Statement comparing the estimated cost of the Southern Extension (29½ miles) with the actuals expenditure on the South Indian Railway, after being opened for traffic for two years.

	Mayavaram-Mayuram-Tanjore Ry. Southern Extension, 29½ miles		South Indian Ry. Northern Extension 218 miles		South Indian Ry. Southern Extension 215 miles	
	Total	Per mile	Total	Per mile	Total	Per mile
I Preliminary Expenses	16,200	549	109,814	504	268,637	1,249
II Land	95,975	3253	641,556			
III Construction of line						
1. Earthwork	109,680	3,718	641,556	2,943	641,731	2985
2. Bridgework						
(a) Small bridges	} 307,011 (8832)	10,407 (303)	361,745	14,504	1289766	5,999
(b) Large bridges						
3. Tunnels						
4. Level crossings	13,455	456	178,183	817	116455	541
5. Fencing	4242	144	150,221	689	139,783	650
6. Electric Telegraphs	15,930	540				
IV Ballast + Permanent Way						
1. Ballasting	31,279	1060	206,792	949	174711	813
2. Permanent Way	399,868 (142,957)	13,555 (4846)	3309,775	15182	3585501	16676
V Stations and buildings	147,144	5005	1076,123	4936	866,141	4029
VI Plant	30,395 (4557)	1030 (154)	480308	2203	284492	1323
VIII Rolling stock	-	"	1795,436	8236	1988,750	9250
IX Maintenance	"	"	452,198	2075	295,947	1377
X Establishments	86,490	2932	2155020	9885	1403,229	6527
XI Contingencies	4325	147	121,696	558	90,696	422
Total	1262,494 (156,447)	42796 (5383)	13838,847	63,481	11145,829	51,841
	6	5	6	5	6	5

* Figures in red ink show the amounts that should be added if the present increase in the price of sleepers and steel be taken into account. The increased rate per mile will be Rs 48,099

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should not, with iron at its present prices, be laid on creosoted fir sleepers (of rectangular type) not half-round). The Chief Engineer will be asked to revise the estimate in this respect.

In the meanwhile, for financial considerations it is thought a mileage rate not exceeding 50,000 Rs may be adopted or say 30 miles to cost 15 lakhs of Rupees.

C.I.S.
27.2.10

plus the salary of the Assistant Engineer at Head Quarters. The remaining figures are extracted for the miles concerned but the whole amount under "Preliminary Expenses" has been entered as this sum has been spent.

This estimate is approximate only and must be considered subject to revision by the Chief Engineer of the South Indian Railway.

It seems well worthy of consideration whether the Branch Lines should

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The charges under Lands, earthworks, ballasting and permanent way are extracted on the mileage proportion of 29.5 to 53.79. Level crossings are estimated to cost half as much as, and fencing 3/5 of, the main estimate. The telegraph is taken at Rs 30 per mile, per wire, per annum for a period of a year and a half. Plant is allowed for at 3% on items III, IV + V. Establishment is presumed to be 1/2 the corresponding figures in the main estimate plus

Gates have been estimated for at important crossings only, rail posts and chains being considered sufficient for minor positions. As the amounts under fencing and level crossings are small, the enhanced cost of iron would have but little effect on the figures of the estimate. Level Crossings

For the section of the line between Sirsavalur and Multipeli an estimate, derived from that submitted for the whole project is appended. Estimate from Sirsavalur to Multipeli.

The

Stati ons lines will be completed in 18 months and consequently has only been calculated for a period of 1½ years.

Fencing. Wire fencing has only been provided in the neighbourhood of stations.

Plant. Plant has been calculated at 3% on items III, IV, V. If the recent rises in the prices of steels be considered it may be necessary to increase the figures under this head. This point will be referred to the Chief Engineer, south Indian Railway

substitute wooden for the iron sleepers.

Stations and buildings. The cost of a station master's bungalow and ~~Rs~~ (1820+134)= 54 is extremely high, and should be reduced to Rs 750. except at Mutupeli and fitting temporary structures, no other officials but the Station Master provided with quarters.

Maintenance. Maintenance has been treated as revenue is to be debited with it from date of opening.

Establishment is based on the assumption

thought sufficient. In consequence of the rise in the cost of iron item III will require increasing by Rs 20,8[illegible]

Electric Telegraph. Under Electric Telegraph No. VIII provision has been made for 2 miles of iron wire @ Rs 30 per mensem.

