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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W. DEPARTMENT

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221

2074
GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

8th August 1879, No. 2,074-A W.

Buildings and Roads.
Civil Works.

Read the following paper :—

No. 60-A. 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, 2nd August 1879, No. 27 W.

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

2. *North Pier Superstructure.*—The weather has been exceptionally good for this season of the year, and work has been carried on at a steady rate during every day of the month. A total quantity of 344 concrete blocks (equal to 8,901 tons of concrete) have been set at the North Pier, advancing the work by a length of 206½ lineal feet, bringing up the total length to 1,913 feet from the point B, and within 337 feet of the springing or tangent point of the curve southward. The steady advance still continues.

3. The above is the greatest amount of blocks set that has ever been done at one pier in a month, and is chiefly accounted for by the fact of the rubble base having been very carefully and accurately deposited, so that there was not any heavy excavation or filling to be done by the Divers. When the rubble base is too high or too low (unavoidably the case at times), progress is retarded necessarily. On the 22nd July there were 40 blocks (or 1,035 tons of concrete) set in one day, including what was done at the South Pier.

4. *North Pier Rubble Base.*—The deposit of rubble base has been carried on as usual by cargo boats and by the steamer *Hobart*. The *Salisbury* has left Cocanada for Madras and is expected hourly. She was kept a few days longer at Cocanada on account of a report from the Marine Office that her Commander was wanted for other service, but under the circumstances her absence from Madras for five days more was not of much consequence.

5. The *Hobart* arrived from Cocanada on July 5th, but for various reasons did not commence work until the 9th, since which date she has deposited 6,267 tons of laterite in the base of the North Pier. The cargo boats I have had to keep at work as hard as possible in order to clear off advances made to them by the Contractor, in accordance with the usual practice of Madras natives. They have in the whole of July deposited 8,526 tons of laterite, and the total quantity of stone used during the month in the North Pier base has been 16,093 tons, or nearly twice as much as in June. There is now rubble base deposited for 600 feet in advance of the block work and for some distance on the curve.

6. *Blockmaking.*—Blockmaking has been carried on at as great a rate as the supply of cement would allow, and the machinery was kept at work during the whole month, making 322 blocks. Most of these are made with General Morgan's cement which is now supplied of a very satisfactory quality. I am constantly testing it in various ways, and the results are as good as those obtained from the cement from England.

7. No blockmaking has been carried on at the South Pier ground through insufficiency of cement, and the vessels that are now arriving *via* the Cape contain such a small quantity that their supply only just serves to keep work going for a few

days. The last ship that arrived by the Cape only brought 37 tons, which can be used up in one day's work.

8. I have telegraphed to Mr. Parkes that cement is wanted, and I would respectfully suggest that the Home Government be telegraphed to, to send more by steamer. It is more economical to send cement by steamer than in very small quantities in different sailing ships, as I cannot reduce my blockmaking staff much in the intervals of receipt of cement, and General Morgan's supply only serves to keep the blockmaking machinery going without working it to its utmost.

9. In paragraph No. 4 of my last report I mentioned an alteration in the slope or batter of the blocks. I have this day learnt that Mr. Parkes fully approves of the alteration made and of the manner in which it has been done. No blocks of the improved form have been set in the work up to the present as they are not sufficiently hard.

10. *Quarries.*—The output from the quarries has been increased over what it was in June, but not up to what I predicted it would be in the last report. It has however been quite sufficient for the requirements, and will probably be increased during the current month. From Umbathoor 20,661 tons of laterite were received, against 10,736 received in June, and latterly four trains of 35 wagons each have been running daily.

11. From the South Indian Railway quarries 15,315 tons of stone have been received, or about 2,000 tons in excess of what was received in June. The total quantity from both lines sent down to the works in July has been 35,976 tons.

12. The quality of the stone from Pallavaram, to which I draw attention in paragraph No. 6 of the June report, has greatly improved. A spot has been fixed upon for working in which the stone is dark and hard, and I have had no further occasion to complain of the kind of rock quarried. The South Indian Railway Company have nearly completed the extension of the sidings at Pallavaram so as to enable a greater number of wagons to be loaded at that station.

13. *South Pier Superstructure.*—The repairs to the Titan Crane, South Pier, were not altogether completed until the 17th July, and on the 18th the work of blocksetting was resumed after a loss of thirty-three working days. Since that date 163 blocks have been set, advancing the work by a length of 151 lineal feet, and making the total length from the point E 1,425½ feet. The work continues to advance satisfactorily, and the new gearing to the Titan works perfectly well.

