

Red = Monthly Pickup
Blue = Bi-Monthly Pickup
Yellow = Bi-Weekly Pickup

Strategic Routes to be Included in the Litter Removal

County	Route	Beginning of Route	End of Route	Corridor Miles	# of Cleanup Cycles per Year	Corridor Miles of Cleanup per Year
Durham	I-40	Orange County Line	NC 55	8.2	6	49.2
Durham	I-40	NC 55	Wake County Line	4.6	12	55.2
Durham	I-540	I-40	Wake County Line	0.6	12	7.2
Durham	I-85	Exit 179	Granville County Line	5.3	12	63.6
Wake	I-40	Durham County Line	SR 1319 (Jones Franklin)	10.6	12	127.2
Wake	I-40 (Future Construction Pending)	SR 1319 (Jones Franklin)	I-440 - Exit 301	7.7	12	92.4
Wake	I-40	US 64 Bypass/US 264	I-40	13.8	12	165.6
Wake	I-440 (Future Construction Pending)	I-40	US 64 Bypass/US 264	2.8	12	33.6
Wake	I-440	I-40	US 64 Bypass/US 264	2.8	12	33.6
Wake	I-540	Durham County Line	US 64 Bypass	25.2	12	302.4
Wake	US 1	Chatham County Line	NC 540	7.3	6	43.8
Wake	US 1	NC 540	I-40	9.1	12	109.2
Wake	US 64	I-440	Franklin County Line	19.7	6	118.2
Wake	US 264	US 64	Johnston County Line	3.3	6	19.8
Wake	SR 1728 (Wade Ave)	I-40	I-440	3.1	12	37.2
				124.1		1258.2

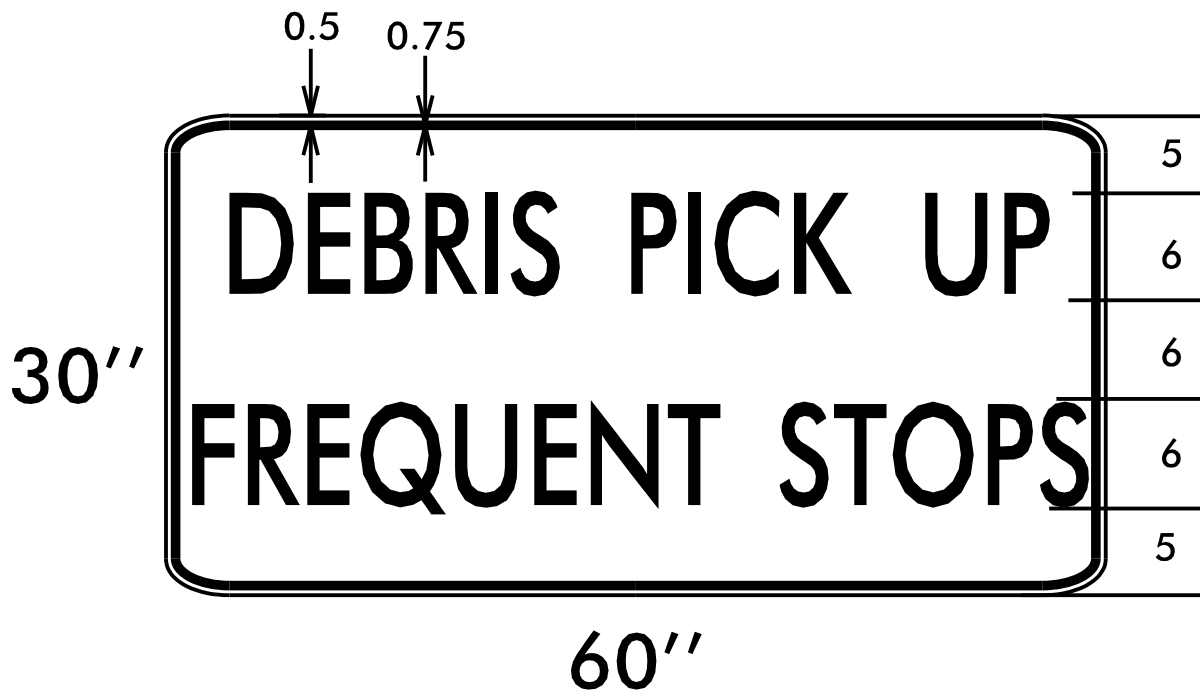
Turnpike Routes to be Included in the Litter Removal

Durham	NC 147	I-40	Wake County Line	2.4	26	62.4
Wake	NC 147	Durham County Line	NC 540	1.0	26	26
Durham	NC-540	I-40	Wake County Line	0.5	26	13
Wake	NC-540	Durham County Line	US 64	16.1	26	418.6
				20		520

