

## SECTION 00223 - WORK ZONE TRAFFIC CONTROL LABOR AND VEHICLES

*(Follow all instructions and make all edits with "Track Changes" turned on. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the Project. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)*

Comply with Section 00223 of the Standard Specifications modified as follows:

**00223.00 Scope** - Replace this subsection, except for the subsection number and title, with the following:

In addition to the requirements of Section 00221, this Work consists of providing flaggers, traffic control supervisors, and providing, operating, and maintaining associated Work Zone traffic control vehicles.

**00223.22 Flagger Station Lighting** - Replace the paragraph that begins "Use flagger station lighting ..." with the following paragraph:

Use flagger station lighting from the QPL and according to the following:

Replace the bullet that begins "Illuminates the flagger so that ..." with the following bullet:

- Illuminate the flagger station so that it is visible, and is discernable as a flagger station, from a distance of 1,000 feet.

Replace the bullet that begins "Illuminates the flagger from above ..." with the following bullet:

- Illuminate the flagger station from above at a height of 18 feet ± 3 feet.

**00223.23 Automated Flagger Assistance Device** - Replace the paragraph that begins "Furnish an automated flagger ..." with the following paragraph:

Provide an automated flagger assistance device (AFAD) from the QPL. Submit the following information for approval for the use of an AFAD to the Engineer, according to 00150.37, a minimum of 21 Calendar Days in advance of using an AFAD. The Engineer will respond within 14 Calendar Days after receipt of the submittal.

**00223.26 Pedestrian Transport Vehicle** - Replace the bullet that begins "A roof or post-mounted rotating ..." with the following bullet:

- A roof or post-mounted rotating amber light or strobe light that is visible for 360 degrees. Provide a light that is visible and functioning at all times while operating within the Project limits.

*(Use the following if construction staging plan does not provide a safe, adequate space for bicycle traffic to ride through the active Work Area and a PTV is included in the Contract Schedule of Items.)*

Add the following bullet:

- A commercially available bicycle rack capable of securely carrying a minimum of three bicycles. Do not loosely load bicycles onto the pedestrian transport vehicle.

*(Use the following lead in sentence and subsection .28 when a tow truck is required. Use only one of the following three options when tow trucks are required. Delete the options that do not apply.)*

Add the following subsection:

*[Option 1 - Use the following subsection for urban, non-freeway projects to include a Class "A" tow truck.]*

**00223.28 Tow Truck** - Use a Class "A" tow truck according to the following:

- 10,000 pounds minimum manufacturers gross vehicle weight rating.
- Single rear axle with dual wheels.
- 6 Ton boom rating - dual or single boom.
- Minimum 100 feet of 3/8" cable.
- In good operating condition.
- Equipped with roof or post mounted rotating red or amber lights or strobe lights that are visible for 360°.
- Equipped with all Equipment and materials necessary to perform the required operation.
- Portable, self-contained two-way radio and repeaters, as required, with a range suitable for communication throughout each Work Zone, unless otherwise directed.

*[End Option 1]*

*[Option 2 - Use the following subsection for rural non-freeway Projects, or freeway Projects to include a Class "B" tow truck.]*

**00223.28 Tow Truck** - Use a Class "B" tow truck according to the following:

- 17,000 pounds minimum manufacturers gross vehicle weight rating.
- 10 Ton boom rating - dual or single boom.
- Single or tandem rear axle with dual wheels.
- Minimum 150 feet of 7/16" cable.

- In good operating condition.
- Equipped with roof or post mounted rotating red or amber lights or strobe lights that are visible for 360°.
- Equipped with all Equipment and materials necessary to perform the required operation.
- Portable, self-contained two-way radio and repeaters, as required, with a range suitable for communication throughout each Work Zone, unless otherwise directed.

*[End Option 2]*

*[Option 3 - Use the following subsection for freeways reduced to one lane and where trucks are on a grade over 3%.]*

**00223.28 Tow Truck** - Use a Class "C" tow truck according to the following:

- 27,500 pounds minimum manufacturers gross vehicle weight rating.
- 25 Ton boom rating - dual or single boom.
- Minimum 150 feet of 5/8" cable.
- Tandem rear axle truck chassis (3 axle truck).
- Air brakes and capable of supplying air to towed vehicles.
- In good operating condition.
- Equipped with roof or post mounted rotating red or amber lights or strobe lights that are visible for 360°.
- Equipped with all Equipment and materials necessary to perform the required operation.
- Portable, self-contained two-way radio and repeaters, as required, with a range suitable for communication throughout each Work Zone, unless otherwise directed.

