

(1) Number of pages _____

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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	1995	Press
B.P. No.		Mis.
152-153		
Dated	11-8	1873.

Not to be folded or roughly handled

No. 152. Read the following endorsement of the Secretary to Government, Military Department, dated Ootacamund, 17th July 1873 :—
From Colonel H. O'CONNELL, Officiating Quarter Master General, to
A. C. SILVER, Secretary to Government, Military Department, dated
Head Quarters, Ootacamund, 11th July 1873, No. $\frac{309}{4,860}$.

With reference to Order of Government, Military Department, No. 4,100, dated 28th December 1872, I have the honour, by order of the Commander-in-

Chief, to forward two estimates, with specifications and plans,* for protective works at the Gunpowder Factory at Madras. Two methods for executing the work are proposed in these documents. Both are submitted in order that a selection may be made by Government.

* Plans by banghy.
2. The larger estimate (Rupees 26,270) includes masonry revetments for the traverses, as was recommended by the Committee assembled in January 1872, (see paragraph 23 of their Report, published in Proceedings of Government, Public Works Department, 23rd December 1872, No. 3,042.) This recommendation of the Committee is supported by the opinions of the Inspector-General of Ordnance and Magazines, the Superintendent of the Gunpowder Factory, and the District Engineer.

3. The smaller estimate (Rupees 9,400) provides for improving the existing earthen traverses and, in common with the other estimate, for four solid masonry traverses, two splinter proof sheds, and for masonry arched openings to facilitate the escape of workmen in time of danger.

4. The Inspecting Engineer for Civil and Military Buildings, in letter No. 738, dated 7th instant (enclosed) recommends the latter estimate. His Excellency the Commander-in-Chief concurs in this recommendation, as he is of opinion that the work should be undertaken as soon as possible, which can be more readily done under the cheaper estimate, leaving the perfecting of the work, by the addition of masonry revetments, for future consideration.

TRANSFERRED to the Public Works Department, with advertence to paragraph 13 of O. G. in that Department, No. 3,042, dated 23rd December 1872.

(Signed) A. C. SILVER, Colonel,
Secretary to Government.

No. 153. ORDER THEREON, 11th August 1873, No. 1,995.

MILITARY WORKS, No. 4.

THE estimate of Rupees 9,400 which provides for simple turfed traverses where the space admits of them, and for revetting where space is limited, as prescribed in paragraph 13 of G. O., No. 3,042, of 23rd December 1872, is sanctioned. The use of a fire-engine, recommended in paragraph 23 of the Committee's Report recorded with that order, for washing away powder and grit deposited on masonry traverses, is not only equally applicable to earthen traverses for the same purpose, but will have the further desirable effect of encouraging the growth of the turf with which they are to be encased.

Proceedings of the Madras Government, Public Works Department,
11th August 1873.

2. In order that the season favourable for earthwork and turfing may not be lost, that work will be proceeded with at once from an appropriation of Rupees 1,740 out of the sum of Rupees 17,200, Item No. 15 of the Budget List, the balance of which is transferred to the Reserve pending receipt of plans and estimates for additions to the European Infantry Barracks at Bellary. The masonry traverses and other works will be proceeded with after the monsoon, when the necessary funds, viz., Rupees 7,660, will be provided on application to that effect, and report of completion of the earthwork and turfing.

(True Extract.)

Colonel, R.E.,

Secretary to Government.

To the District Engineer, Presidency.
" Inspecting Engineer for Civil and Military Buildings.
" Officiating Controller of Public Works Accounts.
" Military Department.

Exd. S. T. Austin.
Spare Copy.



Quarter Master General's Office
No. 309, 4860
P.O. Secy, Putacamin, 11th July 1873.

