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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 11-86	Press ~~Mis.~~
41-43	
Dated 2-8-	1868.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
2nd May 1865.*

Read the following letters:—

No. 41. From Captain A. S. MOBERLY, R. E., Superintending Engineer, 3rd Division, to Colonel C. A. ORR, R. E., Secretary to Government, Public Works Department, dated Camp, Madanapalli, 1st April 1865, No. 201.

SIR,

1. With reference to my letter No. 161 of 15th December 1864, and the Government Order No. 45 of 9th January 1865, I have the honor to submit the Comparative Statement for the channel from the ruined tank near the 22nd boundary stone at Bellary to the Native Infantry Goontah, showing that the excess is Rupees 7,806 over the original sanction of Rupees 8,000.

1 Comparative Statement.
1 Abstract estimate.
1 Specification.

No. 1,657 of 7th June 1864.

2. The extra quantity of stone facing charged for, is partly caused by the re-building and strengthening a portion that was breached in August 1864, and partly by stone work that was placed in front of the calingulahs to prevent scour and undermining.

3. The extra quantity of earth-work is for repairing the breach to which I have above alluded.

4. The principal cause of excess in the rates for earth-work, is owing to that allowed in the estimate having been insufficient for Sepoy labor, which had to be paid for according to a fixed rate. The Sappers worked according to the estimated rate, but the Sepoys could not. A great deal more tamping and water carrying were necessary owing to the extreme drought, the rains having held off much longer than usual, and consequently all these extras made the work more costly than had been originally anticipated by Captain Fischer.

5. I delayed submitting this Comparative Statement in order that I might forward, at the same time, the estimate for improvements proposed for this channel, as called for in Order of Government No. 3,351, of 22nd November 1864: this was only received a few days ago, and the delay in its submission may be attributed to there having been no Officer in charge until the 31st January, thus throwing on the Overseer an extra amount of work, and to Lieutenant Pennefather's having so much to look into directly on arriving.

6. I now beg to submit the estimate called for in Government Order No. 3,351, of 22nd November 1864, amounting to Rupees 9,700, and to inform you that the work is in progress agreeably to paragraph 1 of the above mentioned Order. In consequence of the badness of the soil, I directed that the rear slope should be altered from 2 to 1, to 3 to 1.

7. When submitting, in January last, the Statement of sums that could be given up on some works and that were required on others, I made provision for the excess on this channel as now shown in the Comparative Statement, and also for other works, such as the new places of worship, &c., at Bellary, but, instead of the money being transferred as I had wished, the money that was available for transfer was taken away altogether from this Division, and now, unless Government can meet these estimates by fresh grants, it will be necessary to stop the works, as I have no funds available.

No. 42. From Captain J. F. FISCHER, R. E., Controllor of Public Works Accounts, to Colonel C. A. ORR, R. E., Secretary to Government, Public Works Department, dated Madras, 20th April 1865, No. 3,035.

SIR,

1. In returning the enclosed letter from the Superintending Engineer, 3rd Division, with its accompaniments, a Comparative Statement of the excess of expenditure over estimate for cutting a new supply channel to the Native Infantry Goontah at Bellary, and a revised estimate for raising the embanked portion of this work, I beg to submit the following explanations for the consideration of Government.

Enclosures 4.

for this channel, as called for in Order of Government

*Proceedings of the Madras Government, Public Works Department,
2nd May 1865.*

2. First, as regards the excess in the case of the Goontah, the causes which led to this are the following: by employing Sepoys we did not obtain the estimated quantity of work from them for the batta allowed, and this expenditure occurred principally in clearing out the Goontah, and in making the easier embanked portion of the channel: with Sappers the task in ordinary soil is 108 cubic feet a day, but the Sepoys when they came to us were quite unable to perform any thing like this task; for a long time they could not do more than from 15 to 20 cubic feet a day, by degrees this was increased till their return to Regimental duty at the re-commencement of the drill season, when the task given them was 60 cubic feet a day, and I have no doubt had the training been continued a task more in proportion to that executed by the Sappers could have been executed by them.

