M.R.O. 1—71,005—3-6-57.

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MADRAS RECORD OFFICE.

Government of Madras.

_____ DEPARTMENT.

G.O. No. 2148	Press Mis.
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Dated 30 10	18 .

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 30th October 1866.

No. 676. Read the following letter from the Acting Secretary to the Government of Bombay, Railway Department, to the Secretary to Government, Public Works Department, Fort Saint George, dated Bombay Castle, 13th October 1866, No. 2,073 :—

1. With reference to your letter No. 1,933, dated 19th June last, on the question of laying out the proposed stations at Raichore in such a manner as to secure for it the capabilities of defence contemplated by the Government of India, I am desired to transmit, for your information, the enclosed copies of a communication from the Agent Great Indian Peninsula Railway, together with a Minute thereon recorded by His Excellency the Commander-in-Chief.

2. I have also to inform you that the 2nd and 3rd paragraphs of His Excellency's Minute have been sent to the Railway Company, with a suggestion that the buildings at Raichore should be planned as far as possible in accordance with those views.

From the Consulting Engineer for Railways, to the Secretary to Government, Railway Department, dated Bombay, 31st July 1866, No. 2,250.

1. I have the honor to forward copy of Captain Sherard Osborn's letter, No. 3,673 of the 18th instant, on the subject of defences to Railway Stations.

2. The question, who is to pay for them, has already been brought before Government in No. 2,034 of the 21st instant, on a letter from the Agent of the B. B. and C. I. Railway. Until the decision of the Government of India on the subject is given, I need not re-open that part of the question, but turn to the points urged by Captain Osborn, as to the nature of the defences to be provided.

3. I fully concur with Captain Osborn's opinion in paragraph 7, that it will be impracticable to defend a large station with all its accumulations of goods, waiting for transit.

4. To do so would require a considerable and trustworthy garrison, a large reserve supply of provisions, and a good supply of arms and ammunition. Under ordinary circumstances, these would not be found at a Railway Station on emergency, and it is extremely doubtful if troops could be supplied at short notice from the nearest Military Station.

5. The only practicable plan would be to build towers, or small redoubts, at each of the stations where Europeans are to be found in some number, such as Locomotive Workshop stations (Lanowlee Egutpoora, Muamar, and Bhosawal). These would probably require to have a well and store rooms, magazine, &c., on the ground floor, dwelling rooms for men and loop-holes on the first floor, and a dwelling room for women on second floor. Roof flat with loop-holed parapets, small turrets corbelled out from the first floor, would give some flanking fire.

6. Without entering minutely into particulars at present, some arrangement of this kind would serve as a refuge in case of need, and enable a small party of Englishmen to hold out for a few days against an armed mob of Natives.

7. Captain Osborn's proposal to keep a clear space of 200 yards round all stations is really good, and has been already partially adopted. To carry it out now in all cases would involve considerable expense, but if the principle of building redoubts or towers be adopted, these could be placed so as to have the greatest available extent of space round them.

8. Where a sufficient number of Europeans were available, the tower might be surrounded by field works, and so be made the keep of a small fortified work.

9. In the case of the Raichore station, it is not clear whether the fact of its being in His Highness the Nizam's territory has been considered, as the construction of a fort round the station would require the previous consent of the Nizam, and the permanent location of a sufficient garrison there. Otherwise, as Captain Osborn observes, it might be more dangerous than useful in time of need.

From the Agent Great Indian Peninsula Railway Company, to the Consulting Engineer for Railways, dated 18th July 1866, No. 3,073.

1. I have the honor to acknowledge the receipt of the communication from the Government of Madras, No. 1,933 of the 19th June 1866, enclosed with your Memorandum No. 2,013 of the 12th instant.

2. The subject of fortifying the Railway Station at Raichore, to which these papers relate, is so immediately connected with the very general one of the defence of our Railway throughout all this Presidency, and involves such very serious considerations of expense as well as of principle, that without special instructions from the Board of Directors, I should not be authorized even to deal with the subject beyond saying, in general terms, that of course the Railway Company cannot object to any fortifications being constructed that the Military authorities may desire, provided Government meet all the costs; but if it is proposed that such costs are to fall on the Railway Company, we must simply appeal to the terms of our Contract with Government, in which nothing is said of building fortified stations.

