(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 2218 & 2219. Press / Mis.

566-567-568.

Dated 23-7- 1867.

Not to be folded or roughly handled

No. 566. Read the following letter from the Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 11th July 1867, No. 199 :—

1. In communicating a copy of G. O. No. 1,800, dated 15th June 1867, to the Agent and Manager Madras Railway, and in requesting him to state, for the information of the Government of India, whether any additional works of importance are considered likely to be required until the limit of the traffic for which a single line will suffice shall have been reached, I explained that some difficulty would doubtless be experienced in fixing any precise limits for the extension of some of the most important stations, and of those especially where the number of staff employed, and consequently the accommodation for establishment, are likely to go on increasing as the traffic increases. I also pointed out that the same remark would apply to Goods sheds, Engine sheds, Locomotive Workshops, Sidings, and various works of a less important character; but that I anticipated that the Heads of Departments would be able to specify, with tolerable confidence, the particular stations at which any considerable additional works are likely to be required, and that the Agent and Manager would have it in his power to assure the Government of India that at three-fourths of the total number of stations, no large works of any kind would be called for.

2. I have now the honour to forward the Agent's reply, together with reports from the Chief Engineer, Locomotive Superintendent, and Traffic Manager, explaining, to the best of their ability, the additions that are still required to the existing works, to enable the line to carry all traffic that is likely to spring up, so far as the wants of prospective traffic can be foreseen.

3. The Acting Chief Engineer considers the line itself to be efficient. He does not contemplate any additions to the bridges; but although the water-way allowed is generally sufficient and indeed liberal, it is probable that further experience will show that here and there additional bridges will have to be inserted to render the line perfectly secure from floods. On the North-West Line especially, which traverses a country extensively irrigated by tanks, I am satisfied that some additional works, though not of a costly character, will sooner or later have to be provided.

4. The Kuddlehundy bridge, near Beypore, was originally constructed of timber as a temporary arrangement. An iron girder and pile bridge is now being erected in its place, and in consequence of the unexpected depth to which the piles have to be sunk, the estimate will have to be revised.

5. I may remark that all the larger class of bridges that have recently been constructed, or are in process of construction on the North-West Line, have masonry or iron piers, and iron girders as supports for the road-way, and that they are likely to prove as durable as they are substantial.

6. As regards the requirements of the Traffic Department, I would remark with reference to the last paragraph of the Traffic Manager's letter, that the number of Stations amounts to forty-six on the South-West Line, five on the Bangalore Branch, and fifteen on the open portion of the North-West Line, and that the number of meeting stations is less than half the total number. The traffic at present is not above one-third, and in some sections not one-fourth of the quantity

which the single line of Railway is capable of accommodating. As traffic increases, the additional meeting stations, which will come into operation, will of course necessitate additional sidings, and double in lieu of single platforms, also extra water columns and piping.

7. The other additions likely to be required in the Traffic Department are confined to important stations, viz.:—

Madras Salt Cotaur or Goods Terminus.
Arconum Junction.
Arcot.
Vellore.
Jollarpett Junction.
Bangalore.
Salem.
Errode.
Coimbatore.

Additional goods sheds, or enlargement of the present sheds, at six of these stations; extra siding accommodation and several bungalows for Guards' Barracks comprise nearly all that is necessary.

8. The demands of the Locomotive Department are on a larger scale. The Locomotive Superintendent has entered so fully in all the additions that he is likely to require that I need not re-capitulate them. The present requirements have been judiciously described separately from future requirements; and it will be observed that the former are confined to Madras, Perambore Workshops, Jollarpett, Errode, and Somanoor. The future requirements, excepting at Madras and Perambore, are for the most part for additional accommodation to establishments.

9. The proposal of the Locomotive Superintendent to establish an auxiliary workshop at Bangalore, has been made after mature consideration, and after a prolonged experience of the effects of the climate of Perambore on the health and energy of the European workmen. As the Locomotive Superintendent observes, much of the manual labour required in fitting up the engines must be done by the latter, and, apart from considerations of humanity, it must be the interest of the Railway Company to save them from any unnecessary fatigue and prostration.

10. I would strongly recommend the proposed arrangements, which are fully approved of by the Agent of the Company and other members of the Stores Committee, for the sanction of Government.

From the Agent and Manager of the Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 2nd July 1867, No. 228.

