

NOTES:

- ① MINIMUM REGULATORY SIGN SIZE IS 24" X 30" [600 X 750] ON TWO-LANE ROADS.
 - ② ON ROADWAYS WITH HIGH TRAFFIC VOLUMES OR VISIBILITY RESTRICTIONS, A 500' [150 m] SPACING FOR ALL SIGNS IS RECOMMENDED.
 - ③ SPACE CHANNELIZING DEVICES AT INTERVALS IN FEET [METERS] EQUAL TO TWICE [0.6 TIMES] THE SPEED LIMIT IN M.P.H. THROUGH THE BUFFER AND WORK AREA.
 - ④ IF INCREASED VEHICLE STORAGE IS NEEDED, ADD AN ADDITIONAL W20-7a "FLAGGER AHEAD" SIGN BETWEEN THE R2-1 AND W3-4 SIGNS AND/OR CONSIDER AN ADDITIONAL ADVANCE FLAGGER.
 - ⑤ REPLICATE THIS SIGN SEQUENCE FOR OPPOSING TRAFFIC.
 - ⑥ CONTACT THE DISTRICT TRAFFIC ENGINEER FOR CLARIFYING INFORMATION REGARDING THIS LAYOUT OR OTHER SPECIAL SITUATIONS INCLUDING WORK ZONES INVOLVING CURVATURES, BRIDGES, INTERCHANGE OR DECREASED SIGHT DISTANCE.
 - ⑦ COVER ANY CONFLICTING SIGNS IN THE WORK ZONE.
 - ⑧ SHORT-TERM WORK ZONE SIGNING IS NOT REQUIRED TO BE POST MOUNTED.
 - ⑨ THE BUFFER SPACE CAN BE LATERAL AND LONGITUDINAL AND MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.
 - ⑩ TYPICALLY 2 MILES [3.2 km] IS THE MAX. WORK AREA. HOWEVER, WHEN SIGHT DISTANCE, BUFFER ZONES OR ACCOMPLISHMENT RATES FOR EQUIPMENT ARE CONSIDERED, SOME MINOR ADJUSTMENTS TO THIS MAX. MAY BE CONSIDERED.
 - ⑪ XX = NORMAL POSTED SPEED LIMIT(S).
- * DENOTES SIGNS UNIQUE TO MONTANA.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.
FOR USE BY MDT FORCES

