(1) Number of pages 90

(2) Date of repair 12.87

(3) Initials of the Referencer

# TAMIL NADU ARCHIVES

## GOVERNMENT OF TAMIL NADU

P. W. DEPARTMENT

G.O. No. / B.P. No. 324 W.

Press. / Mis.

Dated 6—2—1886 ~~198~~.

*Not to be folded or roughly handled.*

Archives —1 10,006-9 80

# GOVERNMENT OF MADRAS.

## PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers:—

Memo. by Chief Engineer, Public Works Department, dated 9th July 1885, No. 1174 C.

| | | | | | | |
|---|---|---|---|---|---|---|
| From the Superintending Engineer, | | I Circle, | dated | 3rd December | do. | 334 G.I. |
| Do. | do. | I | do. | 24th do. | do. | 195 V.Z. |
| Do. | do. | II | do. | 30th October | do. | 257 G.L. |
| Do. | do. | III | do. | 6th August | do. | 988. |
| Do. | do. | IV | do. | 7th September | do. | 37[illegible] E.W. |
| Do. | do. | V | do. | 20th October | do. | 3110. |
| Do. | do. | VI | do. | 19th September | do. | 984 T.J. |
| Do. | Consulting Architect to Govt., | | dated | 1st do. | do. | 819. |
| Do. | do. | | do. | 11th November | do. | 1166. |

Order—dated 6th February 1886, No. 324 W., Public Works.

In July 1885 Superintending Engineers and the Consulting Architect were requested to submit a list of all public buildings in their respective Circles which were supposed to be protected by lightning conductors, and to report, with respect to each building, whether the recommendations of the Lightning Rod Conference and the provisions of the Code of Instructions on the subject had been fully met; if not, in what respects the protection was deficient. Superintending Engineers were further asked to name any public buildings within their Circles which they considered should be provided with efficient conductors.

2. Replies have now been received from all the officers addressed, and the lists of buildings submitted show that a large number are at present without protection, whilst others are but imperfectly protected. To remedy these defects in all cases would involve so large an expenditure as to be prohibitive; besides which, many of the buildings named are not of sufficient importance to require protection. The Government therefore desire that attention be first given only to buildings of the nature referred to in paragraph 1174* of the Public Works Code.

3. In this view the undermentioned buildings have been selected from the lists, and Superintending Engineers will submit at an early date estimates for providing lightning conductors for such of the buildings mentioned as have not got them, and for altering those already provided, in order to bring them into accordance with the provisions of the Code of Instructions.

### I Circle.

* (1) Powder magazine, Sámalkót.
* (2) Hope island light-house.
* (3) Vakalapudi light-house.
(4) Central tower of the Rajahmundry jail.
(5) Chimney at the Dowlaishweram workshops.

---

* 1174. "Powder magazines and all buildings "which, from their height or exposed situation, "are likely to be struck with lightning, should "be provided with lightning conductors on the "system laid down in the Code of Instruction for "the guidance of Public Works officers in the "erection and testing of lightning conductors."

*(6) Powder magazine, Vizagapatam.
*(7) Four powder magazines used by 16th Regiment, M.I., Vizagapatam.
*(8) Santapilly light-house.
*(9) Powder magazine, Parlakimedi.
*(10) Powder magazine, Russellkonda.
*(11) Powder magazine, Chatrapur.

### II Circle.

*(1) Christ church, Nellore.

### IV Circle.

*(1) Lawrence Asylum (female branch), Lovedale.
(2) Combined post and telegraph office, Ootacamund.
(3) Government offices and Council Chamber, Ootacamund.
(4) Government House, Ootacamund.
*(5) Powder magazine, Ootacamund.
*(6) Police powder magazine, Coimbatore.
*(7) Powder magazine, Malapuram.
*(8) Powder magazine, Quilon.

### V Circle.

*(1) Government House, Guindy.
*(2) Police powder magazine, Manjakuppam.
*(3) Powder magazine, Vellore.

### VI Circle.

(1) District court-house, Tanjore.

### Consulting Architect's Division.

*(1) Combined post and telegraph office.
*(2) Senate House,
*(3) Observatory.

Note.—Buildings marked with an *asterisk* are stated to be already provided with lightning conductors either use-ess or not in accordance with the Code of Instructions.

(True Extract.)

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

Superintending Engineers.
the Consulting Architect to Government.
" Examiner, Public Works Accounts.

Exd. E. Fernandez.
Spare Copies

324/2

BUILDINGS AND ROADS.
CIVIL WORKS.

## Govt. of {1886} Madras.

PUBLIC WORKS.

*Dated February, 6th.*

*Recd.* *Encl.*

**G.O., 6th Feb. 1886, No. 324 W.**

**FEBRUARY.**

### Lightning Conductors

Orders on letters from Superintending Engineers submitting lists of public buildings protected by — and of those unprotected.

324/3

List of all Public buildings which are at present protected by Lightning Conductors and of those recommended to be protected by efficient conductors in the 1st Circle, called for in Chief Engineer's Memo No. 1174 C dated 9th July 1885.

| Circle | Division | Station or Taluq | Fund | Name of the Building | Executive Engineer's remarks |
|---|---|---|---|---|---|
| | Godavari Eastern | Samulkota | Military | Powder Magazine | The lightning Conductor of this is not in accordance with the recommendations of the lightning rod Conference. This is a new one recently put up but the rod is too weak. an estimate for altering it is now under preparation & in it the improvements as to points &ca. will be included. |
| | | Coringa | Imperial Other Services | Hope Island Light House | The recommendations of the Lightning rod Conference and the provisions of the Code of instructions on the subject are not fully met in the case of the Lightning Conductor on this Light House. the deficiencies are.<br>(a) There is no Copper ring with sharp spikes to it fixed to the upper terminal a foot below the point.<br>(b) Several joints of the rod require fresh solderings<br>(c) It has no earth connection at all. a sum of Rs 35 has been provided in the Estimate submitted with Supg. Engineer's No. 1530 G.D of 19th October 1885 to make up the above deficiencies. |

Orders on
Engineers submit
ings protected by —
tected.

List of all Public buildings which are at present protected by Lightning Conductors and of those recommended to be protected by efficient conductors in the 1st Circle, called for in Chief Engineer's Memo No. 1174 C dated 9th July 1885.

E.

| Circle | Division | Station or Taluq | Fund | Name of the Building | Executive Engineer's remarks |
|---|---|---|---|---|---|
| First Circle | — | Vakalapudi | Provincial | Light House at Vaka: :lapudi | 324-2/3<br>The lightning Conductor of this is not in accord:ance with the recommendations of the Lightning rod Conference - The light house has no less than 4 Separate Conducting rods all meeting at the top of the light room but with entirely distinct earth connections - these are all perfectly useless. An Estimate will be submitted shortly for all the improvements recommended by the conference- |
| | | Rajahmundry | Do | New Powder Magazine | These have been provided with effective Lightning Conductor:- |
| | | Dowlaishweram Quarry | Do | Powder Magazine | |
| | Godavari Eastern | Rajahmundry | Provincial | Quarters of Supdt. Central Jail | |
| | | — | Do | Central tower of — Do — | |
| | | — | Do | New District Court House | |
| | — | Dowlaishweram | Irrigation | Chimny at Dowlaish: :weram Workshop | |
| | | | Provincial | Quarters for the Supg. Engineer (when Comi: :pleted) | |

List of all Public buildings which are at present protected by Lightning Conductors and of those recommended to be protected by efficient conductors in the 1st Circle, called for in Chief Engineer's Memo No. 1174 C dated 9th July 1885.

| Circle | Division | Station or Taluq | Fund | Name of the Building | Executive Engineer's remarks |
|---|---|---|---|---|---|
| | | | | Building [illegible]<br>[illegible]<br>[illegible]ctors | |
| First Circle | Godavari Eastern | Samulkota | Military | Powder Magazine | |
| | | Coringa | Imperial Other Services | Hope Island Light | |

Asstt. Engineer
for Superintending Engineer 1st Circle.

