Public Works (1899) Department.

RAILWAY BRANCH.

Not urgent

G.O., No. 1023 Ry
1024 R

DATED 13th Sept, 1899

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[illegible]

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[Despatch Abstract.]

Inspection Report of the East Coast Ry

Forwarding to the Govt of India, the ~~Inspectio~~ ——— for the half year Ending 30th Jun 1899, with the Senior Govt Inspectors' remarks thereon, for the issue of such orders to the Manager as ma seem to be necessary.

—

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[P. W. 26. / 1,000—11-8-99.]

Indexed.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

RAILWAY.

Government {1899} of Madras.
PUBLIC WORKS.

Recd. } 1899.
Regd.

Enclosures
Spare copies

G.O., Nos. 1023, 1024 Ry., 13th September 1899.

SEPTEMBER.

Inspection Report of the East Coast Railway

Forwarding the — for the half-year ending 30th June 1899, with the Senior Government Inspector's remarks thereon, for the issue of such orders to the Manager as may seem to be necessary.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

EAST COAST STATE RAILWAY.

STANDARD GAUGE 5' 6".

Total Mileage open for traffic including branches 803·25 miles.

Inspection Report for the half-year ending 30th June 1899.

The inspection was made between July 3rd and 8th in company with the Manager, heads of departments, district officers and their assistants.

SOUTHERN SECTION.

WASHERMENPETTAH TO KISTNA CANAL JUNCTION. Length 260 miles.

As this section has been so recently opened for traffic it is treated separately in this report.

1. *Formation.*—Banks and cuttings are generally in good order and of standard width. Some making up of bank is in progress to repair the damage caused by last north-east monsoon. Ballast walls have still to be provided in most of the cuttings. The raising of formation between miles 50 and 53 was nearly complete, and that between Ponnur and Tsunduru was finished and in good running order. Both of these places, as well as some of the high banks of soft soil south of Gudur, will give trouble during the next monsoon and require speed to be restricted over them.

2. *Ballast.*—The section from Washermenpettah to Ennur, which had only just been taken over at the date of inspection, is ballasted with sand only, and the sand road extends to mile 40. It is understood that a skin of broken stone or laterite will be laid down over the whole of this section.

From mile 40 to mile 162 the road is ballasted with broken stone or laterite in the cuttings and on the hard banks, and with stone or laterite over sand on the soft banks. From mile 162 to 190 the road is ballasted with sand only and from 190 to Kistna Canal junction with stone or stone over sand. The ballast is being gradually brought up to full section throughout and many miles already look very neat.

3. *Permanent-way.*—The running is good throughout, it is naturally best on the parts of the line from Gudur northwards which have been laid the longest, but the road is everywhere good enough for any speed at which trains are likely to run over it.

4. *Bridges and culverts.*—The superstructure of the new 3/40 bridge in mile 48 was in progress and the bridge will easily be finished before the next rains. The same remark applies to the raising of the 6/40 bridge over the Mamadi Kalava in mile 70, which is also well in hand. The anchoring of girders on this section is expected to be finished by the end of August. The provision of refuges on the piers for workmen and also of trolly refuges is in hand.

5. *Level crossings.*—Gate lodges are finished nearly everywhere, but few gates are yet erected. No posts and chains have yet been fixed at the 3rd-class crossings.

6. *Stations.*—Passenger stations, platforms, palisading and staff-quarters are now practically complete everywhere; permanent buffer-stops and scotch-blocks have yet to be provided. Work on goods-sheds is suspended until it is seen where and in what volume goods traffic will offer itself.

Goods accommodation would certainly seem to be required at the stations between Chinna Ganjam and Kistna Canal junction, as the whole length of the passenger platform has been known to be stacked with goods during the season. Time and fare tables are correctly posted everywhere.

7. *Particular stations.—Ennur.* This is still the engine changing station, but it is to be hoped that arrangements will be made to stable the East Coast engines at Rayapuram, as Ennur is inconvenient and has latterly been found unhealthy. *Gudur.* The new refreshment-room is in use. A siding has been laid for the purpose of transhipping coal direct into South Indian trucks, but the corresponding metre gauge siding has not yet been begun. A joint water scheme for the East Coast and South Indian Railways is in progress, separate tanks being provided for each railway. *Bitragunta.* A good supply of water has now been obtained from a valley to the south of the station, and the watering arrangements should be in working order in a few weeks. This will allow of the removal of the engine changing station from Nellore to Bitragunta and effect a considerable saving of time. Staff-quarters and quarters for menials are practically complete. The planting of road side trees might, with advantage, be undertaken as soon as the weather allows. *Tadapalli Transhipping Station.* This station, which is on a large scale, was quite complete at the time of the inspection, but no traffic was being dealt with, all the transhipping work being done at Bezwada, where it unduly congests the station. It is understood, however, that arrangements are in progress to transfer the tranship work to Tadapalli at once.

8. *Approach and feeder roads.*—An approach road is urgently required at *Ponneri*, but the District Board have declared themselves unable to allot the necessary funds.

At *Uluvapadu*, an approach road to the station from the village has been lock-spitted, but there is, apparently, no intention of doing anything further at present. As this station is surrounded by gardens and private property, it is to be hoped that the District Board will see their way to providing access to it at once. If they are not able to undertake a metalled road at once, to acquire and clear the land would be better than nothing at all.

At *Chinna Ganjam*, a metalled road to connect the existing road, from the salt factory to the village, with the station is urgently required, as the intervening mile of deep sand is too heavy a handicap for the salt exporters. The above are approach roads, the necessity for which is recognized, but as regards feeder roads, which are required to open up the country east and west of the line, it does not seem that any action is contemplated.

