. P.	RS.
4	Teakwood shutters similar to the present ones with screw gearing	200 0 0	Each.	800 0 0	
	Removing old work			200 0 0	
	<i>Guard wall.</i>			7,881 13 4	
45	Wells of 3½ feet inner diameter and 5 feet deep filled with hydraulic concrete	24 8 0	Each.	1,102 8 0	
33	Cubic yds. of concrete in do. mortar.	2 6 8	C. yd.	79 12 0	
10,61½	C. feet of brick in hydraulic mortar.	0 2 2	C. ft.	1,437 5 0	
131	Cubic yards of rough stone work for apron	1 8 0	C. yd.	196 8 0	
28	Do. of do. for revetment	1 8 0	"	42 0 0	
22.32	Squares of plastering two coats in hydraulic mortar	3 6 0	Sqrs.	75 0 0	
	Excavating foundation			600 0 0	
	Temporary dams			200 0 0	
	Baling water			400 0 0	
	Sundries and superintendence	7 0 0	Cent.	12,014 14 4	
				845 1 8	
	<i>Raising the existing regulating works on the Southern bank.</i>				12,860
5,706	C. feet of brick in hydraulic mortar.	0 2 2	C. ft.	772 11 0	
10	Beam stones	8 0 0	Each.	80 0 0	
	Sundries and superintendence	7 0 0	Cent.	852 11 0	
				57 5 0	
					910
	Total, D—MASONRY WORKS				13,770
	F.—Earthworks.				
23,257	Cubic yards of earthwork for north embankment	0 1 3	C. yd.	1,816 15 3	
2,904	Do. of do. for south do.	0 1 6	"	272 4 0	
174	Do. of do. for road slopes	0 1 0	"	10 14 0	
25,501	Do. of do. for south bank of Pombay channel forming river embankment	0 1 0	"	1,593 13 0	
3,971	Do. of do. for bund behind north abutment and wing of head-slucice and guard wall	0 1 0	"	248 3 0	
	Sundries and superintendence	5 0 0	Cent.	3,942 1 3	
				197 14 9	
	Planting nannal			4,140 0 0	
				300 0 0	
	Total, F—Earthworks...				4,440
	Total of MAIN CANAL AND BRANCHES				18,210
	Total amount of estimate				56,060

Cuddalore,
12th November 1875.

(Signed) H. R. MEAD, Major, R.E.,
District Engineer, South Arcot.

*Proceedings of the Madras Government, Public Works Department,
30th November 1875.*

Specification Report to accompany estimate for lengthening the Pooniar Anicut and repairing the damages done to the same near Trikalore in the Trikalore Taluk, South Arcot District.

1. Amount of estimate, Rupees 56,060.
2. DESCRIPTION.—By the cyclone of May 1874, the north embankment connecting the anicut with north bank of river was destroyed, and owing to which the head-sluice of the Pombay channel was destroyed. In consequence of the heavy rains and continuous freshes in the river, nothing could be done to the repair of these works, and the subsequent freshes of July, September, and October considerably enlarged the breach and necessitated the following work:—
3. ANICUT.—The anicut is to be continued on same line and section as before and extended for a length of 340 or 389 feet inclusive of scouring sluices, and the rough stone apron of 12 feet wide in rear of the anicut which was entirely carried away is to be replaced and carried on having a uniform breadth of 27 feet throughout from end to end instead of 12. The apron 12 feet broad is found to be insufficient in the loose sandy bed of this river.
4. UNDER-SLUICE.—An under-sluice of 6-5 feet vents will be built at the north end of the anicut closing on present river bank. The crest of the anicut being called +20-00, the floors of this sluice will be 14 feet, that is 1 foot below the present deep bed of river, and 2 feet below apron level, the top of sluice will be horizontal and level with the crest of the anicut as shown on the plan.
5. GUARD WALL.—The north wing wall of under-sluice will form a guard wall to connect the anicut with the north embankment, and will be carried up to +32-60, or 12 feet 7 inches above anicut crest, as directed by the Chief Engineer for Irrigation.
6. POMBAY SLUICE.—The guard wall will be pierced by the new Pombay channel head-sluice of 4 vents each of 6 feet, the floor of this sluice will be +16-00, or level with anicut apron and top of walls +32-60.
7. EXISTING SLUICES.—The existing sluices on south bank will all be raised to 32-60.
8. WELLS.—The foundation to all masonry works will be on wells of different diameters. The wells under the anicut, head-sluice, and guard wall will be sunk 5 feet deep, and all the rest 6 feet filled with hydraulic concrete.
9. FOUNDATION.—Will all be 4 feet deep above the wells, of varying thicknesses to suit circumstances.
10. MASONRY.—All masonry will be of brick in hydraulic mortar, except the main floors, which will be of cut stone from 1 foot to 1½ feet thick.
11. APRON.—The anicut apron will consist of 1 foot cut stone on 2½ feet of rubble masonry and 6 inches concrete backed by 27 feet of rough stone 3 feet thick. The surface of the rough stone apron will be placed 1 foot below that of the masonry apron. To under-sluice there will be a cut stone apron in front and rear and in vents 1 foot thick on 1 foot of brick masonry over 2 feet of concrete backed by a rough stone apron 3 feet thick resting on a layer of concrete 1 foot thick to prevent subsidence; on the rear of this again there will be a rubble stone apron 21 feet in width in rear and 3 feet thick, in front there will also be a rubble stone apron of 15 feet width laid on a bed of concrete 1 foot thick, the size of stones used will be not less than 2 cubic feet each. To head-sluice the aprons will be similar to those of under-sluice, and protected in rear and front by rubble stone apron as per plan. The guard wall proper will be protected from head-sluice to its junction with north embankment by a rough stone apron 10 feet broad and 3 feet thick to prevent scour, and at the junction there will be stone pitching as shown in plan.
12. MORTAR.—To be composed of 1 lime to 1 of sand and 1 of surki (clay burnt in cakes and ground) carefully ground or pounded; all lime used to be slaked on the work, nothing but mortar of the above description to be used for any part of the work.
13. CONCRETE.—Will be composed of 1 of lime, 1 of sand, and 1 of surki to 6 of broken stone from 1 to 1½ inches cube, which will be mixed dry, i.e., with only so much water as will prevent lime being blown away, when put into water it must be carefully lowered to the bottom in a bucket and gently tilted out, when possible the water should be removed.

