

(1) Number of pages 20(2) Date of repair 12/1/37(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 2803	Press Mis.
398-99	
Dated 22 11	1870.

Not to be folded or roughly handled

28/11/37

*Proceedings of the Madras Government, Public Works Department,
22nd November 1870.*

No. 398. Read the following letter from the Acting Superintending Engineer, 5th Division, to the Secretary to Government, Public Works Department, dated Cuddalore, 13th October 1870, No. 149 :—

I HAVE the honour to forward, for the sanction of Government, a revised estimate of Rupees 27,200 accompanied by a revised plan and comparative statement, for extending the southern range of stables at the Remount Depot at Oosoor in the Salem District.

One Plan.	
„ Estimate, Rupees 27,200.	
„ Comparative Statement.	
„ Specification Report.	

2. An estimate of Rupees 14,720 was first sanctioned for this work in G. O., No. 1,021, of the 28th March 1866. Owing to a rise in the rates and to the necessity for erecting a larger number of stalls than originally intended, a revised estimate, amounting to Rupees 20,400, was subsequently sanctioned in G. O., No. 1,767, of the 29th May 1869; and this estimate had to be again revised, or rather raised, to Rupees 27,200 under the circumstances stated below.

3. Deducting the savings effected, or expected, in some of the items, the net excess of the estimate now submitted over the last revised estimate amounts to Rupees 6,800. The chief causes of this excess are—

- a. alterations in the design ;
- b. the long stoppage of the works by which a large quantity of materials were either entirely lost, or so damaged as to be no longer of any use ;
- c. the sale of materials, the proceeds of which were credited to “ Miscellaneous Public Works Receipts,” and not to the stables estimate ; and,
- d. lastly, and chiefly, to the substitution of teak for jungle-wood in the roofing.

4. The sanctioned estimate for the stables in question provided only for jungle-wood roofing. And Colonel Foord, in his letter to the Range Officer of the 16th October 1865, distinctly instructed that officer that “the wood-work of the roof should be jungle-wood or palmirah, whichever is cheaper or can be more easily procurable;” but, in defiance of this order and of the provisions of the sanctioned estimate, the Executive Engineer, Mr. Paynter, indented direct on the Public Works Workshops for teak-wood roofing, and had, in fact, obtained a greater portion of the supply before this office was even aware of his proceedings, and consequently before a countermanding order could have been sent to the Superintendent of the Workshops.

5. In explanation of his proceedings, Mr. Paynter, in his letter to this office, dated 16th March 1870, No. 1,258, states as follows :—

1st.—It was not possible to procure palmirah rafters 20 feet long, of which he required 368, and that he abandoned the idea of using palmirahs at all “as he considered it very inadvisable for the rafters to be composed of different descriptions of timber.”

2ndly.—That it is not only “difficult to procure jungle-wood that length, but the timber is generally very inferior,” and the delay in procuring even small supplies from the Forest Department is sometimes great.

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22nd November 1870.*

3rdly.—That “he did not expect the teak roofing would be so expensive as it turned out to be;” and that savings in other items could have been effected to meet the excess had the work been proceeded with without interruption, and under the superintendence of some competent and experienced Overseer other than Mr. Hennessy.

6. The reasons assigned by the Range Officer, however valid in themselves, do not justify the deviation on his part, *without authority*, from the sanctioned estimate. Teak-wood is no doubt more durable than either jungle-wood or palmirahs, but it was the duty of the Executive Engineer to have reported his inability to procure the latter, and to have obtained, in the first instance, the required sanction for substituting teak in lieu of the former.

7. The alterations in the design consist in the provision of a ridge ventilator, and of a jungle-wood ventilator for each stall of the double block, agreeably to the instructions furnished to the Range Officer by His Excellency the Governor when he visited Oosoor, and in the addition of three gateways on the requisition of the Acting Remount Agent. The cost of these additions amounts to Rs. 834-9-0.

8. Talook Overseer Mr. Hennessy's carelessness and incompetency have been already reported to Government, but it is to be remembered, at the same time, that the work in question, which is the most important in the range, is only four miles distant from the head-quarters of the Range Officer.

9. The work was first commenced in September 1866 and stopped at the end of March 1867. It was recommenced in December 1868 and again stopped under the restrictive orders of Government of the 28th December 1869, No. 4,015. These long interruptions to the progress of the work have no doubt damaged, and occasioned a loss of, the materials collected, and have prevented the savings expected by the Range Officer.