NORTHERN SECTION.

KISTNA CANAL JUNCTION TO BARANG, WITH COCANADA AND PURI BRANCHES. Length 543·25 miles.

1. *Formation.*—This is everywhere in good order and of standard width. Cuttings are well looked after and most of them have particularly neat ballast walls. Those in miles 204, 207 and 368 want the side drains cleaning out and would be the better for ballast walls. Some of the cuttings through soft stuff between Waltair and Barang might, with advantage, be turfed, as they are guttering badly. This will be found economical in the long run.

The high banks between Bezwada and the Godavari are in good order, but would be the better for grassing; those on the northern half of the line are now well turfed for the most part and should give very little more trouble.

It seems a pity, however, that when turf will grow well on a bank, it should be carefully cut off from the top of formation, as is the practice on this line at present. If allowed to grow up to the edge of the ballast, it protects the top and edge of the bank, and, when the ballast is dressed to a line, gives a very neat appearance to the road.

2. *Ballast.*—Generally speaking the line is well ballasted with 12 to 13 cubic feet of good stone ballast per foot run. The section from Bezwada to the Godavari is still rather low and requires lifting, and an increase in the ballast section. The high cotton soil banks have no doubt swallowed most of the moorum and sand with which

this length was originally ballasted, and this is now being replaced by broken stone. The banks should by this time have reached the limit of settlement, and in view of through running in the near future, an effort should be made to bring this length up to the standard of the rest of the line during the next year.

From the Godavari northwards the road is well ballasted; the best sections are Waltair to Palasa and Berhampur to Rambha, which are kept at a high standard of maintenance. Between Rajahmundry and mile 110, and between Palasa and mile 360 ballast is rather short, and the section varies a good deal in different miles. This is also the case between Rambha and Balugaon; it would be a good thing to bring these short lengths up to the uniform standard of the adjacent sections.

3. *Permanent-way.*—The running is good throughout, especially north of the Godavari, the best sections are between Waltair and mile 345 and between Palasa and mile 360. Joints are low between miles 128 and 138, between Anikapalle and Tuni, in places between Khurda road and Barang, and for a few miles out of Puri.

4. *Level crossings.*—No outside guard rails were observed anywhere, their place being taken by sleepers. South of the Godavari there are no posts and chains to third-class crossings. In mile 115 there is an abandoned level crossing, of which the approaches should be cut away to prevent carts and cattle from making use of it. Gatekeepers might be instructed to water the crossings before the passage of trains in dry weather. At present each crossing produces a cloud of dust when the train passes over it at speed. As the road throughout is singularly free from dust, it is worth while trying to keep it down at these few places.

5. *Bridges and culverts.*—Several bridges and culverts were inspected and found to be in very good order, both as regards masonry, iron work and timbering. The silicate oxide paint with which the Kistna bridge and other large bridges on the line have been painted is not a success, it has been on about four years and is already perished. The minor bridges are tarred and no blisters or other signs of rust were noticed on them, but it is not easy to be certain as to what is going on under a thick coat of tar.

6. *Stations*—Generally are well kept and platforms in good order. Between Bezwada and the Godavari, however, the station compounds have an uncared for appearance, and the platform palisading is in want of repair; this is most noticeable at Ellore and Nuzvid. At many of the stations the gardens have received a great deal of attention and look very well, but at some of the larger stations gardening has been allowed to run to excess, and the islands of flower pots and shrubs which now ornament the platform in front of the station building should be thinned out, if not removed altogether, as they form obstacles in the day time and dangers at night. The planting in the compounds and along the back line of platforms might, with advantage, be systematically carried out at all stations likely to be permanent; the shade of a well-grown tope makes an admirable third-class waiting-room in hot weather. The platform lighting arrangements are not brilliant, and at the few stations where the station name has been painted on the glass, it cannot be read owing to the want of a frosted background. This is a matter which considerably affects the comfort and convenience of native passengers and should be seen to. A simple country-made apparatus will turn out frosted strips on these glasses very cheaply. The top of the glass is the best position for the name.

Towards the southern end of the section latrines have no cemented floors and the earth under them becomes saturated with filth, those at the northern end have cemented floors, but are so small as to give practically no protection. It would be better to remove these tiny structures from unimportant stations altogether, and to make use of the materials in giving reasonable latrine accommodation at the larger stations.

At several way side stations there is a bed of ballast, about 6 inches high and 8 to 10 feet wide, laid on the passenger platform as a floor for bags and other goods awaiting removal. These form dangerous, because inconspicuous, obstacles. They should be removed and a platform of rough stones or old sleepers, protected by a lamp, might, with advantage, be substituted. This should be kept close up to the palisade where it would not obstruct the platform, and might then be as close to the station building as required.

7. *Particular stations.—Bezwada.* The bath-rooms require more light and ventilation. *Ellore.* The gathering line and turn-outs to goods lines are very uneven and require lifting and packing. Several of the loops and lay-byes at wayside stations require more attention in this respect. *Ellore flag station.* A new station is in progress at a busy level crossing in the middle of Ellore town, this will be a great convenience to the inhabitants. *Samalkota.* A new third-class waiting shed has been built at the end of the station building, and the original central waiting hall converted into refreshment-rooms. The bath-room floors are very uneven and should be cemented. The ashpit timbers require re-bedding. *Yellamanchili.* A gridiron arrangement of three open masonry drains crosses the station yard. These should be covered in, as they must be dangerous to pointsmen and shunters at night. There is a similar open drain in the station yard at Duvvada. *Ganjam.* This is a new station just completed, with an island platform made by widening out the loop, so as to give passenger and goods accommodation on the same platform. There is therefore no access to the platform except by crossing either the main line or loop, which does not seem convenient. *Khurda road.* The flooring of the verandah and station building generally is very rough and should be relaid or cemented. *Puri.* An alteration is required in the cages for the ticket collectors, at present they are not safe from pressure by a crowd. The pens for pilgrims, also, could certainly be more conveniently located. The supply of hydrants to the pens and platforms is under consideration, this should be pressed, as the only supply at present is from wells outside the station, which cannot be above suspicion. If the pilgrim traffic developes as expected, high platforms would greatly facilitate it, and should be considered in any scheme for future extensions.

