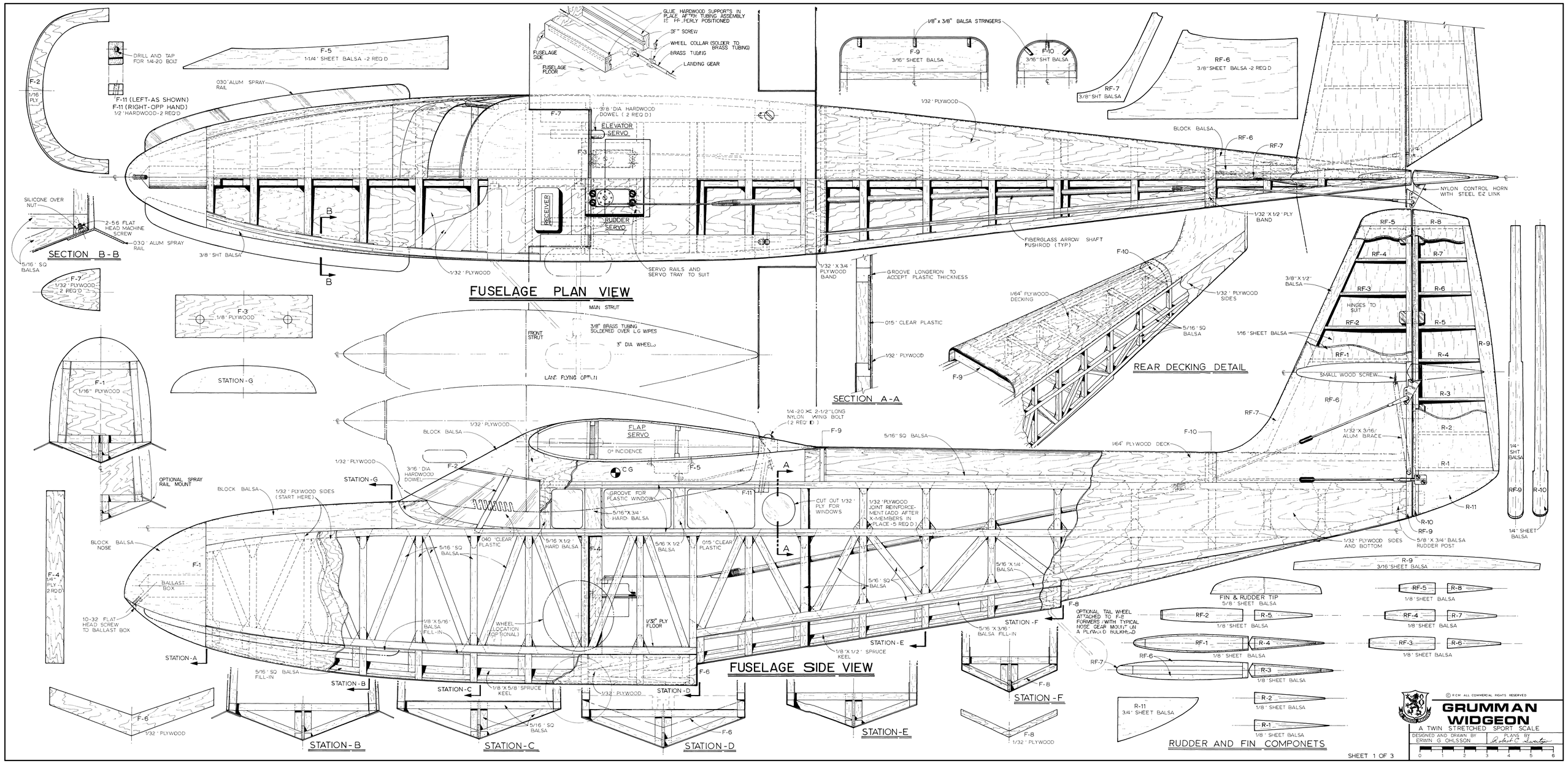
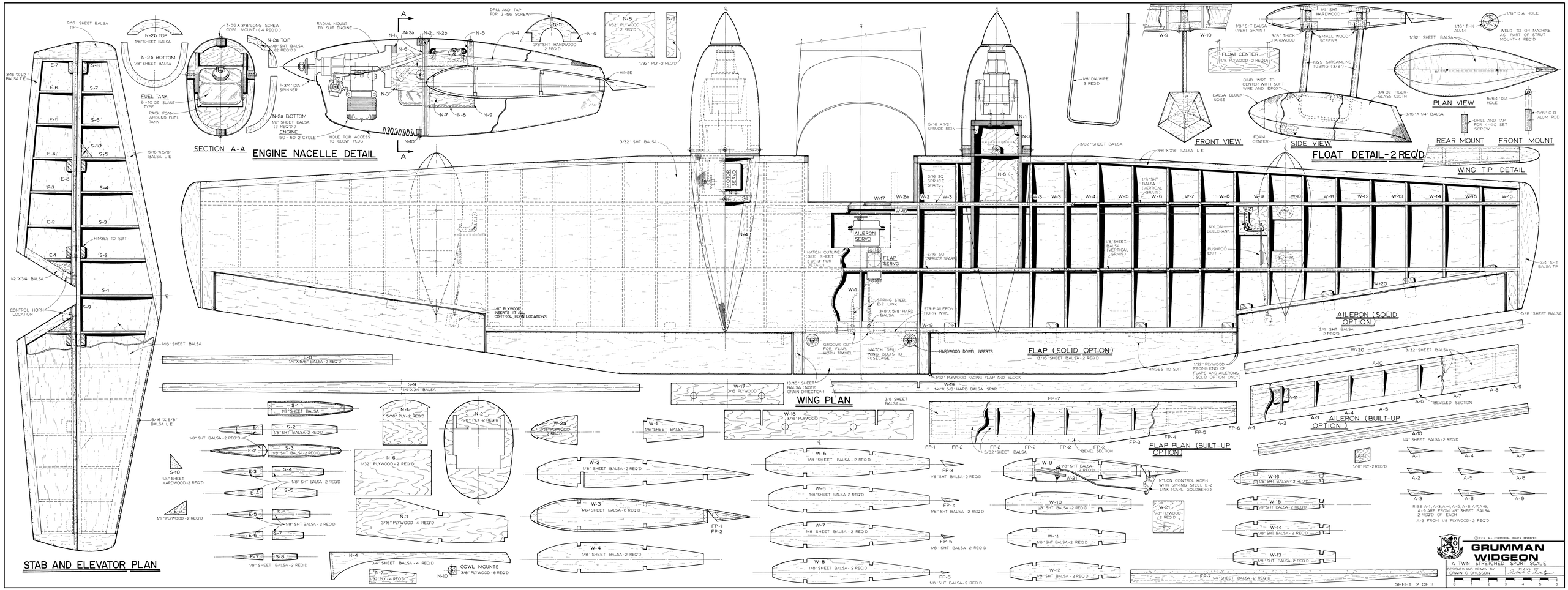
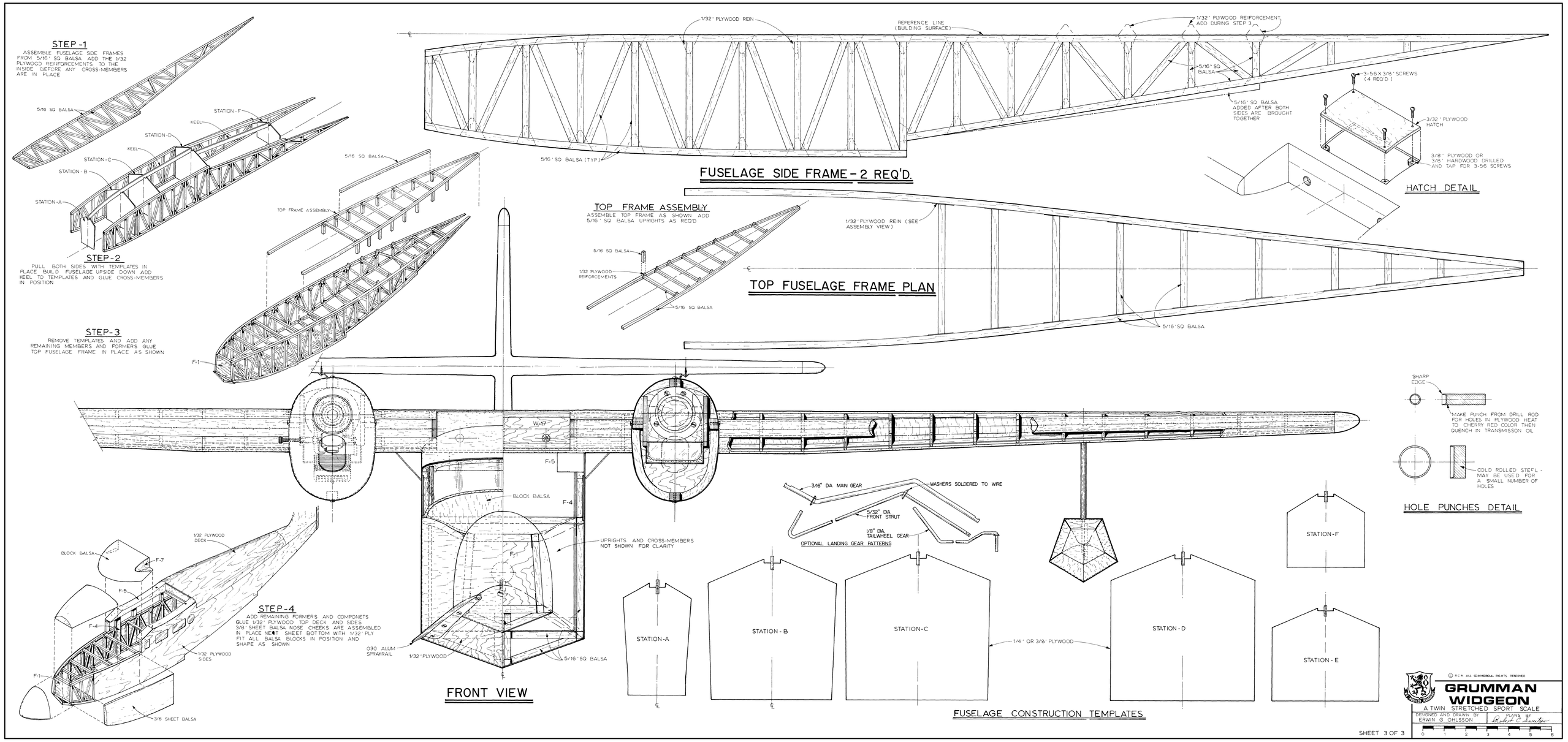

FUSELAGE PLAN VIEW
FUSELAGE SIDE VIEW
SECTION B-B
SECTION A-A
REAR DECKING DETAIL
RUDDER AND FIN COMPONETS
STATION-A
STATION-B
STATION-C
STATION-D
STATION-E
STATION-F
STATION-G
F-1 (LEFT-AS SHOWN)
F-11 (RIGHT-OPP HAND)
1/2" HARDWOOD-2 REQ'D
F-5
1-1/4" SHEET BALSA -2 REQ'D
F-9
3/16" SHEET BALSA
F-10
3/16" SHT BALSA
RF-6
3/8" SHEET BALSA -2 REQ'D
RF-7
3/8" SHT BALSA
1/8" x 3/8" BALSA STRINGERS
GLUE HARDWOOD SUPPORTS IN PLACE AFTER TUBING ASSEMBLY IS PROPERLY POSITIONED
WHEEL COLLAR (SOLDER TO BRASS TUBING)
BRASS TUBING
LANDING GEAR
FUSELAGE SIDE
FUSELAGE FLOOR
DRILL AND TAP FOR 1/4-20 BOLT
030" ALUM SPRAY RAIL
3/8" DIA HARDWOOD DOWEL (2 REQ'D)
