Prepared by
The Pacific Telephone and Telegraph Company
Southern California Area
BELL SYSTEM PRACTICES ADDENDUM G23.130
Outside Plant Construction Issue C, September, 1949-S
and Maintenance T. P. T. & T. Co.

GUYING

NON-PATENT ANCHORS

NOTES CONCERNING THIS ADDENDUM

This Addendum supplements Section G23.130. It has been reissued to provide instructions for the use of triple eye guy rods and for the use of the combination nut-washer with non-patent anchors so that anchor rods may be unscrewed from abandoned plank and log anchors and recovered for reuse. This Addendum also provides instructions for the addition of a second guy where a Single Thimble Guy Rod is in place, as well as all other information covered in the previous issue of the Addendum.

The cross-reference, "See Addendum" should be written in Section G23.130 after Paragraphs 1.01 and 4.06 to indicate the addition of new instructions, at Paragraph 5.02 which is supplemented and at Paragraphs 4.06, 5.03, 5.04, 5.05 and 6.01 which are replaced herein.

1. GENERAL

1.02 The selection of the type of anchors to be used jointly by the Telephone Company and another utility shall be a matter of agreement between the utilities under the Joint Pole Agreement.

4. INSTALLATION OF NON-PATENT ANCHORS - GENERAL

4.06 With non-patent anchors use sizes of guy rods and Combination Nut-washers in accordance with the instructions in the following table. For the method of installing non-patent anchors in corrosive type soils, refer to Section G23.901.

Number of Guys	Size of Strand or Wire	Size of Guy Rod	Size of Combination Nut-Washer	Type of Anchor
1	203 Steel Const.Wire	1/2 in. x 7 ft.	1/2 in.	Creosoted Plank or Log
1	2200 Lb.	1/2 in. x 7 ft.	1/2 in.	Creosoted Plank or Log
1	6000 Lb.	5/8 in. x 8 ft.	5/8 in.	Creosoted Plank or Log
1	10000 Lb.	** 3/4 in. x 9 ft.	3/4 in.	Creosoted Plank or Log
2	6000 Lb.	** 3/4 in. x 9 ft.	3/4 in.	Creosoted Plank or Log
1	16000 Lb.	1 in. x 10 ft.	1 in.	Creosoted Plank or Log
1	16000 Lb.	1 in. x 10 ft.	*	Precast or Cast in Place Concrete
2	10000 Lb. & 6000 Lb.	** 1 in. x 10 ft.	1 in.	Creosoted Plank or Log
2	10000 Lb. & 6000 Lb.	** 1 in. x 10 ft.	*	Precast or Cast in Place Concrete
2	10000 Lb.	** 1 in. x 10 ft.	1 in.	+Creosoted Plank or Log
2	10000 Lb.	** 1 in. x 10 ft.	*	Precast or Cast in Place Concrete
1	25000 Lb.	1 in. x 10 ft.	1 in.	+Creosoted Plank or Log
2	16000 Lb. & 10000 Lb.	** 1 in. x 10 ft.	1 in.	+Creosoted Plank or Log
3	2-6000 Lb. & 1-16000 Lb.	*** 1 in. x 10 ft.	1 in.	+Creosoted Plank or Log
3	1-6000 Lb. & 2-10000 Lb.	*** 1 in. x 10 ft.	1 in.	+Creosoted Plank or Log
2	16000 Lb.	** 1 1/4 in. x 10 ft.	1 1/4 in.	Log

*Use 1-1/8 in. x 4 in. Galv. Sq. Washer and 1 inch Anchor Rod Nut as specified in Part 7 covering "Installation of Concrete Anchors".

+When placing plank anchors use 24 inch double planks with 1-1-1/8 x 6 in. Sq. washer between Combination Nut-Washer and plank. (See Paragraph 4.08).

**Use double thimble guy rods. However, where single thimble guy rods are in place, the second guy may be placed if the thimble eye is of sufficient size to accommodate the second guy and the rod is the required size for the guys involved.

***Use triple eye guy rods. However, where double thimble guy rods are in place, the third guy may be placed if the double thimble is of sufficient size to accommodate the third guy without damaging the first two guys and the rod is the required size for the guys involved.

4.07 Combination nut-washers shall be nailed to plank and log anchors with 4-10d galvanized wire nails. When double planks are specified with a 1-1/8 x 6 square washer between the combination nut-washer and plank, use 16d galvanized wire nails for nailing combination nut-washers to plank. When square washer is used it must be turned diagonally to clear the nails through the combination nut-washer.

