

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G34.101.4
Issue 1, August, 1956
AT&T Co Standard

B RURAL WIRE
STRINGING SAGS

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1. GENERAL

- 1.01 This section provides sag tables covering the recommended and minimum sags for placing B Rural Wire.
- 1.02 This section replaces Section G31.116.6, Issue 1, which is hereby cancelled.
- 1.03 The sags provided herein may be exceeded if field conditions permit.

2. INDEX OF SAG TABLES

2.01 The following index indicates the sag table to be used for different average span lengths in various storm loading areas.

<u>Kind of Wire</u>	<u>Storm Loading Area</u>	<u>Average Span Length (Feet)</u>	<u>Table No.</u>
B Rural	All	100-250	1
	All	251-350	2
	Heavy	351-400	3
	Medium and Light	351-450	4
	Medium	451-550	5
	Medium	551-600	6
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3. TABLES OF STRINGING SAGS

**TABLE 1
ALL LOADING AREAS**

Span Length Feet	TEMPERATURE—DEGREES FARENHEIT									
	120		90		60		30		0	
	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.
100	9	3-1/2	8-1/2	3-1/2	7-1/2	3	6-1/2	2-1/2	6	2-1/2
110	11	4	10	4	9	3-1/2	8	3	7-1/2	3
120	13	5	12	4-1/2	11	4-1/2	9-1/2	4	8-1/2	4
130	15-1/2	6	14	5-1/2	12-1/2	5	11-1/2	4-1/2	10	4-1/2
140	18	7	16-1/2	6-1/2	14-1/2	6	13	5-1/2	12	5
150	21	8	19	7-1/2	17	6-1/2	15	6	13-1/2	6
160	23-1/2	9	21-1/2	8-1/2	19	7-1/2	17	7	15-1/2	6-1/2
170	27	10	24	9-1/2	21-1/2	8-1/2	19-1/2	8	17-1/2	7-1/2
180	30	11-1/2	27	11	24-1/2	9-1/2	22	9	19-1/2	8-1/2
190	33-1/2	12-1/2	30	11-1/2	27	11	24-1/2	10	21-1/2	9-1/2
200	37	14	33-1/2	13	30	12	27	11	24	10-1/2
210	41	15-1/2	37	14-1/2	33	13	30	12	26-1/2	11-1/2
220	44-1/2	17	40-1/2	15-1/2	36	14-1/2	32-1/2	13	29	12-1/2
230	49	18-1/2	44-1/2	17	39-1/2	16	35-1/2	14-1/2	32	14
240	53	20	48-1/2	19	43	17	39	16	34-1/2	15
250	58	22	52	20-1/2	47	18-1/2	42	17	37-1/2	16-1/2
260	62	23-1/2	56-1/2	22	50-1/2	20-1/2	45-1/2	18-1/2	40-1/2	18
270	67	25-1/2	61	23-1/2	54-1/2	22	49	20	43-1/2	19

Rec = Recommended Sag (Inches)

Min = Minimum Sag (Inches)

**TABLE 2
ALL LOADING AREAS**

Span Length Feet	TEMPERATURE—DEGREES FARENHEIT									
	120		90		60		30		0	
	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.
230	25	18-1/2	23	17-1/2	21	16	19-1/2	15	18	14
240	27	20	25	19	23	17	21	16-1/2	19-1/2	15
250	29-1/2	22	27	20-1/2	25	19	23	18	21	16-1/2
260	32	23-1/2	29-1/2	22	27	20-1/2	24-1/2	19	23	17-1/2
270	34-1/2	25-1/2	31-1/2	24	29	22	26-1/2	20-1/2	24-1/2	19
280	37	27-1/2	34	25-1/2	31-1/2	23-1/2	28-1/2	22	26-1/2	20-1/2
290	39-1/2	29-1/2	36-1/2	27-1/2	33-1/2	25	31	24	28-1/2	22
300	42-1/2	31-1/2	39	29-1/2	36	27	33	25-1/2	30-1/2	23-1/2
310	45-1/2	33-1/2	41-1/2	31-1/2	38-1/2	29	35	27	32-1/2	25
320	48-1/2	36	44-1/2	33-1/2	41	30-1/2	37-1/2	29	34-1/2	27
330	51-1/2	38	47	35-1/2	43-1/2	32-1/2	40	31	37	28-1/2
340	54-1/2	40-1/2	50	38	46	34-1/2	42-1/2	33	39	30
350	58	43	53	40	49	36-1/2	45	34-1/2	41-1/2	32
360	61	45-1/2	56	42-1/2	52	39	47-1/2	36-1/2	44	34
370	65	48	59	45	55	41	50	39	46-1/2	36

Rec = Recommended Sag (Inches)

Min = Minimum Sag (Inches)

TABLE 3
HEAVY LOADING AREA

Span Length Feet	TEMPERATURE—DEGREES FARENHEIT									
	120		90		60		30		0	
	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.
350	63	53	59	49-1/2	55	46	51	43	48	40
360	67	56	62	52	58-1/2	48-1/2	54	45-1/2	50-1/2	42
370	70-1/2	59	66	55	61-1/2	51	57	48	53-1/2	44-1/2
380	74	62	69	58	65	54	60	50-1/2	56-1/2	47
390	78	65-1/2	73	61	68-1/2	56-1/2	63-1/2	53	59-1/2	49-1/2
400	82-1/2	69	77	64-1/2	72	60	67	56	62-1/2	52

Rec = Recommended Sag (Inches)

Min = Minimum Sag (Inches)

