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Government of Madras.

Public Works DEPARTMENT.
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(1)

PUBLIC WORKS DEPARTMENT.
Public.
FORT ST. GEORGE,
24th February 1860.

No. 403.

From

T. PYCROFT, Esq.,
Chief Secretary to the Government of Fort St. George.

To

COLONEL H. YULE,
Secretary to the Government of India, D. P. W.

SIR,

I am directed to forward for the sanction of the Government of India supplemental estimates for the Jail and Court buildings now in course of erection at Salem.

2. The Jail received preliminary sanction on the 9th February 1857 at an estimated cost of Rupees 36,000; and the work was begun in the following month. The estimate was finally sanctioned by the Government of India on the 28th May of the same year. On the 21st June 1858, the Chief Engineer laid before this Government a revised estimate of Rupees 45,000 for the building, on the plea that the previously sanctioned amount was insufficient owing to the lowness of the rates entered in the original estimate. This application was sanctioned by the Government of India in your letter of the 22nd September of the same year, wherein was also noticed "the want of care exercised in the Central office of account in passing the estimate on rates that must obviously have been too low from the outset." A further sum of no less than Rupees 35,170 is now asked for, which will raise the cost of the building to Rupees 80,170, being nearly 123 per cent. in excess of the original and somewhat more than 78 per cent. over the revised estimate.

3. The original estimate for the Court buildings amounted to Rupees 17,500 and was sanctioned by this Government on the 28th August 1857. This estimate besides being framed upon insufficient rates omitted some essential parts; and to remedy these defects, a supplemental estimate is now submitted amounting to Rupees 15,000 being nearly 86 per cent. in excess of the original estimate.

4. The necessity of additional grants for these works was first brought to the notice of this Government by the Chief Engineer in August last. The causes of the large further demands were, however, by no means, well explained on that occasion, especially in the case of the Jail. There were the usual excuses of rise in the price of labor, unseasonable weather and heavy monsoons; and some stress was laid upon the circumstance of the construction, in the neighborhood, of the buildings connected with the railway. The Honorable the Governor in Council considering the case to be one calling for searching enquiry on the spot, directed Lieutenant-Colonel Birdwood the Deputy Chief Engineer of the circle to proceed to Salem to investigate the matter and to report

1st. Upon the causes of the excess.

2ndly. Whether the whole sum had been honestly expended on the works and

3rdly. Whether the District Engineer did his duty in regard to the preparation of the estimates and the supervision of the buildings; and whether he gave the work a due share of his personal attention.

5. Colonel Birdwood's report (*a*) and a subsequent communication (*b*) on the same subject from the Chief Engineer supplying the detailed information as to the causes of excess which the former officer had omitted to furnish are herewith forwarded. The Deputy Chief Engineer acquits the District Engineer, Captain Gahagan, of neglect and carelessness. He is of opinion that there has not been any fraud on the part of the immediate superintendent of the works; believes that the money expended has been honestly devoted to

(*a*.) 15th October 1859 with five enclosures.
(*b*.) 20th January 1860 No. 9360 with four statements.

the work; and attributes the excessive cost of the buildings to the District Engineer's want of experience and a desire to gain credit for good work. That there has been of late years a very considerable advance in the cost of building materials and the price of labor of all kinds is beyond dispute; but it is clear from the above papers that such advance is not the sole or even principal cause of the large excess. Captain Gahagan's object throughout has evidently been to turn out work which shall bear favorable comparison with the railway buildings in the same district and his anxiety to effect this has betrayed him into competition with the local railway executive, and the result has been great waste and extravagance. The estimates have been largely exceeded and the works executed are of a far superior description than was ever contemplated or is at all necessary.

6. The details of the causes of excess are fully and clearly shewn in the Chief Engineer's letter. After making full allowances for omissions in the estimates, for which also the District Engineer is responsible, and for insufficient rates, there remains abundant matter to justify Colonel Bell's strong condemnation of Captain Gahagan's management of these works.* In that condemnation this Government fully concur; but they concur also in the hope expressed by the Chief Engineer that the painful experience which the District Engineer has thus acquired will not be lost upon him.

* Paragraph 24.

7. The works under notice have all along been under the immediate charge of a Mr. Macfarlane, an East Indian not in the Public Works Department or in the service of Government at all, or a builder by trade, though he has been engaged for several years in building private houses on the Shervaroy hills and at Salem, and has some local property and influence. The District Engineer considered himself fortunate in getting this person. When recommending him to the Chief Engineer for the charge, he spoke of him in terms of high commendation and has done the same on several subsequent occasions. The data on which the revised estimate of Rupees 45,000 for the Jail was chiefly formed were furnished by Mr. Macfarlane in whom the District Engineer placed unlimited confidence now shown to have been undeserved, for those data have been found to have been worthless, and Captain Gahagan has since discovered that his superintendent had not been accustomed to calculations and measurements. Although the accounts have been regularly and punctually rendered by Mr. Macfarlane and as already stated, the Government have the assurance of Lieutenant-Colonel Birdwood that there has not been any fraudulent appropriations by the superintendent of any of the public money, the Governor in Council has directed that he shall be no longer employed on the work and prohibited his being again employed in the Department Public Works in any capacity.

8. In paragraph 28 of his letter the Chief Engineer details the particulars of the past sanctions for the buildings and those now required.

On the Jail, Rupees 8,670 have already been expended in excess of the revised estimate of Rupees 45,000, and the supplemental estimate amounts to Rupees 26,500. Thus the total excess on the Jail is Rupees 35,170.

Of the original estimate of Rupees 17,500 for the Court houses, Rupees 1,110 remain unspent. The supplemental estimate for these buildings, inclusive of that sum, is Rupees 19,110, being a net excess of Rupees 15,000.

