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This handbook includes
section 6E of the MUTCD, Part 6
This handbook has been developed consistent with the latest edition of Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD), and in cooperation with FHWA, AASHTO, and other agencies and associations.

Introduction
To You, The Flagger
You have been chosen for the job of flagger because your supervisor feels you are physically able, mentally alert and sufficiently commanding in appearance to properly control traffic through construction, maintenance, and utility work areas.

As a flagger, your duties are to protect project personnel and provide safe, courteous and authoritative directions to traffic seeking passage through the work area. Yours is an important position to be carried out with authority and dignity.

This handbook has been prepared to assist you in understanding your duties and is to be properly studied and available for ready reference. Remember, they (your fellow workers and the traveling public) depend on you.

Equipment
Apparel (Clothing)
For daytime work, the flagger’s apparel (vest, shirt, or jacket) shall be either fluorescent orange-red or a fluorescent yellow-green as defined in the standard. For nighttime work, similar outside garments shall be retroreflective. The retroreflective material shall be either orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and shall be visible at a minimum distance of 300 m (1,000 ft). The retroreflective clothing shall be designed to clearly identify the wearer as a person. ANSI 107 Class 2 apparel shall be worn during the day. Class 3 apparel is recommended for nighttime flagger operations.

Don’t forget to check with local agencies for other apparel and equipment requirements (for example, steel-toed shoes or special colored hard-hats).

Immodest or sloppy dress should not be permitted! Remember, a neat appearance helps gain respect and makes your job more effective.
Hand Signaling Devices

Flaggers should have standard combination “STOP”/“SLOW” paddles, which are at least 450mm (18 inches) wide with letters at least 150mm (6 inches) high. Flashing white lights may be used on the “STOP” face of the paddle. In emergencies, or when a one-flagger station is used, a bright red flag at least 600mm (24 in. square), on a 800mm (36 in.) long staff may be used.

When used at night, flags shall be retroflectorized red. Night time flagging requires proper illumination of the flagger and equipment. At night, flagger stations should be illuminated. The stop/slow paddle may be modified to improve conspicuity.

Hand signaling devices, such as STOP/SLOW paddles, lights, and red flags, are used to control road users through TTC zones.

The STOP/SLOW paddle is the primary and preferred hand-signaling device because the STOP/ SLOW paddle gives road users more positive guidance than red flags. Use of flags is limited to emergency situations.

Flags, when used, shall be a minimum of 600 mm (24 in) square, made of a good grade of red material, and securely fastened to a staff that is approximately 900 mm (36 in) in length.

The free edge of a flag should be weighted so the flag will hang vertically, even in heavy winds.

When used at nighttime, flags shall be retroflectorized red.

The STOP/SLOW paddle shall have an octagonal shape on a rigid handle. STOP/SLOW paddles shall be at least 150mm (6 in) high and should be fabricated from light semirigid material. The background of the STOP face shall be red and white letters with border. The background of the SLOW face shall be orange with black letters and border. When used at night, the STOP/SLOW paddle shall be retroflectorized.

The STOP/SLOW paddle may be modified to improve conspicuity by incorporating either white or red flashing lights on the STOP face, and either white or yellow flashing lights on the SLOW face. The flashing lights may be arranged in any of the patterns described in Appendix 1.
Flagger’s Position

- While on duty as a flagger you must be alert at all times and be on your feet facing oncoming traffic.

- Always stand in a highly visible location but never directly in the path of an approaching vehicle.

- Approaching traffic must be able to see you in plenty of time to react safely (see Figure on page 4).

- The flagger should stand either on the shoulder adjacent to the road user being controlled or in the closed lane prior to stopping road users.

- A flagger should be clearly visible to the first approaching road user at all times.

- The flagger also should be visible to the other road users.

- The flagger should be stationed sufficiently in advance of the workers to warn them (for example, with audible warning devices such as horns, whistles, etc.) of approaching danger by out-of-control vehicles.

- The flagger should stand alone, never permitting a group of workers to congregate around the flagger station.

When two flaggers are working together (one on either end of the work area), they should always be able to see each other or use two-way radios for proper communication. In such cases, one flagger is always in charge and the other flagger must coordinate his or her activities accordingly.

When performing as a flagger, always stand alone; never mingle with the work crew, the traveling public, or other people. To avoid hindering the sight distance for motorists or causing other obstructions, flaggers should park their personal vehicles well off the roadway and not close to the flagger station.

