(1) பக்கங்களின் எண்ணிக்கை 28
(2) புதுக்கித் திருப்பிய நாள் 28-6-88.
(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

பொதுப்பணி துறை

அரசாணை எண். 1730 P.W
மு. கோப்புத் தாள் எண்.

அச்சகம்
பலவகை

நாள் : 11th June 1888 ~~198~~ .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

௨௪௭

ஆவண. கா-1—18,000—15-6-87.

11th June 1888, No. 1730 W., Public Works.

1730
1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

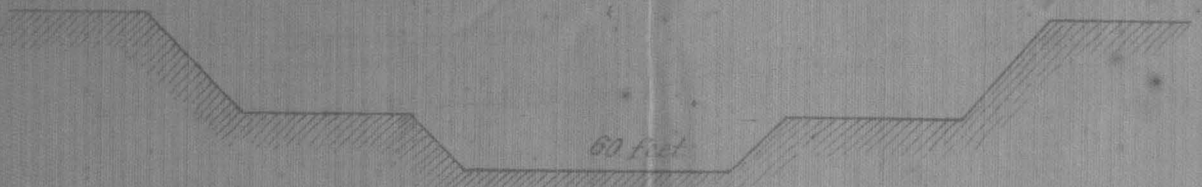
Read—the following papers :—

From Colonel H. M. VIBART, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Bangalore, 25th May 1888, No. 791 :—

With reference to memorandum No. 421, dated 29th July 1886, asking for proposals for constructing weirs across the bed of the river Kuam, in view to the maintenance of a series of water reaches between the South Indian Railway bridge and the Commander-in-Chief's bridge, I have the honor to submit plans and estimate, Rs. 50,110, for "putting self-acting shutters on three bridges on the Kuam, &c."

2. With the view of keeping the deep bed of the river above the Commander-in-Chief's bridge covered with water during the hot season, it is proposed to dam up the water by means of self-acting shutters placed under the Munro's, Anderson's and the Commander-in-Chief's bridges. To do this it is necessary to add a small masonry projection in rear of the piers and abutments, and to have a good wide apron terminating on a masonry retaining wall 6 feet deep, with the necessary arrangements to hold fasts, and other precautions necessary to allow the shutters to glide and fall on wrought iron slide plates and stone bases as shown in the drawing.

3. The proposed training of the river consists of making the deep bed 60 feet wide throughout, all existing inequalities are to be filled up as far as possible, so as to endeavour to get a general section for the river as shown below :



Groynes are to be put at certain points where they are required and turfing bank and planting grass is to be carried out where desirable. Three groynes are to be placed on the right bank above Harris's bridge, and the silted up part of the river in front and under the land arch (on left bank) of Harris's bridge is to be removed as far as is practicable.

4. The present estimate is made up of—

	RS.
The three self-acting shutters	20,004
Earth-work	12,356
Turfing and nanal	1,460
Ten groynes	13,798
Petty supervision	1,162
Contingencies	2,330
Total ...	50,110

Of the ten groynes, three are put above the Harris's bridge, six above Anderson's and one some distance below Anderson's bridge; but I doubt whether so many as six are required above Anderson's bridge. I should think three in the bend of the river, some 1,200 feet above the bridge, would sufice. I also am inclined to think the one below Anderson's bridge is superfluous. If these were eliminated from the estimate, the rest would be as follows :—

	Rs.
Three self-acting shutters	20,004
Earth-work	12,356
Turfing and nanal	1,460
Six groynes	7,679
Petty supervision	1,038
Contingencies	2,076
Total ...	44,613

or, say, Rs. 44,610 in round number, effecting a saving of Rs. 5,500 on the whole.

Note by the Chief Engineer, Public Works Department, dated 6th June 1888.

The self-acting shutters at the three bridges are approved; the retaining wall need not, however, be more than 3½ feet deep, but a small rough stone apron beyond should be provided at a level of 6 inches below the river-bed. The shutters at the lowest bridge should be first constructed.

2. The groynes may not all be necessary, and, in any case, it is not desirable to construct them to the full length shown in the plan at once. Short stone noses are all that are necessary in the first instance, and as they collect sand and become buried, they can be lengthened; some of the buried stone probably being available for use in making the new noses. Three short groynes are wanted at once above the Harris's bridge, but no others need be put down until there is evidence of erosion after the deep bed has been cleared as proposed. A sum of Rs. 3,000 will be sufficient to provide for rough stone groynes. The groynes and clearing above Harris's bridge should be put in hand at once in anticipation of provision of funds.

