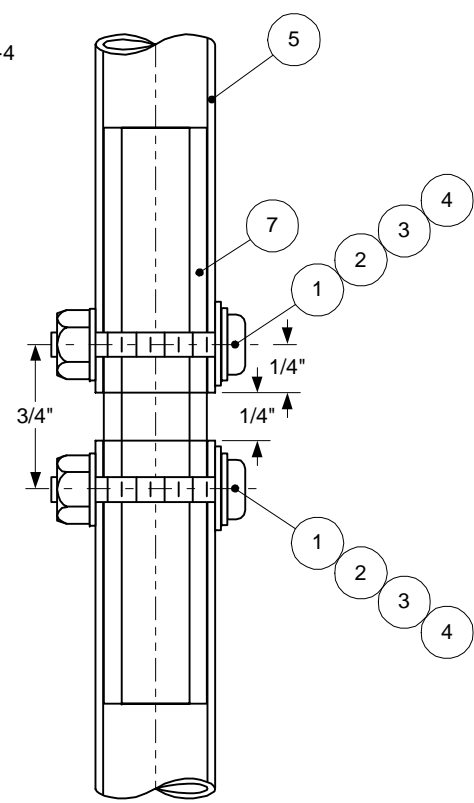
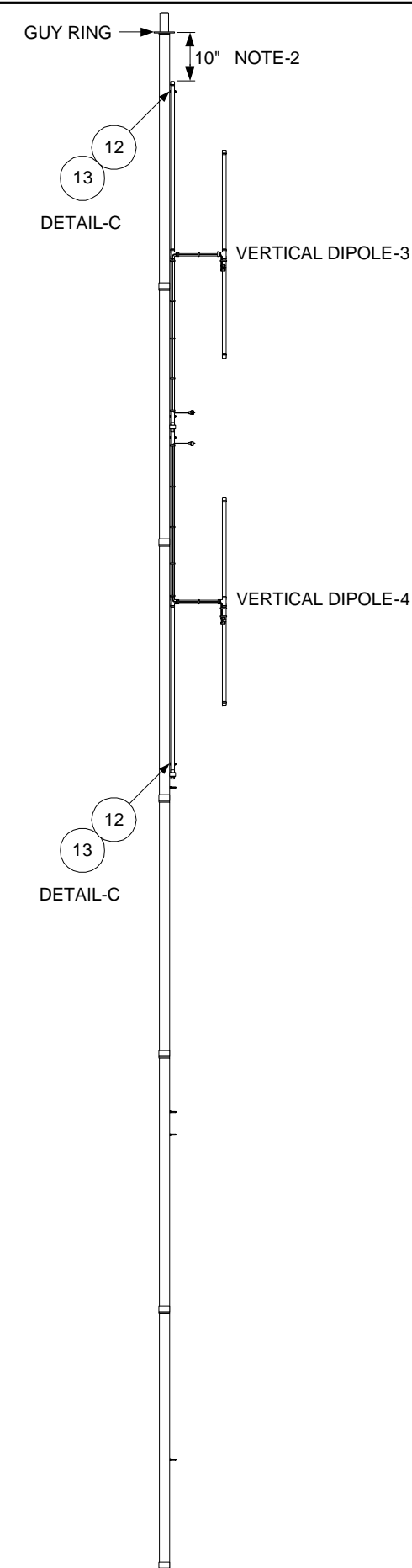
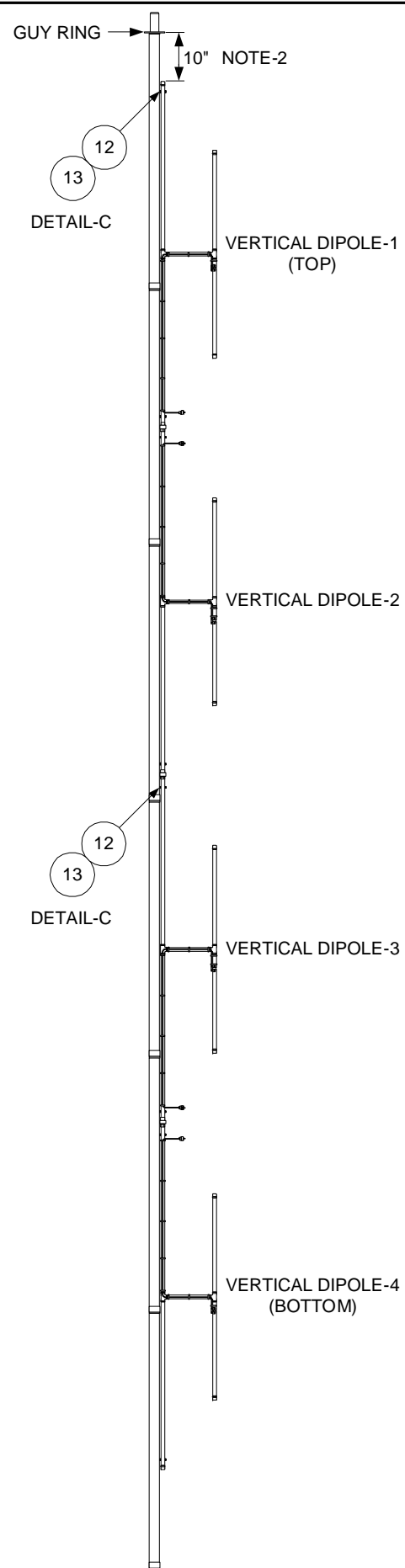
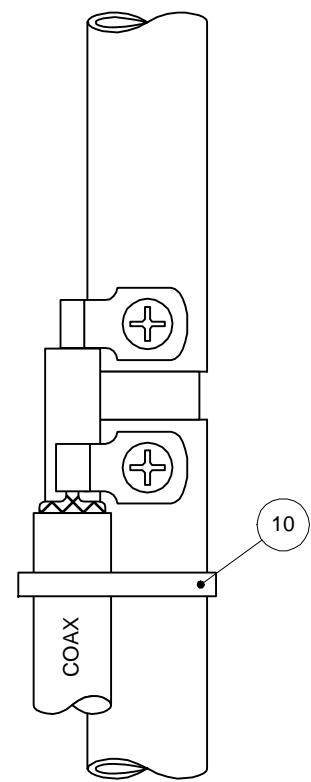


