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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	611	Press	<i>Original</i>
~~B.P.~~ No.		Mis.	
Dated	3. 3.	1875	
		195.	

Not to be folded or roughly handled

Ed S T Austin
Spare Copies

11 June 1976.

My dear Mr Ellis:

Now that Govt.
seems to have
abandoned the
idea of constructing
the Canadian line
of railway, I
shall feel much
obliged, whether you
will be kind enough
to let me know
whether Govt. will
allow me to
resume the
proceeding in this

had abandoned
in doing govern.
prepared to undertake
the work.

You know that
govern. has conceded
to me some years
ago the right of
construction, such
a line. I have made
a report upon the
survey, and I enclose
a report published
in the time of
my operations, if
nothing more was

done at the time
I was doing
the little interest
evoked by the subject
upon the subject at
a time when the
matapallum line
was not finished.
Our company therefore
thought it was
to lay quite till
better time, & then
the necessity of
the prolongation
of the railway up
to Coonour should
be felt
now the time is

...I would to retain
the position we
have formerly, and
several gentlemen
perceive myself
wishes to do something.

In the instance of
I shall feel particularly
obliged if you could
help by an expression
from the Duke of
Ormonde, which
lighter his considerations
my friends & scheme,
should his impression
be favorable, instead
to move the question
here again; and

I have a hope
there will
succeed, if the
Duke's sentiments
favorable to our
cause, then I will
enter again into
official correspondence with
the Duke, and
the question
will have here
meeting.

Enclose the French
I give you and
believe me

I give you in early

Adm. Mordaunt

D.T.O.

To O. I

The Governor has
asked the Niagara
Railway to undertake
such line but this
company having
declined, I think
we have better
to leave forward,
again.
Mr. Brown of the Niagara
Railway is one of
the gentlemen interested
in my former
scheme, & he thinks
that the time is
come where some

thing must be
done, not done
by private means
we are therefore
prepared to move
on the matter
if the Duke
opinion is favorable,
should you require
some plans or
information, I
shall be very
glad to send some
to you.

By

[Faint, illegible handwritten text, possibly bleed-through from the reverse side of the page.]

REPORT
ON THE
"COONNOOR INCLINE."

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REPORT ON THE "COONOR INCLINE."

To

THE DIRECTORS OF THE SELF-ACTING RAILWAY COMPANY

GENTLEMEN,

During the months of December 1870, January, February and March 1871, I was busily engaged in surveying the Coonor Pass with the view of ascertaining the best tract to follow so as to establish the proposed Railway Incline, and I am glad to report that, after a careful investigation of the nature and configuration of the slopes, &c, &c, I found no difficulty as regards the construction of the line

But owing to the alterations lately introduced by the Madras Railway Company as to the terminal station of their Coimbatore Branch, which was formerly to be erected in the Kullaur valley, but is to be established on the southern bank of the Bowany river at Metapollum, it is necessary to make some alterations in our former plan

Besides, by more ample information gathered on the spot, from estate proprietors, merchants and traders, in fact, by persons well acquainted with the future wants of the hills, I have arrived at the conclusion that after the opening of the Metapollum and Coimbatore Branch, the number of passengers and the traffic in goods will greatly increase, and that, instead of a self-acting line divided into several sections, and worked by gravity, it would be preferable to construct at once a small gauge railway, worked by locomotive engines, and on the Fell or Marsh principle

Consequently, with this end in view, I have made flying surveys of a whole line of operation, and entirely surveyed a portion of it, and so far have ascertained the possibility of constructing a line with a gradient of 436 feet per mile, that is to say, of 1 in 12 feet, without encountering much engineering difficulties, with easy curves, and what is very important, without requiring reversing stations.

A line of two feet or two feet six inches gauge could be constructed therefore on the Mont Cenis or Mount Washington system, and the traffic entirely conducted with small locomotives. As there is an abundant supply of fuel, either wood or peat, on the hills, at very moderate rates, I think it would be convenient to substitute this mode of conveyance to that proposed heretofore, bearing in mind that the cost of construction would not be in excess of the provisions, and that the new line would be more in accordance with the views generally expressed by would-be travellers and others concerned

Another advantage derived from the adoption of the alteration proposed would be that the new line would have its course far above the feverish tracts of the Kullaur valley, and thus offer to the travelling public and Railway officials more security

I will here give an idea of the tract I have selected for the line.

Starting from the Madras Railway Terminus at Metapollum, three-quarters of a mile west of the Travellers' Bungalow, and about 1048 feet above sea level, the line will run in a north-westerly direction, cross the Bowany over an iron bridge, and one mile further the Kullaur high road, reaching after about two miles the foot of the hills, where the real ascent will begin with a gradient of 1 in 12

(1) Since that time the railway has been constructed successfully.

