

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	2030	(W) Press
B.P. No.		Mis.

Dated	7-8	1876
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Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
7th August 1876. No. 2,030.*

Read the following papers :—

No. 160. From Lieutenant-Colonel C. S. HEARN, Inspector-General of Police, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Madras, 17th June 1876, No. 2,798.

I HAVE the honor to submit, for *early* sanction of Government, a plan and an estimate with a specification report prepared by Department of Public Works for the erection by that department of a Powder Magazine in the Police Stores compound at Palamcottah, Tinnevely District.

2. The Superintendent of Police reports that he has been called upon by the Officer Commanding Palamcottah to remove the Police ammunition from the Garrison Magazine, the whole accommodation being required by the Military Department in consequence of the storage there of breech-loading ammunition which, under the orders in force, cannot be stored with ordinary cartridges. There is no other building available for the purpose, and the building now proposed is emergently required.

3. To provide funds for the above work, I beg sanction for appropriation of Rupees 880 from Rupees 2,000 allotted for seven Police huts at Radapooram in the district according to the list embodied in

* *Vide* also G.O., No. 1,019, dated 24th April 1876, Public Works Department. G.O., No. 3,610,* dated 24th December 1875, Public Works Department. The

latter work can be deferred for the purpose, and proposals for appropriation of the balance (Rupees 1,120) will be submitted hereafter.

4. The original estimate (Rupees 1,320) has been reduced to Rupees 880, no separate wall round this Magazine being necessary, as there is a good compound wall all round the Police Stores.

5. A site for the building has been selected.

6. The documents are submitted *direct* to save delay.

No. 160-A. From W. HUGHES, Esq., Assistant Engineer in charge of District Engineer's Office, Tinnevely, to Colonel W. T. F. FAREWELL, Deputy Chief Engineer, Public Works Department, dated Camp at Courtalum, 21st July 1876, No. 63.

I HAVE the honor to return the plan and estimate of Powder Magazine proposed to be constructed at Palamcottah, received with your Memorandum, No. T-559, of 11th instant, and beg to send herewith a fresh estimate.* The alterations and

Two Estimates.

Two Plans.

* Rupees 765.

additions which you desired have been made in the plan.

2. With reference to paragraph 6 of your Memorandum, I beg to explain that the rate entered in the Schedule of rates for cut stone is for such work as covering stones of small culverts, &c., where there is but little dressing required, and where the distance from the quarries is not considerable. Work such as provided for in this estimate cannot be done properly for less than Rupees 25. The distance from the quarries is 18 miles. Plastering can be done for Rupees 2-8-0 if you desire to reduce the rate to that, but it cannot be done really well.

Proceedings of the Madras Government, Public Works Department,
7th August 1876. No. 2,030.

3. For extra establishment it has been usual to allow in estimates of the amount of this, about 3 per cent of the estimate. The Inspector-General should have reduced the amount to Rupees 25 when he struck out the provision for compound wall.

No. 161. ORDER THEREON, 7th August 1876, No. 2,030.

CIVIL WORKS, No. 15.

(a) Heads of Service.—Provincial.

Fund.—Ordinary.

Class.—Original Works.

Main-head.—Civil Buildings.

Sub-head.—Police Department.

Section.—IV. Miscellaneous.

Name of Work.—Constructing a Powder Magazine in

the Police Stores compound, Palamcottah.

Amount.—Rupees 765.

To be carried out by the Public Works Department.

The plan and estimate of Rs. 765, for constructing a Powder Magazine in the Police Stores compound at Palamcottah, are sanctioned.

2. The funds for the work will be supplied from the source pointed out by the Inspector-General of Police.

3. This sanction has been registered as Provincial No. 103-W. of 1876-77.

(True Extract.)

Colonel,

Offg. Under Secy. to Govt., P.W.D.

To the District Engineer, Tinnevely.

„ Examiner of Public Works Accounts.

„ Judicial Department.

Exd. T. O'Connor.

