**SPP2925 (01-01-21) *(Use this Section only when subsections .42 is used)***

***(Follow all instructions. If there are no instructions above a subsection, paragraph, sentence or bullet, then include them in the project but make necessary modifications to only include project specific specifications. Delete specifications that do not apply to the project. Remove all instructions before preparing the final document.)***

### Section 02925 - Traffic Signal Materials

Comply with Section 02925 of the Standard Specifications modified as follows:

***(Use the following subsection .42 when traffic signal control devices are required. Obtain information from the Signal Designer.)***

**02925.42 Traffic Signal Control Devices** - Add the following to the end of this subsection:

The 2001 Oregon Department of Transportation Standard Specifications for Microcomputer Signal Controller shall be additionally modified and supplemented as follows:

***(Use the following for all signal cabinets.)***

3.1.6.1 Replace "15 amps" with "10 amps"

***(Use the following when auxiliary files are needed in Model 332 cabinets.)***

6.1.1.1 Add the following to the listed items: Auxiliary output file

***(Use the following when auxiliary files are needed in Model 334 cabinets.)***

6.1.1.2 Add the following to the listed items: Auxiliary output file

***(Use the following if a Model 400 modem is not required in Model 332 or 334 cabinets.)***

6.1.1.4 In the first sentence, remove "with Model 400 Modem".

***(Use the following when Model 332, 334, 336, 336S, 340, or 344 cabinets are used.)***

6.4.2.5.7.1 Replace all with the following:

 The Model 206 Power Supply Module shall comply with the California Department of Transportation TEES 2009 model 206L.

***(Use the following when Model 332 or 334 cabinets are used.)***

6.5.2.1 Replace the last sentence with the following:

All spade connectors on wires connecting to the input panel (terminal blocks TB1 through TB10 and DC ground bus) and/or input files (terminal blocks T1 through T15) shall be crimped and soldered to the wires.

***(Use the following when auxiliary files are needed in Model 336s intersection cabinets.)***

7.1.1.1 Add the following to the listed items: Auxiliary output file

***(Use the following when auxiliary files are needed in Model 336S ramp meter cabinets.)***

7.1.1.2 Add the following to the listed items: Auxiliary output file

***(Use the following if a Model 400 modem is not required in Model 336 or 336S cabinets.)***

7.1.1.4 In the first sentence, remove "with Model 400 Modem".

***(Use the following when Model 336 or 336S cabinets are used.)***

7.5.2.1 Replace the last sentence with the following:

All spade connectors on wires connecting to the input panel (terminal blocks TB1, TB2, and DC ground bus) and/or input files (terminal blocks T1 through T15) shall be crimped and soldered to the wires.

***(Use the following Chapter 8, Section 3 on projects with phone equipped cabinets. Choose either phone line or cellular phone line. Delete the method that does not apply.)***

Add the following new Section to Chapter 8:

**SECTION 3 - TELEPHONE EQUIPPED CABINETS**

8.3.1 **General Requirements**

***(Use the following 8.3.1.1 and 8.3.1.2 for cellular phone lines.)***

8.3.1.1 Provide and install equipment as shown on Standard Drawing TM423, (Telephone equipped cabinet). Use the following amended parts list:

MC 480 installation kit - #FLN3181

Cellular connector - #S1936C

Transceiver- #19024NAASC.

8.3.1.2 Cellular phone shall have local phone number for the "Installed Signal" location.

***(Use the following 8.3.1.1 for phone lines (non-cellular).)***

8.3.1.1 Data transmission between the controller and the remote control locations shall be by standard dial-up telephone line. Transmission rate shall support a variable transmission rate determined by autosyncing of the modem. The modem shall operate with the controller at any speed or settings the modem establishes with the external source. The remote station shall have a dial-up telephone line at the remote control. Provide one auto-dial/auto-answer external modem (28,000 bps minimum) for the controller.

***(Use the following lead-in paragraph and Chapter 9 on projects when 2070L controllers are required.)***

Add/Replace Chapter 9 as follows:

**CHAPTER 9**

**SPECIFICATIONS FOR MODEL 2070 CONTROLLER UNIT**

**SECTION 1 – GENERAL REQUIREMENTS**

9.1.1 **Unit Chassis**

9.1.1.1 The 2070L Controller shall consist of a 2070 Chassis meeting the following requirements:

 1. Lite Cage

 2. 2070-1B CPU Module

 3. 2070-2A C1 and C11 Field I/O Connector Module

 4. 2070-4A or 4B Power Supply Module

 5. 2070-3B 8x40 LCD Display Module

 6. Two 2Mb Data Key

 7. 2070-6B Modem

9.1.2 **Controller and Module**

9.1.2.1 The 2070L Controller and module shall meet the following specifications:

 1. Caltrans 2009 TEES, March 12, 2009.

 4. Caltrans 2009 TEES Errata 1, January 21, 2010.

 4. OS-9 Operating System version 3.3 (Ethernet Capable)

5. Controller Boot Code Compatible with NW Signal Voyage Controller Firmware and all included features

 6. Tested and approved Boot Codes are:

 a. Econolite - Boot Code V1.3.0.0.923 or later approved version.

b. Simens/Eagle - Boot Code 7.0.0.0.19 or later

c. McCain - Boot Code 1.1.0.4.0.0

9.1.2.2 The City of Portland’s current version of NWS Voyage Software shall be installed at the Traffic Systems Service Unit of the Oregon Department of Transportation.