1. Adverting to your letter of the 18th ultimo, No. 139, and to Order of Government, No. 1,800, dated the 15th ultimo, communicating copy of a letter from the Government of India, I have the honour to enclose the replies received from the Acting Chief Engineer, Locomotive Superintendent, and Traffic Manager, setting forth our probable requirements in the shape of additional works at stations, to provide for the efficient working of the present and prospective traffic.

2. The subject was so fully discussed at our last Stores Committee Meeting, and the reports furnish such detailed information, that I do not deem it necessary to offer further comment.

From the Acting Chief Engineer, to the Agent and Manager, Madras Railway Company, dated Madras, 2nd June 1867, No. 323.

1. Consulting Engineer's letter No 139 of the 18th instant.

2. If any additional works are rquired on the open line, they will be for the Traffic and Locomotive Departments.

3. I believe that you have already communicated with Messrs. Church and Wright upon this subject, and I have received (or are about to receive) their replies.

4. As far as this department is concerned, there will not, I think, be any additional works to Capital. The water-way on the line appears to be sufficient, and our house accommodation for Engineers, Inspectors, and subordinate employé is ample.

5. A revised estimate will have to be submitted for the south channel of the Kuddlehoondy, consequent upon the alteration of the original design by a substitution of cylinders for piles.

From the Locomotive Superintendent, to the Agent and Manager, Madras Railway Company, dated Perambore Works, 20th June 1867, No 107.

With reference to the Consulting Engineer's letter to your address of the 18th instant, No. 139, forwarding copy of Proceedings of the Madras Governmen , dated 15th idem, and of an Order thereon of the same date, No. 1,800, I beg to forward you, in general terms, the probable requirements of this department on the open portion of the line, so far as I am able to judge of them at present.

SOUTH-WEST LINE.

1 Madras.—Additional engine-shed, accommodation, and extra water storage.

The engine-shed should afford increased accommodation for, say, eight extra engines and tenders, and should be about 150 feet long × 40 feet wide.

The extra water storage would consist of a tank elevated about 20 feet above rail level, of sufficient size to contain 20,000 gallons of water, and should be connected by piping both to the present tank and the proposed new engine-house.

2. I understand that in connexion with the removal of the Traffic Department to the new Passenger Station at the Salt Cotaur, it is contemplated (although not decided) to transfer the running engines and locomotive arrangements, which are now at Royapooram, to Perambore Works, in which case the additions I now mention as probable requirements for Madras will, of course, not be wanted, but somewhat extensive arrangements and additions will have to be made at, or in close proximity with, these works.

3 Perambore Works.—It is difficult to fix a limit to the additions which the extension of the line and the increased development and consequent requirements of the traffic may necessitate; but there is every probability of a considerable outlay on extra buildings being required, for some of which I am at present preparing plans. Those which are immediately wanted are as follows:—

Present requirements actually wanted.

I. A shed in which to erect the steam hammers. (To a plan to be furnished.)

II. Furnace and boiler for do. do.

III. A new smithy (the present smithy to be converted into a boiler shop).

The new smithy to be a simple open shed on cast-iron pillars with iron rafters and corrugated zinc, or iron roof 150 feet long × 40 feet wide.

IV. An iron store 60 feet long × 40 feet wide.

V. An engine-house for containing engine for driving fan-blast and for pumping water.

VI. A boiler house with tank above to hold 30,000 gallons.

VII. Piping to connect this with the the main pipe from the western tank-house.

VIII. A brass foundry and a copper-smith's shop in one block 80 feet long × 25 feet wide.

IX. A weighing-house, in which to erect the weigh-bridge for adjusting the weights on wheels of locomotive engines.

X. All that portion of the yard to the west and south of the office and stores to be ballasted up to the present level of the shops.

XI. Six thousand feet of railway to be laid in for storage of wheels and vehicles, &c.

Future probable requirements.

I. An extension of the erecting shop by carrying it back to such extent as may be found necessary, the building to be of the same width as at present, but without provision for overhead lifting apparatus, by which arrangement the roof of the extension may be made several feet lower level than the existing shed.

II. A moulder's shop and foundry.

III. Increased shed room for stores.

IV. Additional ballasting and railway lines.

4. JOLLARPETT.—Further house accommodation will be required at this station.

The engine drivers' and firemens' barracks are already overcrowded; we shall require two good sized two-roomed bungalows, as follows :—

Present requirements actually wanted.

