RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated May, 12th.

Recd. Encl.

G.O., 12th May 1890, Nos. 642 R., 643 R.

MAY.

Land made over to the Railway Companies in the Madras Presidency

Forwarding the abstract register of — for the period ending 31st December 1889.

4232.

Govt. of {18 } Madras.

PUBLIC WORKS.

Dated

Recd. Encl.

G.O., 12th May 1890 No. 644 R.

Beypore. Calicut Extension

Letter from the Govt of Ind. forwd to the remarks copy of a Despatch from the Sec. of State for India conferring the provisional sanction accorded by it to the second revised estimate of the cost of the — amtg to the 19,44,560. Cancd to the C. F. of Hys.

11

para 3 of letter from
the Govt: of India read above.
The Govt. desires to receive as soon as
possible a report of the action taken
in the matter.

Rec'd
9.5.90 W
for R

A

No. 644 R of 12th May/90

To
The Consg Emp for Rys
-"- Exr Gd Ry Meets:

A

No. 644 R

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 12th May/90.

READ again the following

Progs: of the Madras Govt: P. W. Deptt: — } H.E. No. 144 R of 24 Jany '90

— Do. — Do. — " — " — 335 R of 8 March '90

Read also the following:

Letter from the Govt: of India P. W. Deptt: — } H.E. No: 356 R. C of 25 April '90

10 P

Communicated to the Consulting Engineer for Railways and to the Examiner Guaranteed Railway Accounts with reference to Progs: Nos 144 R and 335 R dated 24 January and 8th March 1890.

2. Attention is directed to para

No. 5

Railway

27th March 1890

Copy Letter to the Govt of India No. 34 & Enclosures

P. W. Encl 4232/90

A

No. 644 R

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 12th May 1890.

Again
READ the following

Progs: of the Madras Govt: P.W. Deptt:— } I.E. No. 144 R dy 24 Jany '90

— Do. — Do. — " — " — 335 R dy 8 March '90

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1000

Communicated to the Consulting Engineer for Railways and to the Examiner Guaranteed Railway Accounts with reference to Progs: Nos 144 R and 335 R dates 24 January and 8th March 1890.-

2. Attention is directed to para

No 183 R - 27-2-86
" 575 R - 21-7- "
" 1076-77 R - 8-10-89
" 1157-58 R - 25-10- "
" 1036-37 R - 27-9- "
" 1432-33 R - 21-12- "

P.W.C No. 4232.

Rd. 6-5-90.
Encl.

0/7/5 Adm. 9/10/90. R 12.5.90

A

No. 644 R

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 12th May/90.

READ again the following

Pencil

Progs: of the Madras Govt: P. W. Deptt: — } H.E. No. 144 R of 24 Jany '90

Pencil

— Do. — Do. — " — " — 335 R of 8 March '90

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Letter from the Govt: of India P. W. Deptt: — } H.E. No: 356 R. C of 25 April '90

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Communicated to the Consulting Engineer for Railways and to the Examiner Guaranteed Railway Accounts with reference to Progs: Nos 144 R and 335 R dated 24 January and 8th March 1890.

2. Attention is directed to para

Enclosures

Pencil

India Office,
London, 27th March 1890.

Railway,
No. 34.

To His Excellency The Most Honourable The Governor General of India in Council.

MY LORD MARQUIS,

Madras Railway. Revised estimate of cost of Beypore-Calicut extension.

I have received your Excellency's Railway Letter No. 11, dated the 4th of February 1890, requesting confirmation of your action in according provisional sanction to an actual outlay of Rs. 19,44,560 on the Beypore-Calicut extension of the Madras Railway, being an excess of Rs. 6,29,440 over the estimated cost of this extension.

2. On receipt of your Letter I caused a communication to be addressed to the Board of the Madras Railway Company calling for an explanation of this excess outlay, and a copy of that Board's reply* is herewith transmitted for information of your Government.

3. It is stated in the explanation furnished that the excess outlay was caused by exceptional difficulties in the ground traversed by the line, combined with enlarged accommodation in connection with the stations on it. Your Excellency will, no doubt, consider and pass orders on this explanation; and in the meantime I confirm the provisional sanction which you have accorded to Rs. 19,44,560 as the actual cost of the work, in the proportions stated in the second paragraph of your letter under reply.

