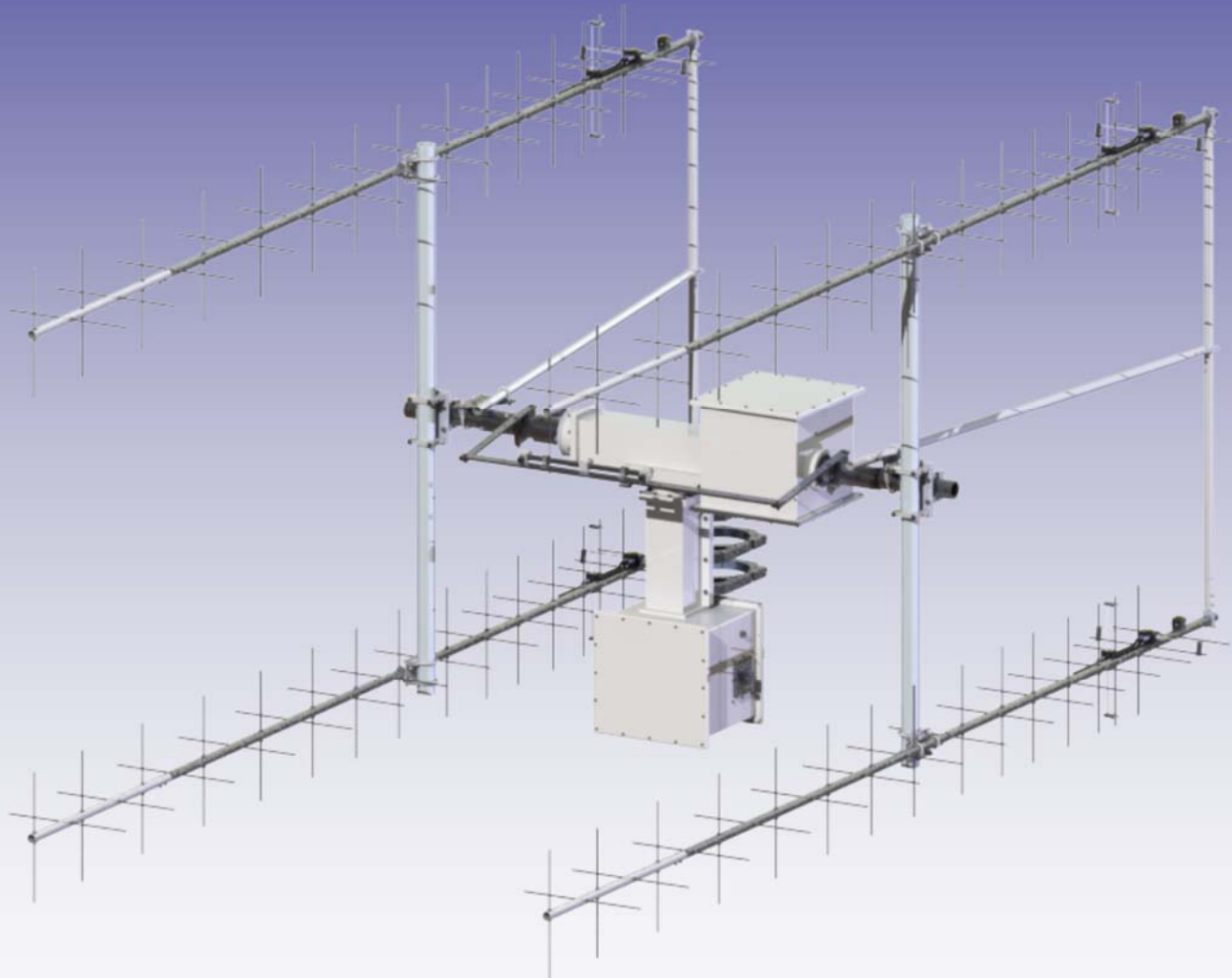




# M2 Antenna Systems, Inc.

Model No: System Sample 2  
AZEL1000CBW + 400CP30A



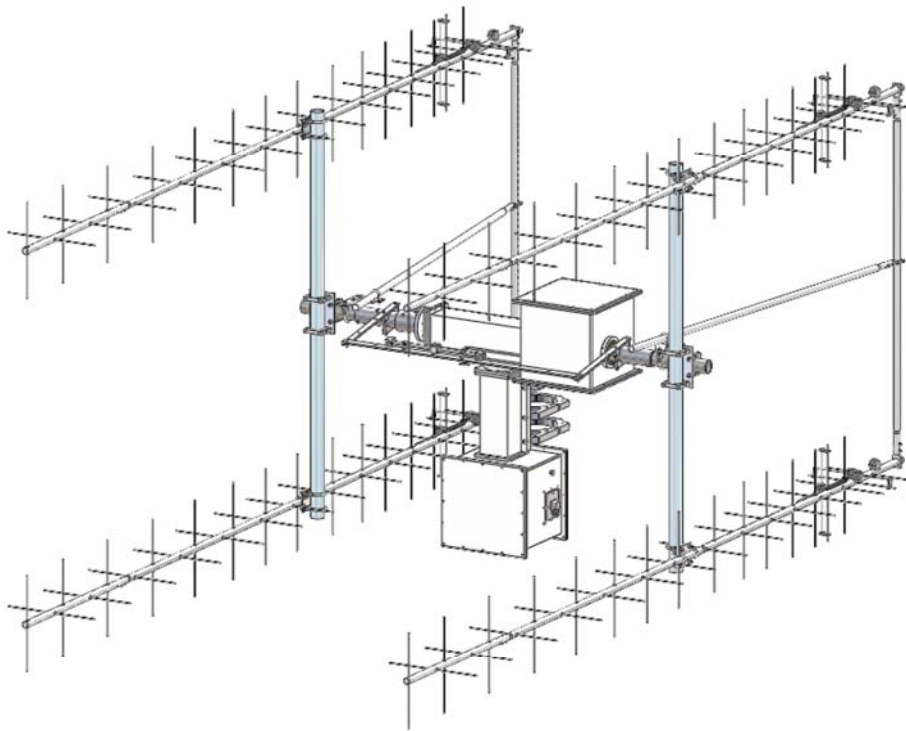
# SYSTEM ASSEMBLY NOTES

**BEFORE YOU BEGIN:** Look over all the DRAWINGS to get familiar with the various parts and assemblies in the system. Tools handy for assembly process: a screwdriver, 11/32", 7/16", 1/2", 9/16", and 5/8" spin-tites, end wrenches and/or sockets, and measuring tape.

