

DESIGN DETAILS FOR OVERHEAD AND GROUND MOUNTED GUIDE SIGNS

GENERAL INFORMATION

1. Determine complete sign message layout.
2. Establish location classification design standard: urban or rural; expressway or freeway.
3. Determine letter size and shield size by consulting the Manual on Uniform Traffic Control Devices.
4. Select the proper border width from the following chart.

LETTER SIZE	BORDER WIDTH
8"/6" E(M)	1 1/2"
10.6"/8" E(M)	1 1/2"
13.3"/10" E(M)	2"
16"/12" E(M)	2"
20"/15" E(M)	3"
24"/18" E(M)	3"

Note: (/) Slanted bar signifies separation of uppercase and lowercase alphabets.

5. The corner radii shall be approximately one-eighth (1/8) of the minimum dimension of the sign, and should not exceed 12 inches.

HORIZONTAL SPACING

1. Determine the length of each line of word copy by using the spacing charts in this book. Spacing between words on the same line, in most cases, shall be approximately equal to the height of the largest letters in that line.
2. Compare the sums of the length of each line of copy to determine the longest line. Consult Charts A through F to compute if shields or arrow(s) are the longest line of copy.

(1) Appendix IIB-18 thru IIB-44; Information copied and modified from the Virginia Supplement to the Manual on Uniform Traffic Control Devices for Streets & Highways (Dated Nov. 1980)

3. Use the height of the uppercase letter for the space between the border and the first and last letter of the longest line of copy. The sign width shall equal the sum of the left border - space - longest line of copy - space - and right border, and the sum shall be divisible by six.

4. If the total sign width is not divisible by six, then an adjustment must be made. Subtraction of up to three inches may be made from the total width of the longest line of copy, or a total of two inches may be added. Refer to the DECIMAL/SIGN SIZE ADJUSTMENT CHART.

5. With two exceptions, all other lines of copy, individual shields, and arrows shall be centered within the overall width determined above. The exceptions are distance signs and interchange exit direction signs. Refer to Charts F and G for their typical horizontal spacing.

VERTICAL SPACING

1. The space between two adjacent lines of word message should be 3/4 of the average of the uppercase letter heights, rounded up to the next inch.

$$\frac{3}{4} \left(\frac{\text{U.C.} + \text{U.C.}}{2} \right)$$

2. The space to the top and bottom borders from the adjacent line of copy shall be approximately equal to the average of the upper and lowercase letter heights.

$$\frac{\text{U.C.} + \text{L.C.}}{2}$$

3. For all other spaces refer to the typical vertical spacing dimensions given in Charts B through G.

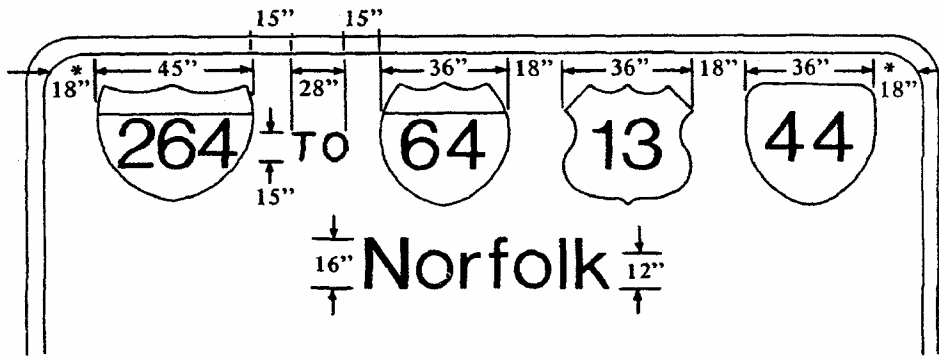
4. The height of the sign, including borders, shall be divisible by six. When adjustments are necessary, addition or subtraction will be made in spaces other than between lines of copy. Approximately one inch should be subtracted from only one space. Subtract up to three inches, or add up to a total of two inches. Refer to the DECIMAL/SIGN SIZE ADJUSTMENT CHART.

