M.R.O.)—77,000—4-4-37.

(1) Number of pages 30

(2) Date of repair 1-11-38

(3) Initials of the Reference

MADRAS RECORD OFFICE.

Government of Madras.

DEPARTMENT.

G.O. No. / / Press Mk.

Dated 19 / /

Not to be folded or roughly handled

D-W-0 P-W-0

திறப்பிடவர் } வசம் 166

அரசர் பொறுப்பு

அரசர் பெறுதேதி.	அரசர் பொறுப்பு		திரும்பத் தருவதற்கு அவசியமற்ற தாள் எத்தனையாவது.	திரும்பத்தரவேண்டிய தேதி.	திரும்பத்தரவேண்டிய தாள் எத்தனையாவது.
	தேவை.	தாட்பார் வசம்.	தேவை.		
(1)	(2)	(3)	(4)	(5)	(6)
3/07	✓		✓		
9/11	✓		✓		

No. 24. Read the following letter from Lieutenant-Colonel J. H. BELL, Chief Engineer, to J. D. BOURDILLON, Esq., Secretary to Government, dated 19th December 1859, No. 8516.

An estimate amounting to Rupees 5,700 for the repair of the damages done to the Kistnapatam road by the floods of November 1857, was forwarded to the Central office by the District Engineer, Nellúr, on the 5th May 1858. In submitting this estimate, the District Engineer reported that the enquiries made as to the cause of these damages resulted in eliciting the fact that the foundations of the tunnels which had been washed away were not of a sufficient depth, although he admitted that an unusual quantity of water had passed through them.

1 Letter from the District Engineer of Nellúr, No. 1173, dated 9th June 1858, with one enclosure.
1 Letter from do. No. 2302, dated 14th October 1858, with 2 enclosures.
1 Letter from do. No. 1841, dated 11th August 1859, with one enclosure.
1 Do from do. No. 2617, dated 7th November 1859, with one enclosure.
1 Do. from do. No. 2776, dated 20th do. with one enclosure, one abstract estimate.

2. On the 9th June 1858, the District Engineer forwarded a letter from Captain Ritherdon, reporting that from the 4th to the 15th miles of this road, 47 tunnels had been built and 18 damaged. Of those damaged, Mr. Sub-Engineer Irving is stated to have constructed 11, and Mr. Assistant Overseer Jeffrey, under the orders of Captain Palmer, the remaining portion. Captain Ritherdon is unable to explain how the insufficiency of the foundations allowed for the tunnels, could have escaped the notice of the Sub-Engineer, a most experienced member of the Public Works Department. The District Engineer simply observes in submitting this letter, that the foundations of the tunnels as provided for in Captain Ritherdon's estimate of Rupees 16,650 granted on the 8th March* 1856, were in no case less than 2½ feet.

* Item No. 91, budget of 1856-57.

3. It appearing that in the construction of these masonry works, blame was attached to Mr. Irving, the District Engineer was requested to obtain and submit his explanation, as to the circumstances under which an insufficiency of foundation had been given to the tunnels. This Captain Mullins did in his letter, No. 2302, dated 14th October 1858, enclosing the two explanatory letters from the Sub-Engineer noted in the margin. In his first letter, Mr. Irving states that from a desire to construct the works as cheaply as possible, the foundations of the tunnels in question were ordered by Lieutenant Palmer the Executive officer in charge of the Kistnapatam road to be built two feet deep, and that Captain Ritherdon issued no orders for increasing the depth. From Mr. Irving's 2nd letter it appears that the average depth of the foundations given to certain tunnels on the same road constructed previous to his taking charge was two feet, proving thereby, as he considers that the depth of those afterwards built was not determined by himself but by the Executive officer. The tunnels alluded to appear to have been constructed partly one in 1854-55 out of the balance remaining from the grant for famine roads and from an advance of Rupees 1,616 taken as a loan from the annual repair allowance of Rupees 6,440* prior to the sanction of the estimate for Rupees 16,650 specially for the road from Nellúr to Kistnapatam. Considering, therefore, the limited amount allowed at the time for the execution of the tunnels, Mr. Irving urges the necessity which existed for the exercise of the greatest economy, and adds that no officer in the district could have contemplated at the time of the building of the tunnels, that the whole of the tanks (30 in number) on the eastern side would have burst or that the Kistnapatam backwater would have overflowed, and moreover, that as Captain Ritherdon did not when inspecting with him a tunnel which had been carried away in the previous storm of 1856 notice the depth of the foundations, although he himself appears to have been aware of the circumstance, he did not consider it necessary to point out to Captain Ritherdon that they were insufficient, believing as it would seem that the work was not being carried out under his, but under the Executive officer's responsibility, and that his duty as a subordinate was merely to carry out the orders of his superior.