In certain instances the nature of the work may be such that only one flagger is required (minor shoulder repair, guardrail installation, or other work conditions where the length of the work space is short and traffic approaching from either direction can easily see the flagger). In such instances you, as a “single flagger,” should generally operate from the roadway shoulder, directly opposite from the work.
space and in a position highly visible to approaching traffic from either direction (see Figure below). The figure on page 4 shows a typical flagger position.

**Remember:** Arrow panels (displaying arrows or chevrons) shall not be used in conjunction with flagger operations.
<table>
<thead>
<tr>
<th>Road Type</th>
<th>Distance Between Signs**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Urban (low speed)*</td>
<td>30 m (100 ft)</td>
</tr>
<tr>
<td>Urban (high speed)*</td>
<td>100 m (350 ft)</td>
</tr>
<tr>
<td>Rural</td>
<td>150 m (500 ft)</td>
</tr>
</tbody>
</table>

* Speed category to be determined highway agency.
** Distances are shown in meters (feet). The column headings A, B, and C are dimensions shown in figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The third sign is the first one in a three-sign series encountered by a driver approaching a TTC zone.)

Since rural highways are normally characterized by higher speeds, the effective placement of the first warning signs in meters (feet) should be substantially longer—from 1.5 to 2.25 times the speed limit in km/h (8 to 12 times the speed limit in mph). Since two or more advance warning signs are normally used for these conditions, the advance warning area should extend 450 m (1,500 ft) for open highway conditions (See Table 6C-1).

**Warning Sign Sizes**

TTC warning signs shall conform to the Standards for warning signs presented in Part 2 and in FHWA’s “Standard Highway Signs” book (see Section 1A.11). TTC warning signs shall be diamond shaped with a black legend and border on an orange background, except for the W10-1 sign which shall have a black legend and border on a yellow background, to have fluorescent yellow-green backgrounds.

Because of their importance, advance warning signs for higher-speed locations shall have a size of 1200 x 1200 mm (48 x 48 in).

For freeways and expressways, the size of diamond shaped TTC warning signs shall be a minimum of 1200 x 1200 mm (48 x 48 in).

Where speeds and volumes are moderately low, a minimum size of 900 x 900 mm (36 x 36 in) may be used for advance warning signs.

On secondary roads or city streets where speeds are very low, signs smaller than the standard size, but not less than 600 x 600 mm (24 x 24 in), may be used for warning signs having short word messages or clear symbols.

Advance warning signs larger than the minimum standards may be used for additional emphasis of the TTC zone.
**Advance Flagger**

Certain situations may require that “advance flaggers” also be used where there is limited sight distance to the temporary traffic control area, or when traffic volume is such that distance between the first vehicle in line and the last vehicle in line is great.

The decision to use an advance flagger should be made at the Foreman or Supervisor level consistent with the agency's or organization’s temporary traffic control plan.

As an advance flagger, you should stop each vehicle as it approaches and advise the driver of the work ahead and actions required such as: “fresh oil ahead, drive slowly,” “keep to the right and stay in the line,” etc. Be considerate and alert, and avoid unnecessary conversation.

**Pay Attention to Your Job**

Remember, your job is handling traffic. Do not otherwise assist the work crew, watch construction operations instead of traffic, or engage in any other activity in addition to your duties as a flagger.

If you need a break tell your supervisor so that a proper replacement may be brought in. Never leave your post.

---

**Flagger Procedures**

The use of paddles and flags is illustrated in figure 6E-1.

The following methods of signaling with paddles shall be used:

A. To stop road users, the flagger shall face road users and aim the STOP paddle face toward road users in a stationary position with the arm extended horizontally away from the body. The free arm shall be held with the palm of the hand above shoulder level toward the approaching traffic.

B. To direct stopped road users to proceed, the flagger shall face road users with the SLOW paddle face aimed toward the road users in a stationary position with the arm extended horizontally away from the body. The flagger shall motion with the free hand for road users to proceed.

C. To alert or slow traffic, the flagger shall face road users with the SLOW paddle face aimed toward road users in a stationary position with the arm extended horizontally away from the body.

To further alert or slow down traffic, the flagger holding the SLOW paddle face toward the road users may motion up and down with the free hand, palm down.

