

(1) Number of pages 38
 (2) Date of repair 14.7.86 ?
 (3) Initials of the Referencer low

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Public Works DEPARTMENT

G.O. No.	1728 W	Press.
B.P. No.		Mis.
Dated	5. 4. 1878	1978.

12/8/86 ✓

Not to be folded or roughly handled

1728
1

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

5th April 1878, No. 1,728 W.

General.
Account.

Read the following paper :—

No. 63. Endorsement of the Consulting Engineer for Railways, dated 29th March 1878, No. 148.

From R. B. ELWIN, Esq., Agent and Manager of the Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 14th February 1878, No. 228.

ADVERTING to your letter of the 14th of May 1877, No. 747, I have the honor to enclose you the copy of a letter from the Chief Engineer, No. 164 of this date, and to request that, under the circumstances therein pointed out, sanction may be accorded for the transmission to England of Indent No. 307 for cast iron girders.

From W. R. ROBINSON, Esq., Chief Engineer, to the Agent and Manager of the Madras Railway Company, dated Madras, 14th February 1878, No. 164.

WITH reference to your letter, No. 5,187, of the 20th November 1877, and with reference to paragraph 9 of the Board's letter No. 603 therewith forwarded, I have to state that, in accordance with the wish expressed by His Grace the Governor in Council, I made an arrangement with the Napier Foundry Company to cast the girders at the rate of Rupees 55 per ton, the Railway Company supplying suitable iron. The Napier Company however gave up business before the order was completed. Two girders were cast, but they are so defective that I have had to reject them. There is another petty foundry in Madras, but I have ascertained that the owner cannot undertake to cast the girders. May I beg that under the circumstances you will again ask the Government to pass the indent. The girders are now urgently required. I may add that I believe that girders of this description that have to carry heavy rolling loads can always be prepared better from England. If the class of iron used in their casting is not properly chosen the rail portion quickly wears out.

From W. R. ROBINSON, Esq., Chief Engineer of the Madras Railway Company, to the District Engineer, Presidency, dated Madras, 15th March 1878, No. 441.

I HAVE had occasion to indent for some cast iron girders on England. His Grace the Governor in Council however wishes me to obtain them in this country and has asked me to ascertain whether they cannot be cast at the Government Workshops to which a foundry is attached. I have the honor to request that you will be good enough to inform me whether you can undertake this work, and, if so, at what rate per ton.

I require 10 cast iron girders 16 feet long each, and 2 cast iron girders 12 feet long each. The 16 feet girders each weigh about 18 cwt. and the 12 feet about 13 cwt. each.

I forward a plan and specification of the girders. Patterns can also be supplied.

I may mention that the Napier Foundry undertook to cast these girders at the rate of Rupees 55 per ton, the Company supplying 21 cwt. weight of old cast iron for every ton of casting delivered. The foundry was however wound up before the work was completed.

Specification.

The following are required :—

Quantity:	10 Cast iron girders, each 16 feet long.
	2 do. 12 do.

and of the form shown in the annexed sketch.

2. The girders when together form a longitudinal railway. ^{Quality.} ^{be taken} ^{dimensions} ^{greatest care must} ^{uniform in size and} ^{ectly straight.} They are to be made of good metal which can be supplied by the Company if necessary, and must be clean and sound in every respect and entirely free from air-holes and flaws.

3. The girders 16 feet long will be required to stand the following test:—Each girder being placed upon immovable bearings leaving a clear span of 13 feet is to be loaded with 13 tons spread equally between the points of support 6½ tons applied at the centre, and under this load the deflection at the centre of the girder is not to exceed ¼th of an inch, and after the removal of the load the girder is to resume its original condition in every respect. Proportional test for 10 feet girder.

15th March 1878.

(Signed) H. R. P. CARTER,
for Chief Engineer.

From J. N. GRAINGER, Esq., General Superintendent, Public Works Workshops and Stores, to the District Engineer, Presidency, dated Madras, 25th March 1878, No. 4,080.

In reply to your endorsement No. 7,128 of the 19th instant, on letter No. 441 of 15th idem, from Chief Engineer, Madras Railway Company, relative to the casting of certain cast iron girders in the workshops, I have the honor to

1 Plan.
1 Specification.
1 Enclosures returned.

state that the workshops will undertake the work at Rupees 70 per ton, the Company supplying 21 cwt. of old cast iron for every ton of casting delivered and all expenses of testing the girders, as specified in the Chief Engineer's memorandum, are to be borne by the Company.

