

PURPOSE/APPLICATION

Working on/near a road is an activity that creates potential hazards to both road users and workers. Road users are at risk when adequate precautions are not taken to enable them to safely negotiate work sites. Workers are often exposed to potential hazards due to the close proximity of traffic.

This practice is intended to:

- Establish standardized procedures for traffic control at work sites
- Provide for the safety of road users and workers, and
- Minimize the disruption and inconvenience to road users as a result of work.

Not all situations require a Traffic Control Person; use Traffic Control Person's *only* in one of the following circumstances:

- When signs and other traffic control devices and procedures cannot provide effective traffic control when emergency or brief duration work makes it impractical to control traffic with signs and other devices and procedures

PPE

- Strike minimum requirements
- High visibility clothing, safety vest with reflective strips both front and back.
- Hearing (as required)
- Leg and arm reflective stripes.

TRAINING

Ensure that Traffic Control Persons are trained to the required standard and have current qualifications (Flag person)

HAZARDS & Concerns

- Traffic
- Noise
- Personal injury
- Traffic volume
- Speed limits
- Poor Sight Lines
- Poor Communications
- Other contractors (i.e. highway maintenance)
- Weather
- Vehicle collision
- Property damage
- Training competencies for traffic control persons
- The presence of pedestrian traffic
- The tools and equipment including the signs
- Proximity to other workers (working alone)
- Road surface, Environmental conditions
- Proximity of heavy equipment
- Potential for Workplace Violence

PRECAUTIONS

General

- When you start work near or on a road, evaluate the work site for hazards such as blind corners, how heavy the traffic is, and how fast it flows.
- Note the weather, temperature, and visibility and how they will affect the work that you are doing and how motorists will respond.
- Plan your work site layout including the staging area, buffer area, transition area, and work area.
- Determine, based on the road type and typical vehicle speeds, how many advanced warning signs will you need and how long the buffer are and tapers need to be.
- If vehicular traffic creates a risk to the safety or health of a worker, an employer must ensure that one or more of the following are used to protect the worker: (a) warning signs; (b) barriers; (c) lane control devices; (d) flashing lights; (e) conspicuously identified pilot vehicles; (f) automatic or remote controlled traffic control systems; (g) speed restrictions; (h) one or more workers who are designated and act as flagpersons.
- Consider if other contractors are required to support traffic control.
- Are other authorities responsible for traffic control (i.e. province).

Traffic Controller

Although Legislation and the Owner client dictate the type of safety apparel that must be worn. The following is a list of mandatory equipment for traffic control people:

- A 45-cm stop/slow paddle which should be equipped with a 1.6-m pole,
- Two flag person signs (Additional signage may be required depending on the circumstances.)
- Signage detailing speed reduction and speed limit,
- Air horn or other warning device,
- Personal protective supplies such as insect repellent, sun screen, plenty of fluids
- Communication devices,
- High visibility rain gear (if required).

Once the site is established, make sure that it is operating well. Hard braking, complaints about visibility from the public, and lack of response to the controls all mean that we should reassess the site to determine what improvements are required.