9. The total sum needing sanction is Rupees 50,170. The accompanying estimates appear to have been made with care, and I am to request that the necessary funds may be accorded to bring the buildings to completion.

Proceedings 16th September 1859, Nos. 84 & 87.
" 10th November 1859, Nos. 25 & 29.

The former proceedings of this Government on the subject of the present application will be found recorded in the papers specified in the margin.

I have the honor to be,
Sir,
Your most obedient Servant,

Exd. Wm. Thomas.

Chief Secretary.

(3)

Proceedings of the Madras Government, Public Works Department, for the month of February 1860.

No. 46. Read the following letter from Lieutenant-Colonel J. H. BELL, Chief Engineer; to the Secretary to Government, dated 20th January 1860, No. 9360.

I have the honor, with reference to the orders of Government and my letters as per margin, to submit statements of the outlay upon the Salem Gaol and Court houses, shewing the excess actually incurred, with estimates for completing the works.

Proceedings of Govt. No. 2215, dated 14th September 1859.
Do. do. No. 113, dated 26th October 1859.
To Govt. dated 28th October 1859, No. 6608.
Proceedings of Govt. dated 2nd November 1859, No. 2579.
Do. dated 10th December 1859, No. 2872.
To Govt. dated 13th December 1859, No. 8291.
Do. dated 23rd December 1859, No. 8684.
Do. dated 5th January 1860, No. 8825.
Proceedings of Govt. dated 4th January 1860, No. 27.

1 Letter from Deputy Chief Engineer, Southern Circle, dated 5th December 1859.
1 Do. from District Engineer, Salem, dated 31st December 1859, No. 884, with 6 enclosures.
1 Do from do. dated 6th January 1860, No 887.
2 Supplemental estimates.
2 Comparative statements of rates.

2. In reporting upon this subject, I shall confine myself to the latest letters and statements of the District Engineer, since there are discrepancies, which it would be a waste of time to attempt to reconcile or explain, between these and other statements submitted to the Central office and to Colonel Birdwood, and it is, therefore, best to regard the latest documents prepared agreeably to my own direction as correct. I shall also consider the excess with reference only to the last sanctioned estimates.

3. The District Engineer has explained in the margins of his statements the cause of the excess under each item of the estimates, and I shall now briefly follow his remarks beginning with

The Gaol, sanctioned estimate Rupees 45,000.

4. The brick in chunam, estimated at Rupees three per cubic yard, has cost 6-1-10 or rather more than double the estimate. The District Engineer states that the cost of the work was under-estimated, as I understand him, with reference to the true prices prevailing when the estimate was made, that prices encreased even more after that period, that losses, amounting, as appears from paragraph 3 of the letter of the 31st December 1859, No. 884, to Rupees 750, were sustained from bad weather, and finally that his anxiety to perform the best description of work and his ignorance of the most economical ways of working, led him into excessive expenditure. The work, I observe, is reported by Colonel Birdwood to be of a very excellent description, and the muster bricks brought by that officer from Salem are such as the Railway Engineers make, and are far superior to any ordinarily used in the Department of Public Works. Nor can I see any necessity for their use except as facing bricks for walls pointed instead of being plastered. If they have been built into the interior of the walls of the Salem Gaol, I must decidedly blame the District Engineer for such bad economy. Besides the extra cost of the brick work, extra work costing Rupees 1,761 was performed on account of the fall of the ground.

In letter, dated 5th December 1859.

5. The arch work estimated at Rupees four and a half per cubic yard, cost Rupees seven. This is moderate compared with the charge for brick work, as the arch work is not of the common description over doors and windows, but forms the roofs of the buildings.

6. The rough stone in clay for foundations, estimated at seven annas the cubic yard, has cost one and a half Rupees. An excess of work amounting to 402 cubic yards is said to have been required by the fall of the ground. The total excess in this item of the estimate is Rupees 2,832.

7. On the other items the expenditure attended with excess has not been considerable except in the case of Vengé wood wrought and put up, of which 780 cubic feet, estimated at Rupees 976 on the rate of Rupees 1-4 per cubic foot have cost Rupees 1,641 or 2-1-8 per cubic foot. The error in the estimate in this case is said to be owing to the omission of labor by an oversight. The cost of the unprepared timber has, however, risen since the execution of the work, now under report; and the estimated rate for what remains is consequently still higher, namely Rupees two and a half per cubic foot.

8. The extra establishment and sundries, estimated at Rupees 3,800 for the entire work that is at 9½ per cent. upon the estimate, have cost 9,068 upon the work executed at the rate of

20¼ per cent. and the estimate of the same charges for the remaining work is Rupees 2,211 or 9¼ per cent. Thus the entire charge, if the new estimate is correct, will be Rupees 11,279 upon work costing Rupees 68,891 or 16¼ per cent.

9. The amount of Rupees 9,068 consists of

	Rs.
Extra establishment.....	5,216
Tools, carts, &c.....	2,069
Sundries.....	1,783
	9,068

10. The extra establishment is not excessive considering the length of time occupied in the work, and though it was not provided for in the estimate, there can be no doubt of its necessity; for it is a mistake to suppose that large works requiring the undivided attention of able superintendents can be attended to by the ordinary establishment, which is occupied at all times with the numerous works included in an executive range.

11. Of the Rupees 2,069 charged for tools and carts, the District Engineer expects to recover Rupees 850 at the completion of the works. If he does, the amount will be credited under the head of stores.

Letter, Dcer. 31st 1859, paragraph 5.

12. The amount for sundries has, it appears, been encreased by the cost of substantial sheds erected for the work people in lieu of others destroyed by a storm.

13. The estimate for completing the Gaol amounts to Rupees 26,500. The rates for brick work are Rupees five for about one-fourth of the work and three and a half for the other three-fourths. These rates are much lower than those of the cost of the work already executed, and having been carefully scrutinized may be admitted as correct.

