

1. GENERAL

1.1 SUMMARY

- .1 Section includes: Lightning Protection System.
- .2 Related Requirements:
 - .1 Division 00 – Contracting Requirements and Division 01 – General Requirements apply to this section.
 - .2 Coordinate with Sections affected by installation of lightning protection, including but not limited to:
 - .1 26 00 10 – Electrical General Requirements
 - .2 26 05 01 – Common Work Results – Electrical
 - .3 26 05 28 – Grounding and Bonding

1.2 REFERENCE DOCUMENTS

- .1 CSA C22.1-21, Canadian Electrical Code, Part 1 (25th Edition), Safety Standard for Electrical Installations.
- .2 CSA B72:20, Installation Code for Lightning Protection Systems.
- .3 NFPA 780 (2020), Standard for the Installation of Lightning Protection Systems.
- .4 ANSI/CAN/UL 96, Product Standard for Lightning Protection Components.
- .5 UL 96A, Installation Requirements for Lightning Protection Systems.

1.3 SUBMITTALS

- .1 Comply with Division 01 submittal requirements.
- .2 Delegated Design submittals: Submit for [Architect] [Engineer] approval:

- .1 Submit installation drawings, details, product data, and other information sufficient to describe lightning protection system and coordination with related work.
- .2 Submittal shall be signed by System Designer and state that design complies with Quality Assurance standards.
- .3 Qualifications Statements: Submit for [Architect] [Engineer] approval:
 - .1 System designer qualifications
 - .2 Component manufacturer CUL listing.
 - .3 Installer qualifications.
- .4 Closeout Submittals: Provide Field Quality Control documentation.

1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Comply with Division 01 project meeting requirements.

1.5 QUALITY ASSURANCE

- .1 System Designer: Individual certified as Designer/Inspector, Master Installer, or Master Installer/Designer by Lightning Protection Institute.
- .2 Comply with latest edition of CSA B72, NFPA 780, UL 96A, and LPI 175.

1.6 DELIVERY, STORAGE, AND HANDLING

- .1 Store in secure, dry location.

2. PRODUCTS

2.1 EXISTING PRODUCTS

- .1 Existing Components: Components of existing lightning protection equipment may be reused if UL-labeled, equal to currently UL-listed products, and are acceptable to System Designer.

2.2 MANUFACTURER

- .1 Manufacturer shall be CUL-listed, regularly engaged in production of lightning protection equipment, and a member of the Lightning Protection Institute (<https://lightning.org/member-directory/> filter by Membership/Manufacturer).

2.3 COMPONENTS

- .1 No combinations of materials that form a corrosion-accelerating electrolytic couple shall be used.
- .2 Material: Copper or copper alloy, Aluminum, Tin-coated copper or copper alloy, or stainless steel. Lead-sheathed copper shall be used on top 7.6 m of industrial chimneys.
- .3 Air Terminals: Blunt-tipped.

2.4 ACCESSORIES

- .1 Fasteners and Adhesives: Types suitable for conditions of use.
- .2 Ground Test Wells: [Schedule 80 PVC] [Steel] [Concrete] with cast iron lid. [Provide traffic-bearing types where applicable.].
- .3 Decorative Features: [_____].
- .4 Surge Protective Devices: Comply with UL 96A, UL 497, and UL 1449 as applicable.

3. EXECUTION

3.1 INSTALLER

- .1 Acceptable Installer:
 - .1 Dobbyn Lightning Protection, Calgary, AB
- .2 Substitutions: Firms with following qualifications will be considered in accordance with Division 00 and 01 requirements:

- .1 Regularly engaged in installation of lightning protection systems.
- .2 Five years of experience on work of this size and type.
- .3 Lightning Protection Institute-listed firm.
- .4 Employee certified as Master Installer by Lightning Protection Institute.

3.2 EXAMINATION

- .1 Verify that conditions are acceptable for work of this Section. Do not proceed until detrimental conditions are remediated.

3.3 PREPARATION

- .1 Existing Components to be Reused: Protect against damage or remove and store until reinstallation.

3.4 INSTALLATION

- .1 Scope
 - .1 Install lightning protection system on structure [and _____].
 - .2 [Comply with requirements for [flammable vapor, flammable gases, or liquids that give off flammable vapors] [explosive materials] [_____] [in areas indicated].]
- .3 Comply with Quality Assurance requirements.
- .4 To extent practical, locate components with sensitivity to architectural design.
- .5 Down Conductors: Locate [on building exterior] [on building interior]. Protect against damage in areas subject to disruption.

3.5 FIELD QUALITY CONTROL

- .1 Inspection Certificate: Provide either of following:
 - .1 Lightning Protection Institute Inspection Program certificate.
 - .2 Underwriters Laboratories certificate.
- .2 Installing contractor on certificate shall be same as name of Installer approved to perform work of this Section.
- .3 Provide as-built drawing.
- .4 [Test lightning protection grounding system to verify resistance reading of less than 50 Ω . Provide test results as part of close-out documentation.]

3.6 PROTECTION

- .1 Protect against damage by following construction activities.

END OF SECTION