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618	DWG. NO. 618-M1
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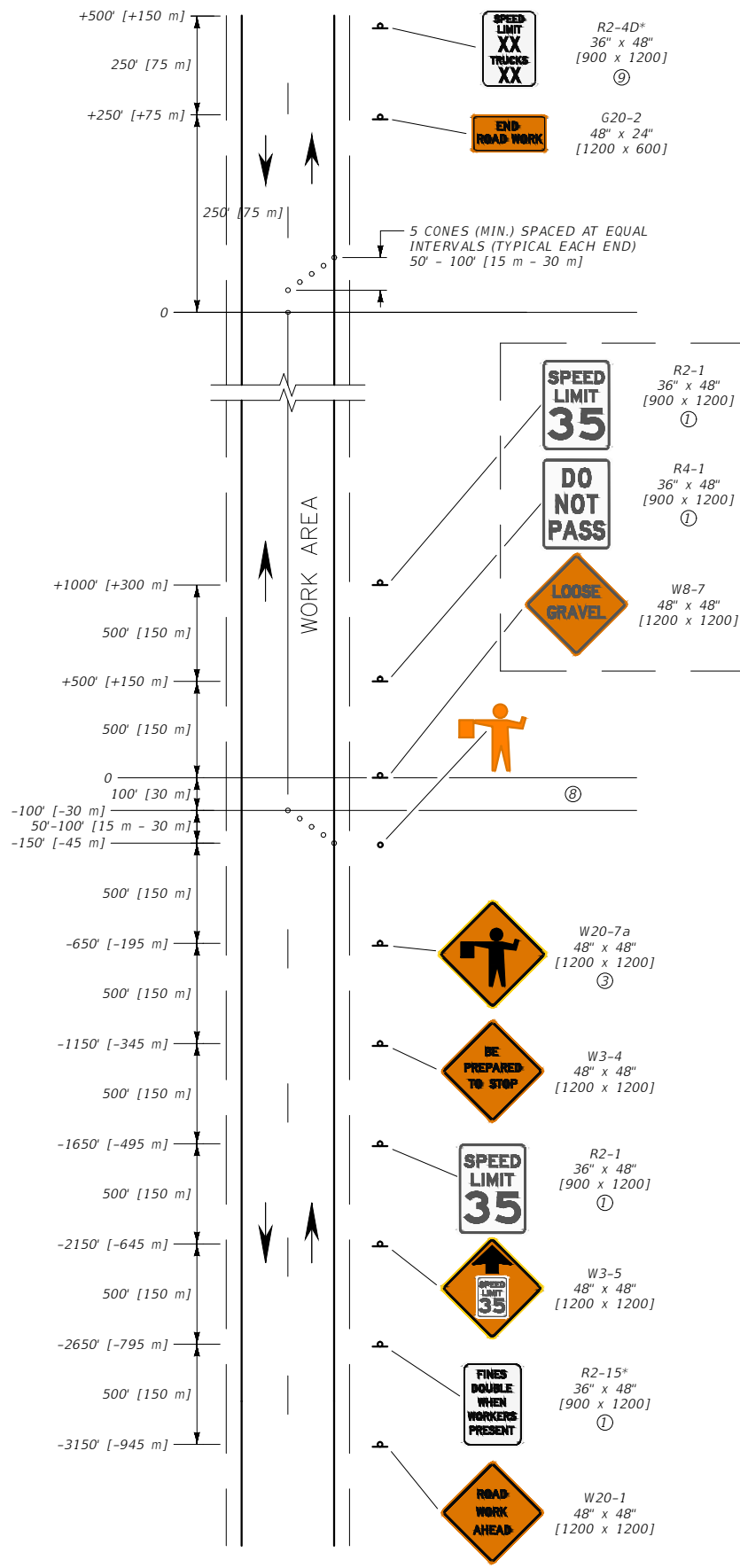
MAINTENANCE GUIDELINE FOR SHORT-TERM TWO-LANE CRACK SEALING WORK ZONE

EFFECTIVE: JAN 23, 2020



MONTANA
Department of Transportation

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NOTE:
TO BE POSTED AT THE START OF THE WORK AREA AND REPEATED AT TWO-MILE [3.2 km] INTERVALS UNTIL THE SURFACE IS SWEEPED AND STRIPED.

