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3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

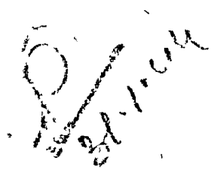
Public works **DEPARTMENT.**

G.O. No. 56 Press Mis.

109-110

Dated 6. 1 1870.

Not to be folded or roughly handled



1

Proceedings of the Madras Government, Public Works Department,
6th January 1870.

No. 109. Read the following Proceedings of the Madras Government in the Marine Department.—

Sanctioning a revised estimate of Rupees 9,800 for raising the Lighthouse at Tuticorin. } (Here enter 9th December 1869, No 313)

No. 110. ORDER THEREON, 6th January 1870, No. 56.

CIVIL WORKS, No. 9.

In letter No. 2,004 dated 24th November 1869.

COMMUNICATED to the Superintending Engineer of the 8th Division.

2. As, since the date of the submission of the estimate sanctioned in these Proceedings, Captain Prendergast has reported the entire destruction of the Lighthouse at Tuticorin, he will prepare and furnish a fresh estimate for its re-construction.

(True Extract.)

Colonel, R.E,
Secretary to Government.

To the Superintending Engineer, 8th Division.
„ Controller of Public Works Accounts.
„ Marine Department.

Exl. E. C. Shunker.

Proceedings of the Madras Government, Marine Department, 9th December 1869.

No. 10. Read the following letter from the Officiating Superintending Engineer, 8th Division, to the Secretary to Government, Public Works Department, Fort Saint George, dated Madura, 15th November 1869, No 1932.

I have the honour to submit, for sanction, a revised estimate of Rupees 9800 for raising the Light-house at Tuticorin, together with comparative statement and plan illustrating additional work that has been found necessary for the stability of the structure.

One Plan.
One Estimate.
One Comparative Statement.

2. The estimate of Rupees 6220, sanctioned in G O, No. 1091, of the 3rd April 1869, was furnished by Assistant Engineer Mr. Roberts, under date the 19th January 1869. The lower portion of the old Dutch column had been considered by Mr Roberts a suitable base on which to build up the new column of forty-two feet height, required to exhibit the light at an elevation of seventy feet above the sea On the removal of the old superstructure, however, it was found that the pedestal, instead of consisting of solid masonry, was only a hollow cylinder filled in with loose rubble and sand to a height of twenty-one feet It, therefore, appeared necessary that the upper part of the cylinder should be removed to a depth of eleven feet, the interior being filled in below with five feet of concrete, and solid masonry built up above Again as the pedestal had only a projection of ten inches all round the column, while the foundations are not more than three feet below the surface, it is also necessary to provide eight buttresses, one on each face of the octagon, inasmuch as the new column is to be forty-two feet in height, while the old one was not more than seventeen-and-a-half feet

3. The chief item of increased cost is in the strengthening of the base, which amounts to Rupees 1691. A sum of Rupees 150 is added for the temporary scaffolding to support the light, while the new column is under construction The work, as per original estimate, would have been completed before this time, but as more funds are required, the staging must be maintained all through the north-east monsoon, being fully exposed to storms that may come in from that quarter On account of scaffolding for the column itself (and sundries) to be run up seventy feet from the ground, an additional item of Rupees 370 is now entered, and for superintendence, for which very inadequate provision was made, considering the isolated position of the Light-house, a further sum of Rupees 270 is required

For the copper lightning conductor only one half of the market rate of copper was given in the original estimate, the additional cost is Rupees 262

The charges for dressed sand-stone, and for wrought woodwork, are increased by Rupees 498 and 216, the rates being raised from 7 to 12, and from 3 to 3½ rupees. In framing the estimate, consideration was not given to the circumstances of Hare Island being three miles from the mainland, and consisting of a narrow strip of sand which does not furnish even water The stone has to be brought from Vadanuthum, a distance of twelve miles on land, fuel for burning lime comes from a greater distance, and lime-stone is brought from eight miles away There is then the cost of carriage by water to the Island, all workmen require increased rates of pay. and boat-hire is expensive for several months, when, with the strong land winds blowing, a trip between the Island and the shore sometimes takes several hours Another addition of Rupees 110 is made for pointing, and small savings equalizing other minor items of excess; the total increase of cost amounts to Rupees 3580.

4. As this work is being carried out from the Port Funds, which are not affected by the financial restrictions, and as there is a certain feeling of uneasiness regarding the light being dependent on only a temporary staging, I would request early authority to carry on the new column to completion, and for an assignment of the sum of Rupees 3580.

Transferred to the Marine Department, with reference to the Order in that Department, No 55, of the 16th March 1869.