The following methods of signaling with a flag shall be used:

A. To stop road users, the flagger shall face road users and extend the flag staff horizontally across the road users’ lane in a stationary position so that the full area of the flag is visibly hanging below the staff. The free arm shall be held with the palm of the hand above the shoulder level toward approaching traffic.
B. To direct stopped road users to proceed, the flagger shall stand parallel to the road user movement and with flag and arm lowered from the view of the road users, and shall motion with the free hand for road users to proceed. Flags shall not be used to signal road users to proceed.

C. To alert or slow traffic, the flagger shall face road users and slowly wave the flag in a sweeping motion of the extended arm from shoulder level to straight down without raising the arm above a horizontal position. The flagger shall keep the free hand down.

To Stop Traffic

Hold the stop sign erect and away from your body, look directly at the approaching driver, and with the free arm upraised and the palm of the hand exposed to the driver, bring the first vehicle to a full stop. Do not wave the paddle!

After the first vehicle has been stopped, move to a spot where you can be seen by other approaching vehicles, preferably near the centerline of the roadway, and stop all remaining vehicles in the same manner. Remain in this position with the “STOP” sign facing traffic until you can permit travel through the work area. Remember, never stand in the path of an approaching vehicle, and never turn your back on traffic.

When flagging at night, wave a flashlight or lantern in a semi-circle arc in order to attract the
driver’s attention and use a reflectorized paddle (see Figure on page 2). Flagger stations shall be illuminated at night.

Remember that a motorist requires considerable time to see and understand your signals; therefore, make clear and precise signals that can be easily seen and understood.

**Release of Traffic**

*To Release Traffic into Left Lane (One-Way Traffic)*

While standing to the front and right of stopped traffic, turn the “SLOW” side of the sign to face the vehicles and with your free arm signal the drivers to proceed to the left lane (see Figure below).

Never wave the sign! After all the vehicles have passed, return to your original position on the shoulder to await the next vehicle.

*To Release Traffic into Right Lane (One-Way Traffic)*

Return to your position on the shoulder, display the slow sign to the drivers and with your free arm motion the drivers to proceed (see Figure below).
To Release Traffic on Right Lane
(Two-Way Traffic)
When releasing traffic on a two-lane highway where traffic is stopped temporarily in only one lane, (such as for loading or unloading operations), the sign standard should be turned a quarter-turn so that the letters "STOP" face you as the flagger (see Figure below). In this position, the sign should be parallel to the shoulder of the road so that neither "STOP" nor "SLOW" can be read by motorists approaching from either direction. The "STOP" message then will not confuse continuous traffic traveling the opposite direction. When releasing the stopped traffic the flagger may initiate movement with a positive motion. This motion may be continued if hesitancy by the motorist is indicated.

To Slow Traffic
When slowing traffic or funneling traffic into other lanes, only the "SLOW" side of the paddle should be shown to approaching traffic, then motion with your free hand for the motorists to proceed (see Figure below). You should operate from the shoulder of the roadway when no approaching traffic lanes are closed. Never stand in the path of oncoming traffic.

In cases of temporary lane closures, a transition consisting of cones, barricades, or other channelizing devices designating the activity area should be established.
Traffic Control at Haul Road Intersections

Generally, traffic control procedures are the same for haul road intersections as for the other work areas. Should trucks be making a right turn onto the highway, only one flagger would be required (see Figure below). If trucks have the right of way and are crossing the highway or making a left turn, two flaggers will be necessary to control traffic from each direction.

Flag Carrying Method

Flag carrying may be effective when the route is well defined and non-hazardous. It should be used only when the one-way traffic is confined to a relatively short section of roadway, usually not more than 1 mile in length.

The driver of the last vehicle proceeding into the one-lane section is given a clean, dry red flag (or other item) and instructed to deliver it to the flagger at the other end. Instruct the driver not to pass other vehicles in the work area. The opposite flagger, upon receipt of the flag, then knows it is safe to allow traffic to move in the other direction. Hold all traffic until the flag is returned to you or the “all clear” signal is given.

A variation of the above flag carrying method is use of an “official” vehicle which always follows the last vehicle through the work area. The use of an official car eliminates the possibility of losing the flag or of the flag-carrying car passing other vehicles.

Pilot Car Operations

Work is often performed over a long section of highway. When the flagger at the opposite end is not visible to you, a pilot car may be used to escort vehicles through the work area. You are to stop vehicles in the approved manner as they approach, and detain them until the pilot car arrives from the opposite direction.