**NOTE:**

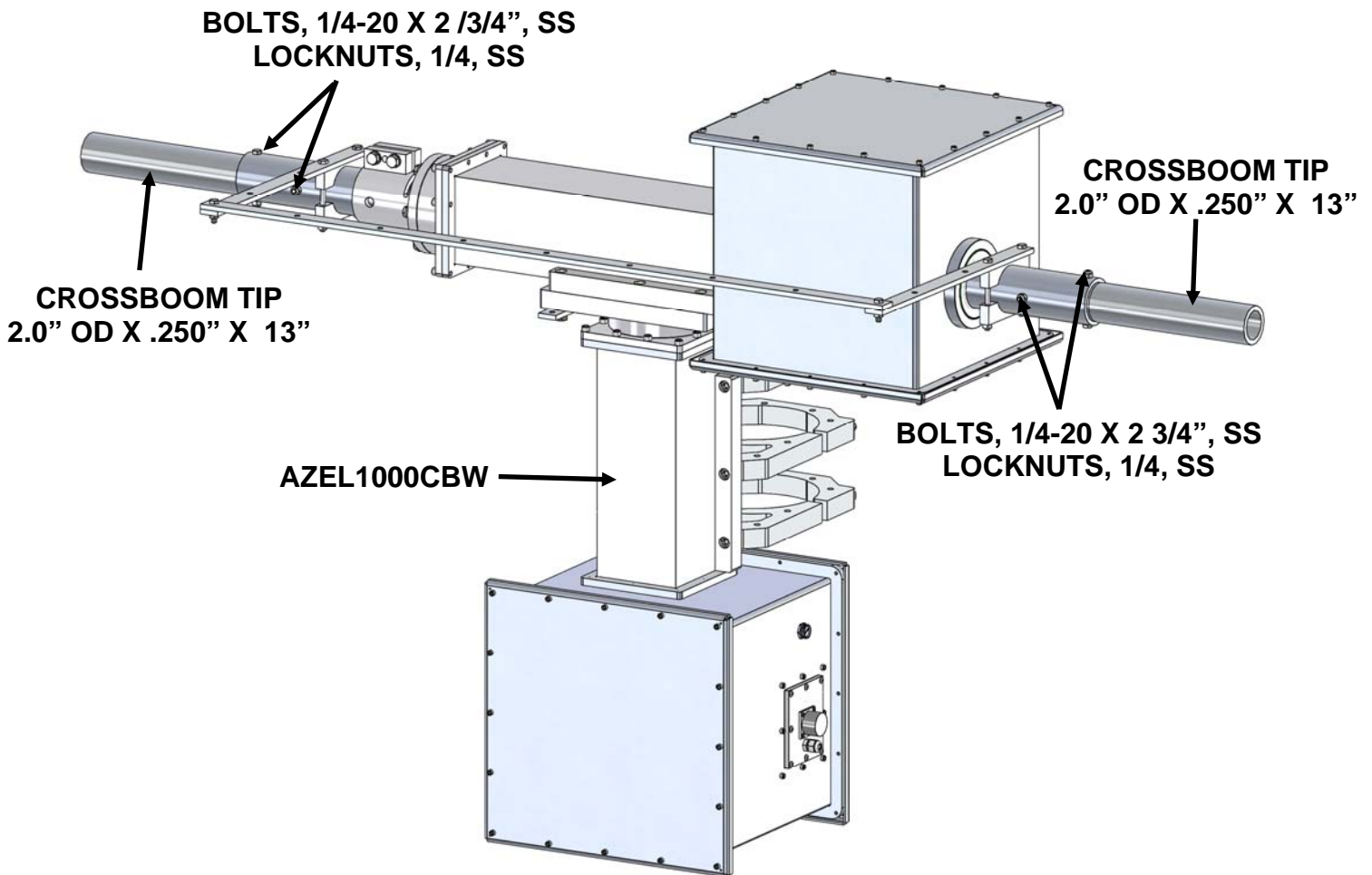
All installations are unique in some way, which means it's OK to preassemble certain hardware, or rearrange the assembly process to meet specific site requirements. A quick review of the assembly notes and drawings should help firm up the appropriate strategy. Please remember to double-check all hardware for tightness BEFORE it becomes inaccessible.

*A container of zinc paste (Penetrox, Noalox, or equiv.) have been provided to enhance and maintain the quality of all electrical junctions on this system. Apply a thin coat wherever two pieces of aluminum come in contact or any other electrical connections are made. It is also useful on screws and bolt threads as an ANTI SEIZE compound.*



