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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 237	Press Mis.
480-482	
Dated 21-1-18	64.

Not to be folded or roughly handled

10

*Proceedings of the Madras Government, Public Works Department,
21st January 1864.*

Read the following papers:—

No. 430. From Captain H. TULLOCH, R. E., Executive Engineer on Special duty, to Colonel C. A. ORR, R. E., Secretary to Government, Department Public Works, dated Madras, 21st December 1863, No. 26:—

SIR,

1. I have the honor to request that you will favorably represent for the sanction of Government, this application for a small extension to my present Office Establishment.

The permanent hands employed under me consist of—

	RS.
1 Draughtsman on	40
1 Writer	35
4 Lascars	28
Total...	103
1 Supervisor	200
1 Writer	15
2 Lascars	12
Total...	227
Grand Total...	330

The temporary Establishment granted me for the period of four months consists of—

	RS.
1 Draughtsman on... ..	20
1 Estimate-maker... ..	60
2 Surveyors, each 150	300
8 Lascars for Surveyors	50
2 Do. extra, allowed to me	9
2 Do. do. do. to the Supervisor	13
Total...	452

2. By the end of next month I shall have no temporary hands employed under me.

3. The extra Lascars allowed to myself and the Supervisor were dismissed a few days ago, as the four months for their employment had expired; I beg that these may be continued to us permanently. Four Lascars for myself are not sufficient. Two of them are required as guards night and day over my Office, which contains a very large assortment of valuable instruments. With the other two by themselves, I am not able either to level or to survey. The only way in which I can manage now is to lend Mr. Martin two men and to retain the others in my Office, one to send on messages, the other to attend to the wants of the Clerks. It is not possible for me to go out in the field at present, as if I did I should have to make use of the Supervisor's Lascars, and should thus put an effectual stop to his own out-door work. The cost of the four Lascars would be only 24 Rupees a month.

4. With the experience that I have now gained, I am certain it will be better to employ one Surveyor permanently than two temporarily. I would not, however, recommend nearly so high a salary for him as Government have sanctioned for the temporary Surveyors now working under me. Each draws 150 Rupees monthly, besides a travelling allowance of 40 Rupees. I think 100 Rupees a month with a travelling allowance of 30 Rupees ample for the class of men at present procurable. In a year this would amount to no more than 1,560 Rupees, whereas the two temporary Surveyors for only four months will have cost Government $380 \times 4 = 1,520$. I will answer for it that one man after he has been with me six months will do more than two temporary Surveyors procured at the moment they may be required. It has been the only disheartening part of my duties to undo work which has taken my Surveyors many days to do. I have now checked several miles of survey only to reject the entire work. Indeed I feel certain that there is but one way to secure good Surveyors, i. e., to employ them permanently. I believe Mr. Fraser's experience leads him to the same conclusion.

me for the period of 4 months consists of.

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21st January 1864.

5. I am quite prepared now to be obliged to reject the first month's work of any Surveyor employed for the first time on a project similar in its nature to the one I am at present investigating. Just by the time each man becomes useful it is necessary to dismiss him. The experience he may have gained cannot therefore be turned to further account for Government.

6. I also respectfully submit the necessity for two more permanent Draughtsmen in my Office. Their combined pay need not be more than 80 Rupees, one on 50 Rupees and one on 30 Rupees, I would myself teach both (and indeed every man in my Office) to level and survey so as to make them useful to the utmost extent possible. In time these men would receive a special training for work in connection with the investigation of projects, and Government would then have a class of servants on whom they could depend and who would do a far greater amount of work than double their number of temporary hands.

The total extra charge to Government would be—

4 Extra Lascars	...	...	...	...	Rs. 24
1 Surveyor (with travelling allowance)	...	...	...	...	130
2 Draughtsmen	...	...	...	...	80
Total...					234

7. It is for the sake of economy that I ask for the sanction of this extra permanent Establishment, inasmuch as if it is not granted temporary hands must ultimately be employed at a cost far exceeding in the end this regular charge. The longer a project takes to complete the greater the expense becomes to Government, and for this reason an inefficient Establishment is unadvisable.

MEMORANDUM.