Colonel H. O'Connell
Offg. Quarter Master General

Colonel A. C. Silver
Secretary to Government
Military Department

With reference to Order of Government
Military Department, No. 4100 dated 28th Dec-
ember 1872 I have the honor by order of the
Commander in Chief to forward two esti-
mates with specifications and plans, for
protective works at the Gunpowder Factory
at Madras. Two methods for executing the
work are proposed in these documents.
Both are submitted in order that a se-
lection may be made by Government.
The larger Estimate (Rupees
26,270) includes masonry & erectments
for the traverses, as was recommended by
the Committee appointed in January 1872
(see para 23 of their Report, published in
Proceedings of Government, Public Works
Department, 23 December 1872, No 3042)
This

This recommendation of the Committee is supported by the opinions of the Inspector General of Ordnance and Magazines, the Superintendent of the Gunpowder Factory and the District Engineer.

3. The smaller estimate (Rupees 7,400) provides for improving the existing earthen traverses and, in common with the other estimate, for four solid masonry traverses, two splinter proof sheds and for masonry arched openings to facilitate the escape of workmen in time of danger.

4. The Inspecting Engineer for Civil and Military Buildings in letter no 738 dated 7th Instant (enclosed) recommends the latter estimate as Excellency the Commander in Chief concurs in this recommendation, as he is of opinion that the work should be undertaken as soon as possible, as which can be more readily done on under the cheaper estimate, leaving the perfecting of the work, by the addition of masonry revetments, for future consideration.

I

I have the honor to be,

Your Obedient Servant
H. Sturges Colonel

Offy D^r General

Comd^t H. B.

Presidency District

cb

MP
No 32678/73

P.W. 4077/73

Specification for
rivetting with masonry
the earthen Traverses
in the Gun Powder Factory
at Madras

By H. B. 6044
Amount of Estimate Rs 26,270

Presidency District

MP
Dec 22/73

P.W. 4877/73.
Specification for
Surfing the earthen traverses
in the Gun Powder Factory
at Madras.

By 16/11/73
Amount of Estimate Rs 9400

22.7.1873

Estimate of 51/9/1873.
Specification for Surfing the Earthen
Traverses in the Gun Powder Factory
at Madras.

Amount of Estimate. Rupees 5900.

The existing earthen Traverses to be raised to the height of the cornice of the building they protect and to be sloped and turfed.

Certain solid masonry traverses to be built in the positions shown on the drawing to a height of 12 feet with:

one at the North side of the Granulating or No. 6 room.

one ditto. of the Reeling or No. 7 Room.

One at the North West angle of the Barrelling or No. 9 Room.

one at the North of the Dry^{ing} or Storing room No. 11.

Two splinter proof sheds are also to be built, one between the granulating and green powder deposit rooms, and one to the north of No. 3 or Mealed Press charges rooms, each measuring 25' x 10 1/2 feet on the outside

with

with masonry columns 6 1/2 ft high and
one foot in diameter.

Masonry arched subterranean to be built
to Brig. 1122, 713 Novins cont. 12. 16. 18.
to afford facility for escape to
the workmen in the event of explosion.

It is proposed to construct a series
of subterranean passages to connect the works and the camp at Novins cont. 12. 16. 18.

John H. Scott
Dist. Engineer, Brig. 1122, 713
Cont. 12. 16. 18.

Ed. M. Colonel, R.E.
Inspecting Engineer for
Civil & Mil. Buildings

At
30/7/73

P.W. 1843 Department
Pro. of Govt. for Sept 1873

From
The Offg. Controller of
P.W. Accounts,

To
The Secretary to Government,
Public Works Department,
Fort Saint George.

Dated 29
Recd. 30 } August 1873.

No. 3721
Enquiring whether the
charge for mileage claimed
on behalf of a Talook Over-
-see's Water transferred
from one Talook to another
may be admitted under
paras 10 and 11 of the
Travelling allowance
rules.
No. 2244. 11 Sept 1/73.

No. 158

6th 30 2. 5. 8. 1/73

Very Urgent
GOVT. }
OF MADRAS. }

187 .

P.W.
DEPT.

SECRETARY.

40 h: 1995773.

Fort St. George,

187 .

OFFICE NOTE.

To D. C. Presidency -

Please send by
bearer plan [and
estimate] sanctioned
in accompanying
G.O.

W.H.

OF

187 .