I have the honour to be,
My Lord Marquis,
Your Lordship's most obedient humble Servant,
(Signed) CROSS.

* Letter from Madras Railway Company, dated 7th March 1890, and enclosure.

19544. I. 663. A

ENCLOSURES.

Madras Railway Company,
61, New Broad Street, London, E.C.,
7th March 1890.

No. 7415.

Sir,

I have the honour to acknowledge the receipt of Sir Juland Danvers' letter, P.W. 357, dated 27th ultimo, transmitting copy of a Despatch and its enclosures received from the Government of India on the subject of the cost of the extension of the Company's system from Beypore to Calicut, and adding that Viscount Cross will be glad to be furnished with any observations the Board may have to make on the contents of the Despatch.

In reply, I am directed to state that the Board regret that the original estimate for the work in question was so much exceeded. They quite admit that estimates made by the experienced officers of an old undertaking like the Madras Railway ought to approach much closer to the actual outlay than was the case in the present instance. They remark, however, with satisfaction that, in the opinion of the Consulting Engineer to the Madras Government, the whole of the works were economically executed, and that no unnecessary expenditure was incurred. They trust, therefore, that the explanation given by Mr. Hanna,* formerly Resident Engineer in charge of the Beypore-Calicut extension, and now Agent and Manager, at home on furlough, will, under the special circumstances he describes, be accepted as satisfactory by the Secretary of State and the Government of India.

* *Vide* letter, dated 5th instant. Copy enclosed.

I am desired to add that the observations of the Agent and Manager are borne out by the fact that the estimated traffic on the extension to Calicut has been greatly exceeded by the actual results. The net receipts for the half year ending 31st December 1888 represent a profit at the rate of 6 per cent., and those for the half year ending 30th June last a profit at the rate of over 9 per cent. per annum on a capital of 20 lacs, a sum which exceeds the amount of the revised estimate of expenditure by about half a lac of rupees.

I have, &c.,
(Signed) JULIAN BYRNE,
Secretary.

The Under Secretary of State
for India.

Enclosure in above.

Delgany,
5th March 1890.

Dear Sir,

In reply to your letter, dated 28th ultimo, I have pleasure in sending the following remarks regarding the estimate for the Calicut extension for the information of the Board. Letter P.W. 359, of the 27th February 1890, from the India Office, with enclosures, is now returned.

At the time the original estimate for the Calicut extension was prepared, the accommodation that would be required at the Ferok, Kallai, and Calicut stations had not been fully decided upon, and the detailed

plans had not been prepared. Figures derived chiefly from the Beypore buildings were therefore taken, which were thought to be sufficient to cover "minimum" requirements, leaving any extra accommodation which might be wanted for future consideration. This desire to restrict the expenditure as much as possible, in accordance with the repeated orders of the Government of India, led to figures being entered which were afterwards found to be inadequate

The land north of the Kallai river, including the Calicut station yard, was not handed over to the Company until many months after the works on other parts of the line were in progress. I may safely say that no one who has not seen tropical vegetation can form any idea of the density of the foliage in which the Calicut houses were hidden. This frequently rendered it impossible to see five yards in any direction. Channels, about 6 feet wide, and often 10 to 15 feet deep, served the double purpose of footpaths and watercourses.

The ground, besides, was very uneven, so that it was not until the station lands had been cleared that a really correct idea of the site could be formed. Some parts had then to be raised, and others cut away to a great depth, to reduce the ground to the proper level. I have mentioned these particulars to show that at the outset it would have been impossible to decide such questions as the drainage of the yard, or even to ascertain with certainty the nature of the foundations that would be met with at the sites fixed for the various buildings. As the works on the extension progressed, it became evident that a much larger traffic would have to be dealt with at Calicut and other stations on the extension that was at first anticipated, and additional works were, therefore, proposed and approved. So far from these proposals being considered in excess of actual requirements, the Consulting Engineer has distinctly stated that they have rather erred in the opposite direction. The Chief Engineer has explained in detail the principal items of extra expenditure, so that I need not go through them *seriatim*.

Besides the extra works at stations, the other additional expenditure may be briefly noticed under the headings, "Works on Line," and "Ferok and Kallai Bridges."