Mr. W. Fraser, Special Executive Engineer, is requested to state what Establishment he considers should be attached to him after the services of the temporary Establishment now employed have been dispensed with.

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

Secretary to Government, P. W. D.

Chepauk,

22nd December 1863.

No. 481. From W. FRASER, Esq., C. E., Special Executive Engineer, to Colonel C. A. ORR, R. E., Secretary to Government, Public Works Department, dated Red Hills, 28th December 1863, No. 75.

SIR,

1. In accordance with your Memorandum, dated the 22nd instant, I have the honor to return Captain Tulloch's letter No. 26 with the following remarks:—

My present permanent Establishment is—

1 Draughtsman	...	...	...	...	Rs. 40
1 Writer	...	...	...	...	35
4 Lascars	...	...	...	...	28
Total...					103

1 Assistant Supervisor	...	...	...	...	150
1 Writer for do.	...	...	...	...	15
2 Lascars for do.	...	...	...	...	12
					177

Total per month ... 280

The temporary Establishment allowed to me for four months is the same as that noted by Captain Tulloch, but I have now only one temporary Surveyor, as Mr. Stephenson, one of the two employed, accepted, in the early part of this month, an appointment under the Madras Irrigation Company.

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21st January 1864.

It is not my wish to replace him by another with the sum now remaining at my disposal, because, as Captain Tulloch remarks: "By the time each man becomes useful it is necessary to dismiss him."

2. I agree with what Captain Tulloch has written regarding the uselessness for a month or two of the majority of Surveyors to be had about Madras.

They are slow and inaccurate; they have no idea of what should be represented, and what might be neglected in making a survey; and they are totally ignorant of the numerous short practical methods of overcoming little difficulties as they arise. They are paid quite as much as English Surveyors, and they get through, in an unsatisfactory way, about one-third of the work.

I have found it necessary, as Captain Tulloch has, to reject a large proportion of the work first done.

Future permanent Establishment.

3. This is a subject about which I have been anxious for some time past, as the present arrangement is expensive both in time and money. My opinions were fully explained when I proposed the appointment of Special Engineers. I particularly urged the importance of having the Establishment of Surveyors, &c., sufficient to keep us busy "as Engineers," and that anything less than this would involve a waste of time and money.

My present circumstances will illustrate what I mean.

With regard to the Red Hill part of the Madras water scheme I have done all that I have to do for the present as an Engineer.

With the aid of general levels and surveys I have settled—

- I. The point on the Cortelliar where the supply channel should be taken off.
- II. The line of the supply channel from the Cortelliar to Solavaram lake.
- III. The extent to which this lake may be enlarged.
- IV. The line by which it can be connected with the Red Hill lake.
- V. The works connected with the enlargement of the latter.
- VI. The general line for the channel to Madras, and
- VII. The site for the proposed basin in Madras.

Mr. Ottman, the Principal Assistant, has been over the ground with me several times, he is in full possession of, and thoroughly understands, what is proposed to be done, and the detailed surveys, now in progress, can be completed by him.

As these surveys are finished, I shall have to mark upon them the details of the several designs, but in the meantime I am not wanted here.

I should now be in a position to go to the Adyar valley, where I have the Pommal and Mount tank and other questions to examine in connection with the Madras water supply, or to the investigation of the works in connection with the Cortelliar and Cooum, alluded to in the Government Minute No. 1,741.

4. There is, however, no use in my going on any of these duties unless I can bring an intelligent Surveyor with me, and this, under present circumstances, I cannot do, unless I stop the surveying here. The result is that I am now engaged in surveying, which could be just as well done by an Assistant on one-fifth of my pay. This leads us back to the former statement that true economy consists in keeping us busy as Engineers.

5. The strength of the Establishment of Surveyors, &c., allowed to me, will depend on the view you take of this question. If I am to have the necessary detailed surveys prepared for me, I can now employ at least six Surveyors; but if I am to survey ordinarily myself, then my present Establishment or even a smaller one will suffice. With regard to the latter supposition I would quote Captain Tulloch's last paragraph: "The longer a project takes to complete the greater the expense becomes to Government, and for this reason an insufficient Establishment is unadvisable."

me for the period of 4 months consists of.