The line thus will follow the western slopes of the Vibracombay hill, turning its west spur at about 1846 feet, then winding its course in the Kullaur upper valley, and crossing this river at about 2649 feet altitude, returning southwards, the line will turn round the Moocouttybetta hill at a height of about 3445 feet, and resuming a northerly course, will reach the Burliar valley or ravine and cross the river at 3690 feet, from there and passing near the foot of the Burliar rock, the line will follow the northern slope of the pass, turning round the several spurs always above the new ghaut, will reach the neighbourhood of the "Benhope" and "Coriambaddy" coffee estates at nearly 4645 feet.

After crossing the ridge on the east of the Coonoor ravine, and the old road near the tomb, the line will pass into the forest on the slope between the old ghaut and the Coonoor river, and reach Coonoor 5844 feet, at the west of the bridge, after a total length of 11 miles, nine of which with a constant ascent

At Coonoor the station could be conveniently established in a piece of municipal ground near to the bridge, from there, with a more easy gradient, the line of Railway will be directed on Wellington by the river side, and thence to Ootacamund

Such is the tracing nearly which I consider the best. As I have said, I have surveyed entirely the upper portion from Coonoor to the coffee estates, and have found no difficulty whatever in the keeping of the gradient always on the side of the hill with moderate curves

There is in some places several boulders to remove, but from the decaying state in which they stand, this task would be easy, as far as I can see, and nearly all the line will be in cuttings

Between the 2nd mile and Burliar, there are two rivers of some magnitude, and where perhaps some engineering may be necessary. However, I hope after the complete survey, to be able to explain more fully the means adopted for passing these spots satisfactorily

I think it is well in concluding this Report, to say a few words as to the working of the scheme with the alteration proposed

In the first instance, the cost of construction of the line will not be in excess, and the only differences will be the extension to Metapollum by an iron bridge, and the dispensation of intermediate station, ropes, drums, pulleys, &c &c. Now in comparing the cost of working the Self-acting Railway as proposed heretofore, and that of the proposed Railway Incline with locomotive engines, it will be seen that the wages of the coolies employed at the several stations for changing and hooking the cables, shunting the waggons, &c, &c, will be nearly equal to that of the fuel consumed by the locomotives

In a previous estimate, the cost of manual labour for working the Incline was yearly 8,000 Rupees, now for locomotives, including enginemmen and stokers, the yearly cost would be 10,000, leaving a balance of 2,000 Rupees against the locomotive process, which could be considered as a trifle when so many other advantages are secured with the proposed alteration. The former capital of the Company recommended (5,00,000) would be sufficient for the conducting of the operations as aforesaid, after constructing the line and buying the rolling stock.

Estimating the cost of 1 mile of Railway as follows —

Line of 2' 6" gauge with intermediate rail	
54 tons of rails, at 100 Rupees per ton on spot	5,400
Formation level and embankments	2,000
Laying permanent way	2,000
Cast Iron sleepers, 64 lbs each, or 17 tons	3,000
Culvert and bridges	5,000

Total per mile Rs 17,400

Or, say 18,000 Rupees, then we have total for the line—

12 miles of Railway, including sidings, &c, &c, at 18,000 per running mile	2,16,000
Bridge (iron) on the Bowany	80,000
5 locomotives, including Royalty, &c, at 10,000 each	50,000
50 waggons for goods and passengers, in average 500 each	25,000
Station fencing, &c, &c, ...	20,000
Staff and salaries for 2 years' construction	60,000
	<u>4,51,000</u>
Contingencies	49,000
Total cost	<u>5,00,000</u>

As for the returns, the traffic, when the line will be in operation and linked to the Coimbatore Branch, could be estimated at about 21,600 tons yearly

And in reducing the rates proposed in the former scheme from 8 Annas to 4 Annas per hundred-weight, the returns could be approximatively established as under —

RECEIPTS

21,600 tons, passengers and goods yearly, at the rate of 5 Rupees per ton, from Coonoor to Metapollum or vice versa	1,08,000
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EXPENDITURE

Traction at Rupees 0 49 per ton	10,000
Wear and tear of rolling stock, 5 per cent on cost	4,790
Maintenance	5,000
Salaries and Wages	12,000
	<u>31,790</u>

Leaving a yearly balance of Rupees 76,290, or about 15 per cent

I remain,

Gentlemen,

Yours faithfully,

A DECLOSETS, C E

MADRAS, 28th June 1871

SIR,—I have the honor to inform you that the Madras Government has granted me —

1st —The right of constructing a Railway incline up the Coonoor Ghat, and eventually of extending it to Ootacamund

2nd —The lands and stream-waters necessary for the construction and the working of the incline

3rd —A guarantee against competition for a period of twenty years, reserving itself the right of redeeming the lines after that time

I have accordingly formed and registered a Company, with a provisional Board of Directors and Agents for the purpose of conducting operations, and I beg to enclose a copy of the prospectus

I would further express the hope that as the scheme has for its object a more economical and speedy mode of transit for all articles and supplies necessary for casual visitors, as well as for those permanently settled on the Nilgheeries, it will meet with your approbation and support.

