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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Cons. 20-10-57

G.O. No. 1959 Press Mis.

4667

Dated 20—10—1857

Not to be folded or roughly handled

No. 66. Read the following letter from Colonel C. E. FABER, Chief Engineer; to H. FORBES, Esq., Acting Secretary to Government, dated 19th August 1857, No. 3052.

SIR,

In continuation of my letter No. 2050, dated 15th Ultimo, and with reference to Extract Minutes Consultation No. 1536, of the 7th Instant, I have the honor to at once furnish as far as I am able, further information regarding the works noticed by Colonel Baker in his Despatch of the 11th July 1856, No. 3173.

Para. 3 of Ex. Mins. Cons. of 7th August.
Para. 9 of Col. Baker's letter.

1st. Opening a channel along the western bank of the Kistnah from Walabapore to tide water at Adarapolliem.

Information required regarding the sufficiency of supply, the security of the canal from the river encroachment, and the cost of the bridges, and minor channels of distribution.

2. The District Engineer's letter No. 60, dated 2nd September 1856, furnishing the required information, was forwarded to Government with Extract from Proceedings No. 6509, of the 13th Idem, and was returned by Government with Extract Minutes Consultation No. 1942, dated 22nd October 1856, to be re-submitted with one general report.

3. The project having been subsequently sanctioned in Extract Minutes of Consultation No. 39, dated 7th January 1857, I was under the impression, that, there was no necessity for again referring to the matter. In this impression I am now informed, that I was mistaken, and the District Engineer's letter of the 2nd September is therefore again submitted with my own remarks as directed.

4. The District Engineer gives a statement of the supply of water in the river Kistnah, and shews beyond a doubt, that no fears need be entertained of any defficiency, observing, that "the Kistnah having so many of its sources among the western Ghauts, and being influenced "by both monsoons, fills early, and maintains its depth to a late period, being in these respects "I think more serviceable as a source of irrigation than any of the other rivers of Southern "India, not excepting the Godavery; although the latter possesses a more ample, and more "certain dry weather supply."

5. The channel is to be carried near the margin of the river, in order to obtain for it the high level which that site affords. In repairing the bank from time to time, care has been taken to remove it wherever it was in too close proximity to the river, or where the land was being abraded; no present danger from the encroachment of the stream is apprehended, and should it arrive in course of time, protective measures, as observed by the District Engineer, can be taken by constructing groynes to divert the current.

6. The minor channels of distribution were omitted from the project, 1st from the desire that no time might be lost in obtaining sanction for the main channel, which was urgently required for bringing several valuable Tanks in the Royapully Talook under the influence of the annicut, and 2nd because as the small channels were not likely to be required for some time after the formation of the main duct, and could be dug as applications for water were made, it was thought better not to load the project with them.

7. As much consideration would be required in laying out the minor channels, with reference to the interests of all parties concerned, the District Engineer was of opinion that it would be almost impossibe to estimate for them long enough before hand, to admit of their being specifically included in the main project, and therefore proposed for entry in the Budget estimates providing a certain number of miles of the ordinary sized distributing channels, these estimates were subsequently sanctioned, vide items Nos. 74 and 97 in Statement No. 2 of the current Budget.

8. Bridges were omitted from the project, because the District Engineer considered, that when the one under construction across the river at Bezoarah was completed, ferry boats with one

exception would afford sufficient accommodation for the wheeled traffic requring to cross the channel below that point, an estimate for the bridge referred to, as well as for four others, was submitted to Government with my letter No. 6979, dated 1st October 1856, vide items Nos. 103 to 107 in Statement No. 2 of the current Budget.

9. I have merely to add further on this subject, that the views expressed by the District Engineer meet with my full concurrence.

2nd. Increased width of metalling on Trunk Road No. 1.

Para. 7 of Extract Minutes Consultation 7th August.
„ 18 of Colonel Baker's letter.

A decision on the question was to be suspended, until the actual effect of the Railway upon the traffic had been ascertained.

10. A tabular Statement of the traffic is herewith submitted, with an Abstract of the daily average of the number of carts shewn in it, compared with the returns given by the late Superintendent of roads in his report for 1854-55.

11. From this statement it will be seen, that as yet the Railway has had but little effect on the Trunk road traffic, but as I am given to understand by Colonel Pears that the Railway traffic is now fast increasing, I consider before the question of increasing the width of metalling on the Trunk road is decided, that the result of at least another 6 months, should be awaited.

3rd. Plans for bridges on Trunk roads.

12. In respect to the bridges designed by the late Superintendent of roads, I am of opinion, that generally the foundations allowed are of sufficient depths. In beds of rivers not requiring wells; solid foundations to a depth of 4½ to 6 feet are allowed, and where wells are used, provision is made for sinking them to a depth of 10½ feet, the wells themselves being 4½ feet covered with a solid foundation above of 6 feet. In both cases, retaining walls are provided both in front and rear, and a solid flooring under the arches.

Paras. 9 and 11 of Extract Minutes Consultation of 7th August.
Paras. 21-24 of Colonel Baker's letter.

13. The extensive experience in bridge building obtained in the road Department, led the Superintendent to consider, that foundations in excess of those above described would be superfluous, an opinion in which, I fully concur; it is to be observed, that the conditions of the beds of the rivers for which the bridges remarked upon were designed differing but little, the plans had the appearance of being drawn to a standard pattern, but I am assured by the late Superintendent, that in preparing his designs, local peculiarities were always considered.

14. In respect to the question of the depth of foundations to be given to bridges even under ordinary circumstances, a difference of opinion, according to the experience of the Officers engaged, is naturally to be expected, and in some cases in the actual execution of the works, deviations from the original designs may be found necessary (which was my object in calling for reports from the District Engineer,) for instance, in beds of rivers giving a promise of rock throughout their entire breadth, parts may be found here and there, where the rock proving to be superficial, or altogether failing, the necessity for sinking wells, or otherwise increasing the foundations becomes apparent, but as before observed, I am of opinion, that the foundations of the bridges regarding the sufficiency of which doubts are entertained by Colonel Baker, may be considered secure.

15. I would here mention, that I am also fully satisfied of the sufficiency of the foundations of the Vigay, and Ambravutty bridges noticed in para. 16 of the order of Government under reply, and in para. 33 of Colonel Baker's letter.

16. The works regarding which information is still required, and which has been again called for are—

1st. The Mahanuddy embankments.

2nd. The Tuddry and Comptah canal, and

3rd. The estimate for the road from Bellary to the Cuddapah Frontier.

17. With reference to the concluding remark of Government on the incompleteness of the report furnished in my letter of the 15th Ultimo, I would respectfully observe, that the report was submitted at the express desire of Government as conveyed in para. 19 Extract Minutes of Consultation No. 461, dated 12th March 1857.

18. I would further observe with reference to para. 14, that I had not overlooked, as supposed by Government, the intention of carrying the line of road between Masulipatam and Ibramapatam on the bank of the Masulipatam channel.