Figure 18-1: Arm signals between traffic control persons

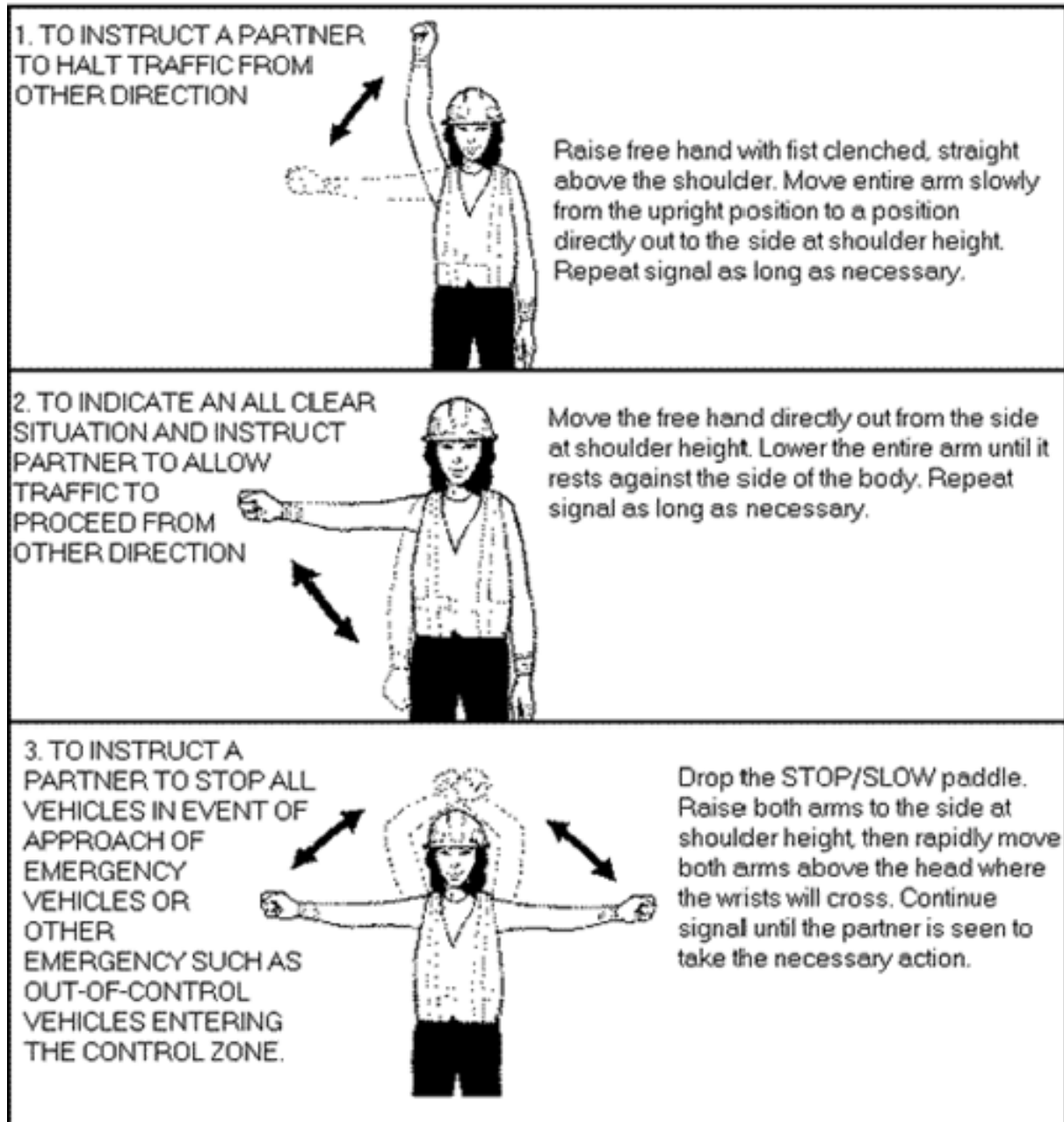
