

SP225 (06-0409-17-09)

(This Section requires SP2110. Requires SP440 when temporary traffic signals are required.)

(NOTE: All Federal-aid projects, including local government projects, that are advertised and awarded by ODOT require "Method 'A' Unit Basis" measurement [see Standard Specifications 00225.80].)

SECTION 00225 - WORK ZONE TRAFFIC CONTROL

(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.)

Comply with Section 00225 of the Standard Specifications modified as follows:

00225.02 General Requirements - Add the following after the last paragraph of this subsection:

(Use one of the following two paragraphs as indicated below. Delete the one that does not apply. Fill in the blank.)

[Paragraph 1 - Use this paragraph on all ODOT-identified economic stimulus projects.]

Install a Type "W8" "PUTTING OREGON BACK TO WORK" (CG20-8S-48) sign with a "KEEPING OREGON ON THE MOVE" rider on the _____ Highway, according to sign spacing "A" from the "TCD Spacing Table" shown on the standard drawings, in advance of the "ROAD WORK AHEAD" sign at each end of the Project, facing incoming traffic.

[Paragraph 2 - Use this paragraph on all other ODOT projects that have an engineer's estimate of \$1 million or more, and duration longer than one month, and an ADT of 2,000 or higher.]

Install a Type "W8" "PROJECT IDENTIFICATION" (CG20-8-48) sign with a "KEEPING OREGON ON THE MOVE" rider on the _____ Highway, according to sign spacing "A" from the "TCD Spacing Table" shown on the standard drawings, in advance of the "ROAD WORK AHEAD" sign at each end of the Project, facing incoming traffic. The Engineer will determine the sign legend.

(Fill in the blanks with the appropriate information.)

Install a "ROAD WORK AHEAD" (W20-1-48) sign with "FINES DOUBLE" (R2-6-36) rider on the _____ Highway, according to sign spacing "A" from the "TCD Spacing Table" shown on the standard drawings. Also, install an "END ROAD WORK" (CG20-2A-24) sign approximately 500 feet beyond each end of the Project, facing outgoing traffic. When mounting signs on concrete barrier in median areas, do not install the sign flag boards on the "FINES DOUBLE" rider or on the "ROAD WORK AHEAD" signs.

(Use the following paragraph when it is necessary to reduce the overall roadway width between positive barriers [for example: concrete barrier, guardrail, and falsework] to less than 19 feet.)

When the horizontal clearance for the roadway is less than 19 feet, install horizontal clearance (CW21-12-48) signs, identifying the narrowest width of the roadway. Locate these horizontal clearance signs as shown or as directed.

(Use the following paragraph when it is necessary to reduce the overall vertical clearance to less than 15 feet 3 inches.)

When the vertical clearance is less than 15 feet 3 inches, install low clearance (W12-2-48) and (OW12-2-36) signs. The clearance shown on the signs shall be 4 inches less than the shortest height of the opening. Locate these low clearance signs as shown or as directed.

(Use the following paragraph on all freeway projects.)

Install two sign flag boards above the "ROAD WORK NEXT XX MILES" and the initial "BRIDGE/ROAD WORK AHEAD" post mounted signs as shown on the standard drawings. When mounting signs on concrete barrier in median areas, do not install the sign flag boards on the initial "BRIDGE/ROAD WORK AHEAD" sign.

00225.05 Contractor Traffic Control Plan - Replace this subsection, except for the subsection number and title, with the following:

The Contractor will be allowed to use the Agency's TCP, modify the Agency's TCP, or use a different TCP. Submit the following, for approval, five calendar days before the preconstruction conference:

(a) Agency or Contractor TCP - If the Agency's TCP is used without modification, a written notification indicating that the Agency's TCP will be used without modification.

If the Contractor will be using a modified Agency TCP, or if the Contractor will not be using the Agency TCP, include the following:

- Proposed TCP showing all TCM and quantities of all TCD.
- Proposed order and duration of the TCM.
- A detailed temporary striping plan.