19. The observations in clause III, para. 12 of my letter No. 2050, dated 15th Ultimo were made on the subject of Captain Orr's letter No. 164, dated 3rd January 1357, in which that Officer stated that—

" No material for road making being found in the Delta through which the roads from Ma-
" sulipatam to Ellore and Bezoarah pass &c.," and considering at the time of writing, the ques-
tion of metalling the roads noticed, with Colonel Baker's remark " as the roads are represented
" to be important, and therefore subject to heavy traffic, the additional cost of proper metal
" might perhaps wisely be incurred" before me, I expressed an opinion, that " the excessive
" cost of gravel which is stated by the District Engineer not to be procurable within any reason-
" able distance, is a sufficient reason for not advocating its being used, until at all events the
" traffic on the roads in question is proved to be of sufficient importance to justify the heavy ex-
" penditure that would be necessary," and thus I find it distinctly written in the original draft of the letter.

20. The Government, I observe use the word " road" in their quotation from my letter, from which I am led to suppose that a clerical error in fair copying in using the singular instead of the plural, as in the case of my remarks on the lines of communication between the Bellary and Cuddapah Districts in my letter No. 1092, dated 10th June 1857, has again misled them as to my meaning.

21. These concluding remarks have been called for by the receipt in the Central office on the 13th Instant of a revised order bearing the same No. and date* as the first order received on the 10th Instant, in which no mention was made of my apparent forgetfulness, and to which a reply had already been drafted.

* No. 1536 of the 7th Instant.

Abstract Statement of Traffic taken at the undermentioned places on Trunk Road No. 1 during the months of March and April 1857 in the Districts of North Arcot and Chingleput.

1857.	Place or miles.		Elephants.		Carts.		Camels.		Horses.		Donkeys or Mules.		Horned cattle.		Sheep or Goats.		Porters.		European foot passengers.		Native foot passengers.		Palkeys or Litters.		Spring carriages.		Artillery Guns or Carriages, Platform Carts.		Women.	
			Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.	Laden.	Unladen.
March.	Wocherry	6	22	27	1557	831	57	59	157	223	292	340	1284	3217	1469	2117	2812	...	20	25	169	41	168	20	49	...	...	2028	2110
do.	Arcot	21	38	20	393	113	106	38	89	30	3	32	255	279	874	60	174	...	16	912	786	4	15	27	20	...	...	1222	728
April..	Wocherry	6	24	18	1596	681	68	50	287	227	278	355	506	3022	1315	801	2833	...	47	22	170	16	445	22	27	...	...	312	1285
do.	Arcot	21	25	11	529	166	217	372	214	188	368	133	779	300	154	128	...	...	25	589	672	28	5	49	31	...	...	268	398
March.	Poonamallee	1	...	...	856	196	1	...	13	16	8	4	14	253	87	20	...	...	32	374	526	...	...	32	35	1	...	298	401
April..	do.	1	...	...	611	128	4	5	9	7	4	154	3	1	94	20	4	...	128	371	519	...	...	36	6	1	...	296	430

N. B.—1. In tabulating the Returns, the Chief Engineer regrets to find, that the traffic for the months of May and June, was not registered at Wocherry and Arcot, the July Return has not been received, the following comparison therefore is not satisfactory, but sufficient to shew that to April last, the Trunk road has not been relieved.

Average of Road Department Return registered at the 6, 21 and 71 miles.....1257 carts.
Do. of District Engineer do. at the 13, 58 and 71 miles.....1273 do.

2. The Returns have been received from Chingleput for May, June and July, but standing alone cannot be made use of in the comparison.

3. The District Engineers of Chingleput and North Arcot, will now be directed to see, that the Returns are carefully taken at Poonammellee, Rajah's Choultry, Paulchetty, and Arcot, for the 6 months from September to February.

(Signed) C. E. FABER, Colonel,
Chief Engineer.

Central Office of P. W.,
Fort St. George, 19th August 1857.

No. 67. ORDER THEREON, No. 1959; dated 20th October 1857.

1. With this letter, the Chief Engineer forwards with reference to Extract Minutes Consultation of the 7th August last No. 1536, further information regarding the Projects entered in Statement No. 1 of the Budget for 1856-57, and noticed in Colonel Baker's Despatch of the 11th July 1856, No. 3173.

2. The Projects noticed in Colonel Faber's present letter are :—

3. First Project No. 18.—Opening a channel along the western banks of the Kistnah from Vullabapooram to tide water at Adavapolliem in the Guntoor District, Rupees 1,39,700. In respect to this Project, the Government of India demanded* an assurance as to the sufficiency of supply of water, and the security of the Canal from river encroachment; as also further information respecting the cost of bridges and minor channels of distribution. The Chief Engineer now re-forwards† Captain Orr's letter of 2nd September 1856, affording information on the several points noticed by the Government of India, and expresses his full concurrence in the views entertained by that Officer. In respect to the minor channels, it is explained that it was not practicable "to estimate for them long enough beforehand to admit of their being specifically included in the main Project." Estimates however for a certain number of miles of the ordinary sized distributing channels have been since submitted by the Chief Engineer, and entered in Statement No. 2 of the Budget for 1857-58. (Items Nos. 74 and 97). Bridges were omitted from the Project, because the District Engineer considered "that the wheel traffic requiring to cross the channel any where "below Bezoarah after the Bridge‡ over the river there, is completed, "would be so small, as to be easily accommodated by efficient Ferry "boats." Captain Orr further observed that only one road of importance intersects the line of the channel, and he accordingly submitted a Project for erecting a bridge at that spot. Estimates for this bridge, as well as for four others, were sanctioned by Government, and entered in the Budget Statement No. 2 for 1857-58, (Items Nos. 103 to 107.)

* Para. 9 of letter dated 11th July 1856.

† Paras. 2 to 9.

‡ Sanctioned in E. M. C. dated 10th July 1855, No. 321 para. 9.

4. Second Project No. 29.—Increased width of metalling on Trunk road No. 1, in the Districts of Chingleput and North Arcot, Rupees 55,690. The Government of India deferred‖ passing a decision upon this item until the actual effect of the Railway on the traffic of the road was ascertained. Colonel Faber now forwards¶ a statement of the traffic on the road during the months of March and April last, and observes that it has not as yet been materially affected by the Railway. He therefore recommends that the result of at least another six months should be awaited, as the Railway traffic was believed to be fast increasing. The Government accede to this recommendation, and they hope that a careful observation will be made of the extent of traffic passing on the road during the period in question. Colonel Faber will submit a report at the expiration of that term.

‖ Para. 18 of letter dated 11th July 1856.

¶ Paras. 10 and 11.

5. Third Project No. 20.—Masonry works on Trunk road No. 6, between Covoor and the Moodigunda river in the Nellore District, Rupees 84,580.