- NOTES**
1. SEAL FEEDPOINT TERMINATIONS WITH COAX-SEAL.
 2. RECOMMENDED COAX ROUTING FOR MINIMUM PATTERN DISTORTION AND OPTIMUM FEEDPOINT IMPEDANCE.
 3. MATERIALS LIST ON SHEET 2 OF 5.
 4. FOR A 2-ELEMENT ARRAY, USE VERTICAL DIPOLES 3 & 4.

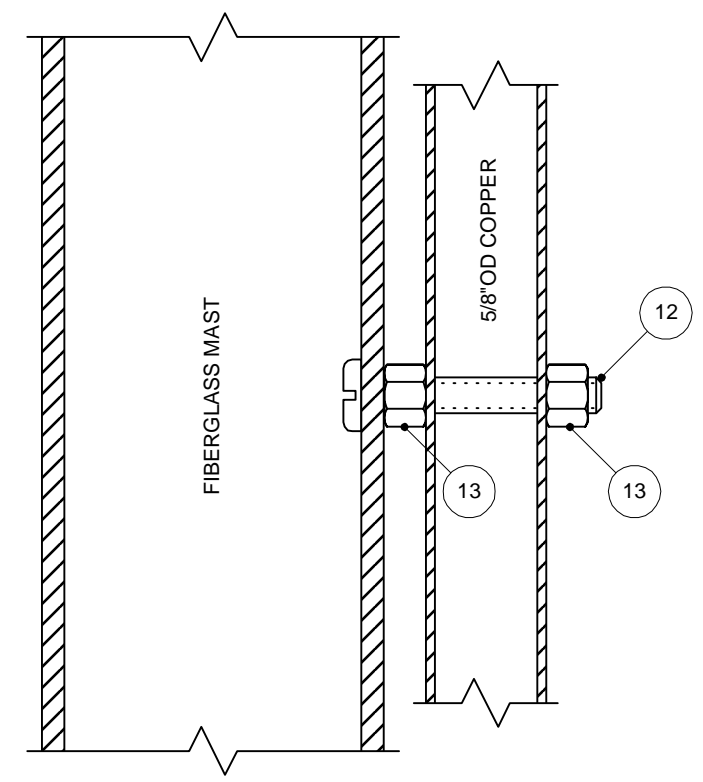
DESIGN: KG4JJH	11/15/05	
TESTED: KG4JJH		
		2-METER VERTICAL DIPOLE ARRAY COPPER DIPOLE ARRAY DETAILS
SCALE: 1/4:1	SHEET 1 OF 4	REV. 0