1. Dated 27th January 1858.
2. Dated 11th October 1858.

* The proper amount is Rupees 5,660 which was granted on the 29th October 1852, No. 723, (budget No. 3 of 1853-60.)

4. In submitting Mr. Irving's explanation, Captain Mullins observes 1st, with regard to the feats from which the work was carried out, that as no separate accounts for the portion of the road between Nellúr and the sea were kept, he could not state what portions of the famine grant and repair allowance were diloted thereto by the Civil Engineer, 2nd division; and 2nd, with respect to the tunnels that their destruction could not be attributed merely to the floods, as the road embankments on either side of the tunnels were in most cases uninjured. Captain Mullins corrects the statement made in his letter, dated 9th June 1858, that in Captain Ritherdon's estimate, no foundations of less than 2½ feet were allowed by explaining that the estimate for Rupees 16,650 was sanctioned in the budget of 1856-57 (item No. 91) and that no detailed estimate for the tunnels constructed out of the famine grant was ever prepared, they could not have been built with reference to any particular plan and estimate and that consequently their dimensions must have been fixed by the Executive officers or subordinates.

5. Captain Mullins furnishes an extract from the general report of works done on the Dorenal road in April 1856, from which it will be observed, that up to the end of March 1856, the work consisted of 2 divisions, viz. the Nellúr and Kistnapatam and Nellúr and Dorenal roads, and that an advance of Rupees 1,611 was made for the former line from the annual grant of Rupees 6,440* which was subsequently made good from the estimate of Rupees 16,650 sanctioned on the 8th March 1856 (item No. 91, budget of 1856-57.)

* Vide remark against paragraph 3.

6. Captain Mullins concludes by observing that the Executive officers in charge of the road were to blame for not having taken care, that the works were executed according to a proper plan and that the subordinate in immediate charge was equally so for not applying for instructions when he had doubts as to the dimensions given to the tunnels.

7. I would here observe that the estimate for Rupees 5,700 alluded to in paragraph 1 was inadvertently lost sight of until the month of August last, when in reporting the probable dates on which certain works in the district might be expected to be completed, Captain Mullins brought to notice that the Nellúr and Kistnapatam road could not be finished in consequence of the repairs included in the foregoing estimate never having been sanctioned, whereupon he was instructed to submit a revised estimate prepared in accordance with the rates now prevailing in the district, which he did in his letter, No. 2617, dated 7th November 1859.

8. The revised estimate submitted with this letter and herewith forwarded for the orders of Government, amounts to Rupees 8,400. The excess of Rupees 2,700 over the original estimate is owing 1st, to the damages done in 1858 by the passage of the drainage through the breaches of 1857; and 2ndly, to a large quantity of metalling having been found necessary for that portion of the road leading across the Kistnapatam salt swamp. The charges for turfing included in the 1st estimate have been reduced in the end by the abandonment of the intention to turf the side slopes of the embankment across the swamp. Of the 18 masonry works destroyed in 1857, seven tunnels are reported to have been built from the balance of the estimate for Rupees 16,650, five miles of the Nellúr and Kistnapatam road are stated to be completed and four more nearly so; while 7½ miles are difficult to pass after rain, though the whole is tolerably passable in fine weather, temporary bridges having been provided where tunnels were wanting.