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21st January 1864

6. The Surveyors I should like to have now are two good Assistants; that is, one other in addition to Mr. Ottman and four Subordinate Surveyors.

The two Principal Assistants should be of Mr. Ottman's class. They should be good Surveyors and levellers, and possessed of some departmental experience.

The four Subordinates should be good Surveyors and levellers, and able to plot their own work; but as they would be under the immediate orders of the two superiors nothing more would be required of them.

7. If I had such a staff now, I would leave Mr. Ottman here with two Surveyors to complete these plans and bring the other set with me to the Adyar or wherever they were most wanted; visiting the former occasionally to keep things straight.

8. I have thought earnestly over the best means of obtaining these Surveyors, and I would recommend that the following plan be tried. My object is to get a sufficiently trained staff at the smallest expense.

I do not think with Captain Tulloch that if we go into the ordinary Survey market of Madras, we shall get efficient men for 100 Rupees a month. The wants of the Irrigation, the Railway, and Tramway Companies have caused an increased demand for Surveyors and Draughtsmen, so that efficient hands are now difficult to be got.

Mr. Stephenson, who was getting 190 Rupees on this Survey, has just gone to join the Irrigation Company on 260 Rupees a month.

A Native Surveyor, whom, after a long trial, I did not consider worth 60 Rupees a month, is now receiving 150 Rupees a month on the Neilgherries. We must have good Surveyors, and if we go into the ordinary market for them we must compete with other employers.

9. When the Special Engineers were appointed, I suggested (to Colonel Birdwood) that we might be supplied with ordinary Surveyors from the Engineering College, on the payment of liberal travelling allowances.

I do not know what the difficulty was which prevented this idea being carried out, but supposing that the difficulty still exists, I would suggest the following modification of my first proposition.

I take it for granted that the College could supply us with a sufficient number of men so far trained that a few weeks, practical teaching would make them tolerable Surveyors. From the list of such men (supplied by the Principal) let us select the number we want, and take them on trial as probationers; under such rules regarding pay, promotion, and allowances, as you may deem right.

If these men were admitted to the Department they would receive (if I am rightly informed) 60 Rupees a month as pay, and 20 Rupees for travelling allowances, in all 80 Rupees a month.

With us their expenses would be rather more than if they were settled in Taluqs; but let us, for the present, adopt this scale of pay; the staff I ask for would then amount to:—

	RS.
2 Department Assistants of the rank of Supervisor at 150 Rupees each and 40 Rupees travelling allowance =	380
Rupees 190 x 2	320
4 Probationers at 80 Rupees each	700
6 Sets of Lascars for the above consisting of 5 each, one at 7 Rupees and 4 at 6 Rupees a month = Rupees	186
31 x 6	186
Total	886

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21st January 1864.

10. I now come to the Office Establishment. I quite agree with Captain Tulloch regarding the inefficiency of the present Office Establishment, but we do not quite agree as to the best means of rendering it efficient. We may, however, be both right according to the different circumstances under which we are placed. You will perhaps be surprised to hear that at the Red Hills food, &c., are 30 to 50 per cent. dearer than they are in Madras. A very good Draughtsman or Estimate-maker can be had at Madras for 60 Rupees a month, or less, I cannot get one to come here for 80 Rupees a month, unless he is to be permanently employed. In order to keep proper Lascars with me I am obliged to pay some of them a Rupee each extra from my own private purse, and for all as well as for my own servants I find it necessary to keep up a supply of rice, &c., at wholesale prices.

The Office Establishment I would ask for is —

	RS.
I. Head Draughtsman and Estimate-maker	80
II. Assistant do.	40
III. Do. do. and Writer and Accountant	35
IV. Moochi	10
V. 6 Lascars at 7 Rupees	42
Total...	207
Deduct present Establishment...	103
Extra amount applied for...	104

This is 12 Rupees a month more than Captain Tulloch asks for.

The difference arises in items IV and V as he gets his Moochie's work done at the Lithographic Department (I cannot), and he asks but 6 Rupees each for two of his Lascars.

