

SECTION 16530

RESIDENTIAL STREET LIGHTING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Exterior 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 – 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. IES RP-8 – Recommended Practices for Roadway Lighting.
- E. NFPA 70-National Electrical Code.

1.04 SUBMITTALS FOR REVIEW

- A. Shop drawings: Indicated dimensions and components for each light that is not a standard product outlined in this document.

1.05 COORDINATION

- A. Coordinate with electrical contractor.
- B. Coordination with Heber Light and Power.
- C. Furnish bolt templates and pole mounting accessories to installer / contractor of pole foundations.

PART 2 APPROVED PRODUCTS

2.01 MANUFACTURES

- A. Holophane – Washington Series or Hadco R54BANA Series.
- B. Holophane – Esplande Pedestrian Series or Hadco TF8 Teardrop Series.

2.02 FIXTURE REQUIREMENTS

- A. Bulb: High Pressure Sodium 70 Watt Max

- B. Fixture Head Type: Cutoff with full top aluminum reflector
- C. Fixture Style: Washington Acorn or Teardrop
- D. Voltage: 120 Volt
- E. Head: Glass or Acrylic
- F. Ballast: Toolless replacement and interchangeable
- G. Photocell: Twistlock
- H. Mounting Condition: Sonotube with J bolts or screw in light pole base. AB Chance Model T1120566 installed per manufacturer recommendations.
- I. Pole: As required in this schedule.

2.03 POLES

- A. Height: 14 feet
- B. Material: Aluminum or Concrete, non-direct burial type
- C. Color: Dark / Black
- D. Shape: Fluted or smooth
- E. Base: Decorative style, 15 inch minimum height
- F. Loading Capacity Ratings:
 - 1. 100 Pounds.
 - 2. Steady Wind: 90 MPH minimum.

2.04 CONDUIT

- A. One inch PVC scheduled 90 electrical (gray) conduit.

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 36" below finished grade.
- B. Install poles plumb. Provide shims and double nuts to adjust to plumb.
- C. Install conduit at a minimum burial depth of 24" from the secondary J-box or transformer secondary compartment, as appropriate, to the street light mounting base for each street light location.

3.02 FIELD QUALITY CONTROL

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

3.03 ADJUSTING

- A. 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 surface as recommended by the manufacturer.
- D. Clean finish and touch up damage.

3.05 PROTECTION OF FINISHED WORK

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

3.06 LIGHTING LOCATION

- A. 60 and 66 foot Right-of-Way
 - 1. Location: In planter strip or if combination sidewalk, 1 one foot behind sidewalk.
 - 2. Spacing: At each intersection, cul-de-sac, and other critical point as determined by the City Engineer. 300' minimum to 325' maximum.
- B. 72 foot Right- of -Way
 - 1. Location: In planter strip or one foot behind sidewalk as indicated by drawings, and other critical point as determined by the City Engineer.
 - 2. Spacing: At each intersection, cul-de-sac, and other critical point as determined by the City Engineer.

END OF SECTION