It was observed§ by the Government of India, that the designs for Masonry works in the above, and most of the Trunk road Projects, were drawn to a standard pattern without reference to local peculiarities and it was also remarked that the foundations appeared to be deficient in depth. In his present letter,* the Chief Engineer expresses himself satisfied generally with the foundations allowed, and gives his reasons in support of this opinion. In respect to the objection taken by the Government of India, regarding the designs of the bridges, Colonel Faber explains that, as the conditions of the beds of the rivers for which those bridges were intended, differed but little, the plans had the appearance of being drawn to a standard pattern; but the late Superintendent of the road Department, he further adds, has assured him, that local peculiarities were always kept in view in the designs prepared by him. The Government observe from para. 8 of the Chief Engineer's letter of the 15th July last No. 2950, that that Officer had repeated the call which he had previously made for information on both the above points; they would wish therefore to have before them a copy of the reply

§ Para. 21 of letter dated 11th July 1856.

* Paras. 12 to 14.

that may be received, together with Colonel Faber's own sentiments on the views of the local Officer.

6. Fourth Project No. 43.—Constructing a Bridge across the Vigay river in the Madura District, Rupees 42,200.

Fifth Project No. 48.—Constructing a Bridge across the Ambrawutty river in the Coimbatore District, Rupees 63,830.

† Para. 33 of letter dated 11th July 1856.

It was pointed† out by the Government of India, that the Wells of the first mentioned bridge appeared deficient in depth, and it was also suggested whether it would not be advisable to carry to a greater depth than 8 feet the foundation Cylinders of the Ambrawutty bridge, which was to be built on sandy soil. The Chief Engineer in his present letter‡ expresses himself fully satisfied with the sufficiency of the foundations allowed in the designs of both the bridges. In respect to this case also, the Government observe from para. 14 of the Chief Engineer's letter of 15th July last above referred to, that the call for information previously made has been repeated. Colonel Faber is therefore requested to submit, when received, the replies of the local Officers, with such remarks as the further information he may obtain, may induce him to offer.

‡ Para 15.

¶ Para 16.

7. The Projects on which information is still due are stated¶ to be as follows:

No. 1. The Mahanuddy embankment.

„ 50. The Tuddry and Coomptah Canal.

Nos. 24 & 26. Portions of the road from Bellary to Cuddapah. The two last items (24 and 26) having been wholly rejected by the Government of India, require no further notice. It should not however be lost sight of that a complete estimate for the entire line, as called for in Extract Minutes Consultation of the 12th June last No. 1131, remains to be submitted. In addition to the projects above enumerated, the Chief Engineer will observe that information on those specified below has also to be furnished, and the Government trust that that Officer will use his best endeavours to supply the deficiencies at an early date.

No. 29. Trunk road No. 1.—To be reported upon at the expiration of six months, as directed in para. 4 of this order.

No. 20. Masonry works on Trunk road No. 6, between Covoor and the Moodigunda river. A further report to be submitted on receipt of one from the local Officer, as directed in para. 5.

No. 35. Pennaur bridge. No information as yet furnished.

„ 43. Vigay bridge
„ 48. Ambrawutty do. } Reports of local Officers to be submitted, with one from the Chief Engineer, as directed in para. 6.

¶ Paras. 18 to 20.

8. The last Project noticed in the Chief Engineer's present letter¶ is No. 15, road from Masulipatam to Ibrahimpatam. In para. 8 of Extract Minutes Consultation of the 12th August 1856, No. 1405, it was intimated to that Officer that the objection taken by the Government of India in regard to the use of sand and potters' earth for road metalling applied exclusively to the above road, but the reply contained in para. 12 of Colonel Faber's letter of 15th July last was directed, not only to the road in question, but also to another, to which no objection had been taken; viz., Project No. 6, road from Vizagapatam viâ., Punchadarlah to Poolapurty on Trunk road No. 6. In that reply, reference was made to a letter from Captain Orr of the 3rd January 1857, in which it was stated that no suitable material for road making was procurable in the Delta, and the Chief Engineer deprecated any attempt to bring gravel from a distance, till "the traffic on the road is proved to be of "sufficient importance to justify the heavy expenditure that would be necessary." From this remark, it was clear that Colonel Faber had lost sight of the order of the 8th May last No. 891 wherein authority was granted for abandoning the route originally proposed for the Masulipatam

and Ibrahimpatam road, and for transferring the line to the bank of the Masulipatam canal, with the view of ensuring its being covered with gravel at a moderate cost. The omission was therefore pointed out to the Chief Engineer in para. 14 of Extract Minutes Consultation of the 7th August last No. 1536, as an oversight on his part.

9. Colonel Faber now observes that he had not overlooked the intended change of the line of road, and presumes that a clerical error in his office in writing the word road instead of roads, in the passage given under quotation in the preceding para. must have misled the Government as to his meaning. The Government regard this explanation as far from satisfactory. The question at issue, they observe, was proper metalling for the Masulipatam and Ibrahimpatam road, and that question would have been effectually set at rest by a reference to the order of 8th May 1857, above referred to, but which the Chief Engineer entirely overlooked.

10. The Government regret that they are not in a position to submit, as was intended, a complete report to the Government of India on all the points on which information was required in Colonel Baker's Despatch of the 11th July 1856; and as more than a year has elapsed since the requisition was made, they now resolve to furnish to that Government such particulars as have been supplied by the Chief Engineer.

(Signed) H. FORBES,
Acting Secretary to Government.

No. 68. Ordered in consequence that the following letter be despatched.

From H. FORBES, Esq., Acting Secretary to the Government of Fort St. George; to Colonel W. E. BAKER, Secretary to the Government of India, D. P. W., dated 20th October 1857, No. 1960.

SIR,

Para. 1. In your letter of the 11th July 1856, No. 3173, conveying the orders of the Government of India on the Budget of this Presidency for the year 1856-57, further information was called for in regard to certain of the Projects entered in Statement No. 1 of that Budget. The Chief Engineer was accordingly directed on the 12th August following to attend to the requisition, and it was the intention of the Government to have submitted a complete report on all the points noticed in your letter. Colonel Faber however has not yet been able to comply with the requisition fully, and as considerable delay has already taken place in disposing of this matter, I am directed by the Right Honorable the Governor in Council to submit the subjoined explanation on several of the points in question. The items regarding which information is still due are few in number, and will be reported upon hereafter.

OBJECTIONS TAKEN BY THE GOVERNMENT OF INDIA.

Irrigation works.

GUNTOOR. Project No. 17. Constructing a portion of the Kistnah Southern high level channel in continuation from Inganampaud to Inkole Rupees 3,26,100.	Para. 8. Observe that no designs have been submitted for the Aqueducts across the streams to be crossed by the channel, and that the streams themselves have not been marked on the Sketch Map.

Explanation.

2. A Sketch and three Plans marked respectively A, B, C, and D, which were not forwarded by the Chief Engineer with the Project, are herewith submitted. The first shews the streams that will be crossed by the channel, and the Plans exhibit the designs of the Aqueducts proposed to be constructed over those streams.

GUNTOOR.
Project No. 18. Opening a channel along the Western bank of the Kistnah from Vullabapooram to tide water at Adavipolliem Rs. 1,39,700.

Para. 9. Requiring an assurance as to the sufficiency of supply of water, and security of the Canal from river encroachment; as also further information relating to the cost of bridges and minor channels of distribution.

