M.R.O. 1—77,006—8-6-37.

(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. 66 Press ~~Mis.~~

137-138.

Dated 8-1- 1864

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 8th January 1864.

No. 137. Read the following Proceedings of the Madras Government in the Military Department :—

Communicating letter from the Quarter Master General offering certain observations on the Estimates for fitting Lightning Conductors to Magazines, &c., at certain Stations, and approving of the same. } (Here enter 23rd December 1863, No. 4,090.)

ORDER THEREON, 8th January 1864, No. 66.

No. 138. 1. Communicated to the Superintending Engineers 1st, 2nd, 3rd and 7th Divisions, for information and guidance.

2. From Colonel Hemery's letter No. 233, dated 7th December 1863, the Government observes that the Estimate amounting to Rupees 25 for altering the Lightning Conductor to the Powder Magazine at Kurnool is to be charged against the allotment for that District under the head "Minor new works."

	Rs.
Fitting Lightning Conductor to the Magazine in Cuddapah,	1,560
Altering do. to Grand Magazine in the Bellary Fort.	1,620
Do. do. to the Small Arm Ammunition Expense Magazines attached to the Regiments stationed in Bellary	1,660

3. The Estimates mentioned below being less than Rupees 1,000 each will be met from the current year's Reserve and those marginally noted will be entered in the Budget for 1864-65 :—

			Rs.
1st Division.	Fitting Lightning Conductors	to the Magazine at Berhampore,	210
	Do. do.	do. at Russelcondah,	140
	Refixing 2 do.	do. at Vizagapatam,	530
	Do. 4 do.	do. at Vizianagram,	830
2nd Division.	Fitting do.	do. to one of the Magazines at Masulipatam	236
3rd Division.	Altering do.	to the 2nd Magazine in the Bellary Fort...	966

4. The Estimate amounting to Rupees 204 for alterations to the Lightning Conductors at Wellington will be provided from the sum of Rupees 500 sanctioned in G. O. No. 1,662, dated 25th June 1863, for minor new works in the Coimbatore District.

5. Lieutenant-Colonel Walker is requested to state the particular allotments from which the amounts of the undermentioned Estimate are to be defrayed :—

	Rs.
Alterations to the Lightning Conductors at Cannanore, ...	390
Do. do. at Malliapooram, ...	80

6. The attention of the Superintending Engineers, 3rd and 8th Divisions, will be requested to the remarks contained in paragraphs 2 and 3 of the Quarter Master General's letter recorded in the foregoing Proceedings.

(True Extract.)

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

To the Superintending Engineer, 1st Division.
Do. do. 2nd Division.
Do. do. 3rd Division.
Do. do. 7th Division.
Do. do. 8th Division.

Controller & Audr. of P. W. A.
Accts. General

Exd. S. T. Augustin.

Necessity of
By whom
Recommended

New Work
Military

Abstract Estimate for altering Lightning Conductors & the "Small Arm Ammunition Expense Magazines" attached to the Regiments stationed in Bellary.

Quantities	Description of work	Rate	Per	Amount	Total
224	lbs of copper rod (issuing present) of which copper	″ 12 ″	lbs	168 ″ ″	
	Smiths hire for rivetting			5 ″ ″	
106	R.F. of chipping laying in copper sheeting and replastering	″ 2 ″	R.F.	13 4 ″	
18	Cyards Excavation Trenches	″ 2 ″	Cyd	2 4 ″	
120	R.F. of old chain (Iron wt 250 lbs)	6 ″ ″	Chains	60 ″ ″	
69	Paras of charcoal for filling Trenches (120 × 1 × 2)	″ 12 ″	Para	51 12 ″	
	Filling in the trench over charcoal			1 8 ″	
90	Copper nails ½″ long to fix the flat copper to walls	″ 16	each	8 7 ″	
					310 3 ″
	Sundries & Supervision at 7 per cent				21 13 ″
				Total Rupees	332 ″ ″
				For 5 Rupees	1660 ″ ″

Bellary
18th Sept 1863

Examined
Lt Col RE
Superintending Engineer 3rd Div

Superintendent

Remarks

Necessity of Work

By whom Recommended

Estimate of the Probable Expense of altering Conductor of the Bridge
Hungerford Market.