After stopping the first vehicle, move to a position near the centerline of the roadway so as to be easily seen by approaching drivers. Be alert to prevent vehicles from pulling out of line and trying to pass other waiting vehicles, as this would seriously congest the traffic holding area and endanger or impede opposing traffic.

After the pilot car arrives and has pulled into position at the head of your column, wait until the last vehicle has arrived with the flag. Then step back onto the shoulder and, with the “SLOW” sign extended, motion the pilot car driver and others to proceed. Unless otherwise instructed, stop the last car in the column and give the driver a flag (or other item) with instructions to deliver it to the flagger at the other end of the work area. Release the vehicle, then assume your proper position for stopping the next vehicle as before.
Additional Aids

Where companion flaggers are far apart or out of sight of each other, two-way radio communications between stations are required. Also, two-way radio communications with the work crew supervisor may be helpful (communicating periodic road closings of short duration, new caution instructions to be given motorists regarding road conditions, etc.).

Always use appropriate advance warning signs, giving particular attention to sign visibility, legibility and placement.

Remember, always remove signs or completely cover the sign messages when they do not apply to present temporary traffic control conditions.
Rules of Conduct

1. If the instruction to the motorist is to “STOP,” you should tell the first driver the reason for the delay if it is not apparent. (Do not abandon your post at the head of the traffic line to advise other drivers. This duty should be taken care of by an “advance flagger” if deemed necessary by your supervisor). Information should be given in a few brief but courteous words, such as, “There is a culvert out ahead,” “We have a motorgrader working just around the corner,” etc.

2. Do not lean on the vehicles and talk to the occupants. Be friendly and polite but do not become preoccupied with small talk. Your job demands full and complete concentration.

3. Never engage in arguments with the occupants of a vehicle. It is important that you be courteous, yet brief and factual in your conversation with them.

4. If a driver refuses to obey instructions, you shall record a general description of the car and driver, the vehicle license number and the circumstances involved, then report this information to the supervisor as soon as possible without deserting your post.

5. All signs indicating a flagger is on duty must be removed or covered when you or your replacements are not actually flagging.
6. You should always be alert to the needs of emergency vehicles and crews. Special care should be used to allow safe passage of such vehicles and crews, and other vehicular or pedestrian traffic as possible. Remember, however, that these "priority rights" should never ignore basic rules of safety first. (A wrecked ambulance is usually worse than no ambulance at all).

Each agency or organization should have developed a standard emergency vehicle and safety plan of operation. Discuss with your supervisor what you should do in case of emergencies.

**Emergency Procedures**

So far what you’ve been reading has been about your responsibilities in assisting motorists, pedestrians, and co-workers while in or going through a worksite. How about your responsibility to yourself? As a flagger you can do no good for anyone if you become injured while flagging. **PROTECT YOURSELF!**

Once you have selected or been assigned your flagger position by your supervisor, look over the area for one or more methods or routes of escape — a place to get to in order to avoid being injured by a vehicle heading your way, regardless of the reason.

Should you observe a vehicle heading your way, protect yourself first — THEN warn the crew. It's a good idea to have some sort of warning device that is capable of being heard by the crew above the construction noise. Perhaps a police whistle might suffice if the work site is close and the noise level low. A portable air horn, such as those used on boats, clipped to your belt may be better. Even a metal klaxon (a triangular metal apparatus hit with a heavy metal clanger) can work well if other devices are not available. Whatever you use, make sure the crew is aware of your signals and knows what to do when you sound the warning.

Finally, when all previous life saving actions have been taken, try to get the vehicle and driver description and any other helpful information and notify your supervisor without leaving your flagging position unless properly relieved. The supervisor can then follow up with the local law enforcement agency.

**For the Supervisor**

Successful execution of traffic control is dependent upon proper supervision. One of the first and most important steps in supervision is the issuance of all necessary instructions to the foreman, crew chief and flagger who must undertake the responsibility for traffic control. It must not be assumed that employees will understand their
duties without careful and complete instructions. An uninformed flagger can cause confusion and accidents instead of preventing them. On the other hand, proper instructions will increase his or her interest, encourage better performance, develop sound judgement for use in difficult situations, and enhance better public relations.

Remember that lasting impressions are made, and public opinion is quickly formed, during the brief contact the motorist has with our maintenance, construction and engineering forces.

