

## **TRAILER MOUNTED TRAFFIC CONTROL DEVICES**

### **Advance Warning Arrow Panels -**

Use trailer mounted advance warning arrow panels to provide additional advance warning and directional information to assist motorists through a work zone. Make certain to provide these warning devices for advance directional information in lane closures. All trailer mounted advance warning arrow panels shall comply with department specifications.

All trailer mounted advance warning arrow panels shall be either a Type A, B or C. All advance warning arrow panels shall comply with the requirements for minimum size, legibility distance and minimum number of elements. See *Table 5, Advance Warning Arrow Panels (Trailer Mounted)*.

**Table 5            Advance Warning Arrow Panels (Trailer Mounted)**

<b>Arrow Panel Type</b>	<b>Minimum Size</b>	<b>Minimum Legibility Distance</b>	<b>Minimum Number Of Elements</b>
A	48" x 24"	½ Mile	12
B	60" x 30"	¾ Mile	13
C	96" x 48"	1 Mile	15

A trailer mounted advance warning arrow panel shall have a minimum mounting height of 7 feet from the bottom of the sign panel to the surface on which the unit is placed.

Trailer mounted advance warning arrow panels shall remain stationary when operating. Do not tow trailer mounted advance warning arrow panels while operating. Towing an operating trailer mounted advance warning arrow panel in place of utilizing a truck mounted advance warning arrow panel when a truck mounted device is required is PROHIBITED. Do not place, attach or mount a trailer mounted advance warning arrow panel on or to the bed, body, etc. of a truck to act as a truck mounted device.

The trailer mounted advance warning arrow panel is a supplemental traffic control device. Use of a trailer mounted arrow panel as a singular entity is PROHIBITED.

Do not use a trailer mounted advance warning arrow panel operating in a Flashing Arrow Mode or a Sequential Chevron Mode as a part of a flagging operation to direct vehicles into lanes used by opposing traffic.

Use the Flashing Arrow Modes, the Sequential Chevron Modes or the Caution Mode. Do not display Sequential Stem Arrow Modes due to staged and slow development of the intended message by these message modes.

The Caution Mode requires a pattern of 4 lamps with 1 lamp in each corner flashing simultaneously (referred to as the "4 Corners" pattern). Ensure the "4 Corners" pattern does not indicate direction or resemble any other mode. Do not use trailer mounted advance warning arrow panels incapable of producing the "4 Corners" pattern. Do not display a "bar," "alternating diamond(s)," or any other symbol other than the required "4 Corners" pattern during the Caution Mode.

Utilize the Caution Mode to alert motorists they are approaching an area impacted by work activities. Utilize the Caution Mode at locations and during operations that do not mandate relocation of traffic to an adjacent travel lane.

## **Changeable Message Signs -**

Use trailer mounted changeable message signs to provide additional advance warning and directional information to assist motorists through a work zone. Consider utilizing these warning devices for advance information to assist motorists on high volume high speed roadways or on any job site that advance information may be beneficial to motorists. All trailer mounted changeable message signs shall comply with department specifications.

The trailer mounted changeable message sign shall have a minimum mounting height of 7 feet from the bottom of the sign panel to the surface on which the unit is placed when raised into its operating position.

Trailer mounted changeable message signs shall remain stationary when operating. Do not tow trailer mounted changeable message signs while operating. Towing an operating trailer mounted changeable message sign in place of utilizing a truck mounted changeable message sign when a truck mounted device is required is PROHIBITED. Do not place, attach or mount a trailer mounted changeable message sign on or to the bed, body, etc. of a truck to act as a truck mounted device.

When a trailer mounted changeable message sign is non-operational for more than 72 hours, remove the sign from the roadway.

Use pre-programmed messages in accordance with the typical standard drawings in this manual when the trailer mounted changeable message signs are used as part of the traffic control setup for lane closures. Display only those messages pertinent to the traffic control situation and traffic conditions. Do not use messages on a changeable message sign that duplicate the legends on the advance warning signs.

On primary and secondary routes, place the trailer mounted changeable message sign on the shoulder of the roadway not less than 6 feet from the edge of the sign to the near edge of the adjacent travel lane when space is available. When the 6 foot space or right-of-way is unavailable, place the trailer mounted changeable message sign at the greatest possible distance up to 6 feet from the near edge of the adjacent travel lane.

On primary and secondary routes, when a trailer mounted changeable message sign is placed within the limits of a paved shoulder or remains in place adjacent to a travel lane when inoperative, regardless of the shoulder type, supplement the trailer mounted changeable message sign location with not less than 5 portable plastic drums placed between the sign and the adjacent travel lane for delineation of the sign location. Space these portable plastic drums at 3 to 5 foot intervals; see Drawing No. 505-03-A for the proper arrangement of these drums. This requirement for delineation of the sign location applies at all times under the aforementioned conditions during which the sign is within 15 feet of the near edge of a travel lane open to traffic. Use of 28" or 36" standard traffic cones or 42" oversized traffic cones as substitutes for the portable plastic drums in this application is unacceptable. Delineation of the sign location may be omitted when the trailer mounted changeable sign is located behind guardrail or temporary concrete barrier wall.

On interstate routes, place the trailer mounted changeable message sign on the shoulder of the roadway not less than 6 feet from the edge of the sign to the near edge of the adjacent travel lane. Supplement the sign location with no less than 5 portable plastic drums placed between the sign and the adjacent travel lane for delineation of the sign location. Install and maintain the drums not closer than 3 feet from the near edge of the adjacent travel lane. Space these portable plastic drums at 3 to 5 foot intervals; see Drawing No. 510-01-A for the proper arrangement of these drums. The requirement for delineation of the sign location applies at all times during which the sign is within 30 feet of the near edge of a travel lane open to traffic. Use of 28" or 36" standard traffic cones or 42" oversized traffic cones as substitutes for the portable plastic drums in this application is unacceptable. Delineation of the sign location may be omitted when the trailer mounted changeable sign is located behind guardrail or temporary concrete barrier wall.