Number of Men.	Description of Work.	Days	Rate	Amount	Remarks.
10	Excavating Channel & Recess 18 3	1	2	1 14	
1	Old iron Conductor unbolting fitting				
1½	Old iron Conductor 30 feet long raising	3		18 12	
150	Old Stone fitting and formation of				
	Small water Course			4 6	
	Contingencies use — use				
				£ 25	

Estimate
Cost Engineer, Office
3rd December 1862

Approved
Chas. Fergusson Engineer

Examined
Geo. Hennings
Clerk of Works

Mr. Hall Estimate for altering the Lightning Conductor to the Small Arm Ammunition Expense Magazine attached to Pimlico Station at Battersea

Amounting to Fifteen Pounds 1862.

Malabar District

Estimate of the probable expense of altering the position of the Lightning Conductor attached to the European Powder Magazines at Calliaperumal

Talig	Measurements					Particulars of Work	Price	Rate	Article of Work	Amount of each	Estimate of the Work	By whom Recommended
Ennaaki	Length	Breadth	Depth	Cubic Content	Cubic Content							
Altering the position of the Lightning Conductor	30	2/3	2/3		13 1/3	Cubic feet of Cutting 3 Trenches in Lattento	1	per cubic yards	7	10		
	30	2/3	1/3		6 2/3	Ditto of Filling with Charcoal	3	per Calft	1	4		
	30	2/3	1/3		6 2/3	Ditto of Do with Gravel	4	per Cubic yd		11		
	"	"	"	"	"	3 Old Chains 10 yards long each, to place in bottom of trenches	20	each	60			
	"	"	"	"	"	Lowering and Removing Lightning Conductor and Removing Wooden Post			7			
	"	"	"	"	"	Filling up Well			1			
	"	"	"	"	"	Connecting the Copper windows with the Conductor	26	Rupees	2	13		
	1/18	" 2	1/8	"	"			Total		72	99	
						Sundries and Contingencies About		10 per cent		7	3	
								Total Estimate Rupees		80		

Executive Engineers Office
Malabar
Calicut 17th July 1863

Captain R.E.
Executive Engineer
Malabar

Lieut Colonel R.E.
Superintending Engineer

In a letter from the Chief Engineer Fort St George to the Superintending Engineer 3rd Division Dated 5th and recd 9th September 1863
No 142
P.W. 5292/63
~~P.W. 5999/63~~
M.D. No 5783 of 1863

In a letter from the Superintg. 1st Division
No 113 of 26th August 1863
to the Secy. to Govt. of H.M.
Madras –

O.W. 3392/63

~~O.W. 3367/63~~

M.D. No 5783 of 1863

– Estimate of the probable
expence of altering the position
of the Lightning Conductor
attached to the European Barrack
Magazine at Masulipatam

Amounting to Rupees – 80 – –

Military Buildings –

Estimate of the probable expence of altering the Lightning Conductor attached to the Magazines at Cossamcotta prepared agreeably to the orders of Government No 1540 dated 15th June 1863

Sl. No.	Work	Measurements L	B	D	Sup. Contents	Cubic Contents	Nature of Work	Rates	Amt of Each Articles	Amt of Each Total	Explanation of necessity &c	Ref. to Proceedings
							Altering Conductor on Grand Magazine					
		67	4	1/8	67		Copper Plate for Ridge					
		3	4	1/8	3		– " – " – Connecting Copper sheeting of Doors & Windows with Conductor					
			Total		70	Sq. ft.	of Copper Plate 4" X 1/8	@ 1 12 0 per C	122 8 0			
							10 Copper staples for Conductors	" 12 0 Each	1 8 0			
							26 Copper Nails to fasten Conductor to Building &c	" 60 "	9 12 0			
							Removing & refixing present Conductors	"	10 0 0			
							Opening Channel for Conductor & filling with ashes and Earth	"	5 0 0			
							Total for Grand Magazine			154 12 0		
							Altering Conductor of Magazine on European Barrack Square					
		37½	4	1/8	37½		Copper Plate for Ridge					
		20	4	1/8	20		– " – " – for Connecting Copper sheeting of Doors with Conductor	@ 1 12 0 per C	100 10 0			
			Total		57½	Sq. ft.	of Copper Plate 4" X 1/8	" 12 0 Each	3 0 0			
							4 Copper staples to fasten Conductor to Building	" 60 "	3 12 0			
							10 – " – Nails – " – fasten Ridge Plate &c	"	5 0 0			
							Removing & refixing present Conductor	"	2 8			
							Opening Channel for Conductor & filling with ashes & Earth	"		114 4 0		
							Total for Magazine at Cossamcotta					
							Carried forward			269 0 0		