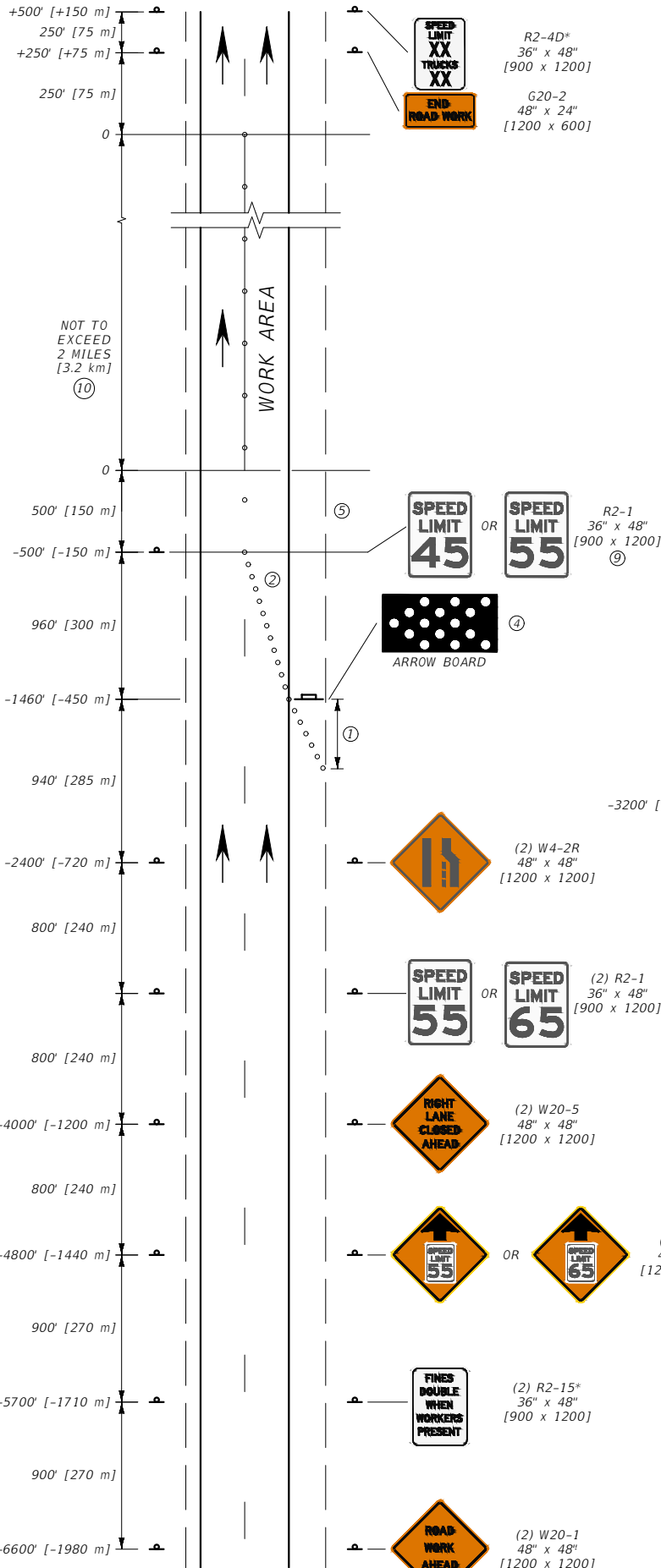
- NOTES:
- ① MINIMUM REGULATORY SIGN SIZE IS 24" x 30" [600 x 750] ON TWO-LANE ROADS.
 - ② ON ROADWAYS WITH HIGH TRAFFIC VOLUMES OR VISIBILITY RESTRICTIONS, A 500' [150 m] SPACING FOR ALL SIGNS IS RECOMMENDED.
 - ③ IF INCREASED VEHICLE STORAGE IS NEEDED, ADD AN ADDITIONAL W20-7a "FLAGGER AHEAD" SIGN BETWEEN THE R2-1 AND W3-4 SIGNS AND/OR CONSIDER AN ADDITIONAL ADVANCE FLAGGER.
 - ④ REPLICATE THIS SIGN SEQUENCE FOR OPPOSING TRAFFIC.
 - ⑤ CONTACT THE DISTRICT TRAFFIC ENGINEER FOR CLARIFYING INFORMATION REGARDING THIS LAYOUT OR OTHER SPECIAL SITUATIONS INCLUDING WORK ZONES INVOLVING CURVATURES, BRIDGES, INTERCHANGES OR DECREASED SIGHT DISTANCE.
 - ⑥ COVER CONFLICTING SIGNS IN THE WORK ZONE.
 - ⑦ SHORT-TERM WORK ZONE SIGNING IS NOT REQUIRED TO BE POST MOUNTED.
 - ⑧ THE BUFFER SPACE CAN BE LATERAL AND LONGITUDINAL AND MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS THAT AFFECT STOPPING DISTANCE.
 - ⑨ XX = NORMAL POSTED SPEED LIMIT(S).
- * DENOTES SIGNS UNIQUE TO MONTANA.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.
FOR USE BY MDT FORCES

DETAILED DRAWINGS	
REFERENCE STANDARD SPEC. SECTION 618	DWG. NO. 618-M2
MAINT. GUIDELINE FOR SHORT-TERM TWO-LANE CHIP SEAL & OVERLAY (PILOTED TRAFFIC)	
EFFECTIVE: JAN 23, 2020	

