M.R.O. 1—77,006—8-6-37.

(1) Number of pages 12

(2) Date of repair

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 3011 Press —Mis.—

675-76

Dated 27. 9. 1867.

Not to be folded or roughly handled

No. 675. Read the following Endorsement of the Acting Consulting Engineer for Railways, dated Madras, 19th September 1867, No. 257 :—

Read the following letter from the Agent and Manager of the Madras Railway Company, to the Acting Consulting Engineer for Railways, dated Madras, 18th September 1867, No. 327.

1. I have the honor to submit, for the information of Government, copy of a communication* received this morning from the Chief Engineer, reporting the result of a minute inspection of the works on the North-West Line between the Chittravutty river and Ghooty.

* No. 432, dated 17th September.

2. Mr. Smart, you will observe, states that he was not satisfied with examining the face work only, but caused the piers and abutments of a large number of bridges and culverts to be opened out, with a view to test the character of the inside masonry, and that in no single instance did he discover unsound work.

3. I trust that this assurance from the Chief Engineer will satisfy the Government, that substantial work, such as they have a right to expect and the nature of our undertaking imperatively demands, is being constructed on the North-West Line by Mr. Barnett, the Contractor.

From the Chief Engineer, to the Agent and Manager of the Madras Railway Company, dated Madras, 17th September 1867, No. 432.

1. During the past fortnight I have made a very minute inspection of the works of the North-West Line, between the Chittravutty and Ghooty. I have not been satisfied with examining the face work, but I have caused the piers and abutments of a large number of bridges and culverts to be opened out, in order to test the character of the inside masonry, and I have much pleasure in stating for your information and for the Board's that I have not discovered a single instance of unsound work. At the Chittravutty bridge and on District 9, Section I, the masonry is in character and appearance first class, all being built of beautiful stone procured from Nirjee quarries. On District 9, Section II and 10/1, the stone used is chiefly quartzite, a remarkably strong material, but not susceptible of the same finish as Nirjee stone, nevertheless the masonry is handsome and workmanlike. On District 10, Section II, the material is still quartzite, but not equal in quality to that of the two preceding districts, the work has consequently a rougher appearance, but it is strong and well bonded, wherever I had it opened up I found the stones well bedded and the mortar excellent. On District 11, Section I, we meet the gneiss formation again, and the masonry resembles that of districts 1 and II, with which you are acquainted. I did not go beyond Ghooty, up to that point the bridges and culverts are nearly finished including the 5-30 feet girders at 1 mile 38 chains. Mr. Scott pointed out to me the bridge, a 6-feet arch, with which Mr. Johnston found fault in his report of the 5th July, and I am happy to say that his remarks only apply to the bond in the top courses of the wing-walls, where some irregularity has occurred, the arch work and all important parts of the bridge are unexceptionable.

2. I have been particular in describing the masonry of this part of the North West Line, because I fear that the Directors may have been needlessly alarmed by the remarks contained in recent reports of the Deputy Chief Engineers, taken in conjunction with the deplorable failures of works in Bombay.

3. As regards progress, the state of the Chittravutty bridge is this:—Masonry of south bridge finished ; Pile piers finished ; 3 piers of north bridge up to girder stone level, north abutment and 4 piers half built, and the remaining 3 piers founded, about sixty masons are engaged on this work. One set of girders is in position on the piles, another set being rolled, four sets ready for rolling, and four sets being set up and rivetted. Unfortunately the work is retarded just now by a flood in the river, which prevents the passage of trains, but I confidently hope that the bridge will be finished this year. I may mention that Mr. Barnett has employed Moplahs on the rivetting,

and that they are doing excellent work. Every girder is carefully and severely tested before it is rolled.

4. The rails are laid to the end of District 9/1, but not all on the formation; several bridges are yet unfinished, and at these points the line is diverted alongside them. Mr. Barnett promises that the whole of the masonry of this District and of District 9/2 south of Tadpurtee station shall be finished early next year, so as to enable us to open the line to that station in time for the cotton traffic in April.

5. You are, I believe, aware that Mr. Anderson contemplated the substitution of screw piles for masonry in the 10 central piers of the Pennair bridge, and that during my absence in England he caused borings to be made with this object in view. This has caused some delay in the prosecution of the work, but I have now ordered it to be proceeded with as originally designed, the conditions of the bridge not being in my opinion suitable to screw piles.