**TYPICAL INTERCHANGE CONFIGURATION SHOWING
LITTER REMOVAL LIMITS**

**Litter Removal to Follow Control of Access Fencing
Contractor will NOT be Responsible for Cleaning Up Litter in Wooded
Areas Unless Litter is Visible from the Roadway**





LETTERING - BLACK

BACKGROUND - FLOURESCENT ORANGE (RETROREFLECTIVE)

**DETAIL OF SIGN TO BE MOUNTED
ON BACK OF ALL VEHICLES USED
FOR DEBRIS/LITTER REMOVAL**

10/14/13

Work Zone Traffic Control Guidance for Litter Pickup

General:

- Workers that are involved in litter pickup operations shall comply with the following:
 - Wear NCDOT approved safety vests for day time and night time operations
- Litter pickup operations shall be confined within a maximum 5 mile stretch of roadway in a work period
- Conduct litter pickup operations behind lane closures at any location where workers and/or equipment are encroaching into the travel lanes. Lane closures shall be installed according to Roadway Standard Drawings 1101.02. Encroaching into travel lanes includes exiting and entering vehicles that are parked on shoulders.
- Use the attached moving caravan drawings to retrieve bagged litter and any other materials after being collected by the workers.
- For operations where workers and equipment are confined to the shoulders, comply with the followings:

On Multilane Divided Facilities

- A Truck Mounted Attenuator (TMA) shall be used to protect each group of workers picking up litter if the shoulder is wide enough to fit a TMA.
- If a TMA is not used, a shoulder closure shall be installed
- A shoulder closure shall be installed in locations where the shoulder is too narrow to accommodate a TMA without encroaching into the traffic lane
- A shoulder closure or a TMA shall be used on the median side of the opposite direction if the following condition exists:
 - Where workers and/or equipment are within 15' from the adjacent travel lane in the opposite direction and are not protected from traffic in the opposite direction by any type of positive median protection such as concrete barrier, guardrail, or guiderail.
- Shoulder closures shall be installed according to Roadway Standard Drawing 1101.04

10/14/13

Two-Lane, Two-Way Facilities over 4000 ADT

- A shoulder closure shall be installed if workers are to be present more than one hour at any location.
- If workers are to be present less than one hour, use portable advance warning signs (one in each direction) reading "LITTER PICKUP AHEAD".
- Shoulder closures shall be installed according to Roadway Standard Drawing 1101.04

Two-Lane, Two-Way Facilities 4000 ADT or lower

- Use portable advance warning signs (one in each direction) reading "LITTER PICKUP AHEAD". The sign should be located 500 feet ahead of the area where workers and or equipment will be present during the operation.