14. *South Pier Rubble Base.*—The rubble base of the South Pier has been tipped partly by cargo boats and partly from the steamer *Hobart* in July. The total amount of material deposited has been 14,176 tons, of which 3,003 tons were brought by the *Hobart* from the North Pier. The base extends now for 740 feet beyond the block-work, but is not fully made up throughout this length. There has never been any indication of sand deposit on the rubble this season.

15. *Protective Works and Alteration of Point Line.*—The sea continues to encroach to the north of the village of Cassemore, and I have ordered another groynes to be thrown out as a protective measure. The erosion of the shore carries away many huts built of mud and of leaves, and has recently brought down a portion of a latrine of brickwork, but no substantial dwelling house has been touched as yet. The points where the worst damage is being done are marked on the accompanying plan with a red border, but I have not been able to have the survey extended far north this month, owing to other pressing work for the Surveyor. For extending groynes and keeping up the revetment along the road, 1,564 tons of laterite were used in July.

16. At the south of the Harbour the advance of the shore has been very slight up to the end of July, and it is to be supposed that much more sand will accumulate in August and September. Sand is thus being taken from the shore to the south of the South Pier for making concrete blocks, and that in some measure accounts for the form the shore line has assumed as shown on the plan.

17. *Intercepting Sewer along Beach.*—Nothing further has been done to the sewer along the beach since my last orders on the subject. The recent rains have

confirmed me in the opinion that the storm-water must be diverted from the harbour, as the effects of the overflow from the existing sewer has been to cut wide channels across the sand for a depth of about 18 to 20 inches, the excavation from which has now gone into the harbour area and is imprisoned by the North and South Piers.

18. I have this day received from Mr. Parkes a proposed section which is almost identical with that submitted by me to the Chief Engineer, Public Works Department, in letter No. 17 W., of June 14th. It consists of a bricked open channel, large enough to carry off all the water and sewage which would flow over from the barrel drain proposed by him.

19. This matter of the intercepting sewer should not be left unsettled too long, as every month's work makes the water of the harbour more still and unchanging. I would therefore respectfully ask for orders at as early a date as possible.

20. *Stores received on Works.*—During July the S.S. *Sea Gull* arrived from England with 400 casks of cement and various rope stores much needed; also the S.S. *Duke of Devonshire* with 217 casks of cement, and the sailing ship *Kingdom of Sweden* with 200 casks. This cement is in part compliance with the order for 3,000 tons telegraphed to the Home Government, January 21st 1879. Besides these vessels from England the S.S. *Chinsura* has brought 906 sleepers from Gopalpur, and the S.S. *Canara* 254 from the same port. These sleepers are supplied by the Forest Department. I would remark here that the difficulty about the freight for the sleepers, to which I drew attention in the report for June, is overcome. I applied to the Agents of the B. I. S. N. Company at Calcutta, and they agreed to take payment by measurement instead of by weight.

21. *Plans and Sections.*—I submit as usual a plan and two elevations of the North and South Piers, showing the progress of the piers, the rubble bases, shore line, &c.; but I would at the same time respectfully state that to submit plans once in three months, except on special occasions, would be a great convenience as mentioned in paragraph 21 of the progress report for June.

22. *Assistant Superintendent.*—Mr. N. St. B. Beardmore, the Assistant Superintendent, applied for leave for five weeks from July 18th, and his application was forwarded with my recommendation direct to Government. He left on July 17th.

23. *Expenditure.*—The total expenditure on the works up to July 31st has been (approximately) Rupees 29,61,157.

No. 60-B.

ORDER THEREON, 8th August 1879, No. 2,074-A. W.

RECORDED in continuation of G.O., No. 1,953 W., dated 24th July 1879.

2. The Right Honorable the Secretary of State will be requested by telegraph to comply with the request contained in paragraph 3 of the Superintendent's report.

3. The question of the intercepting sewer is still under the consideration of Government.

(True Extract.)

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

To the Superintendent, Madras Harbour Works.
" Secretary, Harbour Committee.
To General Morgan.

Exd. S. T. Austin.
Spare Copies

BUILDINGS AND ROADS,
CIVIL WORKS.

GOVT. OF (1879) MADRAS.

PUBLIC WORKS.

TO THE SUPERINTENDENT, MADRAS
HARBOUR WORKS.

Acc. do. do.

Dated August 22nd.

Issued

Recd.

Exd.