Ballasting and Permanent Way. The estimate for steel transverse girders and 41 lb steel rails @ Rs 6.10 per yard has but owing to the large rise in the price of iron and steel it will be necessary to allow a further sum of Rs 9-4-7, which will increase item IV by Rs 2,61,[illegible]

of the causeways have been estimated for, and were distributed as follows, four bridges of 5/40, five of 3/40, one of 2/40, three of 1/40, two of 3/30, one of 2/30, two of 1/30, one of 5/25, four of 3/25, and one of 3/20. Two bridges of 1/30 feet spans are included under "large bridges" which would more correctly have been shewn included under "small bridges." The cost of erecting girders appears to have been much over-estimated. An all round rate of Rs 25 per ton would it is thought

beds, and a considerable number of the culverts and bridges will require flooring which has been duly provided for.

Large bridges. Ample provision appears to have been made under large bridges, and allowances for baling and coffer dowming have been made. Provision has also been made for five causeways between the most important channels, to act as flood outlets in case of any of the channels bursting. 2385 linear feet of waterway, exclusive of

little south of Thorakudi instead of Thorakudi and Kurumbah. These alterations would result in a saving of about ₹ 20,000.

Minor bridges. The estimated cost of the minor bridges is decidedly ample, every irrigation channel however small having been provided for. It is probable that in construction a considerable saving may be effected by the diversion of some of the smaller channels. Foundations are taken out for a depth of 15 feet below the levels of the nullah beds

is sanctioned.

Stations. 4. The following stations are allowed for in the estimate.

Mayavaram	Mileage	0	Distance apart	
Mangavalli	"	5	"	5
Peralam	"	10	"	5
Manikam Road	"	14 3/4	"	4 3/4
Srivalur	"	23 1/2	"	8 3/4
Thorakudi	"	30 3/4	"	7 1/4
Kurumbal	"	36 3/4	"	6
Sirukuraipundi	"	39 3/4	"	3
Kachikulam	"	48 3/4	"	9
Muthupet	"	53 3/4	"	5

The Chief Engineer recommends that instead of Mangavalli and Peralam, one station 8 miles from Mayavaram should be provided. Present requirements would he thinks be met by one station at little

3. It will be noticed that the present estimate does not include rolling stock. The figures under contingencies only relate to Item X Establishments, on which they are calculated at 5 per cent. The mileage rate inclusive of rolling stock would amount to Rs 54,000. No provision has been made for temporary telegraphs, as it is anticipated that the Government Telegraph Department will proceed with the construction of permanent lines, as soon as the construction of the railway is

for two years.

	Mayavaram Mutupet 53.79 miles		South Indian Railway Northern Extension 21.5 miles		South Indian Railway, Southern Extension 21.5 miles	
	Totals	per mile	Totals	per mile	Totals	per mile
I Preliminary expenses	16,200	301	109,814	504	268,637	1249
II Land	175,000	3254				
III. Construction of lines						
1. Earth work	199,590	3718	641,556	2943	641,731	2985
2. Bridge work						
(a) Small bridges	384,924 (3871.55)	7142	3161,745	14504	1289756	5999
(b) Large bridges	568446 (587094)	17725				
3. Tunnels						
4. Level crossings	26911	500	178,183	817	116455	541
5. Fencing	7070	132	150221	689	139,783	650
6. Electric Telegraph	29160	542				
IV Ballast and Permanent way						
1. Ballasting	57033	1060	206792	949	174711	813
2. Permanent way	729,116 (660802 + 68314)	13,555	3309,755	15182	3585501	16676
V Stations and buildings	169,174	3145	1076123	4936	866141	4029
VI Plant	64280 (72957)	1195 (1353)	480308	2203	284492	1323
VII Rolling stock			1795436	8236	1988750	9250
IX Maintenance			452198	2075	295947	1377
X Establishment	175500	3263	2155020	9885	1403229	6527
XI Contingencies	8775	161	121696	558	90696	422
Totals	2894144 (2611579)	53804 (48,551)	13838847	63481	11145829	51,841

The figures in red ink take into account the rise in the prices of iron and steel.

between this station and Mutupet, where perhaps a saving (3965 chains) may be effected. Care has been taken to avoid as far as possible all interference with house property, and no temples have been touched. There are 17 curves on the whole length.

2. The following statement compares the estimated cost of the lines with the actual expenditure on the South Indian Railway, after being opened for traffic

for

runs into Tirunavalur station. From this point it runs south for about 11 miles after which by mainly following a south-west course it reaches its terminus at Mutupet, a distance of 54 miles from Mayavaram. The alignment taken at Mutupet will permit of extension to Adirampattam. Prior to construction it is desirable that a further investigation of the alignment be made between the 33rd mile and Tirutturaipundi station and between

to place Rs 13,500 from the balance of the Railway Guarantee Fund at the Agent's disposal. The actual expense of the survey amounted to Rs 14,200, which was met from the same fund.