GENERAL NOTES

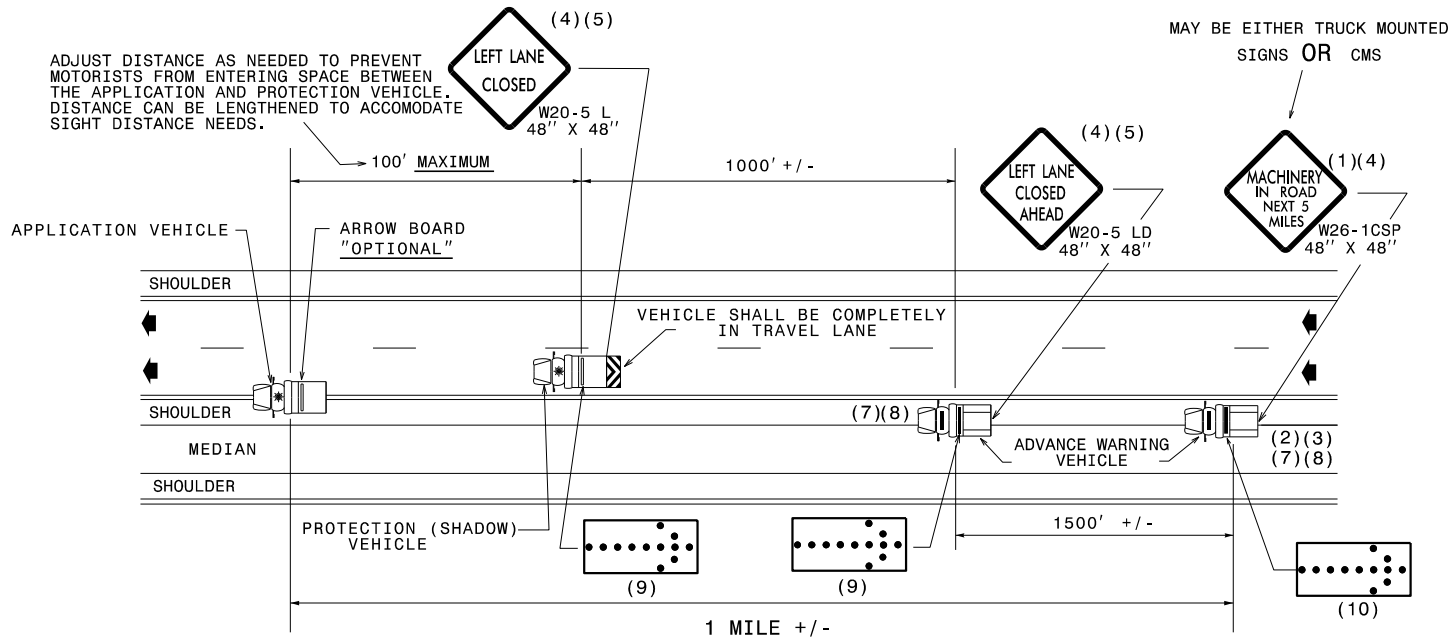
- (1) THE FOLLOWING OPTIONS MAY BE USED AS THE FIRST ADVANCE WARNING THE MOTORISTS SEES:
 - A. TRUCK MOUNTED ADVANCE WARNING SIGNS
 - B. TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
 - C. STATIONARY CHANGEABLE MESSAGE SIGN (CMS)
(MUST USE 'NEXT 5 MILES' AND MAKE CIRCLE TO PICK UP SIGNS)
- (2) TOTAL DISTANCE BETWEEN FIRST AND LAST VEHICLE IN CARAVAN SHOULD BE APPROXIMATELY ONE (1) MILE IN LENGTH.
- (3) IF USING STATIONARY CMS, THE TOTAL DISTANCE BETWEEN THE CMS AND APPLICATION VEHICLE SHOULD NOT EXCEED 5 MILES AND SIGN SHOULD READ 'MACHINERY IN ROAD NEXT 5 MILES'.
- (4) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW BOARD AND/OR WARNING LIGHTS.
- (5) SIGN W20-5L SHOULD BE PLACED ON BACK OF PROTECTION VEHICLE AND SIGN W20-5LD ON BACK OF ADVANCE WARNING VEHICLE IN MULTILANE DIVIDED TRAFFIC SO VEHICLES APPROACHING FROM REAR ARE NOTIFIED OF OPERATION
- (6) RADIO COMMUNICATION BETWEEN VEHICLES IS RECOMMENDED.
- (7) USE WARNING LIGHTS WITH ATLEAST 50% BEING AMBER IN COLOR ATTACHED TO THE VEHICLE AS HIGH AS POSSIBLE AND IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. VEHICLE HAZARD SIGNALS OR LIGHTS MAY BE USED TO SUPPLEMENT THIS REQUIREMENT. THIS REQUIREMENT APPLIES TO ALL WORK VEHICLES AND EQUIPMENT NOT INSIDE A LANE CLOSURE OR BEHIND A BARRIER. THIS REQUIREMENT DOES NOT APPLY TO DUMP TRUCKS, BUT IS ENCOURAGED.
- (8) USE OF TRUCK MOUNTED CMS's ARE OPTIONAL WITH ADVANCED WARNING VEHICLES.
- (9) USE A TYPE "C" FLASHING ARROW BOARD.

PANEL TYPE	MIN. SIZE
C	96"X48"
- (10) MAY USE A TYPE "B" FLASHING ARROW BOARD ON 1ST ADVANCE WARNING VEHICLE.

PANEL TYPE	MIN. SIZE
B	60"X30"
- (11) IF 43" X 73" CMS IS USED, LETTER HEIGHT MUST BE 18".

LEGEND

-  PORTABLE SIGN
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH ROTATING BEACON
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMA) AND WARNING LIGHTS (SEE ROADWAY STANDARD NO. 1165.01)
-  ADVANCE WARNING VEHICLE, TRUCK WITH MOUNTED FAP
-  FLASHING ARROW BOARD, APPROPRIATE DIRECTION INDICATED



MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)

