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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W.D. DEPARTMENT

G.O. No.	934	Press.
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Dated	7-4-1881	1/1.

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934

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

7th April 1881, No. 934 W.

Buildings and Roads.
Civil Works.

Read the following paper :—

No. 29. From F. N. THOROWGOOD, Esq., M. INST. C.E., Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department (Buildings and Roads), dated Madras, 4th April 1881, No. 1 W.

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

2. *North Pier Superstructure.*—I hoped that the north pier would be quite completed during the official year 1880-81, but owing to complications in the work of constructing the pier head, there yet remains a considerable amount of work to be done. The advance during March has necessarily been small, owing to heavy excavation in the rubble base and to the increasing width of the pier. On March 23rd I transferred all the divers from the south pier to the north pier, so as to get on more rapidly with the more complicated work of the head. This was attended with good results and there were 327 blocks set during the month, advancing the pier by a length of $84\frac{1}{2}$ lineal feet. One half of the pier head is now within 25 feet of the extreme end, but the southern portion has to be built up, and the return wall or horn has yet to be constructed. The state of the pier head on March 31st was as shown in the sketch in the margin,—the dotted lines showing what has yet to be done to finish the north pier. The advance of the pier during the first quarter of 1881 has been 239 lineal feet.



3. *North Pier Rubble Base.*—The Rubble Base of the north pier is now practically completed,—the foundation for the return wall or horn being also finished. In March there were 2,303 tons of laterite deposited in the foundation for the latter work, which brings the total amount of rubble used in the north pier to 485,770 tons.

The amount shown in Mr. Parkes's revised estimate (G.O., No. 712 W., March 16th 1881) is 489,910 tons. It is probable that when we come to set blocks upon the return wall we shall want some hundreds of tons more, but the quantity will still be within the revised estimate.

4. *Concrete Block-making.*—The making of concrete blocks has been carried on as rapidly as the complicated shapes of the blocks will admit, and at the present date all the blocks for the north pier are completed. The first concrete block for the north pier was made on August 14th, 1876, the last one on April 2nd, 1881. During the past month only 283 blocks were made,—the greater number of these being for the south pier head.

5. *Quarries.*—The work at the quarries just now is not altogether satisfactory, owing to the continued difficulty in keeping the coolies steadily at work. From Ambatūr only two trains daily are being received, and the quarry is nearly worked out. I am removing large quantities of rails and railway material from there for use on the harbour works themselves. In March 13,650 tons of laterite were received from Ambatūr. From Pallāvaram the supply has been unsatisfactory and insufficient, but I have been unable to increase it. In the current month, I hope the outturn will be greater by 30 per cent., as the coolies are beginning to return to work. From these quarries 10,803 tons of granite were received in March, giving a total supply for the month from both quarries of 24,453 tons.

6. *South Pier Superstructure.*—During the early part of the month, the advance at the south pier was very rapid,—so much so indeed that the superstructure gained upon the rubble foundation, as the supply of stone to the latter was deficient. There were 296 blocks set in March, advancing the pier by a length of 172 lineal feet, and making the total length from the commencement 3,635 feet on March 31st. There remains now only a distance of 322 lineal feet to be built to bring the south pier to its full length. The advance made in the quarter ending March 31st is 496 lineal feet, or 46 feet in excess of the estimated rate of 150 feet a-month for the same period.

7. *South Pier Rubble Base.*—The rubble base of the south pier is not so far formed as it ought to be, but, as I have already mentioned, I cannot increase the supply of stone yet. In March 20,470 tons of granite and laterite were deposited, but still the superstructure gained on the foundation, and the accompanying longitudinal section will show that at the end of March, the base was still not so far forward as it ought to be. This being so, the transfer of all divers from south to north pier, mentioned in paragraph 2, was not in any way a source of delay to the south pier, as we must under any circumstances have waited for some days to allow the rubble base work to get on in advance. I hope now to keep on a steady rate of progress until the month of May, when it will be necessary to withdraw the south pier Titan from the end of the pier.

8. *Improvement to Beach.*—An additional work is now in hand, sanctioned by G.O., No. 234 W., dated 28th January 1881, viz., forming up the beach between the piers and constructing jetties for loading and unloading of cargo boats. At present, the work done has been confined to excavating sand from low-water level and putting it into embankment on the upper portion of the foreshore. There have been about 3,000 cubic yards of material shifted in this way at the present date. This work does not form a portion of the harbour works proper, and will be paid for out of Port Funds. I should be glad to learn whether it is right that I should include a report of this work in the monthly reports of the harbour works, as it is being carried out by my staff.

9. *Expenditure.*—The outlay during March has been approximately Rs. 1,21,768, and the total expenditure to the end of March 1881 has been Rs. 51,97,828. These figures may be subject to some alterations when the accounts for the financial year are closed and made up.

