

## ***FLAGGER SAFETY - THINGS TO REMEMBER***

- 1. The JOB is important !**
- 2. The Flagger must be PHYSICALLY and MENTALLY strong.**
- 3. CLOTHING and TOOLS are specified.**
- 4. Tools include a SMILE!**
- 5. Your POSITION and MOTIONS are right!**
- 6. You know the RULES!**
- 7. The WARNING SIGNS are proper!**
- 8. The traffic slowed down is safer!**
- 9. One-way Traffic requires special attention!**
- 10. Night Time flagging requires extra equipment.**

Developed by:

Utah Department of Transportation  
Division of Traffic & Safety

FHWA, Utah Division

Mountainland Applied Technology College

Utah LTAP

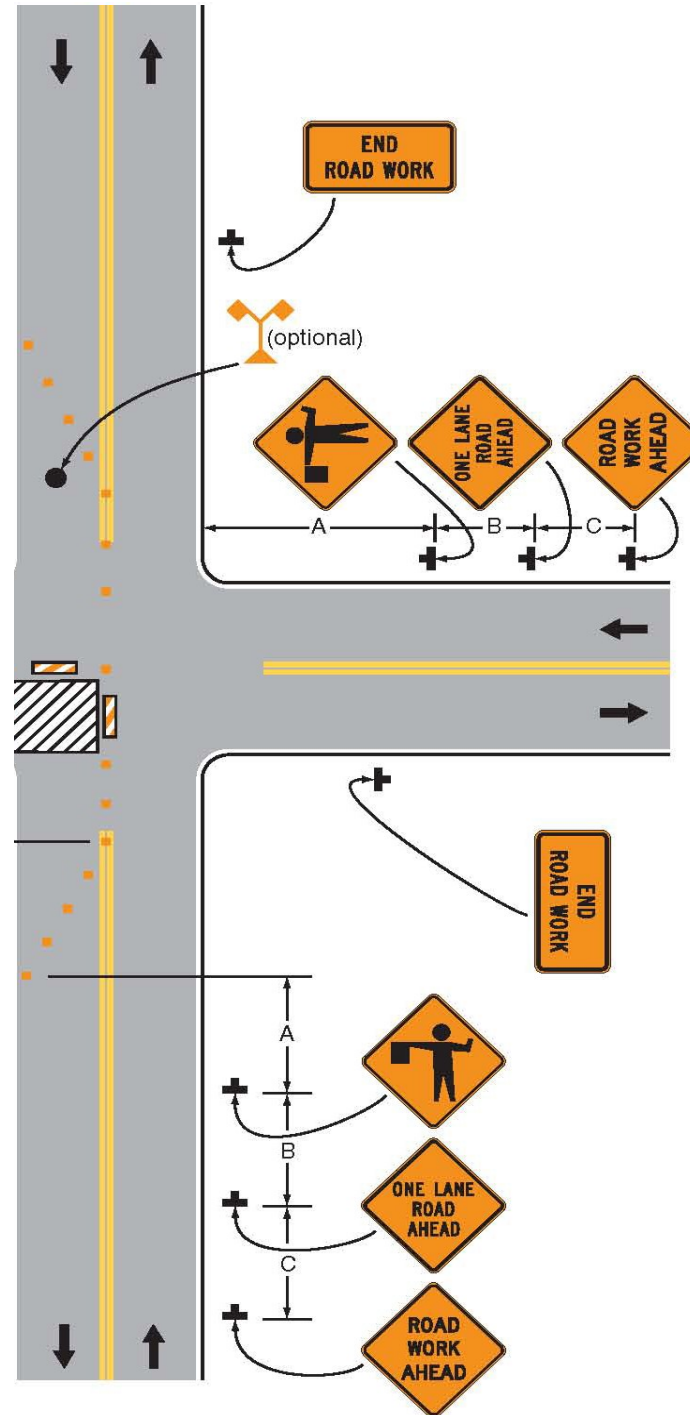


## **FLAGGER TRAINING HANDBOOK**

Revised March 2018

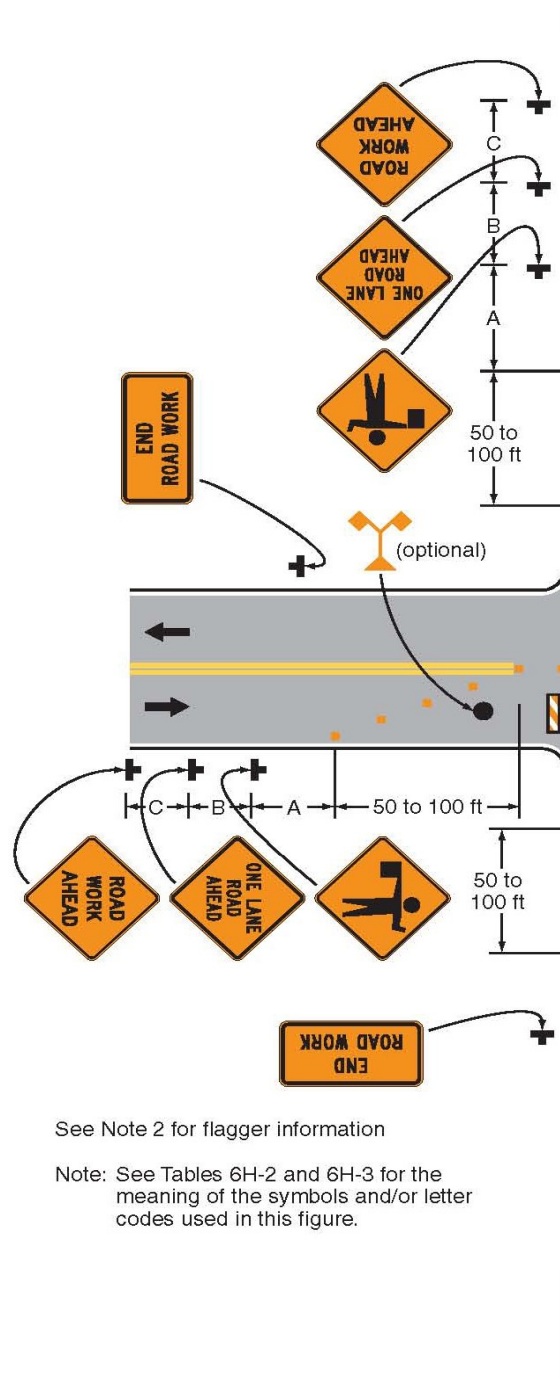
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Lane closure at intersection  
TA-27 pg. 687

Flaggers may control traffic through a signalized intersection only when the signal has been turned to the all RED flash mode or are inoperable. A uniformed law enforcement officer is required when the signal is operational.



## INTRODUCTION

Being a Flagger is an important job. A flagger has the charge to protect the lives of workers, motorists, pedestrians, and bicyclists on the roadway.

**FLAGGERS SHOULD NEVER FORGET THAT LIVES, EQUIPMENT, AND MATERIAL ARE IN YOUR HANDS.**

Road construction, road maintenance, municipal services, and utility operations may not be safe without a flagger.

A vital element of a traffic control plan is the flagger. Flaggers are used when other traffic control devices are unable to safely direct traffic through a work zone.

Flaggers should be active, able bodied men and women who possess a good temperament, eyesight, and hearing. Flaggers should be intelligent and have the capability of securing the traveling public's cooperation through effective communication.

A flagger should never take their responsibilities lightly. Not only must the flagger provide for their own personal safety, but also the safety of fellow workers and the public. Flaggers must also help protect thousands of dollars in equipment and materials.

A flagger may be the first contact by the public on a project. The impression the flagger creates will reflect on the organization doing the work. Therefore the flagger is also a public relations person.

The training you are about to receive will help prepare and guide you in these responsibilities.

# # 1. UNIFORMITY

Uniformity is a very important part of highway safety and operations. Motorists should not be subjected to undue changes. When changes are necessary, the motorist should be able to react in a safe and deliberate manner.

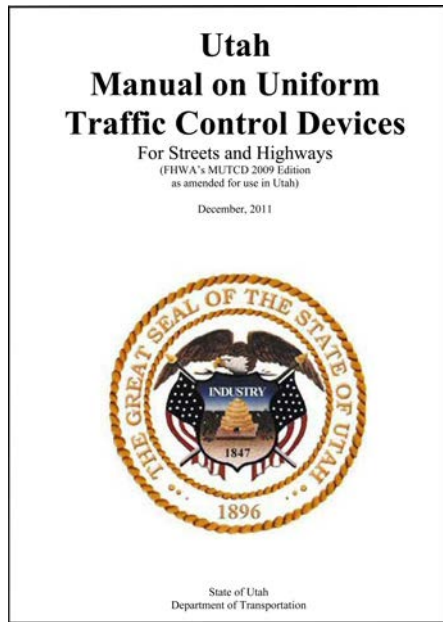
All flaggers, wherever they are working, should be using the same commands and hand signals so that motorists are not confused as they enter various work zones.