SPRAYING 60 MPH & ABOVE MULTILANE DIVIDED ROADWAYS

IN MEDIAN AND ON RIGHT SIDE W/PAVED SHOULDERS LESS THAN 10' WIDE







DRAWING NUMBER 1
IMPLEMENTATION DATE: 10/18/13

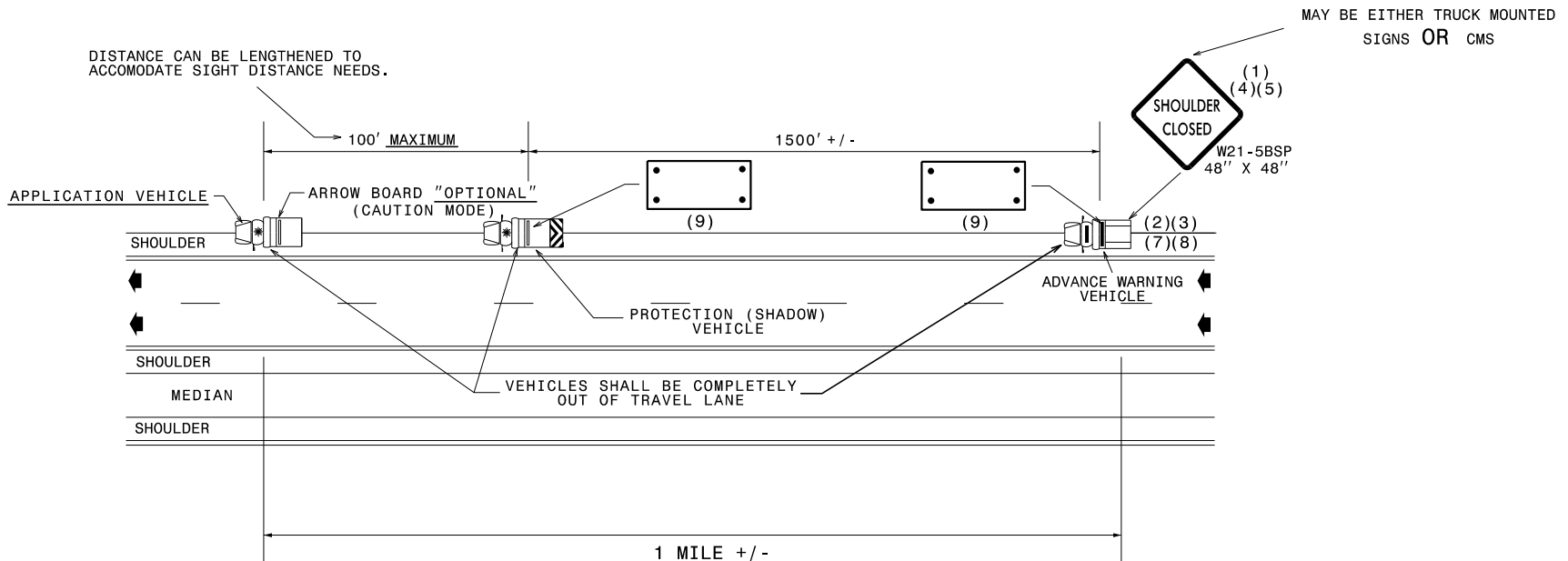
GENERAL NOTES

- (1) THE FOLLOWING OPTIONS MAY BE USED FOR THE FIRST ADVANCE WARNING THE MOTORISTS SEES:
 - A. TRUCK MOUNTED ADVANCE WARNING SIGNS
 - B. TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
 - C. STATIONARY CHANGEABLE MESSAGE SIGN (CMS)
(MUST USE 'NEXT 5 MILES' AND MAKE CIRCLE TO PICK UP CMS)
- (2) TOTAL DISTANCE BETWEEN FIRST AND LAST VEHICLE IN CARAVAN SHOULD BE APPROXIMATELY ONE (1) MILE IN LENGTH.
- (3) IF USING STATIONARY CMS, THE TOTAL DISTANCE BETWEEN THE CMS AND APPLICATION VEHICLE SHOULD NOT EXCEED 5 MILES AND SIGN SHOULD READ 'SHOULDER CLOSED'.
- (4) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW BOARD AND/OR WARNING LIGHTS.
- (5) SIGN W21-5BSP SHOULD BE PLACED ON BACK OF ADVANCE WARNING VEHICLE IN MULTILANE DIVIDED TRAFFIC SO VEHICLES APPROACHING FROM REAR ARE NOTIFIED OF OPERATION.
- (6) RADIO COMMUNICATION BETWEEN VEHICLES IS RECOMMENDED.
- (7) USE WARNING LIGHTS WITH ATLEAST 50% BEING AMBER IN COLOR ATTACHED TO THE VEHICLE AS HIGH AS POSSIBLE AND IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. VEHICLE HAZARD SIGNALS OR LIGHTS MAY BE USED TO SUPPLEMENT THIS REQUIREMENT. THIS REQUIREMENT APPLIES TO ALL WORK VEHICLES AND EQUIPMENT NOT INSIDE A LANE CLOSURE OR BEHIND A BARRIER. THIS REQUIREMENT DOES NOT APPLY TO DUMP TRUCKS, BUT IS ENCOURAGED.
- (8) USE OF CMS'S ARE OPTIONAL WITH ADVANCED WARNING VEHICLES.
- (9) USE A TYPE "C" FLASHING ARROW BOARD.

PANEL TYPE	MIN. SIZE
C	96" X 48"
- (10) IF 43" X 73" CMS IS USED, LETTER HEIGHT MUST BE 18".