For arch work the rate is that of the work done.

14. For pointing the excess upon the former estimate is very great with regard to about a fourth part of the whole work, the rate being Rupees 6-8 per square against one of the former estimate. The District Engineer, however, has ascertained that the rate is no more than sufficient. For another fourth the rate is raised to 2-12 which provides for rough plastering; and the old rate of one Rupee remains for 768 squares of rough pointing.

Paragraphs 7 and 8.

15. The rates of the other items have been either noticed above, or do not require special mention.

The Court houses, sanctioned estimate 17,500.

16. For these buildings the brick work has not been of the same costly description as that of the Gaol, because it is to be plastered instead of pointed; but its rate of cost Rupees 4-2-4 is still more than double that of the estimate. The excess is ascribed entirely to the rise of the prices of labor and materials; and as the rate of the supplemental estimate is Rupees 3-12 with a separate rate of Rupees six for flat arch work which is included in the rate of 4-2-4, the explanation may be admitted.

17. The cost of rough stone in clay, which was Rupees one and a half per cubic yard for the Gaol, is for the Court houses one and a quarter, the difference being on account of the occurrence of rock in the excavation of the Gaol foundations.

18. For teak-wood wrought and put up, the estimated rate was Rupees 2-8 per cubic yard, and the actual rate has been, (or rather will be, for no part of this work is completed) Rupees four. The same rate is allowed in the supplemental estimate and is, I believe, no more than sufficient. But in this item an omission of no less than 890 cubic feet from the last estimate has caused an excess of Rupees 3,560 in the remaining expenditure. The District Engineer calls this excess 2,225, but he is evidently mistaken; the price of 890 cubic feet being 3,560 as above.

19. No particulars are given of this omission, which was not before mentioned by the District Engineer; so that I am unable to say whether or no it was of a kind that should have been properly discovered and corrected in this office.

20. The only other excess in the actual expenditure requiring particular notice is Rupees 1,000 for the site, which was selected after the estimate had been submitted for sanction.

21. For the completion of the work there is an excess of Rupees 10 per door on account of the rise in price of teak-wood, making an extra charge of Rupees 400. For cornice work, omitted before by an oversight, the estimated charge is Rupees 537, and for plastering, which was before included in the brick work but now requires a separate provision, Rupees 1,801.

22. The extra establishment involves an excess of Rupees 432-7 for which there is no particular explanation.

23. The estimate for completing the Court houses amounts to Rupees 15,000; and its particulars have been mentioned concurrently with the explanation of the excess on the work performed.

24. It will appear, from the foregoing account of the expenditure past and prospective upon the judicial buildings at Salem, that a considerable part of the excess is due to a rise in prices after the submission of the sanctioned estimate. The rest has been caused by blameable omissions in the estimate, and by confessed mismanagement and extravagance. The District Engineer has no apology to offer for himself on account of these serious faults; nor I regret to say have I any to offer on his behalf. I can only hope that the experience which he has acquired at the cost of Government and at much distress to himself will render him more careful and trustworthy for the future.

25. I must add that the discrepancies in the statements submitted by the District Engineer are not creditable to him; but I also observe that they are to be partly attributed to severe illness from which Captain Gahagan has lately suffered.

26. It would be tedious and useless to ascertain by examination in this office the cause of the errors in the Gaol estimate submitted with my letter of the 13th December 1859, No. 8291. It was prepared on the retrospective plan, which, on account of its liability to error, I have entirely prohibited in the department.

27. The new estimates are made upon a careful measurement of the remaining work, excluding work already performed.

28. The following abstract shews in one view the excess of expenditure and the amount requiring sanction.

Gaol.	Rs.	A.	P.
Excess on work executed over corresponding estimate.....	25,973	0	0
Do. on do. do. over whole estimate.....	8,670	0	0
Supplemental estimate.....	26,500	0	0
Requiring sanction.....	35,170	0	0
Court houses.			
Excess on work executed over corresponding estimate.....	4,923	6	0
Balance of do. do. on whole estimate.....	4,110	0	0
Supplemental estimate.....	19,110	0	0
Requiring sanction.....	15,000	0	0
Total requiring sanction.....	50,170	0	0

29. I should add that I have no reason to doubt the correctness of Colonel Birdwood's judgment reported in my letter of the 28th of October 1859, paragraph 6, No. 6608, as to the honest expenditure of the money upon the works, and the personal supervision of the District Engineer. With regard also to the preparation of the estimates, the District Engineer does not appear to have at all neglected his duty though he made serious mistakes.

No. 47. ORDER THEREON, 21th February 1860, No. 102.

In this letter the Chief Engineer reports in detail on the causes of excess over the estimated cost, in the Jail and Court houses at Salem.

2. It is unnecessary to follow him into all the causes of this excess, which appear to have been at last brought out with clearness. It is sufficient to observe that after making full allowance for omissions in the estimate, for which also the District Engineer is responsible, there remains abundant matter to justify the Chief Engineer's strong condemnation of Captain Gahagan's management of these works.* In that condemnation the Government fully concur; but they concur also in the hope expressed by Colonel Bell, that the painful experience which the District Engineer has thus acquired will not be lost upon him.

* Paragraph 24.

3. If further proof were wanted of the wasteful and extravagant manner in which the work was conducted, it is found in the fact that the estimated cost of the brick-works remaining to be executed to the Jail is less than two-thirds of the actual cost of that already built, the former being on an average less than four Rupees a cubic yard, and the latter Rupees 6-1-10.† As to the item of superintendence, also, it may be true as stated by the Chief Engineer, that the charge is not excessive considering the time occupied in the work; but this very protraction of the work is one effect of incapacity and mismanagement.

† Paragraph 4.

