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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W DEPARTMENT

G.O. No.		Press.
B.P. No.	3134 W	Mis.
Dated	9-12-1899	197 .

1027

Not to be folded or roughly handled

2134

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

9th December 1883. 3,134 W.

Buildings and Roads.
Civil Works.

Read the following paper:—

No. 3134 From F. N. THOROWGODGE, Esq., M. Inst. C.E., Superintendent,
Madras Harbour Works, to the Secretary,
Department of Buildings and Roads,
No. 43 W.

I HAVE the honor to submit the following statement of the progress on these works during the past month of November.

2. No. 3134. The progress on these works has been impeded by the heavy rain which has fallen during the month.

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the waves have been unusually high, and the whole length of the pier has been affected.

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down to their regular position, and the progress on these works has been impeded.

store, and the progress on these works has been impeded.

be done, and the progress on these works has been impeded.

outward to the end of the pier, and the progress on these works has been impeded.

at the pier, and the progress on these works has been impeded.

On the 1st inst. the roads quitted their moorings for sea; but have done their worst and no further progress has been made.

4. The loss of the pier has been repaired and work will be done, and the progress on these works has been impeded.

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muster them again when rain has once dispersed them in the early morning. Fortunately the English cement is arriving now in regular and sufficient consignments, so that with favorable weather there will be no difficulty in keeping up the stock of blocks. In November 372 blocks were made, of which sixty-two were made by hand-labour at the south pier. For all of these blocks English cement from the Wouldham Cement Company was used, this present consignment being the strongest cement I have ever met with anywhere.

7. QUARRIES.—The outturn of work from the quarries has been small during the past month, and the rain on the 17th and 18th interfered greatly with quarrying. From Ambatūr only 4,706 tons of laterite were received, and from Pallāvaram 11,618 tons of granite of all sizes. The stone for block-making is quarried by blasting at Pallāvaram, but the process is at present rather costly; it will however become cheaper shortly when I hope to get it down to at least as low a rate as the Ambatūr laterite. I have ordered some dynamite from Bombay at the suggestion of the Chief Engineer, Public Works Department, and I hope for good results from its use.

8. The outturn of stone from Pallāvaram will have to be increased during the next four months, and I have applied to the South Indian Railway authorities to run a fifth train every day, but as yet I have received no reply, although my letter to them was dated November 20th.

9. SOUTH PIER SUPERSTRUCTURE.—The roughness of the sea has not interfered so much with the work at the south pier as at the north, owing to the protection afforded during the north-east monsoon by the greater length of the latter. But still the seas of the 15th to 18th stopped all work for a time. During November there were 120 blocks set in the superstructure, advancing the work by a length of 69 lineal feet, and making the total length of the south pier 1,677½ feet from the point E. In the corresponding month of the year 1878, only 34 blocks were set, and the advance only 28½ feet.

10. The heavy seas of November 15th and 18th broke with great force over the outer length of the south pier, but no damage was incurred and no rails displaced. The blocks that have been set since last May settled down evenly to a permanent position.

11. SOUTH PIER RUBBLE BASE.—Cargo boats have been at work as usual during the intervals of fine weather tipping rubble base, but as in all departments of the work during November, the return of work has been small, only 5,615 tons having been disposed of. The amount of rubble now in advance of the work is approximately 55,000 tons, extending about 750 feet in front of the blocks.

12. PROTECTIVE WORKS AND COAST LINE.—Up to the end of last October the revetment wall of loose laterite rubble in front of Mr. Coleman's house and Shand's Cotton Press had answered its purpose fairly well. The slope that it took was however steeper than I should have expected it to assume. On the night of the 14th November a high surf and high tide acting in concert ran right over the bank and got in at the back, dragging down the slope from an inclination of 1 to 1 to one of about 7 to 1. The waves then rushed up the flattened slope and fetched down 130 feet of the wall of Shand's Cotton Press and 100 feet of the wall of Mr. Coleman's compound, besides making further incursions to the north. I instantly ordered men to keep at work day and night rebuilding the revetment and thus have prevented further damage up to this date.

13. It is evident from this mishap that some more substantial form of revetment must be adopted, and I therefore intend to complete the repairs with heavy granite boulders surmounted with 10 or 15-ton concrete blocks built *in situ*. To facilitate this work I propose to lay a temporary railway from Clive's battery to the spot where the sea encroaches most; this will expedite the work and be less costly than using the two-wheeled country-carts for conveyance of stone. The rebuilding of Mr. Coleman's wall is nearly complete.

14. In consequence of the encroachment of the sea to the north, I have received two applications for compensation on account of loss of property, but on this matter I will address Government separately.

