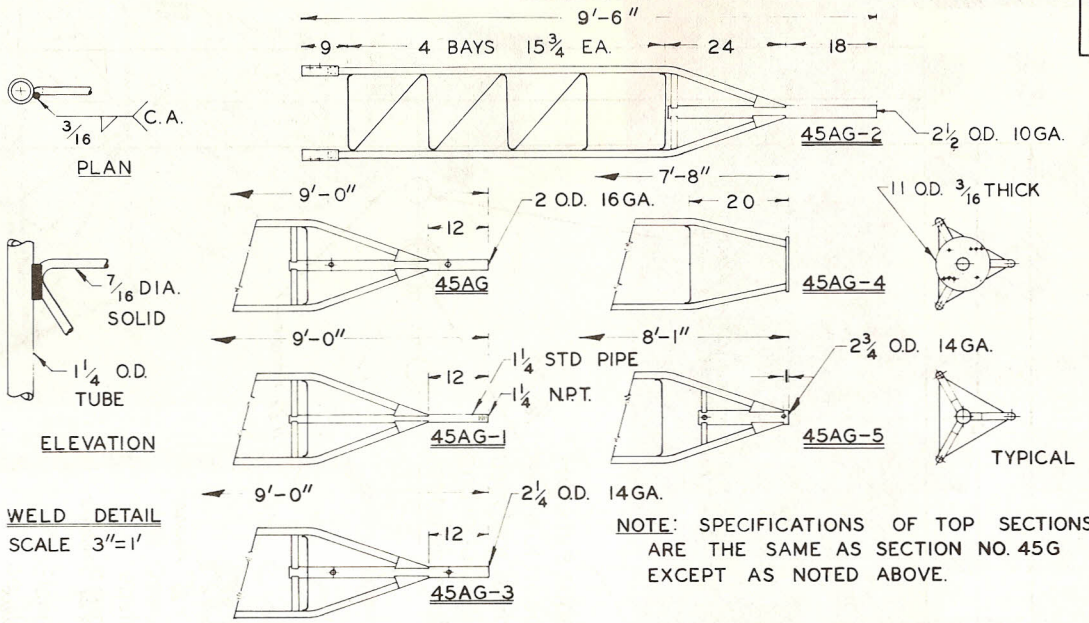
C-630645

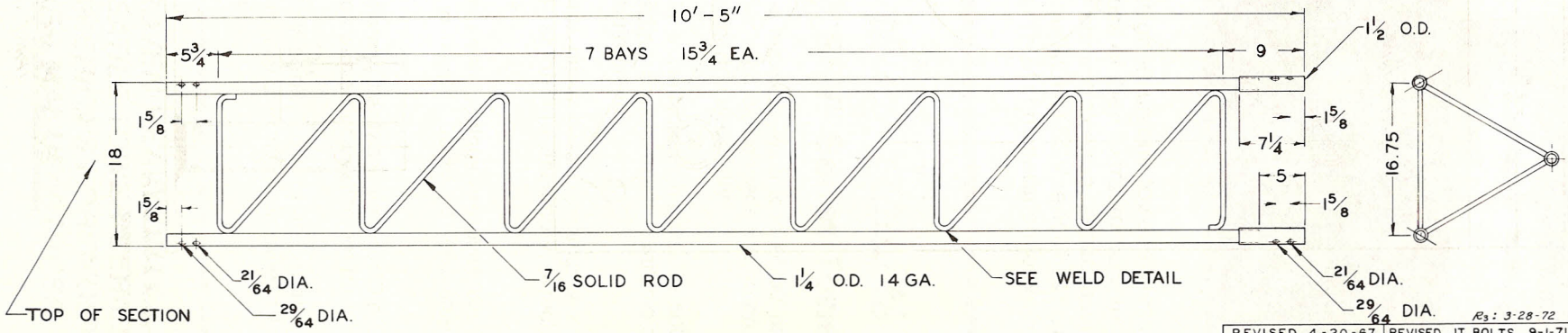
TOWER SPECIFICATIONS

DISTANCE BETWEEN SIDE RAILS (CENTER TO CENTER)	16 3/4"
OVERALL LENGTH OF SECTION	10'-5"
WEIGHT PER SECTION	70 LBS.
SIDE RAIL DIAMETER AND GAUGE	1 1/4" O.D. 14GA.
CROSS SECTIONAL AREA - ONE LEG	.3043 SQ. IN.
GROSS ALLOWABLE VERTICAL LOAD ON THE BOTTOM TOWER SECTION	23,850 LBS.
MAXIMUM ALLOWABLE AXIAL COMPRESSION OF THE CROSS SECTION OF ONE SIDE RAIL	7,950 LBS.
MEASURED TENSILE STRENGTH OF ONE SIDE RAIL	19,800 LBS.
MEASURED TENSILE STRENGTH OF ONE BOLTED LEG JOINT	16,200 LBS.
MAXIMUM ALLOWABLE TENSION IN EACH BOLTED LEG JOINT	6,480 LBS.
SAFE MOMENT OF RESTRAINT	9,610 FT. LBS.
L - UNBRACED LENGTH OF SIDE RAIL (DISTANCE BETWEEN CROSSPIECES)	15 3/4"
R - RADIUS OF GYRATION OF SIDE RAIL	.414"
L/R FOR MAIN LEG MEMBER	38.0
WIND LOAD PER LINEAL FOOT OF TOWER AT THE HORIZONTAL WIND PRESSURES (PER SQUARE FOOT OF FLAT SURFACE) LISTED BELOW:	
30 LBS.	8.78
40 LBS.	11.70
50 LBS.	14.63



NOTE: SPECIFICATIONS OF TOP SECTIONS ARE THE SAME AS SECTION NO. 45G EXCEPT AS NOTED ABOVE.