The whole amount I ask for is just equal to that allowed for the Executive Officer at the Presidency, and 31 Rupees less than that allowed for the Neilgherries.

I would refer to paragraph 9 of the Re-organization Committee's Report to show that in their opinion we should have a larger Establishment than that allowed to ordinary Executive Officers.

11. The sum total I ask for is—

	RS.
1. Six Surveyors as explained in paragraph 9	700
2. Lascars for do.	186
3. Office Establishment and Lascars, paragraph 9	207
Total per month...	1,093
Deduct permanent Establishment at present sanctioned.	
My own Office Establishment	103
1 Assistant Surveyor	190
1 Writer for do.	15
2 Lascars do.	12
	320
Balance...	773

Deduct temporary Establishment now sanctioned.

2 Surveyors at 190 Rupees	380
12 Lascars	71
Draughtsman	20
Estimate-maker	60
	531
Total extra amount now asked for...	242

12. If this Establishment is sanctioned it will enable me to get through a good deal of work satisfactorily, and at a very small cost to Government.

I would propose to supply the men selected from the College with tents, and to give to each an office table and chair.

me for the period of 4 months consists of.

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21st January 1864.

If you approve of the idea of our getting College men, Captain Tulloch and I could probably arrange about the selection, &c., with the Principal.

I think the plan proposed ought to work well, and lead to the formation of a body of well trained Surveyors, whose services would be found most useful wherever they might be subsequently posted.

If you approve of the suggestion, I should be glad to receive early sanction.

No. 482. ORDER THEREON, 21st January 1864, No. 237.

1. In the letters above recorded, Captain Tulloch and Mr. Fraser, Special Executive Engineers, apply for increased Office and Executive Establishments.

2. The Establishments at present attached to these Officers are as follow :—

CAPTAIN TULLOCH.

Permanent Office Establishment.

	Rs.
1 Draughtsman	40
1 Writer	35
4 Lascars	28
	103

Permanent Extra Establishment.

1 Supervisor	200
1 Writer	15
2 Lascars	12
	227

Temporary additional Extra Establishment for the Madras drainage Project.

1 Draughtsman	20
1 Estimate-maker	60
2 Surveyors at Rupees 150	*300
12 Lascars	72
	452

Grand Total... 782

* Or with Travelling Allowance at Rs. 40 each Rs. 380.

MR. FRASER.

Permanent Office Establishment.

The same as Captain Tulloch... 103

Permanent Extra Establishment.

1 Assistant Supervisor	†150
1 Writer	15
2 Lascars	12
	177

† Or with Travelling Allowance Rs. 190.

Temporary additional Extra Establishment for the Madras water supply Project.

The same as that allowed to Captain Tulloch for the drainage project ... 452

Grand Total... 732

3. The period, four months, for which the temporary Establishments were sanctioned being about to expire, it is proposed by both Officers to substitute permanent Establishments for them.

Captain Tulloch asks for—

	Rs.
1 Surveyor	100
4 Extra Lascars for himself	24
2 Draughtsmen at Rs. 50 and 30	80
Total... ..	204

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21st January 1864.

and would give the Surveyor a travelling allowance of Rupees 30 instead of Rupees 40 per mensem. To his Estimate however must be added four Lascars for the proposed extra Surveyor, which at Rupees 6 each, would raise the cost to Rupees 228 a month, or Rupees 224 below the present salary charges.

4 Mr. Fraser's requisition considerably exceeds the cost of his present temporary Establishment, it being as follows :—

	Rs.
1 Assistant Supervisor	150
4 Probationers at 60 Rs.	240
1 Draughtsman	80
1 Moochee	10
30 Lascars at various rates... ..	188
Total... ..	668

	Rs.
Proposed additional permanent Establishment	668
Additional travelling charges	120
	788
Present temporary Establishment	452
Travelling charges	80
	532

1 Writer to be discontinued	15
Net increase... ..	241

With travelling allowances to the Assistant Supervisors and Probationers, which are given at Rupees 40 each for the former and Rupees 20 each for the latter (less the pay of the present Assistant Supervisor's Writer (Rupees 15) whose services Mr. Fraser apparently proposes to dispense with) the net increase charge would be Rupees 241 per mensem.