4. Mr. Macfarlane who had the immediate charge of the executive, and in whom the District Engineer placed an unlimited confidence now shown to have been undeserved, will no longer be employed on the works; and the Government further prohibit his being employed in the Public Works Department in any capacity.

5. In paragraph 28 the Chief Engineer details the particulars of the past sanction for the buildings, and that now required.

On the Jail Rupees 8,670 have already been expended in excess of the original estimate of 45,000 Rupees, and the supplemental estimate amounts to Rupees 26,500. Thus the total excess on the Jail is Rupees 35,170, on an estimate of Rupees 45,000, or 78 per cent.

The original estimate for the Court houses amounted to Rupees 17,500, of which Rupees 4,110 remains unspent. The supplemental estimate for these buildings, inclusive of that sum, is Rupees 19,110, being a net excess of 15,000 or 86 per cent. on the original estimate.

6. The total sum needing sanction is Rupees 50,170. The supplemental estimate appears to have been made with care, and the necessary application will be made to the Government of India, accompanied by a detail of the circumstance which have rendered it necessary.

(Signed) T. PYCROFT,
Chief Secretary.

No. 48. Ordered in consequence that the following letter be dispatched.

From T. PYCROFT, Esq., Chief Secretary to the Government of Fort Saint George; to Colonel H. YULE, Secretary to the Government of India, D. P. W., dated 21th February 1860, No. 103.

I am directed to forward for the sanction of the Government of India supplemental estimates for the Jail and Court buildings now in course of erection at Salem.

2. The Jail received preliminary sanction on the 9th February 1857 at an estimated cost of Rupees 36,000; and the work was begun in the following month. The estimate was finally sanctioned by the Government of India on the 28th May of the same year. On the 21st June 1858, the Chief Engineer laid before this Government a revised estimate of Rupees 45,000 for the building, on the plea that the previously sanctioned amount was insufficient owing to the lowness of the rates entered in the original estimate. This application was sanctioned by the Government of India in your letter of the 22nd September of the same year, wherein was also

noticed "the want of care exercised in the Central office of account in passing the estimate on rates that must obviously have been too low from the outset." A further sum of no less than Rupees 35,170 is now asked for, which will raise the cost of the building to Rupees 80,170, being nearly 123 per cent. in excess of the original and somewhat more than 78 per cent. over the revised estimate.

3. The original estimate for the Court buildings amounted to Rupees 17,500 and was sanctioned by this Government on the 28th August 1857. This estimate besides being framed upon insufficient rates omitted some essential parts; and to remedy these defects, a supplemental estimate is now submitted amounting to Rupees 15,000 being nearly 86 per cent. in excess of the original estimate.

4. The necessity of additional grants for these works was first brought to the notice of this Government by the Chief Engineer in August last. The causes of the large further demands were, however, by no means, well explained on that occasion, especially in the case of the Jail. There were the usual excuses of rise in the price of labor, unseasonable weather and heavy monsoons; and some stress was laid upon the circumstance of the construction, in the neighborhood, of the buildings connected with the railway. The Honorable the Governor in Council considering the case to be one calling for searching enquiry on the spot, directed Lieutenant-Colonel Birdwood the Deputy Chief Engineer of the circle to proceed to Salem to investigate the matter and to report

1st. Upon the causes of the excess.

2ndly. Whether the whole sum had been honestly expended on the works and

3rdly. Whether the District Engineer did his duty in regard to the preparation of the estimates and the supervision of the buildings; and whether he gave the work a due share of his personal attention.

5. Colonel Birdwood's report (*a*) and a subsequent communication (*b*) on the same subject from the Chief Engineer supplying the detailed information as to the causes of excess which the former officer had omitted to furnish are herewith forwarded. The Deputy Chief Engineer acquits the District Engineer, Captain Gahagan, of neglect and carelessness. He is of opinion that there has not been any fraud on the part of the immediate superintendent of the works; believes that the money expended has been honestly devoted to the work; and attributes the excessive cost of the buildings to the District Engineer's want of experience and a desire to gain credit for good work. That there has been of late years a very considerable advance in the cost of building materials and the price of labor of all kinds is beyond dispute; but it is clear from the above papers that such advance is not the sole or even principal cause of the large excess. Captain Gahagan's object throughout has evidently been to turn out work which shall bear favorable comparison with the railway buildings in the same district and his anxiety to effect this has betrayed him into competition with the local railway executive, and the result has been great waste and extravagance. The estimates have been largely exceeded and the works executed are of a far superior description than was ever contemplated or is at all necessary.

(*a*.) 15th October 1859 with five enclosures.
(*b*.) 20th January 1860 No. 9360 with four statements.

6. The details of the causes of excess are fully and clearly shewn in the Chief Engineer's letter. After making full allowances for omissions in the estimates, for which also the District Engineer is responsible, and for insufficient rates, there remains abundant matter to justify Colonel Bell's strong condemnation of Captain Gahagan's management of these works.* In that condemnation this Government fully concur; but they concur also in the hope expressed by the Chief Engineer that the painful experience which the District Engineer has thus acquired will not be lost upon him.

* Paragraph 24.

7. The works under notice have all along been under the immediate charge of a Mr. Macfarlane, an East Indian not in the Public Works Department or in the service of Government at all, or a builder by trade, though he has been engaged for several years in building private houses on the Shervaroy hills and at Salem, and has some local property and influence. The

District Engineer considered himself fortunate in getting this person. When recommending him to the Chief Engineer for the charge, he spoke of him in terms of high commendation and has done the same on several subsequent occasions. The data on which the revised estimate of Rupees 45,000 for the Jail was chiefly formed were furnished by Mr. Macfarlane in whom the District Engineer placed unlimited confidence now shown to have been undeserved, for those data have been found to have been worthless, and Captain Gahagan has since discovered that his superintendent had not been accustomed to calculations and measurements. Although the accounts have been regularly and punctually rendered by Mr. Macfarlane and as already stated, the Government have the assurance of Lieutenant-Colonel Birdwood that there has not been any fraudulent appropriations by the superintendent of any of the public money, the Governor in Council has directed that he shall be no longer employed on the work and prohibited his being again employed in the Department Public Works in any capacity.