2. The Napier Company whose rates for this work are quoted, and which having failed for 3 lakhs of Rupees during an existence of about four years, are not therefore, in my opinion, reliable, yet the rates now asked for by me are less than theirs.

3. From copy of Messrs. Arbuthnot and Company's letter enclosed you will see that they value "old cast iron" at Rupees 35 per ton. Adding to this Rupees 55 per ton, the rate demanded for the girders, we get Rupees 90 per ton.

4. The workshops' valuation of old cast iron is Rupees 15 per ton, which, with the Rupees 70 now asked for, makes the cost of the girders Rupees 85 per ton, or Rupees 5 less than that charged by the "Napier Foundry" Company. I beg to request, if this offer is accepted, that the patterns of the girders may be supplied by the Madras Railway Company.

5. To enable me to carry out this work it will be necessary to put the large cupola, referred to in G.O., No. 768 W, dated 15th February 1878, in working order, and to do this the orders of the Chief Engineer, Public Works Department, must be obtained. *Vide* same Government Order which I have since been informed by His Grace the Governor was written under a misconception. I cannot undertake the work unless the large cupola is in working. It was erected ten years ago to meet such exceptional cases as the one in question.

From Messrs. ARBUTHNOT and Company, Secretaries and Treasurers, Napier Foundry, to J. N. GRAINGER, Esq., General Superintendent, Public Works Department, dated Madras, 20th August 1877.

The Napier Foundry Company have 241 tons of old iron, consisting chiefly of railway pot-sleepers and chairs, which they will be glad to let, you have at Rupees 35 per ton, should you require any.

2. They have also 172 tons coke for disposal at Rupees 40 per ton.

No. 7,337.

SUBMITTED in original to the Chief Engineer, Public Works Department, for favor of orders, with reference to G.O., No. 768 W, dated 15th February 1878, regarding cupola.

26th March 1878.

(Signed) ROSS THOMPSON, Major, R.E.,
District Engineer, Presidency.

No. 1,568.

TRANSFERRED to the Consulting Engineer for Railways.

28th March 1878.

(Signed) E. A. FOORD, Colonel, R.E.,
Chief Engineer, P.W.D.

SUBMITTED for the consideration of Government, with reference to their Proceedings, under date the 16th May 1877, No. 59 R.

2. The Chief Engineer of the Madras Railway made an arrangement with the Napier Foundry Company to cast the girders at the rate of Rupees 55 per ton, the Railway Company supplying 21 cwt. of old cast iron for every ton of casting delivered. The Foundry Company however gave up business before the order was executed; and the Agent of the Madras Railway then repeated his request for sanction to obtain the girders from England upon indent; but it was suggested to him that an endeavor should first be made to obtain from the Government Workshops what was required.

3. The General Superintendent of the Workshops now offers to undertake the work at Rupees 70 per ton, the Madras Railway Company supplying 21 cwt. of old cast iron for every ton of casting delivered. Mr. Grainger attempts to prove that the rate quoted by him is less than that quoted by the Napier Foundry Company; but it is clear that, for the actual work of casting, he proposes to charge Rupees 15 per ton in excess of that Company's rate, being more than 27 per cent. additional. He also asks that the patterns of the girders should be supplied by the Madras Railway Company.

4. The terms named by Mr. Grainger appear to me prohibitory, and I cannot recommend that the Madras Railway Company should be urged to accept them. If such terms can be demanded in Madras with any prospect of success, the failure of the Napier Foundry Company appears unaccountable.

5. It will be observed that, if the work is to be carried out at the Government Workshops, the large cupola must be put in working order.

(Signed) J. H. M. SHAW-STEWART, Col., R.E.,
Consulting Engineer for Railways.

No. 63. From Major ROSS THOMPSON, R.E., District Engineer, Presidency, to the Chief Engineer, Public Works Department, dated Fort St. George, 4th April 1878, No. 72.

