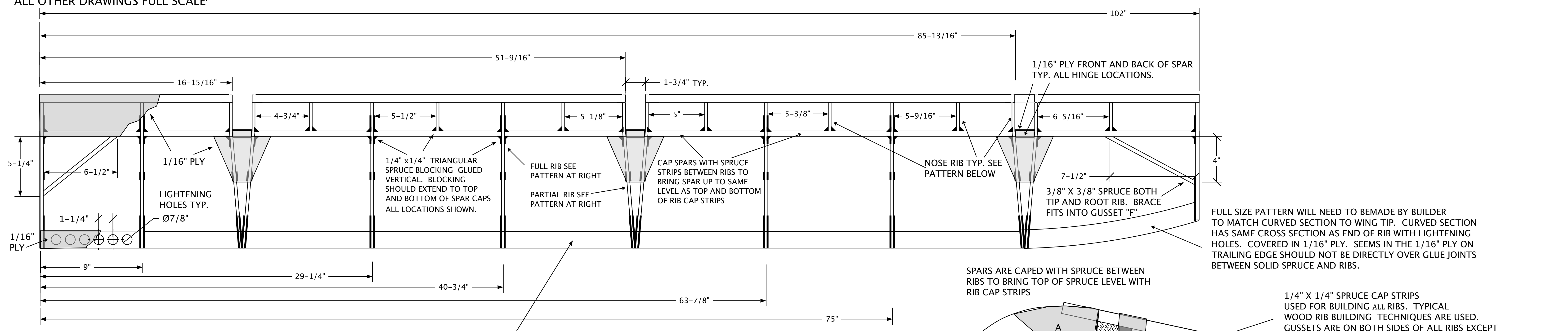


SCALE 3" = 1 FOR FULL AILERON BELOW.  
ALL OTHER DRAWINGS FULL SCALE

**WOOD AILERONS FOR WAG AERO 2+2. RT. AILERON SHOWN.**



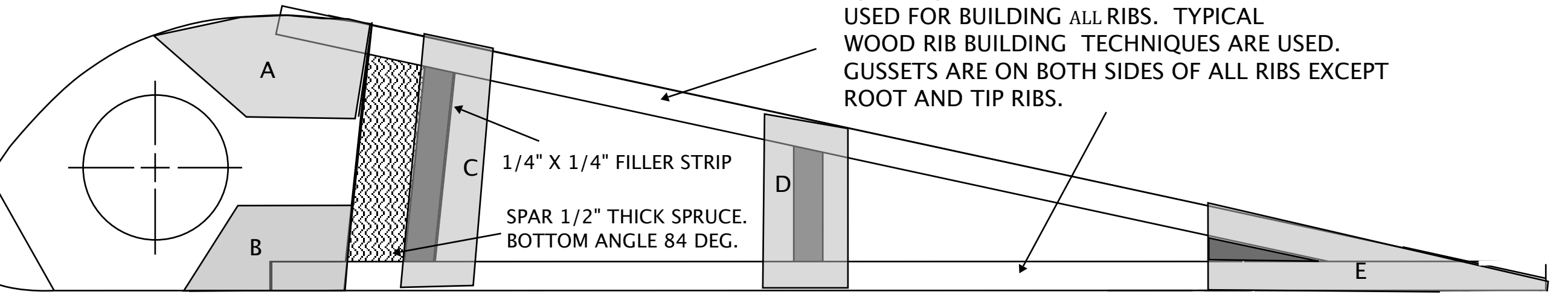
TRAILING EDGE IS SPRUCE CUT TO END PROFILE OF RIBS WITH HOLES TO REDUCE WEIGHT AND COVERED WITH 1/16" PLY. LEADING EDGE IS COVERED IN 1/16" PLY USING TWO PIECES. NOSE OF AILERON IS SOLID SPRUCE SHAPED TO THE PROFILE OF THE NOSE OF THE AILERON. ALL 1/4", 3/8" AND SPAR MATERIAL IS AIRCRAFT GRADE SITKA SPRUCE.

