

## SECTION 265616

### SITE LIGHTING

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

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

##### 1.2 RELATED SECTIONS

- A. Division 03 - Cast-in-Place Concrete: Foundations for poles.

##### 1.3 REFERENCES

- A. ANSI C78.379 - Electric Lamps - Incandescent and High-Intensity Discharge Reflector Lamps - Classification of Beam Patterns.
- B. ANSI C82.1 - Ballasts for Fluorescent Lamps - Specifications.
- C. ANSI/NFPA 70 - National Electrical Code.
- D. ANSI/IES RP-8 - Recommended Practice for Roadway Lighting.
- E. ANSI/IES RP-20 - Lighting for Parking Facilities.

##### 1.4 PERFORMANCE REQUIREMENTS

- A. Roadway: Provide illumination levels and uniformity to match the design intent as indicated on the Drawings.
- B. Parking Area: Provide illumination levels and uniformity to match the design intent as indicated on the Drawings.

##### 1.5 SUBMITTALS

- A. Shop Drawings: Indicate the dimensions and components for each luminaire which is not a standard product of the manufacturer.
- B. Product Data: Provide dimensions, ratings, and performance data.
- C. Design Data: Include lighting calculations based on the design shown.
- D. Manufacturer's Instructions: Include instructions for storage, handling, protection, examination, preparation, installation, and starting of product.

##### 1.6 PROJECT RECORD DOCUMENTS

- A. Accurately record actual locations of each luminaire.

##### 1.7 OPERATION AND MAINTENANCE DATA

- A. Maintenance Data: Include instructions for maintaining luminaires.

## 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under the provisions of Division 01.
- B. Accept products on site. Inspect for damage.
- C. Protect poles from finish damage by handling carefully.

## 1.9 COORDINATION

- A. Furnish bolt templates and pole mounting accessories to installer of pole foundations.

## 1.10 EXTRA MATERIALS

- A. Provide two of each lamp type and wattage installed.

# PART 2 PRODUCTS

## 2.1 LUMINAIRES

- A. Furnish products as specified in schedule on the Drawings.
- B. Substitutions: Under the provisions of Division 01. Where three or more manufacturers are shown substitutions will not be considered.

## 2.2 LAMPS

- A. Provide lamp type specified for the luminaire.
- B. Reflector Lamp Beam Patterns: ANSI C78.379.

## 2.3 POLES

- A. Shape, Material, and Finish: As specified on the drawings.
- B. Height: As indicated on the drawings.
- C. Accessories:
  - 1. Handhole.
- D. Loading Capacity Ratings:
  - 1. Steady Wind: 100 miles per hour, minimum.

# PART 3 EXECUTION

## 3.1 EXAMINATION

- A. Examine excavation and concrete foundation for the lighting poles.
- B. Examine each luminaire to determine suitability for the lamps specified.

## 3.2 INSTALLATION

- A. Install in accordance with the manufacturers' instructions.
- B. Install lighting poles at the locations indicated.

- C. Install the poles plumb. Provide shims and double nuts to adjust plumb. Grout around each base. Refer to base details on drawings.
- D. Install lamps in each luminaire.
- E. Bond the luminaires, metal accessories, and metal poles to branch circuit equipment grounding conductor. Provide supplementary grounding electrode at each pole.

### 3.3 FIELD QUALITY CONTROL

- A. Operate each luminaire after installation and connection. Inspect for improper connections and operation.
- B. Measure illumination levels to verify conformance with performance requirements.
- C. Take measurements during the night sky, without moon or with heavy overcast clouds effectively obscuring moon.

### 3.4 ADJUSTING

- A. Aim and adjust luminaires to provide illumination levels and distribution as directed.
- B. Relamp luminaires which have failed lamps at Date of Substantial Completion.

### 3.5 CLEANING

- A. Clean electrical parts to remove conductive and deleterious materials.
- B. Remove dirt and debris from enclosure.
- C. Clean photometric control surfaces as recommended by the manufacturer.
- D. Clean finishes and touch up damage.

END OF SECTION