

GUYING

OPEN WIRE LINES

NOTES CONCERNING THIS ADDENDUM

This addendum supplements Section G23.120. It has been reissued to modify the requirements for guys on lines supporting but two or four wires. In addition, all ← modifications covered in the previous issue, with the exception of those relating to paragraph 2.02 (a), have been retained.

The cross reference, "See Addendum", should be marked at Paragraphs 1.01, 2.01 (a) and (b), 2.02 (a) and (b), 3.01, 4.01 and after 9.01 of Section G23.120.

1. POSITION OF GUYS IN OPEN WIRE LINES

1.01 In general, attach side guys to poles supporting open wire as indicated in the following table.

Number of Side Guys	Place Side Guy Under:
1	1st Crossarm
2	1st and 3rd Crossarm
3	1st, 3rd and 5th Crossarm
4	1st, 3rd, 5th and 7th Crossarm

NOTE: The location of the side guys under the odd numbered arms will adequately support the pole and will reduce the tendency of the pole to split at the top crossarm bolt. In some cases, however, better clearance can be obtained between conductors and guys if the side guys are attached under the even numbered arms. In such cases, this arrangement may be specified in the detail plans or approval for shifting the point of attachment may be obtained during the course of construction.

## 2. SIZES OF GUYS

2.01 The number of wires for which guying shall be placed or the sizes of guys to be placed will usually be shown on the detail plans. This may be for:

- (a) The existing wires on the line. Where these wires are supported on a crossarm, the guying shall be based on the capacity of the arm and not on the number of wires in place.
- (b) The immediate requirements of the line, with the same qualification as given in (a) above.
- (c) The ultimate requirements of the line.

NOTE: All guys placed for the existing or proposed wires on the line shall be arranged so as to conform with the guying that will be required for the ultimate capacity of the line.

2.02 Determine the size of the guy required by reference to the Guy Rule except:

(a) On lines supporting 2 or 4 wires, on wooden brackets or on 4-pin crossarms, use 2,200-lb. strand for guys if the lead/height ratio is more than  $1/2$  and the wire equivalent is less than 8 and more than 2. If the wire equivalent (2 or 4 wires) is not more than 2 and the lead/height ratio is not less than  $1/2$ , 203 Steel Construction Wire may be used for the guys.

(b) On all class A toll lines (see Paragraph 6.04 of Section G23.120) or on other lines supporting more than 20 wires, do not use smaller than 6,000-pound strand.

### 3. GUYING COPPER POLES IN OPEN WIRE LINES

3.01 Substitute the following table for that shown in Section G23.120:

Ultimate Number of Wires or Crossarms on Pole	Guy Pole Where Pull is:
2 or 4 Wires	5 feet or over
1 or 2 Crossarms	4 feet or over
3 or 4 Crossarms	2 feet or over
5 or 6 Crossarms	1 foot or over
7 or more Crossarms	**

\*\* Any "Pull" that can be detected.

### 4. TERMINATING POINTS

4.01 At terminal points in lines supporting open wire only, place head guys. At terminal points which are temporary in character, because of expected future extensions, or for other reasons, place head guys or pole-to-pole guys. (See Note.) Determine the sizes of guys by the Guy Rule under the classification of "Aerial Wire Dead End," or by the instructions of Paragraph 2.02 (a) of this Addendum. ←

NOTE: The 4-inch screw anchor will be adequate for use on "temporary" terminations having only 2 or 4 wires not larger than 104 copper, supported on wooden brackets or on 4-pin crossarms, where 203 steel construction wire is to be used for the guy. Temporary terminations, however, shall not be made except with the approval of the District Engineer. ←

### 9. GUYING LONG SPANS, OPEN WIRE

9.02 Where side guys can not be placed at long spans, the poles at the ends of the spans shall be sufficiently large to withstand the transverse wind loads. The class of poles will be determined by the Plant Engineer and specified on the detail plans.