FULL SIZE PATTERN WILL NEED TO BE MADE BY BUILDER TO MATCH CURVED SECTION TO WING TIP. CURVED SECTION HAS SAME CROSS SECTION AS END OF RIB WITH LIGHTENING HOLES. COVERED IN 1/16" PLY. SEAMS IN THE 1/16" PLY ON TRAILING EDGE SHOULD NOT BE DIRECTLY OVER GLUE JOINTS BETWEEN SOLID SPRUCE AND RIBS.

SPARS ARE CAPED WITH SPRUCE BETWEEN RIBS TO BRING TOP OF SPRUCE LEVEL WITH RIB CAP STRIPS

SOLID SPRUCE LEADING EDGE FULL LENGTH. LEADING EDGE 1/16" PLY ENDS IN MIDDLE OF SOLID EDGE BOTH TOP AND BOTTOM SURFACES.

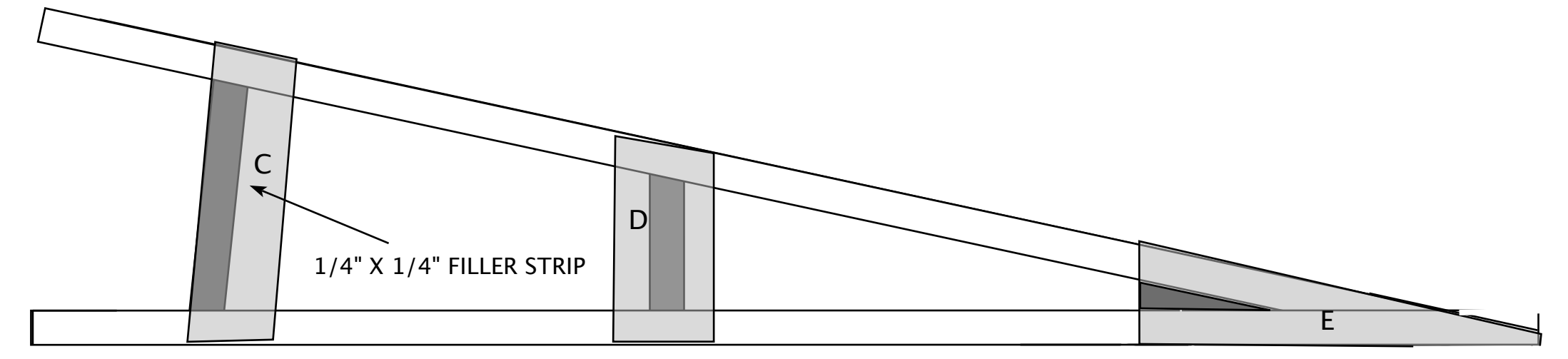
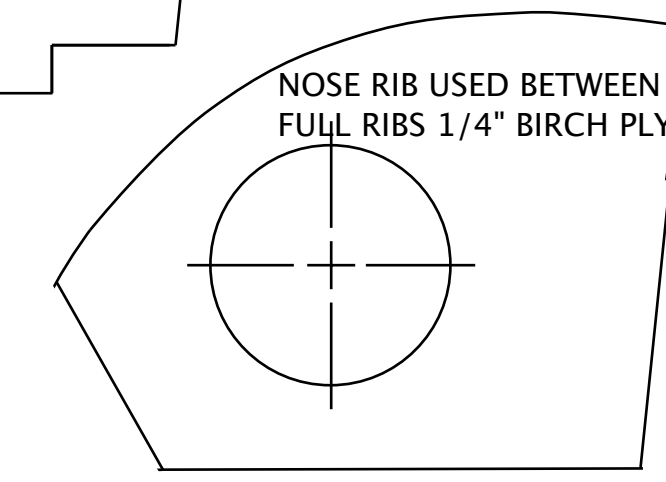
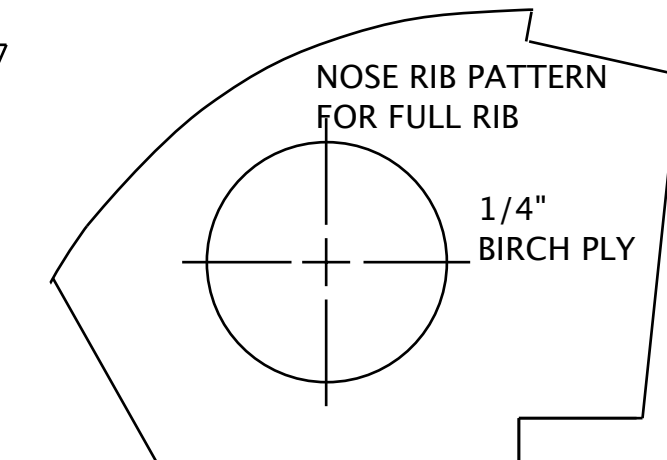
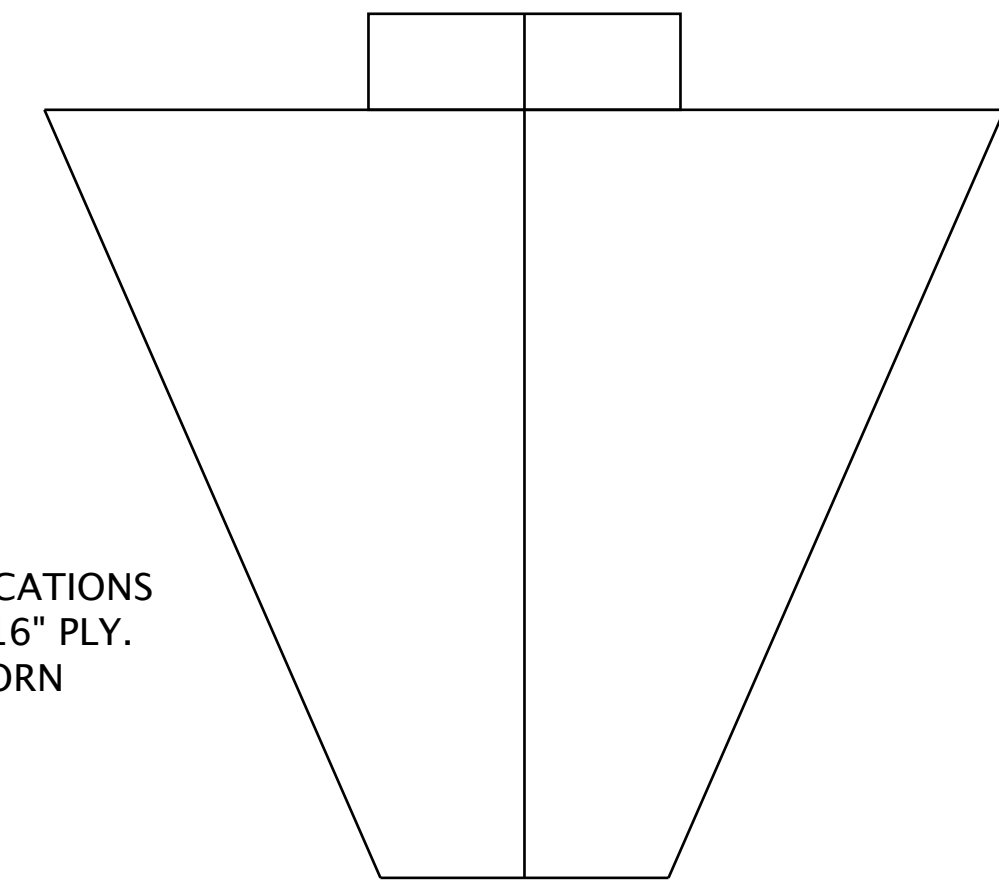
1/4" X 1/4" SPRUCE CAP STRIPS USED FOR BUILDING ALL RIBS. TYPICAL WOOD RIB BUILDING TECHNIQUES ARE USED. GUSSETS ARE ON BOTH SIDES OF ALL RIBS EXCEPT ROOT AND TIP RIBS.