As soon as the branch of the Madras Railway to Kullaur is opened, the traffic will be greatly increased, and I have no doubt that this undertaking will prove a profitable one, and conduce in no so small measure to the development of the resources of the Nilgerry Hill.

Under these circumstances I trust you will kindly patronize an enterprise of such local importance, and allow me to add your name to the list of subscribers who have already favoured me with their valuable support

I have the honor to be,

Sir,

Your obedient servant,

MADRAS,

PROSPECTUS

OF THE

Madras Self-acting Railway Company (LIMITED.)

REGISTERED UNDER THE INDIAN COMPANIES' ACT, 1866

**CAPITAL—6 00 000 Rupees, in 12,000 Shares of Rupees 50 each,
payable as follows:**

	Rs	2 per Share.
A deposit on application	10	do
First call Three months after. . .	10	do.
Second do do do	10	do.
Third do Six do do	10	do
Fourth do do do do	42	do.
Uncalled.	8	do.
	<u>Rupees 50</u>	

The Registered Office of the Company is situate No 9, Maclean Street, Madras

Applications for Shares must be made to the Honorary Secretary in the annexed form, accompanied by a deposit of Two Rupees per Share.

22/10/25

PROVISIONAL DIRECTORS

MR. A. DECIOSLTS, C. E.
„ G. H. CAMMIADE, of Messrs Cammiade, Martin and Co
„ ADRIEN DESILVA, Merchant
„ F. DESOUZA, of Messrs F. DeSouza and Co
„ M. VENKATASAWMY NAIDOO, Merchant
„ ROBERT P. CARR, of Messrs R. P. Carr and Co
„ ARTHUR MORAES, of Messrs Moraes and Co
„ A. FACIOLLI, of Messrs Faciolle and Co
„ TH. I. ROOVINGADATHAN CHITTY, of Messrs I. O. and Co

SOLICITOR

MR. ARCHIBALD W. DESOUZA

AGENTS PRO TEM.

MESSRS. CAMMIADE, MARTIN AND CO

HONORARY SECRETARY

MR. R. H. S. MARTIN

The object for which the Company is established is to carry Passengers and Goods up and down the Ghauts of the several table-lands of Southern India

It is proposed to begin with the construction of a line from Kullaur, at the foot of the Neilgherries, to Coonoor, a distance of seven miles

The details of the Scheme, including the description and the working of the Incline, the traffic available, the cost of construction and the yearly return, have appeared in the local papers during the course of May

FORM OF APPLICATION FOR SHARES

To THE HONORARY SECRETARY TO THE MADRAS
SHELFACING RAILWAY COMPANY, (LIMITED)

SIR,

I send herewith the sum of Rupees — — — —, being a deposit of Rupees Two per Share on — — — — Shares in the above Company, and request that you will allot me that number, and I agree to become a Member of the Company in respect of such Shares, or in respect of any less number you may allot me, and I hereby authorize you to enter my name on the Articles of Association and on the Share Register of the Members of the Company

I am

Sr

Yours faithfully,

Usual signature

Name in full

Residence

Profession

Date

N. B. — Should there be no allotment of Shares, the Deposit of Two Rupees per Share will be returned in full

To
The Secretary of the
Madras Railway Company Limited,
9, MACLEAN STREET,
MADRAS

M/954/95.

From.

A. Pionet de (Lascaris) Esq. C.S.

To.

12

Col. J. W. Walker R.E.
Secretary to Govt.
Dept. Public Works
Madras.

Sir:

I have the honor to submit
to you - in 1870 I presented to the
Government of Govt. St George, an
application for the purpose of
constructing a small quays
or railway line from Matapallu
to Coonoor and with future intention
to extend.

Government granted my demand
by an order dated 2^d of May
1870 no 1155.

Having thus obtained the sanction
of Government, a company was
formed and registered in Madras
and I began the survey of the
route; which surveys have been
done to a certain extent, I have
the honor of enclosing a prospectus
of the company, and a report
to the Director, pointing out

The alteration to is made to
the former plan, and the trail
to be followed.

Now having heard that
Governments were contemplating
to execute a similar scheme
I thought it was convenient
to lay down, for Government
consideration, my claim for
the construction of a small
gauge railway in the ghats,
with the view of ascertaining
Government opinion.

I have the honor
to be

Yours
your obedient

De Clotely C.E

Madræ 11th February 1875.

954 ✓

Govt. of 1875; Madras.

PUBLIC WORKS.

To

Mrs. A. P. DeFlores.

Dated

Recd

Encl 2

G. O. 3rd Mar 1875, No

611

Nos. 102-103.

Railway -

Mr. DeFlores informs that after the lapse of so long a time no claim on his part to any exclusive right of construction of a line of Railway between Kullaur and ~~San~~ Conoor can be admitted —