WITH reference to your memorandum, No. 1,631, of 3rd April 1878, I have the honor to enclose a letter from the General Superintendent, Public Works Stores and Workshops, No. 1-A, dated 4th instant, supplying the information required by Government. In justice to Mr. Grainger I must beg with all respect to record the fact that he was glad to receive the order from the Madras Railway Company and was neither "afraid" nor unwilling to undertake its execution. All that he required was that permission should be given him to complete the large cupola. I most respectfully submit that Mr. Grainger's plans regarding the arrangement of the foundry, &c., have not been so absolutely "unfettered" as the Government appear to suppose. Had they been so the large cupola would have been completed and ready for work now.

From J. N. GRAINGER, Esq., General Superintendent of Public Works Stores and Workshops, to the District Engineer, Presidency, dated 4th April 1878, No. 1-A.

I HAVE the honor to acknowledge receipt of copy of Chief Engineer's memorandum, No. 1,631, of 3rd April 1878, and to express my regret that I have created an impression that I am either unable or unwilling to cast the girders required by the Madras Railway Company. You will, I think, remember that when the order reached me through you that I expressed my pleasure in receiving it and my readiness to execute it at once if permitted to complete the large cupola.

The rate which I have given, viz., Rupees 85 per ton for the finished castings I have arrived at by taking the rates at which I have been able to turn out castings during months of July, August, September, October, November, and December of the year 1877, viz., Rupees 67 per ton exclusive of cost of metal. This rate of Rupees 67 has covered all other charges, viz., "labor," "fuel," "steam," and centages; but, as the work to be undertaken is new to the workshops and possibly some of the castings may not bear the tests to which they will be exposed, I considered it

prudent to increase the rate by Rupees 3, viz., from Rupees 67 to Rupees 70, as an insurance against the workshops working at a loss. The workshop value of old iron is Rupees 15 per ton. I have lately purchased over 150 tons from the Napier Foundry at this price. The total cost, therefore, at which I can turn out the girders amounts to Rupees 70 + Rupees 15 = Rupees 85.

I most respectfully submit that I have not attempted to prove that Rupees 70 are less than Rupees 55, but that Rupees 70 + Rupees 15 = Rupees 85 is 5 Rupees less than Rupees 55 + Rupees 35 = 90 Rupees. In fact that I am ready and willing to do the work at Rupees 5 per ton less than the Napier Foundry would have done at their own valuation of material, labor, and other charges.

It will be observed that the Napier Foundry proposed to turn out castings at a rate of Rupees 55 per ton. This rate was to cover all charges except value of metal. It will also be observed that the foundry valued their iron at Rupees 35 per ton—vide copy of Messrs. Arbutnot and Company's letter enclosed with my letter, No. 4,030, of 25th March 1878. I have therefore taken Rupees 55 + Rupees 35 = Rupees 90 as their own valuation of a ton of castings.

I shall be ready to run the first girder in five weeks' time from date on which the order to commence operations may be communicated to me.

This time is necessary to enable me to complete the large cupola upon which operations were stopped—vide G.O., No. 768 W, of 15th February 1878. It must be lined with fire brick and clay, and this lining must be thoroughly and gradually dried before work can be commenced.

I presume permission to complete the large cupola has been communicated to me in paragraph 5 of the Chief Engineer's memorandum, No. 1,631, of yesterday's date, and I am acting accordingly.

No. 64. ORDER THEREON, 5th April 1878, No. 1,728 W.

The question raised in Chief Engineer's Memorandum, No. 1,631, dated 3rd April, has not been sufficiently answered in detail. The District Engineer will therefore call upon the General Superintendent, Public Works Stores, to supply an account in detail of the mode in which the cost of 67 Rupees per ton for metal cast in the Public Works Department Foundry exclusive of cost of the metal has been arrived at.

2. It stands to reason that if the work done during the months selected to give the data sought, was light and small, both moulding and casting would have been expensive and cannot be relied upon as data for castings for which patterns are found. The information now called for should show the details of the data, value of the labor of each individual concerned, that of the material used in producing the articles, and the centage charged thereon. Also for purposes of comparison the price of such castings delivered in Madras from England should be supplied, and thus admit of an opinion being formed in regard to the rate to be fixed. The novelty of the work, which is neither large nor difficult, can hardly be pleaded as an excuse for a higher charge by a foundry in existence many years, though moved lately from one site to another.