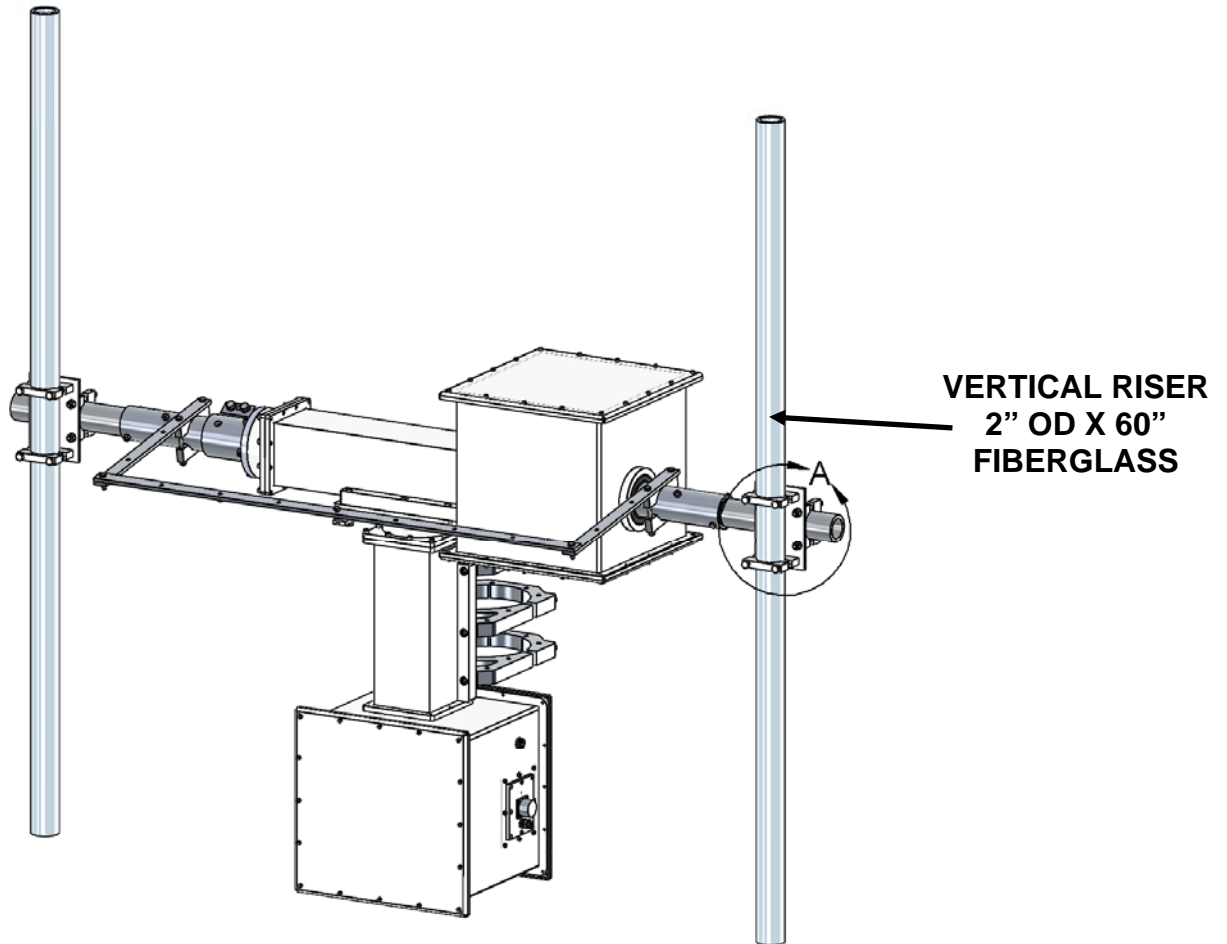
**FRONT OF ANTENNA  
SYSTEM**

# CROSSBOOM ASSEMBLY DETAIL

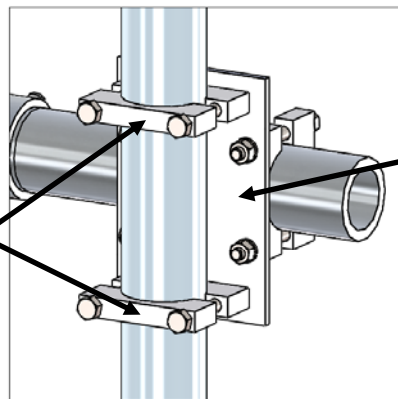


**NOTE:**  
REFER TO AZEL1000CBW MANUAL FOR ASSEMBLY  
INSTRUCTIONS.

# VERTICAL RISER DETAILS



MACHINED CRADLE 2"  
BOLT, 5/16-18 X 3 1/4", SS  
LOCKWASHER, 5/16", SS  
NUT, 5/16-18, SS

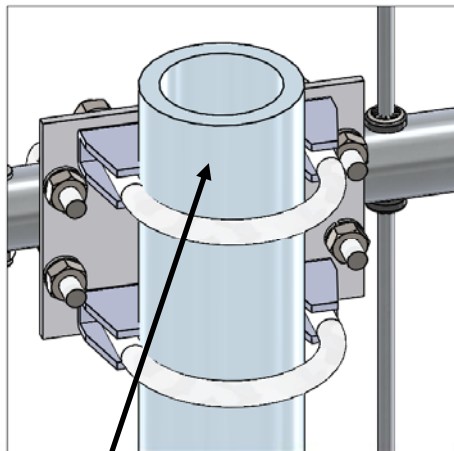
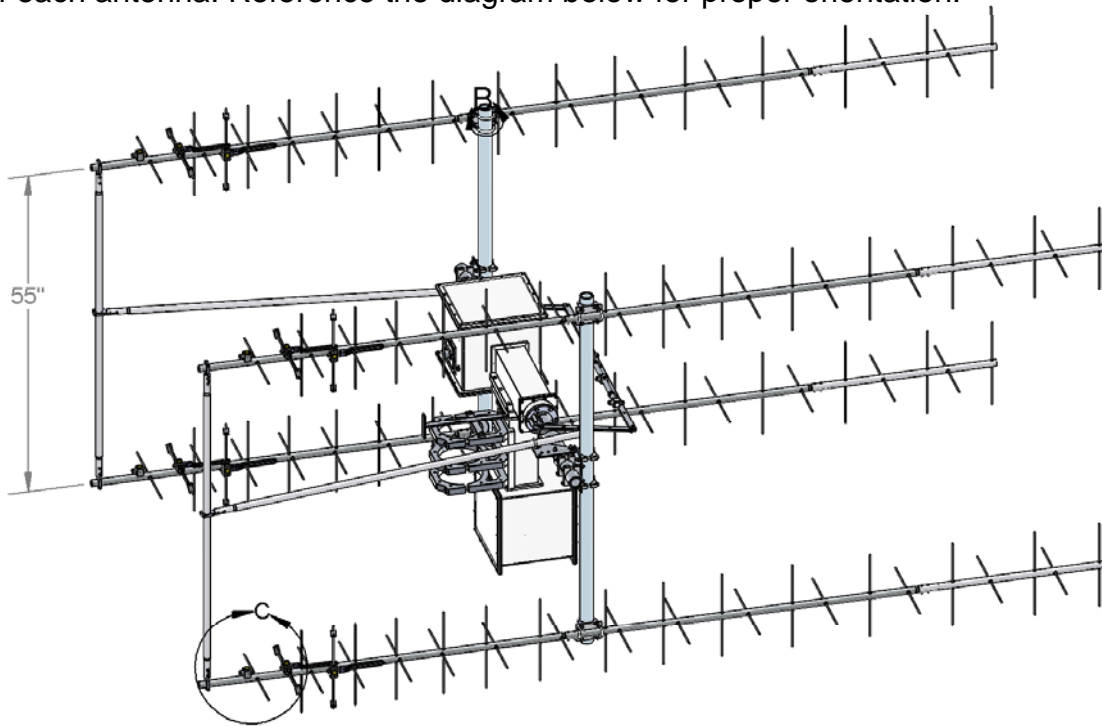


VERTICAL RISER PLATE  
4" X 6" X 1/4"

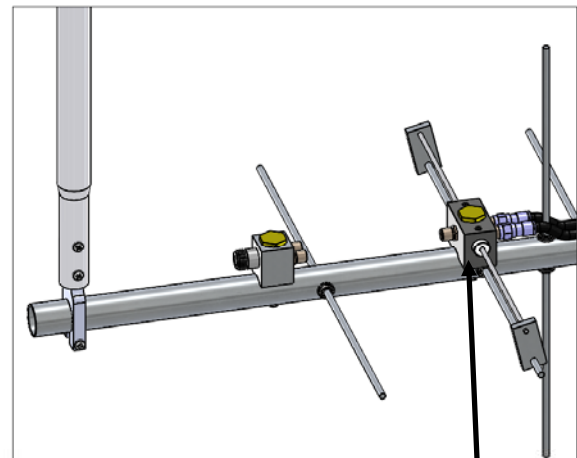
DETAIL A  
SCALE 1 : 4

# ANTENNA MOUNTING DETAILS

**NOTE:** All antennas need to be installed in same orientation to be properly phased vertically. Make sure to have the upper and lower antennas oriented the same direction. As viewed from the rear of the phased array, all horizontal driven elements should be mounted on the top surface of each antenna. Reference the diagram below for proper orientation.



