

- (1) பக்கங்களின் எண்ணிக்கை 48
 (2) புதுக்கித் திருப்பிய நாள் 6.9.90
 (3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம் 10/2

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

P. W. D. துறை

அரசாணை எண்.	<u>916</u>	அச்சகம்
மு. கோப்புத் தாள் எண்.	<u>8.4.93</u>	பலவகை
நாள் : <u>20.6.1992</u>		198 .

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மடிக்கவோ கண்டபடி கையாளவோ கூடாது

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20TH AUGUST 1892, No. 2043 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following papers:—

From the Acting Collector of South Canara, to the Chief Secretary to Government,
dated Mangalore, 16th May 1892, No. 2350.

I have the honour, by request of the Chairman of the Mangalore Municipal Council, to forward, herewith, for favour of submission to His Excellency the Governor in Council, a memorial signed by a large number of respectable inhabitants of this district praying that early measures may be taken in conjunction with the Mysore Government to connect Mangalore with the general railway system of India by a line passing over the Western Ghâts and joining the Mysore State Railway at such points as may be determined hereafter by the two Governments, together with the marginally-noted papers.

1. Memorandum to accompany the memorial to Government by Mr. J. B. Macfarlane, District Engineer, South Canara, dated 18th April 1892.
2. Map of the Southern Mahratta Railway.
3. Map showing the proposed routes of the projected railway to Mangalore.
4. Five spare copies of the memorial.

2. There are of course two ways of connecting Mangalore and through Mangalore the district of South Canara generally with the railway system of

India, viz., either by a line connecting with the Madras Railway at Calicut or such a line as the memorialists desire.

3. With reference to the first of these, I have to say that, although a coast line appears to have been always hitherto regarded as chimerical owing to the great amount of bridging that would be required and the competition of the sea line of communication, yet I am very far from satisfied that this view is a sound one in so far as the country from Calicut to Mangalore is concerned. If the cost of construction would be great, and no doubt it would be, as such a line would intersect the drainage of a tract, small indeed comparatively speaking in extent, but subject to an annual average rainfall exceeding 100 inches, yet it is certain that the receipts would also be large and probably sufficient to yield a handsome return on the capital outlay particularly if the line were on the narrow gauge, for the distance from Calicut to Mangalore is a little less than 160 miles and no lines in Southern India and very few in any part of India I imagine connect so many flourishing and important towns within this distance as a line between these two places would, for, leaving out of consideration such important minor towns as Quilandi, Badagara, Mahé, Madai, Hosdroog, Kásaragód and Manjeshwar, it would connect the large municipal towns of Calicut, Tellicherry, Cannanore and Mangalore which are important centres of trade as well as of population. Throughout its whole length too such a line would pass through an exceptionally fertile and well cultivated country, and few, if any, existing lines run through a more densely populated area, whilst no

line in Southern India runs through a tract where the people generally are more prosperous and the average standard of comfort higher. In support of this assertion I would mention that wages, which may be taken to indicate pretty accurately the prosperity of the working classes, are much higher in this tract than they are in any other part of the Presidency that I have served in, whilst the population if we limit our calculation to the country lying within 10 or 12 miles of the sea must exceed 400 per square mile. Not only too have the people more money generally to spend upon travelling than they have elsewhere in the Presidency, but they are active and industrious, and, though loath to leave their own country, fond enough of travel within its own limits. So far as passenger traffic is concerned such a line need fear no competition from the side of the sea, for the ordinary native fears and detests a sea journey, and, in the matter of goods, the conveyance of the produce of the tract intended for exportation to the various ports and the distribution of imports would ensure a considerable traffic at all seasons, whilst during the three months of the monsoon, when the ports are closed as much by reason of custom as of the weather, it would have the monopoly of traffic of all kinds.

4. Although, however, I am of opinion for the above reasons that such a coast line would not only pay but pay well and is well worthy therefore of investigation and consideration at the hands of Government, whilst it would prove of inestimable benefit to the people of the country it would pass through, yet so far as the interests of South Canara are concerned, such a line as that the memorialists desire, if practicable, would prove much more beneficial and its financial prospects are much better, for such a line would make Mangalore the outlet to the sea and port of importation of an immense tract of country east of the ghâts and at once increase our ghât traffic, already very considerable, tenfold at least both by extending the sphere of South Canara's trade with the country beyond the ghâts and by developing and increasing its trade with those tracts with which trade is at present carried on by rendering communication more easy and more rapid.

5. The benefits to be derived from and the advantages to be gained by the construction of such a line are set out in considerable detail in the memorial itself which must, I think, be allowed to be a very moderate and well-considered document. Of the duty of Government to consider the welfare of its subjects and of its obligation not to favour any one section of the community at the expense of others hinted at in the first part of the memorial I will say nothing, though of course it is perfectly true, as the memorialists point out, that South Canara will soon, now that the East Coast Railway has been taken in hand, be the only district in the Presidency without a railway, whilst it has for years contributed steadily a considerable sum to the public treasury after deducting the cost of administration which has been but small. Were the omission due to the fact that such a project had been before investigated and found impracticable, or if it could be attributed to a well-founded belief that such an undertaking, if embarked on, would prove unprofitable or not calculated to lead to such a development of trade, population and industry, as to make it worth while to incur the cost, I should say the memorialists had no case and refrain from advocating their cause, but this is not the case. As a matter of fact the line of the Western Ghâts forming the eastern boundary of this district has never apparently from the records of my office been examined with a view to ascertaining whether such a line is practicable or not, and until this has been done and the result has proved unfavorable I think the petitioners have only done right in now pressing their claims upon Government and begging for at least a survey.

6. Under these circumstances only two points appear to me to call for consideration, viz., (1) the feasibility of such an undertaking and (2) its prospects, if undertaken, from a financial point of view.

7. Three routes are suggested in para. 8 of the memorial and some details of these routes are given in the accompanying memorandum of the District Engineer. These routes cross the ghâts by what are known as (1) the Samshe, (2) the Charmadi and (3) the Siradi passes, and each has its supporters locally.

(1) The Samshe pass is the most northerly. Were this adopted, the line would probably take off from the Mysore State Railway at Birur and follow the line

of the Bhadra valley through Balehonoor, an important coffee-planting centre, to Khalsa near the frontier where there is a notable temple, and thence pass down the Samshe ghât into the Bangadi valley, a rich agricultural tract in Canara, and keeping to the north of the Netravati river come through Beltangadi and Bantval to Mangalore. Were this route adopted very little bridgework would devolve upon either the British or Mysore Governments, but the construction of the entire ghât section would devolve upon us and I do not think the Mysore Government would favour this project, for looked at from Mukh this part of Mysore appears to be very hilly and consequently difficult for a railway. It is also very sparsely populated, and, whatever the capabilities of the forests adjoining the Bhadra river may be, a railway through a sparsely peopled and jungly country is not likely to pay. I do not, however, think the Samshe pass can be anything like so high as 3,500 feet, the elevation given by the Engineer. Looked at from the plains it seems to me that it cannot exceed 2,500 feet, and probably the elevation marked on the Mysore map, from which the District Engineer has taken his figures, is not the height of the head of the pass but of some adjoining peak. There is at present nothing but a bridle-path down this ghât and the coffee, &c., from the tract that finds its way to Mangalore comes down either by pack-bullocks or by cart *via* the Charmadi ghât road.

(2) The Charmadi pass is 3,185 feet high at its highest point which is on the Mysore side of the frontier, but the construction of the major portion of the ghât section of a railway over it would devolve on the British Government. Kadur on the Mysore State Railway is the nearest point on that railway to Mangalore. Thence through Chickmagalur to Mudghere the line would pass through a populous and well cultivated country, whilst between Mudghere and the frontier there are many coffee estates. In Canara it would follow much the same line as No. 1 and not be difficult to construct with the exception of the ghât section, but this, I fear, would be found very costly. The route, however, deserves examination, for, if feasible, it would prove a very good commercial route.

(3) The Shiradi route is the southern one and is the route most favored by the District Engineer, and if it be true that a narrow gauge line can be carried through it with an average gradient of about 1 in 84, with good reason. Even if a gradient of 1 in 65 or so throughout could be secured it would not be a difficult line as ghât railways go, but, on the contrary, an eminently practicable and easy one, and this I think could be attained without much difficulty, for there are no zigzags in the present cart-road even, which is consequently a much more easy one than the Charmadi cart-road. Again, although the highest point is 2,867 feet, the elevation, where the present road crosses the frontier 62 miles from Mangalore, is only 1,733 feet, so that the work of the ghât section would be pretty evenly divided between the British and Mysore Governments. In Canara there is indeed one big bridge of 600 or 700 feet necessary at Uppinangadi, but, as the bed of the river here is rocky, no expense would be necessary to secure a good foundation. Commercially too, its prospects are as good if not better than those of a line *via* the Charmadi ghât, as the portion of Mysore it would tap is near the frontier, a very rich coffee district, and from Arsikere, where it would leave the present railway for some distance to the west of Hassan, it would tap one of the most populous and well cultivated tracts of the Mysore State. It would also connect Mangalore and Bangalore pretty nearly in a straight line. In Canara also as far as Gollitattoo, 9 miles beyond Uppinangadi, it would pass through a rich populous and wealthy country, and as it would shorten the distance to Coorg by 23 miles and to Charmadi by 22 miles, it would doubtless get a good deal of traffic from these directions as well as from beyond the ghâts.

8. However therefore, an examination of the Samshe and Charmadi ghâts may turn out, it seems certain that investigation would prove the Shiradi route not only practicable but easy and there seems little reason to fear that it would prove a white elephant like the Marmagoa railway. I would therefore urge that a detailed examination of it as well as a cursory survey of the other two routes suggested should be made without delay as the memorialists desire. Whichever route is adopted there are no serious engineering difficulties to be met with in Canara after leaving the ghâts and labour is abundant.