DECIMAL/SIGN SIZE ADJUSTMENT CHART

If a decimal fraction answer is obtained when you divide your total by six in Step 4 of either the HORIZONTAL SPACING section or the VERTICAL SPACING section, the following chart may be used to adjust the sign size.

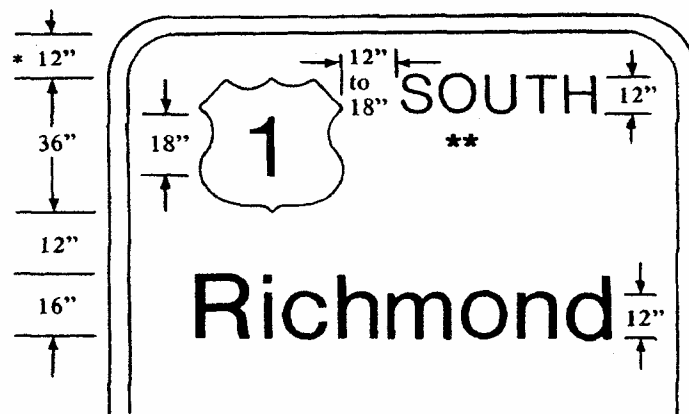
.16	SUBTRACT 1 INCH	.66	ADD 2 INCHES
.33	SUBTRACT 2 INCHES	.83	ADD 1 INCH
.50	SUBTRACT 3 INCHES		

CHART A



When a series of shields constitute the longest line of a sign, the space between shields and the border is based on the route marker numeral height. If the sign size is too large for proper placement on the structure, the space from shield to border may be reduced to a minimum of 12 inches. If this line is not the longest, the shields shall be centered over the longest line of copy with 18 to 36 inches between each shield.

CHART B

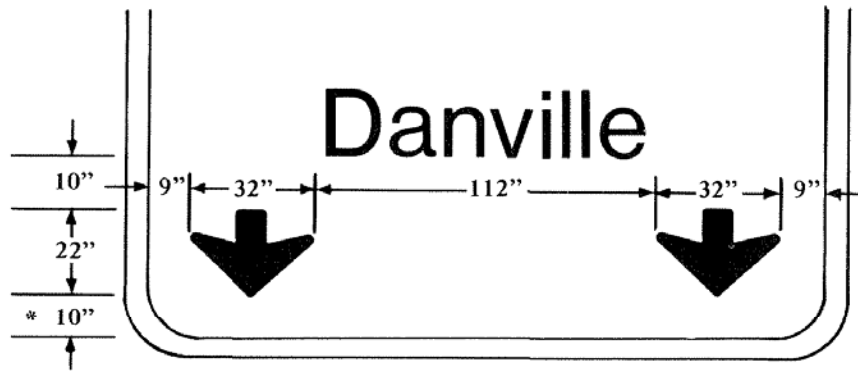


The space between shield and cardinal direction may vary from the letter height of the cardinal direction to the route marker numeral height; however, this line usually should not be greater in length than the longest word message.

*Variable dimension

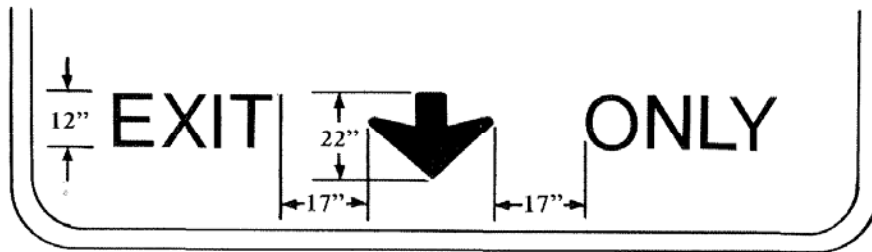
**The design of Cardinal Direction Message shall be in accordance with the MUTCD. The dimensions shown in the sign design example should be adjusted accordingly.