Spare Copies

(a) Heads of Service—*Provincial*

Fund.

Ordinary

Class.

Original Works

Main-head.

Civil Buildings

Sub-head.

In Police Department

Section.

IV. Miscellaneous

Name of Work.

Constructing a Powder Magazine in the Police Stores compound, Palamcottah.

Amount.

Rs 765

To be carried out by the

P. W.

Department.

Print in the margin of G.O. No. 2030 of 7th August 1876.

Head of Service _____ Provincial
 Funds _____ Ordinary
 Class _____ Original works.
 Major Head _____ Civil Buildings - Provincial
 Sub Head _____ Police Department.

Detailed Estimate 2^d of 1876-77.

Trinacelly District Trinacelly Taluk

Work: Constructing a Powder Magazine in the Police Station compound at Palamcottah.

Particulars of work.	Measurements in feet.				Contents.
	Length	Breadth	Height		
	Each	Total			

Rubble in masonry _____

Foundations: _____					
Front and rear walls _____	13 1/2	5 1/2	2 3/4	11	291 1/2
Side walls _____	9 3/4	19 1/2	2 3/4	11	552 1/2
Cubic feet. _____					510 5/8
Cubic yards. _____					20 1/8

Brick work in masonry _____

Basement: _____						
Front and rear walls	2	$12\frac{3}{8}$	$21\frac{3}{8}$	$1\frac{1}{8}$	2	$92\frac{3}{4}$
Side _____	2	$10\frac{5}{8}$	$21\frac{1}{8}$	$2\frac{3}{8}$	2	101
Steps (taken as block)	1	6	6	$1\frac{1}{2}$	3	27
Superstructure: _____						
Front & rear walls	2	12	21	$1\frac{1}{2}$	8	288
Side _____	2	11	22	1	8	252
Gables	2	$8\frac{1}{2}$	$18\frac{5}{8}$	$1\frac{1}{2}$	-	$74\frac{1}{2}$
Cubic feet						$956\frac{1}{8}$

Deductions _____

Door _____	1	3	3	1 1/2	6	27
2 1/2" x 1 1/2" opening to DC _____	1	21	21	1 1/2	1 1/2	109 1/4
Cubic feet _____						716 1/8

Remaining Brick work in mortar left ————— 865
 Being equal to cubic yards ————— 32.

But stone work as per details given above of 117 sq ft ————— 13 1/4

Roof: —————

Arch work 1 1/4 thick with 3 courses
 of flat tiles and 3 coats of
 plaster to the ceiling and top of
 $\frac{9 \frac{1}{2} \times 3 \times 114.6}{2} = 15$ masonry.

Cubic feet ————— 315
 Cubic yards. ————— 11 3/4

cornice including backing to arch 11 1/2 feet. ————— 56

Flooring with 8" sq. bricks — 1 10 5/8 10 5/8 7 5/8 51
 Square feet. ————— 51.

Plastering: —————

Basement ————— 53 1/2 53 1/2 " 2 107
 Sides of steps. ————— 1 6 6 " 2 10

Superstructure: —————

Inside ————— 1 38 38 " 8 304
 Gables. ————— 2 50 50 " 2 100
 Outside ————— 1 52 52 " 8 336
 Gables. ————— 2 40 40 " 2 80

Square feet. ————— 976 1/2

Deduction: —————

Door (both sides) ————— 2 3 6 " 6 26

Remaining Plastering sq. feet. ————— 940 1/2

Copper work: —————

3 1/2" x 1/2" straps or plates — 110 110 92 40

1 1/2" D 1/8" thick copper tubes — 2 24 120 120 107 12

Copper plates for Ventilators to
 fix in walls 2' x 2' x 1/8" — 6 " 6 3.60

Hooks and nails ————— 6.88
 On ridge ————— 22 1/2 10 lbs ————— 250.

around eaves. — 60

document.
 side Ventilators — 28

Dr — down — 7

Total length of straps required 110.