9. I regret that I am unable to give any accurate statistics of the traffic along either the Charmadi or Shiradi route, but the following statement shows the amount fetched at auction during the last five years by the toll-gates along the two routes:—

Toll-gate.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	Average.
<i>Charmadi Route.</i>						
Feringipett	Rs. 2,810	Rs. 4,300	Rs. 3,899	Rs. 4,002	Rs. 3,800	Rs. 3,962
Santval	4,380	5,000	4,910	5,128	4,856	4,866
Kottagadi	3,470	3,792	4,050	4,300	4,120	3,928
Charmadi	2,550	2,362	3,200	3,500	3,432	3,128
<i>Shiradi Route.</i>						
Feringipett	3,510	4,200	3,899	4,002	3,800	3,962
Kalladka	5,565	5,311	5,650	5,310	5,605	5,330
Shiradi	2,500	2,700	3,010	3,322	3,055	2,937

Whichever of the two routes is adopted, one-third of the present cart traffic down either ghât may very reasonably be expected to be diverted to the rail down the other, so that, according to the average toll receipts at Shiradi and Charmadi, a railway line down the Shiradi ghât would carry goods now conveyed by 12,116 carts down that ghât plus 4,333 cart-loads which now come down the Charmadi ghât, and a Charmadi line would carry the present traffic of over 13,000 cart-loads plus 4,032 cart-loads now coming down the Shiradi ghât.

10. The present traffic is, however, no accurate indication of what the traffic would be with a railway, for, were a railway constructed, we could depend on getting many tons of grain, &c., down from Mysore for export in seasons of plenty which the cost of transport now keeps away altogether, whilst in years of scarcity above the ghâts we should send large quantities thither. Then again the manufacture of tiles and curing of fish are important industries in Canara, but, owing to the difficulty and expense of transport, these products do not now make their way far beyond the frontier. With a railway they could be carried to and sold at a profit even at Bangalore. Similarly there would be a large increase in the exportation of the other articles we now export to Mysore, and not only an increase under articles like coffee that we now import but various kinds of produce that are not now brought to the coast at all would find their way to us. A better test than the present traffic would I think be a comparison with the section of the Madras Railway between Pôdanûr and Calicut which passes through a similar country after passing through the Walliar ghât to what a railway down the Shiradi ghât would pass through, and, though that section originally cost more, I believe, than any other part of the line, I understand that it now yields the best return or, at any rate, a very handsome return, and I know of no reason why a railway to our frontier along the Shiradi route meeting the Mysore State Railway there should not pay quite as well, for, if the receipts would be somewhat smaller, the average cost of construction would be a great deal less.

11. As a famine line, as the memorialists point out, such a line would be exceptionally valuable, for South Canara invariably produces more grain than it consumes and so has always a surplus for export. Indirectly also the memorialists truly show in para. 10 that the line would be a source of profit to Government. I may add here too that, if it is constructed before the settlement of the district, its existence will be a factor in calculating the assessment of a large tract of fertile country and so also be a source of indirect gain to Government.

12. Finally the narrow gauge railway system of Mysore and indeed of the south of India has no outlet to the sea on the west except the Marmagoa line, which is too far north to be of any value and has, moreover, the disadvantage of being a foreign undertaking situated in foreign territory, whereas Mangalore being in much the same latitude as Madras, the line the memorialists pray for would be an exceptionally suitable one. The objection that our harbour is a bad one may be raised to this, but a

late resident merchant for many years has written in a letter that I have seen that in his opinion too much stress has been always laid on the want of communication with steamers in the monsoon and stated: "I am convinced that there are not ten days in the year when communication is impossible. Had we steam power to assist the cargo boats to stem the current of the flooded rivers I do not think there would be much difficulty in communicating. What we suffer from is the want of energy in the people. Their forefathers did not attempt to go outside in the monsoon—why should they?" In these views I concur. Moreover, as the memorialists say, the harbour is capable of much improvement, e.g., by dredging through the 300 or 400 feet of sand that forms the bar a passage with 17 or 18 feet of water at high water could be obtained which would in itself be a great advantage on the 10 or 11 feet we now have over the bar. With the increased trade a railway would bring to the port too I have no doubt steam tugs would soon come into existence.

13. By what agency such a railway, if found practicable (and I am convinced it will so be found on investigation), should be constructed is hardly a point for me to express an opinion on, but, as I think it would prove in every way an exceptionally profitable undertaking, I must say that I think Government should not let so favorable an opportunity pass, but undertake its construction itself, though it may subsequently work it through the Southern Mahratta Company. Meanwhile I would respectfully advocate in the strongest possible manner that a survey should be made without delay as prayed for by the memorialists. If the result prove favorable and I have no doubt but what it will, Government will find no difficulty in inducing others to undertake the work if it does not see its way to undertake it itself.

P.S.—It is to be noted that my remark that wages are exceptionally high in para. 3 has reference only to the coast tract between Mangalore and Calicut. As we proceed inland the rate of wages rapidly diminishes so that the cost of cooly labour in connection with a ghât line would not be much higher all round in the case of South Canara than elsewhere, whilst above the ghâts such labour is both abundant and exceptionally cheap.

ENCLOSURE.

MEMORIAL from the inhabitants of the district of South Canara, to His Excellency the Right Honorable the Governor in Council, Fort St. George, dated Mangalore, 10th March 1892.

That your memorialists beg leave to urge on your Excellency's Government the pressing necessity that exists for connecting Mangalore with the general railway system of India.

2. That, when a railway was applied for on the occasion of the visit of His Excellency Lord Connemara to Mangalore, the subject was referred to the Public Works Department, Railway Branch, by an order, dated 12th November 1888, No. 895 P.D. Subsequently one of your memorialists, by desire of a public meeting, waited upon His Excellency and the Members of the Council in April 1890 and was told that Government would do its best to meet the wishes of the people and that the matter would soon be taken in hand.

3. That now that every other district of the Madras Presidency has been or will be in the immediate future provided with a railway, your memorialists respectfully submit that the time has come when the desirability of connecting the exceptionally isolated district of South Canara with the rest of the Presidency by rail should receive the serious consideration of Your Excellency's Government.

4. That South Canara is a district in which Government has not yet undertaken a single public work of any magnitude, although the district annually contributes on an average not less than eleven lakhs of net revenue to the Imperial treasury.

5. That the development of the important manufacturing industries of Mangalore is retarded and the agricultural interests of the district greatly suffer for want of connection with the general railway system of the country.

6. That South Canara, as a surplus grain-producing district, which has never known a famine, is capable of rendering great assistance to less-favored districts in times of scarcity if placed in direct railway communication with them. In this connection, your memorialists respectfully beg to solicit a reference to the statement of the Commissioners in part I., para. 154

of the Report of the Indian Famine Commission of 1880:—"It is to the future extension of railways that we look as the most complete justification of our belief that the trade of the country may be confidently left to provide for the supply of food in times of scarcity."

7. That your memorialists respectfully represent that His Highness the Maharaja of Mysore, in reply to a deputation from Mangalore that waited on him in December 1890, expressed his willingness to extend his railway system to the frontier of South Canara through the coffee-producing districts of his State, should the Madras Government undertake to carry it on to Mangalore, and your memorialists understand that the line proposed is eagerly desired and will be warmly welcomed by the inhabitants of a large tract of Mysore, as is shown by a recent resolution of the South Mysore Planters' Association to the effect that it is not expedient to proceed with any minor lines until the line to Mangalore is made.

8. That the distance from Mangalore to the nearest point on the Mysore Railway is about 120 miles by road, of which about 60 miles are in British territory, and as there is no river of any magnitude to cross, the only engineering difficulty to be encountered in making the desired railway is the crossing of the Western Ghats, and your memorialists understand that, as three of the passes from South Canara to Mysore—(1) the Samshe, (2) Charnadi, and (3) Siradi ghats present unusual facilities for a railway line—the cost would not be excessive.

9. That your memorialists believe that the traffic over the proposed railway would, from its opening, render the line a financial success. There is at present a large export trade from the district of South Canara to Mysore in salt, salted fish, oils, metals, tiles, piece-goods, grain, provisions, coir, &c., of the aggregate value of more than thirty lakhs of rupees annually, which is capable of great improvement and the importance of the imports may be judged from the fact that this year it is estimated that coffee alone of over ninety lakhs of rupees in value will be received in Mangalore for shipment, whilst it is well known that South Canara obtains its entire supply of draught and ploughing cattle from above the ghats. Your memorialists are also convinced that there would be a large passenger traffic on the proposed railway, as it is believed that every year about two hundred thousand pilgrims from above the ghats visit the Hindu and Jain shrines of this district, and competent judges have estimated that over one hundred thousand Canara coolies go for work above the ghats.

10. That there are very extensive tracts of arable waste and forest land in the Uppinangadi taluk through which the proposed railway will pass and such a line, by placing the produce within easy reach of a market, will not only result in a material enhancement of the value of the land already under cultivation and of the forest revenue of Government but must also lead to a large area being reclaimed and cultivated to the benefit of the public revenues.

11. That at a meeting of the Southern Mahratta Railway Company, held in December 1889, the Chairman pointed out that "the great bulk of our public goods-trade is a trade interchanged with other railways, notably, the West of India Portuguese Railway, and this arises from our having no independent outlet to the sea; this is a serious drawback to our prosperity." It is therefore not at all improbable that that company would undertake the construction and working of the line.

12. That the value of the Marmagao Railway as a connecting link between the east and the centre of India is largely discounted by the fact that it lies within the territories of a foreign State, of which the relations with this Empire are at present somewhat strained and which at all times owing to its financial difficulties can be safely counted upon to take advantage of every opportunity to increase its revenues by enhancing its customs tariff and railway rates, yet this is the only railway connection of India with its western coast between Bombay and Calicut, a distance of over 500 miles.

13. That it is true that the harbour of Mangalore is closed for about 3 months in the year during the south-west monsoon (between June and September), but your memorialists believe that their harbour is capable of much improvement at a very reasonable cost and that it could easily be worked for a much greater length of time even under present conditions. As a matter of fact, communication is often feasible during the above period when it is by usage and custom considered to be closed.

14. And that as the proposed line will not cost an excessive amount to construct, it being only for about 60 miles in British territory, will yield a remunerative return on capital expenditure, will greatly enhance the material prosperity of an important and loyal district from which Government has for years derived a large surplus revenue, will constitute a valuable additional bulwark against famine in that part of Southern India most exposed to the ravages of that dreadful scourge, and will finally result indirectly in a large increase in the revenue derived from the district by Government, your memorialists most humbly and respectfully pray that your Excellency's Government will be graciously pleased to accord its favorable consideration to the prayer contained in this memorial and order the necessary surveys and arrangements preliminary to the construction of the railway herein applied for to be made at once, so that the work may be carried to completion at an early date.

For which, your memorialists shall, as in duty bound, ever pray, &c.

MEMORANDUM TO ACCOMPANY THE MEMORIAL TO GOVERNMENT.

[Mangalore Railway Project.]