3. The Governor in Council is pleased to find that the General Superintendent was glad to hear of the offer of work, as the papers submitted to him had conveyed a different impression.

(True Extract.)

(Signed) E. A. FOORD, Colonel, R.E.,
Secretary to Government, P.W.D.

(True Copy)

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

To the District Engineer, Presidency.
„ Consulting Engineer for Railways.

Exd. E. C. Shunker
Spare Copies

17138
3



GENERAL
GOVERNMENT.

Govt. of (1878) ~~Madras~~
PUBLIC WORKS.

THE DISTRICT ENGINEER,
PRESIDENCY.

Dated April 6th.

Issued

By

By

G. O. 315, April 1878, No. 1728 W.

APRIL

Nos. 63-64.

Casting iron girders at the Public Works
Workshops for the Madras Railway
Company.

4 APR 78

From

The General Superintendent
Mr Store and Work Shops

To

The District Engineer
Presidency
Fort Saint George

Sir.

I have the honor to
acknowledge receipt of
copy of Chief Engineer's memo-
randum No 1631 of 3rd April
1878 and to express my regret
that I have created an
impression that I am other-
wise unable or unwilling to cast
the girders required by the
Madras Railway Company.
You will, I think, remember
that when the order reached
me through you that I
expressed my pleasure in
receiving

receiving it and my
wishes to complete it at
once if permitted to complete
the large Cupola.

The rate which I
have given viz Rs 85 per
ton for the finished castings
I have arrived at by taking
the rates at which I have
been able to turn out castings
during months of July
August, September, October,
November and December of
the year 1877 - viz Rs 67 per
ton - exclusive of cost of
metal. This rate of Rs 67
has covered all other
charges viz "labour" "fuel"
"steam" and contingencies but
as the work to be undertaken
is

108
is new to the workshops
and possibly some of the
castings may not bear the
tests to which they will be
exposed. I considered it
prudent to increase the rate
by Rs 3 viz from Rs 67 to
Rs 70 as an insurance against
the workshops not doing
at a loss - The workshops
value of old iron is Rs 15
per ton - I have lately
purchased over 150 tons
from the Engineer Store
at this price - The total
cost therefore at which I
can turn out the girders
amounts to Rs 70 + Rs 15 = Rs 85

I must respectfully
submit that I have not
attempted to prove that

Rs 70 are less than Rs 55
but that Rs 70 + Rs 15 = 85

is five rupees less than

Rs 55 + Rs 35 = 90 Rs -

fact that I am ready and

willing to do the work at

Rs 5 per ton less than the

Tapier Foundry would

have done at their own

valuation of material

labor and other charges -

It will be observed that

the Tapier Foundry pro-

posed to turn out castings

at a rate of Rs 55 per ton.

This rate was to cover all

charges except value of

metal - It will also be

observed that the Foundry

valued their iron at Rs 35

per ton side copy of Inspec

Arbutnot

Arbutnot & Co letter enclosed
with my letter of 4030 of
25th March 1878. I have
therefore taken Rs 55 + Rs 35
= Rs 90 as their own valuation
of a ton of castings.

I shall be ready to
run the first girder in five
weeks time from date
on which the order to
commence operations may
be communicated to me.

This time is necessary
to enable me to complete
the large Cupola upon
which operations were
stopped vide G.A. 1768 of
16th February 1878. It
must be lined with fire
brick and clay and

This lining must be thoroughly and gradually dried before work can be commenced.

I presume permission to complete the large Cupola has been communicated to me in para 5 of the Chief Engineer's Memo No 1631 of yesterday's date and I am acting accordingly.

I have the honor to be
Yours Most Obedt Servt

J. J. Murphy
Genl. Chgo of Fort Store & Co

16 April 1878

No 72

Two

The Chief Engineer
Presidency

The Chief Engineer
Presidency

Sir

With reference to your Memo No 1631 of 3rd April 1878, I have the honor to enclose a letter from the General Supt. P.W. Stores Workshops No 1 of 4th inst. supplying the information required by Government. In justice to Mr. Grainger I must beg with all respect to record the fact that he was glad to receive the order from the Madras Railway Co. and was neither afraid nor unwilling to undertake its execution. All that he required was that permission should be given him to complete the large Cupola.

Encl.
1. Original letter.

