

(1) Number of pages 16
(2) Date of repair _____
(3) Initials of the Referencer long

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P. W. DEPARTMENT

G.O. No. <u>4102 W</u>	Press.
B.P. No.	Mis.
Dated <u>21</u> — <u>10</u> — <u>1878</u> <u>(197)</u>	

V. S. 14.

Not to be folded or roughly handled

4102 W
1

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

21st October 1878, No. 4,102 W.

Buildings and Roads.
Civil Works.

Read the following paper :—

No. 262. From Lieutenant-Colonel R. B. KENNEDY, District Engineer, Malabar, to the Chief Engineer, Public Works Department, dated Lakidi, 1st October 1878, No. 72.

WITH reference to G.O., No. 3,400 W, dated 26th August 1878, I have the honor to forward an estimate for constructing two additional groynes on the beach at Calicut for protection of the Custom House, amounting to Rupees 4,880, of which the sum of Rupees 2,160 is for the groynes and Rupees 2,720 for a rough stone sea-wall connecting the shore ends of the groynes.

2. In my letter, No. 51, of 10th August 1878, I gave Rupees 880 as approximate estimate of cost of each groyne; the present estimate exceeds that amount by Rupees 200 for following reasons :— On consultation with the Range Officer and examination of the groynes already constructed we came to the conclusion that the sheeting piles should be driven a couple of feet deeper, and would therefore require to be 2 feet longer, as those before put in were at one time in great danger of being scoured out; we also found that it would be advisable to increase the thickness of the bolts from $\frac{1}{2}$ to $\frac{3}{4}$ inch, as the former have been already nearly eaten through with rust; there is also a row of rough laterite blocks allowed for as continuation of the shore end of the groynes which we found it necessary to add to avoid the groynes being outflanked by the wash of the sea which as it receded had an injurious scouring effect. The extra Rupees 200 per groyne is the result of these alterations.

3. An additional item of Rupees 2,720 has been added for building a revetment wall of rough blocks of laterite, 500 feet in length, connecting the shore ends of the groynes which I most strongly recommend for sanction, as without it notwithstanding the groynes, the foreshore, which is nothing but sand, is constantly being washed away, partly by the action of the tides and partly by the heavy rains. The revetment would act as a complete protection against both.

4. The groynes were put in hand at once in obedience to G.O., No. 3,400, dated 26th August 1878,* but I await approval before commencing the revetment.

* On Chief Engineer's telegram, of the 26th August 1878.

No. 263. ORDER THEREON, 21st October 1878, No. 4,102 W.

THE estimate, amounting to Rupees 2,160, for the construction of two additional groynes on the beach opposite the new Sea Custom House at Calicut, is sanctioned. The groynes being reported to do their work, there seems to be no immediate necessity for the stone revetment between the groynes. The District Engineer will have careful observations of the beach made and report the result monthly to Government.

2 PUBLIC WORKS DEPARTMENT, 21ST OCTOBER 1878, No. 4,102 W.

2. It will be considered in the Financial Department whether provision should not be made from Port Funds.
3. This sanction has been registered as Special No. 90 B of 1878-79.

(True Extract.)

Colonel. R.E.,
Secretary to Govt., P.W.D.

To the District Engineer, Malabar.
" Examiner of Public Works Accounts.
" Financial Department.

Encl. T. D. Ryan.
Spare Copies

BUILDINGS AND
CIVIC WORKS.

Cont. of (1878) *Madras*

PUBLIC WORKS.

THE DISTRICT ENGINEER,
MADRAS.

Dated 21st Oct 1878.

Issued

Recd

G. O., 21st October 1878, No. 4,103 W.

OCTOBER

Nos. 262-263.

Groynes on the beach opposite the new San
Custom House at Calicut. — The estimate of
Rupees 2,100 for the construction of two
additional — sanctioned, and a monthly
report on the state of the beach called for.