3. Without committing the Company, however, I will state what are my views on this subject. I have no doubt intelligent Officers recognize that the Railways in time of war or rebellion will be the strategical point throughout India, and the base of all Military operations, as they are at present the strong Police point of the British rule. The Railway, to satisfy Military strategy rather than commerce, has in many cases been led away from fertile districts to barren unprofitable ones, especially on that portion of our line between Poona and Raichore, where we have been made to leave the rich south Mahratta country, and to traverse a region desolated by misgovernment and neglect of Native Princes, and where, in the event of war, our communications will doubtless be endangered by the Military hordes of the Nizam of Hyderabad.

4. It is neither just nor logical, under such circumstances, to throw upon us the responsibility or cost of fortifying our stations, after being made to construct a Railway which looks very like a wall of circumvallation round our ally's territory.

5. And after all, with all due deference to Military authorities, I would submit, that so far as the integrity of our communications are concerned, Railway stations are by no means our weakest point in time of war. It is the bridges, the viaducts, and culverts, which require protection, and two men with a bag of powder would easily cut off Madras from Bombay at any one of them, if not watched; yet, I do not suppose any one would suggest fortifications at those hundred weak points. The Railway will easily take care of itself, so far as the banks are concerned, and the maintenance of public way: and the war in America has shown how difficult it is for a Railway once constructed, to be permanently damaged. If the stations are to be fortified merely to protect our own servants, I think that requirement is already met, for our own buildings throughout this Presidency are generally the most solidly constructed ones in the neighbourhoods they exist in.

6. It would have been better, I allow, had less wood and more iron been used in all of them as a safeguard against incendiarism: we are meeting this defect in all future structures, but when we look at the inflammable materials of which our Military Cantonments and Barracks are constructed, I think even our present stations contrast very favorably with them.

7. If by fortified stations, it is proposed that from the centre of the large area over which our first class cotton stations will eventually spread in India, that we, with our Native servants, Station Masters, &c., are to defend all the staples accumulated occasionally therein for transit, I humbly submit that it would be impossible to do so, and, in the next place, most injudicious for a Railway Company to assume the responsibility of fighting or defending, or being made to pay compensation for losses arising out of hostilities at such stations. A visit to one of our large cotton stations in the hot season would convince the most septical person on this head. A station, however, scientifically fortified, surrounded with sixty or eighty thousand bales of cotton, which could be set on fire with one match, would be as unpleasant a place to be burned alive in, as any one could suggest.

8. For mere purposes of plunder, the Native bazaar is far more likely to repay plunderers or rebels on a foray, than any Railway station. We keep no cash in our booking offices beyond the

Proceedings of the Madras Government, Public Works Department,
30th October 1866.

day's collection, and to attempt to carry off as loot the raw produce of the country, would be a long process, and enable troops to be sent for in time for rescue.

9. I do not see on the trunk roads of India any signs of the travellers' bungalows or dhurmsallas being turned into fortified posts, why therefore should our Railway stations, which the authorities not long since seemed to consider would be sufficiently good if built of wattle and mud, suddenly require to become costly places with towers, flanking angles, and ditches. Besides, it is a misdirection of funds intended for the development of public works alone, to extend the Government guarantee to petty fortifications of questionable value. The real mode, in my opinion, of securing the Railway stations from incendiary fires, which is the great danger they would be subjected to in the event of hostilities, is, I earnestly maintain, to keep round all our stations a belt of open ground of about two hundred yards in width, and under no consideration to allow any structures to be built, or squatters to establish themselves any nearer than that to our stations. Then in the event of a war, the Military authorities could, backed by the great resources of our Railway, easily throw up in a few hours light-field works, which would serve for all purposes of defence, enable the Europeans scattered through the country to make for such refuge, and the open area would reduce the danger of incendiary fires to a minimum until such earthworks were thrown up.

10. If Government desired it, at certain strategical points on the said open ground, small block-houses or redoubts might be built at once: that is a point for their consideration only, but it would be a mistake to calculate on our stations becoming such, when the garrison of Native Railway employés might hand them over to their countrymen to be occupied against ourselves.

11. I must apologize for having dwelt at such length on this subject, but the question has come up in so many shapes, that I am desirous of showing that there is something to be said from a Railway point of view, and to place on record the conclusions I have arrived at after considerable consideration.

(COPY.)

Minute from His Excellency the Commander-in-Chief.

1. The question of fortifying Railway Stations has been under discussion for at least three or four years, but so many different opinions have been expressed as to show that the subject is a difficult one.