DETAIL-A
SCALE: 1:1



DETAIL-B
SCALE: 1:1
NOTE-1



DETAIL-C
SCALE: 1:1

ITEM	QTY	DESCRIPTION	SOURCE
1	8	6-32 X 7/8", SS, PAN HEAD MACH. SCREW, McMaster 95345A486	www.mcmaster.com
2	8	#6 FLAT WASHER, SS, McMaster 92141A007	www.mcmaster.com
3	8	#6 LOCK NUT, SS, McMaster 91831A007	www.mcmaster.com
4	8	FLAG TERMINAL, #6, McMaster 73125K64 & 73125K61	www.mcmaster.com
5	35'	PIPE, COPPER, 1/2" TYPE L	www.homedepot.com
6	8	TEE, COPPER, 1/2", PRE-SOLDERED	www.homedepot.com
7	12"	PIPE, PVC, SCH 80, 1/4", McMaster 48855K41	www.mcmaster.com
8	8	CAP, COPPER, 1/2", PRE-SOLDERED	www.mcmaster.com
9	3	UNION, COPPER, 1/2", McMaster 5520K91	www.homedepot.com
10	AR	CABLE TIE	www.homedepot.com
11	AR	COAX-SEAL	www.coaxseal.com
12	8	10-24 X 1-1/4", SS, PAN HEAD MACH. SCREW, McMaster 91400A251	www.mcmaster.com
13	16	10-24 LOCK NUT, SS, McMaster 90715A011	www.mcmaster.com

NOTES
 1. SEAL COAX EXPOSED COAX ENDS WITH COAX-SEAL (DETAIL-B).
 2. DROP ARRAY DOWN APPROXIMATELY 10 INCHES FROM TOP GUY RING TO AVOID GUY LINE INTERFERENCE.

4-ELEMENT VERTICAL DIPOLE ARRAY
COPPER ASSEMBLY
NTS

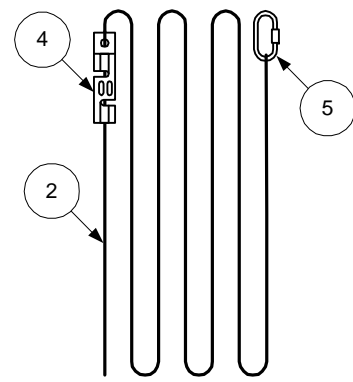
2-ELEMENT VERTICAL DIPOLE ARRAY
COPPER ASSEMBLY
NTS

DESIGN: KG4JJH	11/15/05	
TESTED: KG4JJH		
2-METER VERTICAL DIPOLE ARRAY FEEDPOINT DETAILS & ASSEMBLIES		
SCALE: NOTED	SHEET 2 OF 4	REV. 0

ITEM	QTY	DESCRIPTION	SOURCE
1	1	MAST, 44.5 FT., FIBERGLASS	www.ebay.com
2	350'	GUY LINE, BLACK, 3/16", DACRON	www.ebay.com
3	3	STAKE, 18"	www.homedepot.com
4	9	LINE TIGHTENER, TAUT-TIE	www.campmor.com
5	9	SPRING SNAP, STAINLESS STEEL	www.homedepot.com
6	3	GUY RING	www.ebay.com