CHART C



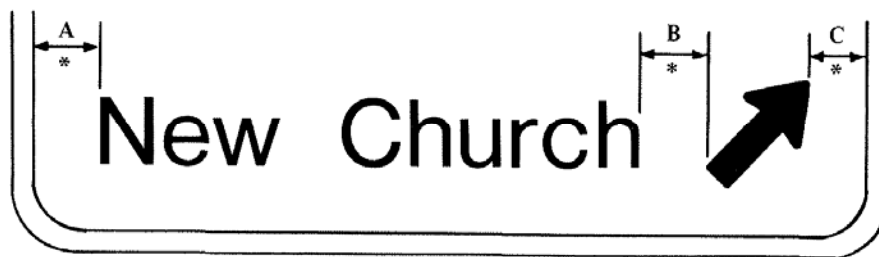
The proper placement of “down” arrows should be centered over their respective lanes. Chart C illustrates typical spacing over a roadway consisting of two 12 foot lanes. If the arrows constitute the longest line, the arrow to border horizontal space shall be 9 inches.

CHART D



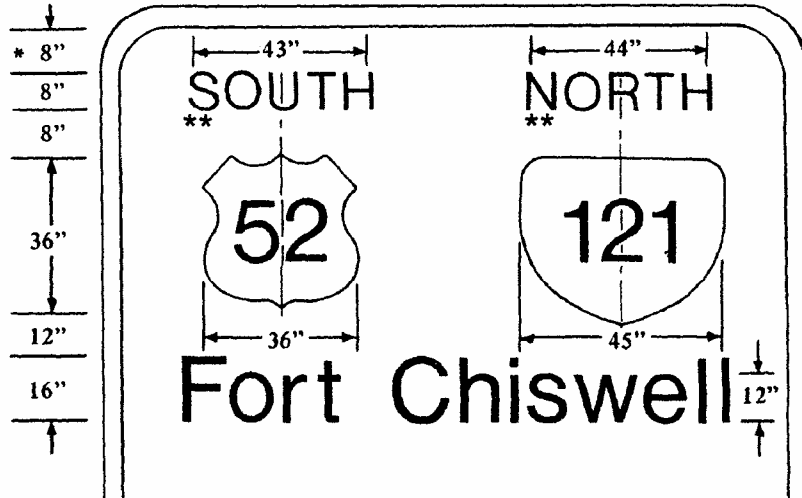
The space between the “down” arrow and the word message should be the average of the arrow height and uppercase letter height.

CHART E



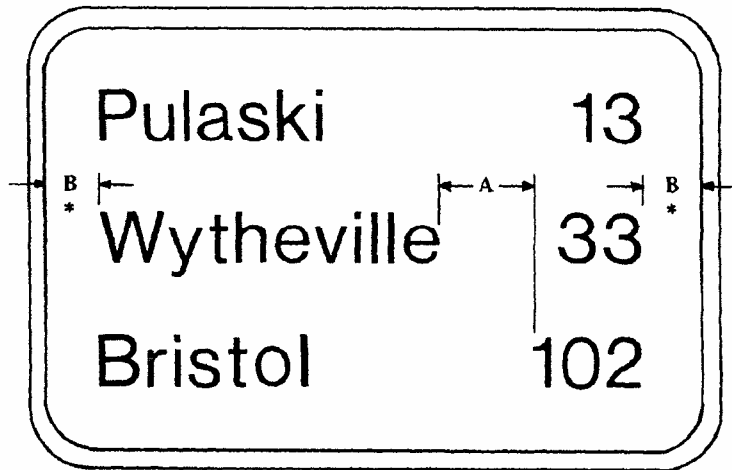
Spaces A, B and C are based on the uppercase letter height, and should be equal. However, spaces A and B must be equal.

*Variable dimension



Cardinal directions shall be centered over the shields.