G. O., 8th August 1879, No. 2074-A. 17.

AUGUST.

No. 60-A-80-B.

MADRAS HARBOUR WORKS PROGRESS REPORT
for July 1879, recorded with remarks.

No. 27 W.

From

THE SUPERINTENDENT,
MADRAS HARBOUR WORKS.

To Colonel A. H. Sankey, P. E.
Secretary to Government, P. W. Department,
Buildings & Roads,
Fort Saint George,
MADRAS, 22 August 1879.

Sir,

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

North Pier.
Superstructure.

2. The weather has been exceptionally good for this season of the year and work has been carried on at a steady rate during every day of the month. - A total quantity of 344 concrete blocks (equal to 890 tons of concrete) have been set at the North Pier, advancing the work by a length of 206 1/2 lineal feet, bringing up the total length to 1913 feet from the point B and within 307 feet of the springing or tangent point of the curve Southward. The steady advance still continues. -

3. The above is the greatest amount of block setting that has ever been done at one pier in a month and is chiefly accounted for by the fact of the rubble base having been very carefully and accurately deposited so that there was not

not any heavy excavation or filling to be done by the divers. When the rubble base is too high or too low (unavoidably the case at times) progress is retarded necessarily. - On the 22nd July there were 140 blocks (or 1035 tons of concrete) set in one day including what was done at the South Pier. -

4. The deposit of rubble base has been carried on as usual by cargo boats and by the steamer "Hobart". - The "Salisbury" has left Coconada for Madras and is expected hourly. She was kept a few days longer at Coconada on account of a report from the Marine Office that her commander was wanted for other service, but under the circumstances her absence from Madras for 5 days more was not of much consequence. -

5. The "Hobart" arrived from Coconada on July 5th but for various reasons did not commence work until the 9th since which date she has deposited 6367 tons of laterite in the base of the North pier. The cargo boats I have had to keep at work as hard as possible in order to clear off advances made to them by the contractor in accordance with the usual practice of Madras natives. They have in the whole

North Pier
Rubble Base

Blockmaking

2074 P 2
whole of July deposited 8526 tons of laterite, and the total quantity of stone used during the month in the North pier base has been 16098 tons or nearly twice as much as in June. There is now rubble base deposited for 600 feet in advance of the blockwork and for some distance on the curve. -

6. Blockmaking has been carried on at as great a rate as the supply of concrete would allow, and the machinery was kept at work during the whole month making 322 blocks. - Most of these are made with General Morgan's cement which is now supplied of a very satisfactory quality. I am constantly testing it in various ways and the results are as good as those obtained from the cement from England. -

7. No blockmaking has been carried on at the South Pier ground through insufficiency of cement, and the vessels that are now arriving via the Cape contain such a small quantity that their supply only just serves to keep work going for a few days. The last ship that arrived by the Cape only brought 37 tons which can be used up in one day's work. -

8. I have telegraphed to Mr. Parke that

that cement is wanted and I would respectfully suggest that the Home Government be telegraphed to send more by steamer. It is more economical to send cement by steamer than in very small quantities in different sailing ships as I cannot reduce my block-making staff much in the intervals of receipt of cement and General Morgan's supply only serves to keep the block-making machinery going without working it to its utmost.

9. In paragraph 4 of my last report I mentioned an alteration in the slope or batter of the blocks. I have this day learnt that Mr. Parkes fully approves of the alteration made and of the manner in which it has been done. No blocks of the improved form have been set in the work up to the present as they are not sufficiently hard.

10. The outturn from the quarries has been increased over what it was in June, but not up to what I predicted it would be in the last report. It has however been quite sufficient for the requirements and will probably be increased during the current month. From Umbathoor 2066 tons of laterite were received, against

Quarries

South Pier
Superstructure

2074A 123
5
against 1073 tons received in June, and latterly 15 trains of 35 waggons each have been running daily. 11. From the South Indian Railway quarries 15,315 tons of stone have been received, or about 2000 tons in excess of what was received in June. The total quantity from both lines sent down to the works in July has been 38,976 tons.

12. The quality of the stone from Pallavaram to which I drew attention in paragraph 4 of the June report, has greatly improved. A spot has been fixed upon for working in which the stone is dark and hard and I have had no further occasion to complain of the kind of rock quarried. The South Indian Railway Company have nearly completed the retention of the sidings at Pallavaram so as to enable a greater number of waggons to be loaded at that station.