Flaggers should be dressed in similar attire. This helps the traveling public recognize the flagger as a control element.

Flaggers should be positioned in similar locations from site to site. This helps the motorist judge where they may most likely encounter a flagger.

The flagger certification program has been developed by using standards set forth in the **Utah Manual on Uniform Traffic Control Devices (MUTCD)** and by practices that have been developed through experience.

A major goal of the certification program is to ensure that all flaggers conduct themselves in a professional, uniform manner and that all who encounter a work zone, with a flagger present, will receive safe passage through the work zone.



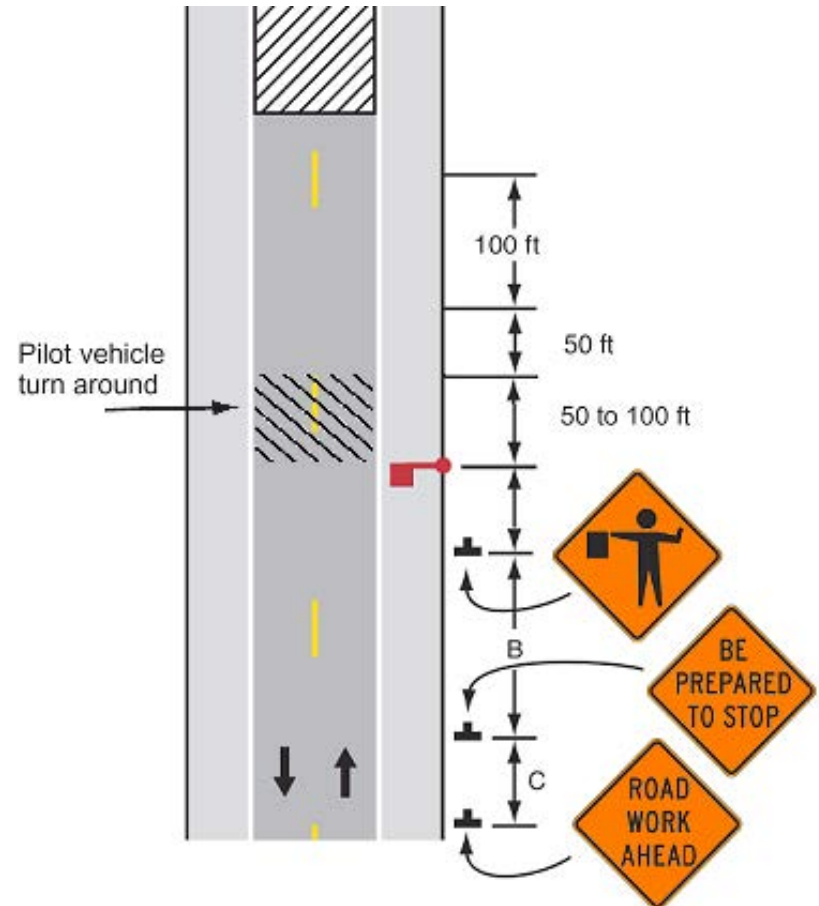
## Flagger with a pilot car from UDOT Standard Drawings

Two-way communications recommended with pilot car operations. If not available, baton method is acceptable.

Use this sign on the back of the pilot vehicle.



Same sign sequence, spacing, tapers and buffers for opposite direction required

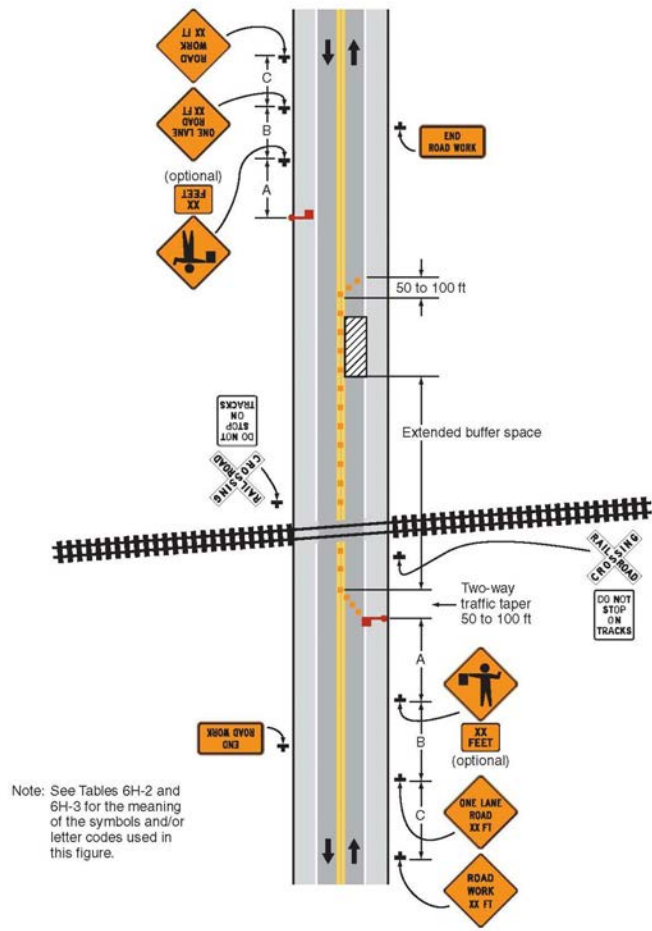


**Highway-Rail Crossing w/ Flagger (TA 46) MUTCD pg 6H-97**

UDOT or other government entities may have adopted a higher standard. Consult the agency when required.

**NOTE: If creating a waiting line across active rail tracks cannot be avoided, a flagger or law enforcement officer is Required. This applies even if automatic warning devices are in place.**

**Figure 6H-46. Work in the Vicinity of a Grade Crossing (TA-46)**



**Typical Application 46**

## # 2. AUTHORITY

### Utah State Law 41-6a-209(1)(c) {Revised 2005}

- Flaggers have the same authority as a law enforcement officer to control traffic.
- The flagger must be in an active work zone and all traffic control must be in place to exercise this authority. The only exception would be if you have an emergency situation.



### # 3. CERTIFICATION

The Utah Department of Transportation requires all flaggers to be trained and to carry a **Flagger Training Certificate**. In addition to receiving the training an applicant must also meet age requirements established by the Utah State Labor Commission.

The Flagger Certification is good for a three (3) year period. The flagger must attend a re-certification seminar and be re-certified every three (3) years.

The Utah Department of Transportation is requested on occasion to accept additional certification programs. The Department will review each program, and each acceptable program will be listed in the Utah Department of Transportation Standard Specification Section 01554 Traffic Control.

Some utilities and other government entities conduct their own training, the instructors for this training are certified by UDOT. This certification is only good on roadways under UDOT jurisdiction, while working for the issuing entity. **A flagger must receive a new certification from one of the accepted certification programs before working for another employer.**

**All individuals who work at a flagging station must be certified. The certification card must be on your person while you are working on the roadway.**

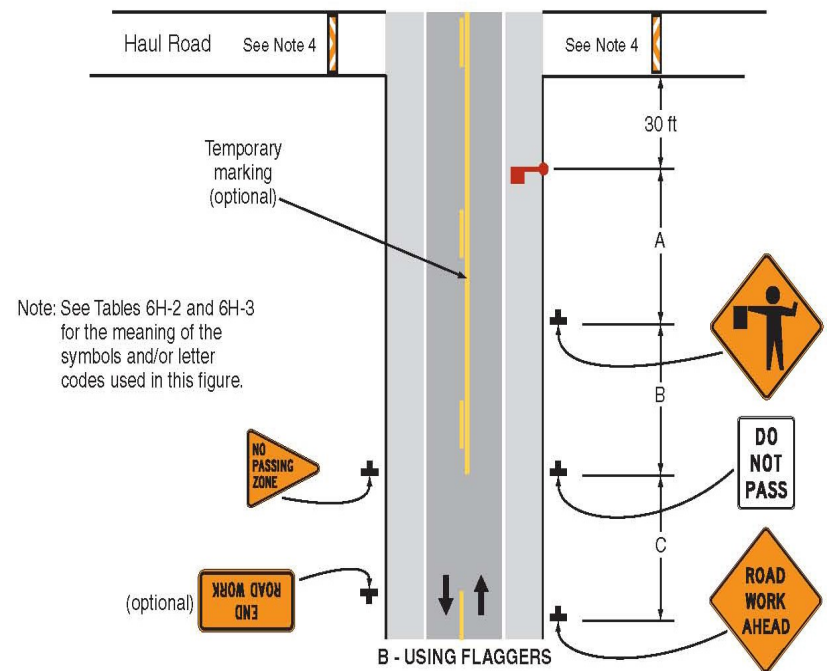
**NEVER LEAVE YOUR FLAGGING STATION UNATTENDED, OR TO A NON-CERTIFIED FLAGGER.**