2. The line originates at Mayavaram station on the South Indian Railway, at mile 175 from Madras and runs south for 22 miles where it joins the Negapatam Branch and by curving westwards runs

Note on the Mayavaram Mutupet Railway Estimate.

—

By G. O. 1084 R, dated 18th December 1888 the Agent, South Indian Railway, was instructed to engage a staff for the preparation of the working survey of the lines laid in G. O. 2379 L. Mis. dated 22nd December 1888, the Local Fund Board Taluks were authorized to

		Total	
1 Original preliminary Estimate		2787619	
2 Revised Estimate as per details given in Book No 2		2611579	
3 Estimate recommended for Sanction allowing for increased price of Iron		2894144	53804
4 Estimate including Cost of Junction Station arrangements		2973631	55282

I am
Sir
Your most obedt Servant
Williams Betts.
Agent.

PW. Cwl
13/9/90

REGISTER
No 2284
FILE
No 551

From
The Agent,
South Indian Railway,
Trichinopoly.

To
The Consulting Engineer for
Railways,
Madras.

Dated 1889
Received 4/1/90 18
No. 9.
Enclosure.

Re Mayavaram
Mutupet Ry.

Vide further No 25 dy 7-1-90.

No 9

Final

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South Indian Railway,

AGENT'S OFFICE,

TRICHINOPOLY, 6th January 1890

Endorsement heading here

From

The AGENT,

SOUTH INDIAN RAILWAY,

To

The CONSULTING ENGINEER FOR RAILWAYS,

MADRAS.

Sir,

In continuation of my letter No 16649 of the 31st December 89 I beg to inform you that I forwarded to you by the Mail Train of last Saturday the plans and Estimates of the proposed Mayavaram Mutupet Railway with a Report from Resident Engineer Mr F. F. Smith who was deputed to inspect the line Estimated for, after it was staked out on the ground.

The preliminary Estimate sent to you in June 1884 amounted to Rs 2782/619 and the revised Estimate now forwarded and recommended for Sanction amounts to Rs 2894144 or Rs 53804 per mile.

The variations of the revised over the preliminary Estimate are explained in detail in Mr Smith's report.

The rise in the price of iron work accounts for a Sum of Rs 282565 in Excess of that provided for girders and permanent way in the preliminary Estimate

The following is a Summary of the various Estimates Submitted:-

No 7

Railway

7th November 1889

Copy

Letter to the Govt of India

No 121

Br Encls 1

12282/89

1383 R.C

1-90. R 7-1-90.

India Office,
London, 7th November 1889.

Railway,
No. 121.

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

MY LORD MARQUIS,

Construction by Tanjore Local Board of a metre gauge line from Mayaveram to Mutupet.

Your Excellency's Railway Letter No. 120, dated 6th September 1889, respecting the best course to be pursued in order to enable the Tanjore Local Board to proceed with the construction of a metre gauge railway from Mayaveram to Mutupet, has received my consideration in Council.

2. Your Excellency considers that there are grave objections to permitting the Tanjore Local Board to raise the funds required by means of a sterling loan in this country, and as a loan could not, in your opinion, be raised in India by the Board, except at a high rate of interest, you state your willingness to advance the sum required to the Board at 4¼ per cent. per annum, such loan to be repaid within 30 years.

3. I am willing to assent to the course proposed, as the best solution of this special case, on the understanding that the amount so advanced shall be treated as a part of, and not as an addition to, the annual sum allotted as expenditure on railways from borrowed money.

4. I agree with your Excellency that, under the circumstances, the general control of Government over the expenditure of the funds, as indicated in the fifth paragraph of your Letter under reply, is desirable, and should be carried into effect.

5. It is of course understood that your Excellency's Government are satisfied that the terms to which my assent is requested do not impose on the Tanjore Local Board a liability which their resources are insufficient to meet.

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

19029. I. 2343.

possible now to advance the necessary loan from Imperial funds, and that the only alternative is for the Local Board to raise a loan otherwise in India on the best terms that can be obtained in the open market.

I am, however, to add that before a loan in the local market is sanctioned the wishes of the Secretary of State, as expressed in paragraph 5 of the Despatch, should be given effect to and the result reported to the Government of India.

I have the honour to be,
Sir,
Your most obedient Servant,
Major R.E.

Under-Secretary.

Document accompanying
Copy of Secretary of State's Despatch marginally quoted.