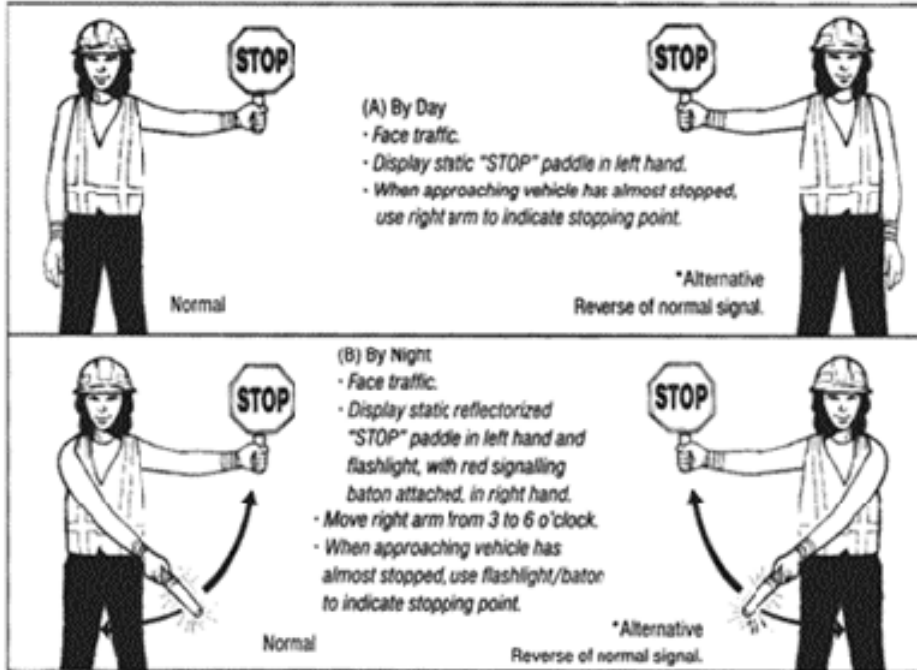
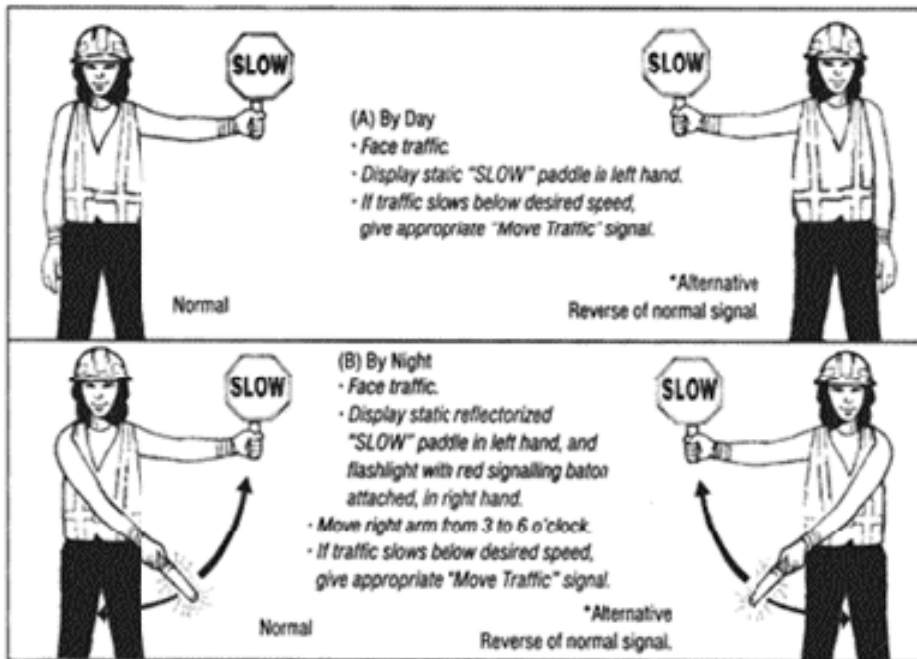