8. *Locomotive watering.*—A new tank for the artesian water has just been finished at Samalkota. The boring at Cocanada port is about to be resumed, when complete this will effect a great saving in the carriage of water. A boring is also being sunk at Balugaon, and a new watering station has just been opened at Chatrapur.

9. *Locomotive department.*—Locomotive Carriage Shops at Waltair and Sitanagram are in good order and seem to be about adequate to the work in hand. The Locomotive Superintendent asks for cover for engines under repair at Sitanagram which at present have to stand in the open.

Rolling-stock—Appears to be in good order and well maintained except in the matter of paint, in which respect the third-class carriages are indeed badly off. Carriages seem to be kept clean, and no overcrowding was noticed except in the case of a pilgrim train proceeding from Barang to Puri on the eve of the great annual festival. In this case the number of pilgrims at Barang evidently largely exceeded the expectations of the Traffic Department, and the arrangements for forwarding them were certainly insufficient.

10. *Weighing mahchines* have all been tested within the last half year.

11. *Signals.* That arm of the ordinary two-armed platform signal, which on rising to the danger position has to lift the spectacle, does not go to danger by its own weight in any of the signals examined. In some cases the arm will fly to the "off" position on the signal lever being released. Extra counterweights are required for these arms. *Gradient posts* are on the opposite side of the line to the mile and telegraph posts which must be rather inconvenient for drivers.

12. *Refreshment-rooms.* The remarks in the complaint books are generally satisfactory, but the service is hardly equal to that on other lines in the neighbourhood, and now that through communication exists to Madras efforts should be made to improve it.

13. *The Godavari ferry.*—There is only one exit from the steamer to the pontoon both for passengers and luggage; this is narrow and awkward and easily blocked by the ordinary native hand baggage. If a second gangway could be arranged from the other end of the paddle box, and the shore span widened, the time lost at the ferry would be appreciably shortened.

14. *Godavari Bridge.*—This bridge was inspected on July 10th in company with the Engineer-in-Chief. Owing to the flood in the river there was very little going on, but the present condition of the work is as follows:

All wells are sunk and concreted with the exception of Nos. 7 and 8 which have still 14 feet more to sink between them, and Nos. 3 and 4 in the deep channel which are not yet begun. The superstructure of 31 piers is complete to girder bed level, and both abutments are finished.

Two spans of girders Nos. 55 and 56 are in place, at the south end of the bridge, and eleven more spans have been delivered, ready for erection as soon as work on the bridge can be resumed. The earthwork of both approaches is finished, ready to receive the ballast and permanent-way, and the finishing touches are being put to the new station at the Rajahmundry end of the bridge.

The accompanying table shows the exact state of the work on the bridge, up to June 30th :—

Height of masonry in wells.				Depth of well sinking.				Height of superstructure.			
Total.	Built in		Still to be built.	Total.	Built in		Still to be built.	Total.	Built in		Still to be built.
	1897–98.	1898–99.			1897–98.	1898–99.			1897–98.	1898–99.	
3,570	1,304	2,086	180	3,570	1,259	2,117	194	2,486	410	1,229	847

Madras,
15th August 1899.

P. Ashworth, Captain, R.E.,
Government Inspector of Railways.

Remarks by the Senior Government Inspector of Railways, Madras.

1. Arrangements are in progress for the more convenient admission of the trains of the East Coast Railway into Madras, and others are in a fair way to settlement for transhipment with the South Indian Railway. As soon as the anchoring of girders on the southern section shall have been completed, I shall be prepared to remove all speed restrictions.

2. Now that the time is nearly approaching for a demand from the public for a quick through passenger service between Madras and Calcutta, the condition of the ballasting should be systematically taken in hand and ballast on the older parts of the line brought up to full section everywhere.

3. I invite the attention of Government to the subject of feeder roads. It is most short-sighted policy for District Boards to neglect to provide the freest access to every railway station; for without such access their districts can never derive the full benefit which the railway was intended to confer on them. Once a railway passes through a district the whole policy of expenditure of money on road-making and maintenance needs thorough overhaul in order to adapt it to the revolutionised conditions. There usually, however, appears to be a sort of inertia or apathy on the part of the district officials which prevents their grasping the importance of approaching the subject from an entirely new standpoint, and they often go on for years in the old grooves spending money on roads the need for which has been greatly lessened, and neglecting others whose importance has only been brought into prominence on the advent of the railway. What I am endeavouring to urge is not that District Boards should confer benefits on the railway by making roads to its stations, but that they should by so doing enable the agriculturists and traders of the district, for whose welfare they are responsible, to avail themselves fully of the benefits of the railway.

4. I see that attention is again directed to station lighting, and to the names of stations on the platform lamps being difficult to decipher. This is a simple thing enough. There is one good way of doing it, and that way should be found out and brought into use everywhere uniformly. I wrote about this in paragraph 8 of my remarks appended to last report.

5. The Manager's attention is also invited to the Inspector's complaints about signals and about minor matters. The report generally is a good one.

16th August 1899.