Iron work: —————

Old chain to lay in trenches
 carefully connected with the foot
 of the conductor. ————— $\frac{3.07 \times 80' \times 8}{6} = 107$
 Old iron chain lbs ————— 107

Copper Ventilator ————— 1

Door (batter complete 2' x 6 1/2") — 1

Earth and gravel: —————

Excavation for foundation of ————— 54.5

cutting trenches ————— 40 1/2 2 120

Cubic feet ————— 665

Cubic yards. ————— 25

P.H.

Abstract Estimate No 11 of 1876-77.

Works.

Constructing a Powder Magazine in the Police Stores compound at Palamcottah.

Quantity	Description of work.	Rate	Amount	Total
20 1/2	cy 3/4 Rubble in mortar. _____	at 3 8 =	70 16 =	
32	" " Brick work in mortar. _____	at 5 =	160 =	
1 3/4	" " cut granite stone in sq. _____	at 25 =	43 12 =	
11 2/3	" " Arched road complete. _____	at 7 8 =	87 8 =	
	Centering & centering of arch work 87 1/2 _____		29 2 8	
56	12 feet cornice _____	at 11 =	114 =	
81	sq ft of flooring for bricks & paving. _____	at 7 =	567 8 =	
940 3/4	" " Plastering. _____	at 3 =	282 3 4 =	
220	lbs. Copper for sheathing conductor. _____	at 10 =	107 8 =	
1	Copper Ventilator complete. _____	at 107 =	107 =	
1	Butter door 2 1/2 x 6 1/2 as per plan _____	at 70 =	70 =	
107	lbs of old iron chain to lay in benches carefully connected _____	at 16 =	107 10 =	
	with the foot of the Conductor _____			
25	cy 3/4 Gravel and earth (provision for fronting) _____	at 8 =	200 =	
	Scaffolding and sundries _____		332 10 7 40 0 0	
	As per Establishment _____		25 0 0	
<u>Total Estimate Rupees.</u>				<u>765 0 0</u>

District Muz Office Annamally
Court at Annamally July 1876
Sd/-
28/7/76

Sd/-
A. Hughes. Asst Engineer
In Ch. of Dist Muz Office
Annamally

MEMORANDUM.

G.O.

Letter Number 2030

dated the 7 August 1876.

from the District Engineer of Trincovelly.

Pending further instructions
the structure commenced
in the above G.O. is
to be held in abeyance.

W.L.

24/76

Urgent

With int. & sub.
the further orders.

Provincial Service

Original works.

Police Department

No. 11 of 1876-77.

Trincovelly District

Trincovelly District.

Detailed and abstract

estimates for constructing
a Powder Magazine in.

the Police Stores compound
at Palamcottah.

Rs. 65.00

Specification Report to accompany
estimate for constructing a Powder Magazine
in the Police Stores Compound at
Palamcottah in the Trincovelly District.

1. Amount of Estimate Rs. 65.
2. Trenches. After the centre lines and
side lines of excavations have been
marked out. Earth to be excavated
to the full depth or as may be found
necessary by the Range Officer in charge
of the work.

3. Plaster in mortar. The trenches
being finished the centre lines will be
carefully laid out and breadth of
walling marked. The foundations to
be according to the drawing, and to be
built of rubble in mortar uniformly
all round in successive courses.

4. Brick in mortar. The basement
of superstructure of the building to be
of brick in mortar. The walls to be
raised uniformly all round in suc-
cessive courses of 1 1/2 feet height and
English bond to be observed throughout.
The mortar joints not to exceed 1/4
inch in thickness. The bricks to be
dipped in water when used.

5. Arched Roof. The arches to be
turned in a concentric half brick ring.

and covered over with 3 courses of flat tiles and 3 coats of fine plaster to the ceiling and top of the roof. Bond courses to be introduced at raising joints.