Specification to accompany Estimate
for constructing two wooden groynes
on the Beach opposite the new San
Custom House at Calicut 4702 W.

Amount of Estimate Rs 4880

The groynes to be 72 feet long.
The outer ends will be put exactly
in line with the outer ends of the pre-
sent groynes and will be 3 feet
above high water (equal to 4 feet
below the top of the Pier) at the outer
end and carried at that level
for 60 feet and then at the same slope
as the Beach for the remaining 12
feet. They will consist of wooden
piles one foot in diameter driven
to the depth shown on the plan below
the top of the groyne. These piles to be
put 6 feet apart in quincunx order,
a space of about 6 inches being
left between the inner faces of the
piles when driven.

After driving, the inner faces of
the piles will be flattened sufficiently

Sufficient to allow of the walrus
pieces & sheet piling being put
between them for a depth of about
4 feet at inner and 6 feet at
outer end.

To these flattened parts double
walrus pieces 12×4 " will be fasten-
ed at top and bottom with 8 inch
spike nails and the sheet piling
driven between them to the depth
shown on plan.

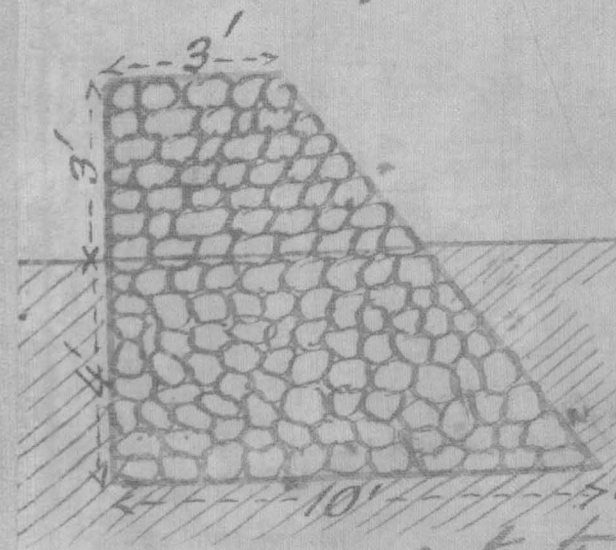
After the sheet piling has been
driven, the piles, walrus pieces &
sheet piling will be fastened
together with $\frac{3}{4}$ inch iron bolts.

Under the heads and nuts
of these bolts, iron washers 3" square
will be put to get a broader bear-
ing on the timber.

At the outer end of the groyves,
latente boulders will be laid as
provided in the Estimate.

Revetment - Instead of
the former parapet wall and
abutment groyves, a revetment

of rough stone will be given as
in case of any scour taking place
the rough stones will act as a
sea wall and at the worst can only
sink a little, whereas a wall of mason-
ry would fall, if the foundations
were scoured out and be no pro-
tection to the Beach.



The revetment will be built
of the section given on
the margin and to be
500 feet long as par-
ticularized below:

From Southern end of revet-
ment to Pier ————— 335 ft.

Breadth of pier ————— $16\frac{1}{2}$ ft.

Pier to northern end of revetment — $148\frac{1}{2}$ ft.

Total 500 ft.

The boulders (latente or gneiss) for
these groyves & revetment wall will
be obtained from about the 5th
mile of the Lambreecherry Road,
from West Hill and from
the back water above Ellasthorpe.

if sufficient cannot be obtained from the two former places. They will be the largest procurable, none under $\frac{1}{4}$ th of a cubic yard being used except for filling interstices.

M. D. L. Captain
Executive Engineer

Calicut
23rd September 1878

M. B. K. K. K.

Malabar Distt. Engr's Office
Camp, Lucknow
17th October 1878

Engr's Coll.
Distt. Engineer, Malabar

No. 42

Malabar Distt. Engr's Office
Camp, Lucknow, October 1878

4102

From The District Engineer
Malabar
To The Chief Engineer
Roads and Buildings
Madras.