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- NOTES:
- ① USE A MINIMUM 320' [100 m] SHOULDER TAPER.
 - ② USE THIRTEEN APPROVED CHANNELIZING DEVICES FOR A 12' [3.6 m] LANE CLOSURE TAPER (80 M.P.H. SPACED AT 80' [25 m].) ENSURE TAPER IS AT LEAST 960' [300 m].
 - ③ SPACE CHANNELIZING DEVICES AT INTERVALS IN FEET [METERS] EQUAL TO TWICE [0.6 TIMES] THE SPEED LIMIT IN M.P.H. THROUGH THE BUFFER AND WORK AREA.
 - ④ PLACE THE ARROW BOARD ON THE SHOULDER AT THE START OF THE TRAVEL LANE CLOSURE TAPER.
 - ⑤ THE BUFFER SPACE CAN BE LATERAL AND LONGITUDINAL. KEEP THE BUFFER SPACE CLEAR OF EQUIPMENT AND PERSONNEL.
 - ⑥ CONTACT THE DISTRICT TRAFFIC ENGINEER FOR CLARIFYING INFORMATION REGARDING THIS LAYOUT OR OTHER SPECIAL SITUATIONS INCLUDING WORK ZONES INVOLVING CURVATURES, BRIDGES, INTERCHANGES OR DECREASED SIGHT DISTANCE.