6. Flooring. The floor will be paved with 8" sq. bricks with bedding course of concrete underneath.

7. Plastering. The interior and exterior walls are to be plastered with 2 coats of fine chunam. The first coat to be 1 part of lime & 1 1/2 of sand well ground, & the second of equal parts of lime & sand which must be rubbed & polished.

8. Mortar. The mortar to consist of 1 of freshly burnt lime to 1 1/2 of clear sharp river sand panned together and ground.

Dist. to be of Batten according to the drawings.

Materials.

Lime from Unimally

Bricks from Pannarapattat.

9. Lightning conductors. The lightning conductors are to be fixed as shown on the plan, one at the apex and the others at the 4 corners of the building.

10. The vertical rods to be of 1 1/2" tubes 1/8" thick and the connecting strips of 3 1/2" x 1/8" copper bands.

11. All metal in the building to be connected with the lightning conductor.

D. Grant
Offg District Engineer Unimally

Head of Service Provincial
Fund Ordinary
Class Original Works
Main Head Civil Buildings - Provincial Service
Sub Head Police Department

Detailed Estimate No. 11 of 1876-77.

District Unimally Taluk Unimally

Work Constructing a Powder Magazine in the Police Station compound at Pannarapattat.

Particulars of work.	Number.	Measurements in feet and inches.				Contents.
		Length.		Depth or Height.	Breadth or Thickness.	
		Each.	Total.			
1	2	3	4	5	6	7
<u>Magazine.</u>						
Earth in mortar.						
Foundation.			11 10	2 1/2	1 1/2	57 1/2
						57 1/2
						21.
Brick work in mortar:						
Basement			11 10	2 1/2	2	209
Steps			6	1 1/2	3	27
Superstructure			11 10	2	3	76 1/2
						910
Deductions:						
1 Door			3	2	1 1/2	26
Grating etc			2 1/2	2	1 1/2	60
Half the quantity of work is deducted, the other half						39.
covering the cost of centering						34.
But stone work as per details given above cfl 602						25.
Roofs:						
Arch work 1/2" thick with 3 courses of flat tiles & 3 coats of plaster to the ceiling and top			11 10	2 1/2	1 1/2	609
						609
						22 1/2

Bricks including backing	58				
Flooring with 8" sqe bricks	9 1/2	7 1/2			71 1/2
Plastering:					71 1/2
Basement	52 1/2	"	2		107
Sides of steps	3	"	2 1/2		2
Superstructure:					
Inside	36				
Out side	52				
No deduction is made for voids	58	"	8		70 1/2
No allowance for gables & soffits					81 1/2
Copper works:					
5 1/2" x 1 1/2" straps or plates	50	2	6 1/2		112
1 1/2" DE 1/8" thick copper tubes	10				60
DE DE	1	8			3
					68 x 2 1/2
Hooks and nails					166
					17
					225
Copper Ventilator	1				
Door (Batten complete 5' x 6')	1				
Excavation for foundation					
earth and gravel	14 1/2	2 1/2	4		192
					792
					29 1/2
	16	2 1/2	3		570
					570
					21
Rubble in mortars					
Foundation	75 1/2	2	3		453
					453
					16 3/4

Brick work in mortar:				
Superstructure including coping	71	1 1/2	8	852
DE DE over old walls	71	1 1/2	14 1/2	119 1/2
DE DE over old pillars	14	2	2	16
Cubic feet				1047 1/4
Cubic yards				50
Plastering 2 coats of chinaman				
on compound wall	72	"	13	1296
	71	"	11	781
DE Pillars	32	"	3	96
Gate				
				2173