The excess on works on line was chiefly under the two heads "Earthwork" and "Ballasting." A good illustration of a cause of excess which it was impossible to foresee and guard against was given by the sinking of a length of some 300 feet of a bank which had been completed to its full height. This went down 8 feet in less than a quarter of a hour during fine weather. and without any previous warning. In a district where the annual rainfall is 120 inches, good ballast is of the utmost importance, and I feel sure that the additional expenditure incurred under this heading will in the end prove to be true economy.

The Ferok bridge is the only one on the Madras Railway built over deep water, and many of the conditions met with were different from those on any works we had previously undertaken. The cylinders and girders were of a new type, and twice the size of those previously erected. It was, therefore, hardly to be expected that a very accurate estimate could be made in the first instance. The details of the additional expenditure are explained by the Chief Engineer. At the Kallai bridge the chief cause of the excess was the carrying down of the piers and abutments to greater depths than had been originally intended.

It will be seen that all the additional expenditure was fairly and properly incurred in the carrying out of the works of the extension; that the additional buildings and other accommodation provided were considered by the Consulting Engineer to be necessary; that the work was well and economically executed; that a great deal of the additional expenditure could not have been foreseen at the time the original estimate was prepared.

It is much to be regretted that the formal sanction of Government was not obtained from time to time to every change of design and addition to the cost of the work. There seems to be no doubt that this would readily have been given; in fact, what is complained of is not the quantity, quality, or cost of the work, which was approved by the Government officers, but the want of formally recorded sanction.

The excess was officially reported by the Examiner of Railway Accounts in No. 275, dated 29th February 1888 (Appendix B), but the Consulting Engineer had, on 11th January, reported that revised estimates were under preparation (Appendix A, page 3). Owing, however, to various causes the revised estimate was a long time under preparation, and I think it was not till June 1888 that it reached the Audit Office.

Before leaving Madras I took steps which will enable the Chief Engineer to have in future a more perfect supervision over the expenditure being incurred on all works under his control than he has had for many years past, and I trust there will be no further cause for complaint in this direction. I need hardly add that the informality complained of was not due to any intention on the part of the Company's officers to evade the orders of Government, and that the fullest information regarding the nature and progress of the various works was always given to the Government officers.

Particulars of the traffic developed in the Calicut extension since its opening will be found in the Traffic Manager's half-yearly reports.

Faithfully yours,
(Signed) FRANCIS B. HANNA.

The Secretary,
Madras Railway Company.

No 5

Railway

27th March 1890

Copy
Letter to the Govt of India
No 344 Enclosures

P.W Encl
4232/90.

No 183 R - 27-2-86
" 576 R - 21-7- "
" 1076-77 R - 8-10-89
" 1157-58 R - 25-10- "
" 1036-37 R - 27-9- "
" 1432-33 R - 21-12- "

P. W. C No. 4232.

Rd. 6-5-90.
Encl.

0
7/5 Hm. 9/5/90. R 12.5.90

600

under the control of the Government of Madras.

I have the honour to be,

Sir,

Your most obedient Servant,

R W Pemberton

Colonel R. E.

Secretary.

P.

Documents accompanying
Copy of Despatch from the Secretary of State, No. 34 Railway, dated 27th March 1890, with enclosures.

over the first revised estimate sanctioned for this Extension.

2. With reference thereto I am to say that the Government of India regrets that on an old established undertaking like the Madras Railway such a wide divergence should have occurred between the estimated cost of, and the actual expenditure on a short Extension.

3. I am also to express a hope that in future works so grave an excess will not be permitted to recur, and to desire that early action may be taken on Public Works Department letter No. 174 R.C., dated 21st February 1890, in which it was suggested that the Consulting Engineer for Railways and the Examiner of Railway Accounts, Madras, be requested to look into the existing system of scrutiny of —"— expenditure on the Guaranteed Railways

335 R & 4.3.90 & files with Cus. 4238 sent to Rorty on the 6/5/90.

Under

Read also the following:—

No. 356 R. C.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Construction.

All communications should be addressed to the Secretary.

5-R

To

The Joint Secretary to the Government of Madras, (Railway Branch), Public Works Department.

Simla, the 25th April 1890.

Sir,

In continuation of Public Works Department letter No. 47 R.C. dated 15th January 1890, I am directed to forward herewith a copy of a Despatch,* from Her Majesty's Secretary of State for India, confirming the provisional sanction accorded by the Government of India to the second revised Estimate of the cost of the Beypore-Calicut Extension of the Madras Railway amounting to Rs. 19,44,560-11-2; and enclosing a copy of correspondence from the Board of Directors regarding the excess of Rs. 6,29,440 over

* No. 34 Railway dated 27th March 1890 with Enclosures.