I. One good sized two-roomed bungalow in close proximity to the present drivers' barracks, with the necessary out-houses, for use of drivers

II. A similar bungalow and out-houses in close proximity to the firemens' barracks, for use of firemen.

Future probable requirements.

Further house accommodation, probably,

I. Two workmen's houses (second class).

II. Four do. do. (third class).

III. A carriage shed, the present engine and carriage shed both being filled with engines.

5. SALEM.—Nil.

Present requirements actually wanted.

6. ERODE.—Extra accommodation required for the Great Southern of India Railway only.

Future probable requirements.

These will be dependent upon the effect of the Junction with the Great Southern of India Railway upon the traffic, and upon the mode in which it may be decided to work in conjunction with that Company; but under existing and proposed arrangements, no further accommodation appears to me to be necessary for this Department at Erode Station.

Present requirements actually wanted.

7. SOMANOOR.—A permanent water tank to hold 5,000 gallons, and permanent watering arrangements in lieu of the present temporary tank, &c.

Future probable requirements.

Nil.

Present requirements.

8. COIMBATORE.—Nil.

Future probable requirements.

Extra house accommodation for workmen and others.

9. PALGHAUT.—Nil.

10. BEYPORE.—Nil.

BANGALORE BRANCH.

Present requirements.

11. BANGALORE.—Nil.

Future probable requirements.

This would, in my opinion, be the most suitable station on the line for the establishment of an auxiliary workshop, as it is questionable if, when the line and its extensions are open throughout and in full work, we can execute the whole of the repairs at Perambore. Some classes of work cannot be performed without subjecting the men to excessive heat, especially such work as wheel tiring, heavy smiths' work, and boiler work, but this work must of necessity be done, and much of it must be done here, where the temperature is always high. Bangalore offers advantages which no place on the line possesses, for the undermentioned reasons :—

1stly.—Its temperature is much lower than that of any other station on the line, and in such a climate workmen (more especially Europeans) can do much more work than at other stations with less fatigue and exhaustion.

2ndly.—Native labour is plentiful and cheap.

3rdly.—From the proximity of the station to the quarter of the town where the European Pensioners reside, a plentiful supply of European and East Indian labour is obtainable at low rates.

4thly.—The establishment of a workshop at Bangalore would enable the workmen from other parts of the line to be changed periodically, and answer in fact as a sanitarium, whilst men who frequently have to go away or stop away from their work from ill-health, would probably be able to continue at work if such a change was available.

5thly.—Bangalore being a large town, and the line running into it, there would be no necessity to provide house accommodation for the bulk of the workmen.

12. I think that viewing these advantages it would be worth while establishing a workshop at Bangalore. In the first instance, as an experiment, we should require very little more accommodation than we now have, excepting perhaps a carriage shed, which is, I believe, already sanctioned.

13. I have gone somewhat fully into the reasons why I consider Bangalore to be the most suitable place for a workshop, because I think it highly probable that we shall eventually require a supplemental establishment to that at Perambore, and in no place on the open line, except perhaps Madras and Bangalore, is sufficient labour of the kind we require procurable.

14. We have great difficulty in getting Native workmen both at Coimbatore and Jollarapett, and have to give a considerable increase of wages to induce men to go to those stations.

15. Jollarapett was originally suggested by Mr. Bruce, our first Chief Engineer, as the position for our central workshops, but subsequent experience has shown that place is not only unfavourable as regards climate, but that local labour is not obtainable.

16. The above-mentioned requirements comprise, I believe, all additions likely to be necessary for the open portion of the South-West Line.

17. There will probably be additional water columns and piping required here and there at roadside stations, which may, as traffic increases, become meeting stations, but no great outlay need be anticipated on this account.

NORTH-WEST LINE.

Present requirements.

18. ARCONUM.—Nil.

Future probable requirements.

I cannot well estimate what these are likely to be, but when the North-West Line is opened throughout, it is probable that we may require increased accommodation both for engines and men.

Present requirements.

19. TIRUPETTY.—Nil.

Future probable requirements.

This station has proved so unhealthy, and the men stationed here have suffered so much from fever, that I have removed the head-quarters from thence to Arconum, so that we have at present ample accommodation for the staff and engines stationed at Tripetty. I do not think any further outlay will be necessary at this station.

