# Section 260000 Site Electrical

(This Section is only partially complete. Consultant shall provide all applicable 260000 series Sections specific to the project scope.)

### **PART 1 - GENERAL**

## 1.01 General Requirements

- A. The requirements set forth in the General Conditions shall be in addition to the standards provided herein.
- B. The requirements set forth in the Special Conditions shall be in addition to the standards provided herein.
- C. The standards set forth in the City of Roseville Design and Construction Standards, latest edition and requirements outlined by the City of Roseville Electric Department shall be in addition to the standards provided herein.
- D. The standards set forth in the latest edition of the California Electrical Code (CEC), incorporating the latest edition of the NEC with City of Roseville amendments shall be in addition to the standards provided herein.

### 1.02 Description

- A. Furnish all labor, materials and equipment for the complete installation of site electrical as shown in the Plans and as specified herein.
- B. Submittals shall be required for requested substitutions or plan deviations **ONLY**. The Contractor shall install all specified electrical fixtures, poles and equipment, unless otherwise accepted and determined as an equivalent.

### 1.03 References

A. Conform to requirements outlined in the latest editions of the National Electrical Code (NEC), California Administrative Code (Title 24), Uniform Building Code (UBC), California Administrative Code (Title 22) and other applicable codes.

## 1.04 Record Drawings

A. Record drawings are required as a part of this work. At all times, the Contractor shall maintain accurate information of the work in progress. Deviation in layout of conduit or other materials shall be recorded to the satisfaction of the Inspector. Upon completion of the project, as-builts shall be submitted to the City on reproducible plan sheets and shall depict all changes in a neat and legible manner.

### **PART 2 - PRODUCTS**

### 2.01 Service Panel Enclosure

A. Service panel enclosure shall be Tesco # 24-200-LB or an equal accepted by the City's Electric Department. Contact the City of Roseville Electric Department at (916) 774-5600 for a copy of the City's "Metered Service Pedestal Requirements".

## 2.02 Mechanical Time Clock and Photocell (For all lighting except sports fields/courts)

- A. Mechanical time clock shall be model #T-102, 120 volts 60 Hz, 5 AMPS per pole with manual override and photocell by Intermatic or accepted equal.
- B. Provide a minimum of four (4) spare wires per timer.

#### 2.03 Card Reader

A. Provide GFI electrical outlet inside enclosure with card reader.

### 2.04 Conduit and Fittings

- A. Per City of Roseville Electric Department's Specifications for Commercial Construction, latest edition for primaries (12,000 volt).
- B. All other conduit and fittings shall conform to the National Electric Code, latest edition.

## 2.05 Wires and Cables

A. Conform to the National Electric Code, latest edition.

#### 2.06 Wire Connections and Devices

- A. Conform to the National Electric Code, latest edition.
- B. Low voltage wires, cables and connectors shall be...

## 2.07 Outlet Boxes

- A. <u>Cast Metal boxes</u> shall be cadmium plated, cast iron alloy by Crouse-Hinds Form 8 condulets, Appleton Form 35 Unilets or accepted equal.
- B. <u>Cast Metal Outlet boxes</u> shall be four inch (4") round, galvanized cast iron alloy with threaded hubs and mounting lugs as required. Boxes shall be furnished with cast cover plates of the same material as the box and neoprene gaskets by Crouse-Hinds VXF series, Appleton JBX series or accepted equal.

## 2.08 Pull and Junction Boxes

A. Per City of Roseville Electric Department's Specifications for Commercial Construction, latest edition.

## 2.09 Parts Identification

A. Consistent with the City of Roseville Electric Department's Specifications for Commercial Construction, latest edition.

# 2.10 Electrical Support Equipment

- A. <u>Concrete Fasteners</u> shall be Philips "Red-Head" or accepted equal. Powder driven concrete pin fasteners, low velocity type shall be Remington, Ramset or accepted equal.
- B. <u>Conduit Straps</u> shall be hot dipped galvanized, cast malleable iron, one hole type strap with cast clamp-backs and spacers (as required) by O-Z/Gedney No. 15-50G strap and #14G spacer, Efcor No. 231 strap and No.131 spacer or accepted equal.
- C. <u>Concrete Inserts</u> shall be pressed galvanized steel, spot insert with oval slot capable of accepting support nuts of ¼ inch to ½ inch diameter thread by Unistrut No. M2506 series, Globestrut CSI series or accepted equal.
- D. <u>Construction Channel</u> shall be 1-1/2 inch by 1-1/2 inch 12 gauge galvanized steel channel with 17/32 inch diameter bolt holes, 1-1/2 inch on center, in the base of the channel by Kindorf 905 series, Unistrut P-1000-HS or accepted equal.
- E. <u>Cable Ties and Clamps</u> shall be one piece, nylon, reusable type lashing ties by Thomas and Betts Co "Ty-Raps", Panduit "Pan-Ty" or accepted equal.

- F. <u>General Fasteners</u> shall be wood screws for fastening to work; machine screws for fastening to steel; toggle bolts for fastening to gypsum board or plaster walls; expansion anchors for attachments to pre-poured concrete.
- G. <u>GFI Outlet Cover</u> shall be metal, lockable, and flush with the surface it is installed in. Cover must conform to the National Electric Code, latest edition.

### 2.11 Fixtures and Poles

- A. Parking Lot lights shall be:
- B. Pathway/Security lights shall be:
  - High Pressure Sodium: Hadco R54 B B N N 1 A T R G 100S E or accepted equal
  - 2. LED: Hadco RL54 B B N N 1 A R 4K L55 N or accepted equal
  - McGraw-Edison Traditionaire #TR1324-12OR luminaire twist lock photocell or accepted equal.
  - 4. Pod: die-cast aluminum housing with tool-less access.
  - 5. Globe: clear prismatic injection molded U.V. stabilized acrylic.
  - 6. Symmetric photometric distribution,
  - 7. Rated 120 volts
  - 8. Photocell on/off control
  - Manual on/off override for photocell shall be installed in Tesco enclosure.
- C. Poles shall be:
  - 1. Whatley: RT34-14 BLK DE TXT 30-30 or accepted equal
  - 2. Fiberglass, direct burial
  - 3. Aluminum with polyurethane factory black finish;
  - 4. 16' mounting height;
  - 5. Integral base.

### **PART 3 - EXECUTION**

### 3.01 Installation

- A. Install (luminaire and poles) in accordance to manufacturer's instructions.
- B. Ensure proper handling and installation of fixtures including hardware necessary for a complete installation. Fixtures (luminaire and poles) shall be clean, plumb and level.
- C. All lamps shall be new and in operating condition. New lamps shall have less than 100 hours of operation on-site.

- D. All splices in exterior fixtures or fixture outlet boxes shall be made watertight, using specified epoxy resin splicing kits.
- E. Operate the entire system, once complete, in the presence of the Inspector. Immediately correct any improper connections or other items.
- F. Install concrete collars around light poles. Concrete collars shall be per the Parks Construction Standards, latest edition.

## 3.02 Clean Up

- A. At all times, maintain a safe and clean work site, free of debris and rubbish.
- B. All electrical parts shall be clean of conductive and deleterious materials.
- C. All enclosures shall be free of dirt and debris.
- D. Clean all finishes and touch up damaged areas prior to pre-final inspection.

## 3.03 Consultant to complete.

## **END OF SECTION**