

ORDINARY, MS.

Mar DEPARTMENT.  
G.O., DATED 12 Jan 1895  
No. 11

INDEXED.

When given for copying. 12/1

[Despatch Abstract.]

Comd to the P.O. O. Proc  
P.O. O. Sanctioning estimate  
of Rs 3190 for improve-  
ments to the lightning  
conductor of the Lighter  
at Manipal.

71223/95

22-1-95

BACK PAPER, No.

OF 189

FURTHER PAPER, No.

528

OF 1895

READ AGAIN ORDER OF GOVERNMENT, DATED  
189 , No. , MISCELLANEOUS.

ENCLOSURES.

CURRENT No.

STATEMENT WITH DITTO.

ORDER OF GOVERNMENT. .. .. A A

LETTER OF GOVERNMENT.

STATEMENT WITH DITTO.

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH  
IN ORIGINAL (not paged).

N.B.—

- A = Copy in full.
- B = Not to be copied.
- P = Copy abstract only.
- Q = Copy heading only.

17TH DECEMBER 1894, No. 3238 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Bulldings and Roads.  
Civil Works.

READ—the following papers :—

G.O., dated 28th April 1893, No. 142, Marine.

Read—the following letter from the Presidency Port Officer, Madras, dated 17th  
April 1893, No. 1633/122 G. :—

I have the honour to forward, for sanction and allotment of funds, an estimate from the Executive Engineer, West Coast division (duly countersigned by me), amounting to Rs. 3,190, for effecting certain improvements to the lightning conductor of the Mangalore Lighthouse and connecting the conductor with the river by means of a galvanized iron wire cable. The necessity for the work is pointed out in detail in the correspondence accompanying the estimate. The amount can be met from the South Canara District Port Fund which now has a balance of about Rs. 33,400 to its credit and will form a general charge on the West Coast Lighthouses. I beg that the amount required may be placed at the disposal of the Superintending Engineer, IV Circle, and that the estimate, when sanctioned, may also be forwarded to that officer with its accompaniments.

Order—dated 28th April 1893, No. 142, Marine.

The estimate is approved and will be transferred to the Public Works Department for execution.

2. The question of funds will be considered in the Financial Department.

(True Extract.)

(Signed) J. F. PRICE,  
Chief Secretary.

Memo. to the Superintending Engineer, IV Circle, dated 20th May 1893, No. 2105 C.

From Major A. W. SMART, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Tirupur, 30th May 1893, No. 216 E.W.

With reference to your endorsement No. 2105 C., \* dated 20th May 1893, I have the honour to return, duly scrutinized, the  
\* 1. Chief Engineer's endorsement with ten enclosures (returned). estimate, amounting to Rs. 3,190, for improvements to the lightning conductor of Lighthouse at Mangalore. The papers which accompanied the estimate are herewith returned.

2. I would, however, suggest that, before expending so large a sum, a further reference be made to some competent authority, say, the head of the Telegraph Department at Madras, as to whether there is any real danger to the Lighthouse though the conductor gives so high a resistance as 20 ohms. Will its safety be much increased by a reduction in the resistance?

Endorsement to the Superintendent of Telegraphs, Madras, dated 9th June 1893, No. 2288 C.

From A. L. H. PALMER, Esq., Superintendent of Telegraphs, Madras Division, to the Acting Chief Engineer, Public Works Department, dated Ootacamund, 21st June 1893, No. 5002.

With reference to your endorsement No. 2288, dated the 9th instant, I have the honour to inform you that in this department the maximum resistance allowed for an earth is 10 ohms. and that I consider it very desirable to reduce the resistance of the Mangalore Lighthouse lightning conductor earth to at least the same figure.

2. As so large an expenditure is involved, I may perhaps be permitted to make a suggestion. I notice that the record of tests taken on 23rd January 1892 mentions the lightning conductor earth as being composed of "copper rope." I do not think this copper rope is nearly so satisfactory as a copper earth plate would be. The departmental pattern is made of sheet copper one-eighth of an inch in thickness and about 4 x 3 feet in size, and one of this description could be procured from the department on payment.