(Signed) Francis J. E. Spring,
Senior Govt. Inspector of Railways, Madras.

Order—No. 1023 Ry., dated 13th September 1899.

The report will be forwarded to the Government of India for the issue of such orders to the Manager as may seem to be necessary. The Senior Government Inspector's 3rd paragraph will be considered in the Local and Municipal Department.

[Here enter No. 1024 Ry., dated 13th September 1899.]

(True Extract.)

Francis J. E. Spring,
Secretary.

To the Consulting Engineer for Railways.
„ Local and Municipal Department.
„ Manager, East Coast Railway.

Endorsement—No. 1024 Ry., dated 13th September 1899.

Forwarded.

(By order.)

Francis J. E. Spring,
Secretary.

Exd. C. M. Thumbusawmy.

EAST COAST RAILWAY.

Form No. Mgr. 25.

OFFICE OF MANAGER.

IN REPLY PLEASE REFER TO
No. 8060

Waltair, dated the 30 August 1899.

To

The Consulting Engineer,
for Railways,
Ootacamund.

CONSULTING ENGINEER FOR RAILWAYS
REC
2 SEP 99

The following copy of Telegram is forwarded for information.

A copy of the sketch map of the Railway is enclosed.

(Enclo)

30/8

Capt., R.E.
for Offg: *Manager,*
East Coast Railway.

S. D. Telegram, dated 30-8-1899.

FROM	To
MANAGER, *East Coast Railway.*	Consulting Engineer, for Railways, Ooty.

M/77- Your wire 52 C. of 28th Instant- Total mileage East Coast Railway including branches 803.25- Mileage from Washermanpattah to Kistna Canal Junction is 259.97-

----

Form No. 7.

TELEGRAM ~~URGENT~~ ~~ORDINARY~~ DEFERRED

FROM C.E. TO Manager E.C.R.

No. 47 C Please wire correct mileage ~~fr~~ of your line from Washermanpettah to Barang.

16.8.99.

Code Class. WS INDIAN TELEGRAPHS Monthly Number. 1244

To (Office) Ootacamund	From (Office) Waltair

Words.	Day.	Hour.	Minute.	Official Instructions.
26/13	17	15	30	DTO

To (Person) Consulting Engineer for Railways	From (Person) Manager E. C. Ry.

No. 72 your wire 47 C of 16th mileage from Washermanpettah to Barang is 803 decimal 25.

Form.

JOINT SECRETARY TO GOVT. OF MADRAS RYS.
RECEIVED
22 AUG. 1899

EAST COAST RAILWAY.

Form No. Mgr. 25.

OFFICE OF MANAGER.

IN REPLY PLEASE REFER TO
No. 7698

Waltair, dated the 17 16 August 1899.

To

The Consulting Engineer
for Railways,
Ootakamand.

The following copy of Telegram is forwarded for information.

T. W. Bartlett.
for Offg: *Manager,*
East Coast Railway.

17/8

S. D. Telegram, dated 17-8-99.

FROM
MANAGER,
East Coast Railway.

To Consulting Engineer
for Railways,
Ootakamand.

M/72 Your wire 47 C of 16th- Mileage from Washermenpettah to Barang is 803.25.

Filed as original was already recd & sent to D_2

22/8/99

500—26-6-97.

FORM No. 20.

TELEGRAM ~~URGENT~~
~~ORDINARY~~
DEFERRED

FROM E.R.

To The Manager
E. C. Ry

52C. Please wire correct total mileage your line including branches open for traffic also mileage Washermanpettah to Kistna Canal Junction.

28.8.99

Despd on 28/8/99

1 P

Monthly Number. 20169

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...g branches
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At [illegible] 31.8.99 [illegible]

Telegraph Master.

99

Kistna Canal

...en so recently opened for traffic it is treated separately in this report

1. Formation – Banks and cuttings are generally in good order, and of standard width – Some making up of bank is in progress to repair the damage caused by last N.E. monsoon. Ballast walls have still to be provided in most of the cuttings

Code Class. D.S. **INDIAN TELEGRAPHS.** Monthly Number. 20109

To (Office) Ootacamund
From (Office) Waltair

Words.	Day.	Hour.	Minute.	Official Instructions.
42/18	30.	13.	38	Dfd.

To (Person) Consulting Engineer for Rys Madras.

From (Person) Manager E C Ry

M. 77 your wire 92 C. of 28th instant ~~[illegible]~~ total mileage east coast railway including branches 803 decimal 25 mileage from washermanpett to Kistna canal Junction is 259 decimal 97 –

Recd. from LN. At Hrs. Mts. by

Sent to D.A.T. Public report 31-8-99 LN. At Hrs. Mts. by

[illegible] 31-8-99 [illegible]

Telegraph Master.

C G P—: 0 401 T—17 9 97—20000

OOTACAMUND 30-8-99

~~Heavy type~~ Southern Section

Heavy type – Washermanpettah to Kistna Canal Junction. Length

As this section has been so recently opened for traffic it is treated separately in this report

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1 P

D2

Indian compositors are of the coolie variety and require that the usual indentation should be given & that you write down in the [illegible] capitals, italics, &c., also Numbering of paragraphs. Please see my report of 1897 as a model.

16/8/99

East Coast State Railway.

Standard Gauge 5'6".

Total ~~length~~ mileage open for traffic including branches 803.25 miles.

Inspection report for the half-year ending 30th June 1899.

The inspection was made ~~on~~ between July 3rd ~~to~~ and 8th in company with the Manager, ~~the~~ heads of departments, district officers and their assistants.

~~Heavy type~~

Southern Section

Heavy type - **Washermanpetah to Kistna Canal Junction. Length**

As this section has been so recently opened for traffic it is treated separately.

