

(1) Number of pages.....

(2) Date of repair.....

(3) Initials of the Referencer.....

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	2014	(W)	Press
B.P. No.			Mis:
Dated	5-8-		1876

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
5th August 1876. No. 2,014.*

No. 132. Read the following letter from N. Sr. B. BEARDMORE, Esq.,
Officiating Superintendent, Madras Harbour Works, to Major-General
G. W. WALKER, R.E., Secretary to Government, Public Works Department,
dated Madras, 14th July 1876, No. 45-W :—

I HAVE the honor, as requested in G.O. of the 15th June, No. 1,492, to submit
the following report on the Ambatoor quarries and the arrangements existing for
the supply of stone from them.

2. Before making my own remarks, I beg, with regard to the quality of the
stone, to draw your attention to paragraphs 5 and 6 of the late Mr. May's report on
these works to the end of 1875, in which he states that "the stone found at Ambatoor
was sufficiently good in quality and sufficiently abundant in quantity to serve for
the rubble deposit of the Madras piers, or for a great part of them; the stone seems
to be specially adapted for the sub-marine deposits under the artificial blocks of the
piers, in consequence of its high specific gravity and close packing nature when
deposited in the form of rubble, &c., &c."

3. I have lately made frequent inspections of the quarries, and have made a
calculation from our more recent data of a quantity of stone that will probably be
obtainable from the land that I understand is already handed over to us; and I find
it to be 39,297,456 cubic feet, or, at 16 cubic feet per ton, 2,456,091 tons. Mr. Parkes's
estimate is for the two piers about 19,000,000 cubic feet, or about 950,000 tons,
taking it, as he does, at 20 cubic feet per ton; but I think from my recent investi-
gation, the higher specific gravity will be the more correct.

4. It thus appears that there will be an ample supply of stone for the whole
of these works; if even there is an error made in the calculation, for the stone lies in
such curious beds that it is possible, it appears there is a further supply of similar
stone to be obtained from under the surface of other ground in the neighbourhood.

5. With regard to the remarks in G.O., No. 663, of the 14th March, as to the
arrangements with the Railway authorities, I had an interview with them on the
26th day of June last, when they intimated to me that the rate of 6 Pies per ton per
mile, as hitherto paid for carrying the stone, must be considered the minimum and
fixed rate they could charge; but further agreed to carry the other class of stone
required by us from Chinnamapett at the same rate, and not at a higher rate as was
once proposed in respect to our having abandoned the original proposition of going the
longer lead to Tirutany. At the same time, they refused on the score of unsafety to
allow us to run tipping waggons, but it yet remains an open question whether a
waggon cannot be designed to run on their main line, and at the same time be suitable
to be tipped with part of the plat-form of a tipping stage.

6. With regard to the question whether we can obtain a delivery of 1,500 tons
per day of this rubble stone, I am assured by the Railway Company that when the
doubling of their line between Ambatoor and Madras is completed, they can carry that
amount or even a larger quantity, but no date is fixed for the completion of their
double line; and I am informed they are awaiting a further supply of Railway
material before they can do so.

7. As to whether we can quarry it, that is also quite possible. The Railway sidings, mentioned by Mr. May in the 19th paragraph of his second report of progress to the end of March 1876, as having delayed us through their short length, have now been extended some 60 chains which gives us ample room on which to run the waggons.

8. The present quarryman, Dhonadeo Vurdiah, was, I believe, recommended to the late Mr. May by Mr. Carter, C.E., of the Madras Railway, and is, I believe, as stated by Mr. May in the above-mentioned paragraph, the best earth-work man of the Wodda caste in Madras. The present prices paid to him are, as they always have been, ten Annas per ton for quarrying and carting the stone to the Railway platform at Ambatoor, and three Annas per ton for the loading it into the Railway waggons; total 13 Annas per ton. It is then brought to Madras at a cost of five Annas per ton, and is unloaded and deposited into the sea at $2\frac{1}{2}$ Annas per ton.

9. Vurdiah does his work fairly well, and I am assured by Mr. Ross, Inspector of the Quarries, that the prices, under the circumstances, are as low as can be obtained. Vurdiah is generous to his work-people whom he has to retain in a deserted part of the country and carry food supplies to them; but he complains, perhaps justly, of having no binding contracts with us insuring him a certain quantity of stone. He has, I am informed, laid out advances and otherwise a certain capital, and refuses, as constantly requested by me, to lay out any further large sum for the efficient and proper working of the quarries. I therefore beg respectfully to recommend that a contract, naming a certain supply of stone and a minimum supply, say, 1,500 tons per day, should be entered into with him, or such contract might be entered into by publicly asking for tenders in competition.