LEGEND

-  PORTABLE SIGN
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH ROTATING BEACON
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND ROTATING BEACON (SEE ROADWAY STANDARD NO. 1165.01)
-  ADVANCE WARNING VEHICLE WITH FLASHING ARROW BOARD
-  FLASHING ARROW BOARD, TYPE "C" 'CAUTION MODE'



MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)

SPRAYING 60 MPH & ABOVE MULTILANE DIVIDED ROADWAYS
IN MEDIAN AND ON RIGHT SIDE W/PAVED SHOULDERS 10' OR WIDER

DRAWING NUMBER 2
 IMPLEMENTATION DATE: 10/18/13







GENERAL NOTES

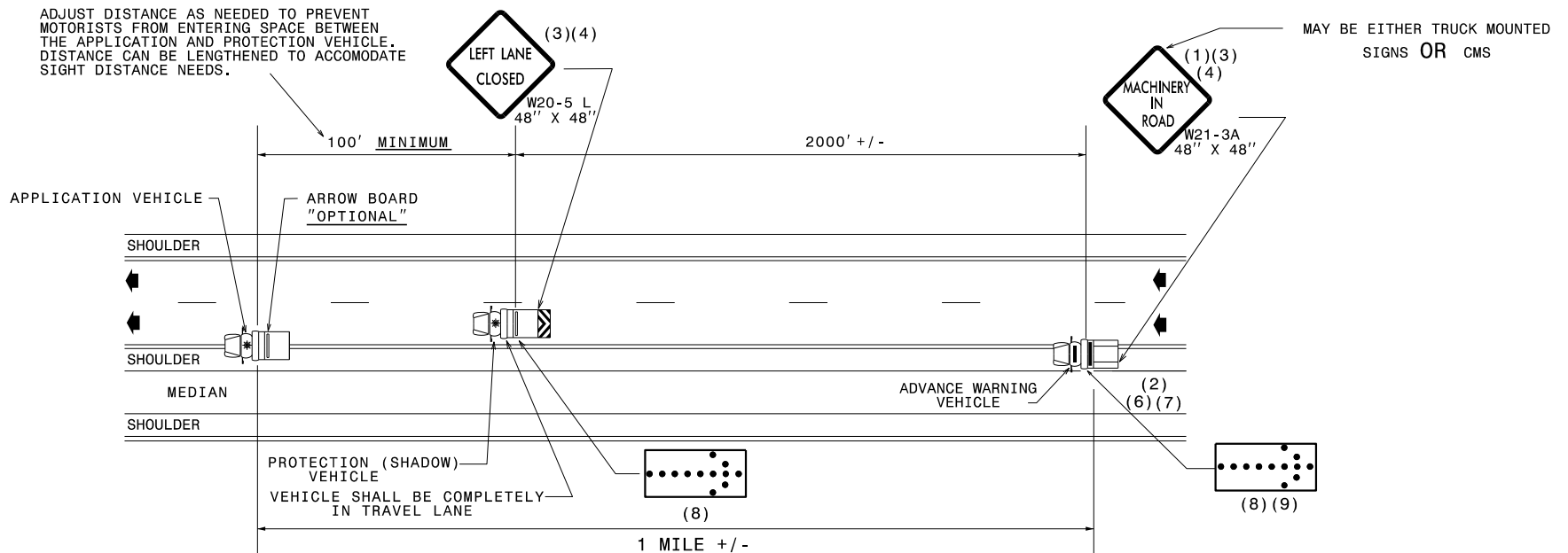
- (1) THE FOLLOWING OPTIONS MAY BE USED AS THE FIRST ADVANCE WARNING THE MOTORISTS SEES:
 - A. TRUCK MOUNTED ADVANCE WARNING SIGNS
 - B. MOVING CHANGEABLE MESSAGE SIGN (CMS)
- (2) TOTAL DISTANCE BETWEEN FIRST AND LAST VEHICLE IN CARAVAN SHOULD BE APPROXIMATELY ONE (1) MILE IN LENGTH.
- (3) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW BOARD AND/OR WARNING LIGHTS.
- (4) SIGN W20-5L SHOULD BE PLACED ON BACK OF PROTECTION VEHICLE AND SIGN W26-1CSP ON BACK OF ADVANCE WARNING VEHICLE IN MULTILANE DIVIDED TRAFFIC SO VEHICLES APPROACHING FROM REAR ARE NOTIFIED OF OPERATION.
- (5) RADIO COMMUNICATION BETWEEN VEHICLES IS RECOMMENDED.
- (6) USE WARNING LIGHTS WITH ATLEAST 50% BEING AMBER IN COLOR ATTACHED TO THE VEHICLE AS HIGH AS POSSIBLE AND IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. VEHICLE HAZARD SIGNALS OR LIGHTS MAY BE USED TO SUPPLEMENT THIS REQUIREMENT. THIS REQUIREMENT APPLIES TO ALL WORK VEHICLES AND EQUIPMENT NOT INSIDE A LANE CLOSURE OR BEHIND A BARRIER. THIS REQUIREMENT DOES NOT APPLY TO DUMP TRUCKS, BUT IS ENCOURAGED.
- (7) USE OF CMS'S ARE OPTIONAL WITH ADVANCED WARNING VEHICLES.
- (8) USE A TYPE "C" FLASHING ARROW BOARD.