Present requirements actually wanted.

20. CUDDAPAH.—Two extra workmen's houses already applied for.

Future probable requirements.

Extra house accommodation, and possibly more shed-room for engines. Shear legs for lifting engines.

Roadside Stations.

21. It is probable that extra water columns and piping may be required at small stations in cases where they are made meeting stations.

From the Traffic Manager, to the Agent and Manager, dated Madras, 2nd July 1867, No. 191.

With reference to the Consulting Engineer's letter No. 139, dated 18th June, and to a conversation that took place at the Stores Committee on the 25th idem, the following are some of the additional works likely to be required as the traffic increases.

MADRAS SALT COTAUR.—A goods shed of the same dimensions as that lately sanctioned and now under construction, with the necessary lines of rails and turn-tables.

ARCONUM JUNCTION.—1. One or two bungalows for Guards' Barracks.

2. Siding accommodation.

ARCOT.—A covered way over the loading platform, in lieu of an extension of present goods shed.

VELLORE.—An extension of the present goods shed, or a covered way over the loading platform.

JOLLARPETT JUNCTION.—1. A goods shed 100 feet long.

2. Siding accommodation.

3. One or two bungalows for Guards' Barracks.

BANGALORE.—1. If this station is to be continued as a terminal station, a goods shed of the same size as the present one, with the necessary lines of rails and turn-tables.

2. One or two bungalows for Guards' Barracks.

SALEM.—1. An extension of the present goods shed.

2. Siding accommodation.

3. One or two bungalows for Guards' Barracks.

ERODE.—Siding accommodation.

COIMBATORE.—Same as at Salem.

No estimate can be formed of the number of additional sidings and passenger platforms likely to be required at meeting stations, but sooner or later double platforms at all stations between Madras and Bangalore will probably be required as with an increased number of trains running, more complete arrangements at meeting stations will be necessary to ensure regularity of working.

Proceedings of the Madras Government, Public Works Department,
23rd July 1867.

No. 567. ORDER THEREON, 23rd July 1867, No. 2,218.

RAILWAY, No. 41.

Ordered that these papers be communicated to the Government of India :—

(Here enter No. 2,219, dated 23rd July 1867.)

(True Extract.)

Major, R. E.,

Under Secretary to Government.

Exd S. T. Augustin.

4

PUBLIC WORKS DEPARTMENT,
FORT SAINT GEORGE,
23rd July 1867.

No. 2,219.

No. 568.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

SIR,

RAILWAY, No. 42.

1. I have the honour to acknowledge the receipt of your letter of the 27th May 1867, No. 429 R, in which you inquire whether, beyond the works detailed in the Schedule which accompanied my letter of the 17th April last, No. 1,203, there are any additional works of importance likely to be required on the Madras Railway until the limit of the traffic for which a single line will suffice shall have been reached.

From the Consulting Engineer for Railways, No. 199, dated 11th July 1867.
From the Agent and Manager, No. 223, dated 2nd July 1867.
From the Acting Chief Engineer, No. 323, dated 26th June 1867.
From the Traffic Manager, No. 191, dated 2nd July 1867.
From the Locomotive Superintendent, No. 107, dated 20th June 1867.

2. In reply, I am to forward copies of the papers marginally noted, which contain the opinions of the Consulting Engineer and the Officers of the Madras Railway Company on the additions that are required to existing works, to enable the line as a single one, so far as can at present be foreseen, to carry all the traffic that may hereafter arise.

I have the honour to be,
Sir,
Your most obedient servant,

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

Exd. S. T. Augustin.

Madras Railway Company
Loco. Superintendent's Office
Perambore Works
20th June 1867.

No. 107.

Dear Sir,

With reference to the Consulting Engineer's letter to your address of the 18th Instant, No 1391, forwarding copy of Proceedings of the Madras Government dated 15th idem, and of an Order thereon of the same date, No 1800, I beg to forward you in general terms the probable requirements of this Department on the open portion of the Line, so far as I am able to judge of them at present.

South West Line

1. Madras. Additional Engine Shed accommodation and extra water Storeage.

The Engine Shed should afford increased accommodation for, say, 8 extra Engines and Tenders, and should be about 150 feet long x 40 feet wide.

The Extra Water Storeage would consist of a Tank elevated about 20 feet above Rail level, of sufficient size to contain 20000 gallons of water, and should be connected by piping both to the present Tank and the proposed new Engine House.