10. Separate tenders might also be invited for transferring the stone from the Railway Company's waggons to the sea; but I am satisfied with the way in which the work is at present performed. It has been remarked by some that the price ought to be lower, but it must be remembered that the man who does the work has some difficulties to contend with. Sometimes, through the non-delivery of a train, a large number of his men will be thrown out of work, and he is never paid extra. He keeps a double gang of men, and pays each gang a full day's pay. When we are in full work, the unloading and tipping commences at 3 o'clock in the morning, and goes on till dusk, and on moon-light nights until a later hour.

11. A plan of the quarry land accompanies this report.

No. 133. ORDER THEREON, 5th August 1876, No. 2,014.

CIVIL WORKS, No. 14.

The plan, accompanying the letter from the Officiating Superintendent of the Harbour Works, will be communicated to the authorities of the Madras Railway, and their opinion requested as to the suitability of the arrangements proposed for the working of their engines and trains, so as readily to remove not less than 1,500 tons of stone daily from the Ambatoor quarries, besides a minimum of 500 tons daily of granite from Tirutany or other place

to the north groyne of the Harbour. Mr. Beardmore will place himself in direct communication with the Agent and Manager on the subject.

(True Extract.)

Colonel,

Offg. Under Secy. to Govt., P.W.D.

To the Consulting Engineer for Railways, with Plan.
„ Superintendent, Madras Harbour Works.

Exd. F. R. Bantleman.

Spare Copies

12.4.5.18

From

V. M. B. Beadmore Esq.
Offg Superintendent,
Admiral's Harbour Works.

To

Major General G. M. Walker & Co.
Secretary to Government,
Public Works Department,
Fort Smith George.

Admiral, 14th July 1876.

Sir,

I have the honour, as requested in
G. O. of the 16th June 1876, to submit the
following Report on the Ambatoor Quarries
and the arrangements existing for the supply of
stone from them.

2. Before making my own remarks I
begin with regard to the quality of the stone,
to draw your attention to paragraphs 5
and 6 of the late Mr. Lloyd's Report on
these works to the end of 1875, in which
he states that the stone found at Ambatoor
"was sufficiently good in quality and

"sufficiently abundant in quantity to serve
"for the rubble deposit of the Madras
"Piers, or for a great part of them: the
"stone seems to be specially adapted for
"the submarine deposits under the
"artificial blocks of the Piers, in conse-
"quence of its high specific gravity and
"close packing nature when deposited in
"the form of rubble &c. &c."

3. Major Lattley made frequent inspections
of the quarries and have made a calcula-
tion from our more recent data of a quantity
of stone that will probably be obtainable
from the land, that I understand is already
loaned over to us; and I find it to be
39,297,56 cubic feet or at 16 cubic feet per ton
2456,091 cubic feet. Mr. Parkes' estimate
is for the two Piers, about 19,000,000 cubic
feet or about 950,000 tons, taking it as he
does at 20 cubic feet per ton, but I think
from my recent investigation, the higher
specific gravity will be the more correct.

4. It thus appears that there will be an
ample supply of stone for the whole of

these works: if even there is an error made in the calculation, for the stone lies in such curious beds that it is possible, it appears there is a further supply of similar stone to be obtained from under the surface of other ground in the neighbourhood.

5 With regard to the remarks in Ep. B. No. 663 of the 11th March, as to the arrangements with the Railway authorities, I had an interview with them on the 26th day of June last, when they intimated to me that the rate of 6 pias per ton per mile, as hitherto paid for carrying the stone must be considered the minimum and fixed rate they could charge, but further agreed to carry the other class of stone required by us from Chinnampatt at the same rate and not at a higher rate as was once proposed in respect to our having abandoned the original proposition of going the longer lead to Tintury: at the same time they refused on the score of unsafety to allow us to run tipping waggons, but it yet remains an open question whether

a waggon cannot be designed to run on their main line and at the same time be suitable to be tipped with part of the Platform of a tipping stage.

b. With regard to the question whether we can obtain a delivery of 1500 tons per day of this rubble stone, I am assured by the Railway Company that when the doubling of their line between Ambaloor and Madras is completed they can carry that amount or even a larger quantity, but no date is fixed for the completion of their double line and I am informed they are awaiting a further supply of Railway material before they can do so.