10. Under the head “Decrease” the item that is to be noticed is “plastering.” Only the exterior of the stalls is to be plastered with chunam to protect the bricks from the weather, while the interior is to be plastered with mud. This was a proposal made by Colonel Foord, R.E., in order to keep down the present expenditure, and to prevent constant outlays for repairs, as the mud plastering could at all times be repaired by the Remount establishment themselves.

11. The 18 stalls (extension of the old stabling) have been completed. Nearly all the masonry work of the new block of 72 stalls has been done, and only the roofing and the plastering of the walls remain to be carried out. All the materials required for these services are collected and on the ground. The total expenditure on the work up to the end of the last official year is Rupees 18,786-1-2.

12. Precautions have been taken by the Range Officer for the safety of the unfinished portion and of the materials, but still these must suffer considerably from the weather if left long in their present unprotected state. It is to be regretted that the completion of this stabling, which was commenced so far back as 1866, should be deferred any longer.

13. Under the circumstances stated above, and considering the advanced state of the work, I have the honour to request that the Government will be pleased to sanction the amount of the revised estimate now submitted, and at least to

*Proceedings of the Madras Government, Public Works Department,
22nd November 1870.*

provide in the outgoing Budget Rupees 8,414, the balance of this estimate, so that the work may be completed during the ensuing year.

14. As this plan and estimate were all prepared during my predecessor's incumbency of office, I have forwarded them on as I find them, and with the comments as above. But I cannot say that they meet with my approval.

15. The design originally proposed for these stables was most faulty, and opposed, in almost every essential point, to the true principles of construction, as laid down in the report of the Sanitary Commission on the ventilation of Cavalry Stables. And there can be no doubt but that the alterations and additions suggested by His Excellency the Governor will prove most salutary.

16. The objections I still find to the stables are as follows:—

It will be remembered that the original estimate provided for 52 stalls, but as it was found that there was space available for 72 stalls, that number was provided in the revised estimate. This appears to me a great mistake. If, instead of cramming 72 stalls into this space, the opening between the two southern blocks of stables had been increased to three times its present width, and the three or four pairs of stalls at the corner ends of each of the two blocks had been removed altogether, the accommodation provided would have been far more satisfactory.

17. Had this plan been adopted the gateway, pierced through the enclosure wall at either end of the two blocks, and which, in the matter of discipline, is an objectionable feature in the design, would not have been required.

18. And not only this but the horses would have been able to leave their stables and enter the enclosure square from both ends of the stable—a most desirable arrangement, but which they are unable to do at present; and, more important still, the necessity for closing the stables with gates, and which will render the air inside most impure, would not have arisen.

19. Imagine the sanitary condition of the stalls marked “A” in pencil, with the combined effluvium caused by the staling of 18 horses leaking down into them, and passing almost under the very noses of the horses boxed up in them.

20. The system of a covered drain passing under the centre of each stall, with a hole provided to carry off the horse's water, and which admits at the same time foul exhalations of gas to escape under the horses, is one that is now universally condemned in England, as being opposed to all true principles of sanitation.

21. The plan now adopted at home is to have an open gutter running at the foot of the stalls, and which admits of being swept out and sluiced with water, and which is, moreover, so arranged that its longitudinal slope or fall is from the centre of the stable outwards.

22. To take a line of drainage right through a stable, as shown in the plan, is certainly most objectionable, and the position of the cess-pits is scarcely less so.

23. I have attached slips of paper on the plan herewith forwarded to show the improvements I propose, and which I consider absolutely necessary for the proper sanitary condition of these stables. The probable saving by these altera-

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22nd November 1870.*

tions would be about Rupees 2,000. And I now forward the plan for the consideration of Government, and for such orders as they may be pleased to pass thereon.

No. 399. ORDER THEREON, 22nd November 1870, No. 2,803.

MILITARY WORKS, No. 15.

THE Government are of opinion that both the plan on which the extension of the southern range of stables at the Remount Depot at Oosoor is being carried out, and that on which the Acting Superintending Engineer proposes to remedy its defects are faulty, inasmuch as access to the stalls is difficult, ventilation is defective, and the covered drains are likely to be a source of foul and objectionable exhalations. His Excellency the Governor in Council considers that a better, if not the best arrangement, will be to make the stalls open to the exterior, and to partially build up the ends opening on to the central passage. The horses would then stand with their heads inwards, ventilation would be complete, and, if the stalls be made with a small slope outwards, the urine would run off and be dissipated by the sun, and no offensive drains would be necessary.

2. The plans and estimates submitted by the Superintending Engineer will be returned with a view to their being modified in accordance with these suggestions and re-submitted at an early date, care being taken to provide for the eaves of the roof being made to project as low as possible to afford protection to the flanks and loins of the horses.

