(1) பக்கங்களின் எண்ணிக்கை 40

(2) புதுக்கித் திருப்பிய நாள் 22-6-88

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

P. W. துறை

அரசாணை எண். / மு. கோப்புத் தாள் எண்.	1416 W
நாள் : 15-5-1888	198 .

அதுலை

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

ஆவண, கா-1—18,006—15-6-87.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

1/1416

Buildings and Roads.
Civil Works.

READ—the following papers :—

From R. W. BARLOW, Esq., C.S., Chairman, Harbour Trust Board, to the Under-Secretary to Government, Public Works Department, dated Madras, 5th May 1888, No. 428.

I have the honor to acknowledge the receipt of your letter No. 1770 C., dated the 2nd instant, and to forward, herewith, copy of the Progress Report of the Madras Harbour Works for the month of February 1888, and of my covering letter No. 7314, dated 20th March 1888, alluded to therein.

From C. PINSENT, Esq., Secretary, Harbour Trust Board, to the Chief Secretary to Government, dated Madras, 20th March 1888, No. 7314.

I have the honor, in the absence of the Chairman, on leave, to forward, herewith, for the information of Government, copy of a letter from the Engineer, Harbour Trust Board, No. 1510, dated 6th March 1888, reporting upon the progress made on the Madras Harbour Works during the month of February 1888, with two plans in original (to be returned).

ENCLOSURE.

From F. N. THOROWGOOD, Esq., M. INST. C. E., Superintendent, Madras Harbour Works, to the Chairman, Harbour Trust Board, dated Madras, 6th March 1888, No. 1510.

I have the honor to submit, herewith, a plan showing the progress made on these works during the past month of February, together with another plan giving some extra soundings taken during the month over the area where abnormal shoaling was apprehended in 1887. The soundings in red are those of February, and the black figures denote the depths in August and September 1887. Depths are below de Havilland's mean sea level, to reduce them to the low water of the tide tables 2' $7\frac{9}{12}$" has to be deducted from each sounding. It will be observed that practically there is no alteration in the depths of the different dates.

2. *North Pier Works.*—Nothing has been done at the north pier during February beyond the depositing of two 30-ton blocks in the wave-breaker at a spot where more blocks are required. The crane which does this work was withdrawn on the 6th to its standing ground on shore.

3. *Concrete block-making.*—Want of cement has prevented the making of any concrete blocks during February, which is very much against the future progress of the works. The block moulds have been repaired to a great extent, but new ones will have to be made for the wave-breaker blocks so soon as timber is received for the purpose. A slight alteration has been carried out in the block-yard, which will give increased accommodation for blocks.

4. I am sorry to report that the roads on which the Goliath cranes travel (put down in 1876) have shown sudden signs of decay to so serious an extent that I fear I shall have to put in fresh teak-wood bearers for the whole length. This will take 46 tons of timber for the whole yard, but I hope a small amount can be done at a time. On this subject I will address you separately.

5. *Pallávaram quarries.*—A small amount of stone was required at the south pier to fill up slight hollows in the base, and for this purpose 1,522 tons of rubble were used. Quarrying still goes on at Pallávaram, but at no very great rate, as the requirements at present are very small, and for the future are uncertain.

6. *South Pier Works.*—At the south pier the advance has been more rapid than either Mr. Parkes or I had ever hoped for with this new section of pier. In the 25 working days of

February there were 380 blocks set in the work, making an advance in the month of 234' 9". If the month had been one of 26 working days, (*i.e.*, counting in March 1st as a day in the month) the advance may be taken as 241 lineal feet, which is the greatest amount of work ever built in 26 consecutive days in deep sea on any work in the world I believe.

7. The progress might be continued during March for another length of 150 feet, but this would leave us with a piece of new wall of so great an extent that the wave-breaker blocks now on stock will be insufficient to protect it. I have therefore determined to protect the work now built and then advance forward again during April. I need hardly say that if we had been making blocks steadily throughout November, December and January, it would not have been necessary to exercise such care in the distributing of the wave-breaker blocks; but as it is impossible to foretell exactly how many blocks will be required to protect a certain length, it is better to err on the safe side and protect what is already built rather than risk having an unprotected wall exposed to a May cyclone.