 - ⑦ COVER CONFLICTING SIGNS IN THE WORK AREA.
 - ⑧ SHORT-TERM WORK ZONE SIGNING IS NOT REQUIRED TO BE POST MOUNTED.
 - ⑨ WHEN THE WORK AREA CHANGES WITHIN THE WORK ZONE, THESE SIGNS SHOULD BE MOVED TO REFLECT THE NEW WORK AREA.
 - ⑩ TYPICALLY 2 MILES [3.2 km] IS THE MAX. WORK AREA. HOWEVER, WHEN SIGHT DISTANCE, BUFFER ZONES OR EQUIPMENT WORK RATES ARE CONSIDERED, MINOR ADJUSTMENTS TO THIS MAX. MAY BE CONSIDERED.
- ⑪ XX = NORMAL POSTED SPEED LIMIT(S).
 * DENOTES SIGNS UNIQUE TO MONTANA.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.
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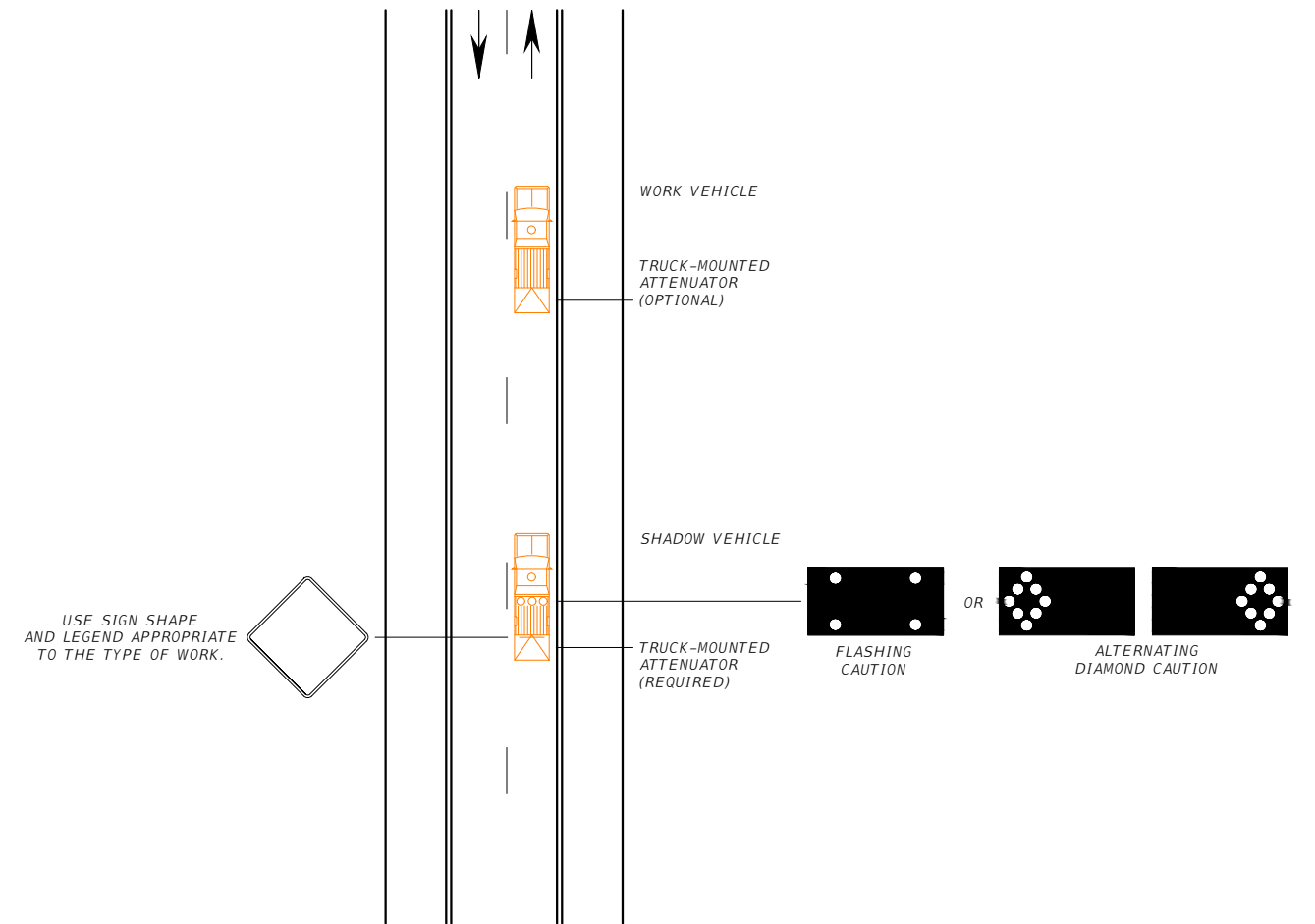
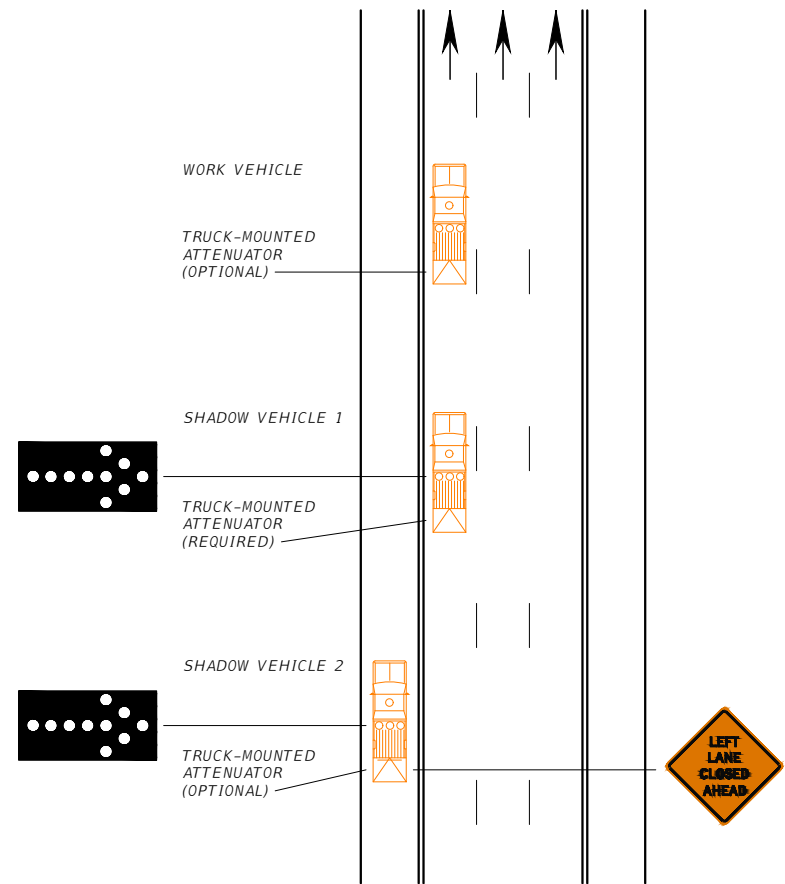
DETAILED DRAWINGS	
REFERENCE STANDARD SPEC. SECTION 618	DWG. NO. 618-M3
MAINTENANCE GUIDELINE FOR SHORT-TERM LANE CLOSURE ON INTERSTATE	
EFFECTIVE: JAN 23, 2020	