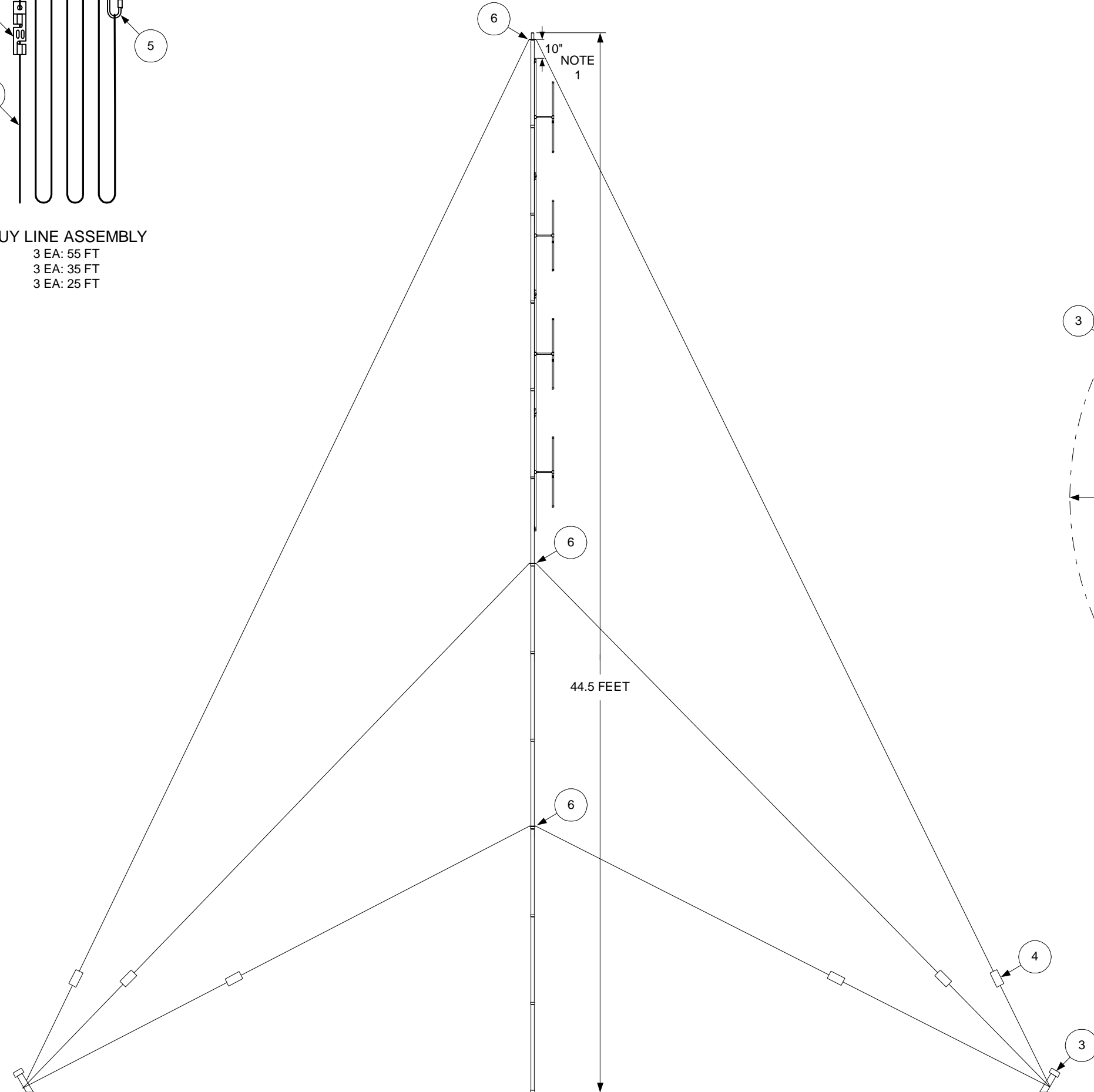
NOTES

1. DROP ARRAY DOWN APPROXIMATELY 10 INCHES FROM TOP GUY RING TO AVOID GUY LINES.

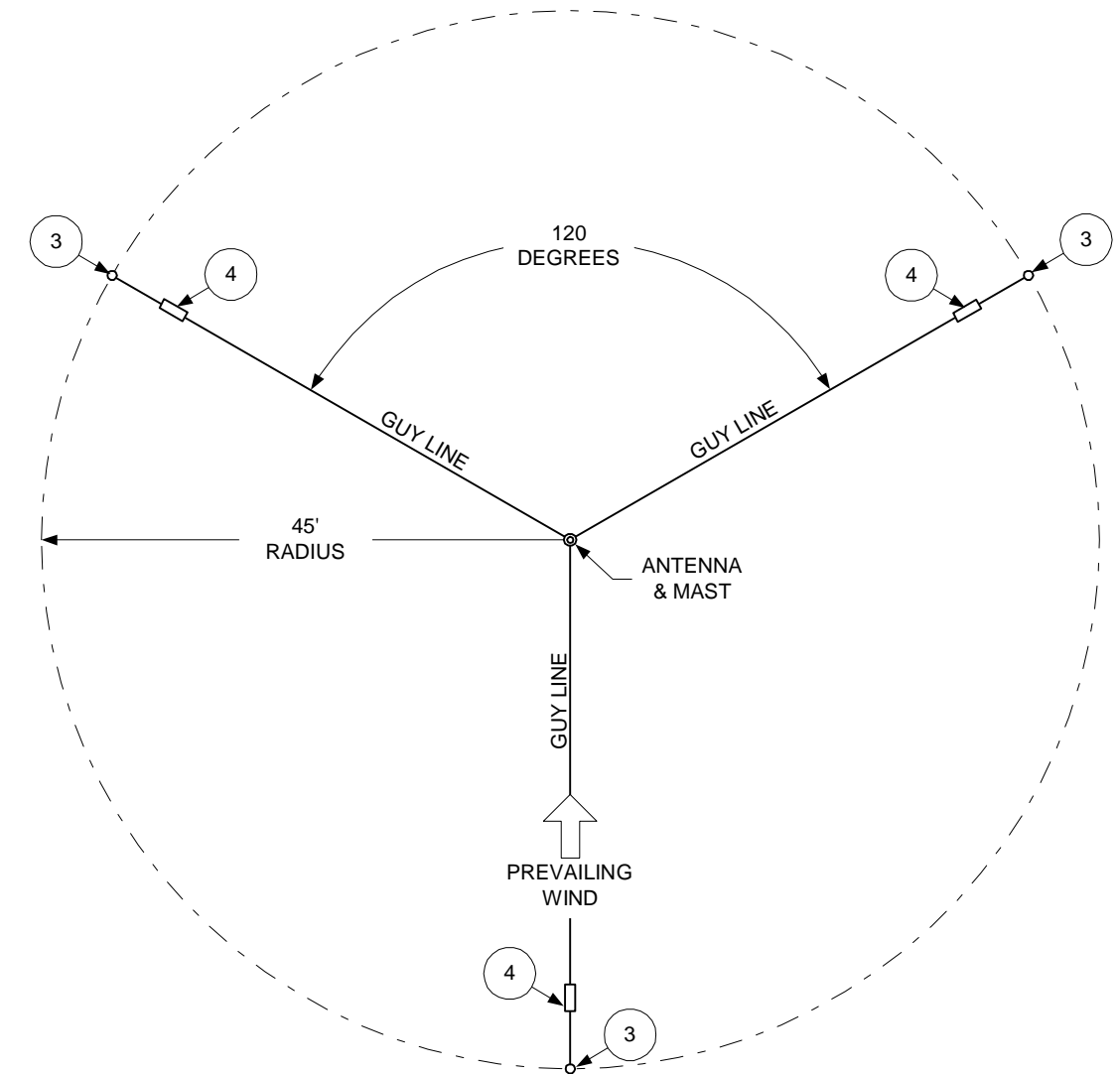


GUY LINE ASSEMBLY

- 3 EA: 55 FT
- 3 EA: 35 FT
- 3 EA: 25 FT