To Col. Fox, Lightning Conductors agreed to & Est. Recd. 1st Sept. 1863.

Proceedings of Govt. No 1540 dated 15th June 1863

Estimate No.	Work done	Measurements L	B	D	Sup.ᵉ Contents	Cubic Contents	Nature of Work	Rates	Abstract of cash Articles	Work	Reference to Vouchers of Accounts &c	Why estimate exceeded
							Brought Over			269 10 0		
							Allowing Conductors of Magazines for Native Labourers					
		42	4"	⅛"	42		Copper Plates for Ridge					
		8	4"	⅛"	8		" " " Connecting Sheeting of Doors with Conductor					
			Total		50	Sq.ft	Copper Plate 4" x ⅛"	1 12 0 Sq.ft	87 8 0			
							4 Copper Staples to fasten Conductor to Buildings	12 0 Each	3 0 0			
							10 " Nails to fasten Ridge Plate &c	6 0 "	3 12 0			
							Removing & refixing present Conductors		5 0 0			
							Opening channel for Conductor & filling with ashes &c		2 8 0			
							Total for Conductors of N.J. Magazines			196 12 0		
							Total			376 0		
							Sup.ᵉ and Contrics	5 0 p.c.		18 10 0		
							Total of Estimate &c			390 10		

Public Works Office
Fort William the 5th August 1853.

W. Bailey
Public Works Malabar

Lieut. Colonel Mackenzie - Brigadier
Commanding Malabar Hussars

G. Walker Lieut. Roll &c
Superintending Engineer &c &c

In a letter from the Supdg. Engr. &c. No 113 of 26th Augt/63 to the Secy. to Govt. D. P. W. Madras.

P.W. 5392/63

~~P.W. 3365/63~~

" M. D. No. 5583 of 1863

Certificate for attorney Lighting Contractors of Nagapatam &c Cannanore Rup 6000-0-0-

Kistna District

No. 25 of 1863-64. Estimate of the probable expense of improving the Lightening Conductor of one of the Gunpowder Magazines in the Fort of Masulipatam and for removing the existing one.

Taluq.	Name of work.	Measurements. Length.	Breadth.	Height.	Superficial Contents.	Cubical Contents.	Particulars of work.	Rate.	Item.	Amount.	Remarks.
Estimate of one of the Gunpowder Magazines in the Fort of Masulipatam.	Improving the Lightening Conductor of one of the Gunpowder Magazine in the Fort of Masulipatam.						185 lbs of Copper sheet of one eighth of an inch in thickness	17 . .	for Maund	125 12 10	There are three Powder Magazines in the Fort, Each furnished with lightening Conductors, but Ammunition is stored in Only One of them, And the Estimate Confined to remodelling the lightening Conductor Attached to it. Prepared under instructions from Government in their Proceedings No 1540 Dated 15th June 1863.
							76 Nails Copper	. 2 .	Each	9 . .	
							16 Copper Lamps with nails	2 8 .	do	40 . .	
							Hire for cutting copper sheet and fitting it up with copper nails including the cost of scaffoldings			25 . .	
							Removing the existing Lightening Conductor			4 . .	
							Digging a trench and putting up Iron chain to the lower ends of Copper rods on both sides including cost of the number of Chain			20 . .	
										224 4 10	
							Sundries and Contingencies	5 . .	per Cent	11 11 2	
							Total Estimate Rupees			230 . .	