Preamble.—In opening up the subject of railway extension to Mangalore, three routes have been suggested by which the proposed line might be taken. The object of this memorandum is to briefly consider these proposals and note, for the information of Government, the physical aspects of the country through which they pass. The routes or lines suggested have been designated Nos. 1, 2 and 3 and they have been carefully marked in blue on the map accompanying right up to their junction with the existing railway system in Mysore, part of which is also shown (in red). A smaller index map is also submitted which shows the connection of the Southern Mahratta Railway with the general system of India. An accurate estimate of cost cannot of course be made until regular surveys are taken and correct levels ascertained; the heights hereinafter referred to are taken from the Mysore Topographical survey sheets. By adopting a judicious and workmanlike alignment it is not considered that the engineering difficulties are in any way excessive, especially so as the line has to cross the Western Ghats. The bridging required on either side of the ghats is comparatively small, considering the country over which the line has to be taken. The three routes referred to are as follows:—

Route No. 1.—The line by this route it is proposed would leave the present system at Beeruru and come up *via* the Bhadra valley, through Tarekere, Balehonnur, Kalsa, Samse, and down the Bangwadi valley into South Canara, Jamalabad (or Beltangady) through Bantval and on to Mangalore.

Route No. 2.—This line taps the present system at Kadur and would come westwards *via* Chickamagalur, Wastara, Mudgere, descend the Ainur valley into South Canara *via* Charnady to Beltangady and on to the sea as in route No. 1.

Route No. 3.—This line it is suggested would branch off the present railway system at Arsikere and make for the ghats *via* Hassan and Saklespur (or Munzarabad), descend the Kemphole valley into South Canara, and come on *via* Seerady, Uppinangadi to Bantval (crossing the Neithrawatty at Uppinangadi), and then into Mangalore as in route No. 1.

The elevation of the ghats over which the proposed lines would pass—as also the physical aspects of them will form important items for consideration when a decision has to be made which to adopt; the bridging required should also be kept in view, as well as the commercial aspect of the country through which it is proposed to pass. Route No. 1 coming from Beeruru up through the Bhadra valley would, it is thought, escape exceptionally heavy bridging by keeping to the south of the Bhadra river; the Bhadra valley is rich in valuable forests, and this route would put a considerable area of a coffee-producing district in touch with the sea. Coming in through Kalsa and Samsey it would have to be taken over the Bangwadi pass and down that valley to the plains. The elevation of the watershed in the Bangwadi pass is estimated at about 3,500 feet; this, however, is only approximate, as the Topographical Survey sheets give only the Trigonometrical Survey station points here as there is no road over this ghāt. However it would appear to be feasible to bring a line of railway down *via* the Bangwadi valley; the elevation at the foot is estimated to be about 1,900 feet at about Jamalabad Fort; the distance is taken to be 14 miles; this would give us a rise of 1 in 16 say, which would be a heavy gradient to work.

The two rivers of importance which intersect our road between Jamalabad and Mangalore, and which may be mentioned, are Beltangady and Manebally near Bantval; these waters are spanned for road purposes, the former by a bridge of four bays of 50 feet and the latter by three bays of 30 feet; there are several smaller bridges, but they call for no special remark other than that they are nine in number varying in spans from 10 to 50 feet. The general aspect of the country between the foot of the ghats at Jamalabad and Mangalore may be described as an undulating plateau, over which there would be little difficulty in bringing a railway. It is rich in laterite throughout which would form excellent material for the construction of embankments, and the upkeep of permanent-way.

Route No. 2.—Starting as before stated from Kadur on the present system this line it is proposed would come *via* Sacrapatam, Chickamagalur, Wastara and Moodgere, would reach the Western Ghats at the head of the Ainur valley; the elevation here, about a mile west of Attigere, is 3,185 feet; the distance to what we may term the foot, viz., Charnady, is estimated to be about 15 miles, the elevation here is 1,912 feet giving a fall of 1,273 feet or a ruling gradient of 1 in 61.

It should be here noted that in many places the hill sides round this Ainur valley are very steep; in some almost, if not quite, vertical. The road that comes down this ghāt does the last 5 miles in a succession of zigzags, but the alignment suggested for the railway would leave the general road trace before the zigzags were reached and make round with a sweep the face of the adjoining hill, called Yellicull Gooda (starting from the saddle over which the road goes), and then return into the valley formed by the source of the Moondajee river. It is thought that it would be quite feasible to reach the plains by this way by the S-shaped route shown in map between Attigere and Charnady. This trace referred to and shown on map reaches plain

level to the north of the Moondajee river; an important bridge would be thus avoided, which for road purposes is one of six spans of 30 feet each.

There is, however, one important bridge that would still have to be constructed between Charmady and Beltangady, viz., Nidkul; this for road purposes is crossed by 11 spans of 30 feet each in the clear. The bridging from Beltangady on would of course be as referred to in route No. 1.

Route No. 3.—This, as suggested on map, leaves the present railway at Arsikere and comes in *via* Harnhully, Sallagram, Hassan, Saklespur, and down the Kemphole valley. The head of this ghât is taken to be at Donigal and the elevation here is 2,867 feet. The foot may be said to be at our boundary 7 miles east of Seerady; the elevation here above sea level is 1,733. This gives us a fall of 1,134 feet, and the length of the ghât is estimated at 18 miles, a very practicable gradient of 1 in 84 about is thus obtained.

As far as reaching South Canara plain from the Mysore plateau is concerned, this ghât is certainly the most practicable; it is traversed by a road which may be taken as a fair index of what would be required for a line of railway. At no place throughout the existing ghât road can the gradient be said to be heavy; it is practically one gradual rise from the South Canara boundary right up to Donigal at the head of the valley. The direction of this valley is about due east and west, and it is the longest of any in the Western Ghâts that bound South Canara; this accounts for the easy rise of 1 in 84 about.

Mysore Topographical Survey (sheet No. 49) shows this valley very clearly; it will be seen by a reference thereto that on the whole the alignment of the road is not very irregular, the most serious turns or bends being east of Kempkal; cuttings therefore, it is thought, would not be exceptionally heavy. The only streams of importance that intersect the present ghât road are at Kempkal, and two, and five miles beyond; the largest of these is at Kempkal; it is spanned at present by a wooden bridge for road purposes.

The two important rivers that intersect route No. 3 in Mysore territory are the Hemavati and its tributary the Yagachi. In Canara the largest bridges by this route would be the Khabinhalla and the Neitravatty; the former is crossed by a three span bridge of 50 feet bays; the latter is at present unbridged, but although the Neitravatty at Beltangady (the point of

crossing proposed) is 600 feet wide about, bridging it would be comparatively cheap owing to the nature of the bed of the river here, which is sound and hard rock, thus obviating the necessity of expensive foundations; the banks are high and well defined at this part of the Neitravatty which is a further assistance in bridging. Of the smaller bridging that would be required between Seerady frontier and Uppinangadi, the more important that may be mentioned would be Birchinhalla, stream width 50 feet, Hanoomantha, 80 feet, Cadmihalla, 100 feet, Reeka, 75 feet, and Nelliady, 60 feet. Between Uppinangadi and Bantval where this line joins No. 1 there are only two streams intersect it of about 80 feet, viz., Soorean and Manna Naulkoor.

General.—Of the three routes referred to, No. 3 would appear to be the more favorable, at least from an engineering point of view; it also opens up a rich tract of Mysore as apparently from the Ordinance map the country between Arsikere and Hassan is well irrigated.

Route No. 3 passes also through the heart of the Manjarabad taluk, a rich coffee-producing district. It might also be said to be in touch with North Coorg, passing within 8 miles of it.

Taking the past season's traffic as an index, that up and down the Manjarabad ghât (Kemphole valley) was the heaviest. The Mysore State have already the extension of their system to Hassan under contemplation, and it is understood that a line has been surveyed as far as that, as well as to Chickmagalur.

For making and the upkeep of the permanent-way South Canara is rich in material; good granite is also found in many parts of the district from which stone for bridge purposes is quarried.

The distances from the existing system and Mangalore by the three routes herein referred to are approximately as follows:—

	MILES.
No. 1	130
" 2	110
" 3	125

of which distances, the South Canara portion would be about 50, 65, and 60 miles. It is obvious that some route as suggested in No. 3 would be the one seriously to consider; it would be the most direct link to the coast from Bangalore, and come down the most feasible valley in the Western Ghâts bounding South Canara. But until the lines are properly surveyed no reliable conclusion can be arrived at.

MANGALORE,
18th April 1892.

(Signed) J. B. MACFARLANE,
District Engineer, South Canara.

No. 1034.

Transferred to the Public Works Department (Railway Branch).

(Signed) J. F. PRICE,
Chief Secretary.

13th June 1892.

No. 3258 C.

Referred to the Consulting Engineer for Railways for report.

(Signed) W. H. COAKER, Lieut.-Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

28th June 1892.

From the Consulting Engineer for Railways, dated Madras, 5th July 1892, No. 535.

Note, dated 5th July 1892, on the memorial of the inhabitants of South Canara district for the connection of Mangalore with the general railway system of India.

1. The memorial advocates the construction of a metre gauge line to connect the port of Mangalore in South Canara district with the Mysore Railway system. Three alternative routes are put forward crossing the Western Ghâts by the Samshe, Charmadi and Siradi passes, respectively. Of these alignments the last-named appears the best from an engineering point of view, and commercially is reported to be as good if not better than the Charmadi route. The Samshe alignment, the most northerly of the three proposed connections, may, I think, be left out of consideration. A gradient of 1 in 46 is anticipated for a length of 14 miles; the country traversed on the Mysore side of the Western Ghâts is reported to be hilly and sparsely populated and the total length of the connection is 130 miles, exceeding that of the other two routes. The Charmadi ghât would appear to necessitate a ruling gradient of 1 in 61 in the Ainur valley, but as the country in this valley is very severe, it is probable that the steep grade would have to be combined with sharp curvature, and undoubtedly the cost of construction would be great. The length of the whole line is, however, 110 miles, or 15 miles shorter than the Siradi, and 20 miles shorter than the Samshe route, and it would, moreover, serve a populous and well cultivated country. The Siradi route would connect Mangalore with Arsikere, a station on the Bangalore-Hubli line, 103 miles from Bangalore. The length of the connection is 125 miles, of which about 60 miles would be in South Canara. This alignment would descend the ghâts down the Kemphole valley which is about 18 miles in length and is stated to be the longest of any valley in the ghâts bounding South Canara. It is estimated that the 1,134 feet from the foot to the top of the ghâts can be ascended with a gradient of 1 in 84, which, though far better than that obtainable on the other routes, is very severe when it is considered that the length of the grade will be 18 miles. Careful examination may perhaps enable a reduction to be made in the grade as presumably the length of the valley has been measured on the straight. This route will pass through Hassan to which place it is understood the Mysore Government contemplate constructing a line from Mysore. Mangalore would thus be placed in railway communication with Bangalore *via* Mysore. The Mysore Government has also project for a chord line from Seringapatam to Kadur, which would probably pass through Hassan.