ELEVATOR SERVO
RECEIVER
RUDDER SERVO
SERVO RAILS AND SERVO TRAY TO SUIT
1/32" PLYWOOD
3/8" SHT BALSA
SILICONE OVER NUT
2-56 FLAT HEAD MACHINE SCREW
5/16" SQ BALSA
F-7 1/32" PLYWOOD 2 REQ'D
F-3 1/8" PLYWOOD
STATION-G
F-1 1/16" PLYWOOD
OPTIONAL SPRAY RAIL MOUNT
MAIN STRUT
FRONT STRUT
3/8" BRASS TUBING SOLDERED OVER LG WIRES
3" DIA WHEELS
LANDING OPTION
FLAP SERVO
0° INCIDENCE
C G
BLOCK BALSA
1/32" PLYWOOD SIDES (START HERE)
3/16" DIA HARDWOOD DOWEL
GROOVE FOR PLASTIC WINDOW
5/16"X 3/4" HARD BALSA
CUT OUT 1/32" PLY FOR WINDOWS
1/32" PLYWOOD JOINT REINFORCEMENT (ADD AFTER X-MEMBERS IN PLACE -5 REQ'D)
040" CLEAR PLASTIC
5/16" X 1/2" HARD BALSA
5/16" X 1/2" BALSA
015" CLEAR PLASTIC
5/16" SQ BALSA
5/16" X 1/4" BALSA
BLOCK BALSA NOSE
BALLAST BOX
10-32 FLAT HEAD SCREW TO BALLAST BOX
