

(1) Number of pages 10

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	502	Press Mis.
Dated	31. 7.	1877.

Not to be folded or roughly handled

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

31st July 1877, No. 502 W.

Buildings and Roads.
Civil Works.

Read the following paper :—

No. 368. From F. N. THOROWGOOD, Esq., C.E., Superintendent, Madras Harbour Works, to the Secretary to Government, Public Works Department, Buildings and Roads, dated Madras, 25th July 1877, No. 35 W.

I HAVE the honor to forward the statement of expenditure on these works for the month of June 1877.

Outlay on Madras Harbour Works up to 30th June 1877.

Heads of Estimate.	Cost for May 1877.	Cost for June 1877.	Total Cost to end of June 1877.	Additional Debits as per Supplemental Accounts for March 1877.	Total Cost.	Estimate.
PRELIMINARY WORKS.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS.
Detailed survey ..	132 10 7	149 1 9	2,454 9 9	390 12 2	2,845 5 11	5,000
Marine survey ..	278 11 6	137 3 2	3,890 3 3	390 12 2	4,280 15 6	
Railways—			38,251 1 4	97,834 3 9	1,36,085 5 1	1,50,000
Rails, &c., from Eng-land.						
Sleepers ..	650 15 10	673 7 0	39,385 7 5		39,385 7 5	
Formation ..	1,453 11 1	2,057 13 9	58,914 8 2		58,914 8 2	10,000
Opening quarries ..			1,878 8 4	254 14 8	2,133 7 0	
Preparing block ground	176 7 11	523 8 9	30,983 8 0	1,754 3 8	32,737 11 8	65,000
Jetties for shipping rubble stone.						45,000
Land ..						30,000
CONSTRUCTION OF PIERS.						
<i>North Pier.</i>						
Surf bank ..	17 9 0		1,72,907 11 4	1,745 13 6	1,74,653 3 10	2,37,186
Rubble base (a) ..	1,132 5 1	1,282 5 6	23,451 15 3	783 13 1	24,235 12 4	4,82,680
Extra rubble for bank (if needed).			1,770 5 10		1,770 5 10	1,00,000
Concrete blocks—						
Making ..	5,515 13 6	2,425 10 11	1,17,544 5 7	3,557 1 6	1,21,101 7 1	10,00,500
Setting ..	1,774 10 5	2,023 10 8	15,301 3 4	221 6 0	15,522 9 4	3,06,500
Light-house ..						80,000
Buildings ..	1,915 5 1	4,129 6 8	38,004 6 2	4,353 11 4	42,358 0 6	75,000
<i>South Pier.</i>						
Surf bank ..	5,676 9 11	3,875 4 11	28,671 0 8	2,622 15 4	31,294 0 0	2,37,186
Rubble base (a) ..	671 5 8	739 0 7	10,916 7 1	772 6 7	11,688 13 8	4,82,680
Extra rubble for bank (if needed).						1,00,000
Concrete blocks—						
Making ..			59 4 0		59 4 0	10,00,500
Setting ..			242 12 1		242 12 1	3,06,500
Light-house ..						30,000

(a) For current expenses on steam hoppers as well as work done by masula boats and for stone quarried at Ambatoor ready for depositing in the sea.

PUBLIC WORKS DEPARTMENT, 31st JULY 1877, No. 502 W.

Outlay on Madras Harbour Works up to 30th June 1877—(Continued).

Heads of Estimate.	Cost for May 1877.	Cost for June 1877.	Total Cost to end of June 1877.	Additional Debits as per Supplemental Accounts for March 1877.	Total Cost.	Estimate.
PLANT.						
Locomotive engines ..	Rs. A. P. 282 15 5	Rs. A. P. 197 13 10	Rs. A. P. 479 28 5	Rs. A. P. 41,115 4 3	Rs. A. P. 42,629 8 0	Rs. 60,000
Rolling stock ..	46 9 2	47 12 6	93 21 8	340 7 2	11,513 13 11	36,000
Floating plant ..	810 0 0		810 0 0	12,514 11 0	1,32,334 3 0	1,45,000
Machinery ..	866 2 9	731 9 4	1,597 12 3	18,917 9 3	1,87,992 7 9	1,25,000
Quarry and general tools ..	164 9 3	390 9 8	554 19 1	5,774 15 3	19,468 9 6	60,000
Buoys and beacons ..						
Office furniture ..	10 11 5	2 15 0	12 26 5		651 5 7	3,000
ESTABLISHMENT.						
Salaries ..	2,717 0 0	2,941 8 0	5,658 8 0	8,098 15 4	81,522 8 11	2,45,690
Office contingencies ..	66 1 0	7 4 0	73 5 0		1,494 6 11	
Travelling allowances ..	70 0 0	543 4 11	613 4 11	9,180 14 0	16,976 0 8	
Medical ..					51 2 0	
CONTINGENCIES AT 5 PER CENT. ON TOTAL ESTIMATE.						
Prince of Wales' visit and other contingencies ..	412 8 8	185 1 6	597 10 4	60 6 0	10,632 7 2	2,45,690
Protecting North Beach ..					7,865 0 9	
Materials at site.						
	24,843 0 3	22,964 8 5	47,807 8 8	2,09,194 5 1	12,15,513 3 3	
	8,715 14 5	472 9 7	9,188 4 2	23,422 7 0	9,188 8 0	
Total ..	33,558 14 8	23,437 2 0	56,995 16 8	1,85,761 14 1	12,24,701 11 3	

MADRAS,
25th July 1877.

