

Specification – Lightning Protection System

This Section specifies the lightning protection system for the building(s) or structure(s). The design of this system is to be in accordance with this section of the specification and all contract drawings that apply.

The work covered under this section of the specifications consists of furnishing labor, materials and services required for the completion of a functional and unobtrusive lightning protection system approved by the architect and engineer or other indicated party.

The system shall be installed by a firm that is listed with Underwriters' Laboratories, Inc and that is solely devoted to the installation of lightning protection systems.

The entire lightning protection system shall be designed and installed in accordance with:

- A) National Fire Protection Association (NFPA) Standard 780
- B) Underwriters' Laboratories, Inc. (UL) Standard 96A

The lightning protection installer shall furnish a UL Lightning Protection Inspection Certificate (formerly called a "UL Master Label") upon completion of the installation and subsequent inspection by UL. Upon initial review of the plans, if the installer believes there is a reason the system will not be able to receive a UL Lightning Protection Inspection Certificate, the installer will discuss these reasons with the architect, engineer, or specified party and suggest solutions where appropriate.

All equipment used shall be UL listed and labeled in accordance with the UL 96 materials standard. Materials furnished by East Coast Lightning Equipment (ECLE) are preferred. If not furnished by ECLE, materials must be equivalent to ECLE materials, listed and labeled in accordance with UL 96, and produced by a manufacturer regularly engaged in the production of lightning protection equipment. Equipment shall be the manufacturer's latest approved design.

Class I materials shall be used for systems on structures not exceeding 75 feet in height.
Class II materials shall be used for systems on structures exceeding 75 feet above grade.

Lightning protection materials shall be coordinated with building construction materials to assure metallic compatibility. Where a changeover is required, appropriate bi-metallic changeover fittings will be used to assure metallic compatibility.

Where down conductors are exposed to environmental hazards at grade level, guards such as PVC conduit shall be used to protect the conductor to a point 6 feet above grade.

In the case of structural steel frame construction, cable down conductors may be omitted and roof conductors shall be connected to the structural steel frame.

Common interconnection of all grounded systems within the building shall be accomplished using appropriate conductors and fittings. Grounded metal bodies located within the calculated bonding distance as determined by NFPA and UL Standards shall be bonded to the system using properly sized bonding conductors.

Upon request, a shop drawing shall be submitted to the architect, engineer or other specified person for approval prior to commencement of the installation. The shop drawing will show the system layout along with the products to be used in the installation.

Installation of the lightning protection system will require coordination with the builder/general contractor, and several trades, including but not limited to electrical, masonry, and roofing.

The installation of the lightning protection system shall be done in a neat and workmanlike manner according to an agreed-up schedule.