

(1) Number of pages 22

(2) Date of repair 14. 11. 87

(3) Initials of the Referencer 2

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W. DEPARTMENT

G.O. No.	193 W	Press.
B.P. No.		Mis.
Dated	23. 1. 1886	198 .

Not to be folded or roughly handled

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following papers :—

From Brigadier-General R. C. STEWART, Quartermaster-General, to the Secretary to Government, Military Department, dated Ootacamund, 22nd August 1885, No. 2710 A.

I have the honor, by order, to forward, for sanction and transfer to the Public Works Department for disposal, the estimate, plan, &c., below mentioned, which have been approved by the Commander-in-Chief. The plan and estimate have been countersigned :—

Estimate, amounting to Rs. 3,000, for fixing lightning conductors to the station hospital at Poonamallee, with plan, specification, and report.

No. 4675, Military.

Approved, and transferred to the Public Works Department for disposal.

(By Order.)

OOTACAMUND,
24th August 1885.

(Signed) A. R. KENNEY-HERBERT, Lieut.-Col.,
Offg. Secretary to Government.

From Colonel H. L. PRENDERGAST, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Chapak, 19th January 1886, No. 4325.

With reference to your memorandum, No. 1520 C., of 18th September 1885, I have the honor to forward, for sanction, a revised estimate of Rs. 2,400 for attaching a lightning conductor to the station hospital at Poonamallee.

2. The height of the upper terminals is made 10 feet, and the interval between each pair is now 30 feet. The conductors are to be attached by copper fastenings to the building, and the cross section of the tape is reduced to one inch by one-eighth.

ORDER—dated 23rd January 1886, No. 193 W., Public Works.

The estimate, amounting to Rs. 2,400, for attaching a lightning conductor to the station hospital at Poonamallee, is sanctioned for execution when funds are available.

2. This sanction has been registered as Imperial, Ordinary, No. 60 W. of 1885-86, and classified as Military, Original Works.

(True Extract.)

Captain, R.E.,
Under Secy. to Govt., P.W.D.

To the Superintending Engineer, V Circle, with one enclosure.
„ Examiner, Public Works Accounts, with the estimate, for note
and return to Superintending Engineer, V Circle.
„ Military Department.

Exd. E. Fernandez.

Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of 1886 Madras.
PUBLIC WORKS.

Dated January, 23rd.

Recd.

Encl.

G.O., 23rd Jan. 1886, No. 193 W.

JANUARY.

Lightning Conductor

Estimate for a — to the station hospital
at Poonamallee, sanctioned.

Barracks and Buildings
Estimates.

No. 2710.A.

From

THE QUARTERMASTER-GENERAL,

To

THE SECRETARY TO GOVERNMENT,

MILITARY DEPARTMENT.

SIR,

I HAVE the honor, by order, to forward for sanction and transfer to the Public Works Department for disposal, the estimate, plan, &c., below-mentioned which have been approved by the Commander-in-Chief. The plan and estimate have been countersigned.

*Estimate amounting to Rs. 3000/- for fixing
lightning Conductors to the Station Hospital
at Poonamallee with plan, Specification and
Reports*

*I have the honor to be
Sir*

Your obedient servant

W. Stewart Brig. Genl.
Quartermaster General.

Military (1885) Department.

No.

From

THE QUARTERMASTER-GENERAL,

To

THE SECRETARY TO GOVERNMENT,

MILITARY DEPARTMENT.

P. W. Dept.

To be executed with
1885

No. 2710. A

Dated 22nd

Recd 22nd

August

ENCLOSURES.

Forwards Estimate for
fixing lightning Conductors
to the Station. Hosp. Poma-
mallee with plan & speci-
fication Report.

No. 4325

SUPERINTENDING ENGINEER'S OFFICE,

V CIRCLE, MADRAS, 193

Chennai, 19 January 1886.

From

THE SUPERINTENDING ENGINEER,

V CIRCLE,

To

The

Chief Engineer
P.W. Department.

SIR,

Enclosures. 2

1 Sketch Plan.

1 Estimate

With reference to your
Memo. No. 1520C of 18th September
1885 I have the honor to forward
for sanction a priced estimate
of Rs 2400-00 for attaching lightning
conductors to the Station Hospital
at Ponnammallee.

2. The height of the upper tier
masts is made 15 ft, and the interval
between each pair is now 30 feet.
The conductors are to be attached
by copper fastenings to the build-
ing and the cross section
of the tops is reduced to one
inch

No. 4675 Approved
and transferred to
the Public Works De-
partment for disposal.
(Byrd)

Approved by
Offg Secy to Govt

Order issued
26 August 1885

25.8.86

Agd. 9/7/82

made by our rights.

I have the honor to be

Sir,

Your Most Obedt Servant.

Richd Pendergast J. P. R. C.

Superintending Engineer
5th Corps.

193
5

From

The Superintendent Engineer

Circular

To

The Chief Engineer
Public Works Department

Dated

Recd

19th January 1886

ENCLOSURE

2.

B.H.
22/1/86

No. 4325.