**\*\*Flagger, who are found in noncompliance with UDOT Standards, Policies and MUTCD Guidelines for flagging, may result in revocation of Flagger Certification.\*\***

### Haul Road Crossing with Flaggers (TA 14) MUTCD pg 661

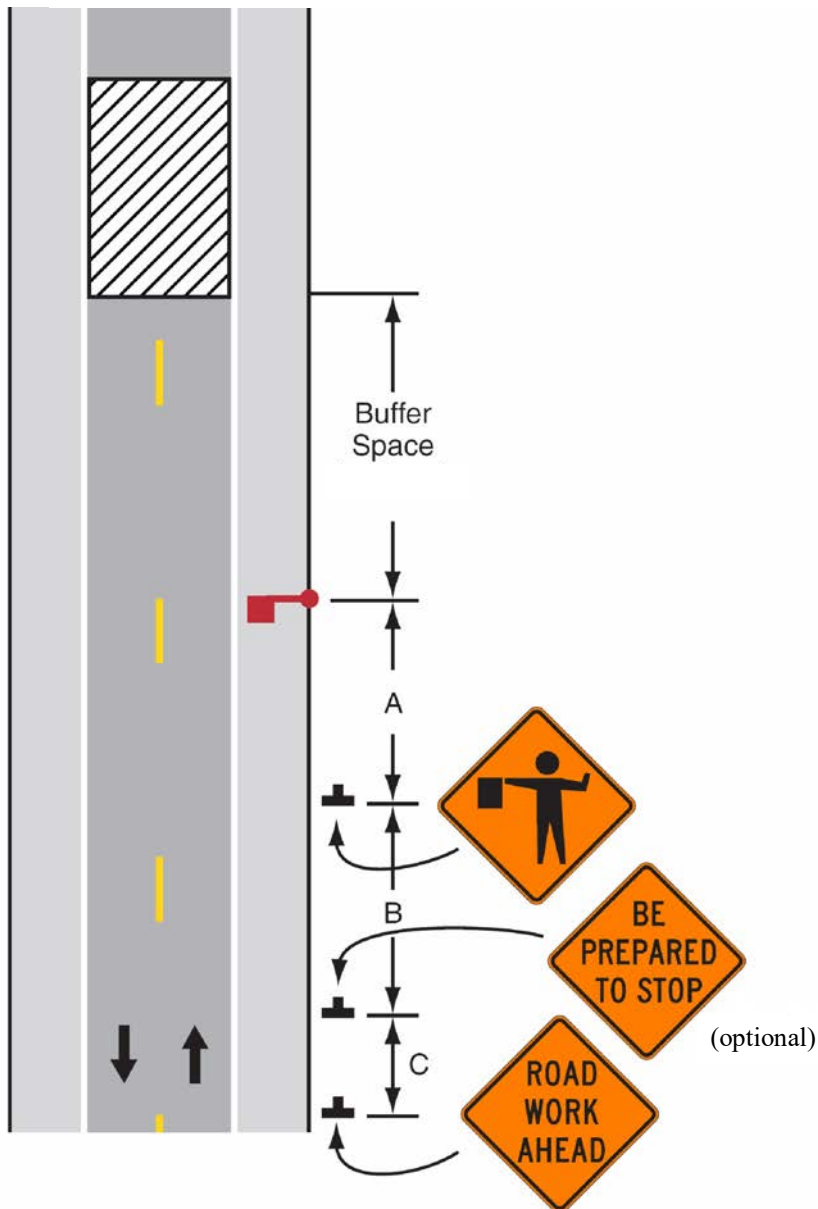
UDOT or other government entities may have adopted a higher standard. Consult the agency when required.

Same sign sequence required for opposite direction.



UDOT or other government entities may have adopted a higher standard. Consult the agency when required.

Same sign sequence required for opposite direction.



## # 4. FLAGGER QUALIFICATIONS

### THE FLAGGER:

#### 1. Must be in *Good Physical Condition*

- good hearing
- good vision
- mobile enough to escape danger (errant vehicle)
- be able to control signaling device (paddle) in adverse conditions
- able to work on site 8 hours or more

#### 2. Must be *Intelligent*

- receive and perform specific instruction
- have common sense and good judgment
- make wise and informed choices
- adapt to changing situations
- recognize dangerous situation and react

#### 3. Must be *Mentally Alert*

- pay constant attention to traffic
- react to emergency situations
- be able to maintain composure

#### 4. Must be able to *Communicate*

- be courteous and patient
- give clear directions and instructions
- be able to take a firm command of situations *without* being rude or a “bully”
- be able to give motorist further assistance if they are not able to understand your direction

#### 5. Must maintain a *Neat Appearance*

- have clean clothing and equipment
- remember you are the first line of public relations
- will help command the respect required to perform your duties

## # 5. PROPER CONDUCT

### THE FLAGGER:

#### 1. Should provide information to motorist, if possible

- Be courteous
- Be Professional
- Be Brief
- “There is a loader in the left lane around the curve.”

#### 2. Should not visit with the motorist

- Do not lean on the motorist's vehicle
- Do not allow conversation with the motorist distract you from your flagging responsibilities

#### 3. Must not argue with the motorist

- Be kind
- Be understanding

#### 4. Document disobedient motorist

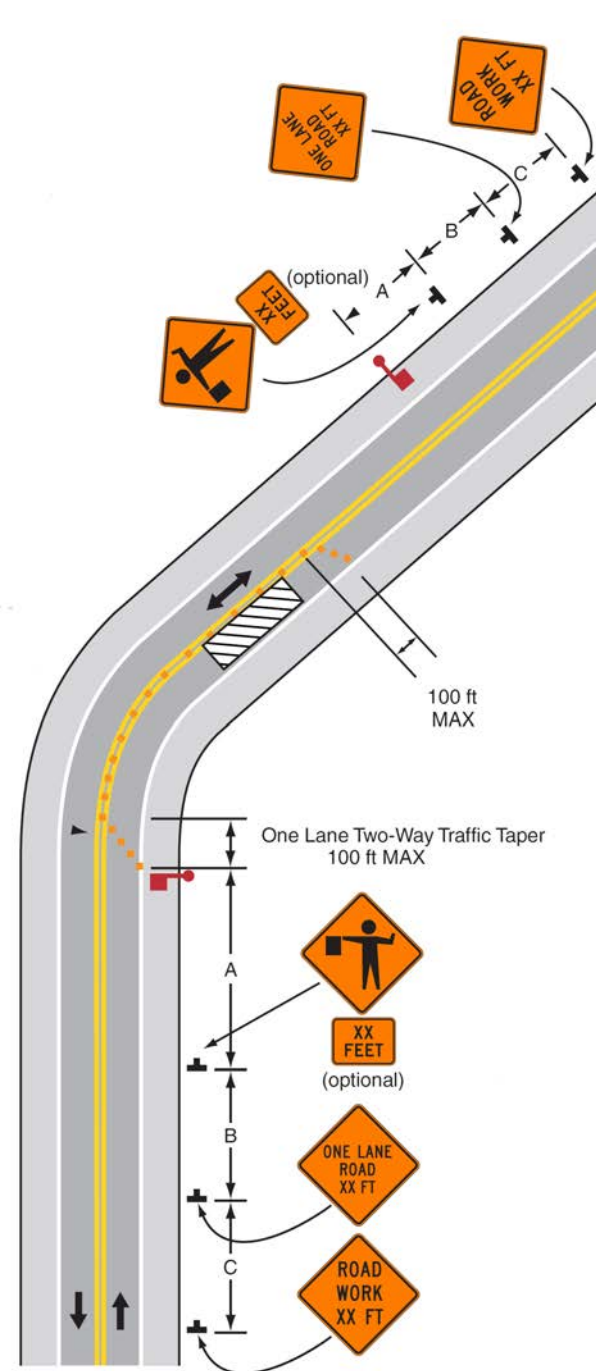
- Stay out of harms way
- Do not leave your flagging station
- Notify co-workers of the situation
- Record vehicle description and plate number
- Report the circumstances to your supervisor