I most respectfully submit that Mr.
Granger's plans regarding the
arrangements of the foundry &c. have
not been so absolutely unfettered as
the Government appear to suppose.
Had they been so the large cupola
would have been completed and
ready for work now.

Have the honor to be
Sir,

Your most obedient servant

Wm. H. P. *Wm. H. P.*
District Engineer
Recy

Wm. H. P. 3

4 April 78

Recd.
M.

61-117
Draw

The General Agent
P. W. Jones

Walter
Brewster } April 1900.

Orders required
by the Madras Railway
Company, stating that
he is willing to cash
for reasons stated within

-8011

1-28
9

911. 1878
No. 4199
General.

From
The District Engineer
Presidency

16.5.77 to 9 R

No 72
Sent 4th
Recd 4th April 78.

No. of Encls 1.

Cast Iron Orders.

Affords explanation
regarding the - re-
quired by the Railway
Company &c.

16.4.78 1/2

No. 228.

MADRAS RAILWAY.

AGENT AND MANAGERS OFFICE.

Madras, 14th February 1878.

1728
10

From

R. D. Edwin Esqre
Agent and Manager of the M. R. C.

To

Colonel J. H. Shaw Stewart, R.E.
Consulting Engineer for Railways.

Sir,

Referring to your letter of the
14th of May 1877 No 747, I have the honour
to enclose you the copy of a letter from the
Chief Engineer, No 164 of the date, and
to request that under the circumstances
therein pointed out, sanction may be
accorded for the transmission to England
of Indent No 307 for Cast iron Girders.

I have the honour to be,
Sir,

Your most obedient Servant

R. D. Edwin

Agent & Manager

110

1728

No. 164

Madras Railway Company
Chief Engineer's Office
Madras 14 February 1878

The Agent and Manager,
Dear Sir,

With reference to your letter No. 5187 of the 20th November 1877 and with reference to paragraph 9 of the Board's letter No. 608 therewith forwarded, I have to state that in accordance with the wish expressed by Her Grace the Governor in Council I made an arrangement with the Popper Foundry Company to cast the girders at the rate of Rs. 55 per ton, the Railway Company supplying suitable iron. The Popper Company however gave up business before the order was completed. Two girders were cast but they are so defective that I have had to reject them. There is another pretty foundry in Madras but I have ascertained that the owner cannot undertake to cast the girders. May I beg that under the circumstances you will again ask the Government to pass the tender. The girders are now urgently required. I may add

MADRAS RAILWAY

The Agent and Manager

The Consulting Engineer

for Railways

Recd 14 February 1878
No. 228

Regard to that under
circumstances stated
in the letter of 15th
February 1878
for cast iron girder

Letter No. 1523/18-2

that I believe that girders of this
description that have to carry heavy
rolling loads can always be procured
better from England by the use of
iron used in their casting is not
properly characterized and put too quickly
to work out

Yours faithfully
W. H. Robinson
Chief Engineer

(True Copy)

W. H. Robinson
Chief Engineer

P.S.
18 MAR 78

(E 106)

P.S.
18 MAR 78

Madras Railway Company

CHIEF ENGINEER'S OFFICE

MADRAS 15 March 1878

No. 441

To Major Rags. Thompson, R.E.,
District Engineer.

Presidency.

Sir,
I have had occasion to indent for some
Cast iron girders on England. His Grace the
Governor-in-Council however wishes me to obtain
them in this Country and has asked me to
ascertain whether they cannot be cast at the
Government Workshops to which a foundry
is attached. I have the honor to request that
you will be good enough to inform me whether
you can undertake this work, and if so at
what rate per ton?

I require 10 Cast Iron girders 16 feet
long each and 2 — do — 12 feet long.
The 16 ft. girders each weigh about

that the guides of this
construction that have to carry heavy

P.S.

18 MAR 78

P.S.

18 MAR 78

1728
13

18 Cwt. and the feet about 13 Cwt. each.

I forward a plan and specification
of the guides. Patterns can also be supplied.

I may mention that the Napier
foundry undertook to cast these guides
at the rate of Pt. 55 per ton, the Company
supplying 21 Cwt. weight of old cast iron for
every ton of casting delivered. The foundry
was however wound up before the work
was completed.

I have the honor to be,
Sir,

Your most obedient servant.