2. I understand that in connexion with the Removal of the Traffic Department to the new Passenger Station at the Salt Gate, it is contemplated (although not decided) to transfer the running Engines and Locomotive arrangements which are now at Royapooram, to Perambore Works,

and

in which case the additions I now mention as probable requirements for Madras will of course not be wanted, but somewhat extensive arrangements and additions will have to be made at, or in close proximity with, these Works.

3. Perambore Works. It is difficult to fix or limit to the additions which the extension of the Line and the increased development and consequent requirements of the Traffic may necessitate; but there is every probability of a considerable outlay on extra buildings being required, for some of which I am at present preparing plans. Those which are immediately wanted are as follows:

I. A Shed in which to erect the Steam Hammers. (To a plan to be furnished) } Present requirements actually wanted.

II. Furnace and Boilers for do. do

III. A new Smithy - (the present Smithy to be converted into a Boiler Shop.) The new Smithy to be a simple open Shed on cast-iron pillars with iron rafters and corrugated Zinc or iron roof 150 feet long X 40 feet wide.

IV. A new Store 60 feet long X 40 feet wide.

V. A new Engine House for containing Engine for driving Fan - blast and for pumping water.

VI. A Boiler House with Tank above to hold 30000 Gallons.

VII. Piping to connect this with the main pipe from the Western Tank House.

Future probable requirements -

VIII. A Brass Foundry and a Copper-Smiths' Shop in one block 80 feet long x 25 feet wide.

IX. A Weighing House in which to erect the Weigh-bridge for adjusting the weights on Wheels of Locomotive Engines.

X. All that portion of the Yard to the West and South of the Office and Stores to be ballasted up to the present level of the Shops.

XI. 6000 Feet of railway to be laid in for Storage of Wheels and Vehicles &c.

I. An extension of the Erecting Shop by carrying it back to such extent as may be found necessary - the building to be of the same width as at present, but without provision for overhead lifting apparatus, by which arrangement the roof of the extension may be made several feet lower level than the existing Shed.

II. A Moulders' Shop and Foundry.

III. Increased Shed Room for Stores.

IV. Additional Ballasting and Railway Lines.

4. Jollarpett. Further House accommodation will be required at this Station. The Engine Drivers' and Firemen's Barracks are already overcrowded; we shall require two good sized two-roomed Bungalows, as follows.

1 one

I. One good Sized 2 roomed Bungalow in close proximity to the present Drivers' Barracks, with the necessary out-houses, for use of Drivers. — Present requirements actually wanted.

II. A similar Bungalow and Out-houses in close proximity to the Firemen's Barracks, for use of Firemen.

Further House accommodation, probably. — Future probable requirements.

I Two Workmen's Houses (2nd Class)
II Four ——— do ——— do ——— 3rd (Class)
III A Carriage Shed, the present Engine and Carriage Shed both being filled with Engines.

5. Salem. Nil.

6. Erode. Extra accommodation required for the Great Southern of India Railway only. — Present requirements actually wanted.

There will be dependent upon the effect of the Junction with the Great Southern of India Railway upon the Traffic and upon the mode in which it may be decided to work in conjunction with that Company; but under existing and proposed arrangements, no further accommodation appears to me to be necessary for this Department at Erode Station. — Future probable requirements.

7. Somanoor. A permanent Water Tank to hold 5000 gallons, and permanent watering arrangements in lieu of the present temporary Tank &c. — Present requirements actually wanted.

Nil.

8. Coimbatore. — Future probable requirements.

Nil — Present requirements.

Future probable requirements — Extra House accommodation for Workmen and others.

9. Palghaut Nil 15

10 Beypoor Nil

Bangalore Branch.

11 Bangalore

Present Requirements — Nil.

Future probable requirements — This would, in my opinion, be the most suitable Station on the Line for the establishment of an auxiliary Workshop, as it is questionable if, when the Line and its extensions are open throughout and in full work, we can execute the whole of the repairs at Perambore. Some classes of work cannot be performed without subjecting the men to excessive heat, especially such work as Wheel Tyering, heavy Smiths' work and Boiler work, but this work must of necessity be done, and much of it must be done here, where the temperature is always high. Bangalore offers advantages which no place on the Line possesses, for the undermentioned reasons.