CHART G

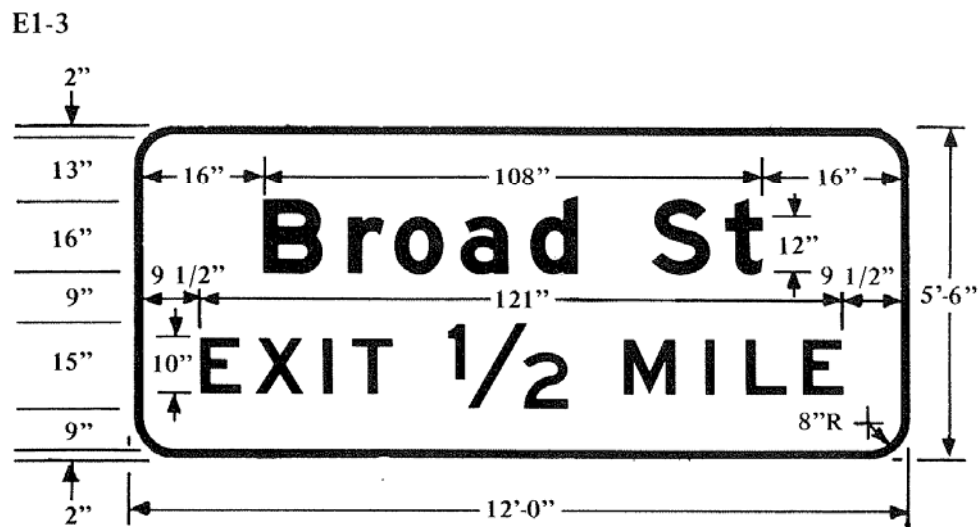
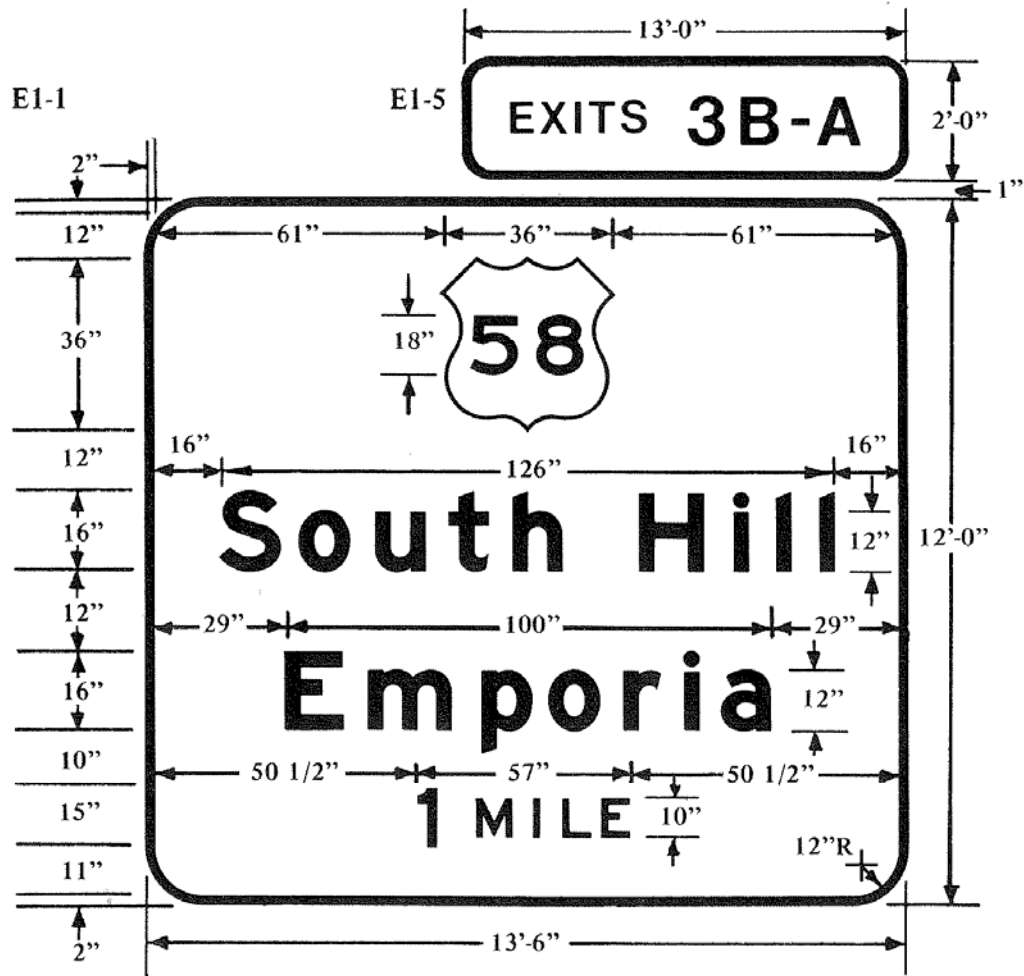


Space A, between the longest word message and the longest numeral, shall be equal to the uppercase letter height. Space B, between each line and the border, is based on the uppercase letter height.