144 R. D. 24.1.90 with Ins. 4238 sent to R. only on 6.5.90

P.W.C. No. 2068.

the Consulting Engineer for Railways and the Examiner of Railway Accounts, Madras, may be requested to look into the system of scrutiny of expenditure reported in paragraph 11 of the Consulting Engineer's note.

Recd. 1-3-90.

2. Some change seems desirable in order that the responsible Executive Officers may be able to take earlier action when excesses over estimate appear inevitable, as in the case at issue, and the Consulting Engineer and Examiner will doubtless be able to suggest to the Company the modifications that will ensure such a result.

3. I am also to request that the Examiner of Accounts be directed to report the progress made in the matter to the Accountant General, Public Works Department.

I have the honour to be,
Sir,
your most obedient Servant.

[signature] Major, R.E., To
Under Secretary.

Documents accompg:

Recd. 4 P

B. No. 335 R. D. 8th March 1890.

Communicated to the Consulting Engineer for Railways and to the Examiner Guaranteed Railway accounts with reference to Prop: No. 1432 R. D. 21st Dec. 1889.

R.

The Cons: Engr: for Rys. Exc. Guts: Ry: Accts.

Read also the following:—

G.O. dated 8th March 1890, No. 335-R.

Print

No. 174 R. C.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Construction.

3 P

All communications should be addressed to the Secretary.

C.S.S. 1.3.90

To

The Joint Secretary to the Government of Madras,

(Railway Branch)

Public Works Department.

Calcutta, the 21st February 1890.

Sir,

Adverting to your letter No. 1433 R. dated 21st December 1889 forwarding explanations in connection with the second revised estimates of the Beypore-Calicut Extension of the Madras Railway, I am directed to refer you to the memorandum by the Consulting Engineer for Railways, Madras, dated 11th December 1889 which formed one of the enclosures of your letter, and to suggest that with the permission of His Excellency the Governor in Council the

P.W.C. No. 651

amounting to Rs. 1944560/11/12 chargeable in the following proportions:—

(1) Rs. 11,99,113 to Capital.

(2) " 6,10,447 to Revenue

(3) " 135000 to Local Funds.

(2) This sanction which supersedes sanctioning No 1 Madras Railway of 1886 has been registered as No. 1 Madras Railway of 1890.

R 22.1.90

2 P

B. No. 144 R of 24th Jany 1890.

C.S.S. 24.1.90

Ico 23 Jan

I have the honour to be,

Sir,

Your most obedient Servant

No. 1432-3 R d/21-12-89
" 1036-7 R - 27-9-89
" 575 R - 21-7-86
" 183 R - 27-2-86

[signature] Major, R. E.,

Under Secretary.

Documents accompanying.

— Nil —

Communicated to the Consulting Engineer for Railways with reference to Progs: No: 1036 R dated 1432 R dated 27th September and 21st Decr: 1889.

2. This sanction has been registered as No 34 R of 1889-90, and is in supersession of that conveyed in P.G. No. 183 R d/27 Feby 1886.—

C.S.S. 22.1.90

C.S.S. 22.1.90

R

20 E. R. copy taken 24/1/90

Mr Cgr of Engs for Rys

Exp. G. & Ry: Accts

Sec 29/1 Jr 29/1

H.M. 23-1-90. R. 24-1-90 D 28/1

Read also the following:—

G.O. dated 24 Jany 1890 No. 144 R.

No. 47 R. C

All communications should be addressed to the Secretary.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Construction

100

To The Joint Secretary to the Government of Madras (Railway Branch), Public Works Department.

Calcutta, the 15th January 1890.

Sir,

With reference to your letters marginally noted I am directed to communicate the provisional sanction of the Government of India, subject to confirmation by Her Majesty's Secretary of State, to the second revised Estimate of the Beypore-Calicut Extension of the Madras Railway amounting

No. 1037 R. dated 27th Sept. 1889
No. 1433 R. " 21st Decr. "

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated May, 12th.

Recd. Encl.

G.O., 12th May 1890, No. 644 R.

MAY.