7th Circle Office
Masulipatam
26th September 1863

The powder Magazine is used at present for small Arms Ammunition only
The stock in hand is as follows—
Catridges & Shotted 339000-
Caps Percussions 372000-

H. F. Edgeome Lieut R. E.
Assistant Engineer 2d Class to

J. Anderson Lieut Col R.E.
Superintendent
2 Dist

Abstract Estimate No of 1863/64.

District Cuddapah.

Work. Making and Fixing Lightening Conductors to the Powder Magazine in the Cantonment of Cuddapah prepared in Conformity to the Proceedings of Government dated 15th June 1863.

Quantity	Description of Work.	Rate	Amount	Total
121	lbs of Rod Copper ——— per lb	1 " "	121 " "	
41½	do of Bolt do ——— do	" 14 "	36 6 2	
726½	do sheet do ——— do	" 12 "	544 14 "	
	Smiths hire for Riveting &c. ——— do	" " "	15 " "	
1125	lbs Iron chain ——— per mand of 25 lbs	6 " "	270 " "	
170	Running feet Chiffing plaster and laying in Copper & Pellastering ———	" 2 "	21 4 "	
		" 2 6	12 10 6	
81	Cubic yards Excavating trench ———	" 8 "	20 4 "	
40½	do ——— Gravel ———	" 12 "	378 12 "	
505	Parahs of Charcoal ———		69 13 4	
	Sundries ———		70 " "	
	Superintendence ———			
	Total of Estimate Rupees ———			1560 " "

Cuddapah Range Office
Victualling
29th September 1863

W. Bowen Wheeler
Sub Engineer
Cuddapah Range

Received
Lt. Col. R.E.
Asstt. Engineer
3rd Division

1560

Estimate in a Letter from Lieut. Engineer 2 Div. to the Lieutenant Asst. Engineer Cuddapah dated 30th October 1863.

Received in Office of Lieut. R.E. Engineer 2nd Division in charge of the Cuddapah Range

Lieut. R.E. Engineer 2nd Division

Cuddapah 30th October 1863.

Recd. Cuddapah 30th October 1863.

Abstract Estimate No 25 of 1863/64 of the Lightning Conductors

Lieut. R.E. Engineer 2nd Division

Cuddapah 30th October 1863.

Received in Office of Lieut. R.E. Engineer 2nd Division in charge of the Cuddapah Range

Lieut. R.E. Engineer 2nd Division

Cuddapah 30th October 1863.

Lieut. R.E. Engineer 2nd Division

Cuddapah

P. W. 3392/63

P. W. 3999/63

R. O. 1st 2nd 3rd 4th

Abstract Estimate for making and fixing a Lightning Conductor to the Hospital Guard Room used as Magazine in the Cantonment of Wellington & Estimated on 23rd June 1863.

New York.

Military

Estimate No. 2. of 1863 and 1864.

Wellington —

Coimbatore District

Work. Removing and fixing the present Lightening Conductor from the Hospital Guard room used as Magazine to the old Magazine at Wellington Valcie of Magazine Rejected 1st —

Description of Charges	Price	Rate	Amount	Total
6. Brackets of Copper to be fixed on the old Magazine to hold the Lightening Conductor —	7 8 "	each	45 " "	
Removing the present Lightening Conductor and fixing it on the old Magazine —			150 " "	
				195 " "
Sundries about 5 per cent.				9 " "
Amount of Estimate Rs.				204 " "

Executive Engineers office
Nilgherries
Wellington 17 June 1863

Lieut. Major
Executive Engineer

Lieut Col. Supt Engr
Commanding Southern Dn

Lieut Col. R.E.
Superintending Engineer 4th Division

Allotment

MILITARY DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following papers :—

Proceedings of Government, Public Works Department.

Referring for consideration Estimates for fitting Lightning Conductors to Magazines, &c., at certain Stations. } Here enter 3rd December 1863, No. 3549.

Referred to the Commander-in-Chief, (Quarter Master General's Department.)
8th December 1863.

From the Quarter Master General, Fort Saint George, 10th December 1863, *No.* 9624; *to the Secretary to Government, Military Department.*

In returning the Plans and Estimates received with Order of Government, No. 3549 of the 3rd December 1863, Public Works Department, referred to the Commander-in-Chief on the 8th idem, I have the honor, by order of His Excellency to offer the following observations.