8. With regard to the satisfactory progress during February, I must record the name of Mr. Joseph Lowe, Foreman, South Pier, as being chiefly instrumental in getting such a large amount of work done in so short a time.

9. There now remains a length of 480 lineal feet that can be built at the south pier without interfering with either design of entrance, but when this length is finished, it will be imperative to know what plan is to be adopted.

10. *Stores received from England.*—During February the steamers *Clan Buchanan*, *Nepaul* and *Clan Macintosh* arrived in Madras with the following stores for the works:—

Two pairs of locomotive wheels and axles.
Two Giffard's injectors.
Six cases of carpenter's tools.
Twenty-three packages of Manilla rope.
Forty drums of zinc white paint.
Sixteen drums of linseed oil.
Five casks red lead.
Twenty-two sheets of iron.
One hundred and fifty-two bars of assorted iron bars.

11. *General work connected with Harbour.*—The export shed at commencement of iron pier has advanced a stage, the roof principals being in course of erection. The pattern for a new turn-table connected with this shed has been sent to the foundry to be cast, but has not yet been sent back. The cranes and trucks on the iron pier still continue to absorb a large amount of work in repair and maintenance. I regret to be still unable to report to the water-supply along the pier as in working order. The valve beneath the tank has had to be repaired by the municipality. By filling the tank at night a greater head of water is obtained than by day, but this greater head of water has disclosed a very slight leak in the top of the tank-side, which must be repaired before handing the whole over to the Pier Authorities.

12. The repairs to the pier-planking and beams is now in hand but progressing slowly.

13. *Visit of Admiral Richards.*—On the 4th February the works were visited by Rear Admiral Sir Frederick Richards, K.C.B., and many officers of H.M.S. *Bacchante*, as guests of the Chairman and Members of the Harbour Trust Board. The ends of both breakwaters were inspected and the system of building with blocks were shown at the south pier, while at the north the method of dropping blocks into the wave-breaker was exhibited.

ORDER—dated 15th May 1888, No. 1416 W., Public Works.

Recorded.

(True Extract.)

Captain, R.E.,
Under-Secy. to Govt., P.W.D.

To the Chairman, Madras Harbour Trust Board, with two plans.
" Consulting Engineer for Railways.
" Marine Department.

Exd. F. R. Bantleman.

Spare Copies

12/1416

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated May, 15*th*.

Recd. *Encl.*

G.O., 15th May 1888, No. 1416 W.

MAY.

Madras Harbour Works

Progress report of the — for February 1888, recorded.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

3/1416

Buildings and Roads.
Civil Works.

READ—the following letter from R. W. BARLOW, Esq., C.S., Chairman, Harbour Trust Board, to the Chief Secretary to Government, dated Madras, 13th February 1888, No. 6564 :—

I have the honor to submit herewith, for the information of Government, copy of a letter No. 1364, dated 8th instant, from the Superintendent, Madras Harbour Works, reporting upon progress made during the month of January 1888, with a plan (in original, to be returned).

2. Referring to the Board's Resolution on paragraph 3 thereof, copy of which is also enclosed, and to G.O., No. 476 W., dated 10th February 1888, I have to inform you that I have addressed the Chairman of the Calcutta Port Commissioners and the Chairman of the Bombay Port Trust, in the hope that I may be able to procure a supply of cement from them to prevent stoppage of block-making, pending the arrival of that indented for from Home.

ENCLOSURES.

From F. N. THOROWGOOD, Esq., Superintendent, Madras Harbour Works, to the Chairman, Harbour Trust Board, dated Madras, 8th February 1888, No. 1364.

I have the honor to submit herewith a plan showing the state of the Madras Harbour at the end of January last, with a report of the progress during the month.