FULL RIB. SHEET OUTSIDE OF END RIB ONLY WITH 1/16" BIRCH OR MAHOGANY PLY ALL OTHER FULL RIBS REMAIN OPEN. THE SPAR IS 1/2" THICK AND SHOULD BE CUT TO FIT INSIDE THE COMPLETED RIB. LEAVE 1/4" X 1/4" FILLER AND GUSSET OFF RIB UNTIL GLUED TO SPAR IF BUILDING WITH 3/8" WASHOUT. IF BUILDING AILERON FLAT FILLER AND GUSSET CAN BE GLUED IN PLACE ON ALL RIBS.

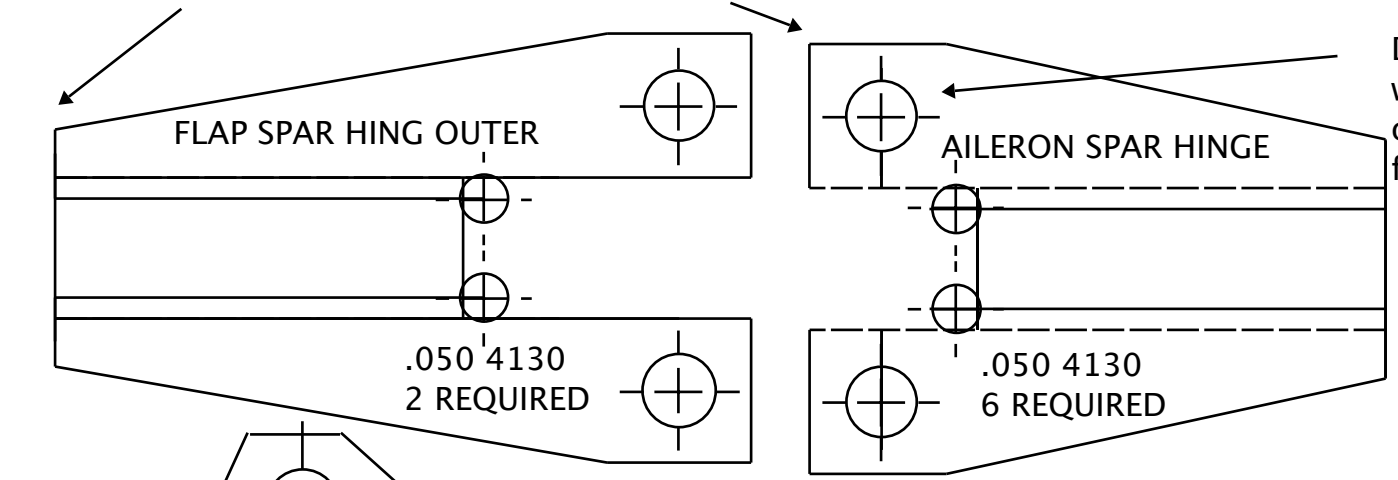
ALL DIMENSIONS FOR THE AILERON OR FLAPS ARE TAKEN FROM THE DRAWINGS SUPPLIED FOR THE METAL SURFACES. CHECK ALL MEASUREMENTS AND LOCATION OF HINGES BEFORE STARTING CONSTRUCTION. FLAPS CAN BE BUILT USING MEASUREMENTS FROM METAL FLAP DRAWINGS. THESE DRAWINGS ARE NOT ENGINEERED AND IT IS UP TO THE BUILDER TO DETERMINE AIRWORTHINESS AND APPLICATION.