15. It is noteworthy that since the erosion of the 15th to 18th, the shore has made up again considerably, as a reference to the accompanying plan will show.

16. STORES RECEIVED ON WORKS.—During November there arrived at Madras with stores on these works the following ships:—

Barque <i>Kingdom of Saxony</i> , with 399 tons Cement.	
Ship <i>Saint Margaret</i>	545 do. do.
S.S. <i>Africa</i> , with 110 Sal-wood sleepers.	
„ <i>Chindwara</i>	503 do.
„ <i>Chinsura</i>	434 do.
„ <i>Chanda</i>	660 do.

17. General Morgan has supplied 30 tons of his cement during November, but I have not yet satisfied myself as to its quality and therefore have not used it for block-making. On November 30th his second contract (signed in August 1878) to supply 2,000 tons of cement expired. He has only supplied 1,021 tons, leaving me deficient by nearly 1,000 tons of what I had reckoned upon receiving. For this deficiency I shall have once more to submit a supplemental Indent on England so that we may not be retarded at last by want of good cement.

18. PLANS, &c.—I have the honor to submit herewith a lithographed plan to a scale of 200 feet to 1 inch, showing the advance of the piers, and the coast line on November 30th shown in a black dotted line. A portion of the coast where the sea encroached, as mentioned in paragraph 12, is shown in a yellow line, which represents the state of things on the 21st November. It will be observed that no further erosion, but rather a gain of foreshore took place between the 21st and the 30th.

19. Two longitudinal sections also accompany this report as usual, showing the most recent information as to the form of the rubble base. But the state of the weather has put a stop to any complete soundings over the rubble bases.

20. EXPENDITURE.—The total expenditure on the works up to November 30th has been Rs. 33,81,211, subject to corrections in detail which cannot yet be made up.

21. INTERCEPTING SEWER.—I would respectfully call attention to the fact that I have not yet received any definite orders as to whether Mr. Parkes's design of sewer with the supplemental open drain, shall be proceeded with at once, although I have been led to believe that this meets with the approval of Government.

No. 27. ORDER THEREON, 9th December 1879, No. 3,134 W.

RECORDED in continuation of G.O., No. 2,842 W., dated 11th November 1879.

2. The communication referred to in paragraph 14 of the Superintendent's letter will be awaited.

3. The matter referred to in paragraph 21 is still under consideration.

(True Extract.)

Major, R.E.,
Ag. Under Secy. to Govt., P.W.D.

To the Superintendent, Madras Harbour Works.
„ Secretary, Harbour Works Committee.

Exd. S. T. Austin.
Spare Copies

BUILDINGS AND ROADS
CIVIL WORKS.

Govt. of (1879) Madras
PUBLIC WORKS.

To
THE SUPERINTENDENT, MADRAS
HARBOUR WORKS.

Dated December 1879.

Signed

Recd.

Encl.

G. O. 9th December 1879. No. 3,114 W

DECEMBER.

Nos. 26-27.

Madras Harbour Works - Progress Report
of the for November 1879, recorded with
remarks.

No. 43 W

From

THE SUPERINTENDENT,
MADRAS HARBOUR WORKS.

To Colonel R. N. Sankey, C. B., F. C.
Secretary to Government P. W. Dept.
Buildings & Roads
Fort St. George, Madras, 12 December 1879.

SIR,

I have the honor to submit the follow-
ing report of the progress on these works dur-
ing the past month of November.

2. Every branch of the work has been
greatly impeded during the month by
bad weather, and the state of the sea has
been such that diving operations were
only carried on during 10 days at the North
Pier. Divers could have worked on 4 more
days but other circumstances prevented
this being done as will be explained.

3. On the 13th, 14th, and 15th of November the
sea was unusually heavy and the waves
broke constantly and with great force
along the whole length of the pier. The
length from 1550 feet outward (built since
May last) had not been attacked by any
heavy seas until this month and con-
sequently the blocks in this length settled
down to their regular bearing as has hitherto

been

been observed to be the case after a storm on previous lengths of work. The settlement caused the rails and sleepers to be loosened, and the waves then washed the loose road over into the Harbour from 1550 feet outward to the end of the Pier. It is worthy of special note that from 1550 feet inward (a length that had weathered storms before) no rails were displaced, and the settlement was very slight. On the 17th the sea had abated so much as to admit of my going to the end of the North Pier, when I found that beyond the temporary loss of the road and some corners broken off the top blocks, no harm was done to the work. On the 18th the sea was worse than ever and the shipping in the roads quitted their moorings for sea, but in removing the rails the waves seemed to have done their worst and no further damage was sustained.