2. The project now put forward, it will be observed, would not give Cannanore and Tellicherry nearer railway communication than is now afforded by the Madras Railway at Calicut, and as far as can be gathered from the records of this office, the present is the first memorial urging the priority of Mangalore for railway connection.

It was apparently the original intention of the Government of India to construct a West Coast line which would run from Cape Comorin to Kurrachee, but this scheme seems to have been given up long ago in favour of the limited lengths from Calicut to Mangalore and from Pattambi to Cochin. In memorials received during the last nine years it is represented that trade requirements would be more efficiently met by connection between Mysore and the West Coast direct across the ghâts than by the construction of a coast line from Calicut to Mangalore. In memorials where a West Coast port has been named, Tellicherry has been given (*vide* G.O., No. 1449 R., dated 15th December 1883, and the accompaniments to His Excellency Lord Connemara's note on his 7th tour). Government in reply to these petitions has generally stated that unless it could be shown that the line would prove sufficiently remunerative to attract private capital, there was little hope of its being made. The first scheme for a line to Mangalore was advanced in February of the present year when Sir R. Lethbridge, Chairman of the Mysore Goldfields Railway Company, proposed to construct a line from the Mysore frontier near Tarikeri to Mangalore. This scheme is at present in abeyance pending further communication from Sir R. Lethbridge.

3. Before any definite reply can be sent to the present memorial, it will be necessary to consider the whole question of the most suitable railway facilities for Tellicherry, Cannanore and Mangalore. The first question for decision is whether a coast line from Calicut to Mangalore should be adopted in preference to a line running from the coast inland across the ghâts. In this connection the Collector of South Canara considers that, while a coast line would probably pay well, the railway advocated in the present memorial would prove much more beneficial and would have better financial prospects than the coast line. In respect to goods traffic, there is every probability that this opinion is correct, but as regards passenger traffic, it is questionable whether a railway connecting such large towns as Mangalore, Cannanore, Tellicherry and Calicut would not prove the more remunerative. The commercial community are in favour of a line across the ghâts to join the Mysore system and from the reasons advanced in the present and previous petitions it would appear that on the whole such a line is to be preferred to a West Coast railway.

4. In the case of a line to the interior being determined on, it will be necessary to decide which port is to be the sea terminus, and the selection is beset with considerable difficulty. Tellicherry by reason of its proximity to Cannanore and Badagara, which are large centres of population, has strong claims to consideration. Mangalore in consequence of its central position between Marmagoa and Calicut, its present isolation from railway facilities, is apparently well suited for the sea terminus of the proposed railway. A very complete investigation into the financial prospects both as regards passenger and goods traffic of the proposed lines running into the ports of Tellicherry and Mangalore would appear to be necessary to enable a satisfactory decision to be arrived at.

5. It would also be well to obtain a rough estimate of the capital cost, and feasibility of construction of the various connections, including the coast line. These factors will of course enter largely into any decision, and as it is evident that railway facilities must eventually be afforded to these ports, I would recommend that reconnaissances be made of the Calicut-Mangalore coast line, of the Seradi route of the Mangalore-Arsikera project, and of a line from Tellicherry to Mysore. It would seem expedient to obtain the opinions of the Mysore Government, the Marine Department and the Board of Revenue on the various points in which they are interested. The cost of the proposed reconnaissances should not exceed Rs. 25 per mile and as about 365 miles would have to be traversed, the outlay involved on the investigation of the question would amount to Rs. 9,125. From the data thus obtained it should be possible to arrive at a satisfactory decision, when if funds permit, a final survey and estimate of the selected line should be made. Of this amount, if the Mysore Durbar is willing to bear the cost of the reconnaissance or survey of the portion within its territory, as it is believed it would do, about 240 miles would come within British territory and Rs. 6,000 would be necessary for the reconnaissance. For convenience of reference a précis is subjoined of the various projects that have been mooted in connection with West Coast railway communications.

Précis of correspondence on the subject of routes proposed for the connection by railway of the West Coast ports and of the latter with Mysore, Coorg and the Wynaad.

G.O., No. 2396, dated 20th September 1871.

Para. 29 of Consulting Engineer for Railways No. 216, dated 16th July 1869.

The Government of India have recommended extensions north and south of the South-west line of the Madras Railway from Beypore to Cannanore and the Pattambi Cochin branch so as to provide an unbroken chain of railway communication along the West Coast of India from Cape Comorin to Karwar and eventually to Bombay and Kurrachee. The Consulting Engineer for Railways, Madras, considered such a scheme would provide a most important and useful means of communication along the entire western seaboard but that as far as the Madras Presidency was concerned all its immediate and pressing wants were provided for by the construction of the Beypore-Cannanore extension and the Pattambi-Cochin branch. Lord Napier in his Minute on the question favored the construction of the Beypore-Cannanore section on the metre gauge. The Honorable J. D. Sim of the Madras Government in his Minute considered that the Calicut-Cannanore section should be deferred until its feasibility and the cost of water communication by means of the backwaters were ascertained. He did not see the advantage of connecting the two places by a coast line and held that communications between the interior and the coast were far more needed.

G.O., No. 1557 W., dated 3rd July 1880.

A petition was forwarded by the Honorary Secretary, Wynaad Planters' Association, for the construction of a harbour at Beypore and the extension of the railway from that port to Mysore *via* the Wynaad. The Local Government considered the proposed line would be costly and would injuriously affect the traffic of the Madras Railway. The Government of India decided that the line was for the present not practicable.

G.O., No. 570 R., dated 1st September 1881.

A similar proposal to the foregoing was put forward through the Secretary of State by Messrs. Burchell. The Local Government did not favour the scheme, but the Government of India was not disposed to discourage the proposal. The Secretary of State declined, however, to grant the concessions asked for, but promised to give necessary facilities for making the survey. This the promoters decided to avail themselves of and stated that arrangements were being made to send out an efficient survey staff.

G.O., No. 1416 W., dated 6th June 1882.

The question of the roads in the Wynaad was taken up and special reports were submitted. In the report of Mr. G. Anderson, District Engineer, Malabar Local Fund Department, a proposal was made to construct a light narrow gauge $2\frac{1}{2}$ feet railway between Calicut and the North and South-East Wynaad *via* the Tâmracheri ghât. The line was to enter the plateau at Lackadi 35 miles from Calicut and pass through the following places:—Karandur, Tâmracheri, Poodoopady, Achoor Terriote and Manantoddy. The Tâmracheri ghât is 8 miles in length and the average grade is $\frac{1}{8}$ Abt's or Riggerbach's system was proposed. The Consulting Engineer for Railways did not favour the proposal and Government generally concurred in his views, but stated that if the Mysore Government would construct the portion in its territories to the frontier near Tippakadu, they would seriously consider the project.

G.O., No. 65 R., dated 18th January 1883.

This Government Order contains a report by the Consulting Engineer for Railways on new railway extensions in the Madras Presidency. With reference to the Calicut to Wynaad and Mysore project, the Consulting Engineer for Railways was

doubtful whether the previous proposals of 1881 (Messrs. Burchell's) would give the best railway communication to Wynad. He considered the works would be too costly and the traffic too light to yield a remunerative return. He suggested an alternative route by extension of the Mysore Railway to Gúdaldú. The distance from Gúdahír to the Mysore frontier is 12 miles and from Calicut 90 to 120 miles according to the route selected.

G.O., No. 1449 R., dated 15th December 1883.

This Government Order deals with a letter from the Malabar Chamber of Commerce and Coorg Planters' Association for the construction of a line connecting Mysore with the West Coast *via* Coorg. A copy of this letter was also presented to His Excellency the Governor at Tellicherry when he was on tour in 1888.

Acting on the information that there was a prospect of the Mysore State Railway being continued to Coorg, the petitioners urged the construction of a line from the Malabar coast to join the extension to Coorg. The alignment recommended was from Mysore along the Cauvery valley through the bamboo coffee district to the western boundary of South Coorg and thence to Tellicherry. The petitioners understood that the line could be carried down the ghát with comparatively easy grades and at moderate cost; also that the Indian agent of a syndicate prepared to find the capital and undertake construction had been in communication with the Coorg authorities and that there would be no difficulty in getting a company to undertake the work. Statistics of trade and reasons in support of the proposed line were given by the petitioners. Government ruled that owing to heavy outlay on famine protective lines, and the absence of official intimation from the Mysore Government regarding the Coorg extension, no hope could be held out for the project being entertained unless it could be proved sufficiently remunerative to attract private capital.

Sir T. C. Hope's notes on the conference held at Calicut on 16th November 1883.

As regards lines from Calicut through the Wynad and from Tellicherry through Coorg to Mysore, the Mysore Government was not likely to give financial aid till their northern connection with the Southern Mahratta Railway were finished and that no connections between the Mysore frontier and the coast were likely to be practicable unless the routes were better known and surveyed and unless ample proof could be given that they would be sufficiently remunerative to attract private capital.

Appendix to the note by His Excellency Lord Connemara on his 7th tour, 15th November 1888.

Address of the Municipal Councillors of Tellicherry.

In para. 5 it was stated that the extension to Cannanore and the connection of Mysore with the West Coast would be hailed with delight.

Address of the European and Native representatives of the commercial enterprise of North Malabar.

The contemplated extension of the Madras Railway to Tellicherry was referred to as being welcome and commanding an extensive passenger traffic, but it was stated that, from a commercial point of view such a line would be of small value and would not increase the trade of the port of Tellicherry. It was requested that His Excellency would support an extension of the Southern Mahratta Railway through Coorg to Tellicherry in preference to the coast line. The petitioners thought that the line would not be so difficult as the West of India Portuguese Railway. The contemplated extension of the Madras Railway was referred to with gladness.

Address of the Councillors of the Municipality of Cannanore. The contemplated extension of the Madras Railway was referred to with gladness.

Address of representatives of the inhabitants of the South Canara district. The want of a railway to connect the district with Coorg and Mysore was stated to be keenly felt. It was pointed out that the line would attract all the export trade of West Mysore and Coorg.