PLY PLATE AT HINGE LOCATIONS FULL SIZE PATTERN. 1/16" PLY. NOTCH FOR AILERON HORN

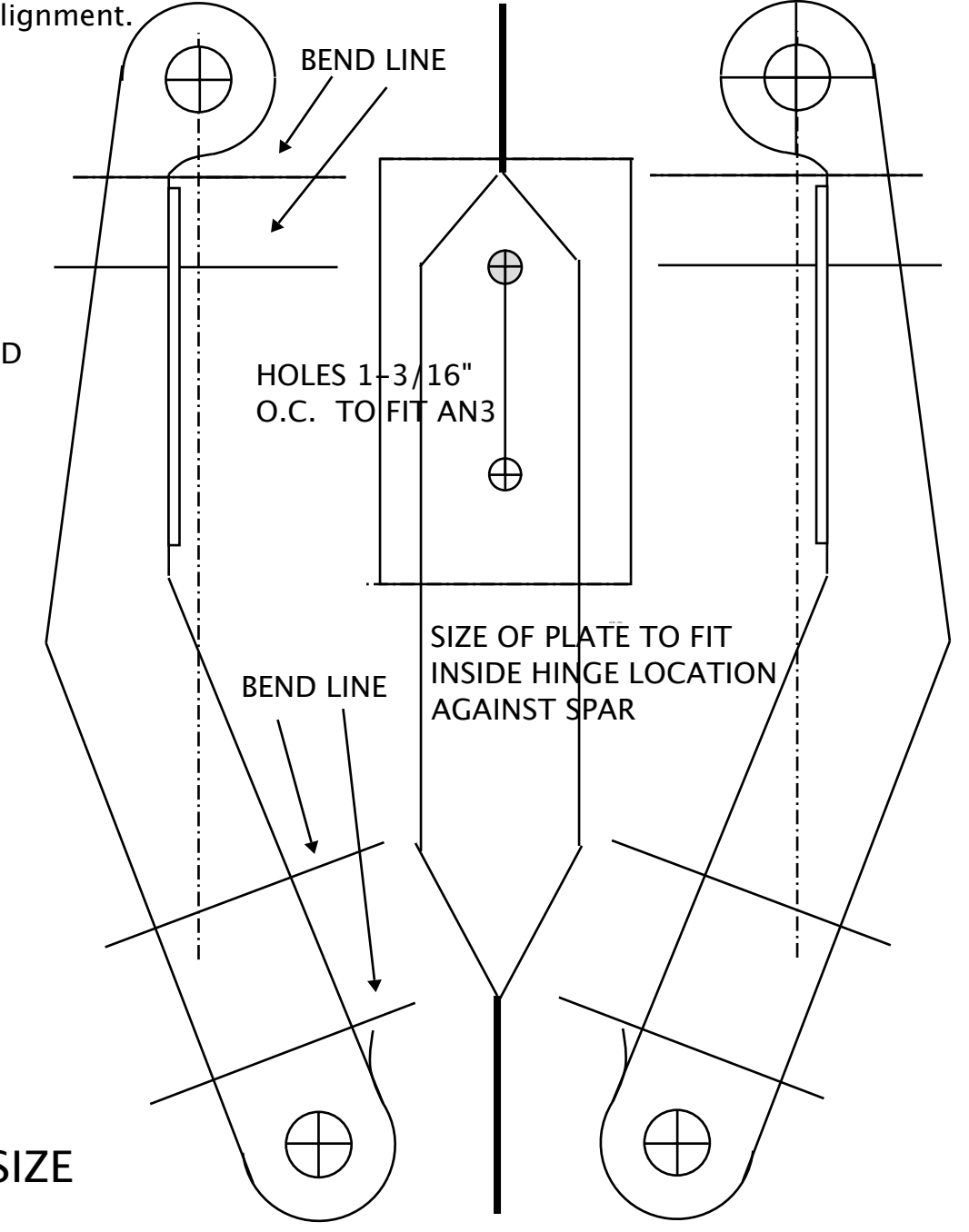


PARTIAL RIB LOCATED AT HINGES ONLY

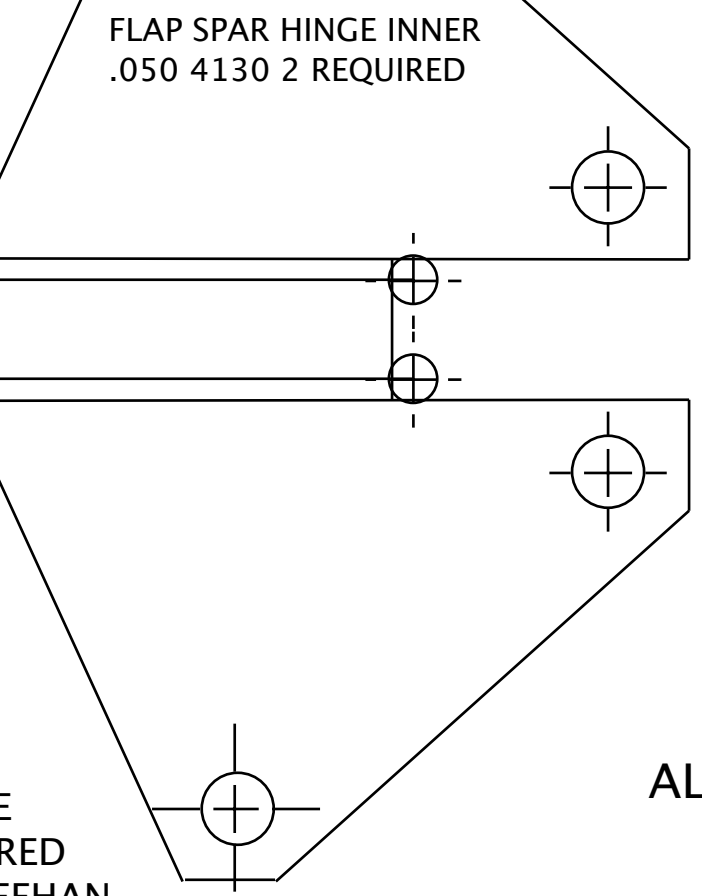
ROUND ALL CORNERS ON HINGES AND WELD