3. Nanal is not considered suitable, and could not well be protected from cattle; the amount provided under this head is, therefore, struck out.

4. The estimate reduced as above is recommended for sanction.

ORDER—dated 11th June 1888, No. 1730 W., Public Works.

The estimate, submitted by the Superintending Engineer, V Circle, for self-acting shutters at three bridges on the Kuam river is sanctioned, with the modifications proposed by the Chief Engineer in his Note recorded above, which is communicated to the Superintending Engineer for information and guidance.

2. The following reductions will be made :—

	Rs.	
Groynes	9,798	
Planting nanal grass	200	
Supervision	~~1,055~~	251
Contingencies	~~2,171~~	561
Total ...	~~13,254~~	10,750

39,3[illegible]

3. The estimate thus reduced, amounting to Rs. 36,856, is sanctioned. Funds for commencing the work will be provided in distributing the Provincial Revenue.

4. This sanction has been registered as Provincial No. 36 W. of 1888-89, and classified as Miscellaneous Public Improvements, Original Works.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

1730
2

To the Superintending Engineer, V Circle, with seven enclosures.
„ Examiner, Public Works Accounts, with the duplicate abstract estimate.
„ Chief Engineer for Irrigation.
„ Local and Municipal Department.

Exd. F. R. Bantleman.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1888} Madras.
PUBLIC WORKS.

Dated June, 11th.

Recd. Encl.

G.O., 11th June 1888, No. 1730 W.

JUNE.

Kuam River

Estimate for self-acting shutters at three bridges on the —, Madras, sanctioned with remarks.

No. 791.

SUPERINTENDING ENGINEER'S OFFICE,
V Circle, Madras,
Bangalore ~~Chepauk~~, 25 May 1888.

1P

From
Coll. H. M. Vibart R.E.
SUPERINTENDING ENGINEER, V CIRCLE,

To
THE Chief Engineer
P.W. Department.

1230/21

SIR,

Enclosures. 7
1 Detailed Estimate with abstract.
1 Abstract Do.
1 Survey
2 Sheets of Levels
1 Plan of Bridge
1 Report & specification.

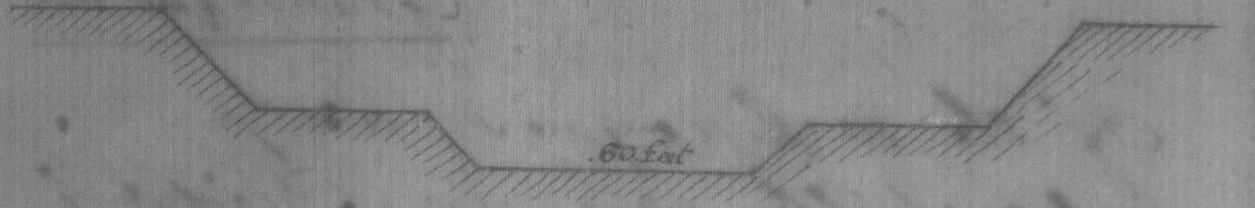
With reference to Memo No. 421 dated 29th July 1886 asking for proposals for constructing weirs across the bed of the River Cooum in view to the maintenance of a series of water reaches between the South Indian Railway Bridge and the Commander-in-Chief's Bridge, I have the honor to submit Plans and Estimate Rupees 50,110 for "Putting self-acting Shutters on 3 Bridges on the Cooum &c."

2. With the view of keeping the deep bed of the River above the Commander-in-Chief's Bridge

Bridge covered with water during the hot season, it is proposed to dam up the water by means of self acting Shutters placed under the Munro's Arcades and the Commander-in-Chief's Bridges. To do this it is necessary to add a small Masonry projection in rear of the piers and abutments and to have a good wide apron terminating on a masonry retaining wall 6 feet deep, with the necessary arrangements to hold fast and other precautions necessary to allow the Shutters to glide and fall on wrought iron slide plates and Stone bases as shewn in the drawing

3. The proposed training of the river consists of making the deep bed 60 ft. wide throughout, all existing inequalities are to be filled up as far as possible so as to endeavour to get a general section for the river as shewn below.

73°/4



Groynes are to be put at certain points where they are required and turfing bank and planting grass is to be carried out where desirable. Three Groynes are to be placed on the right bank above Harris Bridge and the silted up part of the river in front and under the land arches (on left bank) of Harris Bridge is to be removed as far as is practicable.

