

STATE OF OREGON

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISIONS

FOR

Traffic Signals

SP-23-03 ALBANY SIGNAL UPGRADES

CONSOLIDATED SPECIAL PROVISIONS

The preparer of the consolidated special provisions for this Project:

By: Todd E. Mobley, PE on behalf of Lancaster Mobley


Date: March 15, 2024

STATE OF OREGON
DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS
FOR

Traffic Signal Modification
SP-23-03 ALBANY SIGNAL UPGRADES

Albany	City
Linn	County

PROFESSIONAL OF RECORD CERTIFICATION(s):

<p>Seal w/signature</p> <div style="text-align: center;"><p>REGISTERED PROFESSIONAL ENGINEER 54853</p><p>OREGON JULY 9, 2001 TODD E. MOBLEY</p><p>EXPIRES 12/31/2024</p></div>	<p>Signing as the Professional of Record for the Special Provisions sections listed below:</p> <p>Section <u>00960, 00962, 00990</u></p>
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SECTION 00960 - COMMON PROVISIONS FOR ELECTRICAL SYSTEMS

Comply with Section 00960 of the Standard Specifications modified as follows:

00960.30 Licensed Electricians – Replace this subsection, except for the subsection number and title, with the following:

According to the Oregon Administrative Rule 918-282-0120(1), no person or Entity shall allow any individual to perform electrical work for which the individual is not properly registered or licensed. Every person who installs electrical systems on the Project shall submit a copy of their electrical license or apprentice registration to the Engineer prior to performing any Work. They must be licensed as an S or a J under Oregon Administrative Rule 918-282-0140 or 918-282-0170.

Add the following subsection:

00960.42(d) Connecting Non-Metallic Conduit to Metallic Conduit - Use a nonmetallic female threaded connector to connect nonmetallic conduit to metallic conduit.

Add the following subsection:

00960.42(f) Conduit on Structures - Install conduit according to 00583.40.

SECTION 00962 - METAL ILLUMINATION AND TRAFFIC SIGNAL SUPPORTS

Comply with Section 00962 of the Standard Specifications.

SECTION 00990 - TRAFFIC SIGNALS

Comply with Section 00990 of the Standard Specifications modified as follows:

Add the following subsection:

00990.10 Materials - Furnish backer rod materials meeting the requirements of 02440.14. Furnish hot-melt loop sealant from the QPL.

Add the following subsection:

00990.40 Work in Existing Controller Cabinets - Install new field wiring as shown into the existing controller cabinet without terminating.

New control equipment installed as shown in an existing controller cabinet will be tested prior to installation according to 00990.70.

At existing controller cabinets the Agency will be responsible for:

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- Storage, delivery, installation, and activation of new control equipment
- Any required modifications to existing control equipment or existing field wiring terminations
- Terminating new field wiring

Prior to the anticipated installation of new control equipment, modification of existing control equipment, or modification of existing field wiring terminations, schedule field testing according to 00990.70(g). Field testing and activation of the new control equipment or modifications will occur within the same work shift. Be present at the Project Site during field testing.

Add the following subsection:

00990.41 Inductive Loop Detectors:

(a) General - Do not begin sawcutting until the loop layout has been inspected by the Engineer.

Do not place wire in sawcuts until the cuts have been inspected by the Engineer.

(b) Saw Cut and Wire Installation - Sawcut in a manner that is the most practicable, direct line between loops and junction boxes.

Immediately after sawcutting and before the cuttings dry, thoroughly flush each cut with a high-pressure water stream. Before the cuts dry, blow cuts free of water, debris, rock, and grit with compressed air. Slots may also be cleaned by means of a high-pressure water injection/vacuum extraction system. Remove rocks or other material that may be wedged in the cut. Remove and dispose of all cuttings according to 00290.20.

Dry cuts before placing wire.

After the sawcut is cleaned of debris, place the loop wire by pushing it into the slot with a blunt nonmetallic object. Use care to avoid damaging the insulation.

(c) Sealant - Install the sealant in slots according to the manufacturer's instructions. Furnish a copy of the manufacturer's specifications including application procedures. The Engineer may order a test run of any application method or material before filling sawcuts.

In order to prevent heat damage to the insulation, do not allow the temperature of the sealant to exceed 410 °F during application. Install hot-melt sealants in layers to prevent damage to wire insulation. Allow each layer to cool before the next layer is installed. Do not use water to accelerate cooling.

Sealants that crack or pull away from the sawcuts after curing will be rejected.

(d) Resistance and Continuity Testing - The resistance to ground of the loop and loop feeder combinations, shall be 500 MΩ or greater when checked at the following conditions:

- Before splicing and sealing - continuity test
- Before splicing after sealing - resistance test

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- After splicing and sealing - resistance test

Furnish a report of the resistance and continuity results for each loop at each testing condition.

Add the following subsection:

00990.42(b) Loop Feeder Cables – When terminating loop feeder cable inside the controller cabinet, do not remove the outside jacket and shield more than 6 inches from the end of the cable. Crimp lugs used for loop wire field terminals may be insulated or non-insulated. Terminate loop feeder shield drain wire to the cabinet input panel grounding bus nearest the feeder wire termination point.

Add the following subsection:

00990.45 Repair Open Holes In Metal Poles, Pedestals, and Mast Arms – Repair holes in metal poles, pedestals, and mast arms caused by removal of equipment using pipe plugs. For holes larger than 1 inch in diameter or of irregular shape, submit method and materials to be used.

00990.90 Payment -

In the paragraph that begins “No separate or additional payment will be...”, add the following bullet to the bullet list:

- Conduit installed according to 00960.42(f)