BUSHINGS AS SHOWN ON WAG AERO HINGE DRAWINGS



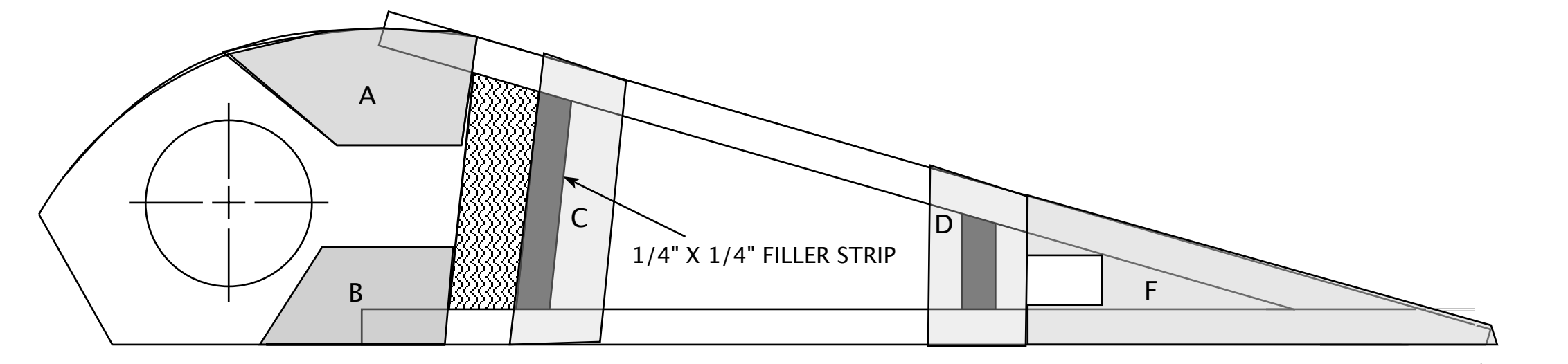
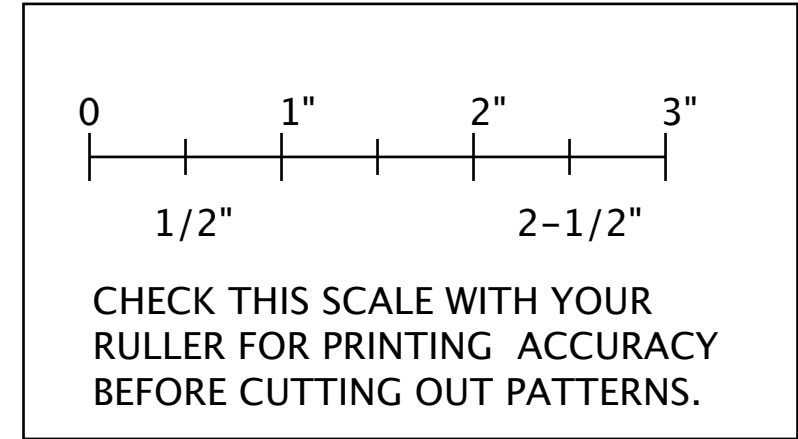
Drill for bushing to be welded. remove center of bushing after welding for alignment. .050 4130 2 SETS NEEDED