1st Its temperature is much lower than that of any other Station on the Line, and in such a climate Workmen (more especially Europeans) can do much more work than on other Stations with less fatigue and exhaustion.

2ndly Native labor is plentiful and cheap.

3dly From the proximity of the Station to the quarter of the Town where the European Pensioners reside, a plentiful supply of European and East Indian labor is obtainable at low rates:

4thly The establishment of a Workshop at Bangalore would enable the Workmen from other parts of the Line to be changed periodically, and answer in fact as a Sanatarium, whilst men who frequently have to go away or stop away from their work from ill-health, would probably be able to continue at work if such a change was available.

5. 5thly. Bangalore being a large Town and the Line running into it, there would be no necessity to provide House accommodation for the bulk of the workmen.

12. I think that viewing these advantages it would be worth while establishing a Workshop at Bangalore. In the first instance, as an experiment, we should require very little more accommodation than we now have, excepting perhaps a Carriage Shed; which is, I believe, already sanctioned.

13. I have gone somewhat fully into the reasons why I consider Bangalore to be the most suitable place for a Workshop, because I think it highly probable that we shall eventually require a supplemental establishment to that at Perambore, and in no place

on the open Line, except perhaps Chadarghat and Bangalore, is sufficient labor of the kind we require procurable

14. We have great difficulty in getting native workmen both at Coimbatore and Jollarapett, and have to give a considerable increase of wages to induce men to go to those stations.

15. Jollarapett was originally suggested by Mr. Bruce, our first Locomotive Engineer as the position for our Central Workshops but subsequent experience has shown that place is not only unfavorable as regards climate, but that local labor is not obtainable.

16. The above-mentioned requirements comprise, I believe, all additions likely to be necessary for the open portion of the South West Line.

17. There will probably be additional Water Columns and Piping required here and there at Road-side Stations, which may, as Traffic increases, become meeting Stations, but no great outlay need be anticipated on this account.

North West Line.

18. Arconum.

Present Requirements. Nil

Future probable Requirements. I cannot well estimate what these are likely to be, but when the North West Line is opened throughout, it is probable that we may require increased accommodation both for Engines and

19. Tripetty.

Nil

Present requirements.

This Station has proved so unhealthy, and the men stationed here have suffered so much from fever, that I have removed the Head Quarters from thence to Oriconum, so that we have at present ample accommodation for the Staff and Engines Stationed at Tripetty. I do not think any further outlay will be necessary at this Station.

Future probable requirements

20. Muddapah.

Two extra Workmen's Houses already applied for.

Present requirements actually wanted.

Extra House accommodation, and possibly more Shed room for Engines. Sheave legs for lifting Engines.

Future probable Requirements

21. It is probable that extra Water Columns and Piping may be required at small stations in cases where they are made meeting Stations.

Road-Side Stations.

Yours faithfully,
(Sd) W. D. Wright,
Loco. Superintendent.

To
The Agent & Manager
Grand Coast

True Copy

Madras Railway
Traffic Manager's Office
Madras 2nd July 1867.

No 191.

Dear Sir,

With reference to the Consulting Engineer's letter No 139 dated 18th June, and to a conversation that took place at the Stores Committee on the 28th idem, the following are some of the additional works likely to be required as the traffic increases.

Present requirements

Madras Salt Colaba - A Goods Shed of the same dimensions as that lately sanctioned and now under construction with the necessary Lines of Rails and Turntables.

Future probable Requirements

Arconum Junction - 1. One or two Bungalows for Guards Barracks.
2. Siding accommodation

Arcot - A Covered way over the Loading Platform, in lieu of an extension of present Goods Shed.

Vellore - An extension of the present Goods Shed, or a covered way over the loading Platform.

Jollarpett Junction - 1. A Goods Shed 100 feet long.
2. Siding accommodation.
3. One or two Bungalows for Guards Barracks.

Bangalore - 1. If this Station is to be continued as a Terminal Station, a Goods Shed of the same size as the present one, with the necessary Lines of Rails and Turntables.
2. One or two Bungalows for Guards Barracks.

Salem ——— 1. An extension of the present Goods Shed

2. Siding accommodation

3. One or two Bungalows for Guards Barracks

Erode ——— Siding accommodation

Coimbatore ——— Same as at Salem.