It is impractical to attempt in this booklet to cover the vast number of situations that will arise during the course of work that may require special traffic control. We must therefore depend upon supervisory personnel to plan each particular action and supervise the placement of signs, other traffic control devices, and flaggers. The safety of the work crew and the motoring public is more important than the construction or maintenance operations you are performing.

As a reminder of a few of the more important things to consider, and in an effort to obtain more uniformity of traffic control, the following standards are established.

1. The supervisor shall decide which situations require a flagger or flaggers. The common complaint that flaggers are not available because of insufficient help is not an acceptable excuse for exposing workers and highway users to the danger of being maimed or killed.

Do not use a flagger unless you need one. In some situations, the use of a flagger where one is not needed could result in more danger to the motorist, or the worker.

2. The selection of persons to be employed as flaggers and the assignment of persons already employed in this duty are clearly the responsibility of the supervisor. ATSSA flagger certification is available and may even be required in your jurisdiction. See Flagger Workbook for additional information.

Do not simply select the person who is least qualified for other jobs. Remember, the safety of you and other workers could depend on the flagger.

3. Flaggers must be thoroughly instructed in the importance of the work they are to perform before being allowed to assume full responsibility for flagging operations. In addition to oral instructions the flagger is to be handed a copy of this manual and made to understand that it is his or her duty to read it and follow its instructions. (It may be necessary to conduct formalized training sessions or certification programs for all persons who are assigned traffic control responsibilities).

4. Flaggers should be provided with the proper apparel and equipment — at least an orange safety vest and an orange hat if possible, and a "STOP"/"SLOW" paddle in good condition. Materials used at night shall be retroreflective. A flag should be used only in emergency situations and should be replaced with a paddle as soon as possible.

5. Traffic control should be handled in a uniform manner throughout your area of supervision.

6. Flaggers should be relieved periodically during the course of work to provide ample rest breaks or diversions. This is very important to maintain proficient flagging operations.
7. Those in charge of work must make certain that all required warning signs, channelizing devices, flags, flaggers, and equipment are in place, and that all precautionary measures to safeguard the public and employees have been taken before work is started. They shall see that such warnings are properly placed and maintained during the progress of the work.

8. Each work project will require special study before a flagger is placed to be sure that he or she is properly located. It is important that the flagger stand where he or she can see the workers if possible, and where the approaching driver can see the flagger in plenty of time to interpret and react to the signals to slow down or stop if required.

9. When the traffic control devices and flaggers have been established, the supervisor should, as soon as possible, drive through the work area at the anticipated speed of the motorists in order to determine the effectiveness of the total traffic control system.

10. Should a flagger report that a close call or near accident has occurred after the control has been set up, you will take it as a warning that something is wrong and investigate at once. After the necessary adjustments have been made, do not leave the job until you have studied the behavior of traffic to assure yourself that the problem has been corrected.

11. Serious traffic control violations should be reported to the police as soon as possible. Provide them with the license number, description of vehicle, type and time of violation, and description of driver. It is advised that pen and paper be a part of ones equipment.

12. “Crew Working,” “Survey Crew,” Flaggers Ahead,” etc., signs shall be removed or covered during the noon hour, at quitting time, and any other time when work is interrupted and the equipment is clear of the traveled way. The confidence of the traveling public in these warning devices must be maintained.

13. Advance warning signs and traffic control “paddles” shall be turned in for refurbishing, resheeting or replacement when the colors become dull or worn.

14. All temporary traffic control signs shall be in accordance with the “Manual on Uniform Traffic Control Devices.” “Home made” or poorly repaired signs are often confusing and lead to disrespect for our traffic control efforts.

15. A pilot car should be used in addition to the flagger where traffic must be kept in line or at reduced speed over particularly hazardous, or long sections of roadway. The pilot car driver should travel at a speed that is safe and that can be maintained by all vehicles in the convoy.

Extreme caution must be used in turning around. Wait until all vehicles have cleared. Pilot car vehicles must have as much visibility as possible. Only passenger cars, carryalls or open pickups are to be used.

It is the duty of the supervisors to see that the instructions in this booklet are followed. You and your crew should not hesitate to identify and correct any carelessness or case of neglect that may lead to an accident.

Before work begins, the safety measures to be taken should be discussed and formulated in detail with immediate supervisors by the supervisor in
charge of the work. The selection of persons suitable for traffic control operations should be included in this discussion.