5. The Government is not prepared to accede to either application. The Establishments to be attached to Special Executive Engineers must depend on the nature and extent of the work on which such Officers may from time to time be employed, and as these will continually vary it would be neither economical nor advisable to maintain under such circumstances large and expensive permanent Establishments.

6. Provision will be made in the Budget of 1864-65 for sufficient subordinate agency for the vigorous prosecution of the important projects on which Captain Tulloch and Mr. Fraser are now employed; but meanwhile all temporary Establishments must be discontinued from the date on which the present sanction shall expire.

(True Extract.)

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

To Captain Tulloch, Special Executive Engineer.
To W. Fraser, Esq., do, do.
To the Controller and Auditor of Public Works Accounts.

Exd. S. T. Augustin.

me for the period of 4 months consists of.

From

No 26.

Captain H. Tulloch R. E.
Executive Engineer on Special
Duty.

To

Colonel C. A. Orr R. E.
Secretary to Government D. P. W.
Chepauk

Sir,

I have the honor to request that
You will favorably represent for the sanction
of Government, this application for a small
extension to my present Office Establishment.

The permanent hands employed
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1 Draughtman on	40 Rs
1 Writer	35 Rs
4 Lascars	28 Rs
Total	103 Rs

1 Supervisor	200 Rs
1 Writer	15 Rs
2 Lascars	12 Rs
Total	227 Rs

Grand Total 330 Rs

The Temporary Establishment granted
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1 Draughtman on — 20 Rs
 1 Estimate Maker — 60 Rs
 2 Surveyors each 150: 300 Rs
 8 Lascars for Surveyors — 50 Rs
 2 Dr. Extra allowed to me — 9 Rs
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 Supervisor — 13 Rs

Total 452 Rs

By the end of next month I shall have no temporary hands employed under me.

The extra Lascars allowed to myself and the Supervisor were dismissed a few days ago as the four months for their employment had expired. I beg that these may be continued to us permanently. Four Lascars for myself are not sufficient. Two of them are required as guards night and day over my Office which contains a very large assortment of valuable instruments. With the other two by themselves, I am not able either to level or to survey. The only way in which I can manage now is to lend Mr. Martin two men and to retain the others in my Office. — One to send on messages.

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in 6 months will do more than two temporary surveyors procured at the moment they may be required. It has been the only disheartening part of my duties to undo work which has taken my surveyors many days to do. I have now checked several miles of survey only to reject the entire work. Indeed I feel certain that there is but one way to secure good surveyors. i.e. to employ them permanently. I believe Mr. Fraser's experience leads him to the same conclusion.

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The experience, ~~therefore~~ ^{therefore} he may have gained cannot be turned to further account for Government.

I also respectfully submit the necessity for two more permanent draughtsmen in my Office. Their combined pay need not be

be more than 80 Rs One on 50 Rs and one on 30 Rs. I would myself teach both (and indeed every man in my Office) to level and survey so as to make them useful to the utmost extent possible. In time these men would receive a special training for work in connection with the investigation of Projects and Government would then have a class of servants on whom they could depend and who would do a far greater amount of work than double their number of temporary hands.

The total extra charge to Government would be

Rs	
4 Extra Lascars	24
1 Surveyor (with travelling allowances)	130
2 Draughtsmen	80
<u>Total</u>	<u>Rs 234</u>

It is for the sake of economy that I ask for the sanction of this extra permanent establishment in as much as if it is not granted temporary hands must ultimately be employed at a cost far exceeding in the end this regular charge. The longer a

150

Have to

Spud^a Ex Capidua officin?

21st Decem^r 1862

Shillock Captain RE

Excellent Engineer and Special Agent

No 75
 From
 William Fraser Esq. C. E.
 Special Ex. Engineer
 To
 Colonel C. A. Orr R. E.
 Secretary to Government P. M. D.
 Chepauk.

Sir
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 Total per month 280. Rupees.