(b) Tourist-Oriented Directional (TOD) and Business Logo Signs - Two copies of a sketch map of the Project showing all existing tourist-oriented directional (TOD) and business logo signs and a written narrative describing how these signs will be kept in service and protected throughout all the construction stages.

If there are no TOD signs on the project, a written notification that no TOD signs exist within the project limits.

(Use the following subsection .11 when the completion time is less than eight months after the bid opening date and on traffic signal, illumination, landscaping, or other projects when temporary signing duration will be limited.)

00225.11 Temporary Signing - Replace the sentence that begins "Furnish new or acceptable temporary signs..." with the following sentence:

Furnish temporary signs meeting the requirements of the "Acceptable" category shown in the American Traffic Safety Services Association (ATSSA) "Quality Standards For Work Zone Traffic Control Devices" handbook and the following:

Add the following subsection:

~~**00225.11(a-5) Light-Weight Sign Substrate** - Use light-weight sign substrates from the QPL.~~

(Use the following subsection .11(b-5) when perforated square tube sign supports are required.)

00225.11(b-5) Square Tube Sign Supports - Replace this subsection with the following subsection:

00225.11(b-5) Perforated Steel Square Tube Sign Supports - Use perforated steel square tube sign supports from the QPL and as shown on the standard drawings.

00225.13(d) Plastic Drums - Replace the sentence that begins "Provide drums with..." with the following sentence:

Use retroreflective drum sheeting meeting the requirements of ASTM D 4956 Type III or Type IV.

(Use the following lead-in sentence and subsection .18 when automated flagger assistance devices are required. Note: Be sure the Designer includes Standard Detail DET4700 in the TCP when AFAD's are required.)

Add the following subsection:

00225.18 Automated Flagger Assistance Device - Furnish an automated flagger assistance device (AFAD) from the QPL.

(Use the following subsection .32 when there is a pay item for a traffic control supervisor.)

00225.32 Traffic Control Supervisor - Replace the bullet that begins "Prepare and sign a daily..." with the following bullet:

- Prepare and sign a "TP & DT Daily Report" form (Form No. 734-2474). Submit the report to the Engineer no later than the end of the next working day. As a minimum, include the following items in the report:

(Use the following lead-in sentence and subsection .35 when automated flagger assistance devices are required.)

Add the following subsection:

00225.35 Automated Flagger Assistance Device Operator - Provide a flagger, who has been trained in the operation of AFAD's, to operate the device. The operator shall attend the AFAD at all times during the operation of the device. The AFAD operator shall not flag traffic and operate an AFAD at the same time.

(Use the following subsection .41(b-5) when perforated square tube sign supports are required.)

00225.41(b-5) Square Tube Sign Supports - Replace this subsection with the following subsection:

00225.41(b-5) Perforated Steel Square Tube Sign Supports - Perforated steel square tube sign supports may be used as a substitute for wood sign posts. Install perforated steel square tube sign supports as shown on the standard drawings.

(Use the following subsection .42(c) when concrete barrier is required.)

00225.42(c) Concrete Barrier - In the flare rate table, replace the 45 mph and the 40 mph lines with the following lines:

45	12:1
40	10:1

(Use the following subsection .43(g) when striping is required on new bridge decks.)

00225.43(g) Temporary Striping - Add the following paragraph after the first paragraph:

For temporary striping on new bridge deck surfaces, use temporary removable tape.

(Use the following lead-in paragraph and subsection .43(j) when pavement legends or pavement bars are required.)

Add the following subsection:

00225.43(j) Pavement Legends and Bars - Before opening roadways to traffic, unless otherwise allowed, apply temporary pavement legends and bars on pavement base courses at locations designated. Apply bead binder at a thickness of 15 mils wet and glass beads at a rate of 5 pounds per gallon of paint.

(Use the following lead-in sentence and subsection .50 when automated flagger assistance devices are required.)