Figure 18-2: Arm signals for traffic control

1 TO STOP TRAFFIC



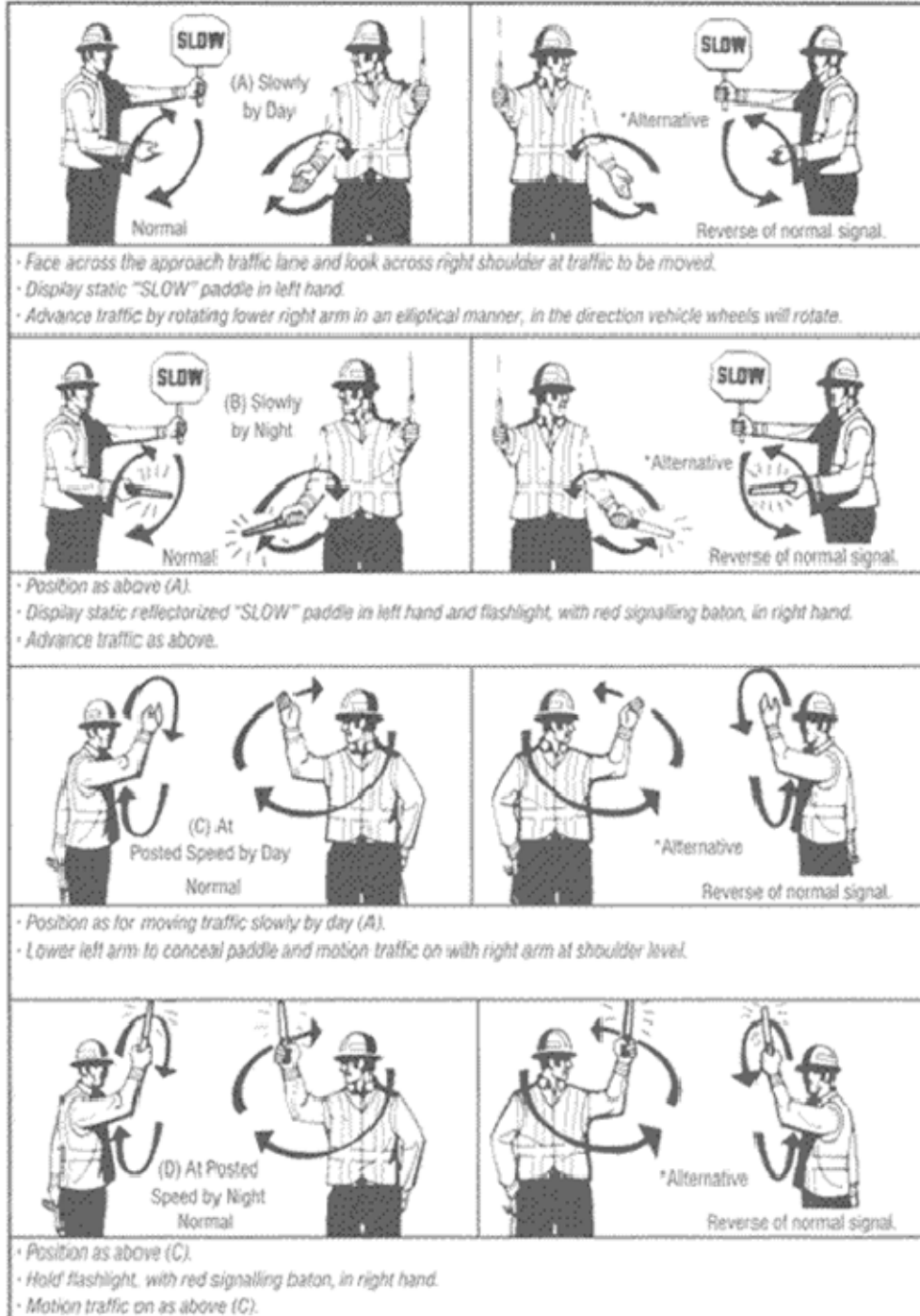
2. TO SLOW TRAFFIC



*Use Alternative Signal only when traffic control person's station is located on the right side of traffic under his or her control.

Figure 18-2: Arm signals for traffic control (Continued)

3. TO MOVE TRAFFIC



*Use Alternative Signal only when traffic control person's station is located on the right side of traffic under his or her control.

REGULATIONS

Alberta OHS Code

Vehicle traffic control Part 12 section 194

- 1. If vehicle traffic at a work site is dangerous to workers on foot, in vehicles or on equipment, an employer must ensure that the traffic is controlled to protect the workers.*
- 2. An employer must ensure that a worker on foot and exposed to traffic wears a highly visible piece of clothing.*
- 3. A worker on foot and exposed to traffic must wear a highly visible piece of clothing.*
- 4. If a worker is designated by an employer to control traffic, the employer must ensure that the designated traffic controller wears a highly visible piece of clothing that*
 - a. clearly identifies the worker as a designated traffic controller, and*
 - b. is retro reflective if the worker is controlling traffic in the dark or visibility is poor.*

