

SECTION 264113: LIGHTNING PROTECTION SYSTEM



PART I. GENERAL

- 1.01 **Objective:** To provide safety for the building and occupants by preventing damage to building structure caused by lightning.
- 1.02 **Standards:** The following specifications and standards of the latest issue form a part of this specification:
- (1) Underwriters Laboratories, Inc., (UL)
Installation Requirements for Lightning Protection Systems, UL 96A
 - (2) National Fire Protection Association, (NFPA)
Standard for the Installation of Lightning Protection Systems, NFPA 780
 - (3) Underwriters Laboratories, Inc.,
Lightning Protection Components, UL 96
- 1.03 **System Design:** The work covered by this section of the specifications consists of furnishing all labor, materials and items of service required for the completion of a functional and unobtrusive lightning protection system approved by the architect, engineer, and in strict accordance with this section of the specifications and the applicable contract drawings.
- If any departure from the contract drawings or submittal drawings covered below are deemed necessary by the Contractor, details of such departures and reasons therefore shall be submitted as soon as practical to the architect and engineer for approval.
- 1.04 **Submittals:** Complete design drawings showing the type, size, and locations of all grounding, down conductors, through-roof / through-wall assemblies, roof conductors, and air terminals shall be submitted to the architect and engineer for approval.
- 1.05 **Quality Assurance:** The lightning protection system shall conform to the requirements and standards for lightning protection systems of UL and NFPA. Upon completion, application shall be made to the Underwriters Laboratories, Inc. for inspection and issuance of the UL Master Label.

PART II. PRODUCTS

- 2.01 **Standard:** The system to be furnished under this specification shall be the standard product of a manufacturer regularly engaged in the production of lightning protection equipment and shall be the manufacturer's latest approved design. The equipment shall be UL listed and properly UL labeled.
- All equipment shall be new, and of a design and construction to suit the application where it is used in accordance with accepted industry standards and UL and NFPA requirements.

MANUFACTURER: East Coast Lightning Equipment, Inc., Winsted, CT.

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- 2.02 **Equipment :** Provide and install a complete lightning protection system in compliance with the specifications and standards of the most current editions of the National Fire Protection Association's Lightning Protection Standard NFPA-780, and Underwriters Laboratories Lightning Protection Standard UL96-A. The system shall be installed by a lightning protection contractor who is listed by Underwriters Laboratories, Inc.
- 2.03 **Materials:** All lightning protection materials and components shall comply in weight, size and composition with UL 96 and NFPA-780 lightning protection material requirements for this type of structure.
- All materials shall be copper, bronze, or stainless steel. Aluminum components shall be used in locations where system components are mounted to aluminum surfaces to avoid galvanic corrosion of dissimilar metals. Class I materials shall be used on structures not more than 75 feet in height. Class II materials shall be used on structures over 75 feet in height.

PART III. EXECUTION

- 3.01 **Installation:** The installation shall be accomplished by an experienced installation company that is listed with Underwriters Laboratories for lightning protection installation.
- All equipment shall be installed in a neat, workmanlike manner. The system shall consist of a complete conductor network at the roof and include air terminals, connectors, splicers, bonds, down leads and proper ground terminals.
- 3.02 **Coordination:** The lightning protection installer will work with other trades to ensure a correct, neat and unobtrusive installation. The roofing contractor will be responsible for sealing and flashing all lightning protection roof penetrations as per the roof manufacturer's recommendations.
- Note: Lightning Protection penetrations and/or attachment procedures should be addressed in the roofing section of the specifications.
- It shall be the responsibility of the lightning protection installer to assure a sound bond to the main water service and to assure interconnection with other ground systems.
- 3.03 **Inspection and Certification:** Upon completion of the installation, the contractor shall furnish the Master Label issued by Underwriters Laboratories, Inc. for this system. If the protected structure is an addition to or is attached to an existing structure that does not have a lightning protection system, the contractor shall advise the Owner of installation requirements on the existing structure to obtain the Master Label. If the existing structure does have a lightning protection system, the contractor shall advise the Owner of any additional work required on the existing system to achieve compliance with current UL Master Label requirements.

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