3. Explanation on these points is given at length in Captain Orr's letter of the 2nd September 1856, No. 60, which will be found recorded in the Proceedings of this Government of the 28th October following, (Nos. 8 and 9) and in para. 9 of his letter of the 19th August last, copy of which is herewith forwarded, the Chief Engineer expresses his full concurrence in the views entertained by that Officer. In respect to the minor channels, the District Engineer observed that as much consideration would be required in laying them out, it would be "almost impossible to estimate for them long enough beforehand to permit of their being specifically included in the main Project." He therefore submitted estimates for a certain number of miles of the ordinary sized distributing channels which were sanctioned by Government, and entered in the Budget Statement No. 2 for 1857-58, (Items Nos. 74 and 97). Bridges were not provided for in the main Project, because the District Engineer considered "that the wheel traffic requiring "to cross the channel any where below Bezoarah after the bridge* "over the river there is completed, would be so small as to be quite "easily accommodated by efficient ferry boats." Captain Orr further observed that only one road of some importance intersects the line of the channel, and he submitted a Project for erecting a bridge at that spot. Estimates for this bridge, as well as for four others, were sanctioned by Government, and enteredin the Budget Statement No. 2 for 1857-58 (Items Nos. 103 to 107.)

* Sanctioned by Government of India in letter of 1st June 1853 para. 14.

GANJAM.
Project No. 1. Embanking the Mahanuddee river from its junction with the Kolanda river near Aska to Russelcondah, Rupees 64,840.

Para. 12. Observe that the Sections do not show the relative levels of the river banks and of the adjacent country. Also that no information is given of the site of the embankments, the area of floodway they would enclose, the volume of water discharged by the river in highest floods, and the extent to which the embankments would limit the spread of water. Remark that it should be shewn that the evils attendant upon the Damoodah embankments are not likely to result in this case.

4. It will be observed from the Proceedings of this Government of the 24th March last, (Nos. 2 and 3) that the Government, in an order dated the 18th of that month, pronounced the information then furnished in respect to this Project, still insufficient. The Chief Engineer has in a letter of recent date stated that further information is due from the District Engineer of Ganjam and Lieutenant Colonel F. C. Cotton; and on receipt of reports from these Officers, the Government will again address the Government of India on the subject of this work.

Navigation works.

EAST COAST CANAL.
Project No. 55. Extending the East Coast Canal from the Palaur river to the Pondicherry frontier, Rupees 3,75,000.

Para. 13. Observing that it is not clear how the level of this Canal can be steadily maintained unless there be a lock at each point where it enters and emerges from the Tidal Lagoons through which it passes; and that the number and position of such Locks should be distinctly shewn.

5. Information on the points here noticed has been furnished to the Government of India in paras. 6 and 7 of the report on the Budget for 1857-58, dated 12th March 1857 No. 462, and a hope was at the same time expressed that the project would be recommended for the sanction of the Honorable the Court of Directors.

MASULIPATAM.
Project No. 14. Constructing locks and Calingulahs at Yalarpaud and Chenacapaveram, and an embankment to Weyairoo, Rupees 64,820.

Para. 15. Desiring to be furnished with a Statement of the nature and extent of the expected traffic, and of the probable returns.

6. The particulars called for were supplied in the letter from this Department dated 11th November 1856 No. 2,097, and the project received the sanction of the Government of India, in Colonel Baker's letter of 19th December following No. 5879.

CANARA.
Project No. 50. Opening a Canal from the Tuddry river to Coomptah, Rupees 36,021.

Para. 17. Observes that the length of this Canal is not stated, and that there is no scale to the map, and deems it essential that light tolls should be levied on this and every other Canal of navigation.

7. The information required in immediate connection with this Project remains yet to be furnished. The general question of tolls on Canals is engaging the consideration of this Government and will form the subject of a separate communication to the Government of India, when the reports that have been called* for are received and have been considered by Government.

* Cons. 6th Feb. 1857, Nos. 18-19.

Trunk Roads.

CHINGLEPUT AND NORTH ARCOT.
Project No. 29. Increased width of metalling on Trunk road No. 1, Rupees 55,690.

Para. 18. Deferring passing a decision upon this item, until the actual effect of the Railway on the traffic of the road is ascertained.

8. In forwarding with his present letter of 19th August 1857 a Tabular Statement of the traffic on this road during the months of March and April last, the Chief Engineer observes (para. 11) that "as yet the "Railway has had but little effect on the Trunk road traffic." Colonel Faber therefore recommends "that the result of at least another six months should be awaited," as the Railway traffic was believed to be fast increasing. It will be seen from an order of this day's date (para. 4) copy of which accompanies that the Government have acceded to this recommendation, and have called for a report at the expiration of that term.

NELLORE.
Project No. 20. Masonry works on Trunk road No. 6 between Covoor and the Moodigunda river, Rupees 84,580.

Para. 21. Observe that the designs for Masonry works in this and most of the Trunk road Projects are drawn to a standard pattern without any variation to suit local peculiarities: and that the foundations appear to be deficient in depth. Presume that the Chief Engineer has satisfied himself on this point.

9. In respect to the first of the points here noticed, the Chief Engineer in his present letter of 19th August (para. 13) explains that, as the conditions of the beds of the rivers for which the bridges were intended differed but little, the plans had the appearance of being drawn to a standard pattern; and the late Superintendent of the road Department, he further adds, has assured him that local peculiarities were always kept in view in the designs prepared by him. As regards the second point, the Chief Engineer for the reasons given in paras. 12 to 14 of the same letter, is of opinion that "generally the foundations "allowed are of sufficient depths." It will be observed from para. 5 of the order of this day's date, that a further report is expected from Colonel Faber on the subject of this Project, which when received, will be duly laid before the Government of India.

GANJAM.
Project No. 2. Repairing and improving 34½ miles of Trunk road No. 6 from Sunthoshapooram to Dendagedda near Itchapoor, Rupees 46,550.

Para. 22. Calling for an approximate estimate of the cost of the larger bridges omitted from this Project.

10. An estimate for the bridges alluded to in this para. as well as for bridges on another portion of the line to the amount of Rupees 47,220 has been received from the Chief Engineer, and will be submitted for the sanction of the Government of India in the Budget of 1858-59.

SOUTH ARCOT.
Project No. 35. Bridge over the Pennaur on Trunk road No. 8, Rupees 10,6,333.

Para. 24. Expressing a doubt as to the sufficiency of the foundations in the event of sand being found in the river bed to a greater depth than that of the Superstructure.

11. Information on this point has not yet been received by the Chief Engineer.

CUDDAPAH & NORTH ARCOT.
Project No. 23. Constructing bridges on Trunk road No. 11 from Chittoor to Cuddapah, Rupees 1,28,753.

Para. 28. Observe that the whole of the designs for these bridges exhibit an apparent deficiency of foundation.

12. The Government of India will observe from the accompanying letters from the District Engineers of Cuddapah and North Arcot marked E and F, that of the sixteen bridges proposed, the foundations of two only are considered to be partly insufficient, and that the evil it is intended shall be remedied by an addition of $8\frac{1}{2}$ and $3\frac{1}{4}$ per cent. respectively to the estimates. The bridges here referred to are those over the Chittoor and Calavagoontah rivers in the North Arcot District, the first estimated at Rupees 12,482 and the second at Rupees 21,387.