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MOBILE OPERATIONS ON MULTILANE ROAD

MOBILE OPERATIONS ON TWO-LANE ROAD



NOTES:

- ① PLACE APPROPRIATE LANE CLOSURE SIGN ON SHADOW VEHICLE 2 SO AS NOT TO OBSCURE THE ARROW BOARD.
- ② FOLLOW THE WORK OPERATION WITH SHADOW VEHICLE 2 SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR VEHICULAR TRAFFIC APPROACHING FROM THE REAR.
- ③ COVER OR TURN THE SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS FROM VIEW WHEN WORK IS NOT IN PROGRESS.
- ④ WHEN THE WORK VEHICLE OCCUPIES AN INTERIOR LANE OF A DIRECTIONAL ROADWAY HAVING A RIGHT SHOULDER 10 FEET (3 m) OR MORE IN WIDTH, DRIVE SHADOW VEHICLE 2 ALONG THE RIGHT-HAND SHOULDER WITH A SIGN INDICATING WORK IS TAKING PLACE IN THE INTERIOR LANE.
- ⑤ ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE MAY BE USED WITH SHADOW VEHICLE 1 IN THE CLOSED LANE, SHADOW VEHICLE 2 STRADDLING THE EDGE LINE, AND SHADOW VEHICLE 3 ON THE SHOULDER. WHERE ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, SHADOW VEHICLE 3 MAY ALSO STRADDLE THE EDGE LINE.
- ⑥ THE MINIMUM ARROW BOARD SIZE IS TYPE B, 60 INCHES X 30 INCHES (1500 X 750).
- ⑦ VARY THE DISTANCE BETWEEN THE WORK LOCATION AND SHADOW VEHICLE 2 TO PROVIDE ADEQUATE SIGHT DISTANCE FOR VEHICULAR TRAFFIC APPROACHING FROM THE REAR.
- ⑧ MAINTAIN A MINIMUM SPACING BETWEEN THE WORK VEHICLE AND SHADOW VEHICLES, AND BETWEEN EACH SHADOW VEHICLE TO DETER ROAD USERS FROM DRIVING IN BETWEEN.

NOTES:

- ① TRUCK-MOUNTED ATTENUATOR IS REQUIRED FOR SHADOW VEHICLE.
- ② EQUIP SHADOW VEHICLE WITH VEHICLE-MOUNTED SIGN. USE SIGN SHAPE AND LEGEND APPROPRIATE TO THE TYPE OF WORK.
- ③ MOUNT VEHICLE-MOUNTED SIGN SO EQUIPMENT OR SUPPLIES DO NOT OBSCURE THE SIGN.
- ④ COVER OR TURN THE SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS FROM VIEW WHEN WORK IS NOT IN PROGRESS.
- ⑤ WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, MAINTAIN A MINIMUM DISTANCE FROM THE WORK VEHICLE WITH THE SHADOW VEHICLE AND PROCEED AT THE SAME SPEED.
- ⑥ SLOW THE SHADOW VEHICLE BEFORE ROADWAY CURVATURES OR SITUATIONS RESTRICTING SIGHT DISTANCE.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWINGS

REFERENCE	DWG. NO.
STANDARD SPEC.	618-M4
SECTION 618	

MOBILE OPERATIONS

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