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No 480
 Dated 21st Decr 1863
 Received 22 " 1863
 The Secretary
 to Govt of Mys
 Chepauk
 Mysore
 for an enclosure to the
 Government of Madras
 sent on file in
 Special Work under
 Mysore
 of 25th 21st January
 Mysore Order

and Executive Engineer, is requested
 to state what establishment he
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At
 W. Fraser Esq. C. E.
 Special Executive Engineer.
 Chepauk
 22nd December 1863
 Secretary to Govt
 Madras
 1863

part of this month, an appointment under the Madras Irrigation Company: —

It is not my wish to replace him by another, with the sum now remaining at my disposal, because, as Captain Tulloch remarks, "By the time each man becomes useful it is necessary to dismiss him."

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as the present arrangement is expensive both in time and money: — My opinions were fully explained when I proposed the appointment of Special Engineers. I particularly urged the importance of having the Establishment of Surveyors &c. sufficient to keep us busy "as Engineers," and that anything less than this would involve a waste of time and money: —

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With regard to the Red Hill part of the Madras Water Scheme I have done all that I have to do for the present as an Engineer —

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VI The general line for the channel to Madras - and

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as these Surveys are finished I shall have to mark upon them the details of the several designs; - but in the mean time, I am not wanted here.

I should now be in a position to go to the Adiyar Valley where I have the Comma and Mount Tank and other questions to examine in connection with the Madras Water Supply; - or to the investigation of the works in connection with the Coettiar (Coomballud to in the Govt Minute N^o 1741 -

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under present Circumstances, I cannot do, unless I stop the surveying here: - The result is that I am now engaged in Surveying, which could be just as well done by an assistant on 1/5 of my pay: - This leads us back to the former statement that true economy consist in keeping us busy as Engineers.

5 The strength of the Establishment of Surveyors &c. allowed to me, will depend on the View you take of this question: If I am to have the necessary detailed Surveys prepared for me I can now employ at least 6 Surveyors, but if I am to Survey Ordinarily myself, then my present establishment or even a smaller one will suffice: -

With regard to the latter supposition I would quote Captain Tulloch's last paragraph -

"The longer a project takes to complete the greater the expense becomes to Government and for this reason an insufficient establishment is inadvisable -"

6 The surveyors I should like to have

now, and 2 good assistants; That is, one
other in addition to Mr. Ottman ^{and} 4 subordinates
Surveyors—

The 2 principal assistants should
be of Mr. Ottman's class: They should be
good surveyors and levellers, and possessed
of some departmental experience:—

The 4 Subordinates should be
good Surveyors and levellers, and able to plot
their own work;— but as they would be
under the immediate orders of the 2 superiors
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7 If I had such a staff now, I would leave
Mr. Ottman— here with 2 Surveyors to
complete these Plans— and bring the other set
with me to the Adyar or wherever they were
most wanted;— Visiting the former occasionally
to keep things straight—

8 I have thought earnestly even the best over
means of obtaining these Surveyors and I would
recommend that the following plan be tried: My
object is to get a sufficiently trained staff at
the smallest expense:—

I do not think with Captain Tulloch
that if we go into the Ordinary Survey market
of Madras, we shall get efficient men for 100
Rupees a month: The wants of the Irrigation,

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are now difficult to be got:—

Mr. Stephenson, who was getting 190
Rupees on this survey, has just gone to join
the Irrigation Company on 260 Rupees a
month:—

A native Surveyor whom, after a long
trial, I did not consider worth 60 Rupees
a month, is now receiving 150 a month
on the Neilgherries:— We must have good
Surveyors, and if we go into the Ordinary
market for them we must compete with
other employers—

9. When the Special Engineers were
appointed I suggested to Colonel Birdwood
that we might be supplied with Ordinary
Surveyors from the Engineering College,— on
the payment of liberal travelling allowances:

I do not know what the difficulty was
which prevented this idea being carried out,
but supposing that the difficulty still exists,
I would suggest the following modification
of my first proposition—

I take it for granted that the College
could supply us with a sufficient number,

8

of men so far trained that a few weeks of practical teaching would make them tolerable Surveyors. From the list of such men (supplied by the Principal) let us select the number we want - and take them on trial as probationers; under such rules regarding pay, promotion, and allowances, as you may deem right.