2. *North Pier works.*—At the north pier of the Harbour the only work that has been done is to make up several low places in the screen of wave-breaker blocks, and for this purpose 27 blocks of 30 tons each were deposited at different places along the wall. More blocks will yet be required for this work, but at present none can be spared as all will be required for protecting the new work built at the south pier. The wave-breaker crane was withdrawn on 21st January. No work whatever has been done at the superstructure of the north pier.

3. *Concrete block-making.*—On the 5th January block-making was resumed under a new contractor. For the short time that I could keep him at work he did his work more satisfactorily, having a very strong staff of able-bodied coolies and maistries. On the 13th and 14th the Pongal festival stopped nearly all work, and on the 28th I had to order a cessation of block-making on account of want of cement, notwithstanding the purchase of 354 barrels locally. Consequently the contractor was only able to work for 19 days in January, during which time he turned out 200 blocks representing 3,405 cubic yards of concrete. The greatest amount turned out in a whole month of 26 working days by the former contractor was 3,930 cubic yards.

4. From 28th January the work of block-making has been stopped for want of cement, and unless a large quantity, say 1,200 tons, is received this month, we shall soon be feeling the disastrous effects of this stoppage, as I have every hope that I can dispose of 300 blocks during the current month, and possibly a still greater number during March, which demand on the stock of blocks will make it necessary either to stop work altogether or to use the blocks already made in 1886-87 for the north pier, all of which will need altering in shape before they can be used at the south pier.

5. *Pallávaram quarries.*—From the quarries there were received in January 3,857 tons of granite chips for block-making, but no stone for rubble base was required.

6. The lines are maintained in good order and repair, and were twice inspected by me during January.

I have reported separately on a serious derailment of three wagons during the month, and of an evident attempt at a repetition of the accident. Since my report of these mishaps the contractor has increased his staff of watchmen, and up to this date nothing of the kind has occurred again.

7. *South Pier works.*—At the south pier of the Harbour the building in of the crane roads was completed by 4th January, and on the 5th the titan crane deposited 54 wave-breaker blocks over the south side of the pier, joining the new work with the old ruined foundations. The crane was then turned round through 90 degrees, and on the 17th January commenced work at

the superstructure. From the 17th to the 31st January 108 blocks were satisfactorily set advancing the wall by a length of 67 feet in 13 working days This rate of advance is still maintained, and the curved work will probably be completed before the end of the current month.

8. The rubble foundation of the south pier is well made up for some distance a-head, but occasionally hollow places are found and these have to be filled up with stone thrown in to the divers who prepare the beds for bottom courses.

For this purpose about 80 tons of stone were used in January taken from a reserve stock kept for the purpose.

9. *General work connected with Harbour.*—The water-supply pipe which runs along beneath the planking of the iron pier has been taken to pieces and is now fitted up again. It was completely choked up throughout its whole length with foul block slime and mud. The water has not been turned on again as yet because the main stop cock has to be renewed.

10. Two new 8-ton trucks have been built for the iron pier and two more thoroughly repaired. A turn-table is in course of construction which, when fitted up, will bring another line into use in connection with the new export goods platform. The roof of this platform is in hand and will shortly be erected. A small building in the Custom-house yard has had its roof (which was reported as insecure) renewed. At one of the level-crossings over the Beach railway, I have put down a casuarina wood-paving set in cement as an experiment.

11. I regret to report that Mr. W. S. Boteler, General Foreman, was laid up by medical orders from 23rd January to 6th February, suffering from congestion of the lungs. He is now recovered and is quite fit for work.

EXTRACT of Proceedings of the Trustees of the Harbour of Madras, at a Meeting held at the offices of the Board on Friday the 10th day of February 1888.

* * * * *

3. Read letter from the Superintendent, Madras Harbour Works, No. 1364, dated 8th February 1888, submitting his report of progress made during the month of January 1888, and examined plan attached.

Read minute by Captain H. A. Street, I.M.

Resolved that the Chairman be invited to deal with the question of cement.

* * * * *

(True Extract.)

(Signed) C. PINSENT,
Secretary, Harbour Trust Board.

Transferred to the Public Works Department.

(By Order.)

(Signed) W. S. MEYER,
Asst. Secretary to Government.