Beypore-Calicut Extension

Letter from the Government of India forwarding, with remarks, copy of a despatch from the Secretary of State for India confirming the provisional sanction accorded by it to the second revised estimate of the cost of the —, amounting to Rs. 19,44,560, communicated to the Consulting Engineer for Railways.

All communications should be addressed to the Secretary.

No. 47 R. C

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Construction.

To The Joint Secretary to the Government of Madras (Railway Branch), Public Works Department.

Calcutta, the 15th January 1890.

Sir,

With reference to your letters marginally noted I am directed to communicate the provisional sanction of the Government of India, subject to confirmation by Her Majesty's Secretary of State, to the second revised Estimate of the Beypore-Calicut Extension of the Madras Railway amounting

No. 1037 R. dated 27th Sept. 1889
No. 1433 R. " 21st Dec. "

12TH MAY 1890, No. 644 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following papers:—

G.O., dated 24th January 1890, No. 144 R., Public Works.

From the Under-Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Calcutta, 15th January 1890, No. 47 R.C.

With reference to your letters marginally noted, I am directed to communicate the provisional sanction of the Government of India, subject to confirmation by Her Majesty's Secretary of State, to the second revised estimate of the Beypore-Calicut Extension of the Madras Railway, amounting to Rs. 19,44,560-11-0, chargeable in the following proportions:—

No. 1037 R., dated 27th September 1889.
„ 1433 R., „ 21st December „

(1) Rs. 11,99,113 to Capital.
(2) Rs. 6,10,447 to Revenue.
(3) Rs. 1,35,000 to Local Funds.

2. This sanction which supersedes sanctioning No. 1 Madras Railway of 1886 has been registered as No. 1 Madras Railway of 1890.

Order—dated 24th January 1890, No. 144 R., Public Works.

Communicated to the Consulting Engineer for Railways with reference to Proceedings Nos. 1036 R. and 1432 R., dated 27th September and 21st December 1889.

2. This sanction has been registered as No. 34 R. of 1889-90, and is in supersession of that conveyed in Proceedings of Government, No. 183 R., dated 27th February 1886.

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

G.O., dated 8th March 1890, No. 335 R., Public Works.

From the Under-Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Calcutta, 21st February 1890, No. 174 R.C.

Adverting to your letter No. 1433 R., dated 21st December 1889, forwarding explanations in connection with the second revised estimates of the Beypore-Calicut Extension of the Madras Railway, I am directed to refer you to the memorandum by the Consulting Engineer for Railways, Madras, dated 11th December 1889, which formed one of the enclosures of your letter, and to suggest that, with the permission of His Excellency the Governor in Council, the Consulting Engineer for Railways and the Examiner of Railway Accounts, Madras, may be requested to look into the system of scrutiny of expenditure reported in para. 11 of the Consulting Engineer's note.

2. Some change seems desirable in order that the responsible executive officers may be able to take earlier action when excesses over estimate appear inevitable, as in the case at issue, and the Consulting Engineer and Examiner will doubtless be able to suggest to the Company the modifications that will ensure such a result.

3. I am also to request that the Examiner of Accounts be directed to report the progress made in the matter to the Accountant-General, Public Works Department.

Order—dated 8th March 1890, No. 335 R., Public Works.

Communicated to the Consulting Engineer for Railways and to the Examiner, Guaranteed Railway Accounts, with reference to Proceedings No. 1432 R., dated 21st December 1889.

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Read also the following paper:—

From the Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, 25th April 1890, No. 356 R.C.

In continuation of Public Works Department letter No. 47 R.C., dated 15th January 1890, I am directed to forward herewith a copy of a despatch, * from Her Majesty's Secretary of State for India, confirming the provisional sanction accorded by the Government of India to the second revised estimate of the cost of the Beypore-Calicut Extension of the Madras Railway amounting to Rs. 19,44,560-11-0; and enclosing a copy of correspondence from the Board of Directors regarding the excess of Rs. 6,29,440 over the first revised estimate sanctioned for this extension.

* No. 34 Railway, dated 27th March 1890, with enclosures.

2. With reference thereto I am to say that the Government of India regrets that on an old established undertaking like the Madras Railway such a wide divergence should have occurred between the estimated cost of, and the actual expenditure on, a short extension.