First Circle

**No.** 3349 L

324/4

FROM,

THE SUPERINTENDING ENGINEER
FIRST CIRCLE.

TO,

THE CHIEF ENGINEER
PUBLIC WORKS DEPARTMENT.

Enclosure

DOWLAISHWARAM, 3rd December 1885.

SIR,

With reference to your Memo No. 1174 C dated 9th July 1885, I have the honor to submit herewith a list of all Public Buildings which are at present protected by Lightning Conductors and of those which are recommended to be provided with efficient Conductors.

I have the honor to be,
Sir,
Your most obedient St.

Asst. Engr.
For Supt. Engr. 1st Circle

324/5

324/3

The lightning Conductor of this is not in accordance with the recommendations of the lightning rod Conference. This is a new one recently put up but the rod is too weak. an estimate for altering it is now under preparation & in it the improvements as to points &ca. will be included.

The recommendations of the Lightning rod Conference and the provisions of the Code of instructions on the subject are not fully met in the case of the Lightning Conductor on this Light House. the deficiencies are.

(a, There is no copper ring with sharp spikes to it fixed to the upper terminal a foot below the point. ——

(b, Several joints of the rod require fresh soldering;

(C) It has no earth connection at all. a sum of Rs. 35 has been provided in the Estimate submitted with Supg. Engineer's No. 1530 G.D of 19th October 1885 to make up the above deficiencies.

324/5

First Circle

| | | | | |
|---|---|---|---|---|
| | Vakalapudi | Provincial | Light House at Vaka:lapudi | The lightning Conductor of this is not in accordance with the recommendations of the Lightning rod Conference – The light house has no less than 4 Separate Conducting rods all meeting at the top of the light room but with entirely distinct earth connections – these are all perfectly useless. An Estimate will be submitted shortly for all the improvements recommended by the conference – |
| | Rajahmundry | Do | New Powder Magazine | These have been provided with effective Lightning Conductors:– |
| | Dowlaishweram Quarry | Do | Powder Magazine | |
| Godavari Eastern | Rajahmundry | Provincial | Quarters of Supt. Central Jail | |
| | | Do | Central tower of Do | |
| | | Do | New District Court House | |
| | Dowlaishweram | Irrigation | Chimny at Dowlaish:weram Workshops | |
| | | Provincial | Quarters for the Supg. Engineer (when Com:pleted) | |

324-2/3

324/5

324/313

List Fire 6

| | | | | | |
|---|---|---|---|---|---|
| | | Provincial | Quarters for the Executive Engineer (when completed) | — | |
| Godavari Western | Tanuku | Provincial | New Taluq Cutcherry (when completed) | | |
| | Bhimavaram | Do | Do | Do — | |
| | Chettipett | Do | Executive Engineers Quarters | — | |
| Godavari Central | Do | Do | Division Office Building | — | |
| | " | " | Nil | — | |
| Vizagapatam Division | Narsipatam | Provincial | Powder Magazine | — | Provided with lightning Conductor to all appearance in good order. |
| | Yellamanchilly | Do | Moonsiff's Court House | — | Furnished with lightning Conductors but the rod is broken and the other connections are deficient. |
| | Vizagapatam | Do | Magazine | — | Furnished with Lightning Conductor but connections have been removed. |
| | | Military | Regimental Magazine | Man | Provided with lightning Conductor, to all appearance in good order. |

| | | | | | |
|---|---|---|---|---|---|
| Vizagapatam | Vizianagaram | Military | 4 Magazines Regiment | 16th | The Conductors are in good order but their earth connections are at variance with the recommendations of the lightning rod conference - They have no copper (3' square) plate with its fastings, and the conductors ha not been led deep into damp soil - Their ends are taken about 2 ft. below ground and there secured by iron chains or rods vari from 20 ft. to 30 ft. in length - |
| | Do | Provincial | Church | Do | Do |
| | Santapilly | Excluded Local | Light house | | The building has 2 lightning conductors, bo taken 2 feet below ground and there secured by 3 iron chains each - They are not taken deep into damp soil and want the copper plate (3' Square) or diaphram with its fastings - |
| | Parvatipur | Provincial | Magazine | Do | Do |
| | Etikavalasa | Do | 2 D.P.W. Magazines | | The Conductors are in good order & are in accordance with the instructions of the Code and the recommendations of the lightning rod conference |

3

| | | | |
|---|---|---|---|
| Vizagapatam | Narsipatam | Provincial | Police Hospital |
| | | Do | Subsidiary Jail |
| | | Do | Principal Assistant Collector's Cutcherry |
| | Yellanchalli | Do | Taluq Cutcherry and Subsidiary Jail |
| | | | School house |
| | Chodavaram | Do | Deputy Tahsildar's Cutcherry & Subsidiary Jail |
| | Ankapilli | Do | Deputy Tahsildar's Cutcherry & Subsidiary Jail |
| | Vizagapatam | Military | European Barracks Upper and lower Story |
| | | | E. P. V. Company |
| | | | Magazine |
| | | | Regimental Hospital |
| | | Imperial Other Service Postal | Post Office with Upper story |
| | | Provincial | Normal School |
| | | Do | Zillah Jail |
| | | | Hospital |
| | | | Female Hospital |

First Circle

| | | | | |
|---|---|---|---|---|
| Vizagapatam | Srungavarapu=<br>=cottah | Provincial | Deputy Tahsildar's Cut=<br>=cherry | |
| | Cheepurupilli | Do | Do Do | |
| | Palcondah | Do | Do Do | |
| | Parvatipur | Do | Do Do | |
| | | Do | Senior Asstt. Collectors<br>Cutcherry | |
| | | Do | Hill Jail | |
| | | Do | District Munsiff's Court<br>House | |
| | Gajapatinaga=<br>=ram | Do | Deputy Tahsildar's Cut=<br>=cherry | |
| | Salur | Do | Do Do | |
| | Potinghy | Do | Rest House | |
| | Jeypore | Do | Police Assistant Supdts<br>Quarters | |
| | Korapput | Do | Special Assistant Agents | |
| | do | Do | & Police Supdts Quarters<br>Police Powder Magazine | |
| Ganjam | Parlakimidi | Provincial | Powder Magazine | Lightning rod attached to a wooden post some yards from the Magazine and terminating in the compound wall useless. |

First Circle

| | | | | | |
|---|---|---|---|---|---|
| Ganjam | Russellkonda | Provincial | Powder Magazine | — | A lightning rod attached to copper sheeting running along along the eaves, having also a copper strip earth connection. The earth connection is in good order but the terminal is loosely connected with it and there is no connection between the terminal and the copper sheeting — |
| | — Do — | — Do — | Hill Jail at Russel<br>Block No. 1 — Do<br>— Do — No 2 — Do<br>Police Station House<br>Police Hospital — | Konda<br>—<br>—<br>at Do<br>Do | These buildings are all protected in the same manner viz by a terminal at each end of the roof split into 5 points — The terminals are connected by bar copper which is carried down 4 feet below ground and ends under 2 feet of Charcoal — There are no metal plates in the Earth connections. One of the terminals of No 2 block is broken and the connection of this terminal along ridge is also broken — All these buildings should be inspected by a competent electrician — Russelkonda is subject to frequent thunder storms — |
| | Berhampore | Imperial Military — | Powder Magazine | — | Two terminals connected by copper bands and two earth connections — It is supposed to be in accordance with recommendations of lightning rod conference — The conductivity of the joints should be tested — |
| | Chetrapur | Provincial | Powder Magazine | — | Two terminals connected by a copper band & two earth connections. The connection of the terminals to the copper band is imperfect and the Earth connections are very imperfect there being no metal plates — |
| Ganjam | Aska | Provincial | Subsidiary Jail | Cherry | |
| | Berhampore | — Do — | Sub Magistrates Cut | House | |
| | | | District Court | Tower | |
| | | | District Jail Central | [illegible] | |
| | | | 6 Convict blocks | | |
| | | | Hospital in Jail | [illegible] | |
| | | | Under trial Ward | | |