#### 5. Needs to provide accurate information

- Ensure signs used to identify a flagger condition are removed or covered when you are not actually flagging

#### 6. Must be alert to emergency situations

- Follow your emergency plan
- Provide a means for the emergency vehicles to get through the construction area in a timely manner



Lane Closure on  
Two Lane Roads  
With Flaggers  
(TA 10)  
MUTCD pg 653

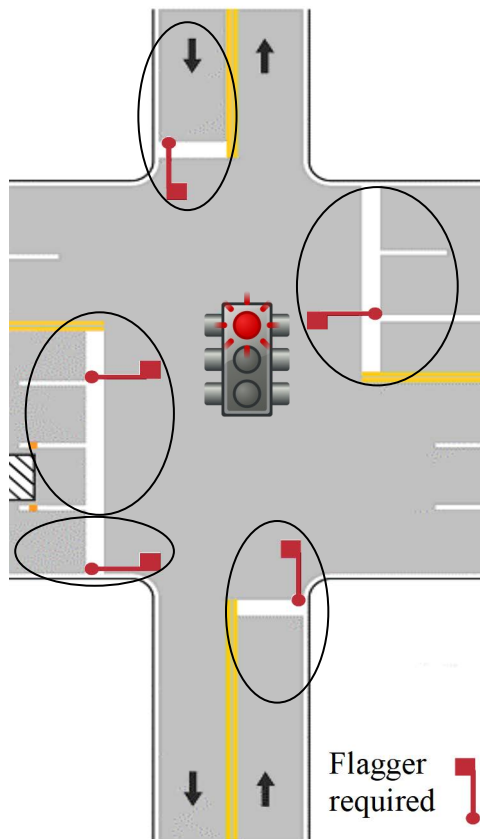
UDOT or other  
governments entities  
may have adopted a  
higher standard.  
Consult the agency  
when required.



## FLAGGING AT SIGNALIZED INTERSECTION (UDOT Standard)

Flaggers may flag at a signalized intersection only when the signal has been turned to the all RED flash mode or are inoperable. If the signal is fully operational, a uniformed law enforcement officer is required for controlling traffic through the intersection.

Flaggers are required for each leg of the intersection and may only control the traffic for two through lanes, and one left or right turn lane (if present).



## # 6. PROTECTION & COMFORT

As a flagger you will be working in different traffic conditions and variable weather conditions. To meet these demands you must be prepared to protect yourself to changing conditions.

### 1. Sleep

- Be well rested prior to starting your shift. By being well rested you will be able to withstand the rigors of a long shift and perform your duties in a professional manner.

### 2. Comfortable foot wear

- Due to the potential hazard of vehicles driving over your feet, you are required to wear safety-toe footwear. You will be standing for long periods of time, make sure the footwear fits and will protect your feet from the elements.

### 3. Clothing

- You have basic requirements for clothing but with the variables of the weather you may need to adjust how you meet these requirements. By using layered clothing, you can better adjust comfort needs. Have foul weather protection gear available.
- You have specific requirements for safety outer clothing you must wear, this is addressed in Section # 7.

### 4. Sun Protection

- Both winter & summer, you will need:  
Sunglasses that are safety glasses and have the ability to block UVA & UVB rays.  
Sunscreen and lip balm with a sun protection factor (SPF) and a UVA & UVB block.

## 5. Nourishment

- Always have water or other non-carbonated drinks available.
- **NO alcoholic beverages.**
- Have something available to eat. This will help keep your strength from dissipating between breaks.

## 6. Breaks

- Prior to starting your shift, arrange with your supervisor when breaks will occur.

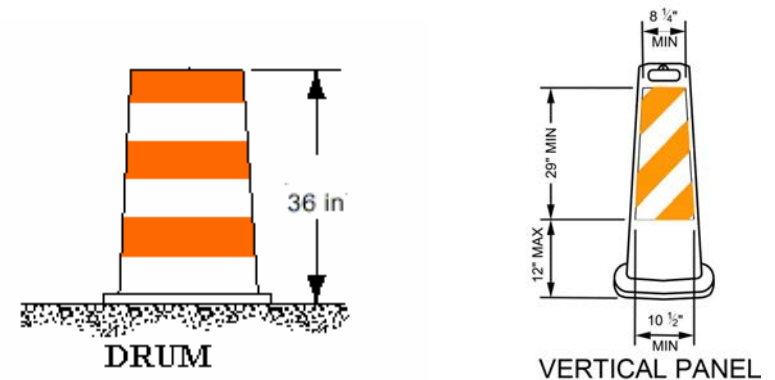
**NEVER LEAVE YOUR FLAGGING STATION UNATTENDED OR TO A NON-CERTIFIED FLAGGER**

## # 7. SAFETY CLOTHING

### 1. Flaggers must be fully clothed in appropriate work clothing.

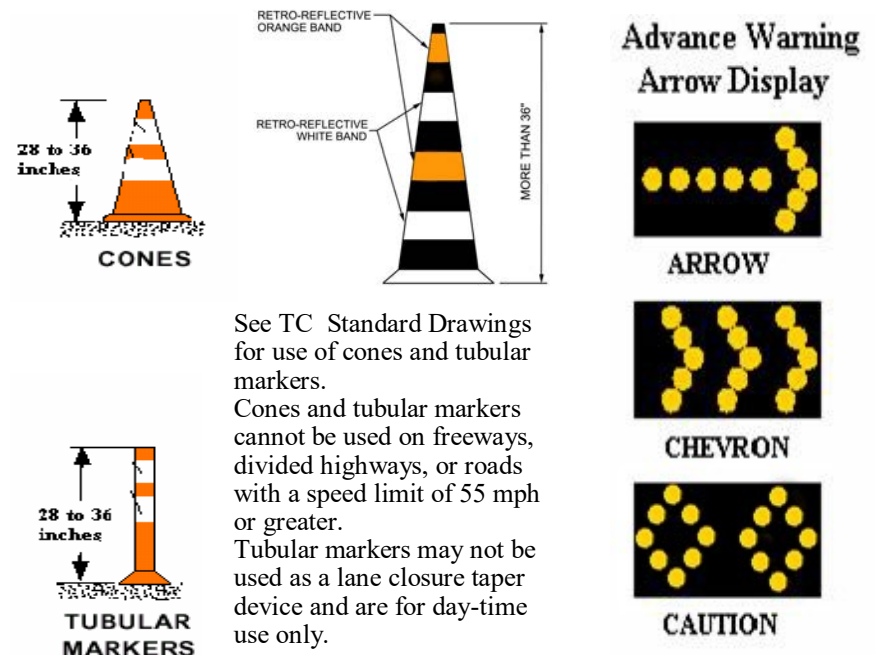
- **Full length pants**
  - No shorts or cutoff pants.
- **Short/long sleeved shirt**
  - Short sleeved shirts must cover the shoulder and extend down the arm and cover the entire upper portion of the body.
  - No tank tops
- **Safety-toe Footwear**
- **Safety Glasses**
  - Required when on UDOT controlled projects.
  - Sun glasses are advised during sunlight exposure.
  - Must be worn during night operation.
  - Glasses that improve vision at night or in overcast conditions (i.e. clear or amber lenses) are advised.
  - Safety glasses must have side protection.

## Channelizing devices on UDOT controlled projects



Must be used in tapers when posted speed is 50 MPH or greater. May be used on any highway.

Vertical panels require a retroreflective area of 270 sq. inches when used on highways with posted speeds of 50 MPH or greater. UDOT requires the retroreflective area be 12 inches above the roadway. May be used in tapers and tangents with speed 45 MPH or less.



See TC Standard Drawings for use of cones and tubular markers. Cones and tubular markers cannot be used on freeways, divided highways, or roads with a speed limit of 55 mph or greater. Tubular markers may not be used as a lane closure taper device and are for day-time use only.

SIGN SPACING CHART					
ROAD TYPE	POSTED SPEED MPH (S)	MINIMUM SIGN SPACING (SS)			
		A	B	C	D
		FT	FT	FT	FT
CONVENTIONAL	30 AND LOWER	100	100	100	100
	35	350	350	350	175
	40	500	500	500	250
	45				
	50				
	55				
	60				
65	1000	1640	2640	500	
70					
75					
80					
FREEWAY/ EXPRESSWAY					

NOTE: If two flaggers are being used, an advance flagger symbol sign is required in advance of each flagger. If used inside channelizing devices it must be visible above the channelizing devices.