21st February 1888.

ORDER—dated 29th February 1888, No. 700 W., Public Works.

Recorded.

(True Extract.)

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

To the Chairman, Harbour Trust Board, with plan.
" Marine Department.
" Consulting Engineer for Railways.

Exd. J. Henricus.
Spare Copies

4
1476

Minutes of the Proceedings of a Special Meeting of the Trustees of the Madras Harbour, held at the Board's Office on Monday the 27th February 1888, under the provisions of section 37 of Act II of 1886, to consider the Budget Estimates of the Revenue and Construction Accounts for the year 1888-89.

Present:

Mr. R. W. Barlow, C.S., *Chairman.*
Mr. J. McLintock.
Mr. J. R. Hunter.
Captain H. A. Street, I. M.
Captain W. L. C. Baddeley, R.E.
Mr. George King.
Mr. Cowasjee Eduljee Panday.
M.R.Ry. S. Venkatakistnamah Chetti Garu.

Examined and discussed the Revenue and Construction Estimates and Schedule of Staff for the year 1888-89.

Read also letter dated 22nd February 1888, from Mr. G. Hope Ross, Chief Accountant, applying for an increase in his salary.

Resolved,— that the estimates be approved as now altered, and submitted to Government; also that the Chairman address Government in reference to the application from the Chief Accountant.

Order—dated 21st March 1888, No. 88, Marine.

Recorded.

(True Extract.)

H. E. STOKES,
Chief Secretary.

To the Chairman, Harbour Trust Board,
" Port Officer, Madras.
" Public Works Department.

Exd. A. Raitt.

6/1416

Govt. of {1888} Madras.

MARINE.

Issued

Recd. Encl.

G.O., 21st March 1888, No. 88.

MARCH.

108-M-10-4-88

Received

Harbour Trust Board.

Recording Proceedings of meetings of the — held on the 24th and 27th February 1888.

Recorded

No. 177 of 92

Pwd

1416

To The Chairman

Madras H.T. Board

Sir.

The progress report of the Madras Harbour works for the month of February 1888 having miscarried in transmission from the Marine Dept to the P.W. Dept. I have the honor to request that you will be good enough to cause this office to be furnished with a duplicate thereof, and of your covering letter.

I

2. The two plans accompanying the report have been duly received

Chandra
Engr
E. S. & V.

Out

No. 884/21-3-88-Marine.

pc
3/5/88

No. 1770 dated 2nd May 1888

Harbour Trust Board Office,

MADRAS, 20 March 1888

No. 7314

From

C. Pinsent Esquire
Secretary
Chairman, Harbour Trust Board,

MADRAS,

To

The Hon'ble H. E. Stokes C.S.

Chief Secretary to Government,

Marine Department.

Fort Saint George.

Sir

I have the honor, in the absence of the Chairman on leave, to forward herewith, for the information of Government copy of a letter from the Engineer Harbour Trust Board No 1570 dated 6 March 1888, reporting upon the progress made on the Madras Harbour Works during the month of February 1888, with two plans in original (to be returned).

I have the honor to be
Sir
Your most obed't Servt
(sd) C. Pinsent
Secretary
Harbour Trust Board.

(True Copy)

C. Pinsent

Secretary, Harbour Trust Board.

HARBOUR TRUST BOARD
5-MAY.88
MADRAS.

Ch Inf 5/5.

Ptd
White

MARINE DEPARTMENT.

FROM

THE CHAIRMAN,

HARBOUR TRUST BOARD,

MADRAS,

To

THE CHIEF SECRETARY TO GOVERNMENT,

Marine Department.

Fort Saint George

DATED 28 } March 1888.
RECEIVED }

ENCLOSURE 5 (3)

No. 7314

PH 4232/88

SUBJECT.

Forwarding for the information of Government Progress Report on the Madras Harbour for February/88 with two plans.

For C.A.W.

We send the Progress report on the 2nd March and transfer to S.W. on the 23rd inst.

24/4

C.A.W.

Any trace of the paper coming to Orby?

A.S.