The projected traffic control plan should provide specific instructions for traffic control throughout the project limits. Particular attention should be given to proper training and awareness of each individual responsible for the temporary traffic control and to special items such as the proper treatment of emergency vehicles and crews, the correct response to an accident (both with and without bodily injury), etc.

Be proud of your position as a supervisor and be proud of your flaggers and the job they are doing. Be effective in your decisions and continue to give our "boss," the traveling public, the safest and most efficient system of highways possible.

Appendix 1

The following pages are from Part 6E of the Manual on Uniform Traffic Control Devices (MUTCD):

Flagger Control

Section 6E.01 Qualifications for Flaggers

Support:
Whenever the acronym “TTC” is used in this Chapter, it refers to “temporary traffic control”.

Standard:
A flagger shall be a person who provides TTC.

Guidance:
Because flaggers are responsible for public safety and make the greatest number of contacts with the public of all highway workers, they should be trained in safe traffic control practices and public contact techniques. Flaggers should be able to satisfactorily demonstrate the following abilities:
A. Ability to receive and communicate specific instructions clearly, firmly, and courteously;
B. Ability to move and maneuver quickly in order to avoid danger from errant vehicles;
C. Ability to control signaling devices (such as paddles and flags) in order to provide clear and positive guidance to drivers approaching a TTC zone in frequently changing situations;
D. Ability to understand and apply safe traffic control practices, sometimes in stressful or emergency situations; and
E. Ability to recognize dangerous traffic situations and warn workers in sufficient time to avoid injury.
Section 6E.02
High-Visibility Safety Apparel

Standard:
For daytime and nighttime activity, flaggers shall wear safety apparel meeting the requirements of ISEA “American National Standard for High-Visibility Apparel” (see Section 1A.11) and labeled as meeting the ANSI 107-1999 standard performance for Class 2 risk exposure. The apparel background (outer) material color shall be either fluorescent orange-red or fluorescent yellow-green as defined in the standard. The retroreflective material shall be either orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and shall be visible at a minimum distance of 300 m (1,000 ft). The retroreflective safety apparel shall be designed to clearly identify the wearer as a person.

Guidance:
For nighttime activity, safety apparel meeting the requirements of ISEA “American National Standard for High-Visibility Apparel” (see Section 1A.11) and labeled as meeting the ANSI 107-1999 standard performance for Class 3 risk exposure should be considered for flagger wear (instead of the Class 2 safety apparel in the Standard above).
When uniformed law enforcement officers are used, high-visibility safety apparel as described in this Section should be worn by the law enforcement officer.

Section 6E.03
Hand-Signaling Devices

Support:
Hand-signaling devices, such as STOP/SLOW paddles, lights, and red flags, are used to control road users through TTC zones.

The STOP/SLOW paddle should be the primary and preferred hand-signaling device because the STOP/SLOW paddle gives road users more positive guidance than red flags. Use of flags should be limited to emergency situations.

Standard:
The STOP/SLOW paddle shall have an octagonal shape on a rigid handle. STOP/SLOW paddles shall be at least 450 mm (18 in) wide with letters at least 150 mm (6 in) high and should be fabricated from light semirigid material. The background of the STOP face shall be red with white letters and border. The background of the SLOW face shall be orange with black letters and border. When used at night, the STOP/SLOW paddle shall be retroreflectorized.

Option:
The STOP/SLOW paddle may be modified to improve conspicuity by incorporating either white or red flashing lights on the STOP face, and either white or yellow flashing lights on the SLOW face. The flashing lights may be arranged in any of the following patterns:
A. Two white or red lights, one centered vertically above and one centered vertically below the STOP legend; and/or two white or yellow lights, one centered vertically above and one centered vertically below the SLOW legend; or
B. Two white or red lights, one centered horizontally on each side of the STOP legend; and/or two white or yellow lights, one centered horizontally on each side of the SLOW legend; or
C. One white or red light centered below the STOP legend; and/or one white or yellow light centered below the SLOW legend; or
D. A series of eight or more small white or red lights no larger than 6 mm (0.25 in) in diameter along the outer edge of the paddle, arranged in an octagonal pattern at the eight corners of the border of the STOP face; and/or a series of eight or more small white or yellow lights no larger than 6 mm (0.25 in) in diameter along the outer edge of the paddle, arranged in a diamond pattern along the border of the SLOW face.