POSTED SPEED MPH (S)	MINIMUM TAPER LENGTH(L)	LENGTH OF BUFFER(BZ)
	12 FT LANE CLOSURE	DESIREABLE
	FT	FT
30 AND LOWER	180	200
35	245	250
40	320	305
45	540	360
50	600	425
55	660	495
60	720	570
65	780	645
65	780	645
70	840	730
75	900	820
80	960	910

NOTE: The listed buffer zone lengths are required on UDOT controlled projects. Consult Standard Drawings, TC Series, for additional information.

- **High Visibility Safety Apparel (Retroreflective safety outerwear)**
  - High Visibility Safety Apparel is defined as fluorescent orange-red or a combination orange-red/yellow-green, shirt, vest, coat, coverall, etc., outerwear that meets the Performance Class 3 requirements of the ANSI/ISEA 107- (current year) publication.
  - Safety outerwear retroreflective material will be orange, yellow, white, silver, yellow-green or a florescent version of these colors.
  - Retroreflective safety outerwear must be worn during day-time and nighttime operations.
  - The outerwear will have a minimum of 50% background color of fluorescent orange-red.
- **Fluorescent orange-red hard hat**
  - Hard hats must meet the ANSI/ISEA 107- (current year) standard with a minimum of 10 square inches of retro-reflective material and placed so that it is visible to traffic from all directions.

### UN-ACCEPTABLE CLOTHING AND ACCESSORIES

- Tank tops or halters.
- Short pants and cutoffs.
- Soft baseball style hats.
- Portable radios, or other devices which could distract you
- Personal listening devices with headphones or ear pieces **CANNOT** be worn. (exception: hearing aids or communication devices used to stay in contact with others on the work crew).

## High Visibility Safety Outerwear

Not Fire Rated

Type R = Roadway Use



Class 3 = Performance Class (provides greater visibility)



## Hard Hat



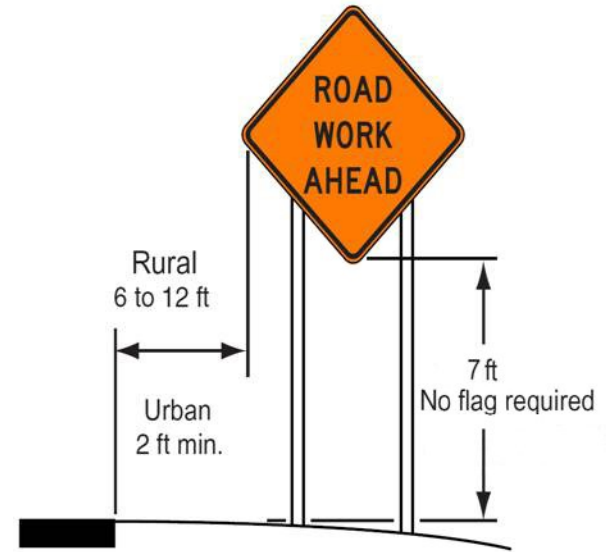
## Safety Glasses



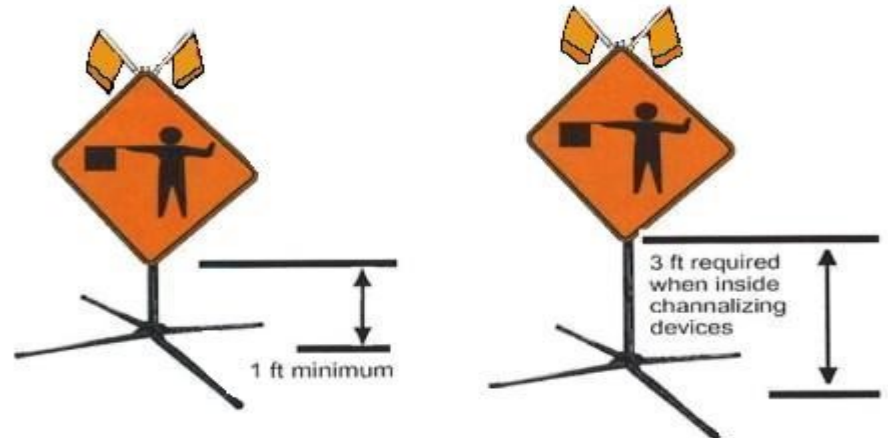
## Safety-toe Footwear



## Typical sign stands and height requirements

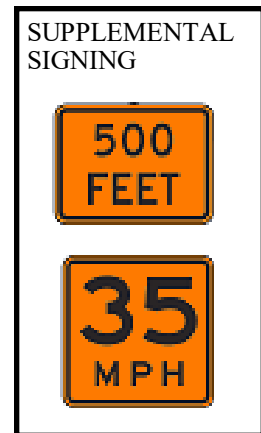


Signs on portable stands require 2 orange warning flags with orange retroreflective sheeting.



### Typical Advanced Warning Signs.

Advanced warning signs are diamond shaped, with black symbol or message on an orange background. UDOT requires all construction signs used on roadways under their jurisdiction to be 48" x 48". Signs are categorized as "Attention", "Situation", and "Action". Supplemental signing may be used in conjunction with the advanced warning signs and may be square or rectangular in shape. See UDOT Standard Drawings, TC Series, for supplemental sign size requirements and flag detail.



## # 8. TOOLS & EQUIPMENT REQUIREMENTS

### 1. ADVANCE WARNING SIGNS

- **FLAGGER SYMBOL SIGN** required in advance of all flagging stations. This will be the final sign in the signing sequences of the approaching traffic.
- Refer to UDOT Standard Drawings TC series for signs in the sign sequence.
- Retroreflective sign required when used at night.
  - Material as specified in UDOT Standard Specification and/or the Utah MUTCD.

### 2. STOP/SLOW PADDLE:

- **Flagger shall be equipped with a Stop/Slow paddle a height of 7 feet (24" paddle and 60" handle)**
- Stop/Slow Paddle requirements: octagonal shape, with a semi-rigid substrate and a rigid handle.
  - 24 inches x 24 inches with 8 inch letters required.
  - UDOT Standard Drawings TC Series.
- Retroreflective when used at night.
- Light (s) permitted on paddle as specified in the Utah MUTCD.

**Holes shall not be permitted in paddle face.**

### 3. FLAGS

- **Use in emergency situations only.**
  - Will be red or florescent orange-red in color.
  - 24 inches x 24 inches on a 36 inch staff.
  - The free edge should be weighted so the flag hangs vertically, shall be retroreflective red or florescent orange-red when used at night.

### 4. NIGHT FLAGGING

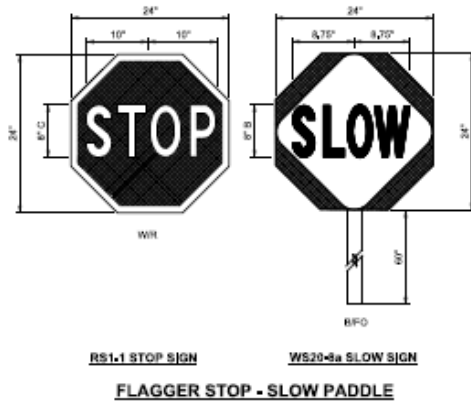
- Flagging station will be illuminated with an external light source at night. **(UDOT & UTAH MUTCD requirement)**
  - Night defined: Begins 30 minutes after sunset (Utah Code 41-6a-1603) Ends 30 minutes before sunrise
- Street lights and vehicle headlights are not an acceptable source of illumination.
- Red Flagging Wand or Flashlight equipped with a red 6 inch (minimum) wand is required.

