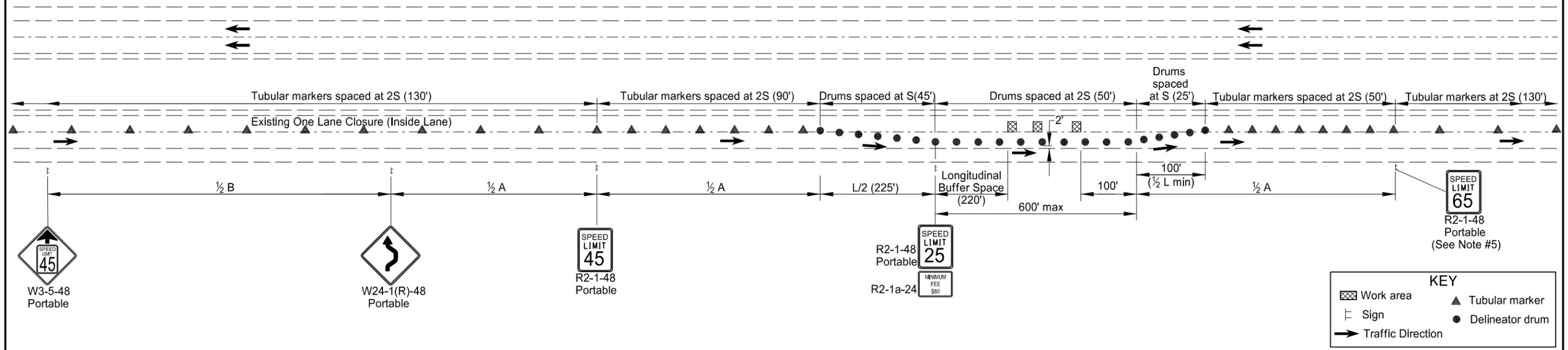


SIGN LAYOUT TO MOVE TRAFFIC TO OUTSIDE SHOULDER
ON FOUR LANE DIVIDED HIGHWAY



KEY

- Work area
- Sign
- Tubular marker
- Delineator drum
- Traffic Direction

- Notes**
- Advance signs for flagging shall be installed when flaggers are flagging.
 - During non working hours traffic shall be returned to the driving lane (this layout shall be changed back to a one lane closure and the signs covered or removed.)
 - Variables
 - S = Numerical value of speed limit or 85th percentile.
 - W = The width of taper.
 - L = Minimum length of taper, (S x W for freeways, expressways, and roads with speeds of 45 mph or greater, or W x S² /60 for streets with speeds of 40 mph or less.)
 - Delineator drums, and tubular markers used for tapering traffic shall be spaced at the dimension "S". Tubular markers used for tangents shall be spaced at 2 times dimension "S".
 - The speed limit shall be re-established. The exact speed limit shall be determined in the field, dependent on location and conditions.
 - Existing speed limit signs within a reduced speed zone shall be covered.
 - When warning signs are used in urban areas and the signs are not portable, flags shall be installed. The flags shall be 24 inches square, mounted perpendicular to the edges of the diamond sign, and at such a distance above the edge so that when the flag is limp it will not touch the sign. Rural areas will not require flags.

ADVANCE WARNING SIGN SPACING			
Road Type	Distance Between Signs Min (ft)		
	A	B	C
Rural - High Speed (over 50 mph to 65 mph)	720	720	720
Urban Expressway and Freeway (55 mph to 60 mph)	850	1350	2200
Rural Expressway and Freeway (70 mph to 75 mph)	1000	1500	2640
Interstate/4-Lane Divided (Maintenance and Surveying)	750	1000	1500

LONGITUDINAL BUFFER SPACE	
*Speed (mph)	Length (ft)
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485
70	585

*Posted speed, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
10-26-12 REVISIONS	
DATE	CHANGE

This document was originally issued and sealed by Roger Weigel, Registration Number PE- 2930, on 10/26/12 and the original document is stored at the North Dakota Department of Transportation