(True Extract.)

Colonel, R.E.,

Secretary to Government.

To the Acting Superintending Engineer, 5th Division.
,, Military Department.

Exd. S. T. Augustin.

*No 149. Suptg Engrs Office, 5th Div.
Cuddalore, 13th Octr 1870.*

*From
Captain R. A. Roberts R.E.,
Actg Superintg Engineer,
5th Division.*

*To.
The Secretary to Government,
P.W. Department,
Madras.*

*Sir,
I have the honor to forward
for the sanction of Government a
revised Estimate of Rupees 27,200,
accompanied by a revised plan
and Comparative Statement, for
extending the Southern Range of
stables at the Remount Depot at
Oosoor in the Salem district.
2. An Estimate of Rupees 14,720,
was first sanctioned for this work
in G. O. No 1021 of the 28th March 1866.
Owing to a rise in the rates and to
the necessity for erecting a larger
number of stalls than originally
intended, a revised Estimate
amounting*

Encl. - 4 -

1. Plan.

1. Estimate Rs 27,200.

*1. Comparative
Statement*

*1. Specification
Report.*

amounting to Rupees 20,400 -
was subsequently sanctioned in
G.O. No 1768 of the 29th May 1869;
and this Estimate had to be again
revised, or rather raised to Rs
27,200, under the circumstances
stated below.

3. Deducting the savings of-
fected or expected in some of the
items, the net excess of the Estimate
now submitted over the last revised
Estimate amounts to Rs 6,800. -

The chief causes of this excess are

a. alterations in the design.

b. the long stoppage of the works - by
which a large quantity of materials
were either entirely lost, or so damaged
as to be no longer of any use.

c. the sale of materials, the proceeds of
which were credited to "Miscellaneous
Public Works Receipts" and not to
the Stables Estimate.

d. lastly and chiefly to the substitution
of teak for jungle wood in the
roofing. -

4. The sanctioned Estimate for
the

the stables in question provided
only for jungle wood roofing. And
Colonel Ford, in his letter to the
Range officer of the 16th October 1865,
distinctly instructed that officer -
that the wood work of the roof should
"be jungle wood or Palmirah, which
"ever is cheaper or can be more easily
"procureable"; but in defiance of this
order and of the provisions of the
sanctioned Estimate, the Executive
Engineer, Mr. Poynter, indented
direct on the P.W. Workshops for
teak wood roofing, and had in
fact obtained a greater portion of
the supply, before this officer was -
even aware of his proceedings, and
consequently before a countermand-
ing order could have been sent
to the Superintendent of the Work-
shops.

5. In explanation of his pro-
ceedings, Mr. Poynter, in his letter
to this office dated 16th March 1870,
No 1258, states as follows: -

1st It was not possible to procure
Palmirah

Palmira's rafters 20 feet long, of which he required 360, and that he abandoned the idea of using Palmira's at all, "as he considered it very inadvisable for the rafters to be composed of different descriptions of timber;"

2nd That it is not only "difficult to procure jungle wood that length, but the timber is generally very inferior" and the delay in procuring even small supplies from the Forest Department is sometimes great; 3rd that he did not expect the Teak roofing would be so expensive as it turned out to be; & that savings in other items could have been effected to meet the excess, had the work been proceeded with without interruption and under the superintendence of some competent and experienced overseer other than Mr. Hennessy.

6. The reasons assigned by the Range Officer, however valid in themselves, do not justify the deviation on his part, without authority, from the

the sanctioned estimate. Teak wood is no doubt more durable than either jungle wood or Palmira's; but it was the duty of the Executive Engineer to have reported his inability to procure the latter, and to have obtained, in the first instance, the required sanction for substituting teak in lieu of the former.

7. The alterations in the design consist in the provision of a ridge ventilator, and of a jungle wood ventilator for each stall of the double block, agreeably to the instructions furnished to the Range Officer by His Excellency the Governor when he visited Coosoor, and in the addition of 3 gateways on the requisition of the Acting Revenue Agent. The cost of these additions amounts to Rupees 834-9-0.

8. Jahug Overseer Mr. Hennessy's carelessness and incompetency have been already reported to Government, but it is to be remembered, at the same

same time, that the work in question, which is the most important in the Range, is only 4 miles distant from the head quarters of the Range Officer.

9. The work was first commenced in September 1866 and stopped at the end of March 1867.

It was recommenced in December 1868 and again stopped under the restrictive orders of Government of the 28th December 1869, No. 4015.

These long interruptions to the progress of the work have no doubt ~~caused~~ damaged, and occasioned a loss of the materials collected, and have prevented the savings expected by the Range Officer.

