Manitoba Transportation and Government Services Traffic Engineering



Policy/Standard No. 900-C-5

Effective Date: April 15, 1997

Traffic Control Device: **Work Zone** Division:

Date of Revision: March 15, 2002

Subject:Installation and Removal of Traffic Control DevicesPage 1 of 2

## Purpose

The installation and removal of temporary traffic control zones creates a situation which is often far more hazardous than the operation of the completed zone. The workers placing these advance warning devices and channelizing devices must be on the roadway at these points of high conflict. Furthermore, the placement operation constitutes a more unexpected situation for the motorist than does the work zone itself. To minimize these hazards, it is essential that the installation proceed in an orderly fashion and be accomplished as quickly as possible.

# Policy

Installation and removal of traffic control devices must be done in a manner which causes the least risk to traffic and which provides for the safety of workers installing or removing devices.

## Standard

#### **Installation Sequence**

Devices are installed in the direction that traffic moves - this is, "downstream". The first device placed is the first advance warning sign, typically ROAD WORKS (WD-A-41). The installation then proceed with the:

- X Advance Warning area
- X Transition area
- X Buffer area
- X Activity area
- X Termination area

#### Installation Procedure

The traffic control crew must disembark from their vehicles in a safe manner. All personnel must be attired properly to work on the roadway.

RECOMMENDED:

APPROVED:

Director, Traffic Engineering

Executive Director Highway Engineering The vehicle being used to haul traffic control devices must be equipped with a minimum of a rotating beacon or strobe. (Higher level lighting is recommended on four-lane divided and high volume two-lane roads.) All lights must be turned on while on the road or shoulder. Four-way flashers and headlights are recommended at all times.

The devices truck or service vehicle acts as the advance warning device for the installation of the first devices and should be located upstream of the workers installing the first devices.

A second or shadow vehicle is recommended for high volume roads and all four-lane roads. This vehicle should be located 150 m upstream of the devices truck and have high level lighting such as sequential flashers on four-lane roads. When no shadow vehicle is used then a flagperson is required for the installation of the tapers.

Tapers are laid out in a straight line starting at the shoulder. Each device is installed in sequence moving downstream. The devices should be moved laterally out from the shoulder with the worker looking toward traffic as he or she moves out into the lane of traffic.

### Sign Placement

All long term signs should be mounted on wood posts. The bottom of the sign must be 1.5 m above the pavement surface and two to four metres from the edge of the shoulder.

All temporary signs must be mounted on approved portable sign stands at a minimum height of 600 mm from the road surface to the bottom of the sign.

Signs should be erected with their face turned 0 to 5 degrees away from the road to reduce glare from reflected headlights.

#### **Modification and Removal**

When possible, temporary traffic control zones should be modified or removed in the reverse order of installation. This requires crews to move upstream or against traffic through the work zone. If using a vehicle to pick up devices, the vehicle must have its headlights on high beam and the crew must take extra care when turning the vehicle around.

Where there are no shoulders, or where room does not allow vehicles to move against traffic safely, the removal of advance warning signs should be made in the downstream direction. A shadow vehicle must be used in all situations where devices are picked up going in the downstream direction.