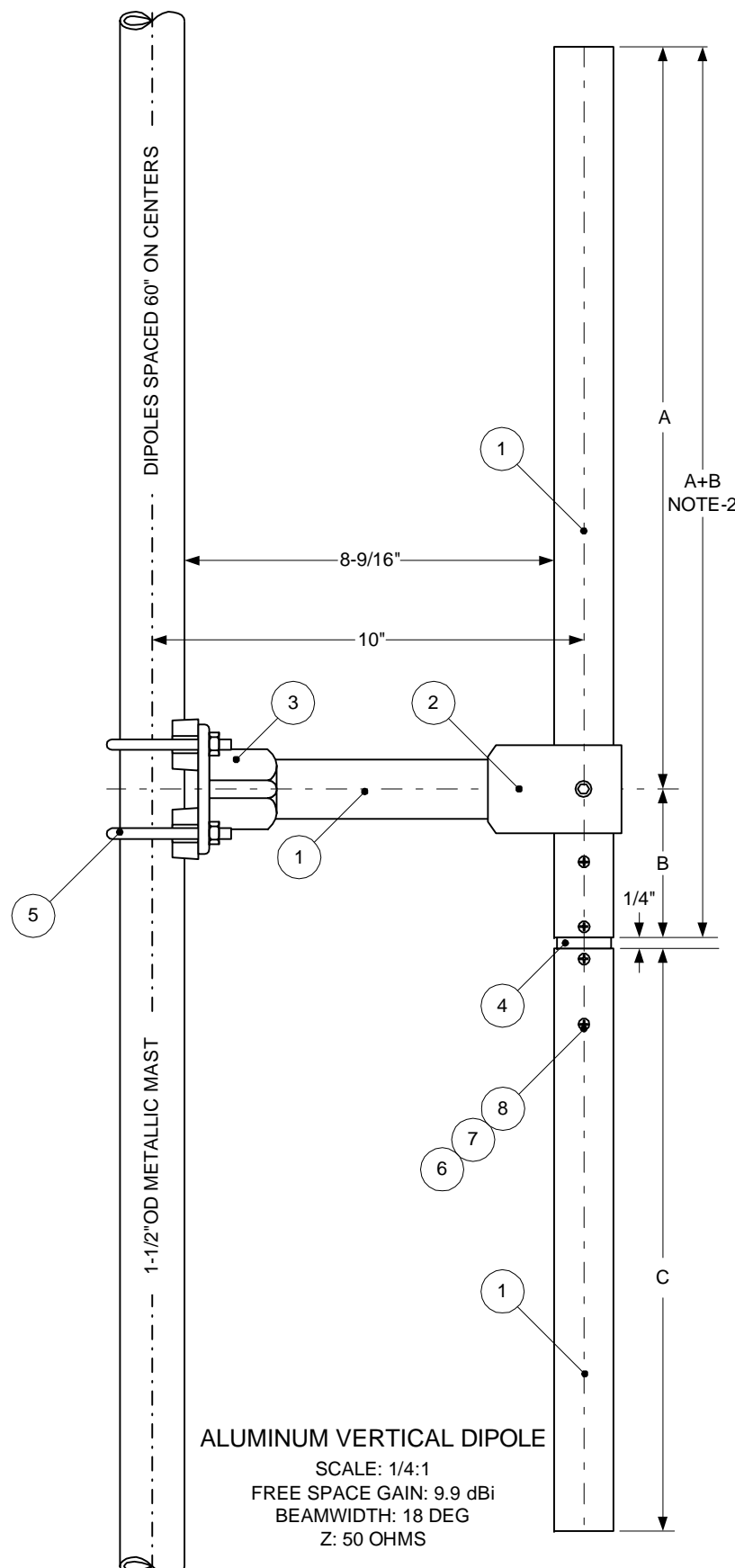


ANTENNA & MAST
ELEVATION VIEW

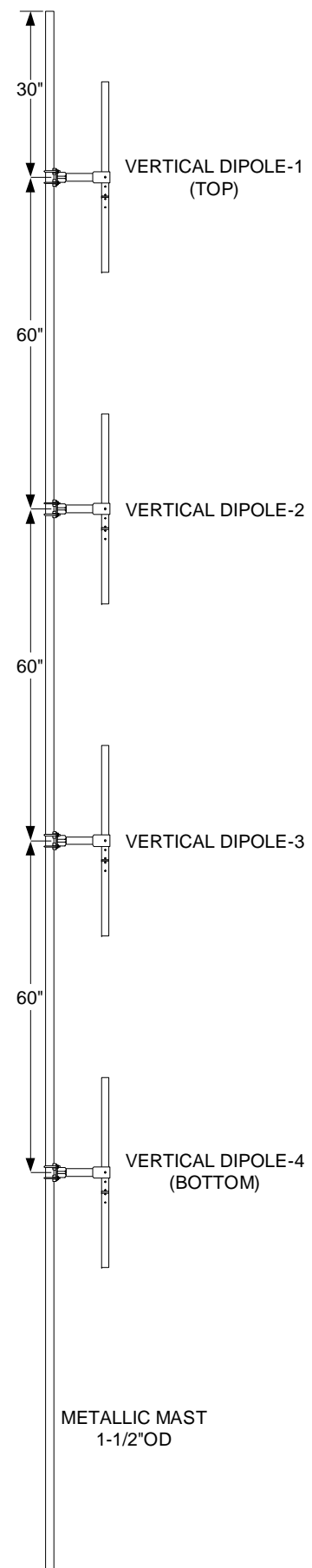


ANTENNA & MAST
PLAN VIEW

DESIGN: KG4JJH	11/15/05	
TESTED: KG4JJH		
2-METER VERTICAL DIPOLE ARRAY FIBERGLASS MAST GUYING PLAN		
SCALE: NONE	SHEET 3 OF 4	REV. 0



DIPOLE LOCATION	CENTERLINE DIMENSIONS			
	A	B	C	A + B
1 (TOP)	17-3/8"	3-1/2"	13-5/8"	20-7/8"
2 & 3	17-5/16"	3-15/32"	13-19/32"	20-25/32"
4 (BOTTOM)	17-3/16"	3-7/16"	13-1/2"	20-5/8"