3. It may be contended that the working batta provided for these men by the regulations of the service ought not to have been given to them under these circumstances, but they would not have worked at all without it, and there was no other labor available to assist the Sappers to execute the work in time to save the monsoon season's supply of water for the station, where water was then selling in the bazaar for one Anna a chatty full. I do not wish to attach any blame to the Sepoys to excuse the short-comings of my own estimate, I believe they worked as well as they could, and they evidently improved as above shown, but both their Non-Commissioned Officers and themselves were very inexperienced, and the men had been suffering terribly from the combined effects of the long droughts and the famine rates prevailing at the time; in fact I was given to understand that there were many men in Hospital before the works begun for nothing else but want of food, as far then as the experiment of employing Sepoys on the Public Works of this Presidency is concerned this can hardly be considered a fair one; but I feel convinced that with good European Non-Commissioned Officers and encouragement from among their own Officers no more useful labor can be found here, of course it is most advisable to have a Detachment or Company of Sappers attached to every Regiment employed in such a manner.

4. Another cause of the excess was the long continued drought, no rain whatever fell till June; during the months of April and May, when in ordinary seasons there are many mango showers, no rain whatever fell; in June the rain-fall was not great; in July there was no rain, and it was not till towards the end of August, when the channel was all but finished, that very heavy rain fell, this rain filled the channel, but breached it at a place which had been only put up the day before and had not been thoroughly tamped in; during the continuance of all this dry weather the water for tamping the earth-work had to be brought from the well on the Race Course which is distant above a mile from the work.

5. But the one great cause of the excess in this instance was the cutting through the high ground just above the Native Infantry Goontah, no large quantity of rock was visible till this had been cut down about 1½ yards in depth; and the wells about the place did not exhibit rock till a greater depth had been attained than was required for the cutting, but then it commenced to show itself crossing the direction of the channel diagonally at every few yards; to provide principally for the work required to be done here, I obtained a grant of Rupees 3,000 from the sum set apart for "Tools and Stores," as beyond the mere batta to the men every thing else, such as the supply of machinery for lifting the stone after it is blasted, jumpers, powder, &c., is properly debitable to this head, and to meet any further excess I also directed the Overseer to sell all the old tools remaining in the yard from the Famine Roads for old iron, which was then rising in the bazaar, and the disposal of old unserviceable stores by auction had been approved of by the Government; at that time the recent rules regarding tools and stores were not in force in the Department, and I always understood that Officers should endeavour to meet unavoidable excesses over estimates as much as possible by every means in their power before asking the Government for additional funds.

6. A large excess also appears in the item of stone work, this arose from a mistake made either by the Overseer or the Sergeant in charge of the Sappers in their levels, but there was a great difference in them which had to be rectified; the breach created a further demand for this material, and I directed a quantity of rough stone to be thrown along the foot of the interior slope of the embankment to protect

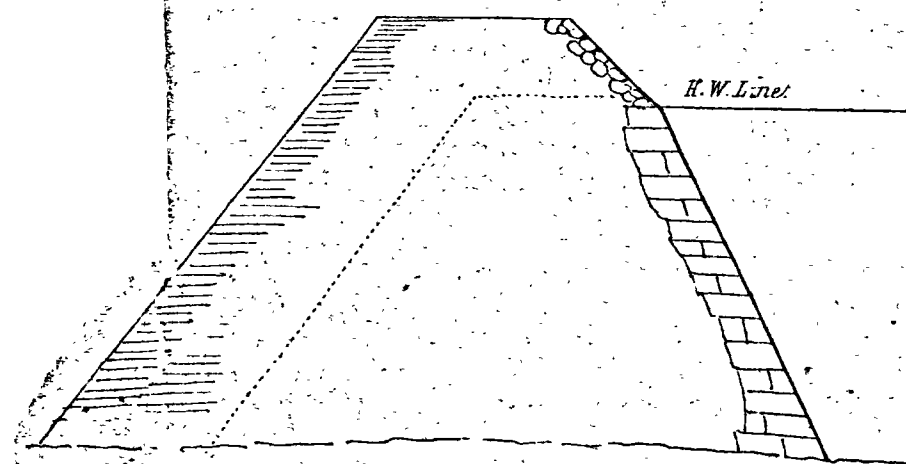
*Proceedings of the Madras Government, Public Works Department,
2nd May 1865.*

this from the action of the water, the greater quantity of this being received from the old ruined tank in a lateral direction, and I regret to say I had inadvertently overlooked this at first.