TABLE 4
MEDIUM AND LIGHT LOADING AREAS

Span Length Feet	TEMPERATURE—DEGREES FARENHEIT									
	120		90		60		30		0	
	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.
330	56	37-1/2	52-1/2	35	49	32-1/2	45-1/2	30-1/2	42-1/2	29
340	60	40	56	37	52	34-1/2	48-1/2	32-1/2	45	30-1/2
350	63	42	59	39-1/2	55	36-1/2	51	34-1/2	48	32-1/2
360	67	44-1/2	62	41-1/2	58-1/2	39	54	36-1/2	50-1/2	34-1/2
370	70-1/2	47	66	44	61-1/2	41	57	38-1/2	53-1/2	36-1/2
380	74	49-1/2	69	46-1/2	65	43-1/2	60	40-1/2	56-1/2	38-1/2
390	78	52	73	49	68-1/2	45-1/2	63-1/2	43	59-1/2	40-1/2
400	82-1/2	55	77	51-1/2	72	48	67	45	62-1/2	42-1/2
410	87	58	81	54	76	50-1/2	70	47-1/2	66	44-1/2
420	91	60-1/2	85	57	79	53	74	49-1/2	69	47
430	95	63-1/2	89	59-1/2	83	55-1/2	77	52	72-1/2	49
440	100	66-1/2	93	62-1/2	87	58	81	54-1/2	76	51-1/2
450	104-1/2	69-1/2	97-1/2	65	91	60-1/2	85	57	79	54
460	109	73	102	68	95	63	88-1/2	59-1/2	83	56
470	114	76	106	71	99	66	92	62	86	59

Rec = Recommended Sag (Inches)

Min = Minimum Sag (Inches)

TABLE 5
MEDIUM LOADING AREA

Span Length Feet	TEMPERATURE—DEGREES FARENHEIT									
	120		90		60		30		0	
	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.
450	65-1/2	54	62	51-1/2	58	48-1/2	55	46	52	44
460	68-1/2	56-1/2	64-1/2	54	61	51	57-1/2	48-1/2	54	45-1/2
470	71-1/2	59	67-1/2	56	64	53	60	50-1/2	56-1/2	48
480	74-1/2	62	70-1/2	58-1/2	66-1/2	55-1/2	63	52-1/2	59	50
490	78	64	73-1/2	61	69	58	65	55	61-1/2	52
500	81	67	76-1/2	63-1/2	72	60	68	57	64	54
510	84	69-1/2	79-1/2	66	75	62-1/2	71	59	66-1/2	56
520	87-1/2	72	82-1/2	69	78	65	73-1/2	62	69	58-1/2
530	91	75	86	71-1/2	81	67-1/2	76-1/2	64	72	61
540	94	78	89	74	84	70	79-1/2	66-1/2	75	63
550	98	81	92-1/2	77	87	72-1/2	82	69	77-1/2	65-1/2
560	102	84	96	79	90	75	85	71-1/2	80	68

Rec = Recommended Sag (Inches)

Min = Minimum Sag (Inches)

TABLE 6
MEDIUM LOADING AREA

Span Length Feet	TEMPERATURE—DEGREES FARENHEIT									
	120		90		60		30		0	
	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.
550	102	90	97-1/2	85	91	80-1/2	87	76-1/2	82-1/2	72-1/2
560	106	93	101	88	94	83-1/2	90-1/2	79	86	75
570	110	97	104-1/2	91	97-1/2	87	94	82	89	78
580	114	100	108	94-1/2	101	89-1/2	97	85	92	81
590	118	104	112	97-1/2	104-1/2	93	100	88	95	83-1/2
600	122	107	116	101	108	96	104	91	98-1/2	86-1/2

Rec = Recommended Sag (Inches)

Min = Minimum Sag (Inches)

**TABLE 7
LIGHT LOADING AREA**

Span Length Feet	TEMPERATURE—DEGREES FARENHEIT									
	120		90		60		30		0	
	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.
450	60	44-1/2	57	42-1/2	54	40-1/2	51	38-1/2	48-1/2	37
460	63	46-1/2	59	44-1/2	56-1/2	42-1/2	53-1/2	40-1/2	51	38-1/2
470	65-1/2	48-1/2	62	46-1/2	59	44	56	42	53	40
480	68-1/2	51	64-1/2	48-1/2	61-1/2	46	58	44	55	42
490	71-1/2	53	67	50-1/2	64	48	61	45-1/2	57-1/2	43-1/2
500	74	55	70	52-1/2	67	50	63	47-1/2	60	45-1/2
510	77	57-1/2	73	54-1/2	69	52	66	49-1/2	62-1/2	47-1/2
520	80	59-1/2	76	56-1/2	72	54	68	51-1/2	65	49
530	83-1/2	62	78-1/2	59	75	56	71	53-1/2	67-1/2	51
540	86-1/2	64	81-1/2	61	78	58	73-1/2	55-1/2	70	53
550	90	67	85	63-1/2	81	60-1/2	76-1/2	57-1/2	72-1/2	55
560	93	69	88	66	83-1/2	63	79	59-1/2	75	57
570	96-1/2	71-1/2	91	68	87	65	82	62	78	59
580	100	74	94	70-1/2	90	67	85	64	81	61
590	103-1/2	77	97-1/2	73	93	69-1/2	88	66	83-1/2	63-1/2
600	107	79-1/2	101	75-1/2	96	72	91	68-1/2	86-1/2	65-1/2
610	110-1/2	82	104	78	99	74-1/2	94	71	89-1/2	68
620	114	85	108	80-1/2	102	77	97	73	92-1/2	70
630	118	87-1/2	111	83	106	79	100	75-1/2	95-1/2	72-1/2
640	122	90-1/2	115	86	109	82	103-1/2	78	98-1/2	74-1/2
650	126	93	118-1/2	88-1/2	112-1/2	84-1/2	107	80	101-1/2	77

Rec = Recommended Sag (Inches)

Min = Minimum Sag (Inches)