Plans were given to
Mr Francis on the 4th
April 1874 - We have
the estimates
Has Mr. Francis
these plans -
Send me them as
soon as possible -
as they are required
urgently. Yours
19/1/77.

Est 150 of 1873-74
Specification for erecting with masonry
by the Earthen Traverses in the Gun
Powder Factory.

Amount of Estimate. Rs 26,230.

The existing earthen traverses
to be raised to the height of the cornice
of the buildings they protect and to
be cased with masonry. The revet-
ment to consist of a retaining wall
1 1/2 x 2 1/2 feet all round with buttresses
8 to 10 feet apart. Foundation to retain-
ing wall and buttresses to be 2 ft x 2 ft
x 3 ft. Upon the revetment will rest
a casing consisting of brick on edge
laid in chunam on the earth's slope
of the traverse which must be previously
carefully sloped and well tamped.
The masonry to receive 2 coats
of chunam plaster.

Certain new solid masonry
Traverses to be built in the positions
indicated on the plan to a height of
12 feet with
one at the north side of the granulating
or the ...

one at the north side of the building of
No. 1 room in narrow passage
one at the north west angle of the Bar-
relling or No 9 room.

One at the north of the Drying or Storing
room No. 11.

Two splinter proof sheds are
also to be built one between the granu-
lating and green powder deposit rooms
and one to the north of No 3 or heated
Press charges rooms, each measuring
25 x 10 1/2 ft. Exteriorly with masonry co-
rains 6 1/2 ft high and 1 ft in diameter.
The roof to consist of teak
comple, reapers, flat and paulices and
Churnan borders.

Masonry arched entrances
to be built to Nos 9, 11, 12, & 13 rooms, and
to No 16 Magazine to provide means
of escape for the men in case of any
explosion.

[Signature]
Sd/- Engineer

30 April 1873.
24
Sd/- Engineer
30.6.73
Inspecting Engineer for

No. 738

OFFICE OF THE INSPECTING ENGINEER
FOR CIVIL AND MILITARY BUILDINGS,
Chepauk, 7 July 1873.

From

The Inspecting Engineer,
for Civil and Military Buildings

To

The Quarter Master General
of the Army.

Sir,

Enclosures 7
3 Plans
2 Estimates
2 Specifications

I have the honor to submit here-
with, for the approval of His Excellency
the Commander in Chief, Plans and two
Estimates, accompanied by specifications,
for the undermentioned works viz
I. Estimate Rs. 26,270 - for revetting the
traverses at the Gun Powder Factory at
Madras. The traverses to have on their
earthen slopes a casing of brick on
edge in Churnam, resting on revetment
walls 2 1/2 feet high.
II. Estimate Rs. 94.00. for raising the
existing earthen traverses to the height
of the cornices of the buildings they
protect and repairing and turfing
the slopes.

2. Both Estimates provide for four solid masonry traverses to be built in positions where there is not space for traverses with turfed or revetted slopes, also for two splinter proof sheds and for masonry arched openings through five of the traverses to facilitate the escape of the work men in times of danger.

3. Considering the great difference in the amounts of the two Estimates, I recommend the smaller one which provides for turfing the slopes should be adopted. The Inspector General of Ordnance and Magazines, the Superintendent of the Gun Powder Factory, and the District Engineer are of opinion that all the traverses should be revetted for the reasons given in the Report of the Committee of the 5th January 1872.

+ Printed, and
G. O. No 304
23rd Decr 1872
O. W. D.

I have the honor to be,
Sir,

Your Most Obedient Servant

E A Ford Colonel R.E.

Inspecting Engineer for
Civil & Military Buildings.