6. District 10, Section I, is very well in hand, up to Royalcherroo station none but small works remaining to be executed.

7. I regret that the progress on District 10/2 (Contractors Moonesawmy Chetty and Co.) is so unsatisfactory that it will be necessary to take steps either to annul the contract or enforce its provisions. Mr. Barnett has advanced these men a considerable sum of money, and I have therefore thought it right to consult him as to the course it will be advisable to adopt. I have suggested his taking over the Contract in the same way that he did Horgan's, and he has promised to let me hear from him on the subject in the course of a few days.

8. The Ghooty station buildings have been commenced.

9. I should not be doing justice to the Engineers who have superintended the works under notice, if I omitted to say how much I think the Company is indebted to them for securing the excellent work I have described.

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1. Submitted for the information of Government.
2. His Excellency in Council will no doubt receive with satisfaction Mr. Smart's assurance as to the good quality of the extensive works which are now under execution on the North-West Line by Mr. Barnett.
3. The success with which this gentleman is prosecuting the work entrusted to him is the more gratifying, inasmuch as he is the first in this Presidency who, with sufficient means and appliances, has undertaken contracts for work upon an extensive scale.

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

No. 676. ORDER THEREON, 27th September 1867, No. 3,011.

RAILWAY, No. 44. Ordered to be recorded.

(True Extract.)
(Signed) J. H. M. SHAW STEWART, Major, R. E.,
Under Secretary to Government.

To the Consulting Engineer for Railways

Exd. S. T. Augustin.

No 327.

3

MADRAS RAILWAY COMPANY.

AGENT AND MANAGER'S OFFICE.

Madras, September 18th 1867.

From

R. D. Awdry Esqre.,
Agent and Manager. of the M. Ry.

To

Major J. H. M. Shaw-Stewart, RE
Acting Consulting Engineer for Railways.

SIR,

I have the honor to submit for the information of Government, Copy of a Communication received this morning from the Chief Engineer, reporting the result of a recent inspection of the Works on the North West Line between the Cheyyaroo River and Ghooty.

2. Mr Smart, you will observe, states, that he was not satisfied with examining the face-work only, but caused the piers and abutments of a large number of bridges and culverts to be opened out, with a view to test the character of the inside masonry and that in no single instance did he discover unsound work.

3. I trust that this assurance from the Chief Engineer will satisfy the Government, that substantial work, such as they have a right to expect, and the nature of our undertaking imperatively demands, is being Constructed

* No 4573 dated 17th Sept.

Constructed on the North West Line, by
Mr Barnett, the Contractor.

Thanking you to be ever to Obliged,
Sir
Your most obedt Servant,
Wm F. Elliott
Agent and Manager

MADRAS RAILWAY.

From
The Agent and Manager.

To
The Consulting Engineer
for Railways

Dated September 18th 1867
Recd 19.

No. 525.

Mr. Elliott, Agt & Mgr.
Forwarding Copy of a Comn
from the Chief Engineer
Letter dated the 17th inst
Reporting the Works on the
Extension to the Bhittravutty River
Pallair

5

No 432

Madras Railway Company
Chief Engineer's Office
Madras 17th September 1867

Dear Sir,

1. During the past fortnight I have made a very minute inspection of the works of the North West Line between the Bhittravutty and Ghoody. I have not been satisfied with examining the face work but I have caused the piers and abutments of a large number of bridges and culverts to be opened out in order to test the character of the inside masonry and I have much pleasure in stating for your information and for the Board's that I have not discovered a single instance of unsound work. At the Bhittravutty Bridge and on District 9 Section 1 the masonry is in character and appearance first class, all being built of beautiful stone procured from Nirjee quarries. On District 9 Section II and 10/1 the stone used is chiefly quartzite, a remarkably strong material but not susceptible of the same finish as Nirjee stone; nevertheless the masonry is handsome and workmanlike. On District 10 Section II the material is still quartzite but not equal in quality to that of the two preceding districts, the work has consequently a rougher appearance but it is strong and well bonded, wherever I had it opened up I found the stones well bedded and the mortar excellent. On District 11

section I me meet the gneiss formation again and the masonry resembles that of Distriets one and two with which you are acquainted. I did not go beyond Ghooty upto that point the bridges and culverts are nearly finished including the 5-30 feet girders at 1 Mile 38 Chains. Mr. Scott pointed out to me the bridge, a 10 feet arch, with which Mr. Johnston found fault in his report of the 5th July and I am happy to say that his remarks only apply to the bond in the top courses of the wing walls where some irregularity has occurred, the arch work and all important parts of the bridge are unexceptionable).