His Excellency's replies to these petitions were to the effect that there was little chance of the lines being made unless they could be proved remunerative. The commercial address from North Malabar was communicated to the Government of Bombay who, while recognizing the local value of the railway, considered that there were others of prior importance.

G.O., No. 467, dated 7th June 1888.

The Agent and Manager, Madras Railway, submitted, at the direction of his Board, proposals for the construction and working of extensions in the territory regarded as coming within the sphere of that railway. He proposed to submit estimates for the Suramangalam-Dindigul and Polláchi-Pálghat lines and on it being decided which gauge should be adopted for these lines, he would suggest the alignment of the Tellicherry extension which he considered formed part of the same system. In the note by His Excellency the Commander-in-Chief on this subject, he considered that the Tellicherry extension should be on the broad gauge. In the above order, Government authorised the Agent and Manager to arrange for the examination of the country between Calicut and Cannanore conditionally on sanction to the outlay being obtained before the survey was undertaken, the extension to be on the broad gauge.

In writing to the Government of India the Local Government remarked that the extension of the Madras Railway to Cannanore was recommended to the Government of India in 1868 and now that the expensive portion to Calicut was made, the arguments in favour of its further extension appeared to His Excellency the Governor in Council to possess greater force. The Government of India in reply said that *prima facie* a line along the sea coast which would compete with sea-carriage seemed out of place.

In February 1892 Sir R. Lethbridge, the Chairman of the Mysore Goldfields Railway Company (Limited), submitted a proposal on behalf of his company to construct a line from the Mysore frontier near Tarikeri to Mangalore. He stated that the company had reason to believe that the gháts could be negotiated without any great engineering difficulties. The matter is in abeyance pending further communication from Sir R. Lethbridge.

The Dewan of Mysore in a note, dated 12th May 1891, stated that the Durbar contemplated a line from Mysore City to Kadur or Banavar on the Bangalore-Harihar line passing through Yedatore, Holé-Narsipúr, Hassan and near Chickmagalur. This railway if made would influence the route of a line from Mangalore to Mysore.

The practicability of connecting Coorg and Mysore with the West Coast by a railway from Seringapatam to Tellicherry was reported on by Mr. G. Perram, Executive Engineer, Coorg. The most suitable pass is stated to be down the Tycoonda river. The ghát line would start about $2\frac{1}{2}$ miles south-west of Ponnampet at an elevation of 2,502 feet, run parallel to the Kongana stream for 3 miles with a grade of $\frac{1}{8}$ to the junction of the Kackalta at the head of the Tycoonda, level 2,307 feet. Thence the line could be carried down the Tycoonda valley at a grade of $\frac{1}{58}$ to the boundary of the Kiggatnad valley, a distance of 8 miles 6 furlongs—level 1,553 feet. From this point until the line enters the Kundra valley is 6 miles, with a grade of $\frac{1}{55}$; the railway then runs up the Kundra valley and along the Tycoonda valley to Trutty, distance $10\frac{1}{2}$ miles, gradient $\frac{1}{45}$. The length of the ghát section is 28 miles 2 furlongs. This line would, it is stated, be of very great advantage to Coorg. The route *via* the Bisle ghát is not recommended.

Submitted for the consideration and orders of Government.

Extract of a report by Mr. G. J. FERRAM, M.L.C.B., Executive Engineer, Coorg, on the practicability of connecting Coorg and Mysore with the Western Coast by a railway passing from Seringapatam in the Mysore State through Coorg and thence down the Ghâts to Tellicherry and Malabar, dated 23rd March 1892, No. 69.

7. The most suitable pass for a railway line down the Western Ghâts from Coorg to the West Coast will be down the Iycoonda river in the Kiggatnad taluk, the railway going to the port of Tellicherry. This line of railway could be taken eastward either to Siddapur or near to it, passing near Fraserpet on to Seringapatam. I have been down the Iycoonda river and forward two maps showing the line I would propose; the red figures show the levels as taken by an aneroid barometer.

8. The ghât line would start at A (on the map—scale 2 inches to a mile), about $2\frac{1}{2}$ miles south-west of Ponnampet; this, although close to the Kongana stream draining to the West Coast, is on the ridge dividing the drainage of the Lutchmantteert draining to the East Coast from that of the West Coast; the level at A is 2,502.

9. The proposed line of railway is shown by a dotted red line; starting from A it would run parallel to the Kongana stream for a length of 3 miles with a gradient of 53 feet per mile or 1 in 99 up to B, where the Kongana and Kackatta streams meeting form the head of the Iycoonda river. The level of this point is 2,307; taking the level of the railway line at 2,340 this may be considered the level of the head of the ghât, the fall of the Kongana stream is 45 feet per mile, while from B the Iycoonda river descends with a fall of 247 feet per mile.

10. The levels show that the side slopes of the gorge draining down to the Iycoonda river are on an average only 1 vertical to 3 horizontal on the left side, but in many places the slope is much steeper than this. On the right side of the Iycoonda river the slope of the ground is steeper and in one place on the right side there is a nearly vertical fall of not less than 400 feet into the river.

11. The line of railway could be carried down the Iycoonda valley with a gradient of 90 feet per mile or 1 in $58\frac{1}{2}$; up to the boundary of the Kiggatnad taluk the length would be 8 miles and 6 furlongs and the rail level would be 1,553 at the boundary.

12. From this point until the line enters the valley of the Kundra stream the distance is 6 miles with a fall of 90 feet per mile, the fall will be 540 and the rail level 1,013.

13. The railway will then run up the Kundra valley and along the Iycoonda river to Irutty; the level at this place may be taken as 175, the length is 10 miles 4 furlongs and the fall 80 feet per mile.

14. The total length of the line from the ridge dividing the drainages of the Eastern and Western Coasts will be 28 miles 2 furlongs; the level at the top is 2,502 and at Irutty at the bottom 175 above mean sea-level; the fall will be 2,327 feet as against a fall of 2,754 feet in the case of Bisle ghât.

15. The average fall will be 82 feet per mile or 1 in 64 and the maximum gradient would be 90 feet per mile or 1 in $58\frac{1}{2}$; the length of the ghât line of railway will be 28 miles 2 furlongs.

16. The side cutting, where the railway runs down the valley of the Iycoonda river, will be heavy, but the cutting will generally be in gravelly soil and not in rock; special arrangements will have to be made to prevent slips.

17. The railway, if carried down the Iycoonda valley to Tellicherry, will be of very great advantage to Coorg and will immensely add to the prosperity of the country; a railway down the Bisle ghât would be of little service to Coorg.

ORDER—dated 20th August 1892, No. 2043 R., Public Works.

The Government is not in favour of a coast line and does not consider a reconnaissance for such necessary at present. What is required first of all is to establish railway communication between the interior and the coast and the point to be decided is the best mode of accomplishing this.

2. Various routes have been suggested and His Excellency the Governor in Council considers it desirable that a reconnaissance should be made for the following:—

Mangalore *via* the Sirâdi ghât to Hassan and thence to join the Southern Mahratta Railway.
Mangalore to Mysore.
Tellicherry to Mysore.
Cannanore to Mysore.

3. A portion of each of these routes lies in Mysore territory and the Government of His Highness the Maharaja will be asked in the Political Department to co-operate with this Government in the matter. Expenses should, it is considered, be divided in proportion to the mileage in British and in Mysore territory and probably the Mysore Government would be able to provide for the purpose of the reconnaissance a staff acquainted more or less with much of the country to be traversed.

4. A copy of these Proceedings will be forwarded for the information of the Government of India.

(Here enter No. 2044 R., Public Works, dated 20th August 1892.)

(True Extract.)

(Signed) W. H. COAKER, Lieut.-Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Examiner, Guaranteed Railway Accounts.
" Examiner, Public Works Accounts.
" Political Department.
" Financial Department.
" Collector, South Canara.

ENDORSEMENT—dated 20th August 1892, No. 2044 R., Public Works.

Forwarded.

(By Order.)

(Signed) W. H. COAKER, Lieut.-Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. A. D. Xavier.
Spare Copies

RAILWAY.

Govt. of (1892) Madras.
PUBLIC WORKS.

Dated August, 20th.

Recd.

Encl.

G.O., 20th Aug. 1892, Nos. 2043,
2044 R.

AUGUST.

**Railway Extension
to the Western Coast**

Forwarding to the Government of India
copy of Proceedings issuing instructions for
making a reconnaissance for —.

916
2043
9

BOARD OF REVENUE (REV. SETT., L. RDS. AND AGRI.), 10TH MAR. 1893, No. 92.

**PROCEEDINGS OF THE BOARD OF REVENUE
(REVENUE SETTLEMENT, LAND RECORDS AND AGRICULTURE).**

Read—the following G.O., dated 8th March 1893, No. 632 W., Public Works:—

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 22nd December 1892, Mis. No. 9653:—

Resolution—dated 22nd December 1892, Mis. No. 9653.

Hitherto under G.O., dated 1st November 1888, No. 754 (Board's Proceedings, dated 3rd December 1888, No. 679), the road traffic on each of the roads taken up for the purpose has been registered for a period of one year only. According to the wishes of the Government of India, road traffic is in future to be registered for a number of years so as to ascertain the average capacities of the tracts concerned—*vide* Board's Proceedings, dated 9th February 1891, No. 71, and the Board's suggestion that it will suffice to register traffic for 3 years on principal trade routes has apparently been approved.

2. The expenditure has to be limited to Rs. 8,000 per annum (*vide* order in Board's Proceedings, dated 20th March 1891, No. 153); this will allow of 26 stations being maintained from year to year.

3. The roads to be taken up for periodical registration from 1st April next are to be selected in communication with the Department of Public Works, and the Board resolves to forward the enclosed statement embodying its proposals to the Chief Engineer for favour of early remarks. It is believed that the routes proposed provide for all the projected lines of rail and, as far as possible, for the other chief routes on which it is advisable to collect statistics. When three years' figures are available for each of these stations, other lines of road may be taken up. Thus, if the routes now proposed be taken up, Pottangi and Rayagada stations will be complete in 1893-94 and 19 stations in 1894-95.

4. As soon as the Board is informed of the Chief Engineer's opinions in the matter, Collectors will be requested to make the necessary arrangements for organizing the stations.

(A true Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Chief Engineer, with statement and spare copies of
Board's Proceedings quoted.

Copy to the Secretary to Government, Revenue Department.