9. The revised estimate for Rupees 8,400 provides for the following works.

14,000 Cu. yds. earthwork	Rupees	778
4,422 „ gravel	„	1,000
5,870 „ do.	„	1,467
6,700 Sq. yds. turfing	„	73
11 Tunnels	„	2,070
500 Fascines each	„	200
Sundries	„	283
Rupees		9,000
Balance balance from estimate of Rupees 16,650	„	600
Balance requiring sanction	„	8,400

10. The foregoing is a resumé of the whole correspondence which has taken place on the subject of the Nellúr and Kistnapatam road. With respect to the destruction of the tunnels, it is much to be regretted that the Civil Engineer, 2nd division, did not ensure the preparation of regular plans and estimates for the masonry works; for admitting that the works were being carried out on emergency from the famine grants, due care should nevertheless have been taken for their execution in a systematic and proper manner. It is possible, however, that this duty may have been assigned to the executive officers in charge of the road, and they are to blame considerably for not having adopted one of the first measures which an officer placed in their position should have done. The subordinates also I consider responsible for the deficiency of the foundations allowed to the tunnels, and more particularly Mr. Sub-Engineer Irving, who from his own admissions appears to have been aware of the circumstance and no doubt was, from his long experience in the Public Works Department. Mr. Irving's statement that the exercise of economy was enforced upon him, is no excuse whatever for the defective construction of the masonry works alluded to, and although the depth of 2 feet appears to have been given to some of the works prior to Mr. Irving taking charge of the road, yet it was his duty to take measures for correcting the mistake with a view to the construction of the tunnels entrusted to him in as efficient and secure a manner as possible.

11. In conclusion, I would beg to observe, that considering the imperfect condition of the road from Nellúr to Kistnapatam, I have thought it advisable to submit the foregoing estimate for the orders of Government, with a view to the line being rendered as efficient as possible.

12. It is contemplated as the Government is aware to make a canal on the same line, but this may occupy a considerable time and the necessity of a good communication between Nellúr and Kistnapatam is undoubted. I therefore recommend the estimate for entry in the budget of 1860-61.

No. 25. ORDER THEREON, 21st January 1860, No. 167.

Paragraph 1. With this letter, the Chief Engineer forwards an estimate amounting to Rupees 8,400 for repairing and completing the road from Nellúr to Kistnapatam in the Nellúr District.

2. In May 1858, the District Engineer forwarded to the Central office an estimate of Rupees 5,700 for repairing the damages done to this road by the floods of November 1857. Eighteen tunnels were said to have been destroyed; and from enquiries made, it was found that the foundations of those works were of insufficient depth. Eleven of these tunnels were constructed by Sub-Engineer Irving, and the remainder by Assistant Overseer Jeffrey. Mr. Irving explained that Lieutenant Palmer the officer in charge of the road, from a desire to economize the funds then available, ordered the foundations to be built two feet deep, that Captain Ritherdon the Executive Engineer gave no orders for increasing the depth, that he was aware of its insufficiency, but did not point out the circumstance, believing as it would seem, that his duty as a subordinate was merely to carry out the orders of his superiors.

3. In a letter signed by Captain Ritherdon during the District Engineer's illness, it was stated that the foundations of the tunnels as provided for in the sanctioned estimate, were in no case less than two and a half feet; but the latter officer subsequently explained that the works were executed out of the famine grant under no regular estimate, and that consequently their dimensions must have been fixed by the Executive officers or subordinates.

3. The estimate of Rupees 5,700 above referred to was overlooked in the Central office until August 1858. Its attention having then been called to it by a letter from the District Engineer, that officer was desired to prepare a revised estimate calculated on the prevailing rates in the district. Captain Mullins accordingly forwarded one for Rupees 8,400 which is now sent up to Government. The excess of Rupees 2,700 over the first estimate is attributed to the damages caused in 1858 by the passage of the drainage through the enclosed breaches of 1857, and also to a large quantity of metalling having been found necessary for a portion of the

road. Of the eighteen tunnels destroyed in 1857, seven are reported to have been since re-built, five miles of the road are stated to be completed and four more nearly so, while the remaining seven and half miles are difficult to pass after rain.

5. The Chief Engineer notices the omission on the part of the Civil Engineer of the 2nd division in preparing regular plans and estimates for the masonry works, or in ensuring their execution in a systematic and proper manner. He is of opinion that the Executive officers are much to blame for not having attended to that duty, and he considers the subordinates also responsible for the deficiency of the tunnel foundations, and more particularly Sub-Engineer Irving, who, Colonel Bell remarks from having been aware of the circumstances, ought to have taken measures for the efficient execution of the works.