E. A series of white lights forming the shapes of the letters in the legend.

**Standard:**

If flashing lights are used on the STOP face of the paddle, their colors shall be all white or all red. If flashing lights are used on the SLOW face of the paddle, their colors shall be all white or all yellow.

If more than eight flashing lights are used, the lights shall be arranged such that they clearly convey the octagonal shape of the STOP face of the paddle and/or the diamond shape of the SLOW face of the paddle.

If flashing lights are used on the STOP/SLOW paddle, the flash rate shall be at least 50, but not more than 60, flashes per minute.

Flags, when used, shall be a minimum of 600 mm (24 in) square, made of a good grade of red material, and securely fastened to a staff that is approximately 900 mm (36 in) in length.

**Guidance:**

The free edge of a flag should be weighted so the flag will hang vertically, even in heavy winds.

**Standard:**

When used at nighttime, flags shall be retroreflectorized red.

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**Section 6E.04**

Flagger Procedures

**Support:**

The use of paddles and flags by flaggers is illustrated in Figure 6E-1.

**Standard:**

The following methods of signaling with paddles shall be used:

A. To stop road users, the flagger shall face road users and aim the STOP paddle face toward road users in a stationary position with the arm extended horizontally away from the body. The free arm shall be held with the palm of the hand above shoulder level toward approaching traffic.

B. To direct stopped road users to proceed, the flagger shall face road users with the SLOW paddle face aimed toward road users in a stationary position with the arm extended horizontally away from the body. The flagger shall motion with the free hand for road users to proceed.

C. To alert or slow traffic, the flagger shall face road users with the SLOW paddle face aimed toward road users in a stationary position with the arm extended horizontally away from the body.

**Option:**

To further alert or slow traffic, the flagger holding the SLOW paddle face toward road users may motion up and down with the free hand, palm down.

**Standard:**

The following methods of signaling with a flag shall be used:
A. To stop road users, the flagger shall face road users and extend the flag staff horizontally across the road users' lane in a stationary position so that the full area of the flag is visibly hanging below the staff. The free arm shall be held with the palm of the hand above the shoulder level toward approaching traffic.

B. To direct stopped road users to proceed, the flagger shall stand parallel to the road user movement and with flag and arm lowered from the view of the road users, and shall motion with the free hand for road users to proceed. Flags shall not be used to signal road users to proceed.

C. To alert or slow traffic, the flagger shall face road users and slowly wave the flag in a sweeping motion of the extended arm from shoulder level to straight down without raising the arm above a horizontal position. The flagger shall keep the free hand down.

Figure 6E-1. Use of Hand-Signaling Devices by Flaggers

<table>
<thead>
<tr>
<th>PREFERRED METHOD</th>
<th>EMERGENCY SITUATIONS ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOP/SLOW Paddle</td>
<td>Red Flag</td>
</tr>
</tbody>
</table>

![Diagram of flagging methods]

STOP

TO STOP TRAFFIC

SLOW

TO LET TRAFFIC PROCEED

STOP

TO ALERT AND SLOW TRAFFIC
Section 6E.05
Flagger Stations

Standard:
Flagger stations shall be located such that approaching road users will have sufficient distance to stop at an intended stopping point.

Option:
The distances shown in Table 6E-1, which provides information regarding the stopping sight distance as a function of speed, may be used for the location of a flagger station. These distances may be increased for downgrades and other conditions that affect stopping distance.

Flagger stations should be located such that an errant vehicle has additional space to stop without entering the work space.

Standard:
Except in emergency situations, flagger stations shall be preceded by an advance warning sign or signs. Except in emergency situations, flagger stations shall be illuminated at night.

Guidance:
The flagger should stand either on the shoulder adjacent to the road user being controlled or in the closed lane prior to stopping road users. A flagger should only stand in the lane being used by moving road users after road users have stopped. The flagger should be clearly visible to the first approaching road user at all times. The flagger also should be visible to other road users. The flagger should be stationed sufficiently in advance of the workers to warn them (for example, with audible warning devices such as horns or whistles)

of approaching danger by out-of-control vehicles. The flagger should stand alone, never permitting a group of workers to congregate around the flagger station.

Option:
At a spot constriction, the flagger may have to take a position on the shoulder opposite the closed section in order to operate effectively.

