

## WORK ZONE TRAFFIC CONTROL FOR MOWING OPERATIONS

Mowing is a straightforward method of controlling vegetation on rights-of-way. In addition to maintaining the roadside environment, mowing helps to make sure that signs, delineators, other traffic control devices, and sight lines at intersections are visible.

The *Manual on Uniform Traffic Control Devices (MUTCD)* and PennDOT Publication 213, *Temporary Traffic Control Guidelines*, establish national and Pennsylvania-specific guidelines for work zone traffic control during mowing operations.

Mowing is considered a mobile operation and can take place on or off the roadway. Progress is not always steady, as certain areas may require more time, and the mower may have to double back for wide areas. In addition, different roadside conditions may require different types of mowing equipment. Mowing creates a unique work zone situation that requires traffic control that will vary by road and municipality.

Mowing operations require the set-up of work zone traffic control, with one exemption under Title 67, Chapter 212, Section 212.402 (7) — mowing operations on a road with fewer than 10,000 vehicles per day and where equipment does not encroach on the road. Although most local roads have fewer than 10,000 vehicles per day, it is important to note that for this exemption to apply, the **equipment must not encroach on the roadway during the mowing operation**. The Roadway is the area between the edge lines. The shoulder is not the roadway.

### PennDOT's Mowing Plan

Publication 213 has a specific Pennsylvania Typical Application (PATA) plan for mowing operations on conventional roads. PATA 307 contains notes, tables, and graphics that show the appropriate work zone traffic control for mowing operations on all roads in Pennsylvania. There are three distinct mowing situations, each with different requirements for traffic control:

- 1) Tractor using the road while mowing
- 2) Tractor using the road and shoulder while mowing
- 3) Tractor consistently remaining on or beyond the shoulder while mowing

### Shadow Vehicle Requirements

If the tractor is on the road while mowing, a shadow vehicle is required. This applies if the mower must use the roadway during any part of the mowing operation, even if it is on the shoulder during some of the mowing.

The shadow vehicle can be a truck or other municipal vehicle if it is equipped with a flashing, oscillating, or revolving yellow light that is visible from any direction (360° visibility) and is not being used as a work vehicle. The shadow vehicle must also have a sign mounted on the back. The following signs can be used: LANE CLOSED DO NOT PASS (G80-1), MOWING AHEAD, or ROAD WORK AHEAD (W20-1).

The shadow vehicle may have an arrow board, but it must be operated in caution mode. Do not use the arrow mode, which may suggest to motorists that they are being signaled to pass the tractor. For local roads, an attenuator mounted on the back of the vehicle is not required.

The shadow vehicle should maintain an appropriate distance upstream of the tractor, but that spacing will vary depending on the speed, sight distance, and type of operation. Whenever adequate stopping sight distance (Distance E) exists to the rear, the shadow vehicle should maintain a reasonable distance and proceed at the same speed as the mower. The shadow vehicle should slow down in advance of vertical or horizontal curves that restrict sight distance. Further, the shadow vehicle and mower should pull over periodically to allow traffic to pass.

Shadow Vehicle Visibility to Approaching Motorists	
Speed	Buffer Space
S (MPH)	E (Feet)
25	155
30	200
35	250
40	305
45	360
50	425
55	495

### Signs

If a shadow vehicle is used, ground-mounted signs are optional. However, advanced warning signs, such as ROAD WORK AHEAD (W20-1) or MOWING NEXT \_ MILES (W21-14), help to provide motorists with additional notice. The sign should be placed at least 500 feet before the area where the mowing begins. The distance noted on the sign can be from 1 to 5 miles.

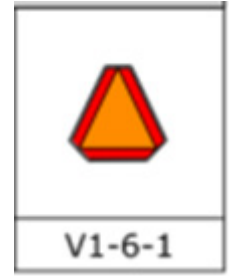
## Mower Traffic Control

Per PennDOT Publication 213 PATA 307, Note 8, the mower is required to have a SLOW MOVING VEHICLE emblem (V1-6-1) mounted on the rear of the vehicle. A flashing, oscillating, or revolving yellow light that is visible from any direction must also be active while the mowing is in progress.

The Federal Highway Administration provides other tips for safe mowing in its “Vegetation Control for Safety” document (FHWA-SA-07-018). These include:

- Make sure the mower unit is always visible to drivers.

- Always operate the tractor with headlights on.
- Install an orange flag or pennant on a whip to show the location of the tractor in high grass, over the edge of slopes, or in other conditions.
- Mow in the direction of traffic flow.
- Wear appropriate safety apparel.
- Always wear your seatbelt.
- Pull over periodically to allow traffic to pass.



### PATA 307