W.R. Robinson
Chief Engineer

18 MAR 78

Cham

The Chief Clerk
for the Railway

Oct 15 }
Nov 15 } J. M. C. / 10

Co. 7/28

19-3-78

Copy Attached

Supl. Ch. Lucas &c.

Cur 2.

for cash report.

Ex. 2

Place

Specification

Cast from Garrison
Journals plan to give
information & requests to
know whether they can
cast at the Genl. Mass. Bk.
if somewhat like you
one

PC

18 MAR 79

413

Specification

1728

The following are required:

10 Cast Iron fire door each 16 feet long

2 ————— 13 —————
end of the form shown in the annexed
sketch. *SP.*

violently

2 The girders when together
form a longitudinal railway and the
greatest care must be taken to keep
them uniform in size and dimensions
and perfectly straight. They are to
be made of good metal which can
be supplied by the Company if needed
and must be clean and sound in
every respect and entirely free from
cracks and flaws.

2006

3. The girders 16 feet long will be required to stand the following test each girder being placed upon immovable bearings leaving a clear span of 13 feet up to be loaded with 13 tons ^{separately} equally between the points of support $6\frac{1}{2}$ tons applied at the centre and under this load the deflection at the centre of the girder is not to exceed $\frac{3}{8}$ of an inch and after the removal of the load the girder is to resume its original

Constitution

Amplitude in every respect proportional
to $\sin$ for 10 feet depth.

A. M. Clayton
for Chief Engineer

15 March 1878.

26 MAR 78

PRESIDENCY WORKSHOPS, D. P. W.
Chennai, Madras, 25 March 1878.

No. 4030

From

THE GENERAL SUPERINTENDENT,
PUBLIC WORKS WORKSHOPS AND STORES,

To

The District Engineer
Presidency
Fort Saint George

Sir,

Enclosures

In reply to your endorsement
of 14th of the 14th instant on letter No. 11
of 15th idem from Chief Engineer, Madras
Railway Company, relative to the casting
of certain cast iron pipes in the
Workshops, I have the honor to state
that the Workshops will undertake the
work at Rs. 100 per hundred ft. for
the Company supplying 32 Cwt. of
one hundred weight of old cast iron for
every ton of casting delivered and all
expenses of testing the pipes as speci-
fied in the Chief Engineer's letter are to
be borne by the Company.

The Madras Company whose
rates for this work are quoted, and
which having failed for four years
during an existence of about 40 years

It is only available
some 200 ft. in
work

are not therefore in any opinion reliable
yet the rates now asked for by me are
less than theirs

From copy of Messrs Arbuthnot
and Company's letter enclosed, you will
see that they value "old cast iron" at Rs 35
per Ton adding to this Rupees 55 for the
risk demanded for the goods we get Rs 90
per Ton

The Workshop valuation of old
cast iron is Rupees 15 per Ton which with
the Rupees 10 now asked for makes the
cost of the goods Rs 25 - of right five
per Ton or Rs 5 less than that charged by
the "Rajpoot Foundry" Company. I beg to
request, if this offer is accepted, that the
patterns of the goods may be supplied
by the Madras Railway Company

To enable us to carry out this work
it will be necessary to put the large lampola,
referred to in Government Order No 15 of 15 Feb 1878,
in working order, and to do this, the assent
of the Chief Engineer R.W. must be obtained
Vice same Government Order, which I have
since been informed by His Grace the Governor,
was written under a misconception. I
cannot undertake the work unless
the large lampola is in working order. It was

that is to say
70 R + 21 R
is left 11 R
55 R + same 21 R

!! But

Waiting for

Certainly we do not have
statute power
as he did - but have
specific charge
which it is our duty
to pursue

erected 10 years ago to meet such exceptional
cases as the one in question 1728
I have the honor to be
Sir,

Your most obedt servt

J. H. Granger
Genl Suptt M. Works & Stores

Rajpoot Foundry Comp. Ltd
Madras 20 Aug 1877

J. H. Granger Esq
Genl Suptt Rly M. Works Madras
Dear Sir,

The Rajpoot Foundry Company have 24
Tons of old iron consisting chiefly of Railway
Pots sleepers and beams, which they will be
glad to let you have at Rs 35 per Ton should
you require any.