Station Hospital at

Poonamallee. - Forwards

for sanction a revised
estimate of Rs. 2400 for
attaching a lightning
conductor to the

B

B.W.

A note by the
head draughtsman
is submitted - but
with references
to W's remark
on the back of the
paper. Perhaps you
would prefer that
the file lie over for
4 to go into this
roughly. J.B.

Yes - this may be handled
as to T. the further input
required. C.B.
2.9.15

Public Works Department, 1885-86.

Current No.

Letter No.

Dated the

From the

NOTE OF REMARKS.

In obedience to S.O. No. 2050 of the
5th October 1884 the accompanying
plan and estimate are sub-
mitted for attaching light-
ning conductors to the Station
Hospital at Poonamallee.
The estimate amounts to
Rs. 3000.
As judged by appendix A to
the Standard Specifications
then the estimate is at fault
in two places: - first, with
regard to 'space protected';
second, as to the attachment
of the conductor to the building.
With reference to the 'space
protected' it may be seen
that the proposed arrange-
ment of upper terminal
leaves a great extent of the
building unprotected. -
The upper terminals are

From

To

Dated

Reed.

Enclos

Public Works Department, 188-8.

Current No.

Letter No.

Dated th

From the

NOTE OF REMARKS.

In addition to the above of the
1st October, for the same purpose,
plan and section to be sub-
mitted for a standing light
ring conductors to the station
hospital at Poona m. l. l. l.
The estimate amounts to
Rs. 4000.

will judge by appendix A to
the standard specifications
that the estimate is all but
in two places: first, with
regard to 'space protected';
second, as to the attachment
of the conductors to the building.
With reference to the 'space
protected' it may be said
that the proposed arrange-
ment of upper terminal
leaves a great extent of the
building unprotected.
The upper terminals are

but 5 feet high and placed
20 feet apart. so that, roughly,
the space protected about
equals the space left un-
protected. — It must be
noted that the question of
'space protected' is one on
which differences of opinion
exist and it remains to be
decided whether S.E.V.'s plan
may be accepted on this matter.

The second error in the
estimate seems to be provided
over dogs to attach the
conductors to the building.
The material of the conductors
being copper — for it is dis-
tinctly ruled that it is
essential that the rods be
attached to the building
by fastenings of the same
metal as itself."

3. The cross sections allowed
the tapes and rods are too
liberal when compared
with those set down as the
minima required for
safety. The cross section
allowed the tape is $1\frac{1}{2} \times \frac{1}{8}$

While the cross section for wire
is the minimum for safety,
^{19 3/4}
the diameter of the
cross section of rods is much
greater than requisite as the
minima for safety is given
again the dimensions required
for the earth plates (copper) are
8 ft. x 8 ft. x 3 inch, those
allowed being 2 ft. x 3 ft. x 8 inch.
From the foregoing it may
be seen that the quantity
of copper allowed may with
safety be reduced by one half.
The plan and estimate
have been considered by
the Lt. Col. General, and
have been approved in the
Military Department.

14th Sept. 1885
B. K.

Spec copy

15200/100
Memo.

Chapin 1st Lt. Engineer
10/19

The estimate and plan for attaching lightning conductors to the Station Hospital at Poonamallee are herewith returned to S. E. V. with a request that they may be altered with reference to the following remarks:—
It would be advisable that the height of the upper terminals should be increased to 10 feet, allowing for proper supports, the interval between each pair being increased to 30 feet. The whole building will thus be brought more nearly within the limit of "space protected" as defined in Appendix B to the Standard Specifications, the lightning conductors since they are of copper should be attached by copper fastenings to the building; and the cross section of the copper tape may safely be reduced to $1 \times \frac{1}{8}$ inch.

*
No. 7509
Encl. (plan)

Asst. Surgeon
Captain R. B.
for Deputy Chief Engineer P. W. D.

To
The Superintending Engineer V. C. S. S.

11/12/85 at 1-1-85
 1572 at 27-5-85
 1076 at 18-6-85
 1147 at 6-7-85
 2556 at 18-10-84
 2557 at 8-0
 483 at 21-2-84
 1810 at 26-2-83
 2934 at 23-12-80
 1596 at 24-6-80
 1806 at 11-4-78
 1654 at 21-3-78

1520 at 18

Building & Roads
 Military Works
 PUBLIC WORKS DEPARTMENT.

No 193 W

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the Jan 23/86
 Read the following

Letter from the Quarter Master General No 2710A
 dated 22nd August 1885.
 Encl in the Military Department No 4675 of 24-8-85.
 Letter from the Supt. Engineer & Civil No 4325
 4/9 January 1886.

The estimate
 amounting to Rs 2400,
 for attaching a lightning
 conductor to the station
 hospital at Thanamallee,
 is sanctioned for execution
 when funds are available.

2 The same has
 been reported
 as Imperial military
 No 600 of 1885-86, and
 classified as Military
 Imperial Works.

The S.C. & C. with
 an enclosure
 and a plan of the station
 the estimate for the
 work to be done
 Military Department

23/1/86
 W.
 23.1.86

7579

Govt. of Madras

PUBLIC WORKS

26-1-86

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1886-1887

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