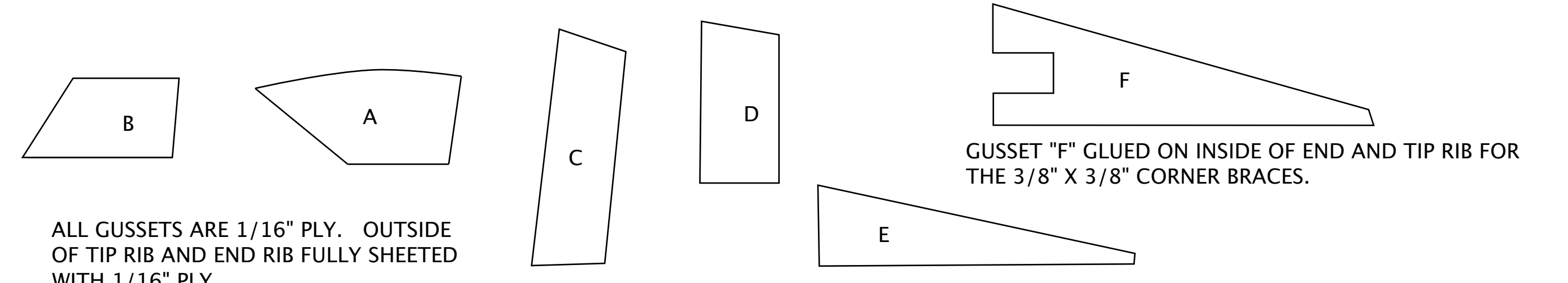
HNGE PATRNS ARE TAKEN FROM METAL AILERON AND FLAP DRAWINGS. HINGES BOLTED TO WOOD SPAR WITH AN3 BOLTS.



ALL PATTERNS THIS AREA FULL SIZE



1/4" X 1/4" FILLER AND GUSSET ADDED AFTER RIBS ARE GLUED TO SPAR. THIS WILL ALLOW THE RIB TO BE ADJUSTED FOR 3/8" WASHOUT BUILT INTO AILERON. GUSSET "C" AND "D" GLUED TO BOTH SIDES OF ALL RIBS EXCEPT THE END RIBS. IF BUILDING WITH WASHOUT, THE END OF THE TIP RIB SHOULD BE 3/8" HIGHER THAN THE END OF THE ROOT RIB. ALL RIBS IN BETWEEN WILL STEP TO MATCH.



THESE DRAWINGS REPRESENT THE AILERONS CONSTRUCTED FOR MY 2+2. DRAWINGS CAN BE USED BY OTHER BUILDERS FOR PERSONAL USE ONLY. I DO NOT REPRESENT THESE AS ENGINEERED DRAWINGS. ALL RIGHTS RESERVED BY MARTY FEEHAN