They have also 7 1/2 Tons left for
disposal at the same price

We are Dear Sir

Yours faithfully

Signed Arbuthnot & Co
Secretaries & Treasurers

(True copy)

J. H. Granger

The other is an insignificant quantity depending on circumstances
Genl Suptt M. Works & Stores

No. 1568

250

Transferred to the
Consulting Engineer for
Railways.

General.

From

The District Engineer,
Presidency.

E A Mnd faldh
Chief Engr Mnd

28th Muz 78

No. 7337

Dated 26 March 1878.

No. of Enclosures, 3.

29/3. 11

Girders for the Madras -
Railway -

Submit for orders
papers from Ch. Engr. Madras
Railway, & the Dist Engr P.W.
Stores, regarding the
casting of Transferred

PUBLIC WORKS DEPARTMENT,
Railway Branch.

Consulting Engineer's Office,
Madras, 29th March 1878.
1728/18

Letter from Agent. Madras Railway Co.
No 228 - 14th February 1878 with enclosure.
Packet from Chief Engineer P.W.D.
No 1568 - 28th March 1878 with enclosures.

No. 148

SUBMITTED

Government

for the consideration of
with reference to their Proceedings under
date the 16th May 1877. No 59 R

55-1-2-1878
35-2-7-1878
90

55-

12-1-1878
70

67-5-1878
12

12-1-1878
12

2. The Chief Engineer of the
Madras Railway made an arrangement
with the Kapur Goundry Company to
cast the girders at the rate of Rs. 55 per ton,
the Railway Company supplying 2 tons
of old cast iron for every ton of casting
delivered. The Foundry Company
however gave up business before the
order was executed; and the Agent
of the Madras Railway then repeated
his request for sanction to obtain the
girders from England upon indent,
but it was suggested to him that
aw

an endeavour should first be made to obtain from the Government Workshops that was required.

3. The General Superintendent of the Workshops now offers to undertake the work at Rs 70 per ton, the Madras Railway Company supplying 2100 lb of old cast iron for every ton of casting delivered. Mr. Grainger attempts to prove that the rate quoted by him is less than that quoted by the Napier Foundry Company; but it is clear that, for the actual work of casting, he proposes to charge Rs 15 per ton in excess of that Company's rate, being more than 27 per cent additional. He also asks that the patterns of the girders should be supplied by the Madras Railway Company.

4. The terms named by Mr. Grainger appear to me prohibitory, and I cannot recommend that the Madras Railway Company should be urged to accept them. If such terms can be demanded

demanded in Madras with any prospect of success, the failure of the Napier Foundry Company appears inavoidable.

5. It will be observed that, if the work is to be carried out at the Government workshops, the large cupola must be put in working order.

W. M. M. M.
Colonel R. E.
for the Madras Railway

20

6p 1057 R of 16 May 1877

PUBLIC WORKS DEPARTMENT.

1728
21

From
The Consulting Engineer
for Railways,

No. 4075

No. 140
Dated 29 March 1878
Received

No. of Enclosures.

Subject.

Submitting for
the consideration of
Govt a letter from
the Agent No 12
requesting sanction
for obtaining 12 iron
iron girders from
England as the
same cannot be
easily obtained from
the P & W Workshops

From the Consulting Engineer
for Railways No 140 dated 29th
March 1878.

FOR ORDERS.

Mountbatten

29/3. Colonel W. R.
J. Secy. to Govt. Works.
Railway Branch.

1723
23
The Gov. has read with
extreme surprise the
papers - instead of
the use of the P.W. having
being facilitated
very little is required

The Supreme Court
will forthwith - clearing
all almost attempts
to prove that ~~the~~
70 papers is less than
55 - the L.C.
state of the
actual cost - material
(allowing for material the
given) labour - fuel
steam - the work
in receiving the goods

^{supposed}
with the curtains -
and whether or
not - he will undertake
to do it - and test
as prescribed the
summers of the work

The pattern being
supplied by the N.W. Co.
as offered by them -

The story in question
mentioned in the mind
of the Gov. & the papers
is that the Sup -
is paid & undertake
the work - altho he
is invited & arranged
the family - & organized

FOR ORDERS.