10. *Plans and Sections.*—The usual lithographed plan and two longitudinal sections accompany this report. On the plan the outline of the proposed jetties is drawn in red lines, but the work of embankment with sand cannot be satisfactorily shown as yet. The distance between the terminations of the two piers was on March

31st 870 feet, or 320 feet more than the proposed entrance. The longitudinal section of the north pier shows how nearly the full length of the work is reached.

11. In conclusion, I would remark that Mr. Parkes, the Engineer-in-Chief, who arrived here on January 6th, left for England *via* Bombay on March 14th.

No. 30.

ORDER THEREON, 7th April 1881, No. 934 W.

ORDERED to be recorded.

2. The Superintendent will include in his monthly reports a statement of the progress of the strand reclamation project sanctioned in G.O., No. 234 W., dated 28th January 1881.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintendent of Madras Harbour Works.
" Secretary of Madras Harbour Committee.
" Marine Department.

Exd. A. Raiff.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Gobt. of [1881] Madras.
PUBLIC WORKS.

To
THE SUPERINTENDENT, MADRAS
HARBOUR WORKS.
&c. &c. &c.

Dated April, 7th.

Issued

Recd.

Encd

G. O., 7th April 1881, No. 934 W.

APRIL.

Nos. 29-30.

Madras Harbour Works — Progress report
of the — for March 1881, recorded with
remarks.

No. 1 W

From

THE SUPERINTENDENT,
MADRAS HARBOUR WORKS.

To

Colonel R. H. Lankey, C. B., R.E.
Secretary to Government, P.W. Deptt.
Buildings & Roads
Fort St. George,
MADRAS 4 April 1881.

Sir,

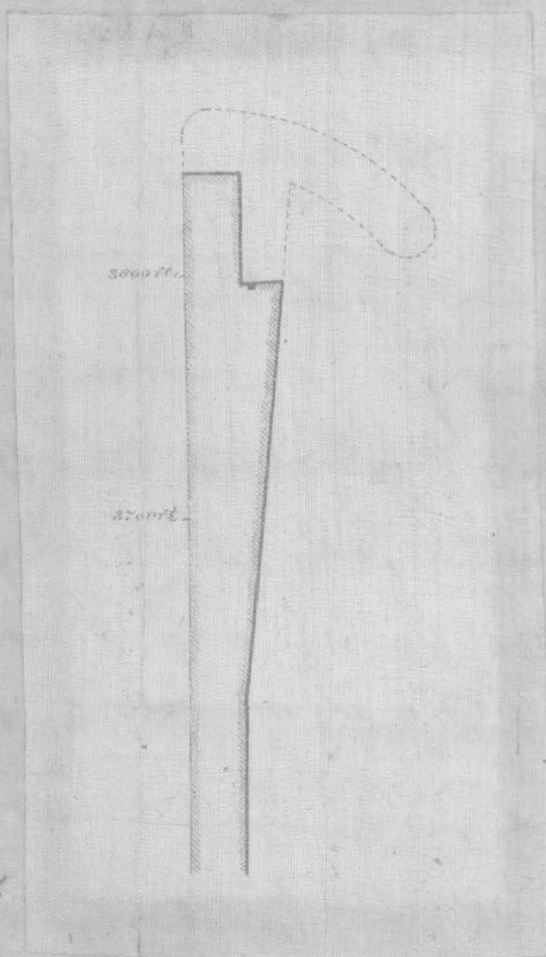
I have the honor to submit the following
report of the progress on these works during the
past month of March.

North Pier. 2. I hoped that the North Pier would be
Superstructure. quite completed during the official year 1880-81,
but owing to complications in the work of
constructing the pier head there yet remains
a considerable amount of work to be done.

The advance during March has necessarily
been small owing to heavy excavation in the
mud base, and to the increasing width of
of the pier. On March 23rd I transferred
all the divers from the South Pier to the
North Pier so as to get on more rapidly
with the more complicated work of the head.
This was attended with good results and

there

there were 327 blocks set during the month, advancing the pier by a length of 8 1/4 lineal feet. One half of the pier head is now within 25 feet of the extreme end, but the Southern portion has to be built up, and the return wall or horn has yet to be constructed. The state of the Pier Head on March 31st was as shown in the sketch in the margin, the dotted lines showing what has yet to be done to finish the North Pier. The advance of the Pier during the first quarter of 1881 has been 237 lineal feet.



3. The Rubble Base of the North Pier is now practically completed, the foundation for the return wall or horn being also finished. In March there were 2303 tons of laterite deposited on the foundation for the latter work, which brings the total amount of rubble

North Pier
Rubble Base

rubble used in the North Pier to 486,770 tons. The amount shown in Mr. Parkes's revised estimate (G.O. 712 W. March 16, 1881) is 489,910 tons. It is probable that when we come to set blocks upon the return wall we shall want some hundreds of tons more, but the quantity will still be within the revised estimate.