Nov 14/88

14/11.

C.A.W.

The paper does not appear to have been received here. The Orby lists have been examined and nothing can be traced.

D.H.

24. IV. 88

S.A.W.

It will be necessary to make proper enquiry in Madras.

A.S.

26. IV. 88

Enclosures

26.4.88

2-21-4-88

C. Hev

These two plans have been in the Office for some weeks, but no covering letter has yet been received from the Board —

D.S. has directed me to send the blue to Dock, as the report for February will probably be ready for through the Marine Dept.

Cr
21-4-88

To Mr Clarke.

Can you tell me please whether the Superintendent's Report for February is coming to us through the Marine Dept?

AS
21-4-88

No 1570. 3 GP

From

The Superintendent

Madras Harbour Works.

To 1147/1416

The Chairman

Harbour Trust Board

Madras.

Madras 6 March 1888

Sir

I have the honor to submit herewith a plan showing the progress made on these works during the past month of February together with another plan giving some extra Soundings taken during the month over the area where abnormal shoaling was apprehended in 1887. The Soundings in red are those of February and the black figures denote the depths in August and September 1887. Depths are below de Havilland's mean Sea Level, to reduce them to the Low-water of the Tide Tables 2.7 9/16 has to be

deducted

deducted from each Sounding.
It will be observed that practically there is no alteration in the depths of the different dates.

2. Nothing has been done at the North Pier during February beyond the depositing of two 30 ton blocks in the wavebreaker at a spot where more blocks are required. The crane which does this work was withdrawn on the 6th to its Standing ground on Shore. North Pier Works.

3 Want of cement has prevented the making of any concrete blocks during February which is very much against the future progress of the works. The block moulds have been repaired to a great extent, but new ones will have to be made for the wavebreaker blocks so soon as timber is received for the purpose. Concrete Block making.

a Slight alteration has been carried out in the block yard which will give increased accommodation for blocks. 1416

4. I am Sorry to report that the roads on which the Goliath cranes travel (put down in 1876) have shown Sudden Signs of decay to So Serious an extent that I fear I Shall have to put in fresh teak wood bearers for the whole length. This will take 46 tons of timber for the whole yard, but I hope a Small amount can be done at a time. On this Subject I will address you Separately.

Pallaveram Quarries

5 A Small amount of Stone was required at the South Pier to fill up Slight hollows in the base, and for this purpose 1522 tons of rubble were used. Quarrying Still goes on at Pallaveram but at no very great rate as the requirements at present

are

are very small and for the future are uncertain.

6. At the South Pier the advance has been more rapid than either Mr. Parkes or I had ever hoped for with this new section of Pier. In the 25 working days of February there were 380 blocks set in the work, making an advance in the month of 234 ft. If the month had been one of 26 working days (ie counting in March 1st as a day in the month) the advance may be taken as 241 lineal feet which is the greatest amount of work ever built in 26 consecutive days in deep sea on any work in the world I believe.

South Pier Works.

7. The progress might be continued during March for another length of 150 feet but this would leave us with a piece of new wall of so great an extent that the wave breaker blocks now on stock will be insufficient to protect it. I have therefore determined to protect the work now built and then advance forward again during April. I need hardly say that if we had been making blocks steadily throughout November, December and January it would not have been necessary to exercise such care in the distributing of the wave breaker blocks, but as it is impossible to foretell exactly how many blocks will be required to protect a certain length it is better to err on the safe side and protect what is already built rather than risk having an unprotected wall exposed to a heavy cyclone.

1416

8. With regard to the Satisfactory progress during February I must record the name of Mr.

Mr. Joseph Lowe Foreman South Pier, as being chiefly instrumental in getting such a large amount of work done in so short a time.

9. There now remains a length of 480 lineal feet that can be built at the South Pier without interfering with either design of entrance, but when this length is finished it will be imperative to know what plan is to be adopted.