3. I am also to express a hope that in future works so grave an excess will not be permitted to recur, and to desire that early action may be taken on Public Works Department letter No. 174 R.C., dated 21st February 1890, in which it was suggested that the Consulting Engineer for Railways and the Examiner of Railway Accounts, Madras, be requested to look into the existing system of scrutiny of expenditure on the Guaranteed Railways under the control of the Government of Madras.

ENCLOSURES.

Despatch from the Right Honorable the Secretary of State for India, to His Excellency the Most Honorable the Governor-General of India in Council, dated India Office, London, 27th March 1890, No. 34 Railway.

[Madras Railway.—Revised Estimate of cost of Beypore-Calicut Extension.]

I have received your Excellency's Railway letter No. 11, dated the 4th of February 1890, requesting confirmation of your action in according provisional sanction to an actual outlay of Rs. 19,44,560 on the Beypore-Calicut Extension of the Madras Railway, being an excess of Rs. 6,29,440 over the estimated cost of this extension.

2. On receipt of your letter I caused a communication to be addressed to the Board of the Madras Railway Company calling for an explanation of this excess outlay, and a copy of that Board's reply * is herewith transmitted for information of your Government.

* Letter from Madras Railway Company, dated 7th March 1890, and enclosure.

3. It is stated in the explanation furnished that the excess outlay was caused by exceptional difficulties in the ground traversed by the line, combined with enlarged accommodation in connection with the stations on it. Your Excellency will, no doubt, consider and pass orders on this explanation; and in the meantime I confirm the provisional sanction which you have accorded to Rs. 19,44,560 as the actual cost of the work, in the proportions stated in the second paragraph of your letter under reply.

From the Secretary, Madras Railway Company, to the Under-Secretary of State for India, dated 61, New Broad Street, London, E.C., 7th March 1890, No. 7415.

I have the honor to acknowledge the receipt of Sir Juland Danvers' letter, P.W. 357, dated 27th ultimo, transmitting copy of a despatch and its enclosures received from the Government of India on the subject of the cost of the extension of the Company's system from Beypore to Calicut, and adding that Viscount Cross will be glad to be furnished with any observations the Board may have to make on the contents of the despatch.

In reply, I am directed to state that the Board regret that the original estimate for the work in question was so much exceeded. They quite admit that estimates made by the experienced officers of an old undertaking like the Madras Railway ought to approach much closer to the actual outlay than was the case in the present instance. They remark, however, with satisfaction that, in the opinion of the Consulting Engineer to the Madras Government, the whole of the works were economically executed, and that no unnecessary expenditure was incurred. They trust, therefore, that the explanation given by Mr. Hanna,* formerly Resident Engineer in charge of the Beypore-Calicut Extension, and now Agent and Manager, at home on furlough, will, under the special circumstances he describes, be accepted as satisfactory by the Secretary of State and the Government of India.

* *Vide* letter, dated 5th instant. Copy enclosed.

I am desired to add that the observations of the Agent and Manager are borne out by the fact that the estimated traffic on the extension to Calicut has been greatly exceeded by the actual results The net receipts for the half-year ending 31st December 1888 represent a profit at the rate of 6 per cent., and those for the half-year ending 30th June last a profit at the rate of over 9 per cent. per annum on a capital of 20 lakhs, a sum which exceeds the amount of the revised estimate of expenditure by about half a lakh of rupees.

From the Agent and Manager, Madras Railway Company, to the Secretary, Madras Railway Company, lated Delgany, 5th March 1890.

In reply to your letter, dated 28th ultimo, I have pleasure in sending the following remarks regarding the estimate for the Calicut Extension for the information of the Board. Letter P.W. 359, of the 27th February 1890, from the India Office, with enclosures, is now returned.

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The land north of the Kallai river, including the Calicut station yard, was not handed over to the Company until many months after the works on other parts of the line were in progress. I may safely say that no one who has not seen tropical vegetation can form any idea of the density of the foliage in which the Calicut houses were hidden. This frequently rendered it impossible to see five yards in any direction. Channels, about 6 feet wide, and often 10 to 15 feet deep, served the double purpose of foot-paths and water-courses.