*Variable dimension

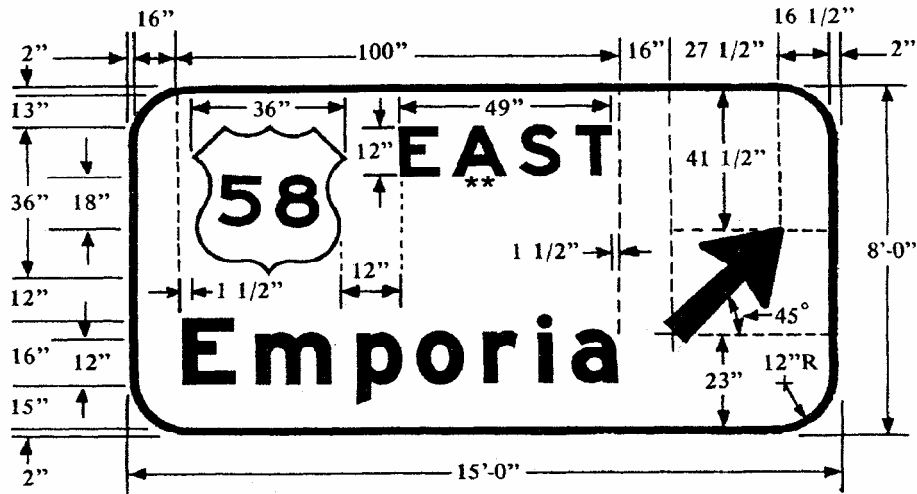
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TYPICAL INTERCHANGE ADVANCE GUIDE SIGNS

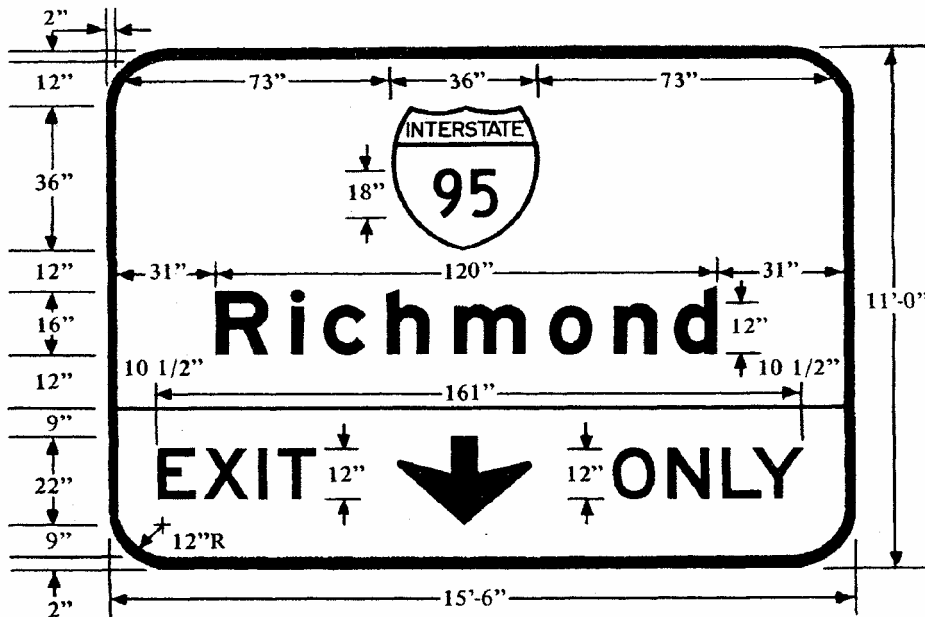


TYPICAL INTERCHANGE EXIT DIRECTION SIGN

E6-1



TYPICAL INTERCHANGE LANE DROP GUIDE SIGN



**The design of Cardinal Direction Message shall be in accordance with the MUTCD. The dimensions shown in the sign design example should be adjusted accordingly.

GORE SIGN

E5-1