8. In paragraph 28 of his letter the Chief Engineer details the particulars of the past sanctions for the buildings and those now required.

On the Jail, Rupees 8,670 have already been expended in excess of the revised estimate of Rupees 45,000, and the supplemental estimate amounts to Rupees 26,500. Thus the total excess on the Jail is Rupees 35,170.

Of the original estimate of Rupees 17,500 for the Court houses, Rupees 4,110 remain unspent. The supplemental estimate for these buildings, inclusive of that sum, is Rupees 19,110, being a net excess of Rupees 15,000.

9. The total sum needing sanction is Rupees 50,170. The accompanying estimates appear to have been made with care, and I am to request that the necessary funds may be accorded to bring the buildings to completion.

Proceedings 16th September 1859, Nos. 84 @ 87.
" 10th November 1859, Nos. 23 & 26.

The former proceedings of this Government on the subject of the present application will be found recorded in the papers specified in the margin.

726.

Memo:
(6)
Requests that Mr. Supt. Engr's letter
dated the 20th January /60 No 9360.
Returned.
From Govt. 24th July /60 No 402.
Central Office P.W.D.
9 March /60
Ex Cur Office P.W.D.

Enclosures Nos 1 to 9
Mr. Macfarlane's Letter dated 20th January /60 No 9360
Mr. Macfarlane's Letter dated 7th March /60
Estimate of Jail
Estimate of Court Houses

Central Office No. 1
Sepiatkam 20th January 1860

No 9360

From
The Chief Engineer

To
The Secretary to Government
Punjab

Judicial Sir

I have the honor, with re-
ference to the orders of Government
and my letters as per margin, to sub-
mit Statements of the outlay upon
the Salem Jail and Court Houses
shewing the excess actually incurred,
with Estimates for completing the
works.

2. In reporting upon this
subject I shall confine myself to the
latest letters and Statements of the Di-
rector Engineer, since there are discrepancies
which it would be a waste of time to
attempt to reconcile or explain, be-
tween these and other Statements sub-
mitted to the Central Office and to
Colonel Birdwood, and it is therefore
best to regard the latest documents
prepared

No and date of Govt letter No 2215 dated 16th Sept 1859
do do No 115 dated 26th Oct 1859
To Govt dated 20th Oct 1859 with Letter
Proceedings of Govt dated 2nd Nov 1859 No 3279
do dated 16th Nov 1859 No 3287
To Govt dated 18th Nov 1859 No 3291
do dated 23rd Dec 1859 No 124
do dated 5th January 1860 No 1
Proceedings of Govt dated 19th Jany 1860 No 227

Public Works Dept

1 Letter from Supdg. Engr South Division dated 6th Dec 1859
1 do forwarding Engr Salem dated 30th Dec 1859 No 284 with Estimate
1 do from do dated 5th Jany 1860 No 8
2 Supplemental Estimates
2 Comparative Statements of dated —

0 This

prepared agreeably to my own direction as correct. I shall also consider the excess with reference only to the Gaol sanctioned Estimates.

3

The District Engineer has explained in the margin of his Statement the cause of the excess under each item of the Estimates, and I shall now briefly follow his remarks beginning with

The Gaol. Sanctioned Estimate Rupees

4

The Brick in chunam, estimated at Rupees 5 per cubic yard, has cost £. 1. 10 or rather more than double the Estimates. The District Engineer states that the cost of the work was under-estimated, as I understand him, with reference to the low prices then ruling, when the Estimates were made, but prices increased every month after that period, that losses, encountering, on the 5th December 1859, to Rupees 750, were occasioned from bad weather, and finally

that his anxiety to perform the best description of work and his ignorance of the most economical ways of working led him into excessive expenditure. The work, I observe, is reported by Colonel Birdwood to be of a very excellent description, and the master bricklayer brought by that Officer from Salem are such as the Railway Engineers make, and are far superior to any ordinarily used in the Department of Public Works. Nor can I see any necessity for their use except in facing bricks for walls pointed instead of being plastered. If they have been built into the interior of the walls of the Salem Gaol I must decidedly blame the District Engineer for such bad economy. Besides the extra cost of the Brickwork extra work costing Rupees 1761 was performed on account of the fall of the ground.

5 The such work estimated @ (Rupees 4½ per Cubic yard cost (Rupees 7. This is moderate compared with the charge for brickwork, as the such

(4)

In letter of 5th Dec 1859

archwork is not of the common description over doors and windows but forms the roofs of the buildings

6 The rough stone in clay for foundations, estimated at 7 Annas the Cubic yard has cost 1/2 Rupee. An excess of work amounting to 402 Cubic yards is said to have been required by the fall of the ground. The total excess in this item of the Estimate is Rupees 2832

7 On the other items the expenditure attended with excess has not been considerable except in the case of Vengay wood brought and put up, of which 768 Cubic Feet, estimated at Rupees 976 on the scale of Rupees 1:4 per Cubic Foot have cost Rupees 1641 or 2-4-8 per Cubic Foot. The error in the Estimate in this case is said to be owing to the omission of labor by an oversight - The cost of the unprepared timber has however risen since the execution of the work now under report, and the estimated rate for what remains is consequently still higher, namely Rupees 2 1/2 per Cubic Foot.