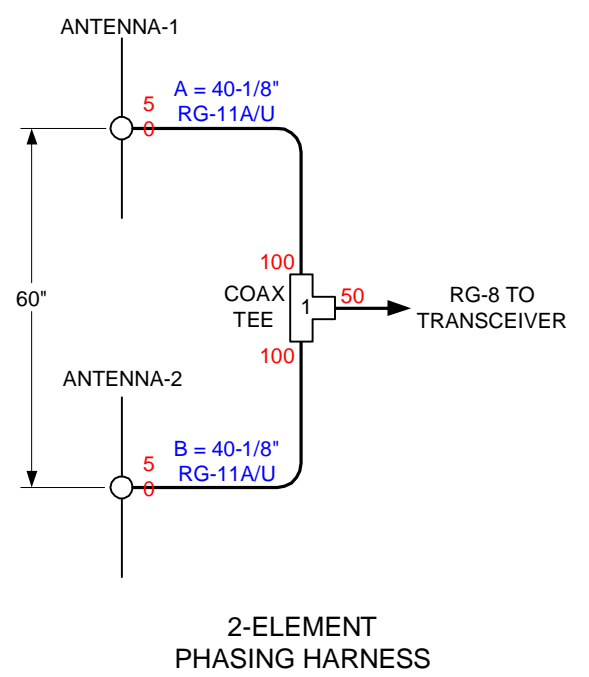
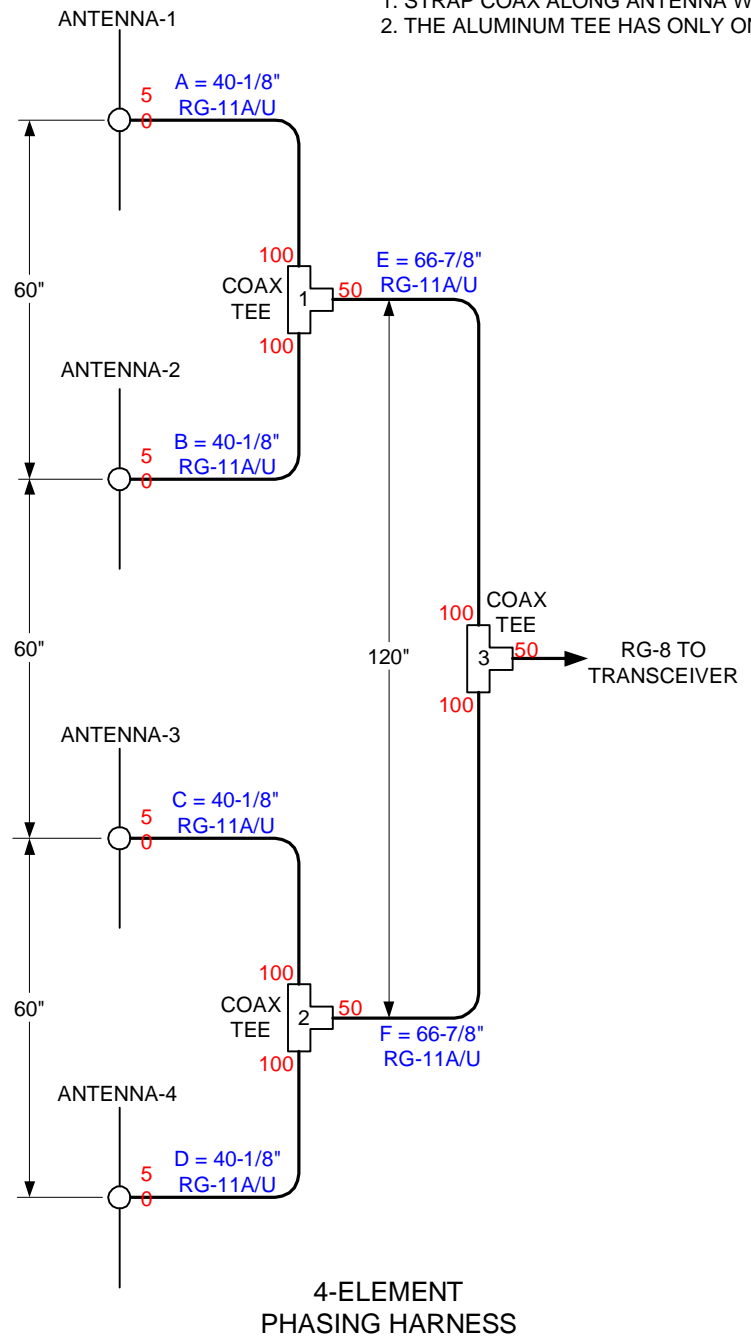


4-ELEMENT VERTICAL DIPOLE ARRAY ALUMINUM ASSEMBLY NTS

ITEM	QTY	DESCRIPTION	SOURCE
1	15'	ALUMINUM TUBING, 1-3/8" OD	www.texastowers.com
2	4	SINGLE SOCKET TEE, ALUMINUM, KEE LITE L10-6	www.keelite.com/us/
3	4	4-HOLE SQUARE FLANGE, ALUMINUM, KEE LITE L152-6	www.keelite.com/us/
4	24"	FIBERGLASS TUBING, 1-1/4" OD	www.mgs4u.com
5	8	V-BOLT SADDLE CLAMP, 1/2" TO 1-3/4", DXE-CAVS-1P	www.dxeengineering.com
6	16	6-32 X 1-3/4", SS, PAN HEAD MACH. SCREW, McMASTER 91772A158	www.mcmaster.com
7	16	#6 FLAT WASHER, SS, McMASTER 92141A007	www.mcmaster.com
8	16	#6 LOCK NUT, SS, McMASTER 91831A007	www.mcmaster.com

NOTES

- STRAP COAX ALONG ANTENNA WITH CABLE TIES. SEAL TERMINATIONS WITH COAX- SEAL.
- THE ALUMINUM TEE HAS ONLY ONE SET SCREW; COMBINE DIMENSIONS A & B TO MAKE ONE TUBE.



DESIGN: KG4JJH	11/15/05	
TESTED: KG4JJH		
		2-METER VERTICAL DIPOLE ARRAY PHASING HARNESS & CLAMP-ON ALUMINUM ARRAY DETAILS
		SCALE: NOTED
		SHEET 4 OF 4
		REV. 0