Saskatchewan OHS Regulation

Risk from vehicular traffic 133

- 1. An employer or contractor shall ensure that a worker who is at risk from vehicular traffic, whether on a public highway or at any other place of employment, is provided with and required to use a high visibility vest, armlets or other high visibility clothing.*
- 2. Where there is a danger to a worker from vehicular traffic on a public highway, an employer or contractor shall develop and implement a traffic control plan, in writing, to protect the worker from traffic hazards by the use of one or more of the following:*
 - a. warning signs;*
 - b. barriers;*
 - c. lane control devices;*
 - d. flashing lights;*
 - e. flares;*
 - f. conspicuously identified pilot vehicles;*
 - g. automatic or remote-controlled traffic control systems;*
 - h. designated signalers directing traffic.*
- 3. An employer or contractor shall ensure that:*
 - a. workers are trained in the traffic control plan developed pursuant to subsection (2); and*
 - b. the traffic control plan developed pursuant to subsection (2) is made readily available for reference by workers at the place of employment.*
- 4. An employer or contractor shall use designated signalers to control traffic on a public highway only where other methods of traffic control are not adequate or suitable.*

5. *Where designated signalers are used to control traffic on a public highway, an employer or contractor shall provide:*
 - a. *at least one designated signaler if:*
 - I. *traffic approaches from one direction only; or*
 - II. *traffic approaches from both directions and the designated signaler and the operator of an approaching vehicle would be clearly visible to one another; and*
 - b. *at least two designated signalers if traffic approaches from both directions and the designated signaler and the operator of an approaching vehicle would not be clearly visible to one another.*
6. *Where there is or may be a hazard to a worker from traffic at a place of employment other than a public highway, an employer or contractor shall develop and implement a traffic control plan to protect the worker from traffic hazards.*
7. *A traffic control plan required by subsection (6) must:*
 - a. *be in writing;*
 - b. *be made readily available for reference by workers at the place of employment; and*
 - c. *set out, where appropriate:*
 - I. *the maximum allowable speed of any vehicle or class of vehicles, including powered mobile equipment, in use at the place of employment;*
 - II. *the maximum operating grades;*
 - III. *the location and type of control signs;*
 - IV. *the route to be taken by vehicles or powered mobile equipment;*
 - V. *the priority to be established for classes of vehicle;*
 - VI. *the location and type of barriers or restricted areas; and*
 - VII. *the duties of workers and the employer or contractor.*
8. *A worker who operates a vehicle or unit of powered mobile equipment at a place of employment and who does not have a clear view of the path to be travelled shall not proceed until a person who has a clear view of the path to be travelled by the vehicle or unit of powered mobile equipment signals to the worker that it is safe to proceed.*
9. *Where a provision of this section conflicts with a provision of The Highway Traffic Act, The Highways and Transportation Act, The Vehicle Administration Act, a regulation made pursuant to any of those Acts or a bylaw of a municipality made pursuant to The Urban Municipality Act, 1984, The Rural Municipality Act, 1989 or The Northern Municipalities Act, the provision of the other statute, regulation or bylaw prevails.*
10. *Nothing in this section applies to a peace officer in the performance of the peace officer's duties.*

British Columbia OHS Regulation - Part 18 Traffic Control

18.1 Definitions

In this Part:

"traffic control" *means the use of signs, flashing arrow boards, sign boards, buffer or shadow vehicles, barricades, cones, barriers, detours, traffic lights, traffic control persons (TCPs) or other techniques and devices to manage the flow of traffic;*

"traffic control person" or "TCP" means any person designated or assigned by the employer to direct traffic.

18.2 Responsibility

The employer must ensure that effective traffic control is provided and used whenever traffic could be hazardous to a worker.

18.3 Standards for traffic control

Traffic control equipment, arrangements and procedures must meet the requirements of the latest edition of the Traffic Control Manual for Work on Roadways (the "Traffic Control Manual") issued by the Ministry of Transportation, unless otherwise specified by this Regulation.