Original Cost	Valuation	Last repair	
		Year	Amount

Quantities	Description of work.	Rate	Amount,	Amount of each part
	<u>at quarrying</u>			
27 1/2	cyl. earth and gravel. at	" 2 "	8 13 1/2	
1	" rubble in mortar at	3 8 "	25 8 "	
51 1/2	" brick work in mortar at	5 "	155 "	
2 1/2	" cut granite stone in at	14 "	53 5 1/2	
12 1/2	arched roof complete at	7 8 "	168 12 "	
	entering's cost of the		56 "	
58	pl. cornice at	" 16 "	116 8 "	
7 1/4	pl. cleaning 5" type bricks per sq.	7 "	14 15 1/2	
813	pl. plastering per	3 6 "	231 6 2	
225	the copper at	" 10 "	110 10 "	
1	cupper ventilator complete at	117 "	117 "	
1	Roofing door 2x6 copper slant 80	70 "	70 "	
	Sanctuary		25 1 "	
	<u>Sanctuary wall -</u>			
21	cyl. earth & gravel at	" 2 "	2 10	
16 1/2	" rubble in mortar at	3 8 "	58 10 "	
50	" brick work in mortar at	5 "	250 "	
2173	pl. plastering per sq.	2 "	65 "	
1	gate complete at	110 "	110 "	
	Sanctuary		12 12 "	430 "
	Roofing establishment			110 "
	<u>Total Estimate</u>			1320 "

Dist. Surg's office, Trinnevely. *A. S. G. Mark*
 Palamcottah, 2^d June 1863. *Offr Dist. Surgeon*
Trinnevely
Range Officer

John W. Aldridge
Superintendent of the Public
Lumens District

5355.
P. W. 4567/16

Green, Wm. H. - 1875

STOTTS LIMITED

1. Chlorophyll
 2. Chloroplast

1517-18
N.O.

Timothy D. Mohr

[illegible]

Detailed and Abstract Estimates for

Conductance of P^{+} crystals
measured by the H_2 free

100

[illegible]

Submitted by

1. *Arctostaphylos* *Uva-ursi*
 2. *Arctostaphylos* *Uva-ursi*

1. *Chrysomelidae* *Chrysomelidae*
 2. *Chrysomelidae* *Chrysomelidae*

Mr. Joseph White Engineer
of New York

I have the honor to return to
you most cordially of Doctor Maguire
project to be constructed at Palermo
beginning with your present 500 of U.S.
dollars and say to you that it is a
great pleasure. The collection of
collections in connection with the
made in the plan.

With reference to paragraph 4 of your letter, I wish to explain that the rates entered in the schedule of rates for work done by the contractor are covering haulage of all material from where there is not better drayage required and under the distance from the quarry is not a consideration. Both such as possible for in the schedule cannot be done properly for logs taken from the woods close from the quarry is possible.

Plastering can be done in 10 days
 if you observe to restrain the water that
 will it can not be done really well.

For Extra Establishment it has been
 usual to allow an estimate of the amount
 of this about 5 per cent of the estimate.
 The Inspector General should have reduced
 the amount to 2.5 per cent in 1881
 and the provision for compensation made.

I have the honor to be

Very respectfully

W. H. Hughes

Chief of our Engineering

1067
 No. 507 7/11/81
 MEMORANDUM.

Letter Number

dated the

from the District Engineer of

The Plan & Estimate for the
 Murre's Bay Sanitation
 & Drain for constructing
 a Sewer Magazine
 in the Murre's Bay Camp
 on Island.

The Plan & Estimate are
 returned to the District Engineer
 whose attention is called
 to the following items.

The bed rock might be
 reduced to 1.5' and the
 approx cost to \$400.00
 within the building.

The Inspector General has
 being a simple one
 with the wooden gables
 filled with Red
 wood instead of brick.

And in the copper lining
 and bars in the
 plates connected
 into copper ventilation
 is all that is required.

The Section of the Plan
 should show the North
 of the location
 and the plan of the
 for Sanitary Chamber & 11
 feet 11 - 12 feet in the
 detail of the

Plan Copper Ventilation

Specs approved 7/11/81

Should be given

His numerous mistakes
in calculations have
~~been noticed~~ been noticed to such an
extent that his
"Correct Estimates" being
No 100 has been that
the person who reports
has been should be taken
to account for such errors
as these.

