

### Before you begin

Review this information and your organization's policies with respect to safe flagging operations. Have available for the group a copy of the *Ohio Manual of Uniform Traffic Control Devices (OMUTCD)* and a sample copy of a traffic control plan.



### Introduction

According to ODOT, there was a record number of work zone crashes (6,574) in Ohio during 2019. ODOT said that most work zone crashes are rear-ended accidents caused by drivers traveling too fast or too close to the vehicle in front of them. Out of those 6,574 crashes, there were 1,121 injuries, 129 serious accidents, and 16 deaths. In 2018 nationally, there were 124 worker fatalities with six occurring in Ohio.

Nationwide, motorists kill about 20 flaggers annually and injure many more. Flagging is dangerous due to high speed traffic and angry, aggressive, or distracted drivers. After seeing a flagger, a motorist going 60 mph needs almost 400 feet to stop.

Flaggers must receive proper training to ensure their own safety, and those who depend on them, such as: work crews, motorists, pedestrians, and bicyclists.

## Definitions

- **The Ohio Manual of Uniform Traffic Control Devices (OMUTCD):** Manual that shows statewide standards for the design and use of traffic control devices on any street, highway, bikeway or private roads open to public travel in Ohio.
- **Work Zone:** An area of a trafficway with highway construction, maintenance, or utility work activities. A work zone is typically marked by signs, channeling devices, barriers, pavement markings, and work vehicles.
- **Taper/Transition Area:** The section of highway where road users are redirected out of their normal path.
- **High visibility safety apparel (HVSA):** Clothing that workers wear to improve their visibility. HVSA is used on work sites where there are drivers of any sort of equipment and particularly when the work site may be dark.

Roadside construction work involves a number of serious hazards, from heavy machinery to nearby vehicle traffic. If you are a flagger at a construction site, you play a critical role in the safety of the other workers at the site.

Highway work zones are divided into five separate areas:

1. **Advanced warning area:** where signs warn drivers about construction ahead.
2. **Transition area:** where drivers are redirected out of their normal path using a taper. This is where the flagger usually stands.
3. **Buffer zone:** the dead space between the transition area and the work area that is designed to provide added protection for construction workers.
4. **Work area:** where construction work is taking place. It has barriers to keep traffic out and protect the workers.
5. **Termination area:** where drivers return to the regular roadway and resume normal driving speed.

Traffic can be controlled using signs and barricades, but often flaggers are needed too. As a flagger, always wear your personal protective equipment (PPE), and safety apparel. Generally, this includes high-visibility apparel, hard hats, and work boots. You may also have communication devices, such as a handheld radio, a horn, or loud whistle to warn workers of approaching danger.

## Discussion

Ask the group to name and discuss common flagging errors and solutions, examples include:

- Issue: Not wearing an American National Standards Institute (ANSI) Class 2 or Class 3 high-visibility garment, or not wearing the garment properly.
  - o Solution: Wear and fasten garments properly to guarantee maximum visibility.
- Issue: Wearing worn, faded, or tattered garments, or garments with reduced reflectivity.
  - o Solution: Brightly colored garments with contrasting, ANSI-compliant fluorescent background fabric and retroreflective material.
  - o Solution: Garments must remain in usable, clean, condition after repeated wear and washing.
- Issue: Using a non-standard flagging technique or not having a paddle.
  - o Solution: Use an approved Stop/Slow paddle.
- Issue: Standing in a blind area such as: Hilltops or curves; shaded, dark, or unlit areas; areas without advanced signage notice to drivers.
  - o Solution: Flaggers are in the advanced warning area and preceded by an advance warning Flagger sign.
- Issue: Not facing traffic at-all-times. Standing in the lane of oncoming traffic, crossing the centerline, or not having an escape route.
  - o Solution: Flaggers should always face on-coming traffic.
- Issue: Distractions: Chatting, talking or texting, straying from their post, or eating and drinking.
  - o Solution: Flaggers must always remain focused.

## How do Flaggers Protect Themselves?

The best way Flaggers can protect themselves is to stay alert, be visible, and wear protective clothing.

- Wear high-visibility (hi-vis) clothing based on speed and lighting conditions. In areas of moving traffic, hi-vis clothing makes the worker visible for at least 1,000 feet. Hi-vis clothing makes the worker visible from any direction and stand out from the background.
- Wear proper personal protective equipment (PPE) such as: hardhats, long sleeve shirt and pants, and proper clothes for expected weather.
- Stay alert and out of harm's way.
- Attend a flagger safety training course. Flaggers should be trained/certified, and use required signaling methods. Consider training provided by the Ohio BWC or ODOT Local Technical Assistance Program (LTAP).

## Discussion Exercise

Ask the group to discuss proper placement of flaggers. Answers might include:

- At the beginning of the taper (on lane closures).
- On the shoulder or in a barricaded lane.
- Never in the path of moving vehicles.
- Never abandoning the post until relieved by another flagger.

Ask the group to list factors affecting the visibility of the flagger from a driver's point of view. These might include:

- Hills, curves and obstructions.
- Low light: dawn/dusk, shade/ darkness.
- Blend in with background/no color contrast.
- Harsh weather.
- Other workers.

## Conclusion

Finally, remind the group that the factors discussed are vitally important and that they are responsible to protect themselves and others in work zones. Remind them that flaggers must:

- Always follow the OMUTCD flagging techniques.
- Always wear high-visibility clothing.
- Remain alert and watchful.
- Never cross the centerline.
- Always have an escape route.
- Prepare for the unexpected.
- Never trust other drivers.
- Have a way to alert work crews of errant vehicles (i.e. air horn, whistles, or other warnings they can sound quickly and hear in noisy conditions).

## Group activity

- Present a copy of a traffic control plan from the OMUTCD and have the group show the proper location for the flagger.
- Have one group member show errant vehicle procedure and have the rest of the group critique the demonstration. Did he/she act quickly, remembering to, in this order:
  1. Move out of the way.
  2. Effectively warn co-workers.
  3. Return to his or her post to continue to direct traffic.
  4. Note any information concerning the errant vehicle.

## Resources

[Ohio Manual of Uniform Traffic Control Devices](#)

[OSHA Fact Sheet – Work Zone Traffic Safety](#)

[Ohio Department of Transportation LTAP](#)

[NIOSH – Building Safer Highway Work Zones](#)

[US DOT Federal Highway Administration](#)

[Laborers Health and Safety Fund of North America](#)

[CPWR – Struck-By Hazards](#)