8 The extra Establishment and sundries, estimated at Rs 3800 for the entire work, that is at 9 1/4 % upon the Estimate, have cost 9068 upon the work executed at the rate of 20 1/4 %, and the Estimate of the same charges for the remaining work is Rupees 2,211 or 9 1/10 %. Thus the entire charge, if the new Estimate is correct, will be Rupees 11279 upon work costing Rupees 68891 or 16 4/11 %

9 The amount of Rs. 9068 consists of-

Extra Establishment	5,216
Tools Carts &c	2,069
Sundries	1,783
	9068

10 The extra Establishment is not excessive considering the length of time occupied in the work, and though it was not provided for in the Estimate there can

this

can be no doubt of its necessity; for it is a mistake to suppose that heavy works requiring the individual attention of able superintendents can be attended to by the ordinary Establishment; which is occupied at all times with the numerous works included in an Executive Range.-

11 Of the Rupees 2069 charged for tools and Carts the District Engineer expects to recover Rupees 850 at the completion of the works. If he does, the amount will be credited under the head of Stores.- Letter Public 3rd Feby 1869 para 5

12 The amount for sundries has, it appears, been increased by the cost of substantial sheds erected for the work people in lieu of others destroyed by a storm.-

13 The Estimate for completing the Gaol amounts to Rs 26,500 - The rate for brickwork one Rupee 5

(10)

for about one fourth of the work and 3/2 for the other three fourths. These rates are much lower than those of the cost of the work already executed, and having been carefully scrutinized may be admitted as correct.

For such work the rate is that of the work done.

14 For Pointing the exception from the former Estimate is very great with regard to about a fourth part of the whole work, the rate being Rupees 6.8 per Square against 1 of the former Estimate. The District Engineer however has ascertained that the rate is no more than sufficient. For another fourth the rate is raised to 2. 12. which provides for rough plastering; and the old rate of 1 Rupee remains for 768 Squares of rough pointing.

15 The rates of the other items have been either noticed above, or do not require special mention Prices 7 to 9-

this

mention.

The Court Houses. sanctioned Estimate 17800

16 For these buildings the brickwork has not been of the same costly description as that of the Pool, because this is to be plastered instead of pointed; but despite of each difference it is still more than double that of the Estimate; the excess is ascribed entirely to the rise of the prices of labor and materials, and as the rate of the Supplemental Estimate is Rupees 3. 12 with a separate rate of Rupees 6 for flat arch work which is included in the rate of 4. 2. 4 the explanation may be admitted.

17 The cost of Rough Stone in Class 1 which was Rupees 1½ per Cubic Yard for the Pool, is for the Court Houses 1¼, the difference being

(11)

being on account of the occurrence of rock in the excavation of the Pool Foundations. -

18 For teak-wood wrought and put up the estimated rate was Rupees 2. 8 per Cubic Yard, and the actual rate has been, (or rather will be, for no part of this work is completed) Rupees 4 The same rate is allowed in the Supplemental Estimate and is, I believe, no more than sufficient. But in this item an omission of no less than 890 Cubic feet from the last Estimate has caused an excess of Rupees 3560 in the remaining expenditure. The District Engineer calls this excess 2,225 but he is evidently mistaken, the price of 890 Cubic feet being 3560 as above. -

19 No particulars are given of this omission, which was not before mentioned by the District Engineer, so that I am unable to say whether

on

this

in no instance of a Work that remains have been properly discovered and corrected in this office.

20 The only other excess in the actual expenditure requiring particular notice is Rupees 1,000 for the sole, which was selected after the Estimate had been submitted for sanction. –

21 For the completion of the work there is an excess of Rupees 10 per diem on account of the rise in prices of labour and, meeting an item charge of Rupees 400 For Service work, omitted before by an oversight, the estimated charge is Rupees 537, and for plastering, which was before included in the Brickwork but now requires a separate provision, Rupees 1,864.

22 The 4th Establishment is in an excess of Rupees 432. ½ for which there is no particular explanation. –

23 The Estimate for completing the Court Houses amounts to Rupees 15,000, and its particulars have been mentioned concurrently with the explanations of the excess in the work performed. –

24 It will appear, from the foregoing Account of the expenditure, past and prospective upon the judicial buildings at Salem, that a considerable part of the excess is due to prices in excess of the sanctioned Estimate. The rest has been caused by blameable omission in the Estimate, and by confessed mismanagement and extravagance. The District Engineer has no apology to offer for himself on account of these omissions or faults; nor does he wish to say have I any to offer on his behalf. I can only hope that the experience which he has acquired at the cost of Government and at much distress to himself will

will render him more careful and trustworthy for the future. -

25 I must add that the discrepancies in the Statements submitted by the District Engineer are not creditable to him, but I also observe that they are to be partly attributed to defects in the Office from which Captain Galez on leaving suffered.

26 I wanted to examine and verify by examination in the Office the cause of the errors in the Gaol Estimate submitted with my letter of the 13th December 1859 No 2291. Statement prepared on the retrospective plan, which, on account of its liability to error, I have entirely prohibited in the Department.

27 The new Estimates are made upon a careful measurement of the remaining work, excluding

(12)

work already performed. -

28. The following Abstract shows in one view the excess of expenditure and the amounts requiring sanction. —

Gaol

Excess on work executed over corresponding Estimate	26,973: . .
do on do do over whole Estimate	8,670: . .
Supplemental Estimate	26,500 . .
Requiring sanction	35170. . .

Court House

Excess on work executed over corresponding Estimate	4,923: 6 .
Balance of do do on whole Estimate	4,110 . .
Supplemental Estimate	19,110. . .
Requiring sanction	15,000. . .
Total requiring sanction	50,170: . .

Estimate.
Gaol - 45000
Court House 17500
62500

29. I should add that I have no reason to doubt

0

doubt the correctness of Colonel Birdwood's judgement reported in my letter of the 25th of October 1859, from the Northern and to the honest expenditure of the money upon the works and the personal supervision of the District Engineer. With regard also to the explanation of the Estimates the District Engineer does not appear to have at all neglected his duty though he may have fallen into mistakes. —

Central Office of Works
Sefidkoh
20th January 1860.