PANEL TYPE	MIN. SIZE
C	96"X48"
- (9) USE A TYPE "B" FLASHING ARROW BOARD.

PANEL TYPE	MIN. SIZE
B	60"X30"
- (10) IF 43" X 73" CMS IS USED, LETTER HEIGHT MUST BE 18".

LEGEND

-  PORTABLE SIGN
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH LIGHT BAR
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMA) AND LIGHT BAR (SEE ROADWAY STANDARD NO. 1165.01)
-  ADVANCE WARNING VEHICLE i.e. PICKUP TRUCK WITH MOUNTED SIGN
-  FLASHING ARROW BOARD, TYPE "B" APPROPRIATE DIRECTION INDICATED



MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)

SPRAYING OTHER MULTILANE DIVIDED ROADWAYS

IN MEDIAN AND ON RIGHT SIDE W/PAVED SHOULDERS LESS THAN 10' WIDE







DRAWING NUMBER 3
IMPLEMENTATION DATE: 10/18/13

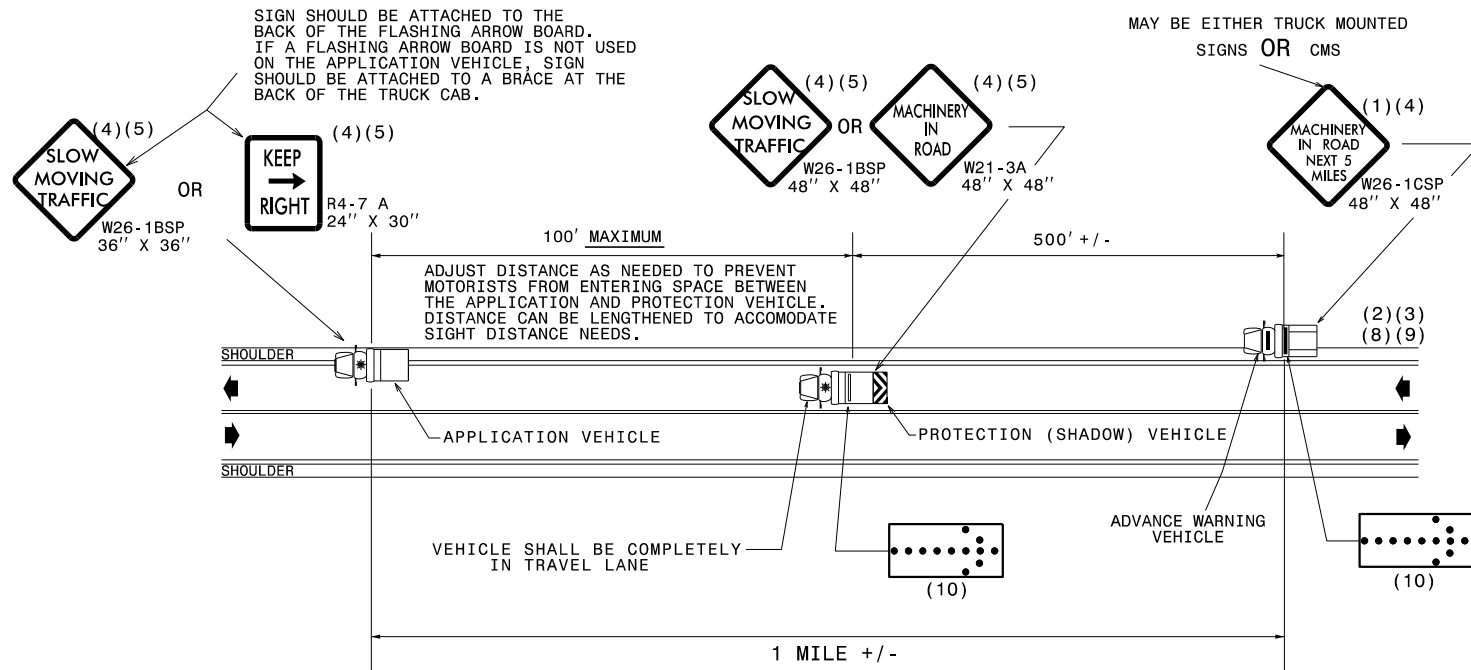
GENERAL NOTES

- (1) THE FOLLOWING OPTIONS MAY BE USED AS THE FIRST ADVANCE WARNING THE MOTORISTS SEE:
 - A. TRUCK MOUNTED ADVANCE WARNING SIGNS
 - B. MOVING CHANGEABLE MESSAGE SIGN (CMS)
 - C. GROUND MOUNTED ADVANCE WARNING SIGNS
(MUST USE 'NEXT 5 MILES' AND MAKE CIRCLE TO PICK UP SIGNS)
 - D. STATIONARY CHANGEABLE MESSAGE SIGN (CMS)
(MUST USE 'NEXT 5 MILES' AND MAKE CIRCLE TO PICK UP CMS)
- (2) TOTAL DISTANCE BETWEEN FIRST AND LAST VEHICLE IN CARAVAN SHOULD BE APPROXIMATELY ONE (1) MILE IN LENGTH.
- (3) IF USING GROUND MOUNTED ADVANCE WARNING SIGNS OR STATIONARY CMS, THE TOTAL DISTANCE BETWEEN THE FIRST ADVANCE WARNING SIGN OR CMS AND APPLICATION VEHICLE SHOULD NOT EXCEED 5 MILES AND SIGN W26-1CSP SHOULD READ 'MACHINERY IN ROAD NEXT 5 MILES'.