18.4 Supervision

1. *The employer must ensure that whenever traffic control is required, all of the following requirements are implemented:*
 - a. *the traffic control arrangements and procedures for the work are made known to all the people involved in the work;*
 - b. *the required traffic control devices and procedures are in place before the start of work and are removed when they are no longer required;*
 - c. *any person assigned to be a traffic control person is adequately trained in a manner acceptable to the Board and effectively performs their role in the traffic control arrangements and procedures for the work;*
 - d. *a traffic control person is positioned in a safe location clear of potential environmental hazards such as a slide or avalanche;*
 - e. *if 2 or more traffic control persons are required to work as a team at the worksite, responsibility for coordination of changes in traffic flow is assigned.*
2. *The employer must ensure that during traffic control operations a supervisor is designated to ensure the requirements of subsection (1) (b) to (e) are met.*

18.5 Placement of traffic control signs and devices

1. *Traffic control signs and devices must be positioned and used as specified in the Traffic Control Manual and signs and devices must be located so as to allow traffic to move by or through the work area in a controlled manner and, if necessary, to come to a controlled stop with due regard for the prevailing weather and road conditions.*
2. *Unless otherwise specified, all traffic control signs and devices must be installed and removed in a sequence which best protects workers during this phase of a traffic control operation.*
3. *A sign advising of a traffic control person ahead must be placed in advance of each traffic control person's station, and this sign must be removed promptly when a traffic control person is no longer on duty at that station.*
4. *Subsection (3) does not apply during emergency or brief duration work when it is not practicable to place such a sign, provided that sight lines and traffic speed allow oncoming traffic adequate warning of the work activity taking place.*

18.6 Use of a traffic control person

1. *A traffic control person may be used only*
 - a. *if the use of signs and other traffic control devices and procedures alone cannot provide effective traffic control, or*

- b. during an emergency or brief duration work if it is not practicable to control traffic with signs and other devices and procedures.*
- 2. Without limiting the generality of subsection (1), one or more traffic control persons must be used if**
 - a. it is necessary to institute a one-way traffic system by or through a work zone and the circumstances do not allow self-regulating single lane traffic controlled by signs and other devices as specified in the Traffic Control Manual, and a traffic signal system is not used,*
 - b. work-related traffic cannot safely self-regulate to move in or out of the work area or safely coordinate with other traffic,*
 - c. an existing traffic control system, or an existing traffic signal light system, is not adequate to regulate traffic,*
 - d. the work encroaches into an intersection so as to interfere with regular traffic movement,*
 - e. traffic speed or volume is a hazard to workers while setting up or removing other traffic control devices, or*
 - f. other traffic control devices are not available in an emergency situation.*

18.7 Traffic control person to remain on duty

The employer must ensure that a traffic control person is on duty at the assigned station whenever a traffic control person is required as part of the traffic control plan for the work.

18.8 Location of traffic control persons

A traffic control person must

- a. stand in a safe position, preferably on the driver's side of the lane under the TCP's control, be clearly visible, and have an unobstructed view of approaching traffic, and*
- b. be positioned at least 25 m (80 ft) away from the work area unless circumstances or space requirements, such as working at or near an intersection, dictate otherwise.*

18.9 Operations during day time

Each traffic control person must be provided with, and must use, all of the following:

- a. a traffic control paddle meeting the requirements for a C-27H Traffic Control Paddle as specified in the Traffic Control Manual and, if necessary to control fatigue, a non-conductive support staff for the paddle;*
- b. high visibility apparel meeting*
 - I. the Type 1 or Type 2 criteria of WCB Standard Personal Protective Equipment Standard 2-1997, High Visibility Garment, or*
 - II. the Class 2 or 3 garment criteria of CSA Standard Z96-02, High-Visibility Safety Apparel, with a fluorescent background colour;*
- c. wrist and lower leg bands fitted with a minimum 5 cm (2 in) wide fluorescent retro reflective strip about their entire circumference, except that wrist and lower leg bands are not required for a traffic control person performing this function on an emergency or a temporary basis and not as part of their normal duties;*
- d. safety headgear of a high visibility colour with a strip of retro reflective tape across the top from front to back and on the sides;*

- e. *an effective means of communication when traffic control persons are not visible to each other, which under no circumstances means a system of passing batons or similar items to indicate the last vehicle traveling through the zone under control.*

18.10 Operations during night time or poor visibility

1. *During the hours of darkness, or in other conditions of poor visibility, each traffic control person must be provided with and must use, in addition to the equipment required by section 18.9, a flashlight fitted with a red signaling wand.*
2. *For the purpose of subsection (1), the traffic control person must have immediate access to spare batteries for the flashlight.*

18.11 Equipment maintenance

All traffic control equipment and devices, including signs, traffic control paddles and personal protective equipment, must be kept clean and in working condition.