I have the honor to be
Sir
Your most obedient Servant
J. R. Bell Lieut Colonel
Chief Engineer

P. Chas

P.W.D.

No 403.

Colonel M. Wyllie
Secretary to the Govt of India
in the P.W.D.

Sir,

I am directed by the Secretary to the Govt of India in the Public Works Department to submit for the orders of Government the accompanying estimate for the erection of a Police buildings and Jail at Aden.

2 Lieutenant Hayhill Cameron, Executive Engineer at Aden, has prepared a plan and estimate for the above buildings; and the work has begun on the ground.

The following remarks on the estimate have kindly been furnished by the Secretary to the Govt of India in the P.W.D. dated 20th January 1858.

I have the honor to be
Sir
Your most obedient
humble Servant
C. Beadon
Secretary to the Govt of India

Fort William
The 24th February 1858.

Copy to the Govt of India
P.W.D.
24th Feb 1858.
No 405.

No 46.

Sup. of Govt to 16 Lieutenant 89 Nov 4
Mad: 31 October — 363
— 10 Nov — 2326
— 10 December — 1177
— 10 January 60 — 8752
— 10 — — 1178
1

P.W. 1860 Department
Prog Govt 29 February.
No 188.

To the Chief Engineer

Do. Secretary
to Government of India

Dated 20th January 1860
Rec'd 21st Do
No 9360

11 Encls

Solicitor to Government to the Proceedings of Government dated 10th December 1859 No 2872 and covering orders on the subject of the Aden Jail and Police Barracks. Statement of the Expenditure and Estimates for the completion of the work and application for the sanction of Government.

No 402. 24th Feby

this Govt: revised est.
of Rs 45000 for the building
on the new & plea that
the previously sanctioned
amount was insufficient
owing to the lowness of
the rates entered in the
original estimate. This
application was sanc-
tioned by the Govt of India
in your letter of the 22d
Sept: of the same year,
wherein was also noticed
"the want of care exercised
in the central office of
account in passing the
estimate on rates that
must obviously have
been too low from the
outset." A further
sum of not less than
Rs 35,770 is now asked
for, which will raise
the cost of the building
to Rs 80170. being nearly
125 p Cent in excess of
the original and some-
what more than 78 p Cent
over the revised estimate.

3 The original estimate
for the Court buildings
amounted to Rs 17500 &
was sanctioned by this Govt
on the 28 Aug 1857. This
estimate besides being framed
upon insufficient rates
omitted some essential
parts; and to remedy these
defects, a supplemental
estimate is now submitted
amounting to Rs 15,000 being
nearly 86 p Cent in excess
of the original estimate.

4 The necessity of ad-
ditional funds for these
works was first brought
to the notice of this Govt
by the Ch: Engr. in Aug: last.
The causes of the large fur-
ther demands were, however,
by no means well explained
on that occasion, especially
in the case of the Jail. There
were the usual excuses
of

...

of rise in the price of labor, unseasonable weather and heavy monsoons; and some stress was laid upon the circumstance of the embankment, in the neighborhood, of buildings connected with the railway.

~~[illegible]~~

The Hon: the Govr in Council considering the case to be one calling for searching inquiry on the spot, ~~and~~ directed Lt. Col. Birdwood the Dy: Ch: Engr of the circle to proceed to Salem to investigate the matter and to report

I^st Upon the causes of the excess.

II^ndly Whether the whole sum had been honestly expended on the works—and

III^rdly Whether the Asst. Engrs did his duty in regard to the preparation of the estimates and the supervision of the buildings; and whether he gave the work a due [illegible] his personal

a 15 Octr 1859 with the nine enclosures.

20 January 1860 & 9365 with four statements.

5 Col. Birdwood's report and a subsequent communication on the same subject from the Ch: Engineer supplying the detailed information as to the causes of excess which the former officer had omitted to furnish are herewith forwarded. The Dy Ch: Engineer acquits the Asst: Engineer, Capt Jahagan, of neglect and carelessness: there is no opinion that there has been any fraud on the part of the immediate dept of the works; and believes that the money expended has been honestly devoted to the work; and attributes the excessive cost of the buildings to the Asst: Engr's want of experience and a desire to gain credit for good work. That there has been of late years a very considerable advance

advance in the cost of buildings
materials and the price
of labor of all kinds
is beyond dispute; but
it is clear from the
above papers that any
advance is not the sole
or even principal cause
of the large excess. Capt
Gahagans object throughout
out has evidently been
to turn out work which
shall bear favorable
comparison with the
railway buildings on the
same district and his
anxiety to effect this
has betrayed him into
competition with the local
railway executive; and
the result has been great
waste and extravagance.
The estimates have been
largely exceeded and
the works executed are
of a far superior descrip-
tion than ever contemplated or is at
all necessary.

(1)

6 The details of the
causes of excess are fully
and clearly shown in the
Ch: Engineers letter. After
making full allowances
for omissions in the estimates
for which also the Asst.
Engr. is responsible, and
for insufficient rates.
there remains abundant
matter to justify Col: Kelly's
strong condemnation of
Capt Gahagans manage-
ment of these works. I
that condemnation this
Govt fully concur: but
they concur also in the
hope expressed by the
Ch: Engr: that the painful
experience which the
Asst: Engr: has thus acquired
will not be lost upon him

7 The works under
notice have all along
been under the immediate
charge of a Mr Macfarlane
an

Para 24

and last drawn hot in the
P.W.D. or in the service
of Govt at all, or a builder
by trade. Hts he has
been engaged for several
years in building private
houses on the Shevaroy
hills Kat Salem, and
has some local property
and influence. The
Asst Engr. considered
himself intimate in
getting this person.
When recommending him
to the Ch. Engr. for the
charge, he spoke of him
in terms of high com-
mendation. and has
done the same on several
subsequent occasions.
The data on which the
revised estimate of
Rs 45000 for the Lal
was chiefly framed
were furnished by Mr
Macfarlane in whom
the Asst Engr. placed
unlimited confidence

now shown to have been
undeserved. for those data
have been found to have
been worthless. and Capt
Graham has since
discovered that the
Supt. had not been
accustomed to calcula-
tions and measurements.
All the accounts have
been regularly & punctually
rendered by Macfarlane
and as already stated,
the Govt have the as-
surance of St. Col
Birdwood that there
has not been any fraud-
ulent appropriation
by the Supt. of any of
the public money. the
Govt has decided
that he shall be no
longer employed on the
work and prohibited
his being again employed
in the D.P.W. in any
capacity.