(Signed) F. N. THOROWGOOD,
Supt., Madras Harbour Works

No. 369.

ORDER THEREON, 31st July 1877, No. 502 W.

RECORDED, in continuation of G.O. No. 396 W, dated 9th July 1877.

(True Extract.)

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

To the Superintendent, Madras Harbour Works.
" Examiner of Public Works Accounts.

Madras
25th July 1877
E. N. Thorowgood

Williamson
Superintendent
M. H. Works

For the current expenses and contingencies we will do with some few months boats and for the contingencies at North Beach for depositing in the sea.

Materials at site	24,843 0 3	22,964 8 5	47,807 8 8	2,09,194 5 1	12,15,513 3 3
Total	33,558 14 8	23,437 2 0	56,995 16 8	1,85,761 14 1	12,24,701 11 3

Madras
25th July 1877
E. N. Thorowgood
Superintendent
M. H. Works
For the current expenses and contingencies we will do with some few months boats and for the contingencies at North Beach for depositing in the sea.

Pay on order of the City of New York June 1897

Head of Estimate Contractors Estimated Total Cost Estimate

Preliminary Work

Detailed Survey 152.107 149.19 2456.99 390.12 2845.51
 Marine Survey 230.115 197.32 3690.33 390.12 4250.15
 Excavation 155.111 2087.37 5074.02 5074.02

Excavation from England

Shed 530.15.0 69.7 5035.7 5035.7
 Operation 155.111 2087.37 5074.02 5074.02
 Opening Tunnels 176.74 523.09 5074.02 5074.02
 Purchasing Black ground 176.74 523.09 5074.02 5074.02
 Selling and Shipping Rubble Stone 176.74 523.09 5074.02 5074.02

Land

Construction of Piers

East Pier 17.9 17.9
 Middle Pier 1132.61 1202.56 2335.15
 East Pier Rubble for bank of muddy

Concrete Blocks

Making 5515.13 2425.10 11754.57 3557.16 19140.71 19045.00
 Setting 1774.10 2023.10 15301.34 221.6 15522.94 2060.00
 Light House 1915.51 4129.60 6044.51 1355.11 22350.83 34000
 Buildings 5616.91 6075.40 2067.0 2622.15 16000.15 75000

Surf Bank

Rubble Bank 671.70 749.7 10916.71 772.67 16000.15
 Extra Rubble for bank of muddy Concrete Blocks 1915.51 4129.60 6044.51 1355.11 22350.83 34000

Light House

Making 5515.13 2425.10 11754.57 3557.16 19140.71 19045.00
 Setting 1774.10 2023.10 15301.34 221.6 15522.94 2060.00

Locomotive Engines

Rolling Stock 202.155 197.13 1503.39 4115.43 12240.00
 Floating Plant 46.92 47.12 11203.69 340.72 11543.13
 Machinery 510.00 11909.00 12514.11 132334.6
 Quarry and General Tools 566.29 739.94 16907.46 18917.93 187992.79
 Buys and Buoys 166.92 390.90 12693.10 5774.15 19460.96
 Office Furniture 10.11 2.15 2451.00 651.57 2374.29

Carried over 21577.67 19307.6 90300.71 193074.19 1086072.00

No. 3574.

From

THE SUPERINTENDENT,
MADRAS HARBOUR WORKS.

To

Colonel G. A. Ford, R. E.
Secretary to Government, P.W.D.
for Roads & Buildings.
Fort Saint George
MADRAS, 25 July 1877.

SIR,

I have the honor to forward the
Statement of Expenditure on these works
for the month of June 1877. —

I have the honor to be,
Sir,
Your most obedient servant.

J. N. Flourens,
Superintendent
M.H. Works

40312 July 5) 1877 368

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1878

Journal of the

the 1st of the month
the 1st of the month

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the 1st of the month

9th July 1877 N^o 369 W
29 June .. 323 W.

26 JUL 77

Roads & Buildings.

From
The Superintendent
Madras Harbour Works

E-1.

N^o 35 rr. Buildings & Works
Dated 26th July 1877
Recd 26th do
At N^o 502 W d/31st July 77
Recorded in continuation
of N^o 396 W dated 9th
July 1877
Ext 26/7

Submits statement of ex-
penditure on the works for
the month of June 1877.

Supt. M. H. Marks ✓
R. P. W. A. ✓
Dated 6-8-77

46312 July 77) N^o 368

Copy 223

Govt. of Madras

PUBLIC WORKS.

To *the Engineer*
the Engineer
the Engineer

Dated

Issued

Recd.

Encl.

G. O., *27th July* 1877, No. 5024

Nos. 368-369

Madras Harbour Works
The statement of expenditure
for the month
of June 1877. Recorded.

Butler

11