At spot lane closures where adequate sight distance is available for the reasonably safe handling of traffic, the use of one flagger may be sufficient.

Table 6E-1. Stopping Sight Distance as a Function of Speed

<table>
<thead>
<tr>
<th>Speed* (km/h)</th>
<th>Distance (m)</th>
<th>Speed* (mph)</th>
<th>Distance (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>35</td>
<td>20</td>
<td>115</td>
</tr>
<tr>
<td>40</td>
<td>50</td>
<td>25</td>
<td>155</td>
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<td>50</td>
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<td>30</td>
<td>200</td>
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<tr>
<td>60</td>
<td>85</td>
<td>35</td>
<td>250</td>
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<td>70</td>
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<td>40</td>
<td>305</td>
</tr>
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<td>80</td>
<td>130</td>
<td>45</td>
<td>360</td>
</tr>
<tr>
<td>90</td>
<td>160</td>
<td>50</td>
<td>425</td>
</tr>
<tr>
<td>100</td>
<td>185</td>
<td>55</td>
<td>495</td>
</tr>
<tr>
<td>110</td>
<td>220</td>
<td>60</td>
<td>570</td>
</tr>
<tr>
<td>120</td>
<td>250</td>
<td>65</td>
<td>645</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70</td>
<td>730</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75</td>
<td>820</td>
</tr>
</tbody>
</table>

* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed
Figure 6H-10. Lane Closoure on Two-Lane Road Using Figgures (TA-10)

Typical Application 10

Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure.

One Lane Two-Way Traffic Taper
30 m (100 ft) MAX

Buffer Space (optional)

Note: The buffer space should be added so that the two-way taper can be extended horizontally (or corner vertical) come to provide adequate sight distance for the flagger and a queue of stopped vehicles.

Figure 6H-13. Temporary Road Closure (TA-13)

Typical Application 13

Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure.
Figure 6H-27. Closure at Side of Intersection (TA-27)

Typical Application 27

30 m (100 ft) MAX.

See Note 2 for flagger information.

Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure.

Figure 6H-46. Work in Vicinity of Highway-Rail Grade-Crossing (TA-46)

Typical Application 46

30 m (100 ft) MAX.

Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure.
Before leaving for the job site, check the following:

**STOP/SLOW Paddle**
- Clean?
- At least 18” x 18”?
- Rigid handle at least 5 feet high?
- Reflective if used at night?

**Flag**
- Good grade RED material?
- At least 18” x 18”.
- Staff at least 3 feet long?
- Reflective if used at night?
- Weighted?
- Used for emergencies only?

**High-Visibility Safety Apparel**
- ANSI Class 2 apparel for daytime work?
- ANSI Class 3 apparel for nighttime work?
- Proper colors?
- Clean?
- Hardhat?
- Does it protect you from the elements?

**Communication devices**
- Two-way radio?
- Flag for token method?
- Extra batteries?

**Other**
- Air horn?
- Whistle?
- Water?
- Snacks?
- Pencil and paper?
- Comfortable shoes?
- Sun protection?
- Gloves?
- Bug spray?
- First-aid kit?
- Flagger Handbook?
- Have you asked your supervisor all your questions?
- Do you have a way of contacting your supervisor?
- Have you received the proper training to perform this job?

At the job site, before starting the flagger operation, if applicable:

- Are you wearing your high-visibility safety apparel and hardhat?
- Is your air horn easily accessible?
- Have you told your fellow workers how you plan to warn them?
- Is there at least a FLAGGER AHEAD sign ahead of you?
- Is the sign at least 500 feet ahead of you?
- Can you effectively communicate with the other flagger(s)?
- Is your radio working properly?
- Are you clearly visible to oncoming traffic?
- Are you on the shoulder and away from moving traffic?
- Are you giving the proper signals to oncoming drivers?
  - STOP?
  - RELEASE?
  - SLOW?
- Have you expressed any concerns to your supervisor?
- Have you identified your escape route?
- Are there a transition (taper) and a buffer space between you and the work space?
- Proper devices (such as cones).
- Taper should be no longer than 100 feet long.
- Buffer should be between 200 and 500 feet (check with the supervisor).
- Do not leave your post.

**In case of a violation:**

- Protect yourself FIRST!
- Alert other workers (air horn).
- Maintain your post.
- Note information about the violator, if possible.
- Notify your supervisor.