STANDARD TOP SECTIONS



NO. 45G SECTION

3 - 5/16" DIA. X 2 3/8" LG., NC BOLTS
3 - 7/16" DIA. X 2 1/4 LG., NC BOLTS

NOTE: ALL DIMENSIONS IN INCHES EXCEPT AS NOTED

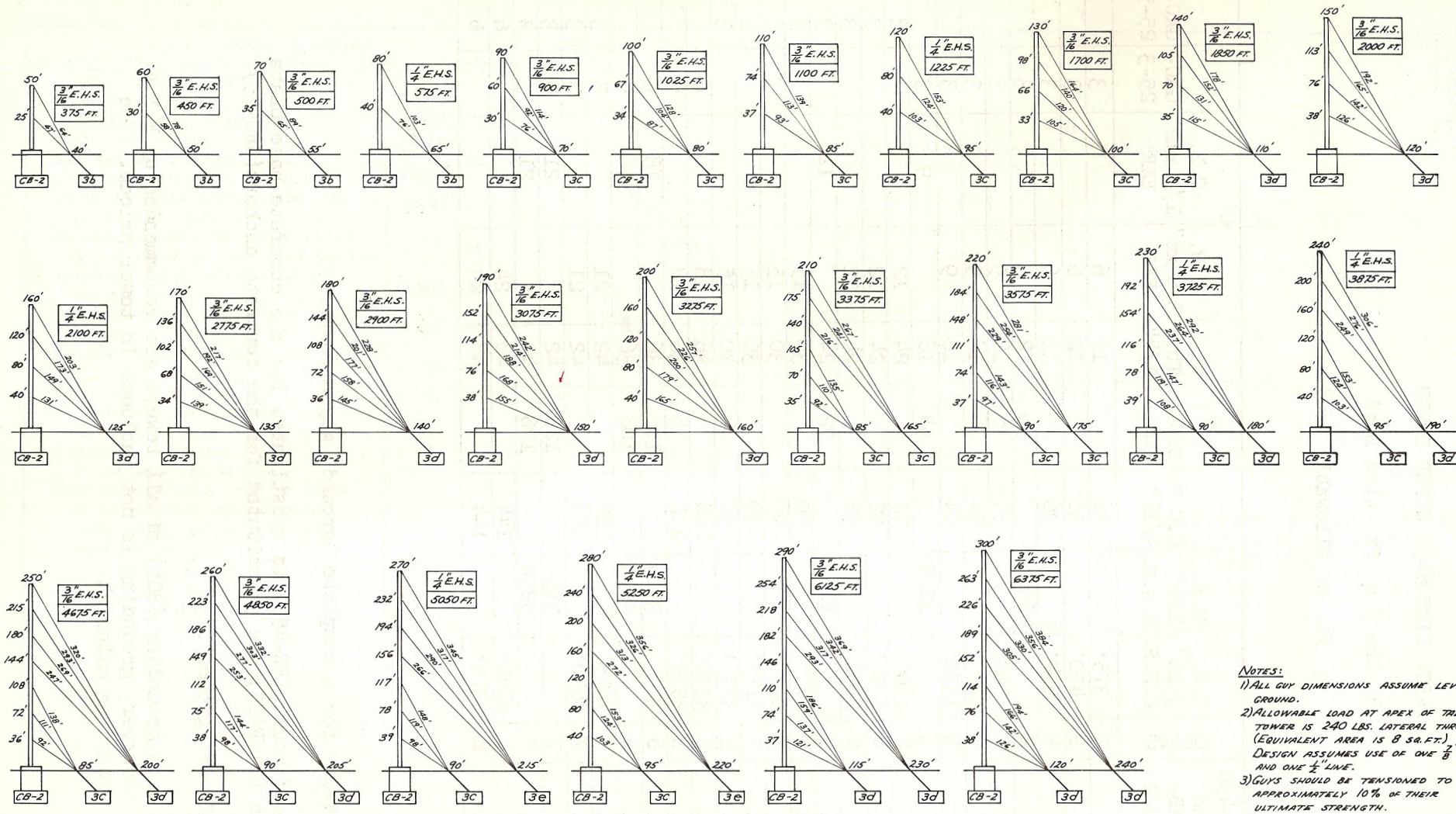
Rs: 3-28-72 WBM

REVISED 4-20-67 | REVISED JT. BOLTS 9-1-71, R-1

DRAWN PM	CUSTOMER	TITLE
CHECKED Rod		MODEL 45 TOWER SECTION
APPROVED DWC		
DATE 6-25-63	ROHN MANUFACTURING PEORIA, ILLINOIS	DRAWING NO. C-630645-R3
SCALE NOTED		

ILLINOIS B/P 1000-H

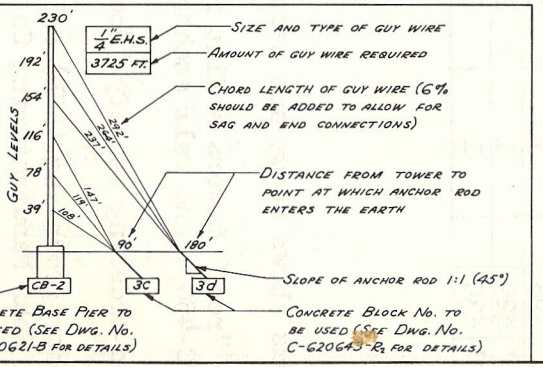
C-640649-C

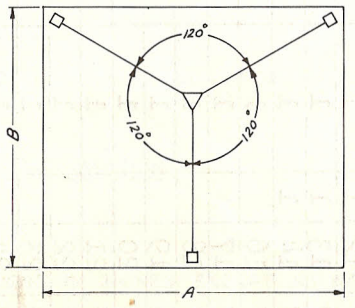


NOTES:

1) ALL GUY DIMENSIONS ASSUME LEVEL GROUND.
2) ALLOWABLE LOAD AT APEX OF TALLEST TOWER IS 240 LBS. LATERAL THRUST. (EQUIVALENT AREA IS 8 SQ. FT.) DESIGN ASSUMES USE OF ONE $\frac{7}{8}$" LINE AND ONE $\frac{1}{2}$" LINE.
3) GUYS SHOULD BE TENSIONED TO APPROXIMATELY 10% OF THEIR ULTIMATE STRENGTH.
4) ALL TOWERS ARE DESIGNED ACCORDING TO E.I.A. SPECIFICATIONS.

EXPLANATION OF CHART





FOR SPACE REQUIREMENT REFER TO DWG. NO. C-640531

REVISIONS	UPDATED DRAWING	R1 11-18-70	SD
DRAWN AED		TITLE	
CHECKED ck	WIND LOAD = 30 PSF (86.6 MPH)	GUYING DETAILS FOR MODEL 45 TOWER	
APPROVED P.A.H.			
DATE 6-18-64	ROHN MANUFACTURING PEORIA, ILLINOIS	DRAWING NO. C-640606 R1	
SCALE NONE			

ILLINOIS B/P 1000-H

SHEET D-1109
(Replaces D-1094)

August 1, 1975

REFERENCE SHEET & INSTALLATION INFORMATION

#45 BRACKETED TOWERS, NON-GUYED