18.12 Precise motions

A traffic control person must make all traffic control directions and signals precisely and deliberately so that the meaning can be clearly understood.

18.13 Standard signals between traffic control persons

If manual signals are used between traffic control persons to initiate changes in the direction of traffic flow, the signals shown in Figure 18-1 must be used.

18.14 Standard signals for traffic

1. *All traffic control directions and signals made by a traffic control person for the purpose of controlling traffic must conform to the requirements of this Regulation and the Traffic Control Manual.*
2. *A traffic control person must use the normal signals shown in Figure 18-2 when stationed on the driver's (left) side of the traffic lane under the TCP's control.*
3. *The alternative signals shown in Figure 18-2 must be used only when the traffic control person is stationed on the passenger's (right) side of the traffic lane under the TCP's control.*
4. *A traffic control person must not use their traffic control paddle to wave traffic on and must never display the paddle to traffic in other than a static manner.*

18.15 Dust control

If traffic causes airborne dust to the extent visibility is reduced and interferes with effective traffic control or creates a hazard to workers, the employer must control the dust by the periodic application of water or other acceptable material to the grade surface to suppress dust.

18.16 Long periods of delay

If traffic control operations will result in long periods of traffic delay, appropriate signs or other effective means must be used to inform the traffic of the situation.

18.17 Towing and recovery operations

If the recovery of a disabled or damaged vehicle prevents the safe passage of other vehicles or if a passing vehicle is a danger to the workers engaged in the recovery operation, the person in charge must

- a. *warn traffic of the recovery operation by displaying appropriate signs and a 360° flashing light,*
- b. *ensure that workers wear appropriate personal protective equipment, and*

ensure that any other procedures required by the Traffic Control Manual are followed if the activity exceeds the limits for emergency or brief duration work.

REFERENCES / ADDITIONAL INFORMATION

Additional Hazards of the Job

The position of Traffic Control Person can be hazardous. To reduce the hazards the traffic control person must be in good physical shape with good vision and hearing. They need to be alert and aware of everything that is going on around them. Assess the level of risk faced by the Traffic Control Person in each situation. Consider traffic speed, direction, and volume as well as weather conditions and the time of day or night. If the positioning of the Traffic Control Person puts them in danger because of the volume of traffic or the proximity to the traffic then consideration should be given to using barricades (jersey barriers, ghost vehicle positioning, flashing lights, cones...)

Ensure that Traffic Control Person's stand in a safe position, are clearly visible, and have an unobstructed view of approaching traffic. A safe position is usually on the side of the shoulder of the road, out of the way of vehicles

Flag person Traffic control

- Use a "SLOW/STOP" paddle to control traffic.
- When stopping traffic, stop the lane of traffic closest to the curb first
- Walk to a point where you can be seen by the traffic in the second lane but not directly into the path of oncoming traffic
- Display the "Stop" sign and your raised free hand while maintaining eye contact
- Flag persons will wear high visibility vest while conducting traffic control.
- When the first vehicle is stopped, walk to a position where you can be seen by traffic coming up behind stopped vehicles
- Always keep the "Stop" sign held high, maintain eye contact and keep your free hand raised with the palm traffic
- Allow construction activity to proceed after it is safe to do so while maintaining a safe distance from the equipment.
- When it is safe for traffic to proceed, walk in a straight line back to the side of the road.
- If there is more than one lane stopped, release one lane at a time as you move toward the curb.
- Turn the paddle to display the "Slow" sign to the stationary vehicles and with your free arm wave the traffic through.
- Do not wave the "STOP/SLOW" paddle.

Key Considerations for Traffic Control Person:

- Stay focused on traffic control task, plan an escape route
- Stand alone
- Never leave the station unattended
- Keep signs clean and in good condition
- Remove or cover signs when not in use
- Never stand or walk in the path of moving vehicles

- No personal phone use or other distractions at traffic control sites
- Verify your signs are in place
- Use eye contact to get driver's attention

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