7. The above are the main circumstances connected with this work which caused the great excess over the estimate; above Rupees 14,000 had been sanctioned by Government for the water supply of Bellary, of this Rupees 8,000 were made over to this channel, leaving a balance of Rupees 6,000 available for other works, such as wells, of this sum Rupees 1,500 were granted for the supply of the Fort ditch, and the remainder was available for raising the embankment and the calingulahs, and before I left I gave particular instructions that all the stone work required in these latter works was to be taken as much as possible from the cutting and credited to that work so as to reduce its cost, I might have asked for this balance to meet the excesses in the cutting, but I considered it was more advisable to do this as much as possible by improving the works already in hand and extending their utility to other parts of the Cantonment: at the same time I had investigated the project for bringing water into the station of Bellary from Courtiny, sanctioned by Government in Order No. 1,813, dated 22nd June 1864, and as this turned out to be quite feasible, I was in hopes of selling more stone to that work, but my unexpected removal from the Division has disarranged all I had in view; that I took no unfair advantage in this matter I beg to explain now in disposing of the estimate for raising the calingulahs, &c.

8. I find the items in this about the same as I took out, I allowed 15,000 cubic yards of earth-work, but as the slope is now to be 3 to 1 on the *outside* instead of 2 to 1 as I had proposed, the quantity of earth-work may be taken in round numbers at 17,000 cubic yards, these contain 4,59,000 cubic feet, and as the lift is above 3 yards, the task would not be more probably on an average than 80 cubic feet per man per diem, a working party of Sappers, and these alone were to be employed as by my letter printed with G. O. of the 22nd November 1864, No. 3,351, of 70 men would execute this work in 82 days, and the cost of them may be calculated for a party of 80 men including their Native Officers, European and Native Non-Commissioned Officers, at an average of 3 Annas per man, or Rupees 15 a day, which for 82 days gives a total of Rupees 1,230. At the time I framed the estimate no large sum was required for tamping, as the Goontah in front of the embankment was full of water, so that my allowance of Rupees 1,500 for this portion of the work was not far from the mark. I allowed Rupees 1,000 for the stone work and Rupees 500 for the calingulahs, there was no occasion to provide anything for the old ruined tank in this official year, and any *repairs* this might have required, could have been sanctioned at a subsequent period.

9. As the top yard of the embankment forms a mere parapet, and is to have



no water resting against it for any time, I ordered its interior slope to be made considerably more than that of the embankment, as shown annexed, and to be pitched with stone from the cutting to protect its earth-work from the action of rain, and no more suitable material could have been procured, but how far this has been attended to I am unable to say; as to the other items of this estimate I regret to say I am quite unable to explain why they should have been required, but a sum of Rupees 500 might be granted for gravelling the top of the bund and for contingencies.

*Proceedings of the Madras Government, Public Works Department,
2nd May 1865.*

No. 43. ORDER THEREON, 2nd May 1865, No. 1,186.

MILITARY WORKS, No. 6.

Military Proceedings, 3rd March 1864, No. 747.
Public Works do., 8th do., " 703.

boundary of the Cantonment of Bellary in order to fill a large Goontah near the Native Infantry Lines at that station, and an estimate for this work prepared by Captain Fischer, amounting to Rupees 8,000, received their sanction in Proceedings No. 1,657, dated 7th June 1864.

2. In a letter dated 15th December 1864, No. 161, the Superintending Engineer, 3rd Division, forwarded a report from Overseer Mullins on the inadequacy of the original estimate, and in his communication recorded at the head of these Proceedings Captain Moberly submits a revised estimate of Rupees 15,806, exhibiting an increase of Rupees 7,806 over the original estimated outlay. This excess is explained to be owing to the following causes:—

First.—The necessity which existed for re-building and strengthening the portion of the work which was breached in August 1864, and which necessitated additional quantities of stone facing and earth-work.