Read—endorsement thereon by the Chief Engineer for Irrigation, dated 10th January 1893, No. 3.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 25th January 1893, Mis. No. 463:—

Read—the following G.O., dated 18th January 1893, Mis. No. 164, Revenue:—

Read—Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 22nd December 1892, Mis. No. 9653.

Order—dated 18th January 1893, Mis. No. 164, Revenue.

Recorded pending further report.

(True Extract.)

(Signed) R. C. C. CARR,

Under Secretary to Government.

To the Commissioner of Revenue Settlement and Director
of the Department of Land Records and Agriculture.

Resolution—dated 25th January 1893, Mis. No. 463.

Recorded.

2. The Chief Engineer is requested to favour the Board with an early reply to Board's Proceedings, dated 22nd December 1892, Mis. No. 9653.

(A true Copy and Extract.)

(Signed) P. RAJARATNA MUDALIAR,

Secretary.

To the Chief Engineer.

Read—endorsement thereon by the Chief Engineer for Irrigation, dated 27th January 1893, No. 17.

Read—the following memorandum from the Consulting Engineer for Railways, dated 22nd February 1893, No. 105:—

With reference to Public Works Department endorsements, No. 213-C, dated 18th January 1893, and No. 442-C, dated 1st February 1893, and in continuation of this office memorandum, dated 4th February 1893, No. 59, the undersigned has the honour to append below the reports received from the several Railway administrations in this Presidency on Proceedings of the Board of Revenue, dated 22nd December 1892, Mis. No. 9653.

2. The Agent, South Indian Railway, has no suggestions or modifications to offer regarding the routes proposed for the registration of traffic.

3. The Secretary and Agent, Nilgiri Railway, is of opinion that, in view of a possible extension of that railway eastwards to join the South Indian Railway at Erode and westwards to join the Southern Mahratta Railway at Gudalur or perhaps a little northward of that place, it might prove useful if statistics of traffic could be collected (1), on any trunk road running through the country between Mettupalaiyam and Erode, (2) on the roads converging on Gudalur, i.e., the Tambrachéri and Carcoor ghâts and the roads from Sultan's Battery and Mysore. He considers that if such extensions could be carried out, a connecting link would be formed between the two great metre gauge systems of this Presidency and a through route would be secured from Tuticorin to Poona.

4. The Agent and Manager, Madras Railway, suggests that the traffic on the roads between Shoranûr and Trichur and between Calicut and Tellicherry should also be registered.

5. With the modifications suggested in the foregoing paragraphs, the undersigned considers that the routes proposed by the Board are suitable.

Order—dated 8th March 1893, No. 632 W., Public Works.

The Consulting Engineer's memorandum will be communicated to the Board of Revenue with reference to its Resolution, dated 22nd December 1892, Mis. No. 9653.

2. The Government is of opinion that the proposal in paragraph 4 of the memorandum is reasonable, but that those in paragraph 3 are premature. The statistics collected would probably be obsolete before a prospect of taking in hand the lines in question arises.

(A true Extract.)

(Signed) O. V. BODDY, Major R.E.,
Under Secy. to Govt., P.W.D.

To the Board of Revenue, with statement.

Resolution—dated 10th March 1893, No. 92.

Communicated to the Collectors concerned for information and guidance. The necessary arrangements should be made for commencing registration of the road traffic at the stations selected from the 1st April.

2. In order to provide for the registration of traffic on the two routes suggested in paragraph 4 of the memorandum of the Consulting Engineer for Railways, it will be necessary to abandon two of the stations originally proposed by the Board. The two which the Board considers may be abandoned with the least detriment are—

21. Badvel, registering traffic between Nellore and Cuddapah.

22. Dâchepalle, registering traffic between Kistna and Hyderabad.

In lieu of these the Collector of Malabar will be requested to select stations and arrange for the registration of traffic—

(a) Between Shoranûr and Trichur.

(b) Between Calicut and Tellicherry (by road).

These stations will be numbered Nos. 9 and 12 respectively on the list for the year 1893-94.

3. The Collector of South Canara will select the three stations, Nos. 14-16, for the registration of traffic on the routes ordered to be surveyed under G.O., dated 20th August 1892, No. 2043 R., Public Works Department.

4. The Collectors of Ganjam, Vizagapatam, Nellore, Salem, Coimbatore, Trichinopoly, Madura, Tinnevely, Malabar and South Canara will be requested to submit proposals for the establishments required for the several stations in their districts together with an estimate of the cost for sheds and contingencies.

(True Copies and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To Collectors concerned.

„ the Secretary to Government, Revenue Department.

Copy to the Secretary to Government, Public Works Department.

„ „ other Collectors.

Exd. J. Moses,

APPENDIX.

STATEMENT showing the roads selected for registration of traffic, 1893-94.

BOARD OF REVENUE (REV. SETT., L. RDS. AND AGRI.), 10TH MAR. 1893, No. 92.

Route.	Stations suggested.	Traffic that may be registered at stations.	Years.	Direction of traffic.	Long distance traffic.*		
					Merchandise.	Animals.	Passengers.
I. Tinnervelly-Trivandrum.	1. Tenkasi	Between Tinnervelly and Tenkasi ..	1893-90	From Tinnervelly ..	1,03,276	687	77,553
	2. Panakudi	Do. do. do. ..	Do.	To Tinnervelly ..	261,866	1,621	76,325
				From Ambasamudram ..	87,847	471	77,491
				To Ambasamudram ..	143,220	583	76,367
				From Tinnervelly to Trivandrum ..	232,204	12,791	131,927
				" Trivandrum to Tinnervelly ..	691,771	1,869	136,568
				" Ambasamudram to Trivandrum ..	4,090	69	105,973
				" Trivandrum to Ambasamudram ..	14,328	1,280	10,207
II. Madura-Ramnad ..	3. Mana Madura ..	Between Madura and Ramnad ..	1888-89	Madura	100,057	1,032	74,045
				To Madura	65,763	1,032	79,610
				From Mana Madura ..	17,153	475	28,054
				To Mana Madura ..	21,383	1,612	28,005
III. Dinidigal to Pollachi.	4. Palni	Between Ramnad and Sivaganga and northwards. Pollachi and Coimbatore towards Madura and <i>vice versa</i> .	Do.				
IV. Karur and Trichinopoly to Pollachi.	5. Dharpuram ..	Between Pollachi and Karur ..	1892-93	From Pollachi to Karur ..	70,080	3,653	8,208
V. Coimbatore Malabar.	6. Pollachi ..	Between Coimbatore and Madura ..	Do.	" Karur to Pollachi ..	52,234	138	9,664
		Between Pollachi and Karur ..		Pollachi to Dharpuram ..	26,720	2,736	3,196
		Between Pollachi and Karur ..		" Dharpuram to Pollachi ..	29,960	15,232	6,928
		Between Pollachi and Karur ..		Pollachi to Udumalpet ..	277,168	3,737	23,477
		Between Pollachi and Karur ..		Udumalpet to Pollachi ..	170,252	12,184	25,061
		Between Pollachi and Karur ..		Pollachi to Trichur ..	169,388	3,656	42,438
		Between Pollachi and Karur ..		Trichur to Pollachi ..	119,928	181	41,698
		Between Pollachi and Karur ..		Tirur to Cochin ..	120,131	93	8,285
		Between Pollachi and Karur ..		Cochin to Tirur ..	46,726	132	5,923
VI. Malabar-Cochin ..	7. Mangalam ..	Between Malabar and Cochin by canal.	Do.				
VII. Calicut-Wynaad ..	8. Chetivai ..	Between Shornur and Trichur ..	1892-93	From Calicut to Vayitri ..	44,396	98	22,194
		Between Calicut and Wynaad ..		Vayitri to Calicut ..	46,195	46	26,699
VIII. Calicut-South Canara.	9. To be selected ..	Between Calicut and South Canara by canal.	Do.	" Badagara to Calicut ..	93,511	..	16,146
		Between Calicut and South Canara by canal.		" Calicut to Badagara ..	93,039	284	18,982
IX. Cannanore-Coorg ..	10. Malaparamba ..	Between Cannanore and Tellicherry (by road).	1888-89	From Cannanore ..	79,581	4	24,371
X. Mangalore, Coorg and Mysore.	11. Payoli lock ..	The traffic on the routes for which surveys have been ordered in G.O., dated 20th August 1892, No. 2043 B. Public Works.	Do.	To Cannanore ..	85,793	1,960	22,895
	12. To be selected ..						
	13. Muttanur ..						
	14 to 16. Three stations to be selected by Collector, South Canara.						

* Traffic shown for 1892-93 is for 7 months only.

BOARD OF REVENUE (REV. SETT., L. RDS. AND AGRI.), 10TH MAR 1893, No. 92. 5

Statement showing the roads selected for registration of traffic, 1893-94—cont.

Route.	Stations suggested.	Traffic that may be registered at stations.	Years.	Direction of traffic.	Long distance traffic.*		
					Merchandise.	Animals.	Passengers.
XI. Trichinopoly-Salem.	17. Namakal	Between Salem and Karur ..	1892-93	From Salem to Namakal ..	1,47,489	2,238	4,925
		Between Trichinopoly and Trichinopoly.		Namakal to Salem ..	52,403	409	4,305
				Trichinopoly to Namakal ..	19,176	146	1,999
				Namakal to Trichinopoly ..	30,466	69	1,645
				Trichinopoly to Namakal ..	111,031	716	1,163
				Namakal Trichinopoly ..	37,674	4,843	3,816
				Karur to Namakal ..	49,031	244	3,803
				Namakal to Karur ..	41,849	1,043	1,926
XII. Trichinopoly and Salem.	18. Near Parambalar ..	Between Ariyalur and Salem ..	1892-93	From Ariyalur to Salem ..	153,967	904	23,482
		Do. Trichinopoly and Salem.		" Ariyalur to Salem ..	69,791	495	34,766
				Trichinopoly to Ariyalur ..	33,362	89	22,794
				Ariyalur to Trichinopoly ..	84,633	1,243	22,232
XIII. Salem-South Arcot.	19. Atur	Between Salem and Viddicholam.	1889-90	From Salem to Atur ..	115,978	10,767	83,971
		Do. Salem and Parambalar.	Do.	Atur to Trichinopoly ..	253,914	2,924	83,193
		Do. Namagripet and Atur.	Do.	From Salem ..	9,653	960	10,383
				To Salem ..	21,351	318	19,392
				From Namagripet ..	19,367	5,667	27,612
				To Namagripet ..	9,704	491	28,752
				From Namagripet to Salem ..	134,805	112,117	9,017
				Salem to Namagripet ..	102,832	61	8,340
				From Namagripet to Salem ..	137,595	117,118	10,498
				Salem to Namagripet ..	42,903	63	9,602
				Namagripet to Salem ..	57,220	177	6,370
				Kalahasti to Namagripet ..	65,897	29	6,350
				Namagripet to Kalahasti ..	68,005	..	3,973
				Venkatagiri to Namagripet ..	15,463	172	2,946
XIV. Madras-Guntur ..	20. Nayadupet ..	Three stations on the Great Trunk Road from Madras to Guntur through Nellore to register north and south traffic at each place. At Nayadupet, cross traffic with Kalahasti and Venkatagiri may be recorded; at Kaval, cross traffic towards and from Udayagiri, and at Ongole between Kottapattam and Polli and Cumbum.	1891-92				
	21. Kaval						
	22. Ongole						
XV. Vizagapatam-Jeypore.	23. Pottangi	Between Vizagapatam and Jeypore.	1890-91	From Guntur to Nellore ..	93,780	170	12,877
				Nellore to Guntur ..	22,993	..	12,911
				Ongole to Cumbum ..	34,133	..	10,909
				Cumbum to Ongole ..	283,226	..	11,066
				From Salem to Korapatti ..	301,193	..	..
				Korapatti to Salem ..	63,865	..	..
				Korapatti to Korapatti ..	10,450	..	..
				Korapatti to Pachipatti ..	97,988	..	..
				Turner's ghat to Korapatti ..	153,264	..	..
				Korapatti to Turner's ghat ..	..	..	..