DETAIL B  
SCALE 1 : 2

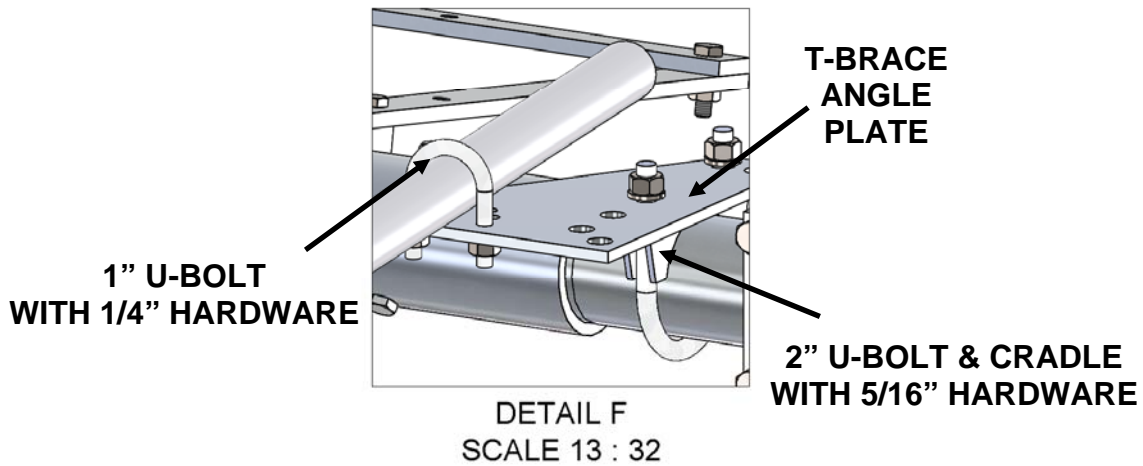
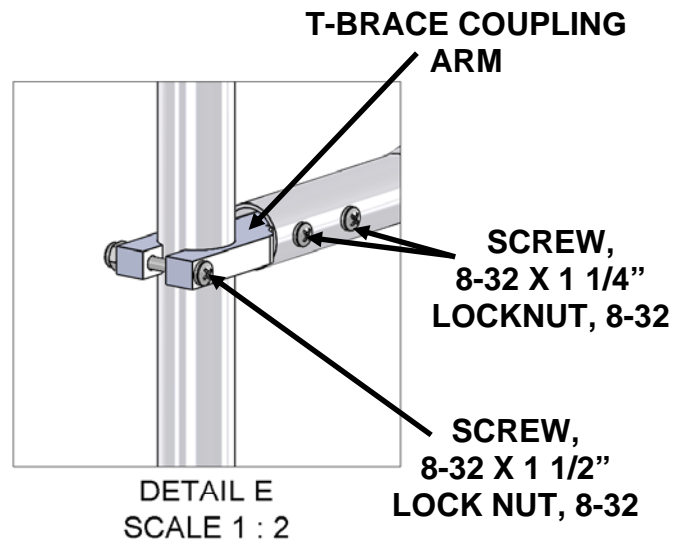
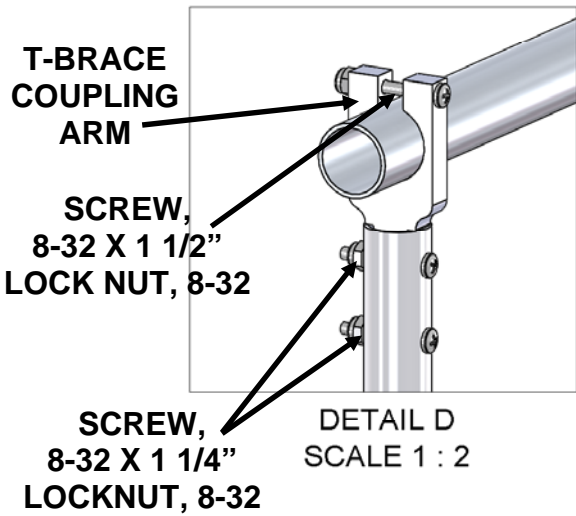
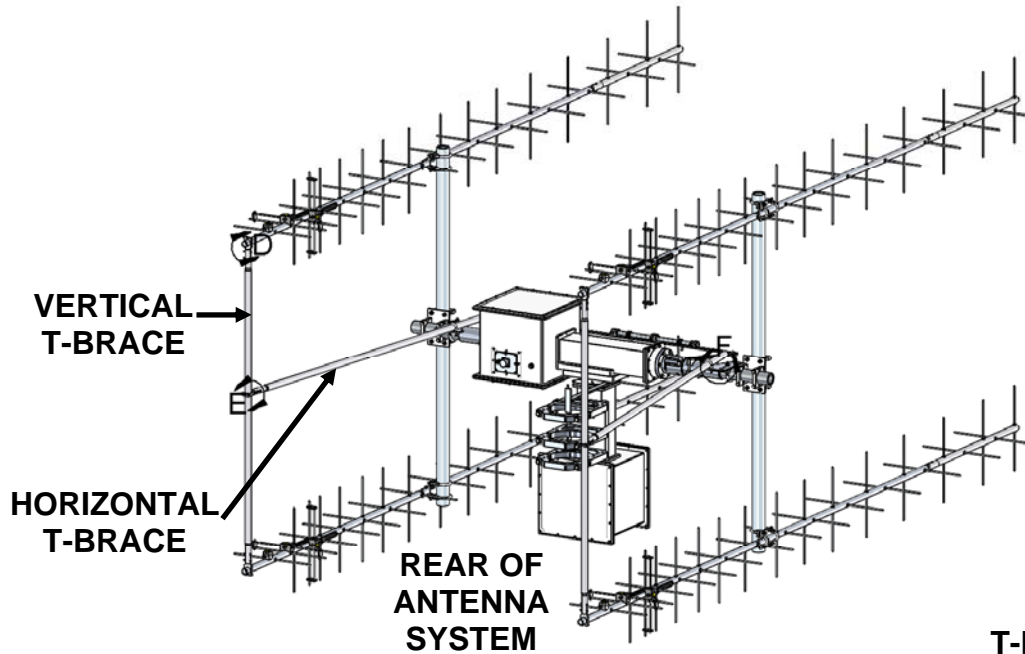