- (4) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW BOARD AND/OR LIGHT BAR.
- (5) SIGN W26-1BSP OR R4-7A SHOULD BE PLACED ON FRONT OF THE APPLICATION VEHICLE AND SIGN W26-1BSP OR W21-3A ON BACK OF THE PROTECTION VEHICLE IN TWO-LANE, TWO-WAY TRAFFIC SO VEHICLE APPROACHING FROM THE FRONT AND REAR ARE NOTIFIED OF OPERATION.
- (6) IF A LEAD VEHICLE IS ADDED TO OPERATION, IT SHOULD HAVE THE SAME ADVANCE WARNING SIGNS AS THE APPLICATION VEHICLE SHOWN BELOW.
- (7) RADIO COMMUNICATION BETWEEN VEHICLES IS RECOMMENDED.
- (8) USE WARNING LIGHTS WITH ATLEAST 50% BEING AMBER IN COLOR ATTACHED TO THE VEHICLE AS HIGH AS POSSIBLE AND IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. VEHICLE HAZARD SIGNALS OR LIGHTS MAY BE USED TO SUPPLEMENT THIS REQUIREMENT. THIS REQUIREMENT APPLIES TO ALL WORK VEHICLES AND EQUIPMENT NOT INSIDE A LANE CLOSURE OR BEHIND A BARRIER. THIS REQUIREMENT DOES NOT APPLY TO DUMP TRUCKS, BUT IS ENCOURAGED.
- (9) USE OF CMS'S ARE OPTIONAL WITH ADVANCED WARNING VEHICLES.
- (10) USE A TYPE "B" FLASHING ARROW BOARD.

PANEL TYPE	MIN. SIZE
B	60" X 30"
- (11) IF 43" X 73" CMS IS USED, LETTER HEIGHT MUST BE 18".

LEGEND

-  PORTABLE SIGN
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH ROTATING BEACON
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND ROTATING BEACON (SEE ROADWAY STANDARD NO. 1165.01)
-  ADVANCE WARNING VEHICLE i.e., PICKUP TRUCK WITH MOUNTED SIGN
-  FLASHING ARROW BOARD, TYPE "B" "CAUTION MODE"



MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)