First Circle

| | | | | |
|---|---|---|---|---|
| Ganjam | Berhampore | Provincial | General Latrine Converted into ward.) | |
| | | | Jailors Quarters | |
| | | | Taluq Cutcherry | ffice |
| | | | Town Police Station House | alow |
| | | | Executive Engineer's | ffice |
| | | | Senior Asstt Collec Cutcherry | Dept |
| | Ichapur | Do | Sub Magistrates Cut and School. | neers |
| | | | Police Station Hous | |
| | | | Subsidiary Jail | |
| | Sompetta | Do | New Subsidiary and Tahsildar's = cherry | |
| | Ganjam | Do | Sub Magistrate's Cut | |
| | | | Police Station | |
| | | | and Subsidiary Jail | |
| | Chatrapur | Do | Subsidiary Jail | |
| | | Do | Treasury Office | |
| | | Do | Printing and Sheri Office | |
| | | | Current & L. F. A Office | and Collec |

| | | | |
|---|---|---|---|
| Ganjam | Chicacole | Provincial | Sheristadar's Cutcherry No. 2 — |
| | | — Do — | Sub Divisional Office |
| | | — Do — | Government High Sc |
| | | — Do — | Police Hospital |
| | Raghunádhapúr | — Do — | Sub Magistrates Cutcherry<br>Sub Jail —<br>School House — |
| | Narsanapett | — Do — | Sub Magistrates Cutcherry and Sub Jail — |
| | Parlakimidi | — Do — | Sub Magistrates Office |
| | | — Do — | Police Station House |
| | | — Do — | Police Hospital — |
| | | — Do — | Subsidiary Jail — |

Rushikulya Division.

N.C.

Dowlaishwaram
3rd December/85

[illegible] 10610

FROM,

THE SUPERINTENDING ENGINEER
FIRST CIRCLE.

TO,

THE CHIEF ENGINEER
PUBLIC WORKS DEPARTMENT.

9 DEC 85 (3)

DATED 3rd
DESPATCHED 3rd December 1885
RECEIVED 9

No. 3349.L

ENCLOSURES. One

First Circle.

Buildings protected by Lightning Conductors in the first Circle — Submits a list of all.

With other [illegible].

SKW

---

NO. 195 V.2.

324/6

FROM,

THE SUPERINTENDING ENGINEER
FIRST CIRCLE.

TO,

THE CHIEF ENGINEER
PUBLIC WORKS DEPARTMENT.

DOWLAISHWARAM, 24th December 1885.

SIR,

I have the honor to request you will be so good as to cause the building noted in the margin× to be included in the list of buildings recommended to be protected by Lightning Conductors which was submitted with this Office No 3349-L ⊗ dated 25th November 1886.

× Vizagapatam Division — Police Powder Magazines at Koraput.

⊗ C.E. No 10610 Sub D.G.A.N 9-12-85

I have the honor to be
Sir
Your Most Obedient Servant
W. A. Mathews Asst Engr.
for Supr. Engineer 1st Cle.

J/K

Pwc No 1108

FROM,
THE SUPERINTENDING ENGINEER
FIRST CIRCLE.

TO,
THE CHIEF ENGINEER
PUBLIC WORKS DEPARTMENT.

DATED 24th
DESPATCHED 24th } December 1885
RECEIVED

No. 195 V.2

ENCLOSURES. nil

Police Powder Magazine at Koraput. — Requests that the — may be included in the list of Buildings recommended to be protected by Lightning Conductors —

## List of all the Public Buildings in the 2nd circle, at present protected by Lightning Conductors

324/8

| Description of Building | Remarks |
|---|---|
| Kistna | Eastern Division |
| Light House at Point Divi<br>Police Powder Magazine | Both appear to be in good order, and conform to the requirements of the Code |
| | Nellore Division |
| Gun powder Magazine at the Nellore Workshops | The conductor provided for this Building has been examined by the Executive Engineer and appears to be in a satisfactory condition. The conductor has not been electrically tested. |
| | Sangam Project Division |
| Gun powder Magazines at Sangam and Boochireddipalem | These are the only two buildings protected by Lightning Conductors. |
| | Buckingham Canal Division |
| Pulicat Light House 324/8 | The Upper terminal is a copper rod of about one inch diameter for a length of nearly 10 feet. From there to the Earth plate is a copper wire rope of about the same diameter, well soldered on to the rod. The point is of platinum and was supplied from the P.W. Workshops. The earth plate is about 3 feet square and is made up of copper bands about 3 inches wide and ¼ inch thick, placed about 6 inches apart. Cross ways overlapping each other and studded all over with copper spikes. This plate is embedded in a pit 20 ft. below top of Light House outer door step, and is in very moist ground. The plate is covered with about 12 inches of charcoal. Whether the lightning Conductor is effective or not, is not known. The rod is carried inside the light house |
| Armegon Light House | The Conductor throughout is composed of a series of copper rods, about one inch in diameter and 8 to 10 ft long. The upper terminal does not extend above the light house vane, but is terminated by a platinum point. The several pieces of copper rods forming the conductor are merely revetted together as per marginal sketch, but not soldered. There is no earth plate. The rod is carried within the Light House and the end is let into a pit about 6 feet deep in the light house floor between the side and newel. From the undermentioned circumstances it would appear the rod is not effective, some 6 years ago, the Superintendent's father was going from the Light House to the quarters which is 200 ft. north east of the Light House, when he was knocked down immediately after a flash of lightning and for some |

time after experienced a sulphurous taste and smell. It was very cloudy at the time and threatened a tremendous down pour of rain. The time was about 7 P.M. during the month of November. The height of rod above ground level is probably 90 feet.

J H L Morant
Lieut Colonel R.E.
Superintendent of Works
in Charge of II Circle

Superintending Engineer's Office,
2nd Circle, W.D. Bank Canal
30th October 1885

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324/9

## List of all public Buildings within the 2nd Circle which are not now protected by Lightning Conductors but which it is thought should be so protected.

| Description of Building | Remarks. |
|---|---|
| Kistna Eastern Division | |
| Collector's Cutchery Masulipatam | There are no others except this, and the Division Officer is doubtful whether a conductor is necessary |
| Kistna Western Division | |
| Jail at Guntur<br>Sub Collector's Cutchery at do. | These are 2 storied Buildings, but the Division Officer does not think they are in sufficiently exposed situation as to require Lightning Conductors. |
| Nellore Division. | |
| Christ Church at Nellore | This building much requires protection. It has no lightning conductor and requires at least two. |

Supdg. Engineer's Office,
2nd Circle,
Camp W.D. Bank Canal
30th October 1885.

J H L Morant
Lieut. Colonel R.E.
Superintendent of Works
in charge of 2nd Circle.

No. 257 C. L.

Superintending Engineer's Office,
2nd Circle, W. Delta Bank Canal;
30th October 1885.

324/10

From

The Superintending Engineer,
2nd Circle.