The Staff according to
his own ~~unfettered~~
plans — $\frac{1728}{24}$

The Sup. will therefore
state whether this is so
or not —

The Sup. will further
state the day on which
he can run the pit

girder —

These particulars will
be furnished to the C.E.
so that he may submit
them to Genl. G. tomorrow

Thursday —

The large cupolas can
be used —
The port order referred

1/2 off
when long
masonry of

3/4

Ex 2 4 12 R5/4

Case 2:4-7V

PWA

1728

The question of the
Napier journey charge
is not very material.
The question is at what
date ~~that~~ can the Mr
Forney item not carrying
Gibson says - judging
within months of July to
Dec - R. 67 - ex. metal -
He does not state how
arrived at -
If arrived at - & the
expenses of Forney & of
of metal
Forney is over in them

Submitted for the in-
formation of His Grace the
Governor with reference to
his order on the subject.

Mr. Graniger seems to be of opinion that the Napier Foundry could not have executed the work at a profit charging only 55 Rupees a ton - being supplied with the old iron. A more satisfactory comparison could be made if there was actual charge for castings.

at the Napier Foundry, in-
cluding material were
stated.

Edmond Colonel R.E.

Secy to Govt. P.W.D.

4th April 1878.

Whether it is so
quick unless - Foundry
was in full work -
only necessary labour

charged -
If, as I think is the
case the much of the
work then done was
light & small. Both
moulding & casting
will be more expensive
& give a false rate
for large & simple
castings for which
patterns are found

To arrive at true
cost of the different

Edms.

1728
26
Component parts of
the charge should be stated
with reference to
Some empirical charge
for an establishment
but with reference to the
actual facts of labour
~~material~~ material by means
of machine to be used
in producing the articles
then the rate of interest
percentage to be added -
and for comparison the
price of such castings
delivered from England
These particulars in
detail should be
given. Then an
opinion can be
formed of the rate

To be offered —
 The novelty of the work
 which is not after all
 large a difficulty can
 hardly be pleaded as an
 excuse for neglecting change
 of a form in existence
 many years — For it
 is only sound —

That Mr. C. is pleased to
 hear that Mr. L. was
 glad to hear of the
 offer of work for the
 paper had encouraged
 a different impression —

But Mr. L. will see that
 his argument was that
 70 R. + 21 cast of addition was
 less than 55 R. + same total
 old iron i.e. that 70 was
 less than 55 —

His Grace the Governor
 1897
 1720/4-1720/4

Received 2. 3-1 P.M.

572

No 1720 W 16 Seal
 Public Works Department

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 5th April 1898

From C. E. S. Esq.
 from the District Engineer
 Presidency

Read the following:—
 R.E. No 148 of 27 March 1898
 R.E. No 72 of 4 April 1898

The question raised in
 Chief Engineer's Memorandum
 No 1631 dated 3 April has
 not been sufficiently answered
 in detail. The District
 Engineer will therefore
 call upon the General
 Supdt. P.W. Works to supply
 an account in detail of
 the mode in which the
 cost of 67 tons for metal
 cast in the P.W.D. Foundry
 inclusive of cost of the metal
 has been arrived at.

2. It stands to reason
 that if the work done during

the months selected to
give the data sought, was
light and small,
both moulding and
casting would have
been expensive and cannot
be relied upon as data
for castings for which
patterns are found.

The information now called
for should show the
details of the data, value
of the labor of each in-
dividual concerned, that
of the material used in
producing the articles
and the cartage charged
thereon. Also for purposes
of comparison the price
of such castings delivered
in Madras from England
should be supplied.
and thus admit of an

1728
28

opinion being formed
in regard to the rate to
be fixed. The novelty of
the work which is neither
large nor difficult can
hardly be pleaded as an
excuse for a higher charge
by a foundry in Britain
many years though totally
from one site to another.

3. The Governor in Council
is pleased to find that
the General Agent was
glad to hear of the offer
of work as the papers
submitted to him had
conveyed a different
impression.

GHF
5/4

OR Presidency
C. E. S. by ^{5/4} 26-1-78

1728-
29

457
Clerk
303



Act of 1878, Section
PUBLIC WORKS.

To

Dated

Issued

Recd.

Encl.

*Referenced
17-4-78
E. M.
Residency*

G. O. 5061 1878, No. 1

Recs.

Casting iron guides at the
Workshops for the M. & C.

Sub. Rep.