# TOOLS

**Flagger Symbol Sign**



**STOP/SLOW Paddle**



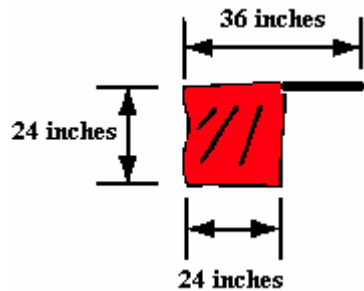
**External Light Source**



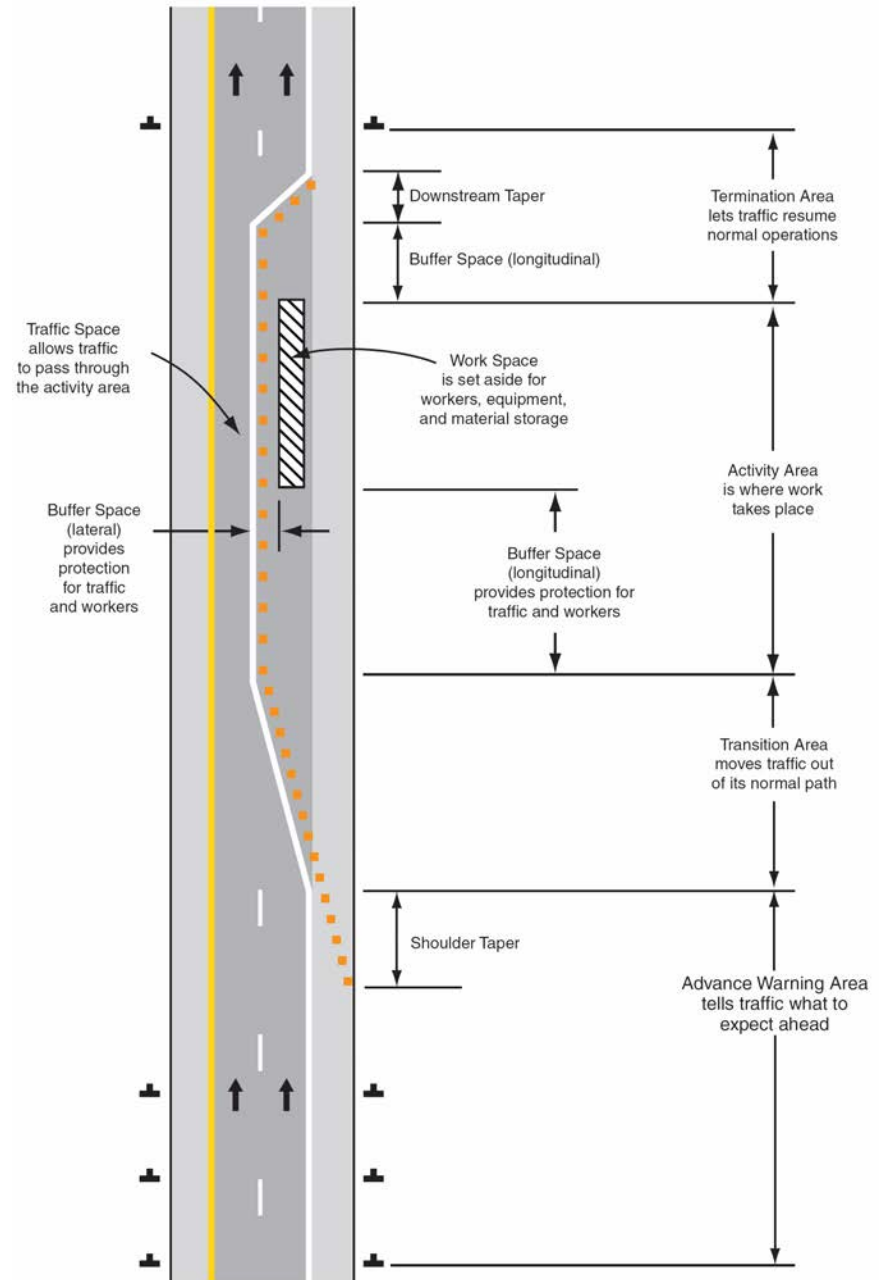
**Flagging Wand or Flashlight w/wand**



**RED or Orange-red Flag**



# Components Temporary Traffic Control Zone



## TRAFFIC CONTROL ZONE

The Traffic Control Zone consists of specific sign types, channelizing devices, advanced warning displays, and one or more flaggers. The way these devices are installed and maintained is crucial to how traffic flows through the work area.

**This training does not certify you as a Traffic Control Maintainer but it will give you an understanding of the traffic control zone.**

The Traffic Control Zone consists of the following elements:

### 1. Advance Warning Area

- The area in the section of highway where road users are informed about the upcoming work zone or incident area.
  - Warning signs

### 2. Transition Area

- The transition area is the section of highway where road users are redirected out of their normal path.
  - Delineated by channelizing devices

### 3. Activity Area

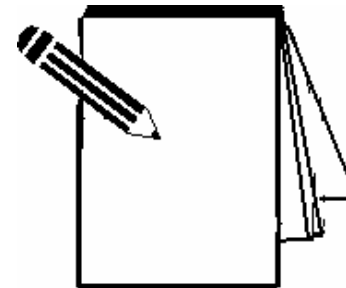
- The activity area is the section of highway where the work activity takes place.
  - buffer space (both lateral & longitudinal areas)
  - work space
  - traffic space
  - Delineated by channelizing devices and may have signs

### 4. Termination Area

- The termination area is used to return road users to the normal path.
  - May be delineated by channelizing devices and may have signs

## 5. OTHER EQUIPMENT

- **Pencil & Pad**
  - Used to keep records of incidents.
    - If a crash occurs, write down any information that may apply to the crash while it is still fresh in your mind.
  - Record vehicle and driver information.
    - If a problem occurs such as a driver running your stop command, **first protect yourself, warn your fellow worker, return back to your working position**, then try to record license plate information, brief description of vehicle, and description of the driver.
- **Whistle or air horn**
  - Used to warn those in the work area of an emergency situation, or dangers.
- **Communication devices**
  - Used to communicate with other flaggers, supervisors, or other workers.



## # 9. FLAGGER STATION

### 1. Flaggers should be positioned on the shoulder of the roadway in a conspicuous position facing approaching traffic.

- Flagger should be visible to approaching traffic a distance equal to sign spacing requirements. Refer to Sign Spacing Chart (page 38).
- Location should be such that an errant vehicle can stop before entering the work space.

### 2. Flagger station should be free of obstructions.

- Personal vehicles and other work vehicles cannot be parked within **100 feet** from the flagging station.
- Flagging station should be clear of clutter (i.e.; coolers, work bags, or lunch pails).
- Flaggers should be able to move around other traffic control devices freely.

### 3. Flaggers should plan an escape route.

- If an errant motorist or work vehicle does not see you or does not obey your command, have an area to which you can move without being injured.



Stand far enough away from the work space, using the appropriate buffer space, so that an errant vehicle can stop. (not to scale)



Do not park your vehicle or allow other work vehicles to be within 100 feet from the flagging station. (not to scale)

## APPENDIX B Manual On Uniform Traffic Control Devices Part 6

### Chapter 6F Traffic Control Devices (partial) Chapter 6H Typical Applications (partial)

**These are minimum standards set by the Federal Highway Administration.**

**The Utah Department of Transportation may have higher standards.**

**Check the Standard Specification Section 01554 and the Standard Drawing TC Series for specific requirements.**



**Section 6E.08 Flagger Stations**

**Standard:**

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

**Option:**

02 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.

**Guidance:**

03 *Flagger stations should be located such that an errant vehicle has additional space to stop without entering the work space. The flagger should identify an escape route that can be used to avoid being struck by an errant vehicle.*

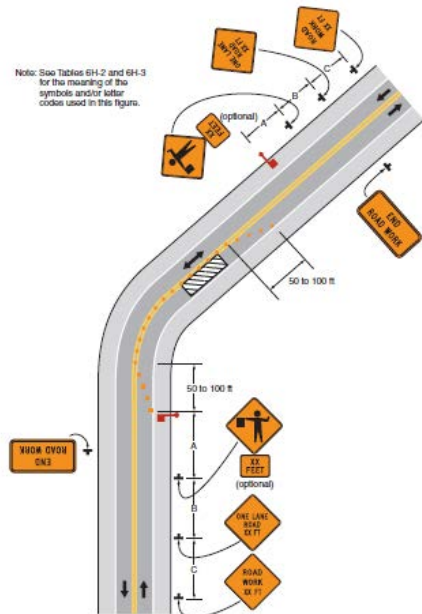
**Standard:**

04 **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.**

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

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet
60 mph	570 feet
65 mph	645 feet
70 mph	730 feet
75 mph	820 feet
80 mph	910 feet

\* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed



**# 10. SIGNAL TO STOP TRAFFIC**

- Stand in a safe position on the shoulder of the roadway facing traffic. Look directly at the approaching driver.**
- Communicate intentions with other flaggers and workers when required.**
- Have the paddle in the “STOP” position in your right hand directed toward the approaching vehicle.**