10. During February the Steamers "Clan Buchanan" Repaired and "Clan Macintosh" arrived in Madras with the following Stores for the works:-

Stores received from England

Two pairs of Locomotive wheels and axles
Two Gifford's Injectors
Six cases of Carpenters tools
Twenty three packages of Manilla rope
Forty drums of zinc white paint
Sixteen drums of Linseed oil
Five casks red Lead

Twenty two Sheets of Iron
152 bars of assorted Iron bars.

General Work connected with Harbour

11. The export shed at commencement of Iron pier has advanced a stage, the roof principals being in course of erection. The pattern for a new turntable connected with this shed has been sent to the foundry to be cast but has not yet been sent back. The cranes and Trucks on the Iron Pier still continue to absorb a large amount of work in repair and maintenance. I regret to be still unable to report to the water supply along the pier as in working order. The valve beneath the tank has had to be repaired by the Municipality. By filling the tank at night a greater head of water is obtained than by day, but this greater head of water has disclosed a very slight leak in the top of the tank side which must be repaired before

before handing the whole over to the pier authorities.

12. The repairs to the pier planking and beams is now in hand but progressing slowly.

13. On the 4th February the works were visited by Rear Admiral Sir Frederick Richards K. C. B and many officers of H. M. S. "Bacchante" as guests of the Chairman and members of the Harbour Trust Board. The ends of both breakwaters were inspected and the system of building with blocks were shewn at the South Pier, while at the North the method of dropping blocks into the wave-breaker was exhibited. Visit of Admiral Richards

I have the honour to be
Sir
Your most obedt. Servt.
Sd. F. W. Thorowgood M. Inst. C. E.
Superintendent
Madras Harbour Works.

HARBOUR TRUST BOARD
5-MAY.88
MADRAS

True Copy
C Pittet

15
7416

Cpo. 4232
To be stitched
into No 1770C.
Plumer Rifles
d. 2.5.86.

1416

My dear Smith

Marine Corps.

No. 232 with explanation is shown in our Desp. Book as "transfd. to the So. W. Dept. in the Genl. Manl. It is strange you received the papers & not the enclosure. We have forwarded the subject. Our pension system, as at only, appears to have had the beginning & the probable ending to him.

Yours truly

T. Jefferson

26 Nov.

Harbour Trust Board Office,

MADRAS, 5th May 1888.

No. 428

1416

From

R. W. Barlow Esquire C.S.

Chairman, Harbour Trust Board.

MADRAS,

To

Captain W. H. C. Baddeley R.E

Under Secretary to Government

Public Works Department

Chepauk.

Sir

I have the honor to acknowledge the receipt of your letter No. 1770 C dated the 2nd instant, and to forward herewith copy of the Progress Report of the Madras Harbour Works for the Month of February 1888, and of my covering letter No. 7314 dated 20th March 1888 alluded to therein.

I have the honor to be

Sir

Your most obedient servant

R. W. Barlow

Chairman

Harbour Trust Board

Rec

My dear Danes

Please see copy letter

Clarke says that the Harbour Report for February was received in marine dept on 21.3.88 & transferred to Revd. on 23.3.88. We have no record in our books of the receipt of the paper

Can you despatch the paper that was despatched to Revd. on the date named?

Kindly return enclos. with your reply.

Our record shows has sent up Marine Dept 21.3.88. but it appears to have arrived 26.4.88 Will write the matter in hand

Yours

26.4.88 Chairman

Rec 700 w a/c 29-2-88
- 1770 w/c 2-5-88

B & K
el works

PWC No. 423

A No. 14 16 w a/c 15 & 16 May 1888

Recorded.

[illegible]
2.5.88

[illegible]
9/5/88

K 7.5.88

The
Harbour Trust Board,
MADRAS,

To

Dated
Received 188
No.

SUBJECT.

Withorder.

Rec'd 2/5

Chairman M.H.T. Board
Consulting Engineer with 2 letters for Rly. & Marine Department.

8/5 Ad. 47/V
H.M. 9.5.88.
M. 11.5.88.

20
1416

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated 15/5/88

Rcvd.

G.O. 15 May 1888, No. 1416

Madras Harbour Works

=

Progress report of the
for February 1888 recorded