4. The present Estimate is made up of

the 3 self acting Shutters	Rs 20004
Earth work	Rs 12356
Turfing & Gravel	Rs 1460
10 Groynes	Rs 12798
Petty Supervision	Rs 1162
Contingencies	Rs 2330
Total	Rs 50 110

Of the 10 Groynes 3 are put above the Harris Bridge, 6 above Anderson's and 1 some distance below Anderson's Bridge, but I doubt whether so many as 6 are required above Anderson's Bridge. I should think 3 in the bend of the river some 1200 feet above the bridge would suffice. I also am inclined to think the one below Anderson's Bridge is superfluous.

If these were eliminated from the Estimate the rest would be as follows:—

173/4

3 Self acting Shutters	20004
Earth Work	12,356
Turfing & Gravel	1460
6 Groynes	7679
Petty Supervision	1038
Contingencies	2076
Total Rs	44 613

or say Rupees 44,610 in round numbers effecting a saving of Rupees 5.500 on the whole.

I have the honor to be
Sir
Your Most Obedt Servant

Coll R.E.
Superintendg Engineer
5 Circle

[illegible] 1.5.88
[illegible] 4.88
[illegible] 2.12.86
19.7.86

From
The Supg: Engineer
5th Circle.

To
The Chief Engineer
P. W. Department

Dated 21st
Desp — 28th } May 1888.
Recd

Encl. 7.

(+ 4 plans)

No 791

Coum River.

Submits plans and Estimate of Rs 50,110-0-0 for putting Self acting Shutters on 3 Bridges on the —

Public Works Department.

1730/6

Current No. 4978
Letter No. 791
Dated 21st May 1888
From the Supg: Eng: V Circle

NOTE OF REMARKS.

The Estimate under review amounting to Rs 50,110 provides for deepening the bed of the Coum river between Munro's and the Commander-in-Chief's bridges, and for fitting these bridges as well as Anderson's bridge with self acting Shutters, the Estimate also provides for throwing out 10 groynes, planting Nanal and turfing.

The Estimate is made up as follows

1	Self Acting Shutters	Rs 20,004
2	Earthworks —	" 12,356
3	Groynes —	" 12,798
4	Planting Nanal and turfing —	" 1,460
5	Contingencies —	2,330
6	Petty Supervision —	1162
	Total	Rs 50,110

Some of the rates
quoted in the Esti-
mate slightly in excess
of the rates given
in the Schedule
for the Presidency but
as they are not
worth reopening, the
saving in all would
be only Rs 240 –

The proposed self-
acting shutters are
apparently falling
shutters and the
principle on which
they work is not
sufficiently clearly
shown in the drawing
submitted to be
quite understood,
it may therefore
be well to call
for drawings on
a larger scale
showing the different
positions of the
shutters and the
details of construction

30/5/88

M. C. No 4978

173c/7

The falling shutters proposed are on the same principle as those on the grand anicut Cauvery delta system, the general width being 7'-3" – these, there is no doubt, will answer perfectly well, and will be a great improvement upon the earthen bunds now built across the river, which will require constant renewal.

A retaining wall on the up stream side of the apron seems necessary and the retaining wall on the down stream side might with advantage be advanced 2 or 3 feet

These remarks apply to all 3 bridges.

as the shutters were sure to allow some water to pass over them before falling, the depth of the retaining walls need not be more than 3½'. With regard to the proposals for cutting a central channel 60' wide, — sectioning the bed, and training the river, I cannot think that the experiment would be worth the expense.

Earthwork	12,356
Stone groynes	12,798
Turfing &c	1,460
Contingencies Petty supervision	2,400

It will, I think, be sufficient to fix — shutters under the —

---

following bridges.

Munro.

Anderson.

Commander-in-Chief

123c/20

at a cost of about 22,000 Rs leaving the river to find its own channel as at present.

In my opinion the first heavy fresh after the completion of the groynes, central channel &c, would necessitate further heavy expenditure

31.5.88

1730/8

W
1-6-88

Note. 1730/9

The self acting shutters at the 3 bridges are approved. The retaining wall need not however be more than 3½ feet deep, but a suitable length stone apron beyond should be provided at a depth of 6 inches below the river bed. The shutters at the lowest bridge should be first constructed.

The groynes may not all be necessary, and in any case it is not desirable to construct them of the full lengths shown in the plans at once. Short stone works are all that are necessary in the first instance & as they collect sand and become buried they can be lengthened, some of the buried stone probably being available for use in making the new works. Three short groynes are wanted at once above the Harris Bridge, but no others need be put down until there is evidence of erosion after the deep bed has been cleared as proposed. A sum of Rs 3000 will be sufficient allowance for high stone groynes.

The groynes & clearing above Harris Bridge should be put in hand at once in anticipation of provision of funds.