Quantity

Description of work

Rate

Amount

84

to Bands Sawing the mound to the height of the corner of the building & sawing the space with water & sloping the sides & sawing the mound to a uniform level & sawing the foundation & leveling the ground

" 2

108

146569 3795

23

3

2113

1570

Sundry charges

3037 1/8

to Work in chumam

" 25

458119

256

4936

22

to Repairing the mound to the height of the corner of the building & sawing the mound to a uniform level & sawing the foundation & leveling the ground

" 2

212

8

2642

" 25 1006157

256 106103

to Work in chumam

14570 Sundry charges the walls with reach of chumam

1876
No. 738
From The Inspecting Engineer for Buildings
To P. H. Cright 173 132 152
The Quarter Master General
Fort St. George

P. H. 4077/13
11th Augt/73 20th 1995
Enclosed

Dated 11th Augt/73
Recd. 11th Augt/73

Submits for the approval of His Excellency the Commander in Chief Madras & two estimates of Rs. 26,270 & Rs. 4,000 respectively for revetting & raising the traverses at the Gun Powder Factory.

Order No 309 of 11th July 73
to Govt

Description of works

Quantity

3525 1/2 cwt Bricks in chumam
2400 Sft of plastering the walls & coping with 2 cwt of chumam
116 Boards having the amount to the height of the cornice of the building & plastering the same with water & sloping the plastering upward to a uniform level
Excavating foundation
Sundry charges

Brick Oven

92652

255327 1/2
255584

2

10

2941

630

1482 cwt Bricks work in chumam
1733 Sft of plastering the walls with 2 cwt of chumam
Excavating foundation
Sundry charges

2556615 1/2
25560910

10

3968

765

1800

which is very moderate

1800

809

24

12

2553027 1/2
255676153

23153

580

2013

Excavating foundations
Sundry charges

4

8

5442518535

32 cwt Bricks work in chumam

of the building plastering the walls with 2 cwt of chumam
Excavating foundations
Sundry charges

Quantity

Description of work

Quantity

Quantity Description of Works.

50 1/2 yds. Siding New wound as per plan
Excavating & cementation
Sundry Charges.

357 3/4 yds. Foundation all round with brick in chain
10 No. all around columns completely
450 Slat flooring with flat spantles & chain borders included
45-2 feet 11 in. oak rafters for
Excavating & cementation & leveling the ground
Sundry Charges.

For one shed
For another

15. 40' bracing arched entrances for truck passage
with covering & platform as per plan

Add Sundry charges on fractions

Grand Total Surplus

2670.00

For Wm. George
21 June 1873

Wm. George
21 June 1873

Wm. George
21 June 1873

Wm. George
21 June 1873

Wm. George
21 June 1873

Wm. George
21 June 1873

Wm. George
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Wm. George
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Wm. George
21 June 1873

Wm. George
21 June 1873

Wm. George
21 June 1873

Wm. George
21 June 1873

Wm. George
21 June 1873

3933 1/4 Slight Brick in chimney
 3275 Slight plastering the walls with coats of chunam
 67012 822265

Agartine

2418 600.

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

255496 34
 2566015

2

1012

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

3766 750.

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

2567756

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

2

68

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

2051 950

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

1920 5061

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

2

38

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

2

18

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

2

38

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

2

18

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

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of the building & raising the same with water & sloping the sloping around to a uniform level
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of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

2

18

of the building & raising the same with water & sloping the sloping around to a uniform level
 excavating foundation
 sundry charges

Carried Over

14855

1860

86

22

192

256 194 86

2557856

16

140

1035

2215

38

18

38

18

38

18

38

18

5442518535

256586

2549145

89491980

26

20

25619936

25164579

131311190

251307

5760015

Sundry charges

183

6558 6 feet Brick work in chumam

4700 5 feet plastering the walls & coping with 2 coats of chumam

18 6 Bands raising the mound to the height of the cornice of the building & tamping the same with water & sloping the facing mound to a uniform level

regarding foundation leveling the ground

Sundry charges

25 to 4

8709 6 feet Brick work in chumam

6400 5 feet plastering the walls & coping with 2 coats of chumam

Carried Over

1465693795

Carried Over
defecting some more to the wall

3230 1/4 6 feet 13 feet in chumam

2400 5 feet plastering the walls with 2 coats of chumam

Sundry charges

10894 1/4 6 feet 13 feet in chumam

8300 5 feet plastering the walls & coping with 2 coats of chumam

160 6 Bands raising the mound to the height of the cornice of the building & tamping the same with water & sloping the facing mound to a uniform level