Keep morning notes in

Green & Red Columns

Green in reports

upon. No 2 P

and points 10-0-0-0

Plumbing - 0-0-0.

The charges 30 Reapers

for extra work and

appears high and

requires explanation

The work being usually

uniform it is expected

that the person

in charge will

be prepared to

appear

9-7-76

1876-12-25 No 2610
1876-12-26 - 1019

1876 Dept
No 5555

Hallings Building 1876/77

Chief Office of the Inspector General of Police,
No. 2798
Madras, 17th June 1876.

From
The Inspector General of Police,

To
The Secretary to Government
Public Works Department
Fort St. George

Sir,

Enclosures.

I have the honor to submit for
early sanction of Government a plan and an
estimate with a specification report prepared
by P. W. for the erection by that Department
of a Powder Magazine in the Police stores
Compound at Palamcottah, Tinnevely District.

The Superintendent of Police reports
that he has been called upon by the
Officer Commanding Palamcottah to remove
the Police Ammunition from ^{the} Garrison Magazine
the whole accommodation being required by
the Military Department in consequence of
the storage there of breech-loading Ammunition
which

Handwritten notes in the left margin, including:
"The office of the Inspector General of Police"
"The office of the Secretary to Government"
"The office of the Public Works Department"
"The office of the Superintendent of Police"
"The office of the Officer Commanding Palamcottah"
"The office of the Garrison Magazine"
"The office of the Military Department"

1876-12-25 No 2610
1876-12-26 - 1019

which under the orders in force cannot be stored with ordinary cartridges. There is no other building available for the purpose and the building now proposed is urgently required.

3. To provide funds for the above work I beg sanction for appropriation of Rs 880 from Rs 2000 allotted for 7 Police huts at Radapooram in the District according to the list embodied in L.O. No 3610 dated 24th December 1875 P.W.D. The latter work can be deferred for the purpose and proposals for appropriation of the balance (Rs 1120) will be submitted hereafter.

4. The original estimate (Rs 1320) has been reduced to Rs 880 no separate wall round this magazine being necessary as there is a good compound wall all round the Police stores.

5. A site for the building has been selected.

* Vide also L.O. No 1019 dated 24th April 1876 P.W.D.

6. The documents are submitted direct to save delay.

I have the honour to be,
Sir,
Your most Obedt Servt

M. M. M.

for the Genl of Police.

Lt. 5610 of 24 Dec 76
" 1819 " 24. Dec 76

P. 8. 1876 No 1st ment

at 1369

No 2030

Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 7 Aug 76.
Read the following:-

From
The Supt. Secy of Police (N.E. No. 2798 of 17th June 76)
" Asst. Supt. in charge
of Supt. office, Chennai. (" " " 68 " 21st July ")

The plan and estimate
of Rs 965 for constructing
a Powder Magazine in
the Police Lines compound
at Palamcotta are sanc-
tioned.

2. The funds for the work
will be supplied from
the source pointed out by
the Inspector General
of Police.

3. This sanction has
been

1876 Dept.

From
The Inspector General
of Police.

To
The Secy of Police
Chennai.
N.E. No. 2798 of 17th June 76

C.E. No. 559 of 11th July.

Dated 17 June 76
Received by
No. 2798 of 17th June 76
Under Secy of Police
Chennai. 1876
The Secy of Police
Chennai.
The Secy of Police
Chennai.
The Secy of Police
Chennai.

12160.

Gen - 4-8/76 P.M. 7-8/76

been registered as Pro.
-minal s to 103 of

1876-77-

W
1,070

J. C. Pinnally
W. P. W. Acct. V.
Judicial Dept.
Sept 23/87

R. H. Dupre to Act 1-8-76

Ho N. C. Pennally

17th August 1830

Powder Magazine in the
Police Stores compound
at Palamcottah - In-
novelly D₂ - Plan and
Estimate of No. 765 for
constructing
remains of -

Handwritten signature: *W. H. H. H.*