To

The Chief Engineer,
Public Works Department,
Madras.

Enclosures Two.

Sir,

With reference to your letter No. 1174 of the 9th July 1885, I have the honor to forward herewith two Lists of Public Buildings in this Circle protected, and not protected by Lightning Conductors.

I have the honor to be,
Sir,
Your most Obdt. Servant

J. H. Morant
Lieut. Colonel R.
Superintendent of Works
in Charge of II Circle.

Recd. 7660

From The Superintending Engineer
2nd Circle

7 NOV 85
P. W. DEPARTMENT

To The Chief Engineer
P. W. D.
Madras

Dated 30th October 1885
Despd 2nd Novr.
Recd 7 —

Enclosure
No. 2576 C.L.

Public Buildings in the circle protected and not protected by Lightning Conductors — Forwards lists of —

Complete
J.B.E.
7/11/85

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SUPERINTENDING ENGINEER'S OFFICE,
Bellary ~~Madras~~
~~Chepauk~~, 6th August 1885.

No. 988

From Lt Col H. M. Vibart R.E.
~~The~~ SUPERINTENDING ENGINEER,
3d ~~1st~~ CIRCLE,

3⁴/11

To
The Chief Engineer
P. W. D.
Madras

Enclosures.

Sir,

With reference to your letter No. 1174 C dated 9th July/85, I have the honor to report that the undermentioned buildings have been supplied with Lightning conductors.

Bellary Cantonment

Powder Magazine near the European Infantry Lines — No. 1
—— do —— near Artillery Lines —— 1
—— do —— near Native Infantry Lines —— 4
—— do —— in the Fort —— 2
Barracks at Ramandrug ——

Kurnool

Magazine —— 1

The Lightning Conductors attached to one of the Magazines in the Fort and to the Magazine near the European Infantry have been set up in accordance with the Code of Instructions; but those belonging to the 2nd Magazine in the Fort and the smaller Magazines near the Native Infantry Lines have not been interfered with as they have been fully tested by the Government Electrician and reported in a very satisfactory condition.

The Conductors on the Ramandrug buildings have not been tested for some time past. The Executive Engineer will have the Conductor attached to the Magazine at Kurnool tested shortly.

2. I am of opinion that the undermentioned buildings should be supplied with Lightning Rods.

### Bellary District

Station Hospital at Bellary.
European Infantry Barracks.
Garrison Church Bellary.
Fort Church Bellary.
Taluq Cutcherry at Adony.
—— do —— do —— at Harpenhally.
Combined Offices of S. Eng. & E. Eng. when complete.

### Anantapur

Collectors Cutcherry at Anantapur.
Collector's house at Anantapur.

### Kurnool District

Church at Kurnool.
Taluq Cutcherry at Koilkuntla.

### Cuddapah District

Sessions Court house at Cuddapah.
Taluq Cutcherry at Pulivendla (Standard design).
—— do —— at Jammalamadugu —— do ——
—— do —— at Sidhout —— do ——
—— do —— at Madanapally —— do ——
—— do —— at Kadiri —— do ——
Sub Collector's Cutcherry at Madanapally.
Christ Church at Cuddapah.
High School at Cuddapah.

I have the honor to be
Sir
Your most Obedt Servant
Lt Col R.E.
Superintending Engineer
3rd Circle

From

The Superintending Engineer,

III ~~1st~~ Circle,

To

The Chief Engineer

PWD

Madras

Dated 6th } August 1885.
Recd. }

Enclosures.

No. 988.

Lightning Conductors.

Reporting the names of buildings provided with —— and shewing what buildings should be provided with Conductors

Complete

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Fourth Circle P. W. D. 324/13 Nilgiri Division.

List of public buildings in the Nilgiri Division protected by Lightning Conductors and those that should be provided for

| Name of Building | Whether provided with Lightning Conductor or not | Defects &ca if any | Actual requirements | Remarks |
|---|---|---|---|---|
| Lawrence Asylum Male Branch | Yes | None | None | |
| Do Female Do | do | useless & Condemned | New Conductor required<br>Estimate submitted to sanction | |
| Blocks of single men's Barracks | do | Earth Connections are not in accordance with the recommendation of Lightning Rod Conference | 15 Earth plates Copper 3'×3'×1/16" | The earth Connections of the lower terminal of all the Conductors Consist of one inch iron chains twisted into the Copper wire rope Conductor |
| Combined Post & Telegraph Office | do | None | None | |

| | | | | | |
|---|---|---|---|---|---|
| Government Offices & Council Chambers | None | " | One required | | |
| Government House | None | " | do | | |
| Clerks quarters | None | " | do | | |
| Bombay Castle | None | " | do | | |
| Place of Arms | None | " | do | | |
| Collector's office | None | " | do | | |
| St Stephen's Church | do | " | do | | |
| St Thomas do | Yes | Not Tested | | Decidedly not in accordance with Lightning Rod Committee | |
| Staff Quarters Block | Yes | Earth Connection are not in accordance with the recommendation of L.R Conference | 3 Earth plates Copper 3"x3"x1/16" | The earth Connections of the lower terminals of all the Conductors Consist of One inch iron chain twisted into Copper wire rope Conductor | |
| 4 Blocks of Married Men Barracks | Do | Do | 12 Do | Do | Do |
| School Block | Do | Do | 2 Do | Do | Do |
| Canteen Do | Do | Do | 2 Do | Do | Do |
| Armourers shop | Do | Do | 2 Do | Do | Do |
| Magazine | Do | Do | 2 Do | Do | Do |
| 2 Blocks of Hospital | Do | Do | 4 Do | Do | Do |
| Lock Hospital | Not provid | | | To avoid repetition of defects in each Case, the following references are used:—<br>42 Rft. Copper wire ropes (A)<br>1 Lightning Conductor Rod 10 ft long 3/4 inch thick (B)<br>1 Galvanized iron pipes each 10' long 1" diameter (C)<br>1 Earthen plate Copper 3'x3'x1/16 (D)<br>20 Walls eyes (E) | |
| Commissariat Godowns | Do | 550 Rft. A<br>4. B. 4. C,<br>4 D. 200 E, | | | |
| Do Sergeants Quarters | Do | 45 Rft. A. 1 B<br>1 C. 1 D. 24 E, | | | |
| Commandants Quarters | Do | 70 Rft. A. 2 B<br>2 C. 2 D. 60 E, | | | |

3 24/13

324/13

|  |  |  |  |  |
|---|---|---|---|---|
| Tahsildar's Cutcherry at Coonoor | Not provided | 135 Rft. A.2.B<br>2 C.2.D.40 S |  |  |
| Church at Coonoor ——— | Yes | 4 Earthwork plates Copper 3'×3'×1/16" |  | The earth Connections of the lower terminals of all the Condu Consist of 1 inch iron Chain twiste into Copper wire rope Conductor None of the Wynaad buildings are supplied with Conductors but they are all Petty buildings |

Nilgiri Division Office
Ootacamund 11th August
1885

(Signed)
A. C. Smith Major R.E.
Executive Engineer

(True Copy)

Ross Thompson Col R.E.
Offg. Supg. Engineer 4th Circle

September/85.