Mound is not considered suitable & would not [illegible] be protected from cattle. The current [illegible]

P. W. D.

40

under this head in Receipt Sheet [illegible]

the Est. [illegible] as above is

[illegible] from Sanction.

17 30/10

6/6/88

[illegible] [illegible] [illegible] as follows

[illegible] by [illegible]

[illegible] 200

[illegible]

[illegible] [illegible]

[illegible] [illegible]

6/6/88

P. W. D.

L P

P. W. D.

4 P

Note by the Chief Engineer P.W. Dept. dated 6 June 1888. –

1730
11

The self acting shutters at the three bridges are approved; the retaining wall need not however be more than 3½ feet deep, but a small rough stone apron beyond should be provided at a level of 6 inches below the river bed. The shutters at the lowest bridge should be first constructed.

The Groynes may not all be necessary and in any case it is not desirable to construct them to the full length shown in the plan at once. Short stone noses are all that are necessary in the first instance and as

they

they collect sand and become buried they can be lengthened, some of the buried stone probably being available for use in making the new works. Three short groynes are wanted at once above the Dam's bridge, but no others need be put down until there is evidence of erosion after the dep. bed has been cleared as proposed. A sum of Rs 5,000 will be sufficient to provide for rough stone groynes. The groynes and clearing above Dam's Bridge should be put in hand at once in anticipation of provision of funds.

Nanal is not considered suitable and could not well be protected from cattle, the amount provided under this head is therefore struck out.

The estimate reduced as above is recommended for sanction.

JB
4/6/88

To W.

Kindly say whether it is necessary to send the large roll of plans to the Hon. Member with the draft order.

A.S.
6-VI-88

1730/52

No.

JB
4/6/88

To W.

Initials have been omitted from the Note & draft order.

A.S.

Ch. Clerk
to note.

PUBLIC WORKS DEPARTMENT.

510

THE MADRAS GOVERNMENT

UNDER date the

READ the following

A. E. No 791 dt 25th May 1888.
} dt 6th June 1888.

1730/N3

The estimate submitted by the Superintending Engineer & Circ for self-acting shutters at three bridges on the Kuam river is sanctioned with the modifications proposed by the Chief Engineer in his Note recorded above, which is communicated to the Superintending Engineer for information and guidance.

2. The following reductions will be made:-

Groynes	Rs 9798
Planting nanal grass .	200
Supervision . .	~~1,085~~ 251
Contingencies . . .	~~2,171~~ 501
	10,750 ~~13,254~~

they collect sand and become buried they can be lengthened, some of the buried stone probably being available for use in making the new noses. Three short groynes are wanted at once above the Harris bridge but no others need be put down until there is evidence of erosion after the deep bed has been cleared as proposed. A sum of Rs. 2000 will be sufficient to provide for rough stone groynes. The groynes and clearing above Harris Bridge should be put in hand at once in anticipation of provision of funds.

Nanal is not considered suitable and could not well be protected from cattle, the amount provided under this head is therefore struck out.

The Estimate reduced as above is recommended for sanction

4/6/88.

No. 1730

51

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT

UNDER date the

READ the following

Letter from the Supdg: Engr. I. Circle. A. E. No. 791 dt 25th May 1888.

Note by the Chief Engineer P. W. D. } dt 6th June 1888.

1730 / N3

The estimate submitted by the Superintending Engineer I. Circle for self-acting shutters at three bridges on the Kuvam river is sanctioned with the modifications proposed by the Chief Engineer in his Note recorded above, which is communicated to the Superintending Engineer for information and guidance.

2. The following reductions will be made:-

Groynes .... Rs. 9798.
Planting nanal grass " 200.
251
Supervision " ~~1,085~~
501
Contingencies " ~~2,171~~
10,750 ~~13,254~~

3. The estimate thus reduced, amounting to Rs. ~~26,851~~ 29,361, is sanctioned ~~for immediate~~ [illegible] the work ~~[illegible]~~. Funds will be provided in distributing the Provincial Revenue.

4. The sanction has been registered as Provincial No. [illegible] of 1888-89 and classified as Miscellaneous Public Improvements Original Works.

Do

The Supdg. Engr. V. Circle with 7 circles
" Exmt. S. W. Circle with the duplicate sub-estimate
" C. E. for Engr.
" Local & Municpl. Dept.

6
1730/14.

Govt. of 1888 Madras.

PUBLIC WORKS.

Date

Recd.　　　Encl.

G.O. 11 June 1888, No. 1730 W

Cooum River

Estimate for self-acting shutters at three bridges on the — Madras, sanctioned with remarks.