The ground, besides, was very uneven, so that it was not until the station lands had been cleared that a really correct idea of the site could be formed. Some parts had then to be raised, and others cut away to a great depth, to reduce the ground to the proper level. I have mentioned these particulars to show that at the outset it would have been impossible to decide such questions as the drainage of the yard, or even to ascertain with certainty the nature of the foundations that would be met with at the sites fixed for the various buildings. As the works on the extension progressed, it became evident that a much larger traffic would have to be dealt with at Calicut and other stations on the extension that was at first anticipated, and additional works were, therefore, proposed and approved. So far from these proposals being considered in excess of actual requirements, the Consulting Engineer has distinctly stated that they have rather erred in the opposite direction. The Chief Engineer has explained in detail the principal items of extra expenditure, so that I need not go through them *seriatim*.

Besides the extra works at stations, the other additional expenditure may be briefly noticed under the headings, "Works on Line," and "Ferók and Kallai Bridges."

The excess on works on line was chiefly under the two heads "Earthwork" and "Ballasting." A good illustration of a cause of excess which it was impossible to foresee and guard against was given by the sinking of a length of some 300 feet of a bank which had been completed to its full height. This went down 8 feet in less than a quarter of a hour during fine weather, and without any previous warning. In a district where the annual rainfall is 120 inches, good ballast is of the utmost importance, and I feel sure that the additional expenditure incurred under this heading will in the end prove to be true economy.

The Ferók bridge is the only one on the Madras Railway built over deep water, and many of the conditions met with were different from those on any works we had previously undertaken. The cylinders and girders were of a new type, and twice the size of those previously erected. It was, therefore, hardly to be expected that a very accurate estimate could be made in the first instance. The details of the additional expenditure are explained by the Chief Engineer. At the Kallai bridge the chief cause of the excess was the carrying down of the piers and abutments to greater depths than had been originally intended.

It will be seen that all the additional expenditure was fairly and properly incurred in the carrying out of the works of the extension; that the additional buildings and other accommodation provided were considered by the Consulting Engineer to be necessary; that the work was well and economically executed; that a great deal of the additional expenditure could not have been foreseen at the time the original estimate was prepared.

It is much to be regretted that the formal sanction of Government was not obtained from time to time to every change of design and addition to the cost of the work. There seems to be no doubt that this would readily have been given; in fact, what is complained of is not the quantity, quality, or cost of the work, which was approved by the Government officers, but the want of formally recorded sanction.

The excess was officially reported by the Examiner of Railway Accounts in No. 275, dated 29th February 1888 (appendix B), but the Consulting Engineer had, on 11th January, reported that revised estimates were under preparation (appendix A, page 3). Owing, however, to various causes the revised estimate was a long time under preparation, and I think it was not till June 1888 that it reached the Audit Office.

Before leaving Madras I took steps which will enable the Chief Engineer to have in future a more perfect supervision over the expenditure being incurred on all works under his control than he has had for many years past, and I trust there will be no further cause for complaint in this direction. I need hardly add that the informality complained of was not due to any intention on the part of the Company's officers to evade the orders of Government, and that the fullest information regarding the nature and progress of the various works was always given to the Government officers.

Particulars of the traffic developed in the Calicut Extension since its opening will be found in the Traffic Manager's half-yearly reports.

ORDER—dated 12th May 1890, No. 644 R., Public Works.

Communicated to the Consulting Engineer for Railways and to the Examiner, Guaranteed Railway Accounts, with reference to Proceedings Nos. 144 R. and 335 R., dated 24th January and 8th March 1890.

2. Attention is directed to para. 3 of letter from the Government of India read above. The Government desires to receive as soon as possible a report of the action taken in the matter.

(True Extract.)

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

To the Consulting Engineer for Railways.
" Examiner, Guaranteed Railway Accounts.

Exd. J. Moses.
Spare Copies

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated May, 12th.

Recd. *Encl.*

G.O., 12th May 1890, No. 644 R.

MAY.

Beypore-Calicut Extension

Letter from the Government of India forwarding, with remarks, copy of a despatch from the Secretary of State for India confirming the provisional sanction accorded by it to the second revised estimate of the cost of the —, amounting to Rs. 19,44,560, communicated to the Consulting Engineer for Railways.

4646.

Govt. of {18 } Madras.

PUBLIC WORKS.

Dated

Recd. Encl.

G.O., 13th May 1890 No. 647 R.

Stations on the V. G. S. Ry.

Regarding the correct Spelling of the names of certain —

Stations on the V. G. S. Ry.

Forwg copy of Prop. &c: the correct Spelling of the names of certain —

100/3

Not sent 11th 28/5 Retd 30/5 5pm