BASE: The size of the concrete base for a 50' #45 tower, with a house bracket 12' aboveground, is 3' deep by 2' square. For cases of loose soil, etc., the base must be larger. Spread about 2" of gravel in bottom of hole prior to setting base assembly. The base assembly should be attached to the first 10' section prior to setting into gravel. After setting base assembly on gravel, fill another 3" with gravel around legs of base. This allows the tower base legs to extend the required amount below the base of the concrete, thus allowing for drainage of moisture into the gravel. The base assembly and first 10' section should be leveled, plumbed, and temporarily guyed or braced while pouring the concrete. This will insure a plumb tower after installation. Check tower to assure it is plumb and level after pouring concrete. Do not pull base up into the concrete to level it and do not drive it hard into ground as this plugs leg holes and prevents moisture drainage. Crown the top of the concrete slightly to prevent water accumulation. Do not use drive rods as a base for tower when set in concrete.

HEIGHT OF TOWER & BRACKET USES: House brackets must be used and must be mounted at least 12' aboveground to be effective. The #45 tower should not extend more than 45' above a house bracket. To secure the house bracket, use lag screws no smaller than 3/8" x 2". A special effort should be made to locate the house bracket such that the lag screws go through the siding into a stud. Brackets fastened to the siding only will not hold in a high wind. Tighten the house bracket U-bolts only enough to prevent looseness. Do not dent or flatten the tower upright members by excessively tightening U-bolts.