If these men were admitted to the department they would receive (if I am rightly informed) 60 Rupees a month as pay - and 20 for travelling allowances - in all 80 Rs a month.

With us their expenses would be rather more than if they were settled in Taluk; but let us for the present, adopt this scale of pay; - the staff I ask for would then amount to -

2 Department assistants	
of the Rank of Supervisor at 150 each	
and 40 travelling allowance 190×2	380-0-0
4 Probationers at 80 each	320-0-0
6 Sets of Lascars for the above	700-0-0
Consisting of 5 each; one at 7 Rs and	
4 at 6 Rs a month = 31×6	186-0-0
Total Rs	886-0-0

10 I now come to the Office Establishment. - I quite agree with Captain Tulloch regarding

the inefficiency of the present Office Establishment, but we do not quite agree as to the best means of rendering it efficient. - We may however, be both right according to the different circumstances under which we are placed. - You will perhaps be surprised to hear that at the Red Hills food &c are 30 to 50 per cent dearer than they are in Madras. A very good Draftsman or Estimate Maker can be had at Madras for 60 Rs a month - or less. I cannot get one to come here for 80 Rs a month, unless he is to be permanently employed. In order to keep proper Lascars with me I am obliged to pay some of them a rupee each extra from my own private purse and of all as well as for my own servants, I find it necessary to keep up a supply of rice at wholesale prices.

The Office Establishment I would ask for	
I. Head Draftsman & Estimate Maker	80-0-0
II. Asst. D.	40-0-0
III. D. & under acct.	35-0-0
IV. Mooki	10-0-0
V. 6 Lascars at 7 Rs	42-0-0
Deduct present Establishment	207-0-0
Extra amount applied for	104-0-0

This is 12 Rupees a month more than Captain Tulloch asked for:—

The difference arises in items IV and V as he gets his machine work done at the Lithographic department (I cannot)—and he asked but 6 Rupees each for 2 of his Lascars:—

The whole amount I ask for is just equal to that allowed for the Executive officer at the Presidency, and 31 Rupees less than that allowed for the Telegraphers.—

I would refer to paragraph 9 of the reorganization Committee's report to show that in their Opinion we should have a larger establishment than that allowed to ordinary Executive Officers.—

II. The total I ask for is—

I. 2 Surveyors as explained in Par: 9	700-0-0
II. Lascars for I.	186-0-0
III. Office Establishment & Lascars, Par: 9	207-0-0
Total per month Rs.	1093-0-0

Deduct permanent est. at present sanctioned	
My own office establishment 103	103-0-0
One asst. Surveyor 190	190-0-0
One Writer for I. 15	15-0-0
2 Lascars 12	320-0-0

Balance 773-0-0

Balance 773-0-0

Deduct temporary establishment now sanctioned

2 Surveyors at 190 =	380
12 Lascars	11
Draftsman	20

Estimated water — 60 = 531-
Total extra amount now asked for 241-0-0 Rupees

12 If this establishment is sanctioned it will be enable me to get through a good deal of work satisfactorily, and at a very small cost to Government:—

I would propose to supply the men selected from the College with Bents— and to give to each an Office table & Chair—

If you approve of the idea of our getting College men, Captain Tulloch and I could probably arrange about the Selection &c. with the Principal.

I think the Plan proposed ought to be worked well, and lead to the formation of a body of well trained Surveyors, whose services would be found most useful wherever they might be subsequently posted.—

If you approve of the suggestion I should be glad to receive early sanction.

I have the honor to be
Yours most obediently
W. H. Miller Esq.

1027 N 136 St
Do. for Census.

23

From William Tuckers

Grand August

My Dear Mrs. B.

Washed & Dressed

2
Harrison / Jan 11 / 1841

1895

—

—

W. H. W. W.

inverted

100
143

84237-27 University of

100

The Works of
Her High Government
under date the 21st Jan'y 1861 -
(Read the following of
papers.

From the Special Engineer
Presidency.

Application for an increase
to the permanent Establishment employed on Special
work under him.

Mr. James Douglass
Special Agent (Red Hill)
Applying for an additional
Certificate

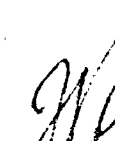
79. S. 21st. Decr/63.