Sh

8 In para 2 of this letter the Ch. Engr. details the particulars of the Road sanctions for the buildings and those now required.

On the last, Rs 8670 have already been expended in excess of the revised estimate of Rs 45,000, and the Supplemental estimate amounts to Rs 26500. Thus the total excess on the last is Rs 35170

Of the original estimate of Rs 17500 for the Court houses. Rs 4110 remain unspent. The Supplemental estimate for these buildings. inc clusive of that sum. is Rs 19110. being a net excess of Rs 15000.

9 The total sum needing sanction is Rs 50170. The accompanying estimates ap-

pear to have been made with care, and I am to request that the necessary funds may be accorded to bring the buildings to completion.

The Govr
The Govt. of Ohio
Govt on the subject of this
Despt
application will be found
recorded in the papers
specified in the margin

J P

Pres 16th Sept 1859 P 24287.
10 Nov 1859. 25826.

Govt. St. George
24th July/60

Public Works 1860 Dec. 1st
Rec. of Govt. 29th February.

No. 403.

To

The Secretary to the Govt.
of India, D.P.W.

Fort St. George
24th February 1860.

Sir,

I have the honor to forward
Proceedings of Govt. dated 30th Oct. 1859
Cir. 2518.

Submitting for sanction
the supplemental Estimate
for the Civil and Port Houses
under construction at Salem.

No. 48.

Public Works Dept

No. 402

Proceedings of the Madras Government
Under date the 24th February 1860.

Read the following letter
from the Chief Engineer.

Submits with reference to the Proceedings of Government dated 10th December 1859 No. 2573 and previous orders on the subject of the Salem Civil and Court Houses, Statements of the expenditure thereon with the Estimate for the completion of the works, and reports on the causes of excess.

(Here enter 25th January 1860 No. 9360)

In this letter the Ch. Engr. reports in detail on the causes of excess over the estimated cost, in the Civil & Court Houses at Salem.

2. It is unnecessary to follow him into the details of the causes of this excess, which appear to have been at last brought out with clearness. It is sufficient to state that after making full allowance for omissions in the Estimate, for which neither the District Engr. is responsible, there remains abundant

incompetency

matter & wishes the Ch. Engr's
strong condemnation of Capt.
Galbraith's management of these
works.+ In that condemnation
the Govt. fully concur, but
they concur also in the hope
expressed by Ch. Insp., that
the powerful extensions which
the District Engr has thus acquired
will not be lost upon him.

3. If further proof
wanted of the wasteful & extra-
-vagant manner in which the
works were conducted, it is found
in the fact that the estimated cost of
the whole works remaining to be
executed, is £ 60,000 less than
that already built, the former being
on an average £ 1 per ton & the
latter Rupees 6-1-10 per ton
& the item of Superintendence, &c,
it may be seen on study of the
Ch. Engr's letter that the charge is not

+ Para 24

excessive considering the time
occupied in the work; but this
very protraction of the works
is one effect of incapacity
& mismanagement.

4. The Inspection
also took the immediate charge
of the executive, & in lieu
of the District Engr placed an
unlimited confidence was
shown & have been made
served, with no longer be
employed in the work; &
the Govt. further prohibit
his being employed in the
Public Works Dept in any
capacity.

5. In Para 28 the Ch. Engr
details the particulars of the
first sanction for the building,
& that now required.

On the fair Estt. 8670
Lacs already been expended

in excess of the original Estimate of 45,000 Rubs, & the Supplemental Estimate amounts to Rubs. 26500. Thus the total excess on the Jail is Rubs 35,170, on an Estimate of Rubs. 45,000, or 77 per cent.

The original Estimate for the Civil Houses amounted to Rubs. 17500, of which Rubs. 4,110 remain unspent. The Supplemental Estimate provides, in excess of that there 19,110, being a net excess of 15000 or 86 per cent on the original Estimate.

6. The total sum needing sanction is Rubs 50,170. The supplemental Estimate appears to have been made with care, & the necessary alterations will be made in the Jail of Irodsk, accompanied by a detail of the circumstances which have rendered it necessary.

10 Copies. Chief Engr.

Col. Tilly R.E.

Public Works 1860 Sept.ber

Rec.d 26th February.

No. 432.

Rec.d of the Madras Govt.

D.d 24th February 1860.

From the Chief Engr. 2d/21st

March 1860 & Encl.s 23 in Sons

Mr. Capt. Ryves

From do. D.d 2d May 1859 & Encl.s 1 & 2

in Encl.s 15th Aug.st 1900

Submitting the employment of Mr. Macfarlane in the P.W.D. and ordering that a publication be made to the Govt. of India for sanction to the Appointment & Salaries for the Jail and Court Houses under construction at Salem.

Nos. 46 & 47-48-

With Letter to the Govt. of India

Dated 28th Feby 1860.

From Govt. of India. No. 403. 23d Dec.r 1860 Cl.n 2518- Encs. 3 Nos. 56-57-