SP00226 (Special Provisions for the 2024 Book) **(Bidding on or after: 02~~9~~-01-27~~6~~**
Last updated: 10~~06~~-26~~01~~-26
Requires SP00221, SP00222 and SP00223 when mobile barrier is required.
Requires SP00810 when temporary guardrail is required.
***Requires* SP00820 when temporary barrier is required.**
Requires SP02001 when minimum deflection bridge temporary barrier is required)

SECTION 00226 - TEMPORARY ROADSIDE BARRIERS AND IMPACT ATTENUATORS

(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 00226 of the Standard Specifications modified as follows:

00226.00 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, installing, moving, operating, maintaining, and removing guardrail, barrier, and impact attenuators for temporary traffic control, as shown and directed.

00226.11(a)(2) Temporary Concrete Barrier - Replace the paragraph that begins "The concrete barrier shall …" with the following paragraph:

Provide concrete barrier with functioning scuppers, unless otherwise approved.

(Use the following when concrete barrier terminals or barrier transitions are required. Delete "(s)" or the parentheses as applicable.)

Add the following paragraph*(*s*)* after the bullet list:

(Use the following paragraph when cast-in-place concrete barrier transition to Bridge rail or cast-in-place tall concrete barrier transition to Bridge rail are required. Include Standard Drawing RD520 or RD550 (tall concrete barrier). Delete "(tall)" or the parentheses as applicable.)

Furnish cast-in-place *(*tall*)* concrete barrier transitions as shown on the Standard Drawings.

(Use the following paragraph when cast-in-place tall concrete barrier transition to standard concrete barrier is required. Include Standard Drawing RD560.)

Furnish cast-in-place tall concrete barrier transitions to standard concrete barrier as shown on the Standard Drawings.

00226.12 Temporary Impact Attenuators - Replace this subsection, except for the subsection number and title, with the following:

Provide temporary impact attenuators from the QPL and as shown on the Standard Drawings.

(Use the following lead-in paragraph and subsection .15 when Temporary Glare Screens are required. Do not use Temporary Glare Screens on permanent Bridge concrete barrier or rail without Technical Resource approval.)

Add the following subsection:

00226.15 Temporary Glare Screens - Use temporary glare screens from the QPL or Conditional Use List.

(Use the following lead-in paragraph and subsection .16 when mobile barrier is required.)

Add the following subsection:

00226.16 Mobile Barrier - Use a mobile barrier from the QPL or conditional use list.

00226.23 Truck Mounted Attenuator - Replace the title of this subsection with "**Temporary Impact Attenuator, Truck Mounted"**.

Replace the paragraph that begins "The support vehicle …" with the following paragraph:

Provide a support vehicle for a TL-2 rated TMA with a minimum weight of 9,900 pounds. Provide a support vehicle for a TL-3 rated TMA with a minimum weight of 22,000 pounds.

Replace the paragraph that begins "If used in a mobile …" with the following paragraph:

If a TMA support vehicle is used in a mobile operation, maintain a consistent distance from the mobile operation, as shown in Table 00226-1, or as directed.

(Use the following lead-in paragraph and subsection .24 when mobile barrier is required.)

Add the following subsection:

00226.24 Mobile Barrier - Use a semi-tractor truck according to the mobile barrier manufacturer's recommendations to haul and operate the mobile barrier and conforming to the following:

- Equipped to perform with all mobile barrier functions and operations.
- Equipped with portable, self-contained two-way radios with a range suitable for communications throughout each Work Zone, unless otherwise directed.

Equip mobile barrier with a temporary impact attenuator, truck mounted.

(Use the following lead-in paragraph and subsection .30 when mobile barrier is required.)

Add the following subsection:

00226.30 Mobile Barrier - Provide semi-tractor truck operator to haul and operate the mobile barrier and a mobile barrier technician qualified to set up and operate the features of the mobile barrier. Each person has to have 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. Provide a mobile barrier technician on-site while the mobile barrier is in use.

00226.41(c) Glare Shields - Replace the bullet that begins "Firmly attach the base plate …" with the following bullet:

- Firmly attach the base plate anchor bolts to the Temporary Barrier to withstand a 1,000-pound vertical pull and to prevent horizontal and rotational displacement. The maximum spacing between anchor bolts on modular units is 30 inches.