Second.—The insufficiency of the rate for earth-work for that portion of the undertaking which was entrusted to Sepoy labor. It is stated that the Sappers employed worked at the estimated rate.

Third.—The necessity for resorting to blasting for the removal of the granite which was met with during excavation.

3. The Superintending Engineer also forwards an estimate of Rupees 9,700 for raising the bund of the channel and its surplus calingulahs, in order to provide an additional supply of water to the Goontah. This estimate is submitted in pursuance of G. O. No. 3,351, dated 22nd November 1864, in which authority was granted for the commencement of the work.

4. The Government sanction the revised estimate of Rupees 15,806 for the excavation of the channel, but they must express their extreme dissatisfaction with the manner in which estimates have been submitted to them from Bellary. No care whatever appears to have been taken by Captain Fischer to ascertain the nature of the soil through which the cuttings had to be made, or to determine the value of the labor of the Infantry Sepoys to whom it was his intention to entrust part, at least, of the work. Moreover, in Proceedings under date the 9th June 1864, No. 1,635, permission to entrust the execution of work to Soldiers of the Native Army was restricted to cases where it might be undertaken by contract either for a lump estimated sum or according to a schedule of prices. The occurrence of a sudden fall of rain and the consequent filling of the channel ought to have been foreseen, and the effects guarded against. Altogether the result has been that the work has cost nearly one hundred per cent. more than was anticipated, to the great discredit to all concerned with it.

5. As to the estimate of Rupees 9,700 for the improvement of the same channel, it is observed that, in bringing forward the proposal to raise its banks and its surplus calingulahs, Captain Fischer stated that the cost would be under Rupees 3,000, and that this sum could be provided from the balance remaining unspent of Rupees 6,010 sanctioned for the construction of two wells in Bellary. On this assurance the work was approved of, and permission was given for its commencement pending the submission of a regular estimate.

6. That estimate now shows that the work instead of costing Rupees 3,000 will require for its completion more than three times that amount. The Government have thus been drawn into an expenditure which they never contemplated, and which may be, for all that is before them, totally disproportionate to the benefits to be derived from the channel. The work is one of the most simple description, and the only conclusion the Government can come to is that the Officer* who prepared

* Captain Fischer.

*Proceedings of the Madras Government, Public Works Department,
2nd May 1865.*

the first estimate must have grossly neglected the duty of taking careful measurements on which to base his calculations of cost before he ventured to pronounce the work as capable of completion for the sum he named.

7. As it is understood that the work has been done, or is near completion, the Government have no alternative but to sanction the estimate; but Captain Moberly will submit for their information the original calculations on which the estimate of Rupees 3,000 was based.

8. The funds required for the completion of the works have been provided in Proceedings No. 934, dated 5th April 1865.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,

Secretary to Government.

To the Superintending Engineer, 3rd Division.

" Controller of Public Works Accounts.

" Accountant General.

" Military Dept.

Exd. S. T. Augustin.

Bd. No. 201.

Supg. Engineer's Office

Camp Madanapalli

From

1st April 1865.

Captain A. S. Roberts, R.E.

Supg. Engineer, 3rd Division

The Secretary to Government

Public Works Department

Sir,

With reference to my letter No. 161 of 15th December 1864 and the Government Order No. 45 of 9th January 1865, I have the honor to submit the Comparative Statement for the Channel from the ruined tank near the 22nd Boundary Stone at Bellary to the Native Infantry Gumbah, showing that the excess is Rs. 7,006 over the original sanction of Rupees 8,000.

2. The extra quantity of stone facing charged for, is partly caused by the rebuilding and strengthening a portion that was breached in August 1864, and partly by stone work that was placed in front of the Balingulahs to prevent scour and undermining.

3. The extra quantity of Earthwork is for repairing the breach to which I have above alluded.

4. The principal cause of excess in the rates for Earthwork is owing to that allowed in the Estimate having been insufficient for Sepoy labor, which had to be paid for according to a fixed rate. The Sappers worked according to the estimated rate but the Sepoys could not. A great deal more tampering and water carrying was necessary owing to the extreme drought, the rains having held off much longer than usual, and consequently all these extras made the work more costly than had been originally anticipated by Captain Fischer.