28 Dec. / 68. 10/5

On the letters
we recorded Capt.
Clark and Mr. Dimes,
Recent Executive En-
gineers, apply for in-
creased Office and
Executive Establish-
ments.

The Establishment
present attached
these prices are
follow:

Capt. Tulloch.
Permanent Office Sec.
Bathurst - Rs 40.
Niter - 35-
Laccars - 20

1 Supervisor Rs 200
 1 Writer — 15
 2 Clerks — 12 — 227

Temporary Addl.
 Engr. Est. for the
 Madras Drainage
 Project

1 Draftsman Rs 20.
 1 Estimate maker. 60
 2 Surveyors @ 150 = 300*
 12 Clerks — 72 — 452
 Grand Total Rs 78 —

Mr. Incey.
 Permanent Officer Est.
 The same as Capt.
 Fullock — 103

Permanent Engr. Est.
 1 Asst. Supervisor 150.
 1 Writer — 15
 2 Clerks — 12 — 177

Temporary Addl. Engr.
 Est. for the Madras
 Water Supply Project.

The same as that
 allowed to Capt.
 Fullock for the
 Drainage Project — 452
 Grand Total Rs 73

* Or with Travelling
 allowance @ Rs 40
 each. Rs 380.

* Or with Travelling
 allowance Rs 190.

the period - for
 months - for which the
 temporary establishments
 men to were sanctioned
 being about to expire
 it is proposed by
 both officers to sub-
 permanent Establish-
 ments for them.
 Capt. Fullock
 Rs 100 for

1 Surveyor - Rs 100
 1 Engr. Clerks
 for himself . 225
 2 Draftsmen
 @ Rs 50 + 30 . 80

Total Rs 204
 but as and would give
 the Surveyor a travelling
 allowance of Rs 30 in-
 stead of Rs 40 per month
 so his estimate how-
 ever must be added
 4 Clerks for the project
 Extra Surveyor, which
 at Rs 6 each, would
 raise the cost to Rs
 220 a month - or Rs 222
 below the present
 salary charges.

Mr. Incey's
 acquisition considered

The cost of his present
 exceeds Rs 1000. Subordinate
 temporary establishment, it
 being as follows.

1 Asst. Engineer Rs 150.

4 Probationers at Rs 240

Draftsman 80

Inspector 10

5 Lascars at various
 rates 188

Total Rs 668

with travelling allowances
 to the Asst. Engineers & Pro-
 bationers, which are
 given at Rs 40 each for
 the former and Rs 20
 each for the latter -
 less the pay of the
 present Asst. Engineer
 & writer / Rs 15 / whose
 services Mr. Innes ap-
 parently proposes to
 dispense with. The
 net increase charge
 would be Rs 241 per
 annum.

The Govt. is not
 prepared to accede
 to this application.
 The Establishment

Proposed Additional
 permanent Est. Rs 668
 Additional travel
 & charges - 120
 Rs 788

Present temporary
 Est. - Rs 452.
 Travelling
 charges. 80 - 532
 Rupees 250.

Writer to be dis-
 continued - 15
 Net increase Rs 241

is attached to Special
 Executive Engineers
 must depend on
 the nature & extent
 of the work on
 which such officers
 may from time to
 time be employed -
 and as these will
 continually vary it
 would be neither
 economical nor ad-
 visable to maintain
 under such circum-
 stances large and
 expensive permanent
 establishments.

Provision will
 be made in the
 Budget of 1867/68
 for an efficient subor-
 dinate Agency for
 the vigorous prosecution
 of the important
 projects in which
 Capt. Tullock &
 Mr. Innes are now

employed; in mean-
while all tempo-
rary detachments
must be discon-
tinued from the
state in which
the present much
shall expire.

W.B.

To Captain Tulloch
Special Engineer
Mr. Fraser Prop. - So.
Cont & Cadets Acct

23
4

Decr 22nd January

48 W 1864 Dapto
Pro: of Govt for Army

N: 207
Pro: of the eligible
21 Jan 1864

Pro: 15

Applying for
increased Office & Ex:
Establishments -
with orders thereon.