(Signed) C. A ORR, Col, R E,
Secy to Govt., P. W. D

Fort Saint George,
20*th November* 1869.

Proceedings of the Madras Government, Marine Department,
9th December 1869.

No 11 — ORDER THEREON, 9th December 1869, No 313.

The revised estimate is sanctioned.

(True Extract)

Chief Secretary

To the Public Works Department, with three enclosures.
" Master Attendant, Madras.
" Collector of Tinnevelly.

Exd. J. Wright.

MARINE.

To

THE PUBLIC WORKS DEPARTMENT

&c, &c, &c

DOCKET.

No. 10-11.

Comparative Statement Shewing the difference between Original and Revised Estimates for Certain alterations and additions to the Light House on Navi Island at Tuticorin.

Description of Work	Original: Units of Measurement	Quantity	Rate	Amount	Revised: Quantity	Difference: Quantity	Remarks
Concrete	"	"	"	"	31 43/27		
Sand Stone (dressed) in Chunam	Cyc.	139 19 15/16 / 27	9	1255 5 10	146 1 32/27		
Coral Stone in Chunam		312 2 11/128 / 27	5	1560 8	305 5 15/16 / 27		
					312 2 11/128 / 27		
Hard Cut Stone in do for Steps		7 1/27	18	126 9 4	9 23/27		
Do do for Carriage Work		4 5/27	30	125 8 10	4 12/27		
Flat arch Work in Chunam					3 10/27		
Plastering with Chunam	Square	5860 4/4	3 8	204 6 5	4749 23/32		
Painting with do		3085 16/16	3	92 8 10	8112 4/4		
Do do		1656 3/4	1 4	20 11 1			
Do do		2400		72			
Painting Black & painting old work			35	15 12			
Stone in walls & Steps		1.5	35	10 13 7	63		
Stone in quoins & Steps		31	35				
Stone in quoins & Steps							
Plastering with Chunam mixture		127 15/16	30	288 11	1234 3/4		
Plastering with Chunam & Jaggery mixture					1352 2/4		
Plastering with Chunam mixture		11 3/4	28	272 9			
Plastering with Chunam mixture				30 5 10	126 15/27		
Plastering with Chunam mixture		6 25/27	18	120 1 6	96 15/216		
Plastering with Chunam		3	3	120	1		
Plastering with Chunam		40 3/4	1	25	25	5	
Plastering with Chunam		1	1	15	60	4	
Plastering with Chunam		4	4	7	28		
Do		4	4				
Do							

Revised: Quantity	Difference: Quantity	Remarks
3	93 1 5	For filling in hollow of old Basement
12	1755 10 10	Due to distance from whence Material has to be brought & transported in boats to Island. Labor is high. & has to be Conveyed across.
5	1526 8	Due to demolition of 10-9" of existing Race and reconstructing it as Solid Mass. & Buttresses & steps
5 8	1725 10.2	
20	189 8	Due to additional dressed Stone Steps
25	118 6 5	
6 8	24 8	Over doors & Windows of out houses not provided in Estimate Original
3 8	166 3 8	
2 8	202 13	Renewal of pounding to existing portion of Light House & to low rate in Original Estimate.
1	29 11	
	72	
4	15 12	
30	18 14 5	Due to extra rates.
33	235 2 7	Due to 2 additional Store & Signal room & not provided in Original Estimate and now required by Master attendant
28	379 4 2	
8	62 X 9	Due to increase in rates - to provision of Lintal over Door & Windows, platform &c. Column for Light & 13 Brackets for Lightning Conductor, omitted in Original Estimate.
3 8	337 6	
25	25	Due to additional door for Store room
15	75	Due to rates
8	32	

Comparative Statement Shewing the difference between Original, and Revised Estimates for Certain alterations and additions to the Light House, on Hare Island at Tuticorin.