5. I delayed submitting this Comparative Statement in order that I might forward at the same time, the Estimate for improvements proposed for this Channel, as called for in Order of Government No. 3557 of 22nd November 1864: this was only received

Enclosures - 3

1 Comparative Statement

1 Abstract Estimate

1 Specification

4517

3683

No. 1657 of 1st June 1864.

a few days ago, and the delay in its submission may be attributed to there having been no officer in charge until the 31st January, thus throwing on the overseer an extra amount of work, and to Lieut. Penney's having so much to look into directly on arriving.

6. I now beg to submit the Estimate called for in Government Order N^o 3351 of 22nd November 1864, amounting to Rs 9700, and to inform you that the work is in progress agreeably to Para: 1 of the above mentioned Order. In consequence of the badness of the soil I directed that the rear slope should be altered from 2 to 1, to 3 to 1.

7. When submitting in January last the Statement of sums that could be given up on some works and that were required on others, I made provision for the excess on this channel as now shown in the Comparative Statement, and also for other works, such as the new places of worship &c at Bellary but, instead of the money being transferred as I had wished, the money that was available for transfer was taken away altogether from this Division and now, unless Government can meet these estimates by fresh grants, it will be necessary to stop the works as I have no funds available.

I have &c

A. S. Webb Captain R.E.
Supg. Engineer
3rd Division.

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1865
Depo
Pro. of Port for Bellary
From 1177
The Supg. Engineer
to 13th Division
The Secretary to Government
P. W. Department

Dated 1st
Recd 4 } April 1865

QD
Forwarding Comparative
Statement of the Channel from
the ruined tank near 22nd
Boundary Stone at Bellary to the
Native Supg. Committee and the
Estimate for improvement pro-
posed for this Channel.

A 41
C-1019 April 1865 Q-125
No 1186 - 2nd May 1865

New Work
Military

Duplicate Abstract
11

Abstract Estimate of the probable cost for raising & strengthening the Band of the Channel to the Indian Infantry frontage in the Cantonment of Bellary

Quantities	Description of Charges	Rate	Per	Amount	Total
23486	6. feet of Stone facing to Bunds	@	16	6. feet	2201 13
16859 3/4	6. yards of Gravel to do	@	1	6. feet	1053 11 8
16859 3/4	do of Excavation to do	@	4	do	4214 16 8
— 2 Spalingulaks —					7470 7 4
1560	6. feet of Stone in Chumam	@	2	6. feet	195
2184	do of Rough Stone	@	1	do	136 8
Including the Stone facing & finishing as Bund					331 8
in the rock pained Bund.					1000

Totals 8301 15 4

Sundries &c. at 10 per cent 878
Total Estimate Required 9179

Bellary
14th March 1865

Robert W. Thompson
Lieut. R.E.
Assistant Engineer

A. S. Wilson
Captain R.E.
Supp. Engineer
3rd Division

1865

3035

Office of the Controller of
Public Works Accounts.
Madras 20th April 1865.

From Captain J. F. Fisher. R.E.
Controller of Public Works Accounts.
To Colonel G. A. Orr. R.E.
Secretary to Government.
Public Works Department.

Sir,

In returning the enclosed letter from the
Superintending Engineer 3rd Division with its ac-
companied, a comparative statement of the
Excess of Expenditure over Estimate for cutting a
new supply channel to the N. S. Gootah at Bel-
lary and a revised Estimate for raising the embank-
ment portion of this work, they to submit the follow-
ing explanations for the consideration of Government.

First as regards the excess in the case of
the Gootah, the causes which led to this are the
following - by employing Sepoys we did not obtain
the estimated quantity of work from them for
the latter allowed and this expenditure occurred
principally in clearing out the Gootah and in
raising the earlier embanked portion of the
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time they could not do more than from 15
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20th May 1865
11/86
Enclosed for the Controller of Public Works Accounts
for the purpose of submitting the
Report of the Committee to
the Public Works Department
in the Government of Madras

11/22/86

Belur Gootah

to 20 cubic feet a day, by degrees this was increased till their return to regimental duty at the re-commencement of the drill season - when the task given them was 60 cubic feet a day and I have no doubt had the training been continued a task more in proportion to that executed by the Sappers could have been executed by them.

