
PART 1 GENERAL**1.1 RELATED DOCUMENTS**

- A. The requirements of the General Conditions, Supplementary Conditions and the following specification sections apply to all Work herein:
1. Section 26 00 10 - General Requirements
 2. Section 26 00 20 - Scope of Work
 3. Section 26 05 19 - Electrical Conductors - 600 Volts
 4. Section 26 05 26 - Grounding and Bonding
 5. Section 26 08 13 - Testing

1.2 SUMMARY

- A. Furnish and install a lightning protection system. The system shall be designed to comply with requirements of the National Fire Protection Association and the Underwriters Laboratories, Inc. The system shall be designed to qualify for the maximum insurance rate reduction allowed for lightning protection for this type of construction.

1.3 REFERENCE STANDARDS

- A. The lightning protection system and all components shall be designed, manufactured and tested in accordance with the latest applicable industry standards including the following:
1. UL 96A - Lightning Protection Systems
 2. NFPA 780 - Lightning Protection
 3. NFPA 70 - National Electrical Code (NEC)
- B. All equipment and material to be furnished and installed on this Project shall be UL or ETL listed, in accordance with the requirements of the authorities having jurisdiction, and suitable for its intended use on this Project.

1.4 SUBMITTALS

- A. The following submittal data shall be furnished according to the General Conditions and Section 26 00 10 and shall include, but not be limited to:
1. Lightning Protection System* product data including all system components, wiring diagrams, devices, parts, installation details, etc.
 2. Lightning Protection System scaled Shop Drawings detailing conductor routing, size, type, and terminations along with details of all connectors, splices, and taps.
 3. Documentation of UL Master Label or L.P.I. Certification label.
- B. All items or equipment listed above with asterisks (*) shall be certified by the manufacturer using Manufacturer Certification "MCA" as set forth in Section 26 00 10. See Section 26 00 10 for certification requirements.

1.5 WARRANTY

- A. Comply with the requirements of the General Conditions and Section 26 00 10.

PART 2 PRODUCTS**2.1 ACCEPTABLE MANUFACTURERS**

- A. The Electrical Subcontractor shall engage the services of an accredited Underwriters Laboratories, Inc. Subcontractor or an L.P.I. registered installer qualified to furnish and install the herein described system and to procure the Underwriters Laboratories, Inc. Master Label demonstrating that the system fulfills the requirements of the State Insurance Commission governing the allowance of the aforementioned insurance

rate reduction. Submit copy of UL Master Label or L.P.I. certification label to the Engineer and the Owner upon system completion.

2.2 MATERIALS

- A. Connectors shall be copper or copper bronze type. Connectors shall be the same size as the down conductors. Air terminals shall be chrome tipped solid copper having a copper or copper bronze base. Air terminals shall be flexible type equipped with stainless steel springs where required by window washing equipment, etc., if allowed by UL. Aluminum materials having equivalent capacity and grounding characteristics specified for copper shall be used where necessary for compatibility with the building materials used at the roof and parapet walls. All conductors directly embedded in concrete or masonry shall be copper.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Cable conductors shall be concealed at all locations throughout the building. Cable conductors in parapets shall be coordinated with the window wall installation. Conductors shall be copper cable weighing not less than 375 lbs/1000' or aluminum cables of equivalent impedance where required due to roof and parapet construction material compatibility.
- B. Connection of supports, clamps, devices and other appurtenances to rust protected metal structures exposed to the weather shall be made using rust protected devices and shall be installed in a manner to preserve the rust protection of the structure. Coordinate material selection with Architect prior to installation.
- C. Down conductors shall interconnect with the ground ring of the grounding electrode system. See Section 26 05 26 titled "Grounding and Bonding" for additional information.
- D. Metals of conductance at any point within 6' of the lightning conductor system shall be securely bonded, and made a part thereof, and materials for these interconnections shall be equivalent in quality to main conductor and fittings.
- E. Cable conductors shall interconnect all air terminals offering a two (2) way path to the ground electrodes.

3.2 FIELD TESTING

- A. Refer to Section 26 08 13 for additional testing requirements for lightning protection systems.

END OF SECTION