

SECTION 16532

COMMERCIAL BUSINESS STREET LIGHTING (HISTORIC)

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Exterior luminaries and accessories.
- B. Poles.

1.02 RELATED SECTIONS

- A. Section 03300 – Cast in place concrete: Foundations for poles.

1.03 REFERENCES

- A. ANSI C78.379 – Electric Lamps – High-Intensity Discharge Reflector Lamps – Classification of Beam Patterns.
- B. ANSI C82.1 – Ballasts for Fluorescence Lamp Specification.
- C. ANSI C82.4- Ballast for High Intensity Discharge.
- D. ANSI 05.1 – Specification and Dimensions for Wood Poles.
- E. IES RP-8 – Recommended Practices for Roadway Lighting.
- F. IES RP 20-Lighting for Parking Facilities.
- G. NFPA 70-National Electrical Code.

1.04 SUBMITTALS FOR REVIEW

- A. Shop drawings: Indicated dimensions and components for each luminaire that is not a standard product outlined in this document.
- B. Product Data: Provide dimensions, ratings, manufacturer, type and performance data.

1.05 SUBMITTALS FOR INFORMATION

- A. Test Reports: Indicate measures illumination levels.
- B. Submit manufacturer's installation instructions. Indicate application conditions and limitations of use stipulated by Product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, preparation, installation and starting of Products.
- C. Meet with Utility to determine location and connection of fixtures.

1.06 SUBMITTAL FOR CLOSEOUT

- A. Operation and Maintenance Data: Submittals for Project Closeout.
- B. Maintenance Data: Required for each luminaire.

1.07 REGULATORY REQUIREMENTS

- A. Conform to requirements of NFPA 70.
- B. Products: Listed by Underwriters Laboratories, Inc. and suitable for the purposes specified.

1.08 COORDINATION

- A. Coordinate with electrical contractor.
- B. Coordination with the Electric Utility.
- C. Receive approval by Civil Engineer for pole foundation.
- D. Furnish bolt templates and pole mounting accessories to installer / contractor of pole foundations.

PART 2 APPROVED PRODUCTS

2.01 LUMINARIE AND ACCESSORIES

- A. Provide Hadco Fixture # R54BANA2AGRG150SE (120 volt) Fixture to have a Acrylic highly Prismatic Globe and a minimum of 85 horizontal and 345 vertical prisms, with a ten year warranty from yellowing. Ballast Housing to be made of Die Cast Aluminum with a door in the housing to access a twistlock photocell receptacle and/or mount a optional GFI receptacle in Fixture to have a full top cutoff reflector with a houseside shield to provide a IES Type 3 roadway distribution when installed, or a IES Type 5 distribution when removed. Photometric shall be field adjustable between the two distribution patterns.
- B. Provide Double head bracket as Manufactured by Northwest Lighting Standards Part # SA20HCPP - Double - TT/3" O.D. 3" high. Slipover center arm bracket shall have provisions for a double 2 foot banner arm at 180 degrees mounted below fixture arms when specified.
- C. Pole to be Ameron Part # 26-ET-14-P-A5 Tenon-12 Finish-Acrylic Coating. Pole to be made of prestressed concrete with a minimum compression strength of 6000 PSI in 28 days. It shall be made of black aggregate throughout and sandblasted to have a exposed aggregate finish look.
- D. Accessories shall include double 2 foot banner arms specified above on the Arms described in item B above.

2.02 FLORESCENT BALLASTS

- A. Manufacturers:
 - 1. Magnatech Electric.
- B. Description: Low-temperature reactor ballast suitable for lamp specified.
- C. Voltage: 120 Volt.

- D. Source Quality Control: Certify ballast design and construction by Certified Ballast Manufacturers, Inc. or equal.

2.03 LAMPS

- A. High Pressure Sodium Lamp Manufacturers:
 - 1. Sylvania: Model LU100, Clear Lamp.
- B. Reflector Lamp Beam Patterns: ANSI C78.379.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Pole to be direct burial at locations indicated. Auger hole without disrupting the soil below butt of the pole. Do not dig pole hole with a backhoe, to minimize disruption of firm soil. Fill with sand around pole, tamped regularly while backfilling.
- B. Install poles plumb. Provide shims and double nuts to adjust to plumb.
- C. Install lamps in each luminaire.
- D. Bond luminaries and metal accessories to branch circuit equipment-grounding conductor. Provide supplementary grounding electrode or rod at each pole.

3.02 FIELD QUALITY CONTROL

- A. Operate each luminaire after installation and connection. Inspect for proper connections and operation.
- B. Test for photo-electric cell operation.

3.03 ADJUSTING

- A. Adjust luminaries to provide illumination levels and distribution as directed.
- B. Adjust photo-electric cell to operate correctly.

3.04 CLEANING

- A. Clean electrical parts to remove conductive and deleterious materials.
- B. Remove dirt and debris from enclosure.
- C. Clean photo-cell surface as recommended by the manufacturer.
- D. Clean finish and touch up damage.

3.05 PROTECTION OF FINISH WORK

- A. Relamp luminaries which have failed work at substantial completion.

END OF SECTION