DETAIL C  
SCALE 1 : 5

HORIZONTAL DRIVEN  
ELEMENT

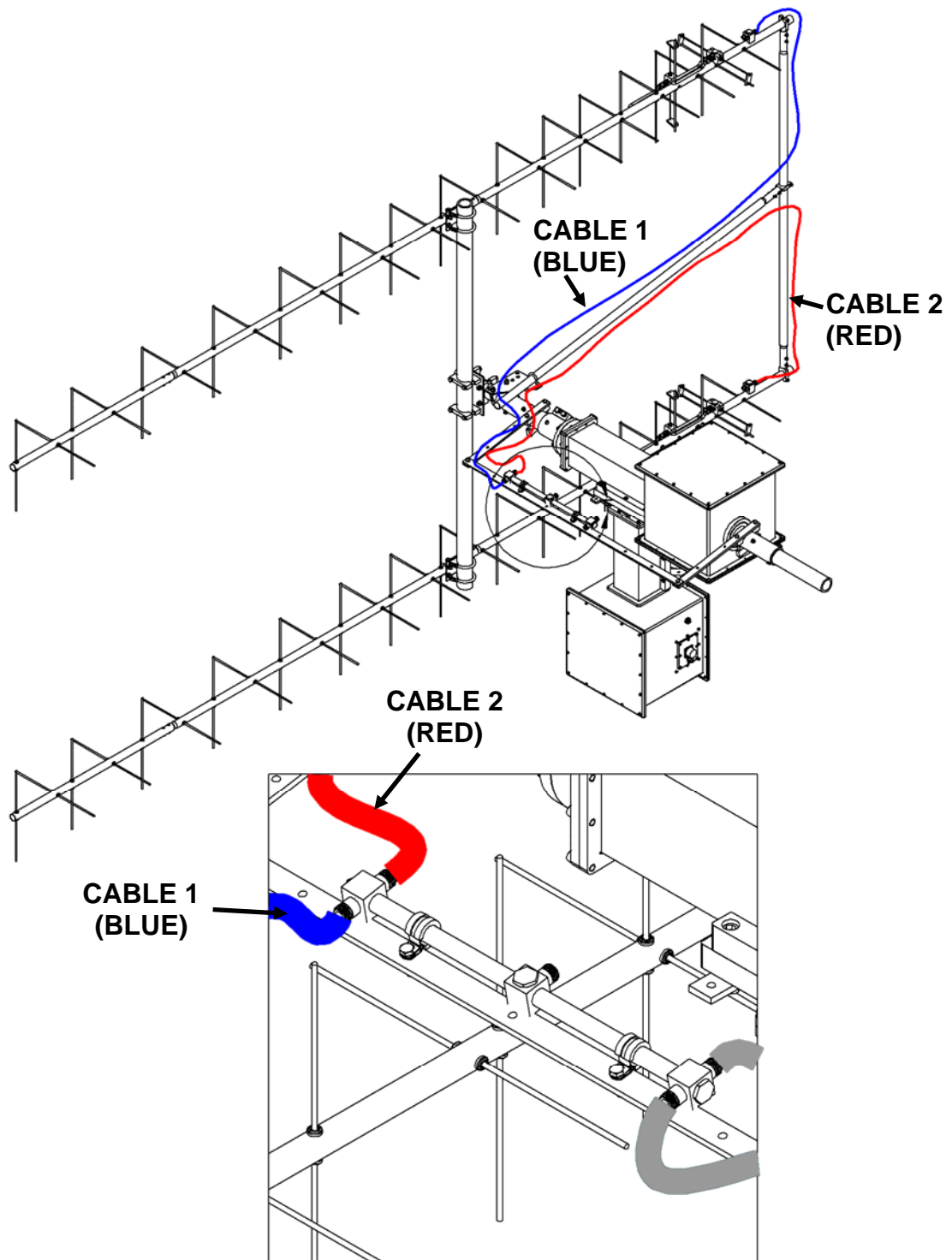
**MOUNT ANTENNAS APPROX  
1" FROM END OF  
VERTICAL RISERS  
USE:  
BOOM TO MAST PLATE  
AND HARDWARE  
SUPPLIED WITH ANTENNAS**