*Proceedings of the Madras Government, Public Works Department,
30th November 1875.*

14. GROOVES.—To be faced with angle iron 3½ inches × 3½ inches for the head-sluice. No grooves required for surplus sluices.

15. SHUTTERS.—All to be of well seasoned teakwood, those for under-sluice will be baulks or needles properly bounded with iron straps at each end. The shutters for head-sluice will be plank shutters 5 inches* thick and worked by screw gearing; plans for this will be made hereafter.

* 3 inches will be ample.

16. EMBANKMENT AND NANUL.—Will all have slopes of 3 to 1 and 2 to 1, and the outer slopes will be thickly planted with nanul, as also the vacant ground along the foot of embankments for at least 10 yards in breadth.

Cuddalore,

12th November 1875.

(Signed) H. R. MEAD, Major, R.E.,
District Engineer, South Arcot.

No. 648.

ORDER THEREON, 30th November 1875, No. 3,407.

IRRIGATION, No. 62.

Account.

THE revised estimate of Rupees 56,060 for the Pooniar Anicut in South Arcot is sanctioned in lieu of the approximate estimate of Rupees 50,000, on which under

G.O., No. 2,020, of the 16th July 1875, the extension and improvements were allowed to be proceeded with.

2. The revenue and other information called for in paragraphs 2 and 3 of the above order will be awaited, and its submission should be expedited as far as may be practicable.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

To the District Engineer, South Arcot.

- „ Controller of Public Works Accounts.
- „ Chief Engineer for Irrigation.
- „ Revenue Department.
- „ „ Board.
- „ Collector of South Arcot.

Exd. E. C. Shunker.

Spare Copies

N^o 1369

Note by the Chief Engineer for Irrigation.

sumes 7.

In Government Order of the 16th July
last N^o 2020 an approximate estimate of
Rupees 50,000 for the extension of the ~~Poonian~~
Ancient in South Arcot was sanctioned
Rupees 57,860 pending the revision of the estimate, and
the District Engineer has, after making
the necessary alterations in the height
of the wings and head works, transmit-
ted an amended estimate amounting
to Rupees 56,660, and has explained in the
covering letter what rates have been
found capable of reduction, and why the
other rates noticed as being apparently
excessive could not be reduced. In the
specification para: 15 it is mentioned
that the Bombay head sluice shutters
are to be five inches thick; three inches
will be more than ample.

9-12th
instant.

2 No further information has been
received.

" 26: " " " 645-646.
" 4-Oct " " 47-48.

P. W. 1895 Deph.
No. 7515

From

The Chief Engr.
for Irrigation

Dated 19 Nov. }
Recd 25 " } 1895.

G. T. ✓
No. 1369.

Note on plans, Etc. &c.
for lengthening the
Ponias Ancient & repairing
the damages done to
the same.

14647

" 26-11-15

No 3407 P. H. D.
Proceedings of the Madras Govt.
Under date the 30 Nov/95
Read the following:-

From the Chief Engr. for
Irrigation { K. R. No 1369 of 19 Nov/95

The revised estimate
of Rupees 50,060 for the Pon-
-nias Ancient in South
Arcot is sanctioned in lieu
of the approximate estimate
of Rupees 50,000, on which
under G. O. No 2020 of the 16th
July 1895, the extension and
improvements were allowed
to be proceeded with.
2 The revenue and
other information collected
for

for in paras 2 and 3 of the
above order will be awaited
and its submission should
be expedited as far as
may be practicable.

Wm. 19/11

[Signature]

14/6/48

* with ~~Sam~~ original
Enclosures -

Dispd - 10-12-75

To The District South coast.
- Controller of C.W. agents
- Chief Insp for Inspectors
- Revenue Deptt -
- Rev. Board.
- Collector of South coast.

10-26-11-75

107513

OFFICE OF THE COMMISSIONER
PUBLIC WORKS

E. S. Arcot

2/17/75

384-6108

384-6108

Permit to construct S. Arcot
The revised estimate of the
cost of the work is \$10,000
The estimate of \$50,000
is the estimate and is subject
to the —, sanctioned
with a proviso

107513