13. The repairs to the Titan Crane, South Pier, were not altogether completed until the 17th July, and on the 18th the work of block-setting was resumed after a loss of 53 working days. Since that date 165 blocks have been set, advancing the work by a length of 48 1/2

98³/₄ lineal feet, and making the total length from the point B, 1425³/₄ feet. The work continues to advance satisfactorily, and the new gearing to the Titon works perfectly well.

14. The rubble base of the South pier has been tipped partly by cargo boats and partly from the steamer "Hobart" in July. The total amount of material deposited has been 14,176 tons, of which 3013 tons were brought by the "Hobart" from the North Pier. The base extends now for 740 feet beyond the block-work, but is not fully made up throughout this length. There has never been any indication of sand deposit on the rubble this season.

South Pier
Rubble Base

15. The sea continues to encroach to the north of the village of Cassinade, and I have ordered another groynes to be thrown out as a protective measure. The erosion of the shore carries away many fruits built of mud and of leaves, and has recently brought down a portion of a latrine of brickwork, but no substantial dwelling. None has been touched as yet. The points where the worst damage is being done are marked on the accompanying plan with a

red

red border, but I have not been able to have the survey extended far north this month, owing to other pressing work for the surveyors. For extending groynes and keeping up the revetment along the road, 1564 tons of latrine were used in July.

16. At the South of the Harbour the advance of the shore has been very slight up to the end of July, and it is not to be supposed that much more sand will accumulate in August and September. Sand is now being taken from the shore to the South of the South Pier for making concrete blocks, and that in some measure accounts for the form the shore line has assumed as shown on the plan.

Intercepting
sewer along
Beach.

17. Nothing further has been done to the sewer along the beach as I await orders on the subject. The recent rains have confirmed me in the opinion that the storm water must be diverted from the Harbour, as the effects of the overflow from the existing sewer has been to cut wide channels across the sand for a depth of about 18 to 20 inches, the excavation from which has now gone into the Harbour area and is imprisoned by the North and

GO. 1559 N-7-4-79
1958 N-21-4-79
Memo No. 1559 of 1879

Buildings & Roads

From the Superintendent
Madras Harbour Works

G.O. 8.8.79 No. 2074 N.

No. 2711
Dated 2nd August 1879

No. of Enclosures 3 Plans

Palmer & Co.

Progress.

Submits Progress Report on
the works for July 1879.

Cir 7.8.79 Dtd 8.8.79
to Rtg 5-8

No. 2074 N. Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 8th Aug. 1879

Read the following:—

2074 N

From
The Supt. Madras
Harbour Works } (No. 2711 of 2nd August 79)

Recorded in con-
tinuation of G.O. No. 1953 N
dated 24th July 1879.

2. The Right Honble
the Secretary of State will
be requested by telegram
to comply with the request
contained in para 8 of the
Superintendent's report.

Telegram despatched from
Madras 5/8/79.

3. The question of the
intercepting power is still
under the consideration of
G.O. 16.8.79

Supt. M. H. Works.
By Secy. Commr. Madras.
H. M. M. M.

W. 8 Despatched 16.8.79
D. 10

No. 44

10

To, The Right Honble the
Secy: of State for India.

My Lord,

With reference to our
despatch No. 32 of the 11th
June 1879 and telegram
of the 5th instant, we
have the honor to submit
for your Lordship's in-
formation the marginal
extract from the Report
for July 1879 furnished
by the Supt. Madras
Harbour Works.

2. We shall feel
obliged by your giving
the necessary instructions

"I have telegraphed to Mr. Parkes
that cement is wanted and I would
respectfully suggest that the Home
Govt be telegraphed to, to send more by
steamer. It is more economical to send
cement by steamer than in very small
quantities in different sailing ships,
as I cannot reduce my blockmaking
staff much in the intervals of
receipt of cement, and General
Morgans supply only serves to keep
the blockmaking machinery going
without working it to its utmost."

100/100

in view to Mr. Sherrill's
request being complied
with.

S. 8

Dispatch No. 44.
dated 8 August, 1799

Dec
u. 8

These findings

Dec here sent
in up to
Secy. of State
8/8

Cir 7-8-99. Rtl 8-8-99.
to July 8-8-

C 3736

Cont. of 113791 ~~Madras~~

PUBLIC WORKS.

To

By

Dated

For

Recd.

By

G. O. No. 113791, 2076 P.

600-600

Madras Public Works
for general report for July
1877, amended with remarks

Refd.

Madras Harbour Works
Request to send more
current by steamer.