Rec'd 24/12/89
Encls 1

All communications should be addressed to the Secretary.

No. 1179 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 17th December 1889.

Sir,

In continuation of Public Works Department No. 859 R. C. dated 7th September 1889, I am directed to forward herewith a copy of a Despatch from Her Majesty's Secretary of State for India sanctioning, as a special case, the proposed loan by Government to the Tanjore Local Board of the amount required for constructing the Mayavaram - Mutupet Railway, on the understanding that the sum advanced will be treated as a part of the annual sum allotted for expenditure on railways from borrowed money, and provided that the arrangement does not impose on the Local Board a liability which their resources are insufficient to meet.

No. 121 Railway dated 7th November 1889.

2. With reference to paragraph 3 of the Despatch, I am to say that the Government of India regrets that under the condition therein imposed it will not

From
The President
District Board
Tanjore

To
The Chief Secretary to
Government
P. W. Dept.
Railway Branch
Madras.

Dated 28th November 1889.
Received

No. 355

Submitting a copy of letter No. 3134, 25-11-89, on the Mayavaram Mutupet Line from the Agent S. I. Railway Trichinopoly

21

and that Similar expenditure would not (for some years) be incurred on the new line; deducting Rs 386,000 the cost of such renewals, the expenses per mile per week amount to Rs 10 1/2

I am
Sir
Your most obedient Servant
/Signed/ W. D. Hooper
for Agent.

No. 355 /True Copy/

Submitted to Government in the P. W. Dept. Railway Branch - in continuation of this office Footnote No. 349 dated 21st November 1889, to copy of letter addressed to the Agent South Indian Railway - with the observation that the Shortening of the distance will unquestionably increase the traffic to Negapatam from the North both in goods and passengers.

Camp on the Bombay Side
Tellicherry 28th November 1889

W A Hamilton
President

21

South Indian Railway
Agent's office
Trichinopoly 25th November 1889.

From 1890

No. 3134

From,

The Agent
South Indian Railway

To,

The President
District Board
Tanjore.

Sir,

I will submit to my Directors the proposal contained in your letter No. 1903 of the 21st instant, viz. that the South Indian Railway Company should modify their offer to work the Nagapatam Tiruturpet line by agreeing to withdraw that part of it which provided for their receiving one fourth of the net profits.

With regard to your remark that the South Indian Railway will benefit by the interchange of traffic

with

with the Mayavaram–Mutupet line, I wish to observe that in my opinion though the new railway will greatly benefit the District, it will not increase the receipts of the South Indian Railway Company. There can be no doubt that traffic between the North and Nidamangalam Negapatam, and intermediate Stations will proceed by the new line, and the Company will lose mileage via Tanjore on such traffic. Also, if salt is brought up from Mutupet to Tiruvalur to send to the west, it will displace the salt which has hitherto been worked from Negapatam and mileage will be lost thereon.

You may not have gone into figures showing the result to the South Indian Railway Company of working the Mayavaram Mutupet line on a percentage allowance only and I should like

like therefore to state them here. Your most favorable estimate of the earnings of the new line is a weekly mileage receipt of Rs 90, and you assume the working expenses to be 66 per cent. The amount receivable by the Company would therefore be Rs 60 per mile per week. If you will take our account for last half year you will see that the cost of working 654 miles of railway amounted to Rs 21,12,478 or Rs 3,230 per mile. Dividing that sum by the number of weeks in the half year we arrive at the fact that it cost us over Rs 124 per mile per week to work the line. You ask us to work the Mayavaram – Mutupet line for Rs 60 per mile per week.

It is true that the expenditure last half year was largely increased by heavy renewals of permanent way,

and

and that similar expenditure would not (for some years) be incurred on the new line; deducting Rs 386,000 the cost of such renewals, the expenses per mile per week amount to Rs 10 1/2

I am
Sir
Your most obedient Servant
(Signed) W. D. Hooper
for Agent.

No. 355 (True Copy)

Submitted to Government in the P. W. Dept.
Railway Branch – in continuation of this office Footnote No. 349 dated 21st November 1889, to copy of letter addressed to the Agent South Indian Railway – with the observation that the shortening of the distance will unquestionably increase the traffic to Negapatam from the North both in goods and passengers.

Tanjore Dt Board's office
Tallcum 28th November 1889

W. A. Hamlett
President

In a letter

From
The President
District Board
Tanjore

To
The Joint Secretary to
Government –
Railway Branch
P. W. D.
Madras

Dated 21st November 1889

No. 349

Memo showing the financial position of the District Board Tanjore.

Gen
MW Cus 1115 2
89