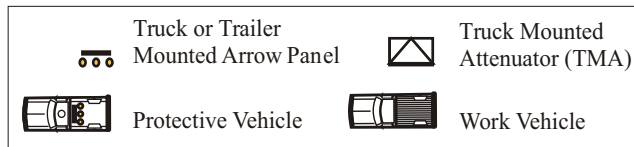


616.23.3.5 (TA-5) Mobile Operation on Divided or Multi-Lane Highways

SPEED	SIGN SPACING (ft.)		TAPER LENGTH (ft.)		OPTIONAL BUFFER LENGTH (ft.) (B)	CHANNELIZER SPACING (ft.)	
	Undivided (S)	Divided (S)	Shoulder ¹ (T1)	Lane ² (T2)		Tapers	Buffer/ Work Areas
0-35	-	-	-	245	-	-	-
40-45	-	-	-	540	-	-	-
50-55	-	-	-	660	-	-	-
60-70	-	-	-	840	-	-	-

¹ Shoulder taper length based on 10 ft. (standard shoulder width) offset ² Lane taper length based on 12 ft. (standard lane width) offset



A protective vehicle occupying any portion of a lane **shall** be equipped with a flashing arrow panel and a TMA.

A protective vehicle on the shoulder **shall** be equipped with a flashing arrow panel. This protective vehicle **should** be equipped with a TMA.

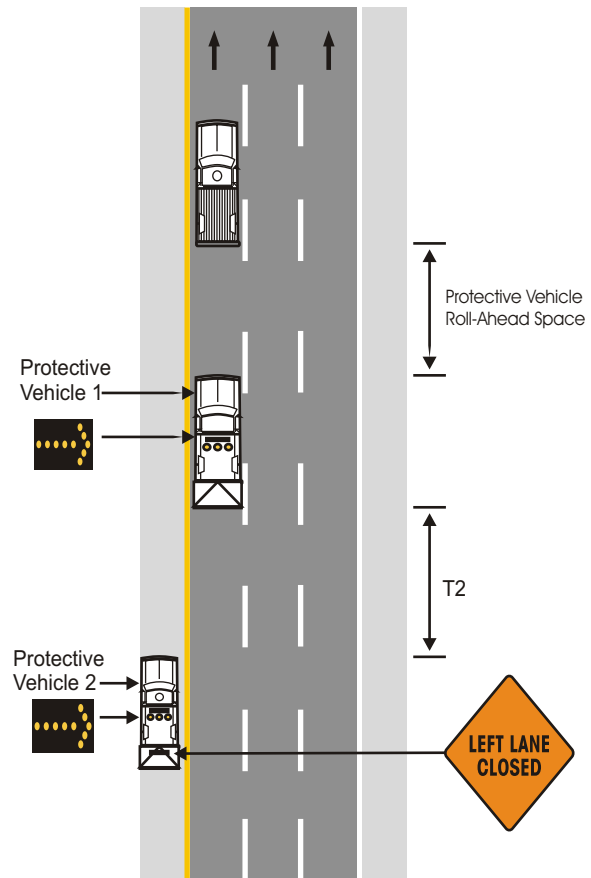
Where adequate shoulder width is not available, Protective Vehicle 2, equipped with a TMA, **may** drive partially or fully in the lane.

Protective Vehicle 2 **shall** be equipped with an appropriate lane closure sign. A mounting height of 48 in. from the bottom of the sign to the road surface is recommended.

Protective Vehicle 1 **should** be positioned at least 150 ft. in advance of the work vehicle. This spacing may be minimized to deter traffic from driving in between the vehicles.

A third protective vehicle (not shown) **may** be used with Protective Vehicle 1 in the closed lane, Protective Vehicle 2 straddling the edge line, and Protective Vehicle 3 on the shoulder.

For interior lane closure, Protective Vehicles 1 and 2 **shall** travel in the same lane as the work vehicle. These vehicles **shall** be separated by at least 150 ft. A double headed arrow **shall** be displayed on the flashing arrow panels. On high speed roadways, a third protective vehicle **should** drive the right shoulder. This vehicle **shall** be equipped with a flashing arrow panel and an appropriate advance lane closure sign and be positioned a distance of T2 from Protective Vehicle 2. The caution mode **shall** be displayed on the flashing arrow panel. A mounting height of 48 in. from the bottom of the sign to the road surface is recommended.



For mobile operations on roadways posted at 45 mph or below, the protective vehicles and TMAs are optional provided the work vehicle uses activated rotating lights or strobe lights.

For mobile operations moving at a continuous speed within 15 mph of the posted speed and emergency snow removal operations, the protective vehicles are optional provided the work vehicle uses activated rotating lights or strobe lights.

For mobile operations where workers are on foot and move with the operation, the affected lane **shall** be closed. Refer to appropriate lane closure typical applications.

Additional advanced warning signs **should** be used when there is not adequate shoulder.

Supplemental warning methods **may** be used to call attention to the work zone.

For pavement marking operations refer to **Figures 616.23.3.5.1 (TA-5a)** through **Figures 616.23.3.5.4 (TA-5d)**.