**4. Raise your free arm and hold palm of hand above shoulder level toward approaching traffic.**

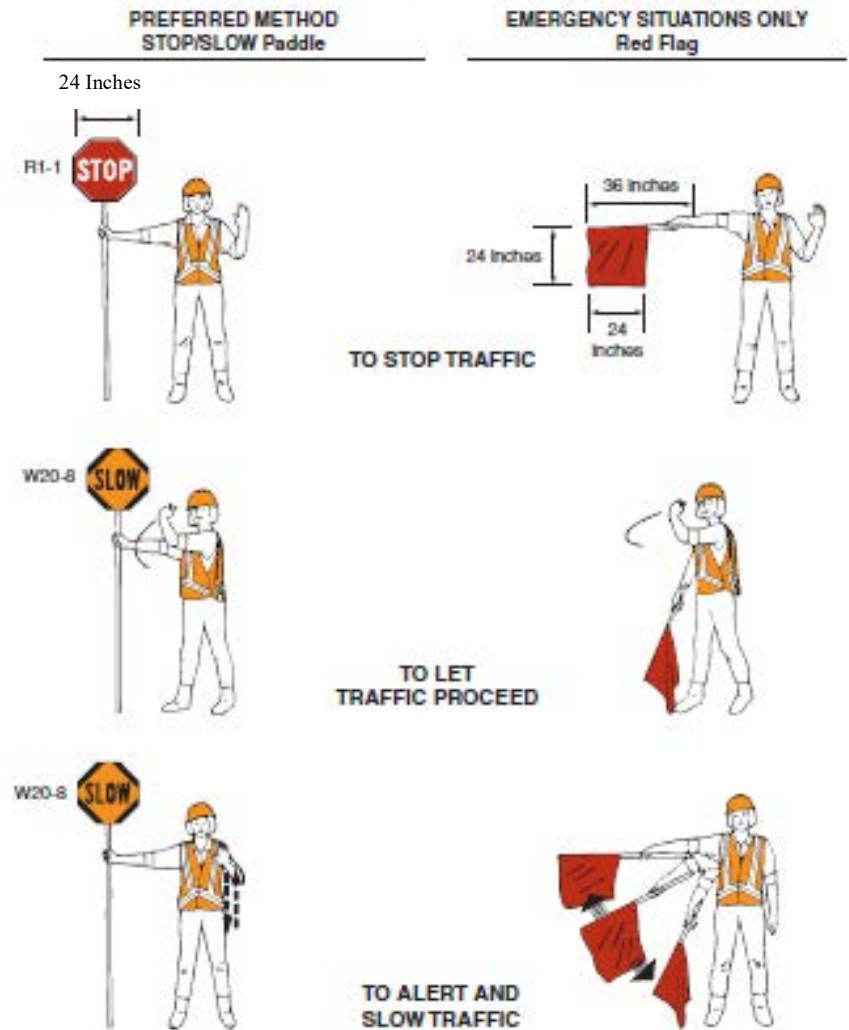
- **Make eye contact with driver prior to changing positions.**

**5. After first vehicle has come to a complete stop move to a conspicuous position near the center line.**

- **Do not stand in front of first stopped vehicle.**
- **Use caution at center line position. Be aware of vehicles coming from the opposite direction.**



Figure 6E-3. Use of Hand-Signaling Devices by Flaggers



**Section 6E.07 Flagger Procedures**

Support:

01 The use of paddles and flags by flaggers is illustrated in Figure 6E-3.

Standard:

02 Flaggers shall use a STOP/SLOW paddle, a flag, or an Automated Flagger Assistance Device (AFAD) to control road users approaching a TTC zone. The use of hand movements alone without a paddle, flag, or AFAD to control road users shall be prohibited except for law enforcement personnel or emergency responders at incident scenes as described in Section 6L01.

03 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:

04 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:

05 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 shoulder level toward approaching traffic.
- B. To direct stopped road users to proceed, the flagger shall face road users with the 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.

Guidance:

06 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, away from other workers, work vehicles, or equipment.

Option:

07 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.

Guidance:

08 When a single flagger is used, the flagger should be stationed on the shoulder opposite the spot lane closure or work space, or in a position where good visibility and traffic control can be maintained at all times.

**STOPPING DISTANCE**

**Flaggers need to pay special attention when they have to stop approaching vehicles.**

- Weather and road conditions need to be taken into account when stopping traffic.
- Allow for driver reaction time, which is the time it takes a driver to apply the brakes after seeing the STOP sign.

The following chart shows the required stopping distance for the average vehicle under described conditions.

MPH	Dry Pavement	Gravel Surface	Wet Pavement	Packed Snow	Ice or Snow
30	88'	135'	147'	194'	430'
40	149'	232'	252'	336'	745'
50	243'	374'	404'	541'	1215'
60	366'	561'	607'	808'	1830'

**Large trucks can require 400 ft. or more to stop.**

**HINT:** Prior to starting your shift, evaluate the speed of the approaching traffic. Determine a point in front of you that if an approaching vehicle passes you will not be able to stop the vehicle safely.

**Mark the point at which you should begin stopping traffic with a cone, or associate that point with a tree, rock, or some other physical marker.**

## # 11. SIGNAL TO RELEASE TRAFFIC

1. Communicate intentions with other flaggers and workers when required.
2. Move from the center of the roadway, with the paddle in the “STOP” position, to a safe position on the shoulder.
3. Turn your paddle to the “SLOW” position. With your free arm away from your body, motion the traffic to proceed.



09r Flags, when used, shall be red or fluorescent orange-red in color, shall be a minimum of 24 inches square, and shall be securely fastened to a staff that is approximately 36 inches in length.

Guidance:

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

Standard:

11r When used at nighttime, flags shall be retroreflectorized red or fluorescent orange-red.

Option:

12 When flagging in an emergency situation at night in a non-illuminated flagger station, a flagger may use a flashlight with a red glow cone to supplement the STOP/SLOW paddle or flag.

Standard:

13 When a flashlight is used for flagging in an emergency situation at night in a non-illuminated flagger station, the flagger shall hold the flashlight in the left hand, shall hold the paddle or flag in the right hand as shown in Figure 6E-3, and shall use the flashlight in the following manner to control approaching road users:

- A. To inform road users to stop, the flagger shall hold the flashlight with the left arm extended and pointed down toward the ground, and then shall slowly wave the flashlight in front of the body in a slow arc from left to right such that the arc reaches no farther than 45 degrees from vertical.
- B. To inform road users to proceed, the flagger shall point the flashlight at the vehicle's bumper, slowly aim the flashlight toward the open lane, then hold the flashlight in that position. The flagger shall not wave the flashlight.
- C. To alert or slow traffic, the flagger shall point the flashlight toward oncoming traffic and quickly wave the flashlight in a figure eight motion.



### Section 6E.03 Hand-Signaling Devices

#### Guidance:

01 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:

02 The STOP/SLOW paddle shall have an octagonal shape on a rigid handle. STOP/SLOW paddles shall be at least 18 inches wide with letters at least 6 inches high. The STOP (R1-1) face shall have white letters and a white border on a red background. The SLOW (W20-8) face shall have black letters and a black border on an orange background. When used at night, the STOP/SLOW paddle shall be retroreflectORIZED.

#### Guidance:

03 The STOP/SLOW paddle should be fabricated from light semi-rigid material.

#### Support:

04 The optimum method of displaying a STOP or SLOW message is to place the STOP/SLOW paddle on a rigid staff that is tall enough that when the end of the staff is resting on the ground, the message is high enough to be seen by approaching or stopped traffic.

#### Option:

05 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:

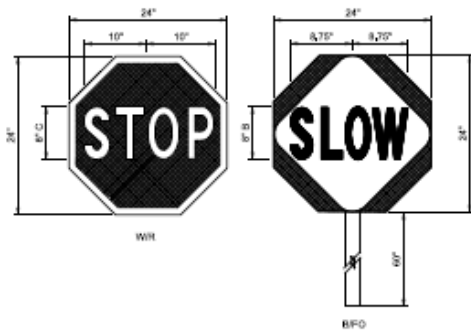
- A. Two white or red lights, one centered vertically above and one centered vertically below the STOP legend; and/or two white or yellow lights, one centered vertically above and one centered vertically below the SLOW legend;
- B. Two white or red lights, one centered horizontally on each side of the STOP legend; and/or two white or yellow lights, one centered horizontally on each side of the SLOW legend;
- C. One white or red light centered below the STOP legend; and/or one white or yellow light centered below the SLOW legend;
- D. A series of eight or more small white or red lights no larger than 1/4 inch 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 1/4 inch in diameter along the outer edge of the paddle, arranged in a diamond pattern along the border of the SLOW face; or
- E. A series of white lights forming the shapes of the letters in the legend.