10. Under the head "Decrease" the item that is to be noticed is "Plastering". Only the exterior of the stalls is to be plastered with chunam to protect the bricks from the weather, while the interior is to be plastered with mud. This was a proposal made

made by Colonel Ford P.E. in order to keep down the present expenditure and to prevent constant outlays for repairs, as the inner plastering could at all times be repaired by the Remount establishment themselves.

11. The 18 stalls/extension of the old stabling have been completed. Nearly all the masonry work of the new block of 72 stalls has been done, and only the roofing and the plastering of the walls remain to be carried out. All the materials required for these services are collected and in the ground. The total expenditure on the work up to the end of the last official year is Rupees 10,786-1-2.

12. Precautions have been taken by the Range Officer for the safety of the unfinished portion and of the materials, but still these must suffer considerably from the weather if left long in their present unprotected

unprotected state. It is to be regretted that the completion of this stabling, which was commenced so far back as 1866, should be deferred any longer.

13. Under the circumstances stated above, and considering the advanced state of the work, I have the honor to request that the Government will be pleased to sanction the amount of the revised estimate now submitted, and, at least, to provide in the outgoing Budget Purposes 8414, the balance of this estimate, so that the work may be completed during the ensuing year.

14. As this plan & estimate were all prepared during my Predecessor's incumbency of office, I have forwarded them on as I find them, and with the comments as above. But I cannot say that they meet with my approval.

15. The design originally proposed for these stables was

3.

was most faulty, and opposed in almost every essential point to the true principles of construction, as laid down in the Report of the Sanitary Commission on the ventilation of cavalry stables. And there can be no doubt but that the alterations and additions suggested by His Excellency the Governor will prove most salutary.

16. The objections I still find to the stables are as follows.

It will be remembered that the original Estimate provided for 52 stalls, but as it was found that there was space available for 72 stalls, that number was provided in the revised Estimate. This appears to me a great mistake. If, instead of cramming 72 stalls into this space, the opening between the 2 southern blocks of stables had been increased to three times its present width, and the 3 or 4 pairs of stalls at the corner ends of each of the

2 blocks had been removed altogether, the accommodation provided would have been far more satisfactory.

17. Had this plan been adopted the gateway, pierced through the enclosure wall at either end of the 2 blocks, and which, in the matter of discipline, is an objectionable feature in the design, would not have been required.

18. And not only this but the horses would have been able to leave their stables and enter the enclosure square from both ends of the stable—a most desirable arrangement but which they are unable to do at present; and more important still, the necessity for closing the stables with gates and which will render the air inside most impure, would not have arisen.

19. Imagine the sanitary condition of the stalls marked A in pencil, with the combined effluvia—caused by the staling of 18 horses leaking

leaking down into them, & passing almost under the very noses of the horses boxed up in them.

20. The system of a covered drain passing under the centre of each stall with a hole provided to carry off the horse's water, & which admits at the same time foul exhalations of gas to escape under the horses, is one that is now universally condemned in England, as being opposed to all true principles of sanitation.

21. The plan now adopted at home is to have an open gutter—running at the foot of the stalls and which admits of being swept out, and sluiced with water, and which is moreover so arranged that its longitudinal slope, or fall is from the centre of the stable outwards.

22. To take a line of drainage right through a stable as shown in the plan is certainly most objectionable, and the position of the

the cess-pits is scarcely less so.

23. I have attached slips of paper on the plan herewith forwarded to show the improvements I propose, and which I consider absolutely necessary for the proper sanitary condition of these stables.

The probable saving by these alterations would be about Rs 2000.

And I now forward the plan for the consideration of Government & for such orders as they may be pleased to pass thereon.

I have the honor to be
Sir
Your most obedt Servt.

Richd. J. Roberts. Capt. R.E.
Adj. Superintd. Engineer 5th Bn

the cess-pits is scarcely less.

Public Works Department
No. 280 B
Proceedings of the Madras Government
Under date the 22nd June/70.
Read the following
From The Sup^r Engineer 5th
J. H. E. No. 149 of 13th Oct/70/

2 P. 1870 light
From the Sup^r Engineer
No. 4105
The Deputy Engineer
(5) 5th Division
To
The Secretary to Govt.
P. W. Deptt
Dated 13th
Recd 15th } October 1870

No. 2803-149 of 13th Oct/70
Encl. 4.
Stables at the Remount
Depot at Ootacoor—
Forwarding for sanction
a revised estimate of
Rs 27,200 for extending
the Southern Range of
Stables at the Remount
Depot at Ootacoor in
Talem & also submitting
for orders of Govt. remarks
on the design originally
proposed for this work—