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3. **Permanent Way** –

The running is good throughout, it is naturally best on the parts of the line from Endur northwards which have been laid the longest, but ~~it is~~ the road is everywhere good enough for any speed at which trains are likely to run over it.

4

Bridges & Culverts – The superstructure of the new 3/40 bridge in mile 48 was in progress, and the bridge will easily be finished before the next rains. The same remark ~~repl~~ applies to the raising of the 6/40 bridge over the Manadi Kalava in mile 70.

which is also well in hand.

The anchoring of girders on this section is expected to be finished by the end of August.

The provision of refuges on the piers for workmen, and also of trolly refuges is in hand.

5 Level crossings — ~~Gatelodges~~ Gate lodges are finished nearly everywhere, but few gates are yet erected. No posts and chains have yet been fixed at the 3rd class crossings.

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Goods accommodation would certainly seem to be required at the stations between Chinna Ganjam and Kistna Canal Junction; as the whole length of the passenger platform has been known to be stacked with goods, in the season.

Time and fare tables are correctly posted everywhere

7. Particular Stations.

Omit Ital

Ennur — This is still the engine changing station, but it is to be hoped that arrangements will be made to stable the East Coast Engines at Royapuram, as Ennur is inconvenient and has latterly been found unhealthy.

Gudur — The new refreshment room is in use. A siding has been laid for the purpose of ~~each~~ transhipping coal direct into South Indian trucks — but the corresponding metre gauge siding has not yet been begun. A joint water scheme for the East Coast and South Indian Railways is in progress, separate tanks being provided for each railway.

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8 Approach and feeder roads.

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At Uluvapadu. an approach
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Surrounded by gardens and

H.E. 8

private property, it is to be
hoped that the ~~ex~~ District
Board will see their way to
providing access to it, at o
If they are not able to under
take a metalled road at once,
to acquire and clear the lan
would be better than nothin
at all.

At Chinna Ganjam, a metalle
road to ~~join~~ connect the existing roa
from the salt factory to the
village with the station is
urgently required, as the
intervening mile of deep
sand is a too heavy a
handicap for the salt exporte

The above are approach roads.
the necessity for which is
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action is contemplated

Tadapalli Transhipping Station.

This station, which is on a large scale, was quite complete at the time of the inspection, but no traffic was being dealt with, all the transhipping work being done at Bezwada. ~~It is understood~~ that when it unduly congests the station. It is understood, however, that arrangements are in progress to transfer the tranship work to Tadapalli at once

This to go at end of para. 9

Northern Section.

Kistna Canal Junction to Barang – with Coconada and Puri branches.

Heavy type –

Ital

1 **Formation**. – This is everywhere in good order, and of standard width. Cuttings are well looked after and most of them have particularly neat ballast walls. Those in miles 204, 207 and 368 ~~and 207~~ want the side drains cleaning out, and would be the better for ballast walls. Some of the cuttings through soft stuff ~~northward of~~ the between Waltair and Barang, might with advantage be turfed, as they are guttering badly. This will be found economical in the long run.

The high banks between Bezwada and the Godavari are in good order, but would be the better for ~~protection~~ grassing – those on the northern half of the line are now well turfed for the mos part, and should give very little more trouble.

It seems a pity, however, that when turf will grow well on a bank it should be carefully cut off from the top of formation, as is the practice on this line at present. If allowed to grow up to the edge of the ballast it protects the top and edge of the bank, and, when the ballast is ~~neatly~~ dressed to a line, gives a very neat appearance to the road.

2

Ballast. Generally speaking the line is well ballasted with 12 to 13 cft. of good stone ballast per foot run. The section from Bezwada to the Godavari is still rather low and requires lifting, and an increase in the ballast section. The high cotton soil banks ~~on~~ ~~this length~~ have no Swallowed

most of the moorum and sand with which this length was originally ballasted and this ~~which~~ is now being replaced by broken stone. The banks should by now have reached the limit of settlement, and in view of through running in the near future, an effort should be made to bring this length up to the standard of the rest of the line during the next year.

From the Godavari northwards the road is well ballasted ~~maintained~~. the best sections are ~~between~~ Waltair ~~and~~ to Palasa, and Berhampore to Rambha. ~~in~~ which are kept at a high standard of maintenance. Between Rajahmundri & mile 110 and ~~Between~~ Palasa and mile 360 ballast is rather short, and the section varies a good deal in different miles. This is also the case ~~between~~ between Rambha and Balugaon, it would be good thing to bring these short lengths up to the uniform standard of the adjacent sections.

ermanent Way ~~and Running~~.

The running is good throughout, especially north of the Godavari, the best sections are between haltair and mile 345, and between Palasa and mile 360. Joints are low between miles 128 and ~~138~~ 138, between ~~Anikapalle~~ Anikapalle and Tuni, in places between Khurda Road and Barang, and for a few miles out of Puri.

4

evel crossings. No outside Guard rails were observed any-
here, their place being taken
sleepers. ~~Between~~ South of
e Godavari there are no posts
d chains to third class
rossings. In mile 115 there
an abandoned level crossing,
which the approaches should
cut away to prevent carts
d cattle from making use of
Gatekeepers ~~should~~ might be instructed
water the crossings before the
sage of trains in dry weather.
present each crossing produces

a cloud of dust when the train passes over it at speed. As the road throughout is singularly free from dust it is worth while trying to keep it down at these few places.

5

Bridges and Culverts. Several bridges and culverts were inspected, and found to be in very good order both as regards the masonry, ironwork and timbering. The silicate oxide paint with which the Kistna Bridge and other large bridges on the line have been painted is not a success. it has been on about 4 years and is already perished. The minor bridges are tarred, and no blisters or other signs of rust were noticed on them, but it is not easy to be certain as to what is going on under a thick coat of tar.