	Units of	Original			Revised			Difference			
Batten Window — 2 × 2½	No.	4	8	32	10	40		8			Due to rates 11-
Panelled door — 3 × 6	"	6	22	132	25	125		7			
Do do	"	1	22	22	"	"		22			
Do 2½ × 5	"	1	20	20	20	20		"			
Do Windows 2 × 3	"	5	9	45	10	40		5			
Iron for Ladder per	Tolam	28	1 8	42							
Do Rods do	"	16	1	16	1	12	77	19			Due to rates
Do do	lbs	400	1 3	31 4	400	2	550	18 12			
Wooden bars with hooks per Complete	No.	4	2	8	2	8					
2 Brass Pulley, and hooks each	No.	2	20	40	20	40					
Copper Rod 75 feet long 150 ft long 2¼ inches dia 2		1	75	75	80	80		5			Due to additional length of Rod
Copper Strips	lbs	420	6	157 8	420	8		262 8			Due to insufficiency of Rates. Price of Copper at Tuticorin being 12 annas per lb
Platinadig	No.	1	8	8	8	8					
Excavating foundation Sand	Cft.			65 15/21	9	3	1 2	3	1	2	
Temporary Scaffolding for exhibiting light, during the erection of the New Column		400			550			150			Staying will have to be raised 40 and will have to resist the north-westerly Winds, and Squalls from sea. Consequently additional timbers are required to undersid perfectly Compact.
Contingencies and Unforeseen Charges Connected with the New light		350			300		50				
Scaffolding and Sundries		338 14			700	10	7	370	3	3	Provision in Original Estimate quite in
Establishment		100			370			270			adequate for the work which will occupy some 7 or 8 months in Construction and for Scaffolding which will have to go up 70 fe
Total Rupees		6220			9995		237 12 3	4012	12	3	
Value of Materials at site					6415						
Total Amount of Original Estimate and the Other					3580						

Net Amount to be Sanctioned

Original Estimate Rupees 6220--

Details — 5 flag staff and stone @ 3 — 15--

40 Total stone @ 12 — 60--

Value of Temporary Scaffolding — 120--

Total 6415--

Under Superintendence of Captain H. Ellyatt, Asst. Superintending Engr. 8th Cir.

H. Ellyatt, Capt. Sub Engineer in charge of No. 1 Range

1st Range Office
Palamcottah
15th October 1877

Comparative Statement Shewing the difference between Original and Revised Estimates for Certain alterations and additions to the Light House on Hare Island at Tuticorin.

15

	Original			Revised			Difference			
	Limits of			Rate	Amount		Less	Excess		Remarks
L:		2½ × 5		4	10			20		
D:	Window	2 × 3	1	4	7			28		

No 2 of the Enclosures
to Letter No 1932 Dated
15th May 1869 from the Offg
Supdg Engr of Ds
to
The Secretary to Govt
of Madras.

Public Works Dept

Sir

I have the honor to forward herewith
Tinnevelly District
Comparative Statement
shewing the Differences between
Original and revised Estimate
for Certain alterations and
additions to the Light House
on Hare Island at Tuticorin.

Rupees Sterling
Rupees 9800 - -
6220 - -

Rs 3580

Tuticorin 15th May 1869

Offg Supdg Engr
Tinnevelly District

15

Abstract Estimate No: of 1869.70

District Tinnevelly.

Work Alterations and additions to the Light House on Hare Island at Tuticorin.

Quantity	Description of Work	Rate	Amount	Total
	Light House No: 1			
31 22/27	Cyds Concrete at	3	93 1 5	
305 6 16/27	— — Carak Stone in Chunam at	5	1526 8	
146 8 22/27	— — Sand Stone in do at	12	1755 10 10	
9 12 4/27	— — Cut Stone in do for Steps @	20	189 8	
4 19 7/27	— — Cut Stone in do for Cornice @	25	118 6 5	
63	Square feet Terracing with brick on edge Jelly 3" thick 3 Coarses of flat tiles & plastering with 3 Coats of Chunam to the Ceiling & Roof of the terrace 1 Complete per Sqr	30	18 14 5	
94 7 32	— — Plastering with 2 Coats Chunam per Sqr	2 8	33 2 1	
4 230 2/4	— — Painting with Chunam per Sqr	2 8	105 12 3	
46 7/12	Cubic Feet Vengay wood wrought & put up	3 8	161 8 6	
124 26 7/12	Cyds Removing Old Work at	8	62 7 9	
1	Iron Ladder 7' × 2½ Complete weighing about 12 Talams per Talam at	1 12	21	
2	Iron Bars 76 feet long to top & bottom for rails weighing about 16 Talams @	1 12	28	
39	Iron rails Each 3½ feet long weighing about 16 Talams @	1 12	28	
1	Pair Batten doors with frames hooks, hinges bolts & 2' × 6' Complete @	25	25	
4	Windows Battens with frames hooks, Shutters, hinges & 2' × 2½' Complete @	10	40	
	Temporary Scaffolding for the Light during the time of Altering the Obelisk @		550	

	Contingencies and unforeseen Charges Connected with the new Light			300	
	Scaffolding and Sundries			145	8
	Rupees			5500	

Cafes

2	Horizontal iron rods each 17 feet long and 1½ inches in diameter weighing about 200 lbs			2	25
4	Wooden pieces with iron hooks for tie rods &c	@	2	8	
2	Upper inclined tie iron rod each 17ft long 1½ inches in diameter weighing about 200 lbs			2	25
2	Brass Pulleys and hooks with Lunga rope each 150 feet in length	@	20	40	
	Sundries			47	
	Rupees			145	