Replace the bullet that begins "Modular or single element …" with the following bullet:

- Use modular or single element glare shields from the same manufacture and of like appearance throughout the entire installation when installed in a continuous run.

(Use one of the following subsection .43 options.)

00226.43 Truck Mounted Attenuator - Replace the title of this subsection with "**Temporary Impact Attenuator, Truck Mounted**".

[Option 1 – On Freeway and Multi-lane highway projects with lane and shoulder closures and no positive protection, provide one TMA for each shoulder or each lane closed, not to exceed the maximum number of shoulder or lane closures that will occur at any given time.

Replace the paragraph that begins "When workers or construction Equipment…" with the following paragraphs:

Use a temporary truck mounted impact attenuator (TMA), when workers or construction Equipment are exposed to Public Traffic on a Freeway or Multi-Lane Highway and are not located behind a rigid barrier system, as follows unless otherwise shown or directed:

- Each Shoulder or each lane closure where the preconstruction posted speed is 45 mph or more.

(Use the following bullet when TMA is required on multi-lane highways where the preconstruction posted speed is 40 mph or less. TMA is required on multi-lane highway projects with lane closures and no positive protection and intermediate duration work is located in the traffic lane. Provide one TMA for each lane closed, not to exceed the maximum number of lane closures that will occur at any given time.)

- Each lane closure, when (_brief description of Work_) on the _____ Highway is occurring in the Traffic Lane, where the preconstruction posted speed is 40 mph or less.

Place the TMA in advance of the exposed workers or Equipment, located as shown in the TMA Support Vehicle Placement tables, or as directed. If the TMA is not available when the Work requires its use, postpone the Work until the TMA is available.

[End Option 1]

[Option 2 – Use this option when a TMA is not required]

Replace the paragraph that begins "When workers or construction Equipment…" with the following paragraph:

If a Contractor elects to use a truck mounted impact attenuator (TMA) when not required, place the TMA in advance of the exposed workers or Equipment, located as shown in the TMA Support Vehicle Placement tables, or as directed.

[End Option 2]

(Use the following lead-in paragraph and subsection .45 when Temporary Glare Screens are required.)

Add the following subsection:

00226.45 Temporary Glare Screens - Install temporary glare screens as shown or directed, and according to the following:

- Install according to manufacturer's instructions.
- Install vertical and true to line.
- Install using a QPL approved pipe from the same manufacturer as the temporary glare screen.
- Install on concrete barrier by drilling holes as shown and placing the manufacturer's QPL approved pipe in the holes. Submit for approval, in writing, any other proposed method of installation.
- Immediately repair any temporary barrier segment that is damaged during temporary glare screen installation at no additional cost to the Agency.
- Do not install on permanent Bridge rail or permanent Bridge barrier.
- Furnish temporary glare screens that are installed in a continuous run from the same manufacturer and of like appearance throughout the entire installation.

For any segment of concrete barrier used for permanent installations, fill holes and repair according to Section 00820 after removing the temporary glare screen.

(Use the following lead-in paragraph and subsection .46 when mobile barrier is required.)

Add the following subsection:

00226.46 Mobile Barrier - Configure, place, and move the mobile barrier according to the manufacturer's recommendations, according to the TCP, or as directed.

00226.63 Truck Mounted Attenuators - Replace this subsection with the following subsection:

00226.63 Temporary Impact Attenuator, Truck Mounted - Repair damage to support vehicles that TMAs are mounted on at no additional cost to the Agency.

(Use the following lead-in paragraph and subsection .65 when Temporary Glare Screens are required.)

Add the following subsection:

00226.65 Temporary Glare Screens - Immediately replace or repair any temporary glare screen segment that is damaged. Repair to the Engineer's satisfaction or replace with an undamaged segment. If the temporary glare screen segment is damaged by the Contractor, repair or replace at no additional cost to the Agency.

(Use the following lead-in paragraph and subsection .66 when mobile barrier is required.)

Add the following subsection:

00226.66 Mobile Barrier - Maintain the mobile barrier according to the manufacturer's recommendations. Perform routine maintenance of the mobile barrier at no additional cost to the Agency. Be responsible for all necessary service and maintenance of the mobile barrier while in use.

(Use the following subsection .80(b)(2) when temporary barrier is required.)