Stations generally are well kept, and platforms in good order, Between Beswada and the Godavari, however, the station compounds have an uncared for appearance, and the platform palisading is in want of repair - this is ~~Notice~~ most noticeable at Ellore omit the l and Nozvid. At many of the stations the gardens have received a great deal of attention and look very well, but at some of the larger stations gardening has been allowed to run ~~rather~~ to excess, and the islands of flower pots and shrubs which now ~~obstruct~~ ornament the platform in front of the station building should be ~~largely~~ thinned out if not removed altogether, as they form obstacles in the daytime and dangers at night ~~[illegible]~~ planting in the compounds and along the back line of platforms ~~should~~ might with advantage be systematically

carried out at all stations likely to be permanent - the shade of a well grown tope makes an admirable 3d class waiting room in hot weat The station lighting arrangements are not brilliant, and at the few stations where the station name has been painted on the glass it cannot be read owing to the want of a frosted background. This is a matter which considerably affects the comfort and convenience of native passengers, and should be seen to. A ~~very~~ simple country-made apparatus will turn out ~~the~~ frosted strips on these glasses very cheaply. Th top of the glass is the best positio for the name.

Towards the southern end of the section, latrines have no cemente floors, and the earth under them becomes saturated with filth. Those at the northern end have cemented floors, but are so small as to give practically no

Sta

Protection. It would be better to remove these tiny structures from unimportant stations altogether, and to make use of the materials in giving reasonable latrine accommodation at the larger stations

At several wayside stations there is a bed of ballast about six inches ~~thick~~ high, and eight to ten feet wide laid on the passenger platform as a floor for bags and other goods awaiting removal. These form ~~a~~ dangerous, because inconspicuous obstacles. They should be removed and a platform of rough stones or old sleepers, protected by a lamp might with advantage ~~should~~ be substituted. This should be kept close up to the palisade where ~~when~~ it would not obstruct the platform, and might then be as close to the station building as required

7 Particulars ~~Individual~~ stations

Bezwada - the bath rooms require more light and ventilation -

Ellore - the gathering line and turn outs to goods lines are very uneven and require lifting and packing. Several of the loops and by byes at wayside stations require more attention in this respect.

Ellore Flag station. a new station is in progress at a busy level crossing in the middle of Ellore town - this will be a great convenience to the inhabitants -

Samalkota. A new third class waiting shed has been built at the end of the station building, and the original central waiting hall converted into refreshment rooms. The bath rooms floors are very uneven and should be

cemented. The ashpit timbers require rebedding

Yellamanchili. A gridiron arrangement of 3 open masonry drains crosses the station yard. These should be covered in, as they must be dangerous to pointsmen and shunters at night. There is a similar open drain in the station yard at Duvvada

Ganjam. This is a new station just completed, with an island platform made by widening out the loop, so as to give passenger and goods accommodation on the same platform. There is therefore no access to the platform except by crossing either the main line or loop - which does not seem convenient.

Khurda Road. The flooring of the verandah and station building generally is very rough and should be relaid or cemented

8 Locomotive watering ~~watering arrangements~~ - A new tank for the artesian water has just been finished at Samalkota. The boring at Coconada Port is about to be resumed, when complete this will effect a great saving in the carriage of water. A boring is also being sunk at Balugaon - and a new watering station has just been opened

at Chatrapur.

Puri. An alteration is required in the cages for the ticket collectors, at present they are not safe from pressure by a crowd. The pens for pilgrims, also, could certainly be more conveniently located. The supply of hydrants to the pens and platforms is under consideration. this should be pressed, as the only supply at present is from wells outside the station, which cannot be above suspicion. If the pli pilgrim traffic developes as expected high platforms would greatly facilitate it, and should be considered in any scheme for future extensions.

9 Locomotive department –

Locomotive. Carriage Shops at Waltair and Sitanagram are in good order and seem to be about adequate to the work in hand. The Loco: Superintendent asks for cover for engines under repair at Sitanagram which at present

This to come at the end of para 7

8.

have to stand in the open.

10 Miscellaneous. Weighing mach have all been tested within the last half year. Signals That arm of the ordinary two-armed platform signal, which on rising to the danger positio has to lift the spectacle, does not go to danger by its own weight in any of the signal examined. In some cases the arm will fly to the "off" poit on the signal lever being releas ~~More~~ Extra counterweights are require for these arms. Gradient posts are on the opposite s of the line to the rule and telegraph posts which must rather inconvenient for driver

Refreshment rooms. The remark in the complaint books are generally satisfactory, but the service is hardly equal to that on other lines in the neighbour hood, and now that through communication exists to Madras efforts should be made to ~~level it up~~ improve it.

11. The Godavari Ferry. — ~~Ferry arrangements~~. There is only one exit from the steamer to the pontoon both for passengers and luggage. this is narrow and awkward and easily blocked by ~~anything bigger than a small box~~ the ordinary native handbaggage. If a ~~second~~ gangway could be arranged from the other end ~~side~~ of the paddle box, ~~which~~ and the shore span widened the time lost ~~wait~~ at the ferry could be appreciably shortened

Rolling stock. Appears to be in good order and well maintained except in the matter of paint, in which respect the 3rd class carriages are indeed badly off. Carriages seem to be kept clean, and no overcrowding was noticed except in the case of

This at the end of para 9

a pilgrim train proceeding from Berang to Puri on the eve of the great annual festival. In this case the number of pilgrims at Berang ~~was~~ evidently largely exceeded the expectations of the traffic department, and the arrangements for forwarding them were certainly insufficient.