3. If such a plate were procured and substituted for the copper rope under water at the bottom of the well, care being taken to fix it *vertically* by wooden struts, it is quite possible the resistance might be largely reduced. Should the well be nearly dry the plate might be kept vertical by filling the bottom with charcoal and old scrap iron up to the top edge of the plate, watering it during the dry season and leading all the surface drainage to the spot during the rains. Neither of these arrangements should be costly, so that it would seem desirable to experiment as indicated before adopting any other method.

4. The papers received are returned as requested.

No. 471 D.

MEMORANDUM.

Read—letter from the Superintendent of Telegraphs, dated 21st June 1893, No. 5002.

Copy of the above forwarded to the Superintending Engineer, IV Circle, with reference to his letter No. 216 E.W., dated 30th May 1893. The suggestion of the Superintendent of Telegraphs should be adopted and the tests re-taken.

26th June 1893.

(Signed) J. HANNAN,  
Ag. Chief Engineer, P.W.D.

From J. HANNAN, Esq., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Coimbatore, 8th December 1894, No. 517 W.

I have the honour to re-submit for sanction an estimate for Rs. 3,190 for certain improvements to lightning conductor of the Mangalore Lighthouse.

2. This estimate was returned with your memo. No. 471 D. of 26th June 1893, with a copy of a letter from the Assistant Superintendent of Government Telegraphs. The Assistant Superintendent's suggestions were given effect to and the lightning conductor re-tested by the Sub-Assistant Superintendent of Telegraphs with an unsatisfactory result. Copy of his letter is enclosed.

3. The cable which it is now proposed to lay down to the sea will benefit the station generally as the lightning conductors of all the main buildings can be connected with it.

4. There has been a good deal of delay in this matter. It is partly due to the frequent unavoidable changes of Division officers and partly to delay in getting the tests from the Sub-Assistant of Telegraphs as well as other information bearing on the matter.

ORDER—dated 17th December 1894, No. 3238 W., Public Works.

The estimate, amounting to Rs. 3,190, for improvements to the lightning conductor of the Lighthouse at Mangalore, is sanctioned.

2. An allotment of Rs. 3,972, inclusive of the percentage charges, was provided for the work in G.O., No. 469,\* Financial, dated 17th May 1893, and this sum was surrendered to the Financial Department in G.O., No. 480 W., dated 20th February 1894. The question of re-allotting the amount in the current official year will be considered in that department.

3. This sanction has been registered as Excluded Local No. 15 W. of 1894-95 and classified as Miscellaneous Public Improvements, Original Works.

(True Extract.)

*C. H. B. Burley*

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

To the Superintending Engineer, IV Circle, with eight enclosures.  
 „ Examiner, Public Works Accounts.  
 „ Financial Department.  
 „ Marine Department. ✓

Mar 14 1895 - 4-93

BUILDINGS AND ROADS.  
CIVIL WORKS.

Govt. of {1894} Madras.  
PUBLIC WORKS.

N  
This  
order D/12 Jan 1895 N-11  
Comm'd to the P. P.  
Officer.

J.S.B.  
for C.S.  
11/1/95

V PR

Ma  
12 Jan 1895  
12-13

Dated December, 17th.

Recd. 9-1-95

Encl. 5c6

G.O., 17th Dec. 1894, No. 3238 W.

First copy sent to 12/1

Returned for signature. 19/1/95

21/1/95

DECEMBER.

CHIEF SECRETARY  
GOVERNMENT OF MADRAS

Lighthouse at Mangalore

Estimate of Rs. 3,190 for improvements  
to the lightning conductor of the —, sanc-  
tioned with remarks.

Principal Port Officer

DESPATCHED

17 JAN 95

IN M.S.

Coondapoor

Desiring that the  
sanction of the Govt  
of India be requested  
for alteration of the  
limits of the port of

WITH ORDER