Sir,
With reference to G. O. No. 3400 H. dated 28th August 1878, I have the honor to forward an estimate for constructing two additional Groynes on the Beach at Calicut for protection of the Custom House amounting to Rs. 4,880 of which the sum of Rs. 2,160 is for the Groynes and Rs. 2,720 for a rough stone sea wall connecting the shore ends of the Groynes.

2. In my letter No. 51 of 10th August 1878, I gave Rs. 880 as approximate estimate of cost of each Groyne, the present estimate exceeds that amount by Rs. 200 for following reasons:— on consultation with the Range Officer and examination of the Groynes already constructed we came to the conclusion that the sheeting piles should be driven a couple of feet deeper, and should therefore require to be 2 feet longer, as those before put in were at one time in great danger of being scoured out, we also found that it would be advisable to increase the

the thickness of the bolts from $\frac{1}{2}$ to $\frac{3}{4}$ inch as the former have been already nearly eaten through with rust, there is also a row of rough laterite blocks allowed for as continuation of the shore end of the Groynes which we found it necessary to add to, as the the Groynes being outflanked by the wash of the sea which as it receded had an injurious scouring effect. The extra Rs. 200 per Groyne is the result of these alterations.

3. An additional item of Rs. 2720 has been added for building a revetment wall of rough blocks of laterite 500 feet in length connecting the shore ends of the Groynes which I must strongly recommend for sanction as without it notwithstanding the Groynes, the foreshore, which is nothing but sand, is constantly being washed away, partly by the action of the tides and partly by the heavy rains. The revetment would act as a complete protection against both.

4. The Groynes were put in hand at once in obedience to G. O. No. 3410 of 26 Aug. 1877, but I await approval before commencing the revetment.

On Ch. Engr's file -
gram of the 26th
Aug. 1877

I am in the honor to be
Your most obedt. servant
Wm. B. Kennedy, Esq.
District Engineer Malabar

4 Shs 3400 w of 26 Aug 78
 on 2034 w - 3 May
 3157. 24-11-76
 46. -6-12-76
 441. 7-2-77
 1100. 4-4-77
 269. 23-4-77
 43155. 17-7-77
 5688. 9-8-77
 678 w. 1-9-77
 2196 w. 17-5-78
 2864 w. 12-7-78

Roads and Buildings.

From
 The District Engineer
 Malabar.

No 72
 Dated 1st October 1878.
 Recd 5th " "

Enclosures. 3.
Groynes, on the Beach at Calicut.
 Forwards an Estimate for
 constructing two additional
 for protection of the Custom House

To Acty 7-10-78
 Cir 17-10-78 Dtd 27-10-78

Public Works Department.
 No 4102 w
 PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 21st Oct 78
 Read the following :-

From
 The District Engineer
 Malabar } H.C. No 72 d/1st Oct. 1878

The estimate amounting to Rs 2160 for the construction of two additional groynes on the Beach opposite the new Sea Custom House at Calicut is sanctioned. The groynes being reported to do their work, there seems to be no immediate necessity for the Stone Revetment between the groynes. The District Engineer will have careful observations of the beach made and report the result

monthly to Government.

It will be considered
in the Financial Dept.
whether provision should
not be made from Port
Funds.

Oct 17/10

~~17-10-78~~

This sanction has
been registered as
Special Regd. B. of
1878/79—

A. B. + Clerk ✓
~~W. H. M. M. M.~~

W. P. W. Accounts with the
Financial Dept.

Dec 17-10-78
7-10-78 10-11-78

Jan 5-11-78

11116

Govt. of (1878) Madras.

PUBLIC WORKS.

To

Dated

Issued

Recd.

Encl.

G. O. 21 Oct. 1878. No. 410210

Nos. 262 to 263

Groynes on the Beachs opposite
the New Sea Custom House
at Calicut.

The estimate of Rs 2160
for the construction of two
additional — sanctioned.
and a monthly report on the
state of the beach called
for.

W. D. Sullivan