As to whether we can quarry it, that is also quite possible. The Railway sidings mentioned by Mr. May in the 19th Paragraph of his second Report of Progress to the end of March 1876, as having delayed us through their short length, have now been extended some 60 chains which gives us ample room on which to run the waggons.

8. The present quarryman Thomadai Thirudial was I believe recommended to the late Mr. May, by Mr. Carter & Co. of the Madras Railway, and is I believe as stated by Mr. May in the above mentioned Paragraph, the best earthwork man of the Wadda Coast in Madras. The present prices paid to him are as they always have been 10 annas per ton for quarrying and carting the stone to the railway platform at Ambaloor and 3 annas per ton for the loading it into the Railway waggons total 13 annas per ton. It is then brought to Madras at a cost of 5 annas per ton and is unloaded and deposited into the sea at $2\frac{1}{2}$ annas per ton.

Thirudial does his work fairly well and I am assured by Mr. Ross, Inspector of the Quarries, that the prices under the circumstances, are as low as can be obtained. Thirudial is generous to his work people who he has to retain in a deserted part of the country and carry food supplies to

them: but he complains perhaps justly of
having no binding contracts with us
insuring him a certain quantity of stone.
He has I am informed laid out advances
and otherwise a certain capital and
refuses, as constantly requested by me
to lay out any further large sum for
the efficient and proper working of the
quarries. I therefore beg respectfully
to recommend that a contract, naming
a certain supply of stone and a
minimum supply say 1500 tons per
day should be entered into with him,
or such contract might be entered
into by publicly asking for tenders
in competition.

10 Separate Tenders might also be invited
for transferring the stone from the Railway
Company's waggons to the sea: but I am
satisfied with the way in which the work
is at present performed. It has been
remarked by some that the price ought
to be lower, but it must be remembered
that the man who does the work has some

difficulties to contend with. Sometimes
through the non delivery of a train a
large number of his men will be thrown
out of work and he is never paid extra. —
He keeps a double gang of men and pays
each gang a full days pay. When
we are in full work, the unloading and
tipping commences at 3 o'clock in the
morning and goes on till dusk and
on moonlight nights until a later hour.
A Man of the Quarry Land
accompanies this Report. —

I have the honor to be,
Sir,
Your most obedient servant,
Wm B Beardmore
Offg. Superintendent
Madras Harbour Works

17 July 1876 No 2136 + 2137
 22 Nov - 3824 + 3826
 3 May 1876 - 1150
 14 March 1876 - 683
 27 April - 1056
 15 June - 1492
 12 May 1876 - 1197 -

P. W. 1876 Department

From P. 5051.

The Offg Superintendent
Madras Harbour Works

To The Secretary to Government
Public Works Department
Fort St George

Dated 14th
Recd 15th July 1876

One
Copy to
Submits Report on
Ambatour Quarries.

No 132 -

Madras - 4-8-76
 Calcutta - 21-7-76 - 1876 4-8-76
 A. S. Shetty 30 July

Public Works Dept.

From the Officiating Superintendent
Madras Harbour Works No 45 dated
14th July 1876.

For Orders.

Submitted for

These plans are
 communicated to the P.W. Dept.
 authorities & their opinion
 asked as to the suitability
 of the arrangements
 proposed for the working
 of the quarries & their Secretary to Govt. R. M.
 so as to be ready to
 remove within 1500 tons
 daily from
 them to the North pier -
 No. 1000 to be used for
 the purpose
 in communication
 with the

No 204

Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Usd on date the 5th Aug 1876

Read the following:—

From

The L^{ft}. Madras Harbour Works } No. 45 W d / 14th July 1876

The plan accompanying the letter from the off^{ce}. Superintendent of the Harbour Works will be communicated to the authorities of the Madras Railway and their opinion requested as to the suitability of the arrangements proposed for the working of their engines and trains so as readily to remove not less than 1500 tons of stone daily from the Ambatour Quarries to the North group of the Harbour. M. Beaudouin will

provides a minimum of 500 tons of granite from Ambatour

will place himself in direct
communication with the
Agent and Manager
on the subject.

MM

Comp. Eng. for Reg. with plan
Supt. Madras Harbour Works

Aug. 11-8-76

505-18

23

U.S. DEPT. OF COMMERCE
BUREAU OF PUBLIC WORKS

The Comm. Eng. for A.C.

U.S. Department of Commerce 2014

Dec 1324 1324

Am. Galton Laterite

Marries - Passes

orders on the Report
submitted by the
Offs. Dept. of the Marine
Harbour Works and the
11-22-14