6. The Governor in Council agrees with the Chief Engineer that the Executive officers and subordinates are both much to blame for the shallow foundations of the tunnels, especially the Executive officers. He considers the Civil Engineer of the division also blameable for not having furnished proper instructions on such an important point.

7. It is much to be regretted that in consequence of mistakes and oversights, the damage sustained by the road in 1857 was left unrepaired for a whole season, and so became worse.

8. With respect to the present estimate, the Government are unable to allot anything specially for it from the limited sum allowed by the Government of India for Public Works in the year 1860-61. The Collector and District Engineer must provide the funds for the most necessary works, out of those allotted to the district for repairs, which should be husbanded as much as possible.

(Signed) T. PYCROFT,
Chief Secretary.

1 Copy Letter
2 Mr Secty

A Communication had been given to the Secretary
of the Captain Master of the Letter
No 2302 dated the 4th October 1858 enclosing
the two following Letters from the Lieut
Governor endorsed on the Margin — The first
of which Letter Mr Secretary states that from a
desire to conciliate the minds of People
as much as possible the Commissioners of the Revenue
in question were ordered by their Letter
the Secretary Officer in charge of the Telegraph
from Point de Galle & from thence
that Captain Pickerdon refused to receive
for conveyance the Letter
Enclosed Letter of Captain
Pickerdon

So, notwithstanding Parker and Appleton had
left after sunset, Magoffin should have
liberated Crafts the same evening,
Confessing Creighton having been found
where Hannah never ventured.

9. The Amount Claimed for
Rebellion forwarded for the following
months

1900 Oct Earthworth —— Rs 776.—
1863 " Grael —— " 4089.—
1896 " do —— " 1607.—
4700 Jy Gos Harfing —— " 78.—
" Provincials —— " 2270
Suspension Bridge —— " 200.—
Sundries —— " 385.—
Stephens —— 6000.—

Remark Balance from Schedule
of Rebellion 1865 —— 600.—

Balance Requiring Appropriation —— Rs 8,400

10 The foregoing is a statement
of the whole Correspondence which has
taken place on the subject of the Rebellion
and Restoration Bill. Which is respectfully

[illegible]

experience in the P.R.A. Mr Jennings stated that the exercise of economy was enforced upon him, & no excuse whatever for the defective construction of the Fortress works alluded to, and although the depth of 9 feet appears to have been given the time of the works prior to Mr Jennings taking charge of the Fund, yet it was his duty to take precautions for correcting the mistake with a view to the construction of the Parapets contracted to him in accordance and pursuance of specification

Mr Emslie was requested by the Board to observe, that concurring the original Erection of the Road from Helensburgh to Row, they had thought it advisable to submit the foregoing Minutes from the order of Government, with a view to the Road being put into a state of repair as speedily as possible.

Mr Jennings withdrew, & Mr Emslie & Board on the Fortress were ordered to make a Report on the same Day, on the Works

4

Public Roads. (New Work.)

Abstract of Estimate No of 185 /5

District — Vellore

Taluk — Village —

Work. Repairing & Completing a Road from Vellore to Kistnapatnam

Long 18 Miles 1880 yards.

Quantities	Description of Work.	Rate	Amount	Amount of each part
Cubical.		Rs. A. P.	Rupees	Rupees
11900	Earth work ——— @ 1/2 C.	" " 10	496	
46731/3	Gravel ——— @ C.	" 11 "	1089	
18763/4	Ditto ——— @ C.	" 12 "	1167	
1700	Sq.d Stone Soling ——— @ 1/2 Sq.d	" " 3	73	
	1 Stone 3 feet Span ———	" " "	160	6385
	1 ——— @ C. ——— @ C. ———	" " "	180	
	1 ——— @ C. ——— @ C. ———	" " "	180	
	1 ——— @ C. 2 Culverts 3' Span ———	" " "	300	
	1 ——— @ C. ——— 1 Culvt @ C. ———	" " "	160	
	1 ——— @ C. ——— 2 ——— @ C. ———	" " "	180	
	1 ——— @ C. 1 Culvt 6' Span ———	" " "	160	
	1 ——— @ C. 2 ——— @ C. ——— 6 ——— @ C. ———	" " "	200	
	1 ——— @ C. ——— 1 ——— @ C. ———	" " "	160	
	1 ——— @ C. ——— 6 Feet Sq.d Span ———	" " "	230	
	1 ——— @ C. ——— 6' Sewer Culvt ———	" " "	110	2470
	Inspection and Establishment ———			585
	Deduct Balance of Estimate for Rs 16000 Vide Est. C.S.No. 1 dated 18 Mar 1858			9000 600
	Vellore 9 January Sanctd Rs 8400			