Add the following subsection:

00225.50 Automated Flagger Assistance Device - Install and operate the AFAD to safely stop and control traffic through the work zone. Position the AFAD operator's control location a safe distance from traffic. Install the AFAD according to the details shown. Use the AFAD according to manufacturer's recommendations. Do not use the AFAD to control more than one lane of approaching traffic. Provide illumination when used during nighttime hours. Do not use an AFAD to replace a continuously operating temporary traffic control signal. The Engineer may order adjustments to the operation of the AFAD or substitute flagging for the AFAD based on traffic delay, field conditions, and safety concerns. When providing AFAD for both directions of traffic, use AFAD's of the same type and from the same manufacturer. When the AFAD is not in use during a work shift, turn it off or switch the yellow lens to flash mode and cover or remove all accompanying signing. When the AFAD is not in use for more than one work shift, remove it and all accompanying signing from the roadway.

(Use the following subsection .62(b) when impact attenuators are required.)

00225.62(b) Temporary Impact Attenuators - Replace the paragraph that begins "When impact attenuator..." with the following paragraph:

When impact attenuator, truck mounted attenuator, or narrow site attenuator systems are used, have enough modules, cartridges, components, and replacement parts on-site to replace one complete installation or have on-site a complete replacement attenuator. Re-stock replacement items or complete replacement attenuators within 24 hours of use. All modules, cartridges, components, and replacement parts, and replacement attenuators not used remain the property of the Contractor.

(Use the following lead-in sentence and subsection .68 when automated flagger assistance devices are required.)

Add the following subsection:

00225.68 Automated Flagger Assistance Device - When repairs of the AFAD are required, take the device out of service. Flag traffic until repairs are complete and the AFAD is re-installed and operational. Use replacement stock by the same manufacturer and type, with capabilities equal to the original system, as installed.

(Use the following lead-in paragraph and subsection .82(e) when impact attenuators are required.)

Add the following subsection:

00225.82(e) Temporary Impact Attenuator Repair - Temporary impact attenuator repair will be measured on the unit basis as follows:

- Sand barrel systems will be the replacement of damaged sand modules.
- All other systems will be the repair or complete replacement of the attenuator system.

(Use the following subsection .83(c) when pavement legends or pavement bars are required. When only one paragraph is required remove the "s" from "paragraphs" and delete the paragraph that does not apply.)

00225.83(c) Striping - Add the paragraphs to the end of this subsection:

(Use the following paragraph when pavement legends are required.)

Temporary pavement legends will be measured on the unit basis, by actual count.

(Use the following paragraph when pavement bars are required.)

Temporary pavement bars will be measured on the area basis, to the nearest square foot, for each stop bar and crosswalk bar.

(Use the following lead-in sentence and one of the following subsection .87(c)'s when automated flagger assistance devices are required. Delete the subsection that does not apply.)

Add the following subsection:

[Use this subsection .87(c) when AFAD's are measured on the unit basis.]

00225.87(c) Automated Flagger Assistance Device - Automated flagger assistance devices will be measured on the unit basis.

[Use this subsection .87(c) when AFAD's are measured on the time basis.]

00225.87(c) Automated Flagger Assistance Device - Automated flagger assistance devices will be measured on the time basis, of the actual number of hours, to the nearest hour, the AFAD's are operating and in use to control traffic.

(Use the following subsection .90(a-1) when impact attenuators are required.)

00225.90(a-1) Pay Quantities - Replace the paragraph that begins "All TCD damaged by..." with the following paragraph:

All TCD damaged by public traffic and replaced by the Contractor, except temporary signing, temporary electrical signs, and portable temporary traffic signals, will be paid for at the Contract price for the pay items listed in the Contract Schedule of Items or in approved Contract change orders, unless otherwise specified. Payment for replacing damaged TCD will only be made when:

(Use the following subsection .92 when impact attenuators are required.)

00225.92 Temporary Barricades, Guardrail, Barrier, and Attenuators - Add the following pay item to the end of the pay item list and add the following paragraph:

(n) Repair Temporary Impact Attenuator, _____Each

In item (n), the words "Sand Module" or the type of attenuator, if applicable, will be inserted in the blank. Item (n) includes replacement of sand modules damaged by public traffic or includes repair or complete replacement of impact attenuators damaged by public traffic.