District Roads.

MASULIPATAM.
Project No. 15. Partial repair to the Masulipatam and Hydrabad road from Ibrahimpatam to Masulipatam, Rupees 43,250.

Para. 29. Express a doubt as to the efficiency of sand and Potter's earth proposed to be used for metalling this road; and as the line is one subject to heavy traffic, consider that the additional cost of proper metal might wisely be incurred.

NOTE.—Three Projects Nos. 6, 15 and 19 were noticed in this para. but the remark is applicable only to No. 15.

13. The question mooted in this para. on being referred by the Chief Engineer to the Civil Engineer of the Kistnah Division, that Officer stated that gravel was not procurable any where in that part of the country except in the neighbourhood of Ibrahimpatam and Bezoarah, and that the excessive cost of cartage precluded its use except in the vicinity of those places. Captain Orr therefore proposed to abandon the intended route, and construct the road on one of the embankments of the Masulipatam Canal, with the view of ensuring its being covered with gravel, which it was stated could be brought down the Canal at a moderate cost.

* Cons. 12th May 1857, Nos. 41-42.

It will be seen from the Proceedings* noted in the margin that the Government have sanctioned this change of the line of the road, and have called for a fresh estimate for carrying out the measure in substitution of that entered in the Budget of 1856-57.

CUDDAPAH.
Project No. 24. Completing the Cuddapah and Bellary frontier road, Rupees 78,710.

BELLARY.
Project No. 26. Earth work and minor Bridges to the portion of the Bellary and Cuddapah road from Royalcherroo to Ghooty, Rupees 31,100.

Para. 30. Declining to sanction these isolated portions of the road from Cuddapah to Bellary, and calling for a complete estimate of the whole line.

14. On the 6th December 1856, the Chief Engineer forwarded an estimate for the portion of the road here referred to, lying within the Cuddapah limits, but it was returned to that Officer in view to its being incorporated with the one for the Bellary portion which had not been submitted. This complete estimate, when received, will be forwarded for the orders of the Government of India.

MADURA.
Project No. 43. Constructing a Bridge across the Vigay river, Rupees 42,200.

COIMBATORE.
Project No. 48. Building a Bridge across the Ambravutty river Rupees 63,830.

Para. 33. Observe that the wells of the bridge over the Vigay, appear deficient in depth; and suggest whether it would not be advisable to carry to a greater depth than 8 feet the foundation cylinders of the Ambravutty bridge which was to be founded on sandy soil.

15. The information here required not having been supplied to the Chief Engineer has been again called for by that Officer. Colonel Faber however observes in his present letter of 19th August (para. 15) that he is fully satisfied with the sufficiency of the foundations in the case of the two bridges. A further report on this subject will be submitted to the Government of India when the expected reports of the local Officers shall have been received and considered by Government.

MADRAS.
Project No. 51. Additions and alterations to the Sea Custom House and improving the external accommodation of the building, Rupees 70,040.

Para. 37. Express a doubt whether the verandah on the Sea front of this building can be conveniently used as an Export Warehouse. Observe that the details of the tramway as shewn in the drawing are apparently susceptible of improvement.

16. The Chief Engineer has explained that the doubts entertained by the Government of India have not been felt by the local Officers, and that the Export shed which has been completed gives great satisfaction to the Sea Custom Officers.

In respect to the Tramway, Colonel Faber observed as follows :—

"The disposition of the Tramway seems to have been partially misunderstood, the Rail "nearest the Custom House is merely a siding, on which Waggons are run out of the way. The "switches are probably drawn at too great an angle, which is merely an error in the drawing, "and which will of course be rectified in construction."

17. The Projects noticed in this letter are as follow.—

No. of Projects.	District.	Amount. Rs.
17	Guntoor, ...	3,26,100
18	Do.	...1,39,700
1	Ganjam, ...	64,840
55	East Coast Canal,...	3,75,000
14	Masulipatam, ...	64,820
50	Canara,...	36,021
29	Chingleput and North Arcot, ...	55,690
20	Nellore,...	84,580
2	Ganjam, ...	46,550
35	South Arcot, ...	1,06,333
23	Cuddapah and North Arcot, ...	1,28,753
15	Masulipatam, ...	43,250
24	Cuddapah, ...	78,710
26	Bellary, ...	31,100
43	Madura, ...	42,200
48	Coimbatore, ...	63,830
51	Madras, ...	70,040

Of the above items, Nos. 24 and 26, having been wholly rejected by the Government of India, require no further notice; Nos. 55 and 14 have already been reported upon, and those in respect to which further information is still due are Nos. 1, 50, 29, 20, 35, 43, and 48. Explanation on the remaining Projects, as noted in the margin,* is furnished in the present letter, and I am desired to express the hope of this Government that it will prove satisfactory to the Government of India.

* Nos. 17, 18, 2, 23, 15 & 51.

18. The papers noted in the margin* accompany this Despatch, and I am to request that those submitted in original may be returned when no longer required.

* Original 1 Sketch A.
do. 3 Plans B, C and D.
do. 1 letter from District Engineer of Cuddapah dated 8th April 1857, E.
do. 1 do. from do. of North Arcot dated 10th January 1857, F.
Copy Chief Engineer's letter dated 19th August 1857.
do. Extract Minutes Consultation dated 20th October 1857, No. 1959.

N° 3052 Central Office of Public Works
Fort St George 19th August 1857.

From

The Chief Engineer

To

The Secretary to Government
Public Works Department

Sir.

2 Enclosures
1 Letter from the Do Engr Vizg: Dr dated 2 Sept/56 No 60
1 Abstract Statement of Traffic

I have the continuation of my letter N° 2050, dated 15th Ultimo, and with reference to Extract Minutes Consultation N° 1536, of the 7th Instant, have the honor to submit herewith as far as I am able, further information regarding the works noticed by Colonel Baker in his despatch of the 11th Feby. 1856, N° 3173.

Para 3 of 2 Mil C: of 7th August 1857 & Para 90 of Col: Baker's letter

1st. Opening a Channel along the Coast to the South of the Kistnah from Malabapore to Tide water at Adarapollium.

Information required regarding the sufficiency of supply, the security of the Canal from the River encroachment, and the cost of the bridges, and minor Channels of distribution.

The

2 The District Engineers letter N° 60, dated 2d September 1856, furnishing the required information, was forwarded to Government with Extract from proceedings N° 6509 of the 13th idem, and was returned by Government with Extract Minutes Consultation N° 1942, dated 22nd October 1856, to be resubmitted with one General Report.

3 The project having been subsequently sanctioned in Extract Minutes of Consultation N° 39, dated 7th January 1857, I was under the impression, that there was no necessity for again referring to the matter. In this impression I am now informed, that I was mistaken, and the District Engineers letter of the 2d September is therefore again submitted with my own remarks as directed.