No Estimate can be formed of the number of additional Sidings and Passenger Platforms likely to be required at Meeting Stations, but sooner or later double Platforms at all Stations between Madras and Bangalore will probably be required as with an increased number of Trains running, more complete arrangements at Meeting Stations will be necessary to ensure regularity of working.

Yours &c.
Signed A. C. Church
Traffic Manager

To

The Agent and Manager.

True Copy
R. B. Elwin
Agent and Manager

No. 228.

MADRAS RAILWAY COMPANY.

AGENT AND MANAGER'S OFFICE.

Madras, July 2nd 1867.

From R. B. Elwin Esq.
Agent and Manager of the Madras Railway Company.

To Lt. Col. I. C. Anderson R.E.
Consulting Engineer for Railways.

SIR,

Adverting to your letter of the 18th ult., No. 139, and to Order of Govt., No. 1800, dated the 15th ult.; communicating copy of a letter from the Govt. of India, I have the honor to enclose the replies received from the Acting Chief Engineer, Locomotive Superintendent, and Traffic Manager, setting forth and probable requirements in the shape of additional works at Stations, to provide for the efficient working of the present and prospective traffic.

2 ——— The subject was so fully discussed at our last Station Committee Meeting, and the reports furnish such detailed information, that I do not deem it necessary to offer further comment. I have the honor to be

Sir,
Your most obedt Servt,
R. B. Elwin
Agent and Manager

MADRAS RAILWAY.

From

The Agent and Manager.

To

The Consulting Engineer

for Railways

No W2592/63

Dated July 2nd 186 6

Recd. " 3 "

No. 228

Forwarding Copies of letters received from the Acting Ch: Engineer, Loco: Superintendent and Traffic Manager setting forth the absolute requirements of the Company in the shape of additional works at Stations to provide for the efficient working of the Inward and Outward Traffic

25

CONSULTING ENGINEER'S OFFICE,

Railway Department.

No. 199-

From Lieutenant Colonel J. C. Anderson R. E.
Consulting Engineer for Railways,

To

Colonel C. A. Ott R. E.:

Secretary to Government,
Public Works Department,
Fort Saint eorge.

SIR,

In communicating a copy of
G. O. No. 1800 dated 15th June 1867, to the Agent
and Manager Madras Railway, and requesting
him to state for the information of the
Government of India whether any additional
works of importance are considered likely to be
required until the limit of the traffic for which
a single line will suffice shall have been reached,
I explained that some difficulty would doubtless be experienced in fixing any precise limit
for the extension of some of the most important
stations, and of those especially, where the num-

of a staff employed and consequently the accommodation for establishment are likely to go on increasing, as the traffic increases. I also pointed out that the same remark would apply to goods sheds, engine sheds, Locomotive workshops, Sidings and various works of a less important character; but that I anticipated that the Heads of Departments would be able to specify with tolerable confidence the particular stations at which any considerable additional works are likely to be required, and that the Agent and Manager would have it in his power to assure the Government of India that at three fourths of the total number of stations, no large works of any kind would be called for.

2- I have now the honor to forward the Agent's reply, together with reports from the Chief Engineer, Locomotive Superintendent and Traffic Manager, explaining to the best of their ability, the additions that are still required to the existing works, to enable the Line to carry all the traffic, that is likely to spring up, so far as the wants of prospective traffic can be foreseen.

3- The Acting Chief Engineer considers the Line itself to be efficient. He does not contemplate any additions to the Bridges; but although the waterway allowed is generally sufficient and indeed liberal; it is probable that further experience will show that here and there additional Bridges will have to be inserted to render the Line perfectly secure from floods. On the North West Line especially which traverses a country extensively irrigated by Tanks, I am satisfied that some additional works, though not of a costly character, will sooner or later have to be provided.

4- The Kudulhundy Bridge near Beypoor was originally constructed of timber as a temporary arrangement. An iron girder and pile Bridge is now being erected in its place and in consequence of the unexpected depth to which the piles have to be sunk the estimate will have to be revised.

5- I may remark that all the large

class of Bridges that have recently been constructed or are in process of construction on the North West Line, have masonry or iron piers, and iron girders as supports for the roadway, and that they are likely to prove as desirable, as they are substantial.