regarding foundation leveling the ground

Sundry charges

Carried Over

10894 1/4 6 feet 13 feet in chumam

8300 5 feet plastering the walls & coping with 2 coats of chumam

160 6 Bands raising the mound to the height of the cornice of the building & tamping the same with water & sloping the facing mound to a uniform level

regarding foundation leveling the ground

Sundry charges

Carried Over

10894 1/4 6 feet 13 feet in chumam

8300 5 feet plastering the walls & coping with 2 coats of chumam

160 6 Bands raising the mound to the height of the cornice of the building & tamping the same with water & sloping the facing mound to a uniform level

regarding foundation leveling the ground

Sundry charges

Carried Over

10894 1/4 6 feet 13 feet in chumam

8300 5 feet plastering the walls & coping with 2 coats of chumam

160 6 Bands raising the mound to the height of the cornice of the building & tamping the same with water & sloping the facing mound to a uniform level

regarding foundation leveling the ground

Sundry charges

Carried Over

10894 1/4 6 feet 13 feet in chumam

8300 5 feet plastering the walls & coping with 2 coats of chumam

160 6 Bands raising the mound to the height of the cornice of the building & tamping the same with water & sloping the facing mound to a uniform level

2. solid in for and throu the of 3. more the the Gen sup and than for 200

Presiding District
1/12/67

Dr J. W. 1077/12/13
Abstract Estimate for
settling with masonry
the Carthage, traverses
in the Gun Powder Fort
at Madras
Amount of Estimate Rs 2270
1/12/67

inspecting Engineer
Civil & Military Buildings.

No 99 B. B. d. Madras
Pro. of the Madras Fort. No 3
Read the following:-
From the Offg. Major General (H. B. No 309 of 12 July/73)
this Milly. Dept. 3
The estimate of
Rs 9400 which pro-
vides for simple
lined traverses where
the space admits of
them, and for revet-
ting where space is
limited, as prescribed
in para 13 of S. O.
No 3042 of 23 Decem-
ber 1842 is sanctioned.
The use of a line
I have however, that
a communication will
shortly be received from
the Major General of Madras
regarding the estimate
the site of the Gun powder
factory and preparing for
its removal. I am in a
dilemma to think that even
should the full purpose
be sustained by Govt. the
actual removal will take
place at a distant date
and consequently that the
scheme against accident
contemplated by this project
could still be taken. The
estimate is very moderate.

Engine recommended
in para 23 of the
Committee Report. The High Court Dept
may have received Col
C Stewart's representation
on the removal of the Empress
Statue. I am in favor
of removing it to
the Museum. But
concur in the B.C.
the Committee has
but will, I think

recorded with that
order, for washing
away Powder and grit
deposited on masonry
Traverses, is not only
equally applicable
to earthen traverses
for the same purpose
but will, I think

It would appear from
the vote of B. 2. the
Comd. in Chief that,
even regarding the
removal. He decided
on, it would not be
effected immediately.
and not perhaps,

for earthwork and
turfing may not be
lost, that work will
be proceeded with
at once, from an
appropriation of Rs
1740 out of the sum
of Rs 19,200 Item 20
of the Budget List,
the balance of which
is transferred to the

22

he proceeded with
 after the monsoon
 when the necessary
 funds viz Rs 4660
 will be provided on
 application to that
 effect, and report of
 completion of the
 Earth work and Surfing.

(Apd)

Howe

50/6

To, The D^r Engr. Presy.
 4th Inspe Engr. for Bgr
 5th Cont^r P. & A. Acct^r
 15th Mily; Depar^t
 10th Ser 20/1/73

12-152-53

Cor 30
 @ 7 Aug 1773

Op 4077 ★
Govt. of 1873 Madras.

PUBLIC WORKS.

The District Engineer
Puducherry

Dated

Recd.

Encl. 8

G. O. 11 Aug 1873, No. 1995.

NOE 1524 152

Gau Powder Factory at
Madras. Paping orders
on letter from the Sg.
2nd M^g Enl. submitting Plans
& estimates for protective
works at the Factory.