

SAMPLE PROBLEM:

Given sign panels: 10'-0" X 5'-0", 6'-0" X 2'-0" (see layout)

Find: Size of post(s) that will be acceptable

1. Minimum mounting height: 7'-0"
2. Slope of ground line: 2:1
3. Area of sign panels: $A_1 = 10.0 \times 5.0 = 50$ sq. ft.
 $A_2 = 6.0 \times 2.0 = 12$ sq. ft.
4. $H_1 = 11.5$ ft
 $H_2 = 15.0$ ft

$$H = \frac{(A_1 \times H_1 + A_2 \times H_2)}{(A_1 + A_2)} = \frac{(50 \times 11.5 + 12 \times 15.0)}{(50 + 12)} = \frac{755}{62} = 12.2 \text{ (ft)}$$

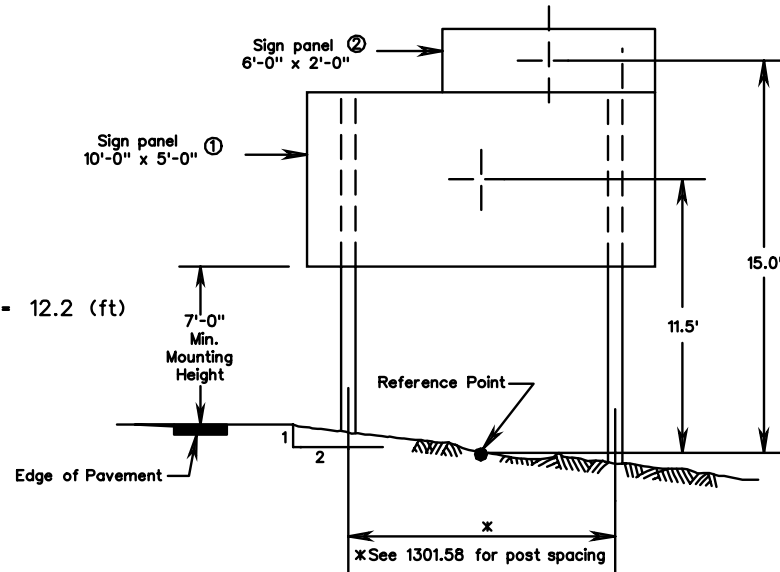
Round up H to 12.5 (ft) (Tables are in 0.5 foot increments)

6. Using Table with 7'-0" min. mounting height and 2:1 ground slope, enter with H = 12.5 and use column for 2-posts:

The following maximum area (Total of sign panel(s) (ft²)) is indicated in the tables for the following post sizes:

Post size	Maximum area (Total of sign panel(s) (ft ²))
4 x 4	---
5 x 5	18
4 x 6	22
6 x 6	35
6 x 8	64

The total area of sign panels is 62 sq. ft. The only post size that satisfies this requirement is the 6 x 8 post which has a maximum area of 64 sq. ft.



SAMPLE OF PROCEDURE FOR CALCULATING SIZE OF WOOD POST

VIRGINIA DEPARTMENT OF TRANSPORTATION