* Traffic shown for 1892-93 is for seven months only.

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Statement showing the roads selected for registration of traffic, 1893-94 - cont.

Route.	Stations suggested.	Traffic that may be registered at stations.	Years.	Traffic registered in the periods noted in column 4.				Long distance traffic.*			
				Direction of traffic.				Merchandise.	Animals.	Passengers.	
1	2	3	4	5	6	7	8	9	10	11	12
XVI. Vindhyachal- Central Provinces.	24. Bagesha ..	...	1891-92	From Koraipatti to Pachipatti ..	63,827	..	..	..	..	..	..
			1891-92	" Koraipatti to Pachipatti ..	27,363	..	..	..	..	..	..
			1891-92	" Pachipatti to Koraipatti ..	828,925	..	..	..	..	..	..
			1891-92	" Koraipatti to Pachipatti ..	169,639	..	..	..	..	..	..
XVII. Ganjam-Central Provinces.	25. Ganpur ..	...	1891-92	From Koraipatti to Pachipatti ..	110,152	..	..	..	..	..	..
			1891-92	" Pachipatti to Koraipatti ..	64,458	..	..	..	..	..	..
			1891-92	" Koraipatti to Pachipatti ..	163,077	..	..	..	..	..	..
			1891-92	" Pachipatti to Koraipatti ..	66,171	..	..	..	..	..	..
XVIII. Ganjam-Central Provinces.	26. Kalingiya ..	...	1891-92	From Koraipatti to Pachipatti ..	219,970	..	..	..	..	..	..
			1891-92	" Pachipatti to Koraipatti ..	64,668	..	..	..	..	..	..
			1891-92	" Koraipatti to Pachipatti ..	46,319	..	..	..	..	..	..
			1891-92	" Pachipatti to Koraipatti ..	104,214	..	..	..	..	..	..
XIX. Ganjam-Central Provinces.	27. Kalingiya ..	...	1891-92	From Koraipatti to Pachipatti ..	134,397	..	..	..	..	..	..
			1891-92	" Pachipatti to Koraipatti ..	36,870	..	..	..	..	..	..
			1891-92	" Koraipatti to Pachipatti ..	41,576	..	..	..	..	..	..
			1891-92	" Pachipatti to Koraipatti ..	64,638	..	..	..	..	..	..
XX. Ganjam-Central Provinces.	28. Kalingiya ..	...	1891-92	From Koraipatti to Pachipatti ..	28,425	..	..	..	..	..	..
			1891-92	" Pachipatti to Koraipatti ..	97,265	..	..	..	..	..	..
			1891-92	" Koraipatti to Pachipatti ..	..	..	..	..	..	..	..
			1891-92	" Pachipatti to Koraipatti ..	..	..	..	..	..	..	..

* Traffic shown for 1891-92 is for seven months only.

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REVENUE DEPARTMENT.

1893.

Board of Revenue

(Revenue Settlement, Land Records
and Agriculture),

MADRAS.

9/6 W.S. 18 April 1893.

*Comd to the C.E.
for Railways.*

15d/1 G. I. W.

Printed March 10th.

Proceedings, 10th March 1893, No. 92.

Communicating to the Collectors concerned,
with instructions, Government Order, Public
Works Department, on proposals for road traffic
registration for 1893-94.

*C.E. for Rys
C.E. for Insp.*

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8TH MARCH 1893, No. 632 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers:—

Proceedings of the Board of Revenue (Revenue Settlement, Land Records and
Agriculture), dated 22nd December 1892, Mis. No. 9653.

Resolution—dated 22nd December 1892, Mis. No. 9653.

Hitherto under G.O., No. 754, dated 1st November 1888 (Board's Proceedings,
No. 679, dated 3rd December 1888), the road traffic on each of the roads taken up
for the purpose has been registered for a period of one year only. According to the
wishes of the Government of India, road traffic is in future to be registered for a
number of years so as to ascertain the average capacities of the tracts concerned
(vide Board's Proceedings, No. 71, dated 9th February 1891), and the Board's sugges-
tion that it will suffice to register traffic for three years on principal trade routes has
apparently been approved.

2. The expenditure has to be limited to Rs. 8,000 per annum (vide order in
Board's Proceedings, No. 153, dated 20th March 1891); this will allow of 26 stations
being maintained from year to year.

3. The roads to be taken up for periodical registration from 1st April next are
to be selected in communication with the Department of Public Works, and the
Board resolves to forward the enclosed statement embodying its proposals to the
Chief Engineer for favour of early remarks. It is believed that the routes proposed
provide for all the projected lines of rail and, as far as possible, for the other chief
routes on which it is advisable to collect statistics. When three years' figures are
available for each of these stations, other lines of road may be taken up. Thus,
if the routes now proposed be taken up, Pattangi and Rayagada stations will be
complete in 1893-94 and 19 stations in 1894-95.

4. As soon as the Board is informed of the Chief Engineer's opinions in the
matter, Collectors will be requested to make the necessary arrangements for organising
the stations.

(A true Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

Endorsement thereon by the Chief Engineer for Irrigation, dated 10th Jan. 1893, No. 3.
Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture),
dated 25th January 1893, Mis. No. 463.

Endorsement thereon by the Chief Engineer for Irrigation, dated 27th Jan. 1893, No. 17.

8TH MARCH 1893, No. 632 W., PUBLIC WORKS.

Memo. No. 105.

With reference to Public Works Department endorsements No. 213 C.,* dated

* Herewith returned.

18th January 1893, and No. 442 C.,* dated 1st February 1893, and in continuation of this office memorandum No. 59, dated 4th February 1893, the undersigned has the honour to append below the reports received from the several Railway administrations in this Presidency on Proceedings of the Board of Revenue, Mis. No. 9653, dated 22nd December 1892.

2. The Agent, South Indian Railway, has no suggestions or modifications to offer regarding the routes proposed for the registration of traffic.

3. The Secretary and Agent, Nilgiri Railway, is of opinion that, in view of a possible extension of that railway eastwards to join the South Indian Railway at Erode and westwards to join the Southern Mahratta Railway at Gúdalúr or perhaps a little northward of that place, it might prove useful if statistics of traffic could be collected (1) on any trunk road running through the country between Mettupálaiyam and Erode, (2) on the roads converging on Gúdalúr, i.e., the Támbrachéri and Carcoor gháts and the roads from Sultan's Battery and Mysore. He considers that if such extensions could be carried out a connecting link would be formed between the two great metre gauge systems of this Presidency and a through route would be secured from Tuticorin to Poona.

4. The Agent and Manager, Madras Railway, suggests that the traffic on the roads between Shóranúr and Trichur and between Calicut and Tellicherry should also be registered.

5. With the modifications suggested in the foregoing paragraphs, the undersigned considers that the routes proposed by the Board are suitable.

MADRAS,

22nd February 1893.

(Signed)

W. V. CONSTABLE, Major, R.E.,
Offg. Consulting Engineer for Railways.

To the Joint Secretary to Government,
Public Works Department, Railway Branch.

ORDER—dated 8th March 1893, No. 632 W., Public Works.

The Consulting Engineer's memorandum will be communicated to the Board of Revenue with reference to its Resolution, Mis. No. 9653, dated 22nd December 1892.

2. The Government is of opinion that the proposal in para. 4 of the memorandum is reasonable, but that those in para. 3 are premature. The statistics collected would probably be obsolete before a prospect of taking in hand the lines in question arises.

(True Extract.)

(Signed)

G. T. WALCH,
Ag. Secretary to Govt., P.W.D.

To the Board of Revenue, with statement.
" Consulting Engineer for Railways.
" Chief Engineer for Irrigation.
" Revenue Department.

Exd. A. D. Xavier.

Spare Copies.

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BUILDINGS AND ROADS.
CIVIL WORKS.

Gobt. of {1893} Madras.
PUBLIC WORKS.

Dated March, 8th.

Recd.