5.02 Change the note in the illustration on Page 4 which reads:

"3/4 in. x 3 in. Square Washer with 1/2 In. rod"
"7/8 In. x 3-1/2 In. square washer with 5/8 In. rod"
"1-1/8 In. x 4 In. square washer with 3/4 In. rod"
"1-1/8 In. x 6 In. square washer with 1 In. rod"

To Read:

"1/2 In. Combination Nut-Washer with 1/2 In. Rod"
"5/8 In. Combination Nut-Washer with 5/8 In. Rod"
"3/4 In. Combination Nut-Washer with 3/4 In. Rod"
"1 In. Combination Nut-Washer with 1 In. Rod"

5.03 In order to employ a smaller size of anchor hole, the planks can be placed on the guy rod with the ends together and lowered in a hole of sufficient size to accommodate a single plank and enlarged at the bottom so that the planks can be turned at right angles to each other. When this method is employed the combination nut washer should be nailed to the bottom plank

only and the ends of the nails clinched over where they extend through the plank.

5.04 Where the digging for plank anchors is to be done by an earth boring machine and the guy or combination of guys to be attached to the anchor is a total of 16,000 pounds or less, bore a 20-inch diameter hole and use the 20-inch plank anchor.

5.05 Construct plank anchors for a guy or combination of guys totaling 20,000 pounds or more, as follows:

(1) Use four 24-inch planks.

(2) Nail the planks together in pairs, using 10d galvanized wire nails and cross the pairs in a manner similar to that shown in the illustration in Paragraph 5.02.

(3) If an earth boring machine is used, bore two 20-inch diameter holes on 18-inch centers. Make hole as deep as machine rack bar permits and enlarge the resulting hole a sufficient amount at a depth of 7 feet to receive the two planks crossed as shown in the illustration in Paragraph 5.02.

(4) Make trench for the rod.

(5) TAMP LOOSE EARTH AT THE BOTTOM OF THE HOLE FIRMLY BEFORE PLACING THE PLANK.

(6) When filling the hole the tamping shall be done firmly, avoiding injury to the anchor planks.

6. INSTALLATION OF LOG ANCHORS

6.01 Equip and install anchor logs in accordance with the following:

Size of Strand (in pounds) or Wire	Number of Guys	Number of Guy Rods	Size of Guy Rods	Anchor Log		
				Vertical Depth of Setting (in feet) not less than	Length (in feet)	Width or Diameter (in inches)
3/8 Steel Const. Wire	1	1	1/2 in. x 7 ft.	* 3 1/2	3	6
2,200	1	1	1/2 in. x 7 ft.	* 3 1/2	4	6
6,000	1	1	5/8 in. x 8 ft.	* 4 1/2	3	7
6,000	2	2	5/8 in. x 8 ft.	5	6	8
	2	1	** 3/4 in. x 9 ft.	5	6	8
10,000	1	1	3/4 in. x 9 ft.	5	5	8
6,000	1	1	** 1 in. x 10 ft.	6	5	10
10,000	1					
10,000	2	2	3/4 in. x 9 ft.	6 1/2	5	10
	2	1	** 1 in. x 10 ft.	6 1/2	5	10
16,000	1	1	1 in. x 10 ft.	6	6	10
10,000	1	1	** 1 in. x 10 ft.	6 1/2	7	12
16,000	1					
16,000	2	2	1 in. x 10 ft.	6 1/2	8	12
	2	1	**1 1/4in. x 10 ft.	6 1/2	8	12
	3	3	1 in. x 10 ft.	7	8	12
2- 6,000 & 1-16,000	3	1	*** 1 in. x 10 ft.	7	7	12
1- 6,000 & 2-10,000	3	1	*** 1 in. x 10 ft.	7	7	12
25,000	1	1	1 in. x 10 ft.	6 1/2	7	12

*Where the frost line is below the figures given set anchors to a vertical depth of five feet.

Note: If the guy rod is of sufficient length a log one foot shorter than indicated above can be used provided the depth of setting is increased one half foot.

Note: A shorter log of larger diameter than required above can be used if the bearing area is equivalent to that of the log recommended and it is set to the same vertical depth. Employ treated timber, if practicable. Do not cut up good poles for anchor logs, if avoidable, but always use sound, durable timber. Where soil is sandy and well drained, treated timber should be used.

**Use double thimble guy rods. However, where single thimble guy rods are in place, the second guy may be placed if the thimble eye is of sufficient size to accommodate the second guy and the rod is the required size for the guys involved.

***Use triple eye guy rods. However, where double thimble guy rods are in place, the third guy may be placed if the double thimble is of sufficient size to accommodate the third guy without damaging the first two guys and the rod is the required size for the guys involved.