Enclo: 3 to S.E. letter No 374/E.W. of 17/9/85

4th Circle

Nilgiri Division

No 7924/15

List showing the buildings protected with Lightning Conductors in the Nilgiri Division

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Fourth Circle P. W. D. 324/15 Coimbatore Division

List showing the buildings provided with Lightning Conductors, as also, those for which it is recommended that the Conductors are to be provided in the Coimbatore Division, called for in Supg. Engineer's 249/C of 31st July bearing Supg. Engineers endorsement No 1344 of 3rd August 1885

| No. | Names of buildings | Value Rs | Remarks |
|---|---|---|---|
| | Buildings provided with Lightning Conductors | | |
| 1 | Powder magazine attached to the Head Quarter office, Police at Coimbatore | 300 | The conductor is of round iron. It is believed to be inefficient owing to the copper earth plate being too small only 6" square instead of 3 feet sqr and to bad joints and defective attachment to the building. |
| 2 | New Taluq Cutcherry at Pollachy | 24,892 | Believed to be inefficient for the reasons given above & besides the area protected is insufficient to include the whole of the buildings |
| 3 | do Udumalpett | 25,502 | |
| 4 | do Dharapuram | 30,000 | |

3?4/15

|  |  |  |  |
|---|---|---|---|
| 5 | Thasildars Cutcherry at Dharampury | 25266 | The efficiency of both these Conductors is doubtful as the portions of each building fall outside the "Cone of protection" as laid down in "Lightning Conference" |
| 6 | District Munsiff's Court at Tirpatoor | 12590 |  |
| 7 | Collector's Cutcherry at Salem | 18168 | The efficiency of the conductor is very doubtful. |

Buildings recommended to be protected with Lightning Conductors

|  |  |  |  |
|---|---|---|---|
| 1 | Superintending Engineer's office at Coimbatore | 8513 | These are high two storied buildings |
| 2 | Police Head Quarter office at Do | 7685 |  |
| 3 | Civil, seasons and District Munsiff Courts at Coimbatore | 10000 | This is an important one storied building |
| 4 | Superintendent's quarters at Central jail at Coimbatore | 10000 | This is a high double storied building |
| 5 | Jailors Quarters at do and Central Tower | 37730 | These two buildings are double storied and should also be protected. |
| 6 | Collectors Cutcherry at Coimbatore | 30788 | This is a high double storied building |
| 7 | Sub Collector's Cutcherry at Kongheim | 9122 | This is a high single storied building |
| 8 | Head Assistant Collectors bungalow at Pollachy | 14365 | This is situated on high open ground & in a locality where thunder storms are common. A workman was lately killed by Lightning about a furlong from the building |
| 9 | Sub Collectors Cutcherry at Erode | 12916 | This is a high building ~~and~~ requires protection |
| 10 | Tahsildars Cutcherry at Erode | 33350 | This is a high building and requires protection |
| 11 | Christ Church at Salem | 13465 | Do Do. |
| 12 | Sub Collector's bungalow at Hosur | 18755 | This is a large and important building |

324/15

| | | | |
|---|---|---|---|
| 13 | Sick lines attached to Remount Depôt at Mathagiri | 23000 | This is a large and important building |

Executive Engineer's office
Camp Pallachy
25th August 1885

(Signed)
A. V. Boddy Captain R.E.
Executive Engineer

(True Copy)

Robt Thompson Col. R.E.
Offg. Supg. Engineer 4th Circle

September /85

Enclo: 2 to S.E.'s letter No 371/P.W. 1/11/85

4th Circle

Coimbatore Division

No 2
7924/85

List showing the buildings provided with Lightning Conductors &c. in the Coimbatore Division

---

Fourth Circle P. W. D. 324/17 West Coast Division

List showing the buildings in the West Coast Division provided with Lightning Conductors.

324/17

| No. | Name of Buildings | Remarks |
|---|---|---|
| 1 | Fort Magazine at Cannanore | The recommendations of the Lightning Rod Conference and the provisions of the Code of Instructions on the subject have been fully met. |
| 2 | European Infantry Expense Magazine at Cannanore | |
| 3 | Native Infantry do do | |
| 4 | District Court house at Mangalore | Lightning Conductor lately put up in accordance with the recommendations of the Lightning Rod Conference and provisions of the Code of Instructions. Upper terminals 3 Copper rods 1" diameter; other portions of Conductor Copper bands 3"x1/8". All joints either screwed or riveted and soldered. |

| | |
|---|---|
| 6 | District Munsiff Court at Puttur ———— |
| 7 | Taluq Cutcherry at Udipi ———— |
| 8 | Law Court at Calicut ———— |

12th August 1885.

(True Copy)

(Signed)
Ross Thompson Col. R.E.
Executive Engineer
West Coast Division

Ross Thompson Col. R.E.
Offg. Supg. Engineer 4th Circle

September/85.

Encl: 1 to S.E's letter 371/E.W. d/7/9/85

4th Circle

West Coast Division

Od Encl 1/7924/85

List showing the Buildings in the West Coast Division provided with Lightning Conductors

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No 371/E.W.

Supg. Engrs: Office, 4th Circle
Camp Vayitri 7th Septr: /85.

24/19

From

The Offg: Supg. Engineer,
Fourth Circle.

To

The Chief Engineer,
P. W. Department.

Sir,

Enc: 3

With reference to your Memo No 1174 C of 9th July 1885, I have the honor to forward herewith 3 lists of all Public Buildings in the West Coast, Coimbatore and Nilgiri Divisions in this Circle, which are at present provided with Lightning Conductors, as well as those requiring to be provided with the same.

2. The report called for in the above Memo has been given in separate columns against each building.

I

I have the honor to be
Sir,
Your most Obedt. Servant.

Robt. Thompson Col: R.E.,
Offg: Supg: Engineer 4th Circle.

J.T.

324/70

Mil 7924

From
The Suptg. Engineer
Fourth Circle

Dated 7th } September 1885.
Despd 9th }
Rd 10

No 371
C.W.

Enclos: 3.

Public Buildings in the IV Circle

Forwards 3 lists of all for which at present Lightning Conductors are provided with as well as those requiring to be provided with the same.

Compiled
C.J.
10/

---

Fifth Circle

List showing the public buildings, which are at present protected by Lightning Conductors.

324
321

| No | Name of Building | Date on which last tested by the Telegraph Dept. | Remarks |
|---|---|---|---|
| | Presidency Division | | These are in accordance with the recommendations of the Lightning Rod Conference and the provisions of Code of Instructions and the protection afforded in each case is believed to be sufficient- |
| | Bangalore | | |
| 1 | St Andrews' Church | | |
| 2 | St Johns' Church | March/83 | |
| 3 | Sappers' Magazine | | |
| 4 | European Infantry Magazine | | |
| 5 | Bakery Chimney (highest) | August/85 | |
| 6 | Do (shortest) | August/85 | |
| 7 | Ulsoor Water Works Chimney | | |
| 8 | Dhobies Well Chimney | | |
| 9 | West Hutting lines Magazine | | |
| 10 | East do | | |
| 11 | Trinity Church | Decr/82 | |
| 12 | Royal Horse Artillery Magazine | | |
| 13 | European Cavalry Magazine | | |
| 14 | Royal Artillery C/3 Magazine | | |
| 15 | Do 4/6 do | | |
| 16 | Magazine Agram Entrenchment | Feb/85 | |
| | Madras | | |
| | Fort Saint George | | |
| 17 | Grand Magazine | July/85 | |
| 18 | Saint Georges' Magazine | July/85 | |

| | | |
|---|---|---|
| 19 | Caldwell's Magazine | July/85 |
| 20 | R. A. Reserve Magazine | May/85 |
| 21 | Infantry Expense Magazine | July/85 |
| 22 | Saint Mary's Church | July/81 |