3. It may be contended that the working
batta provided for these men by the regulations
of the Service ought not to have been given to
them under these circumstances, but they would
not have worked at all without it and there
was no other labor available to assist the
Sappers to execute the work in time to save
the Monsoon season's supply of water for the
Station where water was then selling in the
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as above shown, but both their Non-Com-
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of the long droughts and the famine rates
prevailing at the time, in fact I was given
to

to understand that there were many men in
Hospital ^{before the war began} for nothing else but want of food, as
far then as the experiment of employing boys
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ment employed in such a manner.

4. Another cause of the excess was the long continued drought, no rain whatever fell till June, during the months of April and May when in ordinary seasons there are many drizzle showers no rain whatever fell, in June the rain fall was not great, in July there was no rain and it was not till towards the end of August when the channel was all but finished that very heavy rain fell, this rain filled the channel that breached it at a place which had been only picked up the day before and had not been thoroughly tamped in: during the continuance of all this dry weather the water for tamping the earthwork had to be brought from the well on the race course which is distant above a mile from the work.

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5. But the one great cause of the excess in this instance was the cutting through the high ground just above the N.W. Bank no large quantity of rock was visible till this had been cut down about 1½ yard in depth; and the wells about the place did not exhibit rock till a greater depth had been attained than was required for the cutting; but then it commenced to show itself crossing the direction of the channel at every few yards, to provide principally for the work required to be done here. I obtained a grant of Rupees 3,000 from the sum set apart for "Tools and Stores" as beyond the mere batter to the men, every thing else, such as the supply of machinery for lifting the stone after it is blasted, gunpowder &c. is properly debitable to this Head and to meet any further excess I also directed the Oversees to sell all the old Tools remaining in the yard from the Famine roads for old iron which was then rising in the Bazaar and the disposal of old un-serviceable Stores by Auction, had been approved of by the Government; at that time the recent rules regarding Tools and Stores were not in force in the Department,

and

and I always understood that Officers should endeavour to meet unavoidable excesses over Estimates as much as possible by every means in their power before asking the Government for additional funds.

6. A large excess also appears in the item of stone-work. This arose from a mistake made either by the Oversees or the Sargent in charge of the Sappers in their levels but there was a great difference in them which had to be rectified, the breach created a further demand for this material and I directed a quantity of rough stone to be thrown along the foot of the interior slope of the Embankment to protect this from the action of the water, the greater quantity of this being received from the old ruined tank in a lateral direction and I regret to say I had inadvertently overlooked this at first.

7. The above are the main circumstances connected with this work which caused the great excess over the Estimate; above Rupees 14,000 had been sanctioned by Government for the water supply of Bellary, of this Rupees 8,000 were made over to this channel leaving a balance of Rupees 6,000 available for other works such as wells, of this sum Rupees 1,500 were granted for the supply of the Fort Ditch and the remainder was available for raising the Embankment and the

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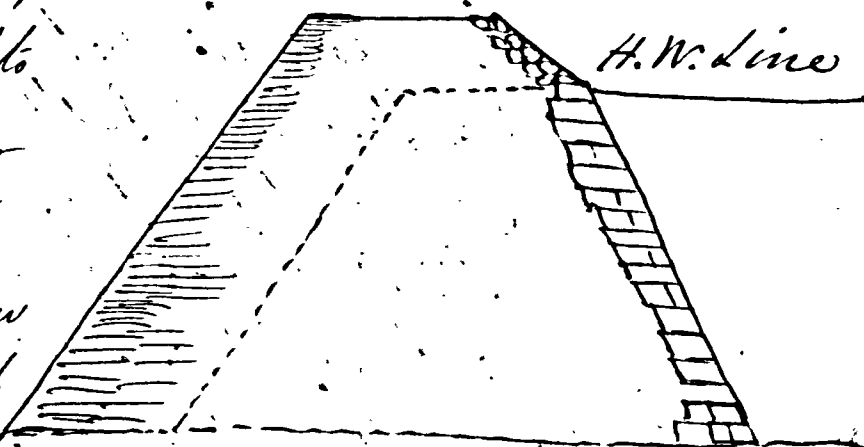
I have the honor to be
 Sir,

Your most obedient Servant.