#### Standard:

06 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.

07 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.

08 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.



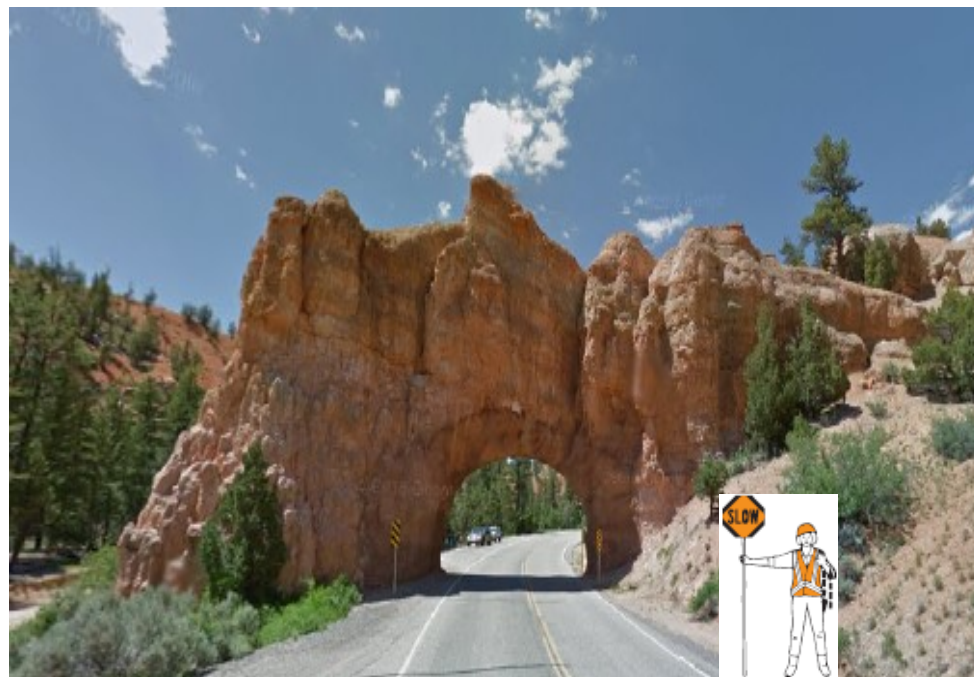
R1-1 STOP SIGN

W20-8a SLOW SIGN

FLAGGER STOP - SLOW PADDLE

## # 12. SIGNAL TO SLOW TRAFFIC

1. Communicate intentions with other flaggers and workers when required.
2. Stand in a safe position on the shoulder of the roadway facing traffic and look directly at the approaching driver to make eye contact.
3. Have the paddle in the “SLOW” position in your right hand.
4. With your free arm, extended away from your body, and the palm of your hand down, use an up and down motion.



# # 13. USING A FLAG

## EMERGENCY SITUATIONS ONLY

An emergency is an unforeseen situation which requires immediate action.

Because you are in an emergency situation communication with those assisting will be vital to protect you, them, and motorists.

The procedures and positioning for using a flag are similar as a paddle, except for the To Alert & Slow procedure. In this procedure, the flag is slowly waved in a sweeping motion and the free hand is kept down.

### FLAG REQUIREMENTS

RED or FLOURESCENT ORANGE-RED FLAG ONLY

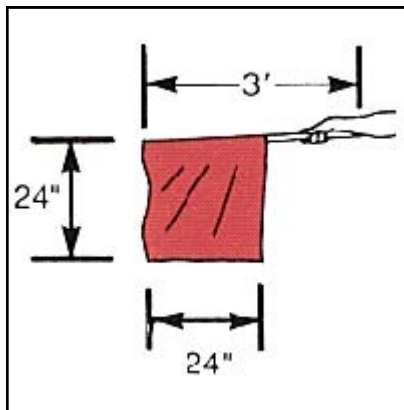
STOP POSITION



TO PROCEED



TO ALERT & SLOW



### Section 6E.01 Qualifications for Flaggers

Guidance:

- 01 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:

- 01r For daytime and nighttime activity, flaggers shall wear high-visibility safety apparel that meets the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled "American National Standard for High-Visibility Apparel and Headwear" (see Section 1A.11), or equivalent revisions, and labeled as meeting the ANSI 107-2004, or equivalent year, standard performance for Class 2 or 3 risk exposure. The apparel background (outer) material color shall be fluorescent orange-red, fluorescent yellow-green, or a combination of the two as defined in the ANSI standard. The retroreflective material shall be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and shall be visible at a minimum distance of 1,000 feet. The retroreflective safety apparel shall be designed to clearly identify the wearer as a person.

Guidance:

- 02r For nighttime activity, high-visibility safety apparel that meets the Performance Class 3 requirements of the ANSI/ISEA 107-2004 publication entitled "American National Standard for High-Visibility Apparel and Headwear" (see Section 1A.11), or equivalent revisions, and labeled as meeting the ANSI 107-2004, or equivalent year, standard performance for Class 3 risk exposure should be considered for flagger wear.

Standard:

- 03 When uniformed law enforcement officers are used to direct traffic within a TTC zone, they shall wear high-visibility safety apparel as described in this Section.
- Option:
- 04r In lieu of ANSI/ISEA 107-2004 apparel, law enforcement personnel within the TTC zone may wear high-visibility safety apparel that meets the performance requirements of the ANSI/ISEA 207-2006 publication entitled "American National Standard for High-Visibility Public Safety Vests" (see Section 1A.11), or equivalent revisions, and labeled as ANSI 207-2006, or equivalent year.



# APPENDIX A

## Utah MUTCD (Manual On Uniform Traffic Control Devices)

### Part 6 Temporary Traffic Control

#### Chapter 6E Flagger Control

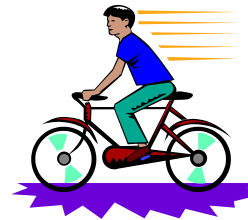
**These are minimum standards set by the Federal Highway Administration. The Utah Department of Transportation may have higher standards. Check the Standard Specification Section 01554 and the Standard Drawing TC Series for specific requirements.**

#### **Partial list of UDOT Standards exceeding the Utah MUTCD**

- **Retroreflective outerwear must have a minimum of 50% fluorescent orange-red background color.**
- **Fluorescent orange-red retroreflective hard hat**
- **Safety-toe footwear**
- **Paddle size, 24" x 24" with 8" letters**
- **Do not use Automated Flagger Assistance Devices (AFADs) on State Routes.**

## **# 14. PEDESTRIANS, INCLUDING THOSE WITH DISABILITIES, AND BICYCLISTS**

- **Special considerations should be given to pedestrians, including those with disabilities, and bicyclists who enter the work zone and require your assistance.**



- **Check work zone activities with other flaggers and workers prior to allowing pedestrians and bicyclists to pass through the work zone. They must be able to pass through safely.**
- **Have approaching traffic under your control prior to directing pedestrians or bicyclist through the work zone.**
- **Allow traffic to clear prior to directing pedestrians and bicyclists through the work zone. If impractical, stop traffic and direct pedestrians or bicyclists through the work zone separately.**



## # 15. EMERGENCY VEHICLES

**Have a plan developed to move emergency vehicles through the work zone.**

- With the Work Zone Supervisor, develop a plan to move emergency vehicles around or through the work zone
- Emergency vehicles must stop, if commanded by you. Allow them to pass as soon as possible.



## # 16. SPECIAL CIRCUMSTANCES

- **Ask your supervisor each day if there are plans for an oversized load to come through the work zone.**
- **Develop a plan to move unexpected oversized loads through the work zone.**
- **Be aware of planned deliveries of equipment or materials for the project.**



## # 17. LIABILITY

1. **A FLAGGER can be held liable for damages or injuries incurred if a crash occurs.**
  - Make sure all traffic control signing and devices are in place.
  - Give good direction using the proper signaling techniques.
  - Be aware of the situation.
  - Stay alert.
  - Allow traffic to pass only when a safe path is available.
2. **The EMPLOYER of the flagger can be held liable for damages or injuries if a crash occurs. The employer is responsible to:**
  - Provide the proper traffic control.
  - Instruct flagger of any special conditions or requirements.
  - Provide flagger with rest periods.
3. **The ORGANIZATION having work done can be held liable for damages or injuries if a crash occurs.**
  - Ensure the contractor is complying with your organizational standards and requirements.

