

**Supplemental Specification
2017 Standard Specification Book**

SECTION 02892M

TRAFFIC SIGNAL

Delete Article 2.3, Paragraph A and replace with the following:

- A. Power Service/Lighting Conductors
 - 1. Refer to Section 16530
 - 2. Stranded copper conductors only
 - 3. Conductors sized per NEC (minimum 10 AWG RHH RHW-2, XLP USE-2 or approved equivalent)
 - a. Power Service Conductors
 - 1) Continuous red insulation color for AC+
 - 2) Continuous white insulation color for neutral
 - b. Lighting conductors (240 Volt unless specified otherwise)
 - 1) Continuous blue insulation color for AC+
 - 2) Continuous white insulation color for neutral

Delete Article 2.3, Paragraph C and replace with the following:

- C. Bonding/Grounding Cable
 - 1. Size bonding wire according to NEC article 250 (minimum 6 AWG, copper, solid, bare, soft-drawn)

Add the following to Article 2.3, Paragraph D Radar Detection Cable:

- 2. 2-Conductor 14 AWG shielded Loop Home Run Cable conforming to IMSA 50-2 specifications

Delete Article 2.6, Subparagraph B4 and replace with the following:

- 4. Enclose supporting circuitry within the button with wiring to the push button terminated on two ¼ inch - 20 brass screw terminals

Delete Article 3.16, Paragraph B and replace with the following:

- B. Bonding Conductor (Ground)
 - 1. Run continuously and bond to each metal signal pole or luminaire pole.
 - 2. Attach one wire around the signal pole base bolt with a washer. Each additional wire will be attached with a split-bolt.
 - 3. Bond the grounding system conductor to the ground rod in each junction box where 50 V or greater is present.
 - a. Ground rod clamps (acorns) are required for connecting the bond/ground wire to the ground rod.
 - b. Only (1) wire per clamp is allowed. Only (1) clamp per ground rod is allowed.
 - c. Combine additional wires using split-bolts.
 - d. Wire terminal busses of any type are not allowed in signal related junction boxes or poles.

Add the following to Article 3.22 Install Radar Detection:

- B. Install auxiliary ground wire from all stop bar radar units to the signal cabinet (not needed for dilemma zone or extended radar detection).
 - 1. Provide 12 AWG, stranded, green insulated, UV rated wire.
 - 2. Attach wire to the radar unit exterior grounding lug with forked spade and to the grounding bus in signal cabinet.
 - 3. Auxiliary ground wire may be spliced at the radar unit home-run splice point within the splice kit. Ground wires may be combined at splice points to maintain one ground wire per roadway crossing.

- C. Install an auxiliary power cable to limit voltage drop, for radar unit installations over 500 feet from the signal cabinet (as measured by cable length).
 - 1. Provide a 2-conductor 14 AWG, IMSA 50-2 cable.
 - 2. Do not use power wires (RED and BLACK) from the manufacturer recommended multi-wire cable.
 - 3. Land the auxiliary power cable at the cabinet and splice point as follows:
 - a. Black to Black radar unit port/wire.
 - b. Clear to Red radar unit port/wire.