### Gun Powder Factory

| | | |
|---|---|---|
| 23 | Saltpetre Refinery West Block | Oct/82 |
| 24 | Glazing House | Oct/82 |
| 25 | Chimney of the 14 HP Engine and Boiler Rooms | Oct/82 |
| 26 | Granulating House | Oct/82 |
| 27 | Green Powder deposit and Dried-powder deposit Magazines | Oct/82 |
| 28 | Stove Drying House | Oct/82 |
| 29 | Chimney of Stove Drying House | Oct/82 |
| 30 | Press Cake Deposit Magazine | Oct/82 |
| 31 | Press House | Oct/82 |
| 32 | Machinery Store No 11 | Oct/82 |
| 33 | Dried powder deposit Magazine | Octr/82 |
| 34 | Final Dusting House | Octr/82 |
| 35 | Barrelling Room | Oct/82 |
| 36 | Magazine | Oct/82 |
| 37 | Dust Deposit Magazine | Oct/82 |
| 38 | Chimney of North group of Mills | Oct/82 |
| 39 | Engine Boiler House of — do — | Oct/82 |
| 40 | Chimney of South group of Mills | Octr/82 |
| 41 | Engine House of — do — | Oct/82 |
| 42 | Green charge Deposit Magazine | Oct/82 |
| 43 | Breaking down room. | Oct/82 |
| 44 | Meal Deposit Magazine | Oct/82 |
| 45 | Composition Mills' Chimney | — |

These are in accordance with the recommendations of the Lightning Rod Conference and the provisions of the Code of Instructions and the protection afforded in each case is believed to be sufficient

---

### Improvements to G. P. Factory

| | | |
|---|---|---|
| 46 | Magazine | |
| 47 | Press House | |
| 48 | Corning House | |
| 49 | Chimney | Oct/82 |

### Gun Carriage Factory

| | | |
|---|---|---|
| 50 | Chimney to 2d Smithshop | 1882 |
| 51 | — Do — near Turner's shop | 1882 |
| 52 | — Do — to the Steam Hammer shop | 1882 |

### Other Buildings

| | | |
|---|---|---|
| 53 | St Andrew's Kirk | June/81 |
| 54 | St George's Cathedral | July/81 |
| 55 | Government House main building | July/81 |
| 56 | Banqueting Hall | June/81 |
| 57 | Government Bakery Chimney | — |
| 58 | Body Guard Lines Magazines | — |
| 59 | Observatory | May/81 |
| 60 | General Hospital Chimney of the Boiler House | May/81 |
| 61 | Medical College Chimney | May/81 |
| 62 | Magazine attached to the Native Infantry Lines – Perambore | June/81 |
| 63 | Expense Magazine – Vyasarpady | 1882 |
| 64 | Merchants' Magazine – Wall Tax Road | June/81 |
| 65 | Magazine attached to the N. I. Lines Royapuram | July/82 |
| 66 | Bullet Factory or present Ordnance Coal shed | July/82 |
| 67 | Napier Battery | March/85 |
| 68 | Light House Battery | March/85 |

These are in accordance with the recommendations of the Lightning Rod Conference and the provisions of the Code of Instructions and the protection afforded in each case is believed to be sufficient.

| | | | |
|---|---|---|---|
| 69 | Clive Battery | ~~Jan~~ — | In accordance with the recommendations of the Lightning Rod Conference & the proportions of the [illegible] tions and the protection of points in each case is believed to be sufficient |
| 70 | Light House | July/81 | |
| 71 | Master Attendant's Office | May/81 | |
| 72 | Commissary General's Office | — | |

## Chingleput Division

### Saint Thomas Mount

| | | | |
|---|---|---|---|
| 73 | Reserve Powder Magazine | — | Do |
| 74 | Royal Artillery Expense Magazine | — | Not in accordance with the recommendation of the Lightning Rod Conference & An estimate for renewal prepared in accordance with the recommendations of the Lightning Rod Conference was sanctioned in G.O. No. 2680 W dated 30 Oct/84 but not carried out yet for want of funds. |
| 75 | Saint Thomas Church | — | Not in accordance with the recommendation of the Lightning Rod Conference — Estimate for renewal in preparation under Chief Engrs Memorandum No. 1316 dated 31st July 1885 |

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324/98

## Guindy Park

| | | | |
|---|---|---|---|
| 76 | Government House | — | Not in accordance with the recommendations of the Lightning Rod Conference. |

## South Arcot Division

| | | | |
|---|---|---|---|
| 77 | Police Magazine at Manjakuppam | — | This is in accordance with the recommendations of the Lightning Rod Conference, except that the joints seem defective, the surfaces having been merely hammered into contact, that in the earth connection the plate area is much less than the minimum recommended 18 sq ft and that it has not been carried down to permanently damp stratum |

## North Arcot Division

| | | | |
|---|---|---|---|
| 78 | Native Infantry Magazine, Vellore Fort. | — | Not in accordance with the recommendations of the Lightning Rod Conference |

W H Hutton

Col R.E.

Offg Superintending Engineer, 5 Circle

No. 3110.

SUPERINTENDING ENGINEER'S OFFICE,
V CIRCLE, ~~MADRAS~~, Mysore
~~Chepauk~~, 20° October 1885.
Desp 21st — " —

From

THE SUPERINTENDING ENGINEER,
V CIRCLE,

324/93

To

THE Chief Engineer
P. W. Department

SIR,

Enclosures. 1

In reference to your No 1174C dated 9th July 1885 I have the honor to forward herewith a list of buildings in the V Circle which are at present provided with Lightning Conductors – in the column of remarks is stated whether the Conductors meet the recommendations of the Lightning Rod Conference and if the Code of instructions for guidance of P. W. Officers in the erection of of Lightning Conductors or not.

The only building not yet protected but which in my opinion should be is the large Military Hospital at Poonamallee.

As

3 As soon as there are greater facilities than now exist for an annual testing of each Conductor I would also recommend that the Government Secretariat building and old Exchange House and European Infantry in Fort Saint George and South Station Hospital Bangalore be also protected.

I have the honor to be
Sir
Your most Obdt Servant

W H Burton Coll RE
Offg Superintending Engineer
5 Circle

To Inch 9247

The Chief Engineer
P. W. Dept.

No. 3110

Dated 20th October 1885
Recd 15

Enclosure 1

Lightning Conductors—
Forwards a list of public buildings which are at present protected by—and recommends certain other buildings to be protected with lightning conductors.

Compile
CU
2/11

List of important buildings in No. VI. Circle that are provided with lightning Conductors with remarks and also other important buildings unprovided.

3524/257

| District | Name of building. | Class. | Provided | Unprovided | Remarks. |
|---|---|---|---|---|---|
| Tanjore | Police Powder Magazine | 1 | 1 | . | New conductor put up two years ago believed to be efficient. |
| | District Court house at Tanjore | 2 | " | 1 | Isolated on high ground - should be protected. |
| | Sub Court and Taluq Cutcheri at Kumbakonam. | 3 | . | 1 | Situated near the river, considered not to require protection. |
| | Kumbakonam College | 2 | . | 1 | Estimate sanctioned for conductors but not carried out as the building is to be added to. |
| | New Taluq Cutcheries at Tanjore &c | 4 | | 1 | Protection not considered necessary. |
| | Light house at Negapatam. | 1 | 1 | . | Conductor believed to be efficient but requires examination. |
| | Range office at Negapatam. | 3 | | 1 | Conductor not considered necessary. |
| Trichinopoly | Grand Magazine | 1 | 1 | | The earth of this conductor requires examination. |
| | Magazines at Puthur | 1 | 1 | | Require examination. |
| | " at Shelugalam 21st M.I. | 1 | 1 | | |
| | Saint Johns Church | 1 | 1 | | |
| | Tower Central Jail | 1 | 1 | | |
| | Magazine at artillery Barracks | 1 | 1 | | |
| | Collectors Cutcheri | 3 | | 1 | Protection not considered necessary. |
| | Civil & Sessions Court house | 3 | | 1 | |
| | Taluq Cutcheri at Kulitalai | 4 | | 1 | |
| | Munsiff's Court at Kulitalai | 4 | | 1 | |
| | Do at Ariyalur | 4 | | 1 | |
| | Taluq Cutcheri at Perambalore | 4 | | 1 | |
| Madura | Light House at Pamban | 1 | 1 | | Earth requires examination. |
| | Tirumal Naik's Palace | 1 | 1 | | These conductors require testing & additional ones required. |