Replace the paragraph that begins "No separate or additional..." with the following paragraph:

No separate or additional payment will be made for temporary impact attenuator replacements, replacement modules, cartridges, components, or replacement parts that are required to be on-site according to 00225.62(b) or for cleaning and removing debris from impacts.

(Use the following subsection .93 when pavement legends or pavement bars are required. When only one pay item is required remove the "s" from "items" and delete the pay item that does not apply. Do not change the alpha characters (m) or (n).)

00225.93 Temporary Traffic Delineation - Add the following pay items:

- (m) Temporary Pavement Legends.....Each
- (n) Temporary Pavement BarsSquare Foot

(Use the following paragraph when pavement bars are required AND when there is pay item for legend removal.)

In the paragraph that begins "Item (l) includes...", add "and bars" between the words "legends required".

(Use the following paragraph when pavement bars are required.)

In the paragraph that begins "Payment for items...", replace "(g), (h), (i), and (j)" with "(g), (h), (i), (j), and (n)".

(Use the following subsection .97 when automated flagger assistance devices are required. Select the appropriate pay item. Delete the pay item that does not apply.)

00225.97 Flagger and Flagger Station Lighting - Add the following pay item:

[Use this pay item when AFAD's are paid on the unit basis.]

- (c) Automated Flagger Assistance DeviceEach

[Use this pay item when AFAD's are paid on the time basis.]

- (c) Automated Flagger Assistance DeviceHour

Item (a) includes the operation of the AFAD.

Item (c) includes maintaining and moving each device, regardless of size or type.

No separate or additional payment will be made for replacement parts and components or for illumination.

(This page is only used to provide a list of standard drawings to the specification writer for listing on the plan title sheet. Remove this page before advance and final.)

NUMBER OF TRAFFIC CONTROL PLAN SHEETS: _____

(Add or delete Standard Drawings, as applicable.)

To be accompanied by Standard Drawings:

- RD410..... Guardrail Parts (Thrie Beam)
- RD420..... Guardrail Non-Flared Terminal
- RD425..... Guardrail Flared Terminal

- RD500..... Precast Concrete Barrier
- RD510..... Concrete Barrier Terminal
- RD530..... Guardrail Connection to Concrete Barrier
- RD535..... Concrete Barrier (Modified) Around Medial Obstacle
- RD545..... Precast Tall Concrete Barrier
- RD560..... Cast-in-Place Tall Barrier Transition to Standard Concrete Barrier

- BR236..... Guardrail Connection to Concrete Bridge Rail

- TM204..... Flag Board Mounting Details
- TM211..... Signing Details US and Interstate Route Shields
- TM212..... Signing Details Oregon Route Signs
- TM570..... Traffic Delineators
- TM575..... Traffic Delineator, Installation for Freeways
- TM576..... Traffic Delineator, Installation for Non-Freeways
- TM670..... Wood Post Supports Sizing Charts
- TM671..... 3 Second Gust Wind Speed Isotach
- TM677..... Sign Mounts
- TM681, TM687, TM688 .. Perforated Steel Square Tube Sign Support Installation and Foundation
- TM800..... TCP Details
- TM810..... TCP Temporary Reflective Pavement Markers
- TM820..... Temporary Barricades
- TM821..... TCP Temporary Sign Supports
- TM830..... Temporary Concrete Barrier & Rumble Strip Details
- TM831, TM832..... TCP Temporary Impact Attenuators
- TM840..... TCP Closure Details
- TM841..... TCP Intersection Details
- TM842..... TCP Signalized Intersection Details
- TM843..... TCP Multi-Lane Signalized Intersection Details
- TM850..... TCP 2 Lane, 2-Way Roadways
- TM851, TM852..... TCP Non-Freeway Multi-Lane Sections
- TM860, TM861, TM862 .. TCP Freeway Sections
- TM870..... TCP Bridge Construction
- TM871..... TCP Blasting Zones