Concrete Block. 4. The making of concrete blocks has been

making.

carried on as rapidly as the complicated shapes of the blocks will admit, and at the present date all the blocks for the North Pier are completed. The first concrete block for the North Pier was made on August 14th, 1876, the last one on April 2nd 1881. During the past month only 283 blocks were made, the greater number of these being for the South Pier Head.

Quarries 5.

The work at the quarries just now is not altogether satisfactory owing to the continued difficulty in keeping the coolies steadily at work. From Umbathoor only two trains daily are being received, and the quarry is nearly worked out. I am removing large quantities of rails and railway

86
from the end of the pier.

8. An additional work is now in hand, Improvement
sanctioned by G.O. No 234 W, dated 28th January 1881, to Beach
namely forming up the beach between the
piers and constructing jetties for loading
and unloading of cargo boats. At present
the work done has been confined to excavating
sand from Low water level and putting it
into embankment on the upper portion of
the foreshore. There have been about 3000
cubic yards of material shifted in this way
at the present date. This work does not form
a portion of the Harbour Works proper, and
will be paid for out of Port Funds. I should
be glad to learn whether it is right that I
should include a report of this work in the
monthly reports of the Harbour Works as it
is being carried out by my staff.

9. The outlay during March has been Expenditure
approximately Rs 12,768, and the total expendi-
ture to the end of March 1881 has been Rs 517,828.
These figures may be subject to some alterations
when the accounts for the financial year are
closed and made up.

The

1732
Plans & Sections 10. The usual lithographed plan and two longi-
tudinal sections accompanying this report. On
the plan the outline of the proposed jetties is
drawn in red lines, but the work of embank-
ment with sand cannot be satisfactorily
shown as yet. The distance between the
terminations of the two piers was on March
31st 870 feet or 320 feet more than the
proposed entrance. The longitudinal section
of the North Pier shows how nearly the
full length of the work is reached.

11. In conclusion I would remark that
Mr. Parker, the Engineer in chief, who
arrived here on January 6th left for England
via Bombay on March 11th.

I have the honor to be
Sir,

Your most Obedient Servant,

G. N. Horrocks Esq. R.N.
Superintendent

Madras Harbour Works

PG
railway material from there for use on the Harbour works themselves. In March 13,650 tons of laterite were received from Umbathoor. From Pallavaram the supply has been unsatisfactory and insufficient but I have been unable to increase it. In the current month I hope the outturn will be greater by 30 percent as the coolies are beginning to return to work. From the quarries 10,803 tons of granite were received in March, giving a total supply for the month from both quarries of 24,453 tons.

6. During the early part of the month the advance at the South Pier was very rapid, so much so indeed that the superstructure gained upon the rubble foundation as the supply of stone to the latter was deficient. There were 296 blocks set in March advancing the Pier by a length of 172 lineal feet, and making the total length from the commencement 3635 feet on March 31st. There remains now only a distance of 322 lineal feet to be built to bring the South Pier to its

South Pier
Rubble Base

85
its full length. The advance made in the quarter ending March 31st is 496 lineal feet or 146 feet in excess of the estimated rate of 150 feet a month for the same period.

7. The rubble base of the South Pier is not so far formed as it ought to be, but, as I have already mentioned, I cannot increase the supply of stone yet. In March 20,470 tons of granite and laterite were deposited but still the superstructure gained on the foundation, and the accompanying longitudinal section will show that at the end of March, the base was still not so far forward as it ought to be.

This being so, the transfer of all divers from South to North Pier, mentioned in para: 2, was not in any way a source of delay to the South Pier, as we must under any circumstances have waited for some days to allow the rubble base work to get on in advance. I hope now to keep on a steady rate of progress until the month of May, when it will be necessary to withdraw the South Pier Titan from

8
P. O. No. 234 W. 28-1-81.

" " 560 W. 1-2-81.

" " 637 W. 10-2-81.

" " 712 W. 16-2-81.

P. H. C. No 2151

Buildings & Roads

From
The Superintendent
Madras Harbour Works

No 1 W.
Dated 4th April 1881
Recd 9

No. of Enclosures 3 (plus)

* given to
Mr H. Pope
8/4/81

Progress Report

Submits for March 1881.

C. 6.4. R. 79.

1322
Civil Works
No 934 W
PUBLIC WORKS DEPARTMENT.
PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 7th April 1881
Read the following:—

From the Superintendent,
Madras Harbour Works (No 145 of 4 April 1881)

Ordered to be recorded.

2. The Superintendent
will include in his
monthly reports a
statement of the pro-
gress of the strand
reclamation project
sanctioned in G.O.
No 234 W, dated
28th January 1881.

Supt. M. H. Works
Secy. M. H. Committee
Enquire Rept.

S 6/4

Recd
19-4-81

2157

Govt. of (1881) Madras.
PUBLIC WORKS.

To

G. H.

Dated

Issued

Recd.

Each

G. O. 7 April 1881, No. 934 W.

NOV 29-30

*Madras Harbour Works
Progress Report of the — for
March 1881. Recorded with
Remarks.*