4 The District Engineer gives a statement of the supply of water in the river Vellaur, and shews beyond a doubt, that no fears need be entertained of any deficiency, observing that "the Vellaur having so many of its sources "among the western ghauts, and being influenced "by the Southwest, fills early, and maintains

"its depth to a late period, being in these respects
"I think more serviceable as a source of
"irrigation than any of the other rivers of
"Southern India, not excepting the Godavery;
"although the latter possesses an more ample,
"and more certain dry weather supply."

5 The Channel is to be carried near the margin of the river, in order to obtain for it the high level which that site affords. In repairing the bank from time to time, care has been taken to remove it wherever it was in too close proximity to the river, or where the land was being abraded; no present danger from the encroachments of the stream is apprehended, and should it arrive in course of time, protective measures, as observed by the District Engineer, can be taken by constructing groynes to divert the Current.

6 The minor Channels of distribution were omitted from the project, 1st from the desire that no time might be lost in obtaining sanction for the main Channel, which was urgently required for bringing several valuable Tanks in the Nayapully Talook

under

under the influence of the ancient, and 2d because as the small channels were not likely to be required for some time after the formation of the main duct, and could be dug as applications for water were made, it was thought better not to load the project with them.

As much consideration would be required in laying out the minor channels, with reference to the interests of all parties concerned, the District Engineer was of opinion that it would be almost impossible to estimate for them long enough before hand, to admit of their being specifically included in the main project, and therefore proposed for entry in the Budget Estimates providing a certain number of miles of the ordinary sized distributing Channels. These Estimates were subsequently sanctioned, vide items Nos 94 and 97 in Statement N°2 of the current Budget.

9 Bridges were omitted from the project, because the District Engineer considered, that when the one under construction across the river at Bezoarah was completed, ferry boats with one exception, would afford sufficient

sufficient accommodation for the wheeled traffic requiring to cross the channel below that point. an Estimate for the bridge referred to, as well as for four others, was submitted to Government with my letter N°1979, dated 1st October 1856, vide item N°s 193, to 197 in Statement N°2 of the current Budget

I have merely to add further on this subject, that the views expressed by the District Engineer meet with my full concurrence.

2nd Increased width of metalling on Trunk Road N°1.

Para 7 of L. No. C. 7th Sept. & 18th Col. Baker's letter.

A decision on the question was to be suspended, until the actual effect of the Railway upon the traffic had been ascertained

10 A tabular Statement on the traffic is herewith submitted, with an abstract of the daily average of the number of carts shown in it, compared with the returns given by the late Superintendent of Roads in his Report for 1854/55.

11 From this Statement it will be seen, that as yet the Railway has had but little

little effect on the Trunk Road traffic, but as I am given to understand by Colonel Pears that the Railway traffic is now fast increasing, I consider before the question of increasing the width of metalling on the Trunk Roads is decided, that the result of at least another 12 months, should be awaited

3rd Plans for bridges on Trunk Roads.

12 In respect to the bridges designed by the late Superintendents of Roads, I am of opinion, that generally the foundations allowed are of sufficient depths. In beds of rivers not requiring bulky solid foundations to a depth of 4½ to 6 feet are allowed, and where wells are used provision is made for sinking them to a depth of 10½ feet, the wells themselves being 4½ feet covered with a solid foundation above of 6 feet. In both cases retaining walls are provided both in front and rear, and a solid flooring under the arches.

Para 9 of Mr. Fl. M.C. of 7th August para 21. 24. of Col. C. Baker's letter.

13 The extensive experience in bridge building obtained in the Road Department, led the Superintendent to consider, that foundations in excess of those above described would be superfluous, an opinion in which I fully concur; it is to be observed, that the conditions of the beds of the rivers for which the bridges remarked upon were designed differing but little, the plans had the appearance of being drawn to a standard pattern, but I am assured by the late Superintendent, that in preparing his designs, local peculiarities were always considered.

14 In respect to the question of the depth of foundations to be given to bridges here under ordinary circumstances, a difference of opinion, according to the experience of the officers engaged, is naturally to be expected, and in some cases in the actual execution of the works, deviations from the original designs may be found necessary (which was my object in calling for reports from the District Engineers) for instance in beds of rivers giving a promise of rock throughout their entire breadth, parts may be found here and there, where the rock proving to be superficial, or altogether failing, the necessity for sinking wells, or otherwise increasing the foundations becomes apparent, but as before observed, I am of opinion, that the

the foundations of the bridges, regarding the sufficiency of which doubts are entertained by Colonel Baker, may be considered secure.

15 I would here mention, that I am also fully satisfied of the sufficiency of the foundations of the Vegayapud Embankment bridges noticed in para 14 of the order of Government under reply, and in para 33 of Colonel Baker's letter.

16 The works regarding which information is still required, and which has been again called for are:

1st The Mahanuddy Embankments.

2nd The Juddry & Coimpitah Canal.

and 3rd The Estimate for the Road from Bellary to the Cuddapah Frontier.

17 With reference to the concluding remark of Government on the incomplete: ness of the Report furnished in my letter of the 15th Ultimo, I would respectfully observe, that the Report was submitted at the express desire of Government as conveyed in para 19 Extract Minutes of Consultation N° 461 dated 12th March 1857.

I

18 I would further observe with reference to para 14, that I had not overlooked, as supposed by Government, the intention of carrying the line of road between Masulipatam and Ahamapatam on the bank of the Masulipatam Channel.

19 The observations in Clause III para 12 of my letter N° 2050, dated 15th Ultimo were made on the subject of Captain Ross's letter N° 164, dated 3d January 1857, in which that Officer stated, that

"No material for road making being "found in the Delta through which the roads "from Masulipatam to Ellore and Beyorah "&c &c &c"; and considering at the time of writing, the question of metalling the roads noticed, with Colonel Baker's remark "as the roads are represented to be "important and therefore subject to heavy "traffic, the additional cost of proper "metal might perhaps wisely be incurred" before me, I expressed an opinion, that "the excessive cost of gravel which is "stated by the District Engineer not to be "procurable within any reasonable distance

is

"is a sufficient reason for not advocating
"its being used, until at all events the traffic
"on the roads in question is proved to be of
"sufficient importance to justify the heavy
"expenditure that would be necessary",
and thus I find it distinctly written in
the original draft of the letter..

20 The Government observe
use the word "road" in their quotation from
my letter, from which I am led to suppose
that a clerical, upon fair copying, in using the singular
instead of the plural, as in the case of my
remarks on the lines of communication
between the Bellary and Cuddapah Districts
in my letter N° 1092 dated 10th June 1857, has
again misled them as to my meaning..

21 These concluding remarks have
been called for by the receipt in the Central Office
on the 13th Instant of a second order
bearing the same N° and date as the first
order received on the 10th Instant, in which no
mention was made of my apparent forgetfulness
and to which a reply had already been drafted..

I have the honor to be Sir
Your most obedient Servant
Richd Strachey Colonel
Chief Engineer..

W. Nuthall Esqr M.C.
To
The Secretary to Government
&c &c &c

R 20 D

2 Lines [illegible]

* N° 1536 of the 9th Instant..

