SECTION 26 4100
FACILITY LIGHTNING PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Includes But Not Limited To:
   1. Furnish and install lightning protection system as described in Contract Documents.

B. Related Sections:
   1. Section 10 7429: Glass-Fiber-Reinforced Steeple.
   2. Section 10 7429: Aluminum Steeple / Tower.
   3. Section 26 0501: General Electrical Requirements.

1.2 REFERENCES

A. National Fire Protection Association / American National Standards Institute:
   1. NFPA / ANSI 780-2004, 'Installation of Lightning Protection Systems.'

1.3 SUBMITTALS

A. Product Data:
   1. Submit following information:
      a. Catalog Sheets.
      b. Assembly details or dimension drawings.
      c. Installation instructions.
      d. Manufacturer's name and catalog number.
      e. Name of local supplier.

B. Shop Drawings: Show layout of system on building, installation details, and items to be used in system.

1.4 QUALITY ASSURANCE


PART 2 - PRODUCTS

2.1 COMPONENTS

A. Lightning protection equipment provided under this Section shall be from same manufacturer.

B. Class One Quality Standards:
   1. Smooth weave copper cables, minimum 32 strands of 17 gauge: IPC No. 32S.
   2. Bronze ground clamps for 3/4 inch rod: IPC No. 28U.
3. 3/4 inch by 10 foot ground rods, copperweld: IPC No. 579.
4. Bonding Plate:
   b. Bronze for connection to steel steeple / tower elements: IPC No. 238B.
5. Pressure Cable Clamp: IPC No. 297A.
6. Copper Cable Fastener: IPC No. 121A.
7. Right Angle Through-Roof Connector: IPC No. 597X

2.2 MANUFACTURERS

A. Contact Information:
   8. Equal as approved by Architect before bidding. See Section 01 6000.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Interface With Other Work: Coordinate with steeple / tower fabricator.

B. Ground Rods:
   1. Drive ground rods 3 feet 900 mm minimum away from building or any part of building. Drive each rod until top is a minimum of one foot below finish grade.
   2. Connect cable to ground rods with ground clamps.
   3. Over each ground rod, install PVC inspection / access well with cover flush with finish grade.

C. Cable:
   1. Install lightning cable with continuous horizontal or downward course, free from down and up pockets.
   2. Radius of bends shall not be less than 8 inches 200 mm and never tighter than 90 degree angle.
   3. Install cable supports every 36 inches 900 mm along run through building using specified cable fasteners.

END OF SECTION