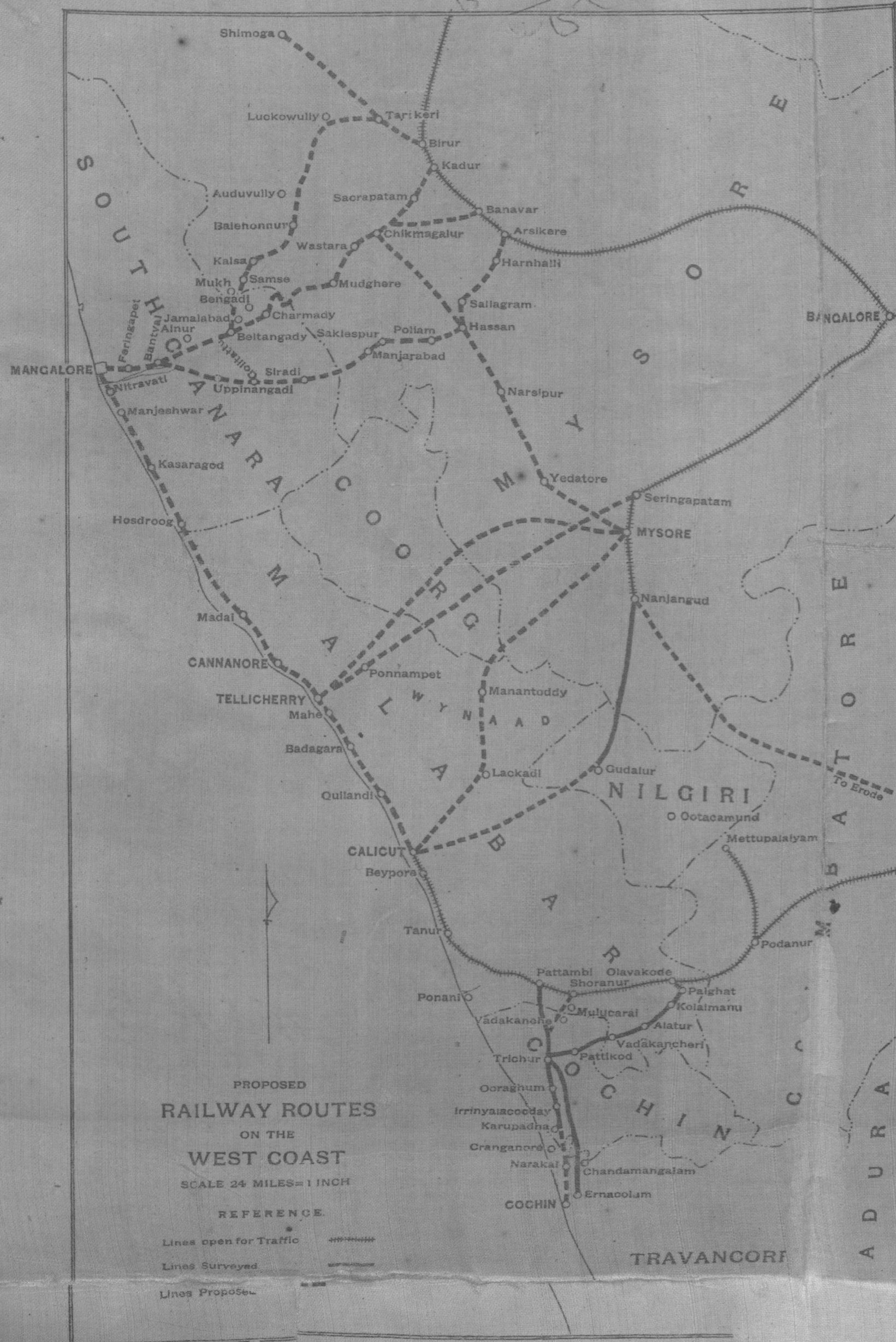
Encl.

G.O., 8th March 1893, No. 632 W.

MARCH.

Registration of Road Traffic

Memorandum by the Consulting Engineer
for Railways appending reports from the
several Railway administrations in this
Presidency on proposals for the periodical—
from 1st April 1893, communicated to the
Board of Revenue with remarks.



PROCEEDINGS OF THE BOARD OF REVENUE
(REVENUE SETTLEMENT, LAND RECORDS AND AGRICULTURE).

READ—the following G.O., dated 8th March 1893, No. 632 W., Public Works:—

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 22nd December 1892, Mis. No. 9653:—

Resolution—dated 22nd December 1892, Mis. No. 9653.

Hitherto under G.O., dated 1st November 1888, No. 754 (Board's Proceedings, dated 3rd December 1888, No. 679), the road traffic on each of the roads taken up for the purpose has been registered for a period of one year only. According to the wishes of the Government of India, road traffic is in future to be registered for a number of years so as to ascertain the average capacities of the tracts concerned—*vide* Board's Proceedings, dated 9th February 1891, No. 71, and the Board's suggestion that it will suffice to register traffic for 3 years on principal trade routes has apparently been approved.

2. The expenditure has to be limited to Rs. 8,000 per annum (*vide* order in Board's Proceedings, dated 20th March 1891, No. 153); this will allow of 26 stations being maintained from year to year.

3. The roads to be taken up for periodical registration from 1st April next are to be selected in communication with the Department of Public Works, and the Board resolves to forward the enclosed statement embodying its proposals to the Chief Engineer for favour of early remarks. It is believed that the routes proposed provide for all the projected lines of rail and, as far as possible, for the other chief routes on which it is advisable to collect statistics. When three years' figures are available for each of these stations, other lines of road may be taken up. Thus, if the routes now proposed be taken up, Pottangi and Rayagada stations will be complete in 1893-94 and 19 stations in 1894-95.

4. As soon as the Board is informed of the Chief Engineer's opinions in the matter, Collectors will be requested to make the necessary arrangements for organizing the stations.

(A true Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Chief Engineer, with statement and spare copies of
Board's Proceedings quoted.

Copy to the Secretary to Government, Revenue Department.

Read—endorsement thereon by the Chief Engineer for Irrigation, dated 10th January 1893, No. 3.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 25th January 1893, Mis. No. 463:—

Read—the following G.O., dated 18th January 1893, Mis. No. 164, Revenue:—

Read—Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 22nd December 1892, Mis. No. 9653.

Order—dated 18th January 1893, Mis. No. 164, Revenue.

Recorded pending further report.

(True Extract.)

(Signed) R. C. C. CARR,

Under Secretary to Government.

To the Commissioner of Revenue Settlement and Director
of the Department of Land Records and Agriculture.

Resolution—dated 25th January 1893, Mis. No. 463.

Recorded.

2. The Chief Engineer is requested to favour the Board with an early reply to Board's Proceedings, dated 22nd December 1892, Mis. No. 9653.

(A true Copy and Extract.)

(Signed) P. RAJARATNA MUDALIAR,

Secretary.

To the Chief Engineer.

Read—endorsement thereon by the Chief Engineer for Irrigation, dated 27th January 1893, No. 17.

Read—the following memorandum from the Consulting Engineer for Railways, dated 22nd February 1893, No. 105:—

With reference to Public Works Department endorsements, No. 213-C, dated 18th January 1893, and No. 442-C, dated 1st February 1893, and in continuation of this office memorandum, dated 4th February 1893, No. 59, the undersigned has the honour to append below the reports received from the several Railway administrations in this Presidency on Proceedings of the Board of Revenue, dated 22nd December 1892, Mis. No. 9653.

2. The Agent, South Indian Railway, has no suggestions or modifications to offer regarding the routes proposed for the registration of traffic.

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(A true Extract.)

(Signed) O. V. BODDY, Major R.E.,
Under Secy. to Govt., P.W.D.

To the Board of Revenue, with statement.

RESOLUTION—dated 10th March 1893, No. 92.

Communicated to the Collectors concerned for information and guidance. The necessary arrangements should be made for commencing registration of the road traffic at the stations selected from the 1st April.

2. In order to provide for the registration of traffic on the two routes suggested in paragraph 4 of the memorandum of the Consulting Engineer for Railways, it will be necessary to abandon two of the stations originally proposed by the Board. The two which the Board considers may be abandoned with the least detriment are—

21. Badvel, registering traffic between Nellore and Cuddapah.

22. Dáchepalle, registering traffic between Kistna and Hyderabad.

In lieu of these the Collector of Malabar will be requested to select stations and arrange for the registration of traffic—

(a) Between Shóranúr and Trichur.

(b) Between Calicut and Tellicherry (by road).

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3. The Collector of South Canara will select the three stations, Nos. 14-16, for the registration of traffic on the routes ordered to be surveyed under G.O., dated 20th August 1892, No. 2043 R., Public Works Department.

4. The Collectors of Ganjam, Vizagapatam, Nellore, Salem, Coimbatore, Trichinopoly, Madura, Tinnevely, Malabar and South Canara will be requested to submit proposals for the establishments required for the several stations in their districts together with an estimate of the cost for sheds and contingencies.

(True Copies and Extract.)

Secretary.

To Collectors concerned.

„ the Secretary to Government, Revenue Department.

Copy to the Secretary to Government, Public Works Department.

„ „ other Collectors.

Exd. J. Moses.

Statement showing the roads selected for registration of traffic, 1893-94—*cont.*

* Traffic shown for 1892-93 is for seven months only.

Statement showing the roads selected for registration of traffic, 1893-94—cont.

Route.	Stations suggested.	Traffic that may be registered at stations.	Years.	Traffic registered in the periods noted in column 4.			
				Direction of traffic.	Long distance traffic.*		
					Merchandise.	Animals.	Passengers.
1	2	3	4	5	6	7	8
Vizagapatam-Jaypur-cont.			1891-92	From Korapatti to Pachipanta .. " Pachipanta to Korapatti .. " Korapatti to Salar .. " Salar to Korapatti .. " Korapatti to Audivalasa .. " Audivalasa to Korapatti .. From Central Provinces to Parvatipur .. " Parvatipur to Central Provinces .. " Bissamkota to Parvatipur .. " Parvatipur to Bissamkota .. " Cholaipatnam to Singapuram .. " Singapuram to Cholaipatnam .. " Bissamkota to Cholaipatnam .. " Cholaipatnam to Bissamkota .. From Gunupuram to Gudali .. " Gudali to Gunupuram .. From Ganjam .. To Ganjam ..	L. Mds. 53,827 27,363 828,925 159,639 110,182 64,458 163,977 66,171 219,970 94,068 46,319 104,214 194,897 36,870 41,575 54,638 28,425 97,285	NO. .. 990 .. 1,807 .. 2,450 28 792 834 47 8 15 165 247 2 15 734	NO.
XVI. Vizagapatam-Central Provinces.	24. Rayagada ..	Between Vizagapatam and the Central Provinces.	1890-91	..	..	..	4,947
	25. Gunupur ..	..	1891-92	..	..	..	2,330
	26. Kalingiya ..	Between Ganjam and Central Provinces.	1892-93	..	..	..	13,036
XVII. Ganjam-Central Provinces.	..	..	1893-90	..	..	..	13,792

* Traffic shown for 1892-93 is for seven months only.

918
192043
192043
19

P. W. CURRENT No. 2866

REVENUE DEPARTMENT.

1893.

Board of Revenue

(Revenue Settlement, Land Records
and Agriculture),

MADRAS.

No 916. W.d/8 April 1893.

*Communicated
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Communicating to the Collectors concerned,
with instructions, Government Order, Public
Works Department, on proposals for road traffic
Registration for 1893-94.

J. C. 11/4