*[End Option 3]*

**00223.31(a) Traffic Control Supervisor** - Replace the paragraph that begins "When the Schedule of Items ..." with the following paragraph:

When the Schedule of Items includes an item for a TCS, provide a TCS who meets the requirements of 00223.30. Do not designate the Project superintendent as the TCS. The TCS is required to possess a current ODOT "Oregon Certified Traffic Control Supervisor" card. A TCS with a current card from another state's transportation department, or from the American Traffic Safety Services Association, may obtain an Oregon Certified TCS card upon successful completion of ODOT's Recertification Class.

Replace the paragraph that begins "Before beginning Work ..." with the following paragraph:

Before beginning Work on the Project, the TCS is required to:

Replace the bullet that begins "File with the Engineer and ..." with the following bullet:

- File with the Engineer and local police, their name and a telephone number where the TCS can be contacted at all times.

Replace the bullet that begins "If the Contractor requests to ..." with the following bullet:

- If the Contractor requests to use a modified Agency TCP or a TCP developed by the Contractor, ensure stamped Working Drawings showing the revisions are submitted according to 00221.06 and 00150.35.

Replace the paragraph that begins "The TCS shall not act as ..." with the following paragraph:

The TCS cannot perform the duties of a flagger or pilot car operator, except in the event of an emergency. The TCS may relieve the flagger or pilot car operator for a period of less than 15 minutes, not to exceed 1 hour per construction work shift.

Replace the paragraph that begins "Make arrangements so that the ..." with the following paragraph:

Make arrangements so that the TCS is available every Day, on call at all times, and available upon the Engineer's request at other than normal working hours.

Replace the paragraph that begins "The TCS shall report to the ..." with the following paragraph:

The TCS is required to report to the Project Site within 1 hour after being notified in the event of a Work Zone incident during non-work periods. Have appropriate personnel, Equipment, and Material available at all times to expeditiously correct any deficiency in the TCM for the Project.

Replace the paragraph that begins "Notify the Engineer of an alternate ..." with the following paragraph:

Notify the Engineer of an alternate TCS who can assume the duties of the assigned TCS in the event of that person's inability to fulfill the duties of the position. Provide an alternate TCS adequately trained and certified according to 00223.30 and 00223.31. Notify the Engineer at least 12 hours before designating the TCS for the following 12-hour period. Make succeeding notifications within 24 hours every time a subsequent TCS is appointed to the Project.

*(Use the following when Speed Reduction measures (as shown on Standard Drawing TM880) are required.*

*Note: Include sufficient TCS Pay Item quantities to provide at least one construction work shift for each shift where the work described in subsection 00220.40(e), will be active. A TCS is required for the speed reduction measure work.)*

Add the following paragraph and bullets to the end of this subsection:

Provide a TCS who is available and on site at all times that a temporary regulatory speed zone reduction is in effect for the (brief work description) operations. In addition to the duties listed in this subsection, the TCS duties also include the following:

- Inspect temporary TCD used during (brief work description) operations immediately following initial placement or installation of TCD. Inspect TCD at least one additional time during each construction work shift.
- When law enforcement is providing enforcement services for the Project, coordinate and communicate work locations and schedules with the Engineer and law enforcement agency before and during each work shift.

*(Use the following two paragraphs when Mobile Barrier operations are required.)*

Add the following paragraph to the end of this subsection:

Provide a TCS that has completed at least 4 hours of training on use and operation of the mobile barrier within the past 2 years. Obtain training from the mobile barrier manufacturer or mobile barrier vendor listed in 00226.16.

**00223.31(b) Traffic Control Inspection Without TCS** - Replace the paragraph that begins "When the Schedule of Items does ..." with the following paragraph:

When the Schedule of Items does not include an item for a TCS, or when TCS is not on-site for a work shift, designate a trained person who is on the Project Site during work hours and on call at all other times, and who:

Replace the bullet that begins "Notifies the Engineer of any ..." with the following bullet:

- Notifies the Engineer of any corrective measures made to the TCP if the TCP is not functioning as required, or to accommodate site conditions. Follow the TCP and do not implement changes to the TCP before revisions are approved by the Engineer.

Replace the bullet that begins "Shall report to the Project ..." with the following bullet:

- Reports to the Project Site within 1 hour after being notified in the event of a Work Zone incident during non-work periods.

Replace the bullet that begins "Designate an area for ..." with the following bullet:

- Designates an area for pedestrians to wait for, load and unload the transport vehicle.

**00223.32 Automated Flagger Assistance Device Operator** - Replace this subsection, except for the subsection number and title, with the following:

Use a certified flagger who has been trained in the operation of the AFAD.

The AFAD operator duties include:

- Attending the AFAD at all times during the operation of the device.
- Not flagging traffic and operating an AFAD at the same time.
- Operating a single AFAD. Each AFAD is required to have a separate AFAD operator.

*(Use the following lead-in paragraph and subsection .34 when a BPA safety watcher is required in 00150.50(f).)*

Add the following subsection:

**00223.34 Bonneville Power Administration (BPA) Safety Watcher** - When Work requires the presence of a BPA-certified safety watcher (see 00150.50(f)), provide personnel possessing a current, valid certification from BPA. For coordination of BPA Safety Watchers, contact \_\_\_\_\_ at BPA, \_\_\_\_\_. The duties of the BPA safety watcher are to watch work that could impact the BPA facilities. Equip each safety watcher according to 00223.21, except that "STOP/SLOW" paddles are not required.

BPA-certified safety watchers can be obtained through the following providers:

Provide BPA safety watchers when and where required according to 00150.50(f). BPA safety watchers are responsible for limiting the movement of personnel or equipment to prevent electrical contact accidents.

BPA safety watchers have the authority to halt the operation whenever any unsafe act or condition is imminent.

*(Insert current BPA providers, as supplied by BPA below. List the firm's name, the firms contact name, and On-Site contact number. Delete the example.)*

*Example:*

*Safety Watcher, Inc. - Benny Beaver, 503-555-0100 (office) or 503-555-0111 (cell)*

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*(Use the following lead-in paragraph and subsection .35 when Railroad flaggers are required on UPRR Railroad. Check with the State Utility and Railroad Liaison.)*

Add the following subsection:

**00223.35 Railroad Flagger Services** - Work near or within Railroad property requires Railroad flagger services provided by a third party flagging vendor. Provide Railroad flagger services from Union Pacific's approved third party list of Railroad flagger vendors. A list of Union Pacific's approved Railroad flagger vendors can be found at the following website:

[https://www.up.com/real\\_estate/third-party-flagging/index.htm](https://www.up.com/real_estate/third-party-flagging/index.htm)

*(Use the following lead-in paragraph and subsection .38 when tow trucks are required.)*

Add the following subsection:

**00223.38 Tow Truck Operator** - Provide a tow truck operator who has:

- The mental and physical ability to safely operate the tow truck
- The training and experience required to operate the tow truck
- ANSI Performance Class 2 or 3 upper body garment to be worn while on the Roadway retrieving a disabled vehicle
- Valid Commercial Driver License

**00223.40 Flaggers** - Replace this subsection, except for the subsection number and title, with the following:

Locate flaggers far enough in advance of the Work Area to permit adequate time for the motorist to respond to the flagger's instructions. All flaggers, including advance flaggers, are required to use a STOP/SLOW paddle. Do not use roll-up STOP/SLOW paddles for non-emergency flagging operations.

During advance flagging operations, the advance flagger is required to only display the "SLOW" face of the paddle. Cover the "STOP" face of the paddle with a sign cover according to 00222.12(a).

Position flaggers, as directed, at locations where traffic can enter the Highway within the limits of the Work Zone.

Direct vehicles entering the Highway to follow the pilot car line.

Direct pedestrians to wait for flagger instructions. Stop and hold motor vehicle traffic to allow pedestrians to enter the TPAR or exit the TPAR. Ensure pedestrians are clear of all Traffic Lanes before flaggers release motor vehicle traffic.

Direct pedestrians to use the pedestrian transport vehicle to pass through or around the Work Zone. Direct pedestrians to wait for the pedestrian transport vehicle in designated areas identified under 00223.31.

If a TPAR is designed and installed with a width less than 5 feet, and 5-foot-by-5-foot passing spaces at 200-foot intervals are not provided, inform pedestrians of the narrowed TPAR. Before allowing pedestrians in wheelchairs or similar devices to use the TPAR, direct the flagger at the opposite end of the TPAR to stop and hold opposing pedestrian traffic until the pedestrian in the wheelchair has reached the other end of the narrowed TPAR.

Provide flaggers at flagging stations continuously or until the Engineer determines flagging is no longer required.

*(Use the following paragraph when flaggers are required to escort bicycles and pedestrians through the work area.)*

During *(Insert a brief description of construction work. Refer to specific phases/stages of traffic control if applicable)*, provide a dedicated flagger station and flagger to escort bicycle and pedestrian traffic through the affected Work Area.

**00223.41 Flagger Station Lighting** - Replace this subsection, except for the subsection number and title, with the following:

Provide continuous flagger station lighting for nighttime flagging as follows:

- Locate the light Equipment on the same side of the Roadway as the flagger station between 5 and 10 feet from the edge of the Traffic Lane, on or beyond the Roadway Shoulder, or as directed.
- Position and orient the flagger station lighting to direct the maximum amount of light toward the flagger station and away from the approaching traffic in the near lane.
- Aim all of the luminaires directly at the flagger station.
- Increase the output wattage or number of luminaires as the luminance from, and number of, surrounding and background lights increases. Do not provide a total output greater than 2,500 watts, unless otherwise directed.

**00223.43 Automated Flagger Assistance Device** - Replace this subsection, except for the subsection number and title, with the following:

Use the AFAD to control traffic through the Work Zone and as follows:

- Position the AFAD operator's control location a safe distance from traffic.
- Install and operate the AFAD according to the manufacturer's instructions and as shown.
- Do not use the AFAD to control more than one lane of approaching traffic. If necessary, close additional Traffic Lanes, left turn lanes or right turn lanes approaching the AFAD to limit approaching traffic to one lane.
- Provide flagger station lighting when using an AFAD during nighttime hours. Provide flagger station lighting according to 00223.22 and 00223.41.
- 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 an AFAD for each direction of traffic, use AFADs of the same type and from the same manufacturer.
- When an AFAD is not in use during a work shift either turn it off or switch the yellow lens to flash mode. When the AFAD is not in use for more than one work shift, remove it and all accompanying signing from the Roadway.

~~Replace the bullet that begins "Provide illumination when using ..." with the following bullet:~~

- ~~• Provide illumination when using an AFAD during nighttime hours. Provide AFAD illumination meeting the following requirements:~~

*(Use the following lead-in paragraph and subsection .48 when tow trucks are required.)*

Add the following subsection:

**00223.48 Tow Truck** - Position the tow truck in a location as directed. Use the tow truck to remove disabled vehicles from the Traffic Lanes as needed. Tow the vehicles to the nearest off-ramp and out of traffic, or to an alternate site previously arranged with the Engineer. Return the tow truck immediately to the assigned station.



**00223.80 Measurement** - Replace the bullet that begins "The replacement of TCD and TCM..." with the following bullet:

- The replacement of flagger station lighting damaged by Public Traffic and replaced by the Contractor.

Add the following paragraph to the end of the bullet list:

No additional measurement will be made for automated flagger assistance devices damaged by Public Traffic and replaced or repaired by the Contractor.

*(Use the following subsection .80(a)(1) when Speed Reduction Measures are required.)*

**00223.80(a)(1) Traffic Control Supervisor** - Add the following bullet to the end of the bullet list:

- Freeway or Divided Highway Speed Reduction (Paving Operations) according to TM880 is active.

*(Use the following lead-in paragraph and subsection .80(a)(4) when third party Railroad flaggers are required on UPRR Railroad. Check with the State Utility and Railroad Liaison.)*

Add the following subsection:

**00223.80(a)(4) Railroad Flagger Services** - The quantity of Railroad flagger services will be measured on the unit basis. A unit is considered to be up to 12 consecutive hours in a Day. When more than one flagger is required due to Work at separate locations, each Railroad flagger will be measured as a separate unit. A maximum of two units per Day is allowed at each separate location or operation where Railroad flagger services are required by the Railroad unless otherwise approved or directed.

*(Use the following lead-in paragraph and subsection .80(b)(5) when BPA is listed as Utility with anticipated conflicts in 00150.50(g) and when requested by the Utility Coordinator.)*

Add the following subsection:

**00223.80(b)(5) BPA Safety Watchers** - BPA Safety Watchers will be measured on the time basis, of the actual number of hours BPA Safety Watchers are staffed as required according to 00150.50(f).

*(Use the following lead-in paragraph and subsection .80(b)(6) when tow trucks are required.)*

Add the following subsection:

**00223.80(b)(6) Tow Truck** - The quantity for tow trucks will be measured on the time basis, of the actual number of hours tow trucks are operated.

**00223.90 Payment** - Replace the paragraph that begins "Item (c) includes furnishing..." with the following paragraph:

Item (c) includes providing, operating, moving, and removing the flagger station lighting. No separate or additional payment will be made for backup unit in event it is used or not.

Replace the paragraph that begins "Item (f) includes furnishing..." with the following paragraph:

Item (f) includes ~~providing~~furnishing, operating, maintaining, repairing, replacing moving and removing each AFAD device, regardless of size or type. No separate or additional payment will be made for AFAD replacement or repair, ~~or for AFAD illumination~~. The AFAD operator will be paid for as a flagger.

Replace the paragraph that begins "Payment will be payment ..." with the following paragraph:

Payment will be payment in full for furnishing, installing, moving, operating, maintaining, inspecting, and removing the Materials and TCD, and for providing all Equipment, labor, and Incidentals necessary to complete the Work as specified, except as covered in 00221.90(b).

*(Use the following when adding Pay Items or when a bicycle rack is included in the PTV. Delete Pay Items not included in the Schedule of Items. Do not change the alpha characters next to the Pay Items. Delete paragraphs not required.)*

Add the following Pay Item(s) to the Pay Items list:

- (g) Railroad Flagger Services.....Each
- (h) BPA Safety Watcher ..... Hour
- (i) Tow Truck ..... Hour

*(Use the following two paragraphs if a bicycle rack is included in the PTV)*

Replace the paragraph that begins "Item (e) includes..." with the following paragraph:

Item (e) includes fully operated pedestrian transport vehicles, two-way radios, the "CONSTRUCTION VEHICLE DO NOT FOLLOW" sign, the ADA-pedestrian loading/unloading mechanism, the bicycle rack, and the rotating amber lights or strobe lights mounted on each vehicle.

*(Use the following two paragraphs when third party Railroad flaggers are required on UPRR Railroad. Check with the State Utility and Railroad Liaison.)*

Payment for item (g) performed beyond the quantity shown in the Contract Schedule of Items will be made at the Contract unit price if the Engineer determines that the Contract unit price does not exceed the value of the Work as determined according to Section 00197. If the Engineer determines that the Contract unit price exceeds the value of the Work, payment for the Additional Work will be made according to 00195.20.

Payment for item (g) includes all Equipment, labor, and Incidentals necessary to complete the Work as specified.

*(Use the following two paragraphs when a BPA Safety Watcher is required.)*

Payment for item (h) performed beyond the quantity shown in the Contract Schedule of items will be made at the Contract unit price if the Engineer determines that the Contract unit price does not exceed the value of the work as determined according to Section 00197. If the Engineer determines that the Contract unit price exceeds the value of the Work, payment for the Additional Work will be made according to 00195.20.

Item (h) includes all necessary Equipment, special apparel, and two-way radios.

*(Use the following two paragraphs when a Tow Truck is included in the Project.)*

Payment for item (i) performed beyond the quantity shown in the Contract Schedule of items will be made at the Contract unit price if the Engineer determines that the Contract unit price does not exceed the value of the Work as determined according to Section 00197. If the Engineer determines that the Contract unit price exceeds the value of the Work, payment for the Additional Work will be made according to 00195.20.

Item (i) includes fully operated tow truck, two-way radios, and warning lights on each vehicle.