2. The view entertained in Bengal was that a space, as proposed by Captain Osborn, should be preserved around the stations, and that they should be so laid out that some of the buildings should project so as to afford, a flanking fire for a few rifles, that the gates should be iron plated, and bullet proof, so that no mob could approach the buildings without being exposed to some check from musketry fire, and that should they arrive at the gates, they would find it no easy matter to force or burn them; similar barriers might be contrived for closing lines.

3. There could be no difficulty in laying out the ground plan of the buildings and enclosure, so as to give projections of fifteen or twenty feet; nor in giving the faces and flanks of such projections loop-holes for musketry, so as to enable the Europeans of the station to defend themselves. In time of alarm European employés from out-stations would come in, and swell the numbers at the principal station.

Fifteen or twenty men, well managed, would secure very considerable premises, if arranged as above suggested, from the depredations of a mob of ordinary insurgents, who might otherwise destroy the workshops and rolling stock, a mischief much more difficult to repair than mere injury to the line, which could very quickly be supplemented.

4. It was such a mode of rendering defensible the Railway stations that was intended on the reference to the Bombay Government in 1863, but which was met by a Minute of His Excellency Sir William Mansfield objecting to serious Fortifications, which would require troops that we could not supply.

It is sufficient to say that no such proposal as that combated by His Excellency was intended, but unfortunately the question has been so delayed, that a great many stations have been too much compromised by their arrangement to be open to alteration without very great expense.

Wherever it may be practicable, I would give the esplanade of 200 yards, and arrange the external contour of the enclosure in the manner suggested in the foregoing remarks.

Where this plan cannot be carried out, a strong defensible building or block-house, as proposed by Colonel De Lisle, might be constructed, to give temporary safety to the European establishment.

(Signed) R. NAPIER.

No. 677. ORDER THEREON, 30th October 1866, No. 3,448.

RAILWAY, No. 42.

Communicated to the Consulting Engineer for Railways with reference to the Orders of Government No. 1,932, dated 20th June 1866.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Consulting Engineer for Railways.

Exd. S. T. Augustin.

A 2250 of 1866

Railway Consulting Engineer's Department

To

Colonel Kendall R.E.
Secretary to Government
Railway Department
Madras

Sir,

I have the honor to forward copy of Captain Sherard Osborn's letter No 3643 of the 18th instant on the subject of defences to Railway Stations,

2. The question who is to pay for them has already been brought before Government in A 2034 of the 21st instant on a letter from the Agent of the S.M.R. Railway until the decision of the Government of India on the subject is given I need not review that part of the question but turn to

to the points urged by Captain Osborn as to the nature of the defences to be provided. -

3. I fully concur with Captain Osborn's opinion in para 7 that it will be impracticable to defend a large station with all its necessary accumulations of goods, cattle for transit. -

4 To do so would require a considerable and therefore costly Garrison a large regular supply of provisions and a good supply of arms and ammunition. Under ordinary circumstances these would not be found at a Railway Station & consequently until the extreme danger of Europeans could be explained & short notice given the nearest Military Station. -

5 The only practicable plan would be to build towers or small redoubts at each of the stations where Europeans are to be found in some number - such as Locomotive Workshop stations (Parambee Egudhora, Murraman and Khosaand) These would probably require to have a well and store rooms, magazine for on the Ground floor dwelling rooms for men & loopholes on the 1st floor and a dwelling room for women on 2nd floor. - Roof flat with loopholed parapets - small turrets corbelled out from the 1st floor would give some flanking fire. -

6. Without entering minutely into particulars at present some arrangement of this kind would serve as a refuge in case of need and enable a small party of European men to hold out for a few days against an armed mob of natives. -

7 Captain Osborn proposes to keep a clear space of 2 yards round all stations is really good

good and has been already partially adopted. To carry it out now in all cases would involve considerable expence but if the principle of building redoubts or towers be adopted these could be placed so as to have the greatest available extent of space round them.

9 Were a sufficient number of Europeans were available the tower might be surrounded by field works and so be made the keep of a small fortified work.

9 In the case of the Raichore station it is not clear whether the fact of its being in H. H. the Nizam's territory has been considered as the construction of a fort round the station would require the previous consent of the Nizam and the permanent location of a sufficient Garrison there

these. Otherwise as Captain Osborne observes it might be more dangerous than useful in time of need.