6- As regards the requirements of the traffic Department I would remark with reference to the last para of the Traffic Managers letter. That the number of stations amounts to forty six on the South West Line; five on the Bangalore Branch and fifteen on the open portion of the North West Line, and that the number of meeting Stations is less than half the total number. The traffic at present is not above one third, and in some sections not one fourth of the quantity which the single line of Railway is capable of accommodating. As traffic increases, the additional meeting Stations which will come into operation, will of course necessitate additional sidings, and double in lieu of single platforms, also extra water columns and tanks.

7 The other additions likely to be required in the Traffic Department are confined to important stations; namely

Madras Fall Colaur or Goods Terminus
Arconum Junction
Arcot
Vellore
Jollarpett Junction
Bangalore
Salem
Erode
Coimbatore

Additional Goods sheds, or enlargement of the pres
sheds, at Six of these stations; extra siding accom
=modation and several Bungalows for Guards Barra
comprise nearly all that is necessary.

8- The demands of the Locomotive Department are on a larger scale. The Locomotive Superintendent has entered so fully into all the additions that he is likely to require that I need not recapitulate them. The present requirements have been judiciously discr separately from future requirements; and it will be observed that the former are confined to Madr

Peram

Perambore Workshops, Jollarpett, Erode and Tomanoor.
The future requirements excepting at Madras and
Perambore are for the most part for additional accom-
modation to establishments.

9- The proposal of the Locomotive Superintendent
to establish an auxiliary workshop at Bangalore, has
been made after due mature consideration, and after a
prolonged experience of the effects of the climate of
Perambore on the health and energy of the European workmen.
As the Locomotive Superintendent observes, much of the ma-
nual labor required in setting up the Engines must be
done by the latter, and apart from considerations of huma-
nity, it must be the interest of the Railway Company to
save them from any unnecessary fatigue and prostration.

I would strongly recommend the proposed
arrangements which are fully approved of by the Agent
of the Company and other members of the Stores Committee
for the sanction of Government.

I have the honor to be,
Sir
Your Most obedient Servant
J Anderson Lieut Colonel R.E.
Consulting Engr for Railways

Madras
11th July
1867

Recd 15th July 1867

C Estell

Pub. Dept. Ry. Con. No. 2219 dated 23rd July 1867.
RAILWAY DEPARTMENT.

From
The Consulting Engineer
for Railways,

To
The Secretary to Government,
Public Works Department,
Fort Saint George.

No. 2218. to 2219. 23rd July 1867.

Dated 11th July 1867.
Received 15th July 1867.

No. 199-47.

Forwarding a copy of a letter from the Agent, G.I.P. Railway, with its enclosures, relative to the additional workshops and other works required for the Railway, and requesting to be favored with the sanction of Government to carry all the works detailed in the Schedule which accompanied the letter.

Public Works Department.

No. 2218

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 23rd July 1867

Read the following

From the Consulting Engineer
for Railways

(Here enter No. 199 dated 11th July 1867)

Ordered that these
papers be communica-
ted to the Govt of India

No. 2219

To The Secretary to the
Govt of India
P.W.D.

Sir - I have the hono
to acknowledge the re
ceipt of your letter o
the 27th May 1867, N
429 R, in which you
inquire whether, beyond
the works detailed in
the Schedule which
accompanied my
letter

letter of the 17th April last, No. 1203, there are any additional works of importance likely to be required on the Madras Railway until the limit of the traffic for which a single line will suffice shall have been reached.

2nd In reply, I am to forward copies of the papers marginally noted, which contain the opinions of the Consulting Engr. and the Officers of the Madras Railway Co. on the additions that are required to existing works, (as a single one) to enable the line so far as can at present be foreseen, to carry all the traffic that may hereafter arise.

33

Fort St George
23rd July 1867

Recd 24/7/67 with copy &
Ans 2218 of 1867

From the Consulting Engr for Railways No. 199 of 11th July 1867.
From the Agent and Manager No. 228 of 2d July 1867.
From the Acting Chief Engineer No. 323 of 26th June 1867.
From the Traffic Manager No. 191 of 2nd July 1867.
From the Locomotive Supt. No. 107 of 20 June/67

P. W. 1867. Department.

Proc: of Govt for July

No. 2218 & 2219

PROCEEDINGS OF GOVERNMENT

Dated 23rd July 1867

Passing orders on certain papers relative to the additions that are required to works on the Madras Railway, to enable it as a single line, to carry all the traffic that may hereafter arise.

Furnishing the Govt of India with the above papers.

No. 566-567 & 568