325-2

| | | | | | |
|---|---|---|---|---|---|
| Madura | Tunkum house occupied by Collector | 2 | | 1 | Is a high building 3 stories, but protection is not considered necessary. |
| | Sub Magistrates Cutcherri at Uthamapaliam | 4 | | 1 | Not considered necessary, it is proposed to leave the Conductors as they are. |
| | Talug Cutcherri at Palni | 4 | 1 | | |
| | D° at Perakulam | 4 | 1 | | |
| | District Munsiff's Court at Shivagangah | 4 | | 1 | Not considered necessary. |
| Tinnevelly | Entrance gate to new Jail Tinnevelly | 2/3 | 1 | | — D° — Proposed to be left as it is. |
| | Light House at Hare Island Tuticorin | 1 | 1 | | Earth not efficient, this will shortly be corrected. |
| | Protestant Church at Tuticorin | 5 | | 1 | A high single story building, protection not considered necessary. |
| | Collector's Cutcherri | 3 | | 1 | Protection not considered necessary. |
| | Head assistant Collector's Cutcherri | 4 | | 1 | |
| | New Talug Cutcherri at Ambasamudrum | 4 | | 1 | |

Kodaikanal
19th September 1853.

Col. R.E.
Supt. Engineer 6th Circle

324/95

No. 984 T.J. Supg. Engr's office C. Circle
Kodaikanal 19th Septr/85

Despd. 22

Enclo. 1.

324/26

From.
The Supg. Engineer
C. Circle.

To.
The Chief Engineer
P. W. D.

Sir,

With reference to No. 1174 C dated 9th July from your office regarding lightning conductors to public buildings in this Circle, I have the honor to request to be informed if it is proposed that all public buildings should be provided with lightning conductors made efficient according to the recommendations of the Lightning Rod Conference.

The buildings may be divided into the following classes.

1st Special buildings such as

Light House, Tirumal Naik's Palace, Powder Magazine &c.

2nd 2 Story Terrace buildings such as Tanjore District Court.

3rd 2 Story Tiled buildings such as the Sub-Court and Taluq Cutcheri at Kumbakonam, Collectors Cutcheries at Tinnevelly & Trichinopoly.

4th 1 Story buildings with tiles roofs with towers or a small upstairs such as Taluq Cutcheries, Munsiff's Courts Sub Collectors Cutcheries, built on the new Standard plans.

5th Single Story buildings.

I consider that class 4 + 5 need not be protected, the cost of doing so would be great; with regard to class 4 it has to be pointed out that a

Lightning Conductor on the tower would protect only a portion of the building and doing this appears hardly necessary.

To protect class 2 + 3 will cost much and I consider they may be left unprotected except a few special ones.

Class 1. Should most certainly be protected with efficient lightning conductors and have them tested from time to time.

I enclose a list of the principal buildings in the Circle and their class. I have in the remarks stated which I would propose should be efficiently protected.

I have the honor to be
Sir
your most obdt servt
Col. R.E.
Supdg Engineer C.C.

Conditions imposed.

I have the honor to be
Sir
your most obdt. Servant
R Chisholm
Consg. Archt. to Govt.

324/29

Incl 7669

Public Works Department.

This must await reply from the Govt. of India to letter addressed to them on subject.
C.J.
2.9.85

From

THE CONSULTING ARCHITECT
TO THE GOVERNMENT OF MADRAS,

To

The Chief Engineer
P. W. Dept.

No. 819

Dated 1st September 1885
Received 2

No. OF ENCLOSURES.

*Subject.*

Protection of buildings from lightning.

---

P. W. D.

Consulting Architect's Office,
Chepauk, Madras,
11th November 1885.

No. 1166

324/30

From
The Consulting Architect to the Government of Madras,

To
The Chief Engineer
P. W. Department.

Enclosure.
one.

Sir,

I have the honor to state in reply to your reminder No. 1174/2 C. that if the conclusions pointed out in my letter to you dated the 1st September 1885. No. 819 are sound, then no public building in my charge is properly protected though many are fitted with lightning conductors.

2. I enclose a list showing the whole of the public buildings in my charge distinguishing those which have conductors from those which

which have not.

I have the honor to be
Sir
Your most obdt. Servant
R Chisholm
Consg: Archt. to Govt.

---

3 24/31

List of public buildings in charge of the Consg: Architect to Govt supposed to be protected by Lightning Conductors.

✓ 1. Combined Post & Telegraph office.
✓ 2. Senate House.
3. Revenue Board office.
4. P. W. D. offices - Chepâk.
5. Presidency College
6. Lying-in-Hospital
7. Amir Mahal zenana
✓ 8. Observatory
9. Patent Kiln
10. Ophthalmic Hospital.

List of buildings requiring Lightning Conductors.

1. School of Arts.
2. Civil Engineering College.
3. do Principals Quarters
4. Amir Mahal Main building.
5. do. Nowbut Khana
6. Wallajah Bagh House.

P.T.O

3484 W of 30/11/85
1745 E of 9/7/85
2066 W of 5/9/85
1461 W of 9/6/84
1352 of 1/6/85

Inch 9795

## Public Works Department.

From

THE CONSULTING ARCHITECT
TO THE GOVERNMENT OF MADRAS,

To

The Chief Engineer
P. W. Dept.

12

No. 1166

Dated 11th November 1885
Received 12

No. of Enclosures. one

Subject.

submitting a list of all public buildings protected by Lightning Conductors.

Compile
12/11/85

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Note

3¼/3½

It is not clear from the papers with what object the Supd. Engrs were called upon to submit these statements. To provide all public buildings with lightning conductors according to the instructions of the lightning rod conference would cost an enormous sum. It therefore seems advisable that only buildings of the nature named in P.W. Code para 1174 should be so protected.

The following buildings are selected from the lists submitted by the Supdg Engrs as

all

2848 W / 30/11/85
1746 C / 9/7/85
2066 W / 5/9/85
1441 W / 9/6/84
1035 C / 1/6/85

324 W
/ 6.2.86

W

324
/133

The point raised
by Mr Nicholson was
referred to India
who replied in the
affirmative - vide
G.O. 2848. W. 30. 11. 85.
In this view no
building in C.'s
division is properly
protected - D.S. has
lected three buildings
om C.'s list which
considers should
perly protected.
e draft has been
ltered accordingly
pencil & is resub-
itted for your
proval.

Approved.
H.B.
5.2.86
5.2.86.

2848 W of 30/11/85
1742 of 9/7/85
2058 W of 5/9/85
1441 W of 9/6/84
1435 of 1/6/85

I am doubtful about para 4 of this draft.

324/134

Was not the point raised by C.A. in para 2 of his letter dated 1·9·83, referred to the G. of India, & decided in the affirmative?

Of 20. Mr Chisholm has placed it on record that not one building in his charge is efficiently protected; — and of the buildings named in his list, those wh. come within the definition given in para 1174 P.W. Code should be added to para 3 of draft.

W.
4·2·86

D.S.
With reference to W's note will you please select the buildings that are to be added to para 3 of the draft under "Consulting Architect".
G.O. 2848. W. 30/11/85 contains the corresce referred to by W.
F.B.