No 398
1624 Oct/70 P.W. 28th

The Government
are of opinion that both
the plan on which the
extension of the southern
range of stables at the
Remount Depot at Ootacoor
is being carried out, and
that on which the Acting
Sup^r Engineer proposes to
remedy its defects are
faulty, inasmuch as
access to the stalls is dif-
ficult, ventilation is
defective, and the covered
drains are likely to be
a source of foul and
objectionable

objectionable exhalations.
His Excellency ^{the British Consul} considers
that a better, if not the
best arrangement, will be
to make the stalls open
to the exterior and to par-
tially build up the ends
opening on to the central
passage. The horses
would then stand with
their heads inwards, ven-
tilation would be com-
plete, and if the stalls
be made with a small
slope outwards, the urine
would run off and be
dissipated by the sun
and no offensive drains
would be necessary.

The plans and estimates
submitted

21
submitted by the Sup^r
Engineer will be returned
with a view to their being
modified in accordance
with these suggestions
and submitted at an
early date, care being
taken to provide for the
~~case~~ of the roof being
made to project as low
as possible to afford
protection to the flanks
and loins of the horses.

W. B.

22
The Sup^r Engineer's ^{San} letter four lines.
" Smith Sept 5

Sept 24/70

P. W. Dept

Proceedings of the Madras Government
Under date the 10 October 1870
Read the following

From the Supg Engineer J. E. N. 1149 of 13 October 1870.
5 Division

Obtained
15/11/70

In Proceedings of Government under date the 21 March 1866 No. 1071 and estimate of Rs. 14,720 was sanctioned in the Military Department for extending the southern range of stalls at the Remount Depot at Coimbatore in the Salem District, and subsequently in May 1869, it was considered necessary in consequence of a rise in the rates and a larger number of stalls than was originally contemplated

But I don't think the stalls should be so far from the main building

* Vide G.O. No. 1031 of 28 March 66

Proposed alterations should be made by the Remount Depot

* G.O. No. 1767

contemplated being found
indispensable to raise the
estimate to Rs 20,400.

2. With this letter the
Acting Supr Engineer of the
5th Div. submits a second
revised estimate of Rs 27,200,
exhibiting an excess of Rs
6,800 or 33 per cent upon the
amount last sanctioned,
and explains that the in-
crease is due chiefly to:

1. Alterations in the design.
2. The suspension of operations on the works for a
lengthened period.
3. The proceeds of the sale of materials not having
been credited to the works.
4. The substitution of teak for jungle wood in
the roofing.

3. The Governor in Council
must regard as most
unsatisfactory

animadverted on Mr. Pagenter's irregular proceedings in diverting from
a sanctioned estimate, no further remarks will be made in this place.
Vide G. O. No. 937
7th April 1900

unsatisfactory the replica-
tion of the Range Officer
on the large excess under
item No. 4, but having recently

considers the original design
of these stables, which was
prepared during the in-
cumbency of the late
Supr Engineer to be faulty,
and opposed to the prin-
ciples laid down for
the construction of Cavalry
stables. In the Acting
Supr Engineer's opinion
the space provided between
the two southern blocks
is insufficient, and Captain
Roberts considers that the
three or four pairs of stalls
at the corner ends of each
of

of the two rows of buildings
should be dispensed with.
As, however, the works have
attained a very advanced
stage of progress, His Ex-
cellency in Council does
not think it desirable
to authorize the carrying
out of any of these altera-
tions. The suggestion of
the Acting Supg Engineer
to run the line of drainage
along the foot of the stalls
as shown in the plan
may, in the opinion of
His Excellency in Council,
be adopted with advantage.
The arrangement is ac-
cordingly sanctioned, and
with a view to the necessary
corrections being made,
the

the estimate will be re-
turned to the Acting Supg
Engineer, who will re-sub-
mit it in an amended
form, when the question
of the provision of the
requisite funds for com-
pleting the work will
be taken into consideration.

W.B.

So.

The As Supg Engr. 5th Div. ^{on duty}
" Controller of P. & W. Acct. ^{four years}
" Military Department

Recd 24/4/70

2/24/75

Govt. of Madras

PUBLIC WORKS.

To The Dy. Superintending Engr.
S. L. Corrie

W. J. C.

Dated

Recd.

L. 2.

22nd Dec 1874

Nos. 238 & 299

Re: the Remount Depot.
Paying orders on
the Remount Depot
for submitting a
revised estimate
for extension
Southern Range of Stables
at Remount Depot at
Pekur in the
District.

1624 Oct 70 Madras 28th