Lightning Conductor

1	Rod wrought 60 feet long and ¾ in diameter per Lft	@	1	80	
3	Copper Strips for bonds 123 feet 2 x ½ weighing about 420 lbs per lb	at	1	420	
1	Platina tip		8	8	
	Sundries			52	
	Rupees			560	
	Total Rupees				6205

No. 2

Constructing Signallers Quarters

159 15/32 / 31	Cyc. Coral Stone in Chunam	at	5	877	9 4
	Flat arch work in "	@	6	13	11 1
2 2/27	Squarefeet Plastering with chu. per Syc	@	3	133	1 7
3802 1/8	" Roofing with Palmirah				
1234 3/4	Couples 1 Collar piece, reepers, nails flat & pan tiles & Chunam borders yes Complete per Syc	@	35	432	2 7

3 2/3	Cft Vangay wood wrought and put up	at	3	8	83 14 5
5	Pairs Pannelled doors with frames hooks hinges bolts &c Complete 3x6		25		125
1	Pair of Ballen doors with frames hooks hinges bolts &c Complete 2½x5		20		20
4	Pairs of Pannelled Window shutters with frames hooks hinges &c Complete 2x3		10		40
48 2/3	Cyc of Sand Excavating foundn	@		2	4 6
	Scaffolding & Sundries			82	4 6
	Rupees			1810	

No. 3.

Constructing Cook room & Oil Godown.

154 5/16	Cyc of Coral Stone in Chunam	@	5	848	10
1 16/27	Flat arch work in Chunam	@	6	10	5 7
3882	Sqft Pointing with Chunam	@	2	97	9
1354 ½	" Roofing with Palmirah Couples Collar pieces, reepers, nails pan tiles & Chunam borders &c Complete per Square	@	28	379	2
26 49/288	Cft Vangay wood wrought and put up	@	3	91	9 7
11 24 3/4 / 27	Cyc of Sand Excavating foundn	@	9	12	8
5	Pairs of Ballen doors with frames hooks hinges bolts &c Complete 2½x5		15	75	
4	Do of do Windows 3 x 2½	@	8	32	
	Scaffolding and Sundries			75	14 5
	Rupees			1610	
				9625	
	Extra Establishment			370	
	Total Rupees			9995	
	Deduct value of old Materials 5 Cyc of Sand Stone at 3 Rs			15	
	40 " Coral Stone at 1½ Rs			60	
	Temporary Scaffolding			120	
				195	
	Net Amount of Estimate Rs			9800	

Unspent Balance of Estimate Rs

Office of the Engr & Surveyor
1st Range Office
Palgaut Station
15th October 1869

T. Cruttenden
Sub Engineer in Charge

I do hereby Certify that the above Estimate for Alterations and Additions to the Light House on Hare Island at Tuticorin amounting to Rupees 9800-0-0 Nine thousand Eight hundred provides for every thing necessary, and that no Supplementary works will afterwards be required.

J. Spurrier
Sub Engineer in charge of
No. 1 Range.

Copy of the Estimate in letter No. 1532 dated 15th Nov. 1869 from the Supt. Engr. 8th Division.

Estimate for Alterations and Additions to the Light House on Hare Island at Tuticorin.

No. 37 of 1869 P.C.

Recapitulation

Establishment ... Rupees 1,000
Contingencies ... " 800
Materials ... " 8,000
Total ... Rupees 9800

Chargeable to Public Works Department

Approved
(illegible)
4/5/69

Public Works Department
No. 56 of 1870

Proceedings of the Madras Government
Under date the 6th January 1870.
Read the following

Proc. of the Hr. Govt. Marine Dept. H.E. No. 3137/9 4th December 1869

Communicated to the Supt. Engineer of the 8th Division.

As since the date of the submission of the estimate sanctioned in these Proceedings, Capt. Prendergast has reported the entire destruction of the Light House at Tuticorin, he will prepare and furnish a fresh estimate for its reconstruction.

In letter No. 2004 of 24th Nov. 1869.

3 2 4

To Supt. Engr. 8th Div.
Controller. Contracts
Marine Dept.
Dec. 7/1870

Cuc 5222

Court of 1869; Madras.

PUBLIC WORKS

To The Superintending Engr.
8th Circuit

Dated

Read

G O 6 Jany 1870. No 56

Nos. 109-110

Lght-house at Tuticorin Proc.
Programme of Establishment for
second Subvestry Rs 9800 for
raising the Lght. House at
Tuticorin on the Immovable
Pile - and Estimate & connected
with instructions -