BOLTS: Installers are urged to use a 10" lining-up punch that tapers from about 1/2" to 5/32" diameter over a 6-1/2" length. If bolts cannot be pushed through the holes with the heel of the hand while rocking the tower, do not hammer them through. Carefully drive the punch into the hole just enough to slightly enlarge it. The leg bolt hole should be just large enough to admit the bolt. Never drill out the holes. Be sure to tighten all leg bolts until they partially flatten the sleeves, causing the sleeves to actually grip the legs inside. Always replace stripped bolts. Upon completing an installation, there should be no vertical movement between tower sections at the joints when the tower is deliberately swayed from side to side.

MISCELLANEOUS: Installation is greatly hastened and simplified by the use of an erection fixture.

CAUTION ... Be sure hinge bolts on hinged type accessories are loosened before attempting to hinge tower over. All hinged type bases are recommended to be used to raise tower only without antenna. When raising and lowering tower on any type of hinge base or hinge section, the loads applied for hinging the tower must be applied equally on both sides of tower in order to reduce the possibility of twist on tower and hinges at the base. Special care must be taken to avoid the use of raising and lowering methods which may cause damage to tower or hinges.

All information is based upon antennas with not more than 2 square feet of area in a 20 psf (70 mph) wind load and a safety factor, with antenna installed at tower apex.

See Chart B-691119 for more information on non-guyed towers.

PART NUMBER	
45G-030-BRKT	30' Complete Bracketed Tower
45G-040-BRKT	40' Complete Bracketed Tower
45G-050-BRKT	50' Complete Bracketed Tower
45G-060-BRKT	60' Complete Bracketed Tower
45G-070-BRKT	70' Complete Bracketed Tower
45G-080-BRKT	80' Complete Bracketed Tower
45G-090-BRKT	90' Complete Bracketed Tower
45G-100-BRKT	100' Complete Bracketed Tower

Refer to alphabetical/numerical price list for reference sheet prices on Complete #45G Bracketed Towers.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

PARTS LIST P-208
(Replaces P-109-A)

Oct. 1, 1971

PARTS LIST #45G GUYED TOWER

30 lbs./sq. ft. Wind Load

8 sq. ft. of Allowable Load

Tower Hgt.	45G	45AG-2	BPC-45G with 3/4"x12" PP	APL-45G and SAB-45G-2	GA45G	G.W. 3/16" E.H.S.	G.W. 1/4" E.H.S.	C.C.F. 3/16"	C.C.F. 1/4"	Th. 1/4"	T.B. 3/8"x6" E&E	T.B. 1/2"x12" E&E	GAC-25-3	GAC-25-5
50'	4	1	1		2	375'		36		12	6		3	
60'	5	1	1		2	450'		36		12	6		3	
70'	6	1	1		2	500'		36		12	6		3	
80'	7	1	1		2		600'		36	12		6	3	
90'	8	1	1		3	900'		54		18	9		3	
100'	9	1	1		3	1100'		54		18	9		3	
110'	10	1	1		3	1150'		54		18	9		3	
120'	11	1	1		3		1225'		54	18		9	3	
130'	12	1	1		4	1700'		72		24	12			3
140'	13	1	1		4	1850'		72		24	12			3
150'	14	1	1		4	2000'		72		24	12			3
160'	16		1	1	4		2150'		72	24		12		3
170'	17		1	1	5	2775'		90		30	15			3
180'	18		1	1	5	2900'		90		30	15			3
190'	19		1	1	5	3175'		90		30	15			3
200'	20		1	1	5	3275'		90		30	15			3
210'	21		1	1	6	3375'		108		36	18		6	
220'	22		1	1	6	3575'		108		36	18		6	
230'	23		1	1	6		3725'		108	36		18	6	
240'	24		1	1	6		3875'		108	36		18	6	
250'	25		1	1	7	4675'		126		42	21		3	3
260'	26		1	1	7	4850'		126		42	21		3	3
270'	27		1	1	7		5150'		126	42		21	3	3
280'	28		1	1	7		5250'		126	42		21	3	3
290'	29		1	1	8	6150'		144		48	24			6
300'	30		1	1	8	6375'		144		48	24			6

Items shown above are necessary for a complete "ground" guyed tower.

For "roof" towers a flat roof mount (FR-45G) is substituted for the concrete base plate (BPC-45G), and wall anchors (GAWP-25) are substituted for the concrete anchors(GAC-25).

When ordering specify "roof" or "ground".

Anchor grounding (AGK) and base grounding (BGK) of all towers are recommended by E.I.A. and Rohn Manufacturing Co. However, grounding is not included in tower prices. See appropriate price list for grounding material.