I have the honor to be Sir
Your most obedient Servant
Signed/ A. D. Lisle Lieut Col R.E.
Consulting Engineer for Railways

Bombay
31st July 1866

Great Indian Peninsula Railway Company
18th July 1866

No 3673 of 1866

To
Lieut Col A. D. Lisle R. E.
Consulting Engr for Railways

Sir,

I have the honor to acknowledge the receipt of the communication from the Government of Madras No 1933 of the 19th June 1866, enclosed with your Memo. 2043 of the 12th instant.

2. The subject of fortifying the Railway Station at Raichore, to which these papers relate, is so immediately connected with the very general

recognize that the Railways in time
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The Railway to satisfy Military
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has in many cases been led away
from fertile districts to barren
unprofitable ones especially on
that portion of our line between
Poona and Raichore where our
have been made to leave the
rich South Mahratta Country,
and to traverse a region desolated
by Mis-government and neglect
of Native princes, and where
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munications will doubtless
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It is neither just nor
logical

logical under such circumstances to throw upon us the responsibility or cost of fortifying our Stations after being made to construct a Railway which looks very like a wall of circumvallation round our whole Territory.-

5 And after all, with all due deference to Military authorities, I would submit that so far as the integrity of our communications are concerned Railway Stations are by no means our weakest point in time of war. It is the bridges, the viaducts, and culverts, which require protection and two men with a bag of powder could easily cut off Madras from Bombay at any one of them, if not watched. Yet I do not suppose any one would suggest fortifications at those hundred weak points. The Railway will easily

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6 It would have been better, I allow, had less wood and more iron been used in all of them as a safe guard against incendiarism - we are meeting this defect in all future structures, but when we look at the inflammable materials of which our Military Cantonments and Barracks are constructed I think even our

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I have the honor to be
Signed Gerard Coburn
Captain R.N. and
Agent. —

"True Copy"

Signed H. Dl. Leigh
Lieut. & Q.M.G.
Commanding Engineer, for
Railways

Copy

Minute from His Excellency the Commander in Chief. —

The question of Fortifying Railway Stations has been under discussion for at least three or four years but so many different opinions have been expressed as to show that the subject is a difficult one. —

2. The view entertained in Bengal was that a space, as proposed by Captain Coburn, should be preserved around the Stations, and that they should be so laid out that some of the buildings should project so as to afford a flanking fire for a few rifles - that the gates should be iron plated - and bullet proof, so that no mob could approach the buildings without being exposed to some check from musketry fire,

and that should they arrive at the gates, they would find it no easy matter to force or burn them — similar barriers might be contrived for closing lines. —

3 There could be no difficulty in laying out the ground plan of the buildings and enclosure so as to give projections of fifteen or twenty feet. nor in giving the lines and flanks of such projections such holes for musketry, as to enable the Europeans of the Station to defend themselves. In time of alarm European employés from outstations would come in, and swell the numbers at the principal Station. —

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Where this plan cannot be carried out a strong defensible building or block house as proposed by Colonel D'Eyncourt might be constructed to give temporary safety to the European Establishment.

Signed R. Napier

No. 2073 of 1866.

Railway Department

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

dated 13th October 1866.

Sir,

With reference to your letter No. 1933 dated 19th June last, on the question of laying out the proposed station at Raichore in such a manner as to secure for it the capabilities of defence contemplated by the Government of India, I am directed to transmit for your information the enclosed copies of a communication from the Agent G. I. P. Railway together with a Minute thereon recorded by His Excellency the Commander in Chief.

2. I have also to inform you that the 2nd & 3rd paras: of His Excellency's Minute have been sent to the Railway Company with a suggestion that the buildings at Raichore should be planned as far as possible in

accordance

accordance with those views —

I have the honor to be

Sir

Your most obedient Servant

Wellwood Colonel R.E.

Acting Secretary to Government

Bombay Castle

13th October 1866.

Wm. Coughland

P. W. D. A. Dept.
Rec. of Govt for October
Letter 429 J.

From

Sec. Gg: Secy: to Govt
Bombay Castle

To Sec. Secy: to Govt P.W.D

Dated 13 October 66
Rec'd 20

Ex: 2- No 2073.

Forwarding with remarks copies of papers relative to the fortifying of Railway Stations and the planning of the proposed Junction Station at Raichoor.

No 3448. 30th October 1866.

Watts and Baker

Cir

No 3448

Comm'd to the Consulting Engineer for Railways with reference to the order of Govt No 1932, dated 20th June 1866—

Fort St. George
30th October 1866.

Wm Engr for Railways

Rec'd 31st Oct.

Acby 6. 677.

c. 24 Oct. 1866 No 252