P. Ashworth
Capt R.E.
Govt Government Inspector of Railways

Madras.
Aug: 15th 1899.

Remarks of the Senior Government Inspector of Ry. Madras

1.- Arrangements are in progress for the more convenient admission of the trains of the E.C.R. into Madras, and others are in a fair way to settlement for transhipment with the South Indian Ry. As soon as the anchoring of girders on the southern section shall have been completed I shall be prepared to remove all speed restrictions except such as are necessitated by the state of newly raised banks &c....

2.- Now that the time is nearly approaching for a demand from the public for a quick through passenger service between Madras and Calcutta the condition of the ballasting should be systematically taken in hand, and ballast on the older parts of the line brought up to full section everywhere.

3.- I invite the attention of Govt. to the subject of feeder roads. It is most short-sighted policy for District Boards to neglect to provide the freest access to every railway station; for without such access their Districts can never derive full benefit ~~from~~ which the railway was intended to confer on the. Once a railway passes through a District the whole policy of expenditure of money on road making and maintenance needs thorough overhaul in order to adapt it to the revolutionised conditions. There usually however appears to be a sort of inertia or apathy on the part of the District officials which prevents their grasping the importance of approaching the subject from an entirely new standpoint, and for some years they go on in the old groove spending money on roads ~~[illegible]~~ the need for which has been greatly lessened, and neglecting others whose importance has only been brought into prominence on the advent of the railway. What I am endeavouring to urge is not that District Boards should confer benefits on railways by ~~[illegible]~~ making roads to the stations, but that they should by so doing enable the agriculturists and traders of their District for whose welfare they are responsible to avail themselves fully of the benefit of the railway.

4.- I see that attention is again directed to ~~[illegible]~~ station lighting and to the names of stations on the platform lamps being difficult to decipher. This is a simple thing enough. There is one good way of doing it, and that way should be found out and brought into use everywhere uniformly. I wrote about this in para 8 of my remarks appended to last report.

22 P

5.- The Manager's attention is also invited to the Inspector's complaints about signals and about minor matters. The report generally ~~[illegible]~~ which is a good one.

F.J.S.

16/8/94

Order No. dated the Aug. 94

The report will be forwarded to the Govt. of India for the issue of such orders to the Managers as may seem to them to be necessary. The ~~[illegible]~~ Senior Govt. Inspector's 3rd paragraph will be considered in the Dy. Q.M. Dept.