# T-BRACE ASSEMBLY DETAILS



# CABLE WIRING DETAILS

**NOTE:** The diagram below suggests how to properly connect the phasing lines into the 4 port power divider for each antenna. The 4 port power divider will work properly with the phasing lines connected into any port. The suggested phasing line routing is shown for a typical system that is arranged neatly and in order. For clarity only one side of the phased array is shown below. The other half of the phased array should mirror the diagram. Be sure to use supplied nylon zip-ties to properly secure phasing lines to t-bracing.



DETAIL F  
SCALE 1 : 4

# PARTS & HARDWARE LIST

<b><u>COMPLETE SYSTEM</u></b>	<b><u>QTY</u></b>
FGAZEL1000CBW WITH FGAEPMK6 (6" PIPE MOUNT KIT).....	1
FG400CP30A ANTENNA .....	4
FG4004PRTPD 395-405 MHZ 4 PORT POWER DIVIDER .....	1
FGRC2800PRKX2S.....	1
RCS-1812 ROTOR CONTROL CABLE .....	400 FT.
FGUHF400 UHF-400 FACTORY TUNED CABLES.....	4

<b><u>H-FRAME &amp; T-BRACE KIT</u></b>	<b><u>QTY</u></b>
CROSSBOOM TUBE, 2" X 0.250" X 13" (M2ACB0026).....	2
FIBERGLASS VERTICAL RISER, 2" X 60" .....	2
VERTICAL T-BRACE TUBE, 1" X 0.058" X 52 3/4" SBE.....	2
HORIZONTAL T-BRACE TUBE, 1" X 0.058" X 60" SOE.....	2
MACHINED CRADLE, 2" (M2AMC0130).....	16
U-BOLT & CRADLE, 2".....	2
U-BOLT, 1" .....	2
T-BRACE COUPLING ARM, (M2AMC0300) .....	6
H-FRAME PLATE, 4" X 6" X 1/4" (M2APT0025).....	2
T-BRACE ANGLE PLATE, 4-1/2" X 6" X 3/16" (M2AHF0005).....	2
10" ZIP TIES. ....	20
PENETROX OR ZINC PASTE (CUP).....	1

<b><u>HARDWARE</u></b>	
BOLT, 5/16-18 X 3-1/4", S.S.....	16
LOCK WASHER, 5/16", S.S. ....	20
NUT, 5/16-18, S.S. ....	20
BOLT, 1/4-20 X 1", S.S. ....	2
BOLT, 1/4-20 X 2 3/4", S.S. ....	4
LOCK WASHER, 1/4", S.S. ....	4
LOCK NUT, 1/4-20, S.S.....	6
NUT, 1/4-20, S.S. ....	4
SCREW, 8-32 X 1-1/2", S.S.....	6
SCREW, 8-32 X 1-1/4", S.S.....	12
LOCK NUT, 8-32, S.S.....	18