Engr. & Surveyor's Office 9th Jan 1859

M. Lee

Chief Engineer Southern Division

Enclosure 1

Ans Letter

2 Copies

The Chief Engineer

Bth

To

The Secretary to Govt

Bth

Dated 19th Dec 1859

Received

No 1576 1859

Dated 19th Dec 1859

Received Herewith Estimate of Repairs and Completing a Road from Allora to Warwick on the Road to Toowoomba, Chinmoney £100 - - -

No 107

Proceedings of the Moreton Government

Under date the 21st January 1860.

Read the following Letter

from the Chief Engineer -

Submitting for the

orders of Government an Estimate

for completing & Repairs (Recommended 19th Dec 1859 No 1576)

Slope for the repair of the Road

to the Canal Reserve Condamine

River -

Read -

Ordered that the Letter, the Chief Engr forwarded an estimate & Estimate for repairing and completing the Road from Allora to Warwick Bridge

2 On May 1860, the Resident Engr forwarded to the Colonial office an estimate of the Expence for repairing the damages done to the Road by the floods of March 1857. Orders were made to have them attended, and from enquiries made, it was found that the

for the Mendance estimate
cause on no case to pass the
and to take post, but the latter
Officer who proceeding by explanation
which the water proceeded
on it of the former grant
under no regular estimate
and that consequently the
diminishment must have been
fixed by the Executive Officer
or Undertaker.

4th The estimate fixed
5700 cubic perches for the Centre Office
until August 1850 the addi-
tional Excavation done subse-
quent to that date was
done by Contract, that Contract
is signed by the Inspector
contractor and the Engineer
in charge on the part of the
Government and the Undertaker
on the part of the Contractor
executed by witnesses
one for 8400 cubic yards
and up to 9000 cubic yards
at 2/6 per 9000 cubic yards

Extract

ordinarily attached to the
Office of Sewers dated the 13th of
the present month of the drainage
through the marshes and meadows
of Essex, and also to a large
quantity of materials being
there found and provided
for the purpose of repairing
the said Sea Banks of
the eighteen Towns to certified
the 13th of October, whereas upon
to three Commissioners duly
sworn to act in the said Office
for the purposes of the said
Act of Parliament, and
also to the Bailiffs
of Tendring Hundred
and Lexden Hundred
in the said County
of Essex, and to
the Surveyor of
the said Sea Banks
and Works, and
to all and every
other person and
persons whom it
may concern
to be aiding
and assisting
unto the said
Commissioners
in the due
execution of
the said Act
and of this
Order

And

of offences that the Executive
Officers are much to blame
for not having attended to
that duty, and to remove
from the Subordinates other
persons liable for the deficiency
of the Sums of foundations,
and more particularly the
Bailiff of Tendring
Hundred for their neglect
of the circumstances, explained
to them by the Commissioners
the offences of execution of the
Contract.

And Whereas the Commissioners
agreed with the Chief Engineer
that the Executive Officers
should be directed to make
the Contractors be liable for
the Sums of foundations
the Sums of, offences the
Executive Officers the
Commissioners the Civil Engineer
of the Division also

Clauses &c.

Extract of a Letter from Mr. Joseph Banks
to Mr. Alexander Dalrymple

dated Soho Square 20th
March 1787
Received the 22d

Extract of a Letter from Mr. Joseph Banks to Mr. Alexander Dalrymple dated Soho Square 20th March 1787 Received the 22d

I have received the Papers you were pleased to send me relative to the Dutch Settlement at Malacca, which I shall return by the first Opportunity. I am much obliged to you for the Information they contain, and shall be glad to receive any thing else you may procure me from the same Quarter relative to the Dutch Settlements in India, for the Collection I am making of Books relative to the Discoveries that have been made in the Pacific Ocean.