F.V.S.
16/8/94

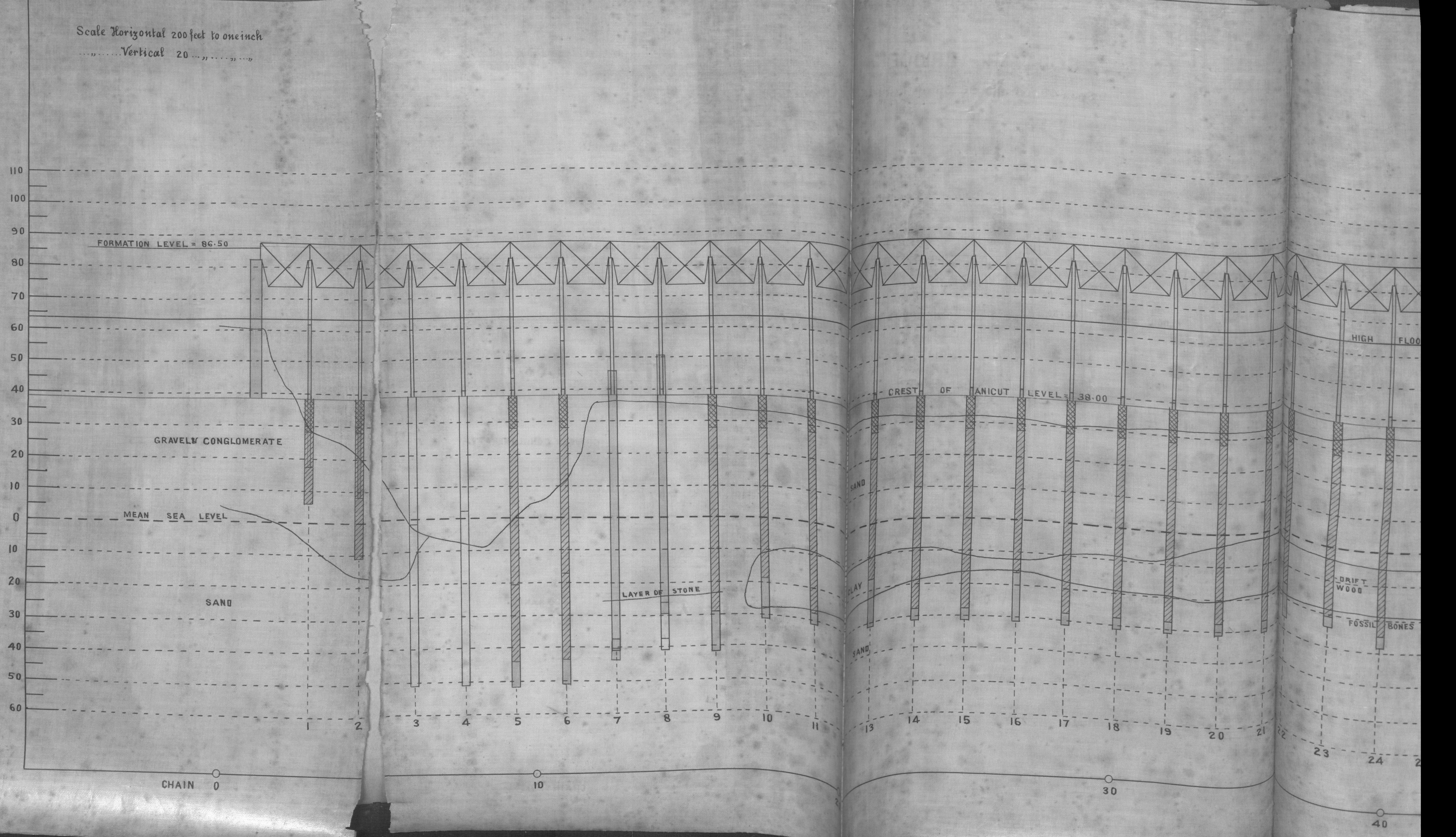
Joint Secy

To. The Con. Engr.
" Dy. Q.M. Dept
" Manager E.C.Ry.

Endt No. Ry. dy August 1894
Forwarded
(Brereton)

Joint Secy

230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FORMATION LEVEL = 86·50
CREST OF ANICUT LEVEL = 38·00
HIGH FLOO
GRAVELY CONGLOMERATE
MEAN SEA LEVEL
SAND
LAYER OF STONE
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CLAY
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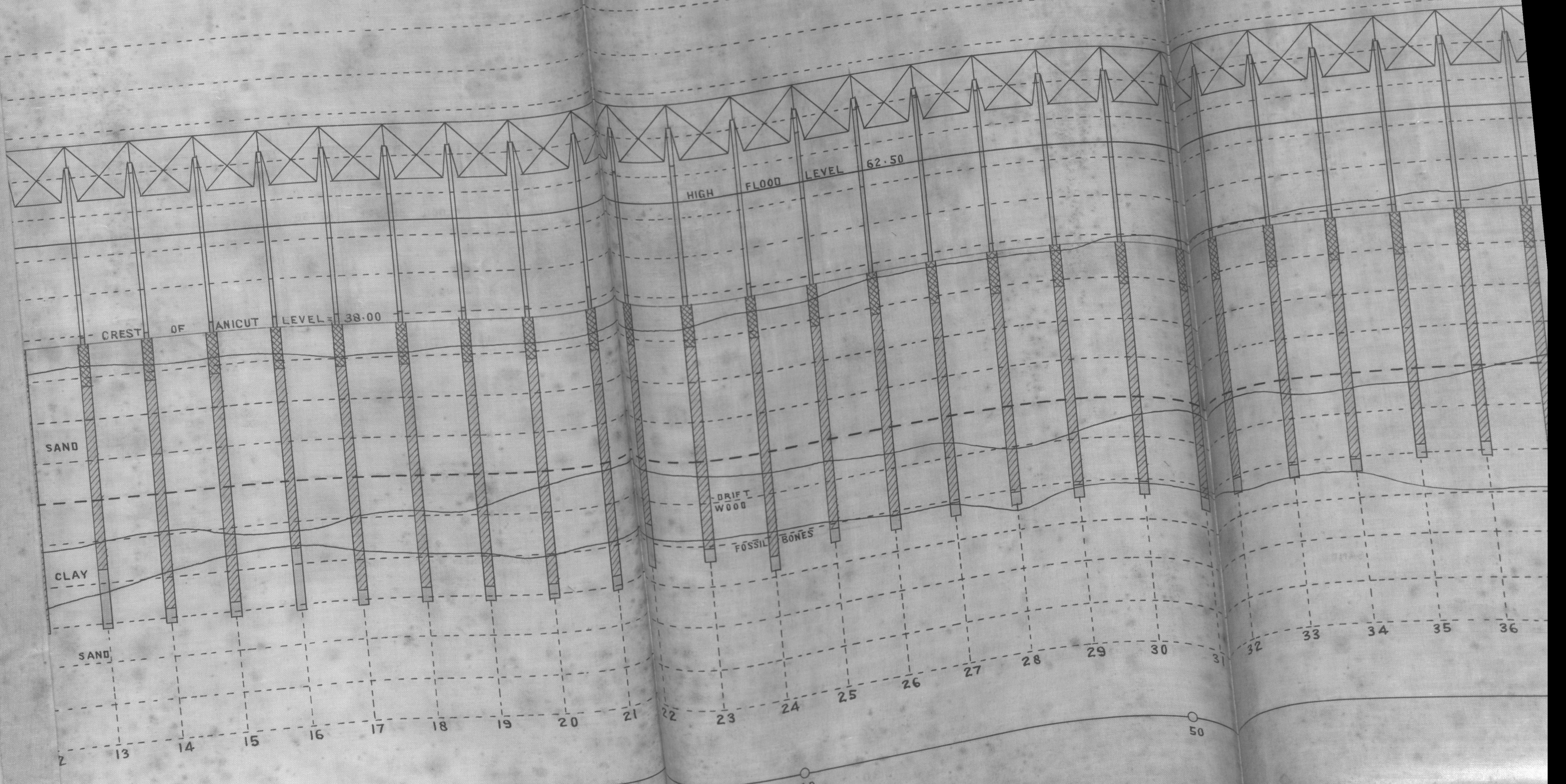
DRIFT WOOD
FOSSIL BONES
CHAIN 0

GODAVARI BRIDGE

1- Span 40 feet and 56 Spans 150 feet

ENGINEER IN CHIEF



ENGINEER IN CHIEF

NOTE

- ▨ DENOTES MASONRY HEARTIN
- ▨ Dº CONCRETE HEARTIN
- ▯ Dº WELL
- ▯ Dº WELL CURB

PROGRESS DIAGRAM

Work done up to 31st July 1899