Cons: 11 August 57 [illegible]
" 30 Cons — 5585
" 17 Cons — 13-414
" 20 Jany — 10810
" 23 Cons — 02713
" 24 Cons — 203
" 13 Jany — 1191
" 21 Oct 56 — 2502
" 28 — 827

Public Works 1857 Department
Cons 20th October
No. 1162

From
The Chief Engineer
To
The Secretary to Govt

Dated 19th
Rec'd 21st } August 1857.
Cons 2. No 3052

In continuation of his letter No 2858 dated 15th ultimo & with reference to Govt Cons No 1536 of 7th instant, furnishes as far as he is able further information regarding the boats noticed in Col Baker's memo of the 11th July 1856 No 3173.

Copy to the Govt
Rdd
20 Oct 57 No 1960

No 66.

Govt No 8

Abstract Statement of Traffic taken at the undermentioned places on Trunk Road No 1. during the Months of March and April 1857, in the Districts of North Arcot and Chingleput.—

1857	Place of Miles	Elephants Laden	Elephants Unladen	Carts Laden	Carts Unladen	Camels Laden	Camels Unladen	Horses Laden	Horses Unladen	Draught or Mules Laden	Draught or Mules Unladen	Horned Cattle Laden	Horned Cattle Unladen	Sheep or Goats Laden	Porters Laden	Porters Unladen	Europeans Foot Passengers Laden	Europeans Foot Passengers Unladen	Native Foot Passengers Laden	Native Foot Passengers Unladen	Palkeys or Palkey Gaurs Laden	Palkeys or Palkey Gaurs Unladen	Riding Cattle Laden	Riding Cattle Unladen	Hackeries or Carriages Passengers Laden	Hackeries or Carriages Passengers Unladen	Children Laden	Children Unladen
March	Wocherry	22	27	1537	831	57	59	157	223	292	340	2824	3247	1469	2117	2842	"	20	25	169	41	168	20	49	"	"	2028	2410
do	Arcot	38	20	393	113	106	38	89	30	3	32	255	279	874	60	174	"	16	912	780	4	15	27	20	"	"	1222	728
April	Wocherry	24	18	1596	681	68	50	287	227	278	355	506	3022	1345	804	2833	"	47	22	170	16	445	22	27	"	"	342	1285
do	Arcot	25	11	529	166	217	372	244	188	368	133	779	300	154	128	"	"	25	589	672	28	5	49	34	"	"	2683	3998
March	Poonamallee	"	4	856	196	1	"	13	16	8	4	4	253	87	20	"	"	32	374	526	"	"	32	35	1	"	298	401
April	do	"	"	611	128	4	5	9	7	4	154	3	1	94	20	4	"	128	371	549	"	"	36	6	1	1	296	430

Central Office of S.P.—
Fort St. George 19 August 1857

Thos. Taber Colonel
Chief Engineer

N. B. 1. In tubulating the returns, the Chief Engineer regrets to find, that the traffic for the two Months of May and June, was not registered at Wocherry, and Arcot. The July return has not been received, the following comparison therefore is not satisfactory, but sufficient to shew that to April last, the Trunk Road has not been relieved.—

Average of Road Deputy returns registered at the 6, 218 71 Miles —— 1257 Carts.
——do.—of District Engineer—do——to——at the 13, 584 71 Miles —— 1273 —do—

2. The returns have been received from Chingleput for May, June and July, but standing alone cannot be made use of in the comparison.—

3. The District Engineers of Chingleput and North Arcot, will now be directed to see, that the returns are carefully taken at Poonamallee, Rajah's Choultry, Baudchelly, and Arcot, for the 6 Months from September to February.—

Thos. Taber Colonel
Chief Engineer

170

Colonel Dirs 2nd
Steamer to
Govt of India.

1859

Public Works Departt

Extract from the Minutes of Consultation
Under date the 20th October 1857.

Read the following
letter from the Chief Engineer
Hereunter 19th August/57 No. 3052.

With this letter
the Chief Engr forwards with
reference to Ext Bmbay Cons
of the 7th Augt last No 1536
further information re-
-garding the Projects entered
in Statement No 1 of the
Budget for 1856/57. and
noticed in Col. Baker's
Despatch of the 11th July
1856 No 3178.

2. The Projects
noticed in Col. Baker's
present letter are.

First

Enclosures and a letter from
The Chief Engineer C.S.D.
To The Secretary to Government
C.S.D.

Dated 19th
No 4 } August 1857.

No 3052

Submitted Abstract of Estimates
for Carts with the undermentioned
Roads and Tanks Road No 1
during the Season of Rain
Work to end 1857 in the Collectorate
of Ahmedabad

PDW 18 62

3 "X" Torsh. Project No 18.
Opening a Channel along
the western bank of the
Kuttuadi from Vullaba-
roosam to tide water at
Adavapallicum in the Gun-
=toor District. Rs 1,39,700
In respect to this Project,
the Govt of India demanded
an assurance as to the
sufficiency of supply
of water, and security of
the Canal from river en-
=croachment. as also for
the information respecting
the cost of bridges and
minor Channels of distri-
=bution. The Chief En-
=gineer now responds in
Captain Orr's letter of
20 September 1856, affor-
=ding information in the
several points noticed
by the Govt of India
and explains his fail-
ure to commence in the

× Para 9 of Letter dated 11 July 1856.

× Para 2 & 3.

entertained by that Of-
=ficer. In respect to the
Minor Channels, it is
explained that it was
not practicable "to es-
"timate for them long
"enough before hand, to
"admit of their being
"specifically included in
"the main Project." Esti-
=mates however for a certain
number of miles of the
ordinary sized distributary
Channels have been
submitted by the Chief
Engr, and entered in
Statement No 2 of the
Budget for 1857/58.
(Items Nos 94 and 97).
Bridges were omitted from
the Project, because the
District Engineer con-
=sidered "that the traffic
"traffic requiring to
"cross the Channel at
"where below Bezoada
after

"after the Bridge over the
"River there is completed,
"would be so small, as
"to be quite easily accom-
"modated by efficient
"Ferry Boats." Captain
Orr further observed
that only one road of
any importance inter-
sects the line of the
Channel, and he accord-
ingly submitted a Project
for erecting a Bridge at
that spot. The Estimates
for this Bridge as well
as for four others, were
laid by Govt., and
entered in the Budget
Statement No 2 for 1837/38)
(Mems Nos 103 & 107).

1. Second Project No 29.
Increased width of
Metalling on Trunk
Road No 1, in the District
of Chittagong and North
Circle. No 35690.

The Govt of India deferred

* Sanctioned in Com. Ltr. dated 10 July 1835, No 32 Para 9.

Para 8 of the date 11 Feby 1836.

* Paras 10 and 11

passing a decision upon
this item until the actual
effect of the Railway on
the traffic of the road
was ascertained. Col. Faber
now forwards* a Statement
of the traffic on the road
during the Months of
March and April last,
and observes that it has
not as yet been materially
affected by the Railway.
He therefore recommends
that the results of at least
another Six Months should
be awaited, as the Railway
traffic was believed to
be fast increasing. The
Government accede to
this recommendation, and
they

they hope that a careful observation will be made of the extent of traffic passing on the road during the period in question. Col. Faber will submit a report at the expiration of that term.