Captain P.S.

Controller of Public Works Accounts.

To Colonel G. A. O. R. P.S.
 Secretary to Government. M.D.
 Fort Saint George.



O.W. 1865 for April!
 Pro. of Govt. of 1865 Bellary
 From
 The Controller of P.W.
 Accounts.
 To The Secy. to Government
 M.D.

Dated 20th April 1865
 Recd. 21st N^o 3035
 Affords explanation
 regarding the Excess Expendi-
 -ture over the Estimate for
 cutting a new supply
 channel to the N.W. Pon-
 -tah at Bellary.

A 42

C. 22nd April 1865 P.S.

no 1186 2nd May 1865

I see no reason to alter my opinion - as to the money made about draught, it is always dry at Bellary.

W
The explanation on the whole is much unsatisfactory & insufficient.

Memo.

Draft circulated for orders with reference to the accompanying explanation by Captain Fischer of the causes of the great cost, in excess of his Estimates, of excavating the Channel at Bellary to the Joon-tah near the Native Infantry Lines and raising and improving its embankments.

The grounds on which Captain Fischer excuses himself are.

1st. That the work having prices nearly to be performed in a great part by Infantry Sepoys on established rates of daily working pay, without regard to the quantity

the Sepoys were not specially that the men were not to be employed on daily pay - but that a contract was made.

Is this so? If it is it certainly cuts away this ground of defence.

of work performed cost more than other work there may be something in it. Here is nothing on the point within the paper in the paper.

he allowed under the intention of employing only sappers.

2^{ndly} That, owing to the great and continuous drought which prevailed, the work was harder than he anticipated and the conveyance of water for tamping the earth of the embankment more expensive.

3^{rdly} That, owing to a sudden heavy fall of rain after a long drought the embankment breached, and had not only to be repaired but also had to be strengthened with a larger additional quantity of stone pitching, and to be raised and its outside slope increased.

Madam Sir,
His business was to find out the nature of the ground he had to deal with before making his estimate.

That rock was unexpectedly 25' Had there been no boring?

With the exception of the drought and the consequent escape of water these points seem to be sufficiently noticed in draft.

Fort St. Pierre
21st April/65

Charles A. M. Corr.
Secretary of War

Madam Sir,
The embankment should have been so constructed as to resist heavy falls of rain. The long drought which as is well known so often occurs in B. & N.

That

1185

No 1186

Proceedings of the Madras Government

Under date the 2nd May 1865

Read the following

From the Supt Engineer P.D.

Forwarding Comparative
Statement for the Channel

from the ruined tank near 22nd (Here entered 1st April 1865

Boundary Stone at Bellary to the
Native Infantry Gumbah and the
etc. improvements.

From Capt J. J. Fischer R.E.

do do do

No 201)

In the orders as per mar.

Military Pro. 3rd March 1864-747

Pro. No. 8th do 708

W.D.V.

J.P.

Captⁿ Fischer will be
publicly & severely reprimanded for gross care-
lessness and inattention
to his duty. were he now
in the position of Supt
Engineer should have
recommended his res-
ignation for a year -

give the Government on a repre-
sentation from the Officer Com-
manding Ceded Districts ap-
proved of the immediate con-
struction of a Channel from
a ruined tank on the boundary
of the Cantonment of Bellary
in order to fill a large Gumbah
near the N. I. Lines at that
Station, & an estimate for
this work prepared by Captⁿ Fischer,
amounting to Rs 8000, received
their sanction in Pro. No 1657
d/ 7 June 1864.

Certainly, his carelessness &
extreme ignorance has been
shown W.D.V.

End

Of

The enclosed
statement
is for the
information
of the
Government
and the
Engineer
General.

In a letter of 15 Dec.
1884, to Mr. the Supy Engineer
3^d Dⁿ forwarded a report from
Oversee Brindley on the inade-
quacy of the original estimate,
& in his Communication record.
at the head of these Pro. Captⁿ
Brindley submits a revised estimate
of Rs 15,806, exhibiting an
increase of Rs 7,806 over the
original estimated outlay. This
excess is explained to be owing
to the following causes.