1/8" X 5/16" BALSA FILL-IN
WHEEL LOCATION (OPTIONAL)
1/32" PLY FLOOR
1/8" X 1/2" SPRUCE KEEL
5/16" X 3/16" BALSA FILL-IN
OPTIONAL TAIL WHEEL ATTACHED TO F-8 FORMERS WITH TYPICAL NOSE GEAR MOUNT ON A PLYWOOD BULKHEAD
1/8" X 5/8" SPRUCE KEEL
1/32" PLYWOOD
1/32" X 3/4" PLYWOOD BAND
GROOVE LONGERON TO ACCEPT PLASTIC THICKNESS
015" CLEAR PLASTIC
1/4-20 X 2-1/2" LONG NYLON WING BOLT (2 REQ'D)
5/16" SQ BALSA
1/64" PLYWOOD DECKING
1/32" PLYWOOD SIDES
3/8" X 1/2" BALSA
HINGES TO SUIT
1/16" SHEET BALSA
SMALL WOOD SCREW
1/64" PLYWOOD DECK
1/32" X 3/16" ALUM BRACE
1/32" PLYWOOD SIDES AND BOTTOM
5/8" X 3/4" BALSA RUDDER POST
3/16" SHEET BALSA
1/4" SHT BALSA
1/4" SHEET BALSA
NYLON CONTROL HORN WITH STEEL E-Z LINK
1/32" X 1/2" PLY BAND
FIBERGLASS ARROW SHAFT PUSHROD