2. It is believed that the Lightning Conductor attached to the Magazine at Palamcottah, though close to the Building, is still insulated from it, there is no apparent reason why the Conductor for this Magazine should not be of the same design as that proposed for the Magazine at Bellary.

3. The Conductor near the Magazine at Kurnool, if on the old Plan, should be modified as at Bellary.

4. It will suffice if a Conductor is attached to one of the Magazines at Masulipatam. If deemed necessary, this work can lie over, as proposed by the Superintending Engineer, and be entered in the Budget for 1864-65.

ORDER, No. 4090, *23rd December* 1863.

Ordered that the foregoing letter from the Quarter Master General, be communicated to the Department of Public Works.

2. The Estimates recorded in paragraph 3 of the Order in the above Department, No. 3549, dated 3rd December 1863, are approved.

(True Extract.)

Deputy Secretary to Government.

To the Public Works Dept., with 16 enclosures and 6 Plans.

" Quarter Master General.
" Inspr. Genl. of Ordnance, for information.

Exd. J. E. Cashart.

Public Works Office
No 66.
5/1.

Madras Government
Revenue Department
8th January 1864.

Read the following Proceedings of the Madras Government
Military Department

Communicating letter from the Secretary to Government
Colonel Commanding Royal Engineers on the Estimate
for gelling Lighthouse Pond & Magazine Rs. 23 Lacs 63 Thousand
Madras and approved by the Secretary

Rs. 23 Lacs 63 Thousand.

Communicated to the Superintending Engineer 1st 2nd 3rd Circle for information and guidance.

2. From Colonel Clemency's letter No. 253 dated 7th Dec. 63, the Government observes that the Estimate amounting to Rs. 23 for altering the lighting Corridor to the Powder Magazine at Kamool is to be changed against the allotment

allotment for Minor Establishment under the head "Minor New Works"

The Estimates mentioned below being less than Rs 1,000 each will be met from the Current year's Reserve and Surplus marginally noted will be entered in the Budget for 1864/65 -

1st Division	Fitting Lightning Conductors to the Magazine at Berhampore	Rs 210
	Do to Do at Rajahmundry	" 140
	Fitting 2 Do to Do at Vizagapatam	" 330
	Do 4 Do to Do at Vizianagram	" 330
2nd Division	Fitting Lightning Conductors to one of the Magazines at Masulipatam	" 236
3 Do	Adding Do to the 2nd Magazine in the Bellary Fort	" 966
	Filling Lightning Conductor to the Magazine in Cuddapah	Rs 1560
	Adding Do to Powder Magazine in the Bellary Fort	1620
	Do Do to the Powder Ammunition Reserve Magazines attached to the Regiments Stationed in Bellary	1660

4- The Estimate amounting to Rs 204 for alterations to the Lightning Conductors at Nellingdon will be provided from the sum of Rs 500 sanctioned in P.C. No 1662 dated 25th June 1863 for minor new works in the Cuddalore Circle.

5. Pentadoll Works. As requested to state the particulars allotments from which the amounts of the undermentioned Estimates are to be defrayed

Alterations to the Lightning Conductors at Coimbatore — Rs — 390
Do — Do at — Mallapooram — " — 80

6 The attention of the Superintendents 3 and 8 Divs will be requested to

To the pensioners &c. con:
tained in pages 2 and
3 of the Quarter Master
General's Letter recorded

W.B.

Vol. 137. 138.

To

The Inspecting [illegible] 1st Class
- 60 - 40 - 2d - Do Field Inspr
- 50 - 40 - 3d - Brigade Majr
- 80 - 40 - 7th - Do
- 40 - 40 - 8th - Do
- Controller & Auditor of War
- Accountant Genl. &c.

Dated 9th January

1864 Dec 5th

Gen: of Govt for Lancy

No 66.

Gen. of the Ordnance

Dec 8 Lancy 64

Further C.M. 318/64

Communicating
Letter from the 2nd Asst
General Offering certain observations on
the estimates for putting
Light-Conductors to
Magazines, &c., at
certain Stations, and
approving of the same.

No. 137. 138.

G.B.