2. I have been particular in describing the masonry of this part of the line because I fear that the Directors may have been needlessly alarmed by the remarks contained in recent reports of the Deputy Chief Engineers taken in conjunction with the deplorable failures of works in Bombay.

3. As regards progress the state of the Bhittrawutty bridge is this. Masonry of south bridge finished. Pile piers finished. 3 piers of north bridge up to girder stone level, north abutment and 4 piers half built and the remaining 3 piers founded; about sixty masons are engaged on this work. One set of girders is in position on the piles, another set being rolled - 4 sets ready for rolling, and 4 sets being set up and rivetted. Unfortunately the work is retarded just now by a flood in the river which prevents the passage of trains but I confidently hope that the bridge will be finished this year. I may mention that Mr. Barnett has employed Moplahs on the rivetting and that they are doing excellent work. Every girder is carefully and severely tested before it is rolled.

4. The rails are laid to the end of District 9/1 but not all on the formation; several bridges are yet unfinished and at these points the line is diverted alongside them. Mr. Barnett promises that the whole of the Masonry of this District and of District 9/2 South of Jaidpurtee station shall be finished early next year so as to enable us to open the line to that station in time for the Cotton traffic in April.

5. You are I believe aware that Mr. Anderson contemplated the substitution of screw piles for Masonry in the 10 central piers of the Pennair bridge and that during my absence in England he caused borings to be made with this object in view - this has caused some delay in the prosecution of the work but I have now ordered it to be proceeded with as originally designed, the conditions of the bridge not being in my opinion suitable to screw piles.

6. District 10 section 1 is very well in hand, upto Royalcherroo station none but small works remaining to be executed - I regret that the progress on District 10/2 (Contractors Mr. Money & Party) is so unsatisfactory that it will be (Mr. Money & Party) is so unsatisfactory that it will be

necessary to take steps either to annul the Contract or enforce its provisions. Mr Barnett has advanced these men a Considerable sum of money and I have therefore thought it right to Consult him as to the Course it will be advisable to adopt. I have suggested this taking over the Contract in the same way that he did Morgan's and he has promised to let me hear from him on the subject in the course of a few days.

8. The Ghooty station buildings have been Commenced.

9. I should not be doing justice to the Engineers who have superintended these works under notice, if I omitted to say how much I think the Company is indebted to them for securing the excellent work I have described.

Yours Vy Tr,
(Signed) H. G. Smart.
Chief Engineer

The Agent & Manager

(True Copy)

Asst Agent & Manager

Compd. Corp.

9

No. 257.

Submitted for the information of Government.

2. His Excellency in Council will no doubt receive with satisfaction Mr Smart's assurance as to the good quality of the extensive works which are now under execution on the North-West Line by Mr Barnett.

3. The success with which this gentleman is prosecuting the work entrusted to him is the more gratifying, inasmuch as he is the first in this Presidency who, with sufficient means and appliances, has undertaken contracts for work upon an extensive scale.

Madras
19th September
1867

Major R.E.
Acting Consulting Engr for Rys

To The Secretary to Government
Public Works Department
Fort St George.

3011

ex 3011

Recorded —

M.

Fort St George
27th Septr 1867

Col E

Recd 30/9/67

12

Rec'd 25th Sept. 1867 Dept. of Govt. for Sept.
1867 No 3570

RAILWAY DEPARTMENT.

From

The Consg. Engineer for Railways,

To

The Secretary to Government,
P. W. Dept.

Dated 14th September 1867.
Received 20

No. 257-

Enclosures, No. 2

No 3011-27 Sepr 1867

Submitting a letter from the Agent-Thumpar of the Ka-R/, forwarding copy of a communication from the Chief Engineer reporting that he had inspected the works on the K-W-line -

William Blee

No. 675-676

C. 23rd Septr 1867 R. 25th