

SECTION 16531

COMMERCIAL / INDUSTRIAL STREET LIGHTING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Exterior commercial and industrial lighting 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 - Incandescent and High-Intensity Discharge Reflector Lamps - Classification of Beam Patterns.
- B. IES RP-8 - Recommended Practice for Roadway Lighting.
- C. IES RP-20 - Lighting for Parking Facilities.
- D. NFPA 70 - National Electrical Code.

1.04 SUBMITTALS FOR REVIEW

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

1.05 COORDINATION

- A. Coordinate with electric contractor.
- B. Coordination with the Heber Light and Power.
- 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 MANUFACTURER & MODEL

- A. Holophane – LaneVue LED
- B. American Electric Lighting – Autobahn Series (ATB2)

2.02 FIXTURE REQUIREMENTS

- A. Bulb: LED, 60B Chips, 700 mA Driver, Multivolt 120-277v
- B. Fixture Head Type: Full Cutoff
- C. Fixture Style: Arm mounted (8 ft Arms)
- D. Voltage: 120 Volt
- E. Head:, Asymmetric Type III
- F. Temperature: 3000K
- G. Photocell: 7 Pin Photo Control Receptacle, Field Adjustable Output, Solid State Long Life Photo Control
- H. Mounting Condition: Provide break-a-way pole and pole mount bracket.
- I. Pole: As required in this schedule.

2.03 POLES

- A. Height: 30 feet
- B. Material: Aluminum
- C. Color: Dark / Black
- D. Shape: Tapered / Round
- E. Base: Concrete / Bolted
- F. Loading Capacity Ratings:
 - 1. 100 Pounds.
 - 2. Steady Wind: 90 MPH minimum.
- G. Installation Conditions: Outdoor Use Only.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Provide concrete bases for lighting poles at intersections and cul-de-sac's or as shown on the plans. All concrete shall be a minimum of 6 feet below finished grade.
- B. Install poles plumb. Provide shims and double nuts to adjust to plumb.
- C. Install all components according to manufacturer recommendations.
- D. Install conduit and secondary boxes according to Heber Light and Power specifications.

3.02 FIELD QUALITY CONTROL

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

3.03 ADJUSTING

- A. Aim and adjust light 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 surfaces as recommended by manufacturer.
- D. Clean finishes and touch up damage.

3.05 PROTECTION OF FINISHED WORK

- A. Re-lamp lights which have failed Final Completion.

3.06 LIGHTING LOCATION

A. 66 foot or 66 foot Right-of-Way

- 1. Location: In planter strip or, if combination sidewalk, one foot behind sidewalk.
- 2. Spacing: 150' to 250' on one side. Spacing can double to 300' to 500' on one side if alternating on both sides.

At each intersection, cul-de-sac, and other critical points as determined by the City Engineer.

B. 72 foot Right-of-Way

- 1. Location: In planter strip, if combination sidewalk, one foot behind sidewalk.
- 2. Spacing: 150' to 250' on one side. Spacing can double to 300' to 500' on one side if alternating on both sides.

At each intersection, cul-de-sac, and other critical points as determined by the City Engineer.

END OF SECTION