Testing of the nature
described in the Code

I Circle

- ×Samulkota powder Magazine
- ×Hope island light house
- ×Vakalapudi light house
- Central tower of Rajahmundry Jail
- Chimney to Dowlaishweram workshops.
- ×Vizagapatam powder Magazine
- ×Vizianagram 4 magazines of 16th Regiment
- ×Santapilly light house
- ×Palakimidi ~~light house~~ magazine
- ×Russelkonda magazine
- ×Chatrapur magazine

II Circle

Christ church Vellore

III Circle.

None

IV Circle

- ×Lawrence Asylum female branch
- Combined Post & Telegraph Office Ooty

324/37

Govt offices & Council chamber
Government house 65
*Magazine 65
*Police under Magazine
Calicut

*Magazine Malapuram
L Quilon

## V Circle

*Government house Guindy
*Police Magazine Mangalore
*Magazine Vellore

## VI Circle

District Court house
at Tanjore

## Consulting Architect

None

The C. E. sends me a list of buildings supposed to be protected but does not say if the protection is efficient or in accordance with instructions

324/38

Most of the O.Cs
to send in long lists
of buildings that
should be protected:
but it is out of the
question getting any petty
building fitted up with
conductors.
It is thought that the
buildings mentioned in
this note & which have
been selected out of the
lists submitted will
suffice for the present and
the O.Cs may be directed
to submit estimates for
providing conductors to such
of the buildings mentioned
as have not got them &
for altering them that
are fitted with them so as
to agree with the instructions
of the conference. The
works marked thus × are

2448 W / 30/11/85
1748 E / 9/7/85
2086 W / 7/9/85
1441 W / 9/8/84
1035 E / 10/6/85

329/39

those which are already
provided with conductors
which are either well
or not in accordance with
the instructions.

L
17/12/85

The S.E.s may be directed
to send in estimates as
suggested overleaf.
The C.A. should be called
on to report whether the
buildings named by him
are efficiently protected.
I understand that he referred
wrote the point about
which he was in doubt.

1.2.86

SKW

all

2848 W 7 30/11/85
1748 7 9/7/85
2058 W 7 5/9/85
1421 W 7 9/6/84
1435 7 1/6/85

324/40

## Note.

In July last S. Es. and the C. A. were asked to submit lists of public buildings in their Circles which are at presented supposed to be protected by lightning conductors, and to report with respect to each building whether the recommendations of the Lightning Rod Conference and the provisions of the Code of Instructions have been fully met, and if not, in what respects the protection is deficient. Also to name any public buildings which they considered sh'd be provided with efficient conductors.

All

all the replies have now been received and are submitted to D.W.

With refce to para 1 of Mr Chisholm's letter a copy of G.O. No: 2840/W d 30/11/85 is put up. It contains India's reply to our query about the space protected by lightning rods.

F.B.
15/12/85.

324 W

324/W

D.W.

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B & R
& works

No. 324 W

PUBLIC WORKS DEPARTMENT.

324/41

# PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the Feb. 6

Memo by Chief Engineer P.W.D. H.E. No. 1174 c d 9th July ~~1885~~

READ the following

| | |
|---|---|
| From the Supdg Engineer I Circle | H.E. No. 334 G.L. d 3rd Decr 1885 |
| Do — Do — Do | H.E. No. 195 V.Z d 24th Decr 1885 |
| Do — Do II Circle | H.E. No. 257 G.L. d 30th Octr/85 |
| Do — Do III Circle | H.E. No. 988 d 6th August 1885 |
| Do — Do IV Circle | " No. 371 E.S d 7th Septr 1885 |
| Do — Do V Circle | " No. 3110 d 20th October 1885 |
| Do — Do VI Circle | " No. 984 T.J. d 19th Septr 1885 |
| Consg: Architect to Govt | " No. 819 d 1st September 1885 |
| Do — Do — Do | " No. 1166 d 11th Novr 1885 |

In July 1885 Supdg Engineers and the Consg Architect were requested to submit a list of all public buildings in their respective circles which were supposed to be protected by lightning conductors, and to report with respect to each building whether the recommendations of

of the lightning rods
2 conferred and the provisions
11 of the Code of Instructions
20 on the subject had been
14 fully met; ~~and~~ if not,
103 in what respects the
protection was deficient.
Superintending Engineers
were further asked to
name any public buildings
within their circles which
they considered should
be provided with efficient
conductors.

2. Replies have now been received from all the officers addressed, and the lists of buildings submitted show that a ~~very~~ large number are at present without ~~any~~ protection, ~~whatever~~, whilst others are but imperfectly protected. To remedy

these

these defects in all cases would involve so large an expenditure as to be prohibitive; ~~and~~ besides which many of the buildings named are not of sufficient importance to require protection. The Government therefore desire that attention be first given only to buildings of the nature referred to in para 1174× of the P.W. Code.

3. In this view the undermentioned buildings have been selected from the lists, ~~submitted~~, and Supdg Engineers will submit at an early date estimates for providing lightning conductors for such of the buildings

mentioned

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× "1174. Powder magazines and all buildings which from their height or exposed situation are likely to be struck with lightning, should be provided with lightning conductors on the system laid down in the Code of Instructions for the guidance of Public Works officers in the erection & testing of lightning conductors".

mentioned as have not got them, and for altering those already ~~attached to buildings~~ provided, in order to bring them into ~~as the [illegible]~~ ~~in~~ accordance with the provisions of the Code of Instructions

## I Circle

*(1) Powder magazine, Sámalkótah.
*(2). Hope island light house.
*(3) Vakalapudi light house.
(4). Central tower of the Rajahmundry Jail.
(5). Chimney at the Dowlaishweram workshops.
*(6). Powder magazine, Vizagapatam.
*(7). Four powder magazines used by 16th Regiment M. N. I. Vizagapatam.

Note

Buildings marked with an asterick ~~they~~ ~~that~~ are stated to be already provide with lightning Conductors ~~that~~ either useless or ~~are~~ not in accordance with the Code of Instructio

*(8). Santapilly light house.
*(9). Powder magazine - Parlákimedi.
*(10). Powder magazine, Russellkonda.
*(11). Powder magazine - Chatrapur

## II Circle

(1). Christ church, Nellore.

## IV Circle

*(1). Lawrence Asylum. (Female Branch) Lovedale.
(2). Combined Post and Telegraph office, Ootacamund
(3). Government offices and Council Chamber Ootacamund.
(4). Government House Ootacamund
*(5). Powder magazine Ootacamund.
*(6). Police Powder magazine Coimbatore

*(7). Powder magazine, Malapuram.

*(8). Powder magazine, Quilon.

V Circle

*(1). Government House, Guindy.

*(2). Police Powder magazine, Manjakuppam.

*(3). Powder magazine, Vellore

VI Circle

(1). District Court House, Tanjore.

*4. The Consulting Architect submits a list of buildings supposed to be protected but he does not record his opinion whether the

the protection is efficient or in accordance with the Code of Instructions. This omission should be supplied without delay.

324/84

C. A's Division

*(1) Combined Post & Telegraph Office

*(2) Senate House

*(3) Observatory.

W
5.2.86

J.B.
4.2.86.

Seen
6/2/86

despd 7/2/86

To

The Supdg Engineers

Consg: Archt. to Govt.

Ex and Sr. P. W. Accts

Govt. of 1886 Madras.

PUBLIC WORKS

Placed and [illegible] 6/2/8[illegible]

Dated

Recd

Endt

G.O. 5 Jy 1886, No. 320

Lightning conductors

=

Orders on letter from [illegible] [illegible] submitting lists of public buildings protected with — and those unprotected

FC
L. 2813 W 25/10/86
1430 W 7-6-86