1. The necessity which
existed for rebuilding & strengthen-
ing the portion of the work
which was breached in August
1884, & which necessitated ad-
ditional quantities of stone facing
& earthwork.

2. The insufficiency of
the rate for earthwork for that
portion of the undertaking which
was entrusted to Sepoy labor. It
is stated that the Sappers employed
worked at the estimated rate.

3^d The necessity for resort-
ing to blasting for the removal
of the granite which was met
with during excavation.

The Supy Engineer
also forwards an estimate of
Rs 9,700 for raising the bund
of the Channel & its surplus
Calingulabs in order to provide
an additional supply of water
to the Goontah. This estimate
is submitted in pursuance of
G. O. No 3357, of 22^d Nov 84,
in which authority was granted
for the commencement of the
work.

The Gov^t sanctions the
revised estimate of Rs 15,806 for
the excavation of the Channel,
but they must express their
extreme dissatisfaction with the
manner in which estimates
have been submitted to them
from Bellary. No care whatever
appears to have been taken by
Captⁿ Fischer to ascertain the
nature of the soil through
which the cuttings had to be

made, or to determine the value of the labor of the Infantry Sepoys to whom it was his intention to entrust part, at least, of the work. ~~The consequence is that~~ The work has cost nearly one hundred £ Cent more than was anticipated to the great discredit of all concerned with it.

As to the estimate of Rs 9700 for the improvement of the same Channel, it is observed that, in bringing forward the proposal to raise its banks & its surplus Casingulaks, Capt. Fisher stated that the cost, would be under Rs 3000, & that this sum, could be provided from the balance remaining unspent of Rs 6000 sanctioned for the construction of two Wells in Bellary. On this assurance the work was approved of & permission was given for its commencement pending the submission of a regular estimate.

That estimate now

Moreover in Pro. under date the 9 June 1885, permission to instruct the execution of work to soldiers of the Native Army was restricted to cases where it might be undertaken by Contract either for a lump sum estimated sum or according to a schedule of prices. The occurrence of a sudden fall of rain & the consequent falling of the channel ought to have been foreseen & the effect guarded against. Altogether the result has been that

See Papers recorded with G. O. 22nd Nov 85 - 3357.

omit - we can have
impute this to an
officer hypothesis
+ Capt. Fischer. calling

1884

shows that the work instead of costing Rs 3000 will require for its completion more than three times that amount. The Govt have thus been drawn into an expenditure which they never contemplated, & which may be, for all that is before them, totally disproportionate to the benefits to be derived from the Channel. The work is one of the most simple description, and the only conclusion the Govt can come to is that, ~~if the~~ ~~it has not~~ ~~undoubtedly~~ ~~estimated~~ the Officer who prepared the ^{first} estimate must have grossly neglected the duty of taking careful measurements on which to base his calculations of cost. Before he ventured to pronounce the work as capable of completion for the sum he named.

As it is understood that the work has been done, or is near completion, the Govt

have no alternative but to
sanction the estimate; but Capt
Moberly will submit for their
information the original calculations
on which the estimate of Rs 3000
was based.

The funds required for the completion of the works have been provided in Pro. No 934 of 5 April 65.

I have been very busy
 to inform you, about all
 the things, which are
 now being done at the
 school, and to the
 students - a large
 part of our work
 has been to get
 down the books to square
 them up.



J.
The Indg. Eng. 3^d & 4th Conf. Statement & specifications
Cont. of 1st & 2nd Acc'ts
As General.
Bills & statements sent to May 1st 18th May

298/19/364
P.W. 1065 Department
Proc. of Govt for May

1177
A 1106
Proc. of the Madras Govt.
J & May 1865

Proc 1264/18
Proc 299/18

The estimates amounting
in the aggregate to Rs. 25500-00
for the excavations for the
well from a ruined tank on
the boundary of the Comptment
of Bellary in order to fill a
Goontak near the Infantry
Lines at that station. Some
viewed with certain obser-
vations -

A 41043