

GUYS AND ANCHORS ON WIRE AND CABLE LINES

Purpose: This addendum is issued to provide information for determining the guy and pole strength requirements for the sidewalk guy arm assembly (REA Assembly Unit PM-12).

Additions:

3. DESIGN CONSIDERATIONS

3.10 The sidewalk guy arm assembly requires a larger size strand and stronger pole than would be needed for a normal guying application with the same lead-to-height (L/H) ratio. Figure 4 shows the configuration of the sidewalk guy arm assembly, and gives the procedure for determining the size of strand and class of pole to be specified.

12. UNUSUAL CASES REQUIRING GUYS

12.02 In some situations, guying may be required at locations where normal placement of an anchor guy may be impracticable because conditions will not allow sufficient lead to be obtained while maintaining the required clearance. In these circumstances a sidewalk guy may be used but only as a last resort.

20. EXAMPLES ILLUSTRATING USE OF GUY SELECTION CHARTS

20.08 Assume that a sidewalk guy arm assembly unit (PM-12) is necessary at 47 degree corner to guy a 30-foot pole which will carry a 100 pair, 24 gauge Figure 8 cable with a $\frac{1}{4}$ -inch integral support strand. Assume also that the 2" O.D. pipe will be 8 feet in length and attached to the pole at a height 8 feet above ground level.

Solution: The data requires the use of Figure 4 of this addendum and Chart 15 in Addendum No. 1 to Section 650.

- A. The minimum setting depth for a 30-foot pole in soil is 5.5 feet, and the point of guy attachment to the pole is 1 foot below the top of the pole. Therefore, $AE = 30' - 5.5' - 1.0' = 23.5'$
- B. $L/H = BC/AC = BC/(AE - CE) = 8'/(23.5' - 8.0') = 8'/15.5' = 1/1.94$
- Consider $L/H = 1/2$
- C. Chart 15 shows that a 10M guy strand is required for $1/4$ -inch support strand when the L/H ratio is $1/2$, and the corner angle is between 35 and 60 degrees.
- D. The "10M" column of the table in Figure 4 shows that the strand required for the sidewalk guy arm assembly is 16M since AE, the height of the guy attachment to the pole (23.5 feet) is between 20 feet and 26 feet.
- E. The pole class will be "3" since L/H is $1/2$.