

GUYS AND ANCHORS ON WIRE AND CABLE LINES

Purpose: This addendum is issued to provide guy strand selection data for Figure 8 cable with either a 3/16-inch or 1/4-inch, 7-wire strand EHS galvanized steel integral support messenger.

Additions:

3.09 The guy sizes recommended for Figure 8 cable are based on the tension in the stranded support messenger when the cable and messenger are loaded to result in 60 percent of the rated breaking strength of the messenger.

7.05 Guys for poles supporting Figure 8 cable shall be selected from Chart 15. The chart gives guy sizes required for various corner angles and deadends for each messenger strand size employed singly. These data are the same for all three storm loading districts.

20.07 Assume that a 25 foot pole will be needed to support a 50 pair, 24 gauge Figure 8 cable with a 3/16-inch EHS strand at a corner angle of 25 degrees, and that a lead over height (L/H) ratio of 1/2 is necessary.

Solution: The data requires the use of Chart 15. This chart shows that at a 25 degree corner with Figure 8 cable having 3/16-inch EHS strand, a 6M guy strand should be installed.

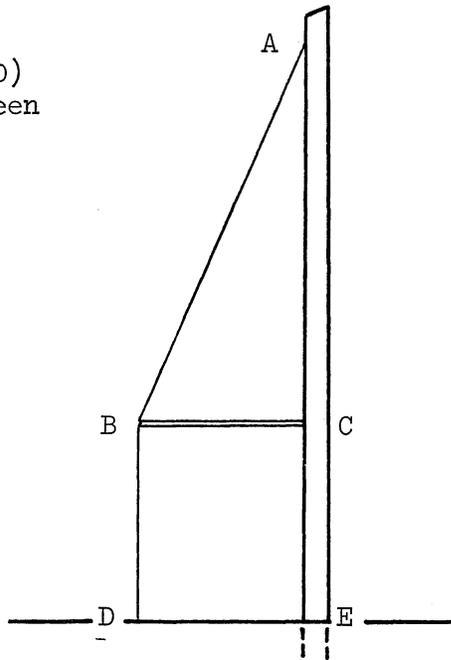
GUY STRAND SELECTION CHART FOR FIGURE 8 CABLE

-- All Loading Districts--

MESSENGER	Lead to Height Ratio (L/H)	MAXIMUM CORNER ANGLE FOR SIZE OF GUY STRAND		
		2.2M	6M	10M
3/16-Inch 7-Wire Strand EHS Steel	1/2	20°	60°	--
	1	35°	60°	--
1/4-Inch 7-Wire Strand EHS Steel	1/2	10°	35°	60°
	1	20°	60°	--

CHART 15

The guy strand (ABD) is continuous between "A" and "D".



PROCEDURE FOR DETERMINING GUY SIZE AND POLE CLASS FOR SIDEWALK GUY

1. Considering the length of the horizontal pipe (BC) as the lead (L), and the distance (AC) between the points of attachment of the pipe and the guy strand to the pole as the height (H), compute the theoretical guy strength requirements for (AB) as in a normal guying application where (BC) would be the groundline.
2. Select the standard size guy necessary to meet the requirements computed above.
3. Use the size of the standard guy to determine the comparative and final guy strand and pole size requirements from the following table:

Guy Size Necessary for (AB)	2.2M	6M	10M	12M	16M
Size of Sidewalk Guy (ABD) Required					
When: (a) (AE) is between 20' and 26'	6M	10M	16M	2-10M	1-10M 1-16M
(b) (AE) is 20' or less	6M	10M	2-10M	2-10M	--
When L/H Ratio (BC/AC) is	$\frac{1}{2}$	1	$\frac{1}{2}$	1	$\frac{1}{2}$
Class of 30' Pole Required is	6	5	4	3	3
Maximum Length of 2" I. D. Pipe (Feet)	12	11	8	8	7
If poles of other heights are used, they shall be of equivalent breaking load.					

Note: Where two strands are required, thimble-eye nuts, pipe end fittings, and anchor rods designed to accommodate two strands are to be used.

FIGURE 4