14. The loss of the road interfered with work for three days during which it was repaired and work was then resumed as usual. During November 72 blocks were set in the work advancing the pier by $4\frac{1}{4}$ lineal feet and making the total length of work

From

North Pier
Rubble Base

Concrete
Blockmaking

PR 33/8
from the commencement of blockwork 2357 $\frac{1}{2}$ feet.
5. The state of the sea during the greater part of the month has almost brought the tipping of rubble to a standstill, and only 3100 tons of laterite have been deposited in November. The base extends now nearly 475 feet beyond the blockwork and the quantity of rubble in advance may be estimated at about 40000 tons. It is hoped that the "Hobart & Salisbury" will resume work before the end of this year when an effort will be made to complete the base of the North Pier before May 1890.

6. The occasional heavy rains have prevented blockmaking from being kept up at full speed during the whole of the month, as it is impossible to keep the coolies at work during wet weather, and very difficult to muster them again when rain has once dispersed them in the early morning. Fortunately the English cement is arriving now in regular and sufficient consignments so that with favourable weather there will be no difficulty in keeping up the stock of blocks. In November 372 blocks were made, of which 62 were made by hand labour at the South Pier. For all of these blocks English cement from the Widdham

Cement

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signment being the strongest cement I have
ever met with anywhere.

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sizes. The stone for blockmaking is quarried
by blasting at Pallavaram, but the process
is at present rather costly; it will however
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Chief Engineer, P.W.D. and I hope for
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will have to be increased during the next
four months, and I have applied to the
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a fifth train every day, but as yet I
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letter to them was dated November 20th.

9. The roughness of the sea has not
interfered so much with the work at the

Quarries.

South Pier
Superstructure.

South Pier as at the North, owing to the protection
afforded during the N.E. monsoon by the
greater length of the latter. But still the
seas of the 15th to 18th stopped all work for
a time. During November there were
120 blocks set in the superstructure advan-
cing the work by a length of 69 lineal
feet and making the total length of
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In the corresponding month of the year
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vance only 28½ feet.

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of the South Pier, but no damage was incurred
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Rubble Base.

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21/1

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& Coast Line
 The slope that it took was however steeper
 than I should have expected it to assume.
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 surf and high tide acting in concert ran
 right over the bank and got in at the back,
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 of 1 to 1 to one of about 7 to 1. The waves
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PL 24/6
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 Battery to the spot where the sea encroaches
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 The re-building of Mr. Coleman's wall
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on Works.

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quality and therefore have not used it for blockmaking. On November 30th his second contract (signed in August 1878) to supply 2000 tons of cement expired. He has only supplied 1021 tons leaving me deficient by nearly 1000 tons of what I had reckoned upon receiving. For this deficiency I shall have once more to submit a supplemental Indent on England so that we may not be retarded at last by want of good cement.

18. I have the honor to submit herewith a lithographed plan to a scale of 200 feet to 1 inch shewing the advance of the piers, and the coast line on November 30th shown in a black dotted line. A portion of the coast where the sea encroached as mentioned in paragraph 12 is shown in a yellow line which represents the state of things on the 21st November. It will be observed that no further erosion but rather a gain of foreshore took place between the 21st and the 30th.

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I have the honor to be,

Sir,

Your most obedient servant.

J. H. Mowbray, Esq. In Dist. Secy.
Superintendent
Madras Harbour Works

His: M. 2979 H- 19-11-79
H. 2842 H- 11-11-79

P.W.D.
3 DEC 79

Buildings & Road

From
The Superintendent
Madras Harbour Works

L.O. No 3134 H of 9-12-79

No 432
Dated 2nd December 1879

x
No of Enclosures 3
x in library.

26

Progress
Submits report of - of the
works during November 1879.

Civ

No 3134 W

B. K. Clarke
P. W. Department.
27/10

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 9th Decr 1879
Read the following

From the Superintendent
Madras Harbour Works (H. E. No 434 H of 2 Dec 79)

Recorded in con-
tinuation of G.O. 2842 W
dated 11th Novr 1879.

2. The communication
referred to in para 14
of the Superintendent's
letter will be awarded

PM

3. The matter referred to
in para 21 is still
under consideration

D. 8/12

PM

Supdt. H. to W. ✓
Secy H. W. C. ✓

Dec 12
3-12

PM

5/12/79

Dec 12
13-12-79

Here is Huddleston
to the Journal

See
Huddleston

C. P. 673



Govt. of (1879) Madras.

PUBLIC WORKS.

To

Dated

Issued

Recd.

Encl.

G. O., 9 Decr 1879, No. 3134W

No. 26-27

Madras Harbour Works

Progress report of the —
for November 1879, recorded
with remarks