SPRAYING TWO-LANE TWO-WAY ROADWAYS
WITH ADT GREATER THAN 5000






DRAWING NUMBER 4
IMPLEMENTATION DATE: 10/18/13

GENERAL NOTES

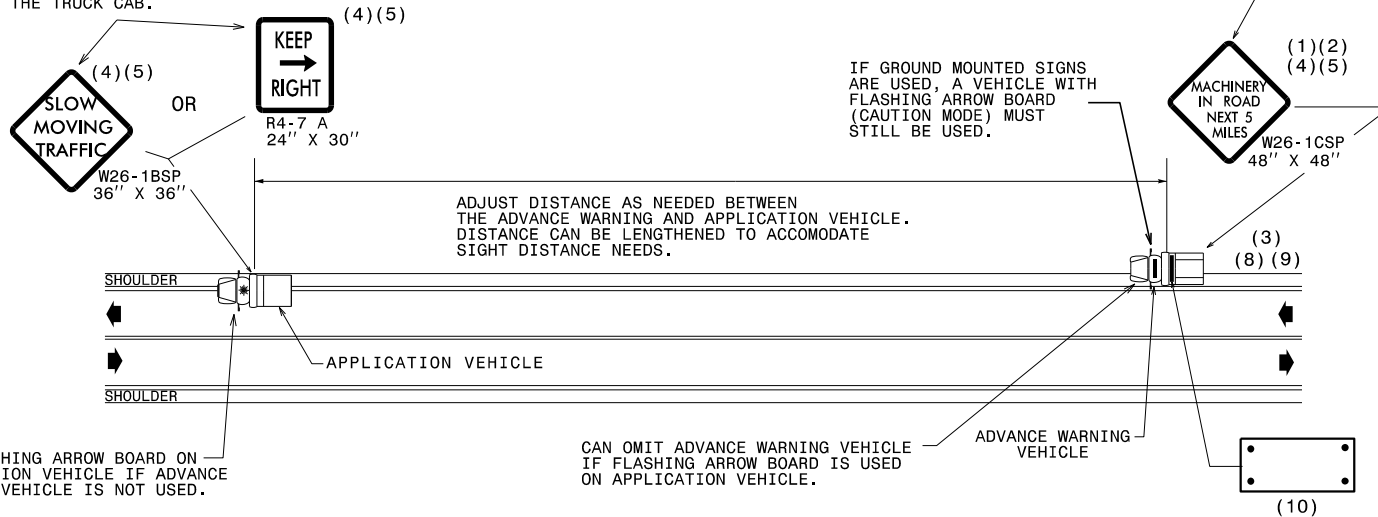
- (1) THE FOLLOWING OPTIONS MAY BE USED AS THE FIRST ADVANCE WARNING THE MOTORISTS SEE:
 - A. TRUCK MOUNTED ADVANCE WARNING SIGNS
 - B. MOVING CHANGEABLE MESSAGE SIGN (CMS)
 - C. GROUND MOUNTED ADVANCE WARNING SIGNS (W26-1CSP)
(MUST USE 'NEXT 5 MILES' AND MAKE CIRCLE TO PICK UP SIGNS)
 - D. GROUND MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
(MUST USE 'NEXT 5 MILES' AND MAKE CIRCLE TO PICK UP CMS)
- (2) TOTAL DISTANCE BETWEEN FIRST AND LAST VEHICLE IN CARAVAN SHOULD BE APPROXIMATELY ONE (1) MILE IN LENGTH.
- (3) IF USING GROUND MOUNTED ADVANCE WARNING SIGNS OR STATIONARY CMS, THE TOTAL DISTANCE BETWEEN THE FIRST ADVANCE WARNING SIGN OR CMS AND APPLICATION VEHICLE SHOULD NOT EXCEED 5 MILES AND SIGN W21-3BSP SHOULD READ 'MACHINERY IN ROAD NEXT 5 MILES'.
- (4) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW BOARD AND/OR WARNING LIGHTS.
- (5) SIGN W26-1BSP OR R4-7A SHOULD BE PLACED ON FRONT OF THE APPLICATION VEHICLE AND SIGN W26-1BSP OR W21-3A ON BACK OF THE PROTECTION VEHICLE IN TWO-LANE, TWO-WAY TRAFFIC SO VEHICLE APPROACHING FROM THE FRONT AND REAR ARE NOTIFIED OF OPERATION.
- (6) IF A LEAD VEHICLE IS ADDED TO OPERATION, IT SHOULD HAVE THE SAME ADVANCE WARNING SIGNS AS THE APPLICATION VEHICLE SHOWN BELOW.
- (7) RADIO COMMUNICATION BETWEEN VEHICLES IS RECOMMENDED.
- (8) USE WARNING LIGHTS WITH ATLEAST 50% BEING AMBER IN COLOR ATTACHED TO THE VEHICLE AS HIGH AS POSSIBLE AND IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. VEHICLE HAZARD SIGNALS OR LIGHTS MAY BE USED TO SUPPLEMENT THIS REQUIREMENT. THIS REQUIREMENT APPLIES TO ALL WORK VEHICLES AND EQUIPMENT NOT INSIDE A LANE CLOSURE OR BEHIND A BARRIER. THIS REQUIREMENT DOES NOT APPLY TO DUMP TRUCKS, BUT IS ENCOURAGED.
- (9) USE OF CMS'S ARE OPTIONAL WITH ADVANCED WARNING VEHICLES.
- (10) USE A TYPE "B" FLASHING ARROW BOARD.

PANEL TYPE	MIN. SIZE
B	60"X30"
- (11) IF 43" X 73" CMS IS USED, LETTER HEIGHT MUST BE 18".

LEGEND

-  PORTABLE SIGN
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH ROTATING BEACON
-  ADVANCE WARNING VEHICLE i.e. PICKUP TRUCK WITH MOUNTED SIGN
-  FLASHING ARROW BOARD, TYPE "B" "CAUTION MODE"

SIGN SHOULD BE ATTACHED TO THE BACK OF THE FLASHING ARROW BOARD. IF A FLASHING ARROW PANEL IS NOT USED ON THE APPLICATION VEHICLE, SIGN SHOULD BE ATTACHED TO A BRACE AT THE BACK OF THE TRUCK CAB.



MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)

SPRAYING TWO-LANE TWO-WAY ROADWAYS
WITH ADT LESS THAN OR EQUAL TO 5000

DRAWING NUMBER 5
IMPLEMENTATION DATE: 10/18/13