5. Third Project No 20 Masonry Works on Trunk Road No 6, between Covoor and the Moodigunda river in the Nellore Dist. Rupees 84,580.

It was observed by the Government of India that the designs for Masonry works in the above, and most of the Trunk Road Projects, were drawn to a standard pattern without reference to local peculiarities, and

× Para 21 of letter dated 11th July 1856.

* Paras 12 to 14.

it was also remarked that the foundations appeared to be deficient in depth.

In his present letter, the Chief Engineer expresses himself satisfied generally with the foundations allowed, and gives his reasons in support of this opinion.

In respect to the objection taken by the Government of India regarding the designs of the Bridges, Col. Faber explains that, as the conditions of the beds of the rivers for which those Bridges were intended, differed but little, the plans had the appearance of being drawn to a standard pattern; but the late Supdt of the Road

Road Deptt, he further adds, has assured him, that local peculiarities were always kept in view in the designs prepared by him. The Govt. observe from para 8 of the Chief Engrs letter of the 15th July last No 2050, that that officer had repeated the Call — which he had previously made for information on both the above points; they would wish therefore to have before them a copy of the reply that may be received, together with Col. Faber's own sentiments on the views of the local Officer.

6 Fourth Project No 43 Constructing a Bridge across

* Para 33 of letter dated 11th July 1856.

† para 15

across the Vygay river in the Madura District Rs 42,200.

Fifth Project No 48 Constructing a Bridge across the Ambravutty river in the Coimbatore District Rs 63,830.

It was pointed out by the Govt of India that the wells of the first mentioned Bridge appeared deficient in depth, and it was also suggested whether it would not be advisable to carry to a greater depth than 8 feet the foundation Cylinders of the Ambravutty Bridge, which was to be ~~founded~~ laid on Sandy soil. The Chief Engr in his present letter expresses himself fully satisfied with the sufficiency of the

the foundations allowed in the designs of both the Bridges. In respect to this Case also, the Govt. observe from para 14 of the Chief Engineer's Letter of 15 July last above referred to, that the Calls for information previously made has been repeated. Col. Faber is therefore requested to submit when received, the replies of the local Officers, with such remarks as the further information he may obtain, may induce him to offer.

7. The Projects on which information is still due are stated to be as follows. para 16.

The

No 1 The Mahanuddy Em. bankment.

" 50 The Sudry and Comp. Mah Canal.

" 24 & 26. Portions of the Road from Bellary to Cuddapah.

The two last items (24 and 26) having been wholly rejected by the Govt. of India, require no further notice. It should not however be lost sight of that a Complete Estimate for the entire line, as called for in Extract Minr. Consr. of the 12th June last No 1131, remains to be submitted. In addition to the Projects above enumerated, the Chief Engineer will observe that information on those specified below has also to be furnished, and

and the Govt. trust that that Officer will use his best endeavors to supply the deficiencies at an early date.

No. 29. Trunk Road No. 1. To be reported upon at the expiration of Six Months, as directed in Para 4 of this Order.

" 20. Masonry Works on Trunk Road No. 6 between Cavoor and the Woodigunda river. A further report to be submitted on receipt of one from the Local Officer, as directed in Para 5.

" 35. Pennaur Bridge. Do information as yet furnished.

" 43. Vyjay Bridge } Reports
" 48. Ambramutty Do } of Local Officers to be submitted, with one from the Chief Engineer, as directed in Para 6.

8. The last project noticed

† paras 18 to 20.

noticed in the Chief Engrs. present letter is No. 15 Road from Masulipatam to Ibrahimpatam - In para 8 of Ex. Mins. Cons. of the 12th August 1856 No. 1405, it was intimated to that Officer that the objection taken by the Govt. of India in regard to the use of sand and pottern earth for road metalling applied exclusively to the above road, but the reply contained in para. 12 of Col. Fabers letter of 15th July last was directed, not only to the road in question, but also to another, to which no objection had been taken, Viz. Project No. 6, Road from Vizagapatam viâ Punchra darlah to Poolapurty on

on Trunk Road No 6. In
that reply, reference was
made to a letter from —
Captn Orr of the 3d January
1857, in which it was stated
that no suitable material
for road making was
procurable in the Delta,
and the Chief Engineer
deprecated any attempt
to bring Gravel from a
distance, till "the traffic
"on the road is proved to
"be of sufficient importance
"to justify the heavy expen-
"diture that would be
"necessary." From this
remark, it was clear
that Col. Faber had lost
sight of the order of the
8th May last No 891, wherein
authority was granted
for abandoning the route
originally proposed for
the

the Masulipatam and Sha-
limpatam road, and for
transferring the line to the
bank of the Masulipatam
Canal, with the view of
ensuring its being covered with
gravel at a moderate cost. The
omission
was therefore pointed out to
the Chief Engineer in para 14
of C. Mc. C. of the 7th August
last No 1536, as an oversight
on his part.

9. Col. Faber now —
observes that he had not
overlooked the intended
change of the line of road,
and presumes that a —
clerical error in his office
in writing the word road
instead of roads, in the
passage given under —
quotation in the preceding
para, must have misled
the Govt as to his meaning.

The

The Govt. regard this explanation as far from satisfactory. The question at issue, they observe, was proper metalling for the Masulipatam and Ibrahimpatam road and that question would have been effectually set at rest by a reference to the order of 8th May 1857 above referred to, but which the Chief Engineer entirely overlooked.—

10. The Govt. regret that they are not in a position to submit, as it was intended, a Complete report to the Govt of India on all the points on which information was required in Colonel Baker's Dispatch of the 11th July 1856 and as more than a year has Elapsed since the requisition was made, they now resolve to furnish to that Govt such particulars as have been

supplied by the Chief Engineer.

Ordered accordingly that the following letter be dispatched.

To Col. W. E. Baker
Secretary to the Govt of India
P. W. D.

(Here enter 20 Oct 1857 D. 1960.)

J D

9 Copies to the Chief Engineer—Dispatched
6— Govt of India N

Dy to Cons 11th Augt 1857 11 : 43 & 44
" 30th June — " 55 & 56
" 17th March — " 13 & 14
" 20th Jany. — " 108 & 109
" 23d June — " 102 & 103
" 24th March — " 2 & 3
" 13th Jany. — " 16 & 17
" 21st Octr/56 — " 25 & 26
" 28th _____ 8 & 9.

Public Works 1857 Deptt.
Cons 20th October.

No 1959.

Extract Mins: of Cons:
Dy 20th October/57.

Extract from Chief Engr 2d Octr 57
6 : 212 Inclos. 24 Nov

From Chief Engr 11th Nov 57 6
No 2226 — 6 152

From the Chief Engineer Dy 6th April
Para 4 — 1859 6, No 840 Cons:
Statement of traffic on Trunk Road
No 1 —

Receiving the further
information called for, regarding
the Projects entered in Statement
No 1 of the Budget for 1856-57

No 66 & 67.