00226.80(b)(2) Temporary Barrier - Add the following to the end this subsection:

The quantities will be limited to those shown in Table 00226-1. The estimated quantity of Temporary Barrier is:

TABLE 00226-1

Stage/Phase	Location (STA to STA)	Temporary Barrier (foot)	Temporary Barrier, Minimum Deflection (foot)
	Total Quantity		

(Use the following subsection .80(b)(4) when minimum deflection Bridge temporary barrier is required.)

00226.80(b)(4) Minimum Deflection Bridge Temporary Barrier - Add the following to the end this subsection:

The quantities will be limited to those shown in Table 00226-2. The estimated quantity of Minimum Deflection Bridge Temporary Barrier is:

TABLE 00226-2

Stage/Phase	Location (STA to STA)	Minimum Deflection Bridge Temporary Barrier (foot)
	Total Quantity	

(Use the following lead-in paragraph and subsection .80(b)(5) when Temporary Glare Screens are required.)

Add the following subsection:

00226.80(b)(5) Temporary Glare Screens - Temporary glare screens and moving temporary glare screens will be measured on the length basis, determined by measuring from end to end of the devices, as installed on temporary barrier along the line and grade of each separate run.

(Use the following lead-in paragraph and subsection .80(c) when mobile barrier is required.)

Add the following subsection:

00226.80(c) Time Basis - The quantity of mobile barrier will be measured on the time basis, of the number of Days the mobile barrier is in actual use on the Project according to the approved Traffic Control Plan. One mobile barrier will be allowed per Day unless otherwise approved.

00226.90 Payment -

(Use the following when ~~Pay Item (g) Temporary Impact Attenuator,~~ mobile barrier or temporary glare screens are required. Delete Pay Items that do not apply, and delete "(s)" or parentheses as applicable.)

Add the following Pay Item*(*s*)* to the end of the Pay Item list:

(o) Mobile Barrier..... Day
(p) Temporary Glare Screens..... Foot
(q) Moving Temporary Glare Screens ..... Foot

Replace the paragraph that begins "In items (a) and (b), the …" with the following paragraph:

In items (a) and (b), the type of guardrail or terminal is inserted in the blank.

Replace the paragraph that begins "Item (e) includes Type 5 …" with the following paragraph:

Item (e) includes Type 5 delineators, including removing and replacing Type 5 delineators on the barriers, as necessary. Item (e) also includes providing, installing, connecting, securing,

unsecuring, maintaining, temporary storage, and final removal of the Temporary Barrier, including Minimum Deflection Temporary Barrier.

Replace the paragraph that begins "Item (f) includes Type …" with the following paragraph:

Item (f) includes Type 5 delineators, including removing and replacing Type 5 delineators on the barriers, as necessary. Item (f) also includes providing, installing, connecting, securing to the Bridge deck, unsecuring, maintaining, temporary storage, and final removal of the Minimum Deflection Bridge Temporary Barrier.

(Use the following paragraph when Pay Item (g) Temporary Impact Attenuator is required.)

Add the following paragraphs after the paragraph that begins "In items (g) and (h)…":

Payment for items (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.

Replace the paragraph that begins "In items (g) and (h) …" with the following paragraph:

In items (g) and (h), the type of attenuator is inserted in the blank.

Replace the paragraph that begins "In item (i), the …" with the following paragraph:

In item (i), the words "Sand Module" or the type of attenuator is inserted in the blank.

(Use the following three paragraphs when mobile barrier is required.)

Add the following paragraphs after the paragraphs that begins "Item (l) includes…":

Item (o) will be payment in full for all labor, training, Equipment, and Materials required for mobile barrier, regardless of length and number of moves. Item (s) will also be payment in full for operation of the semi-tractor truck in conjunction with the mobile barrier, training, service, maintenance, and all Incidentals necessary to complete the Work as specified.

Items (g) and (i) include truck mounted temporary impact attenuators attached to mobile barrier(s).

(Use the following three paragraphs when temporary glare screens are required.)

Add the following paragraphs after the paragraph that begins "Item (l) includes…":

Item (p) includes furnishing, installing, and removing temporary glare screens.

Item (q) includes moving the temporary glare screens from one location of actual use to another location of actual use on the temporary barrier.

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

Payment will be payment in full for furnishing, stockpiling, installing, moving, operating, maintaining, inspecting, placing, 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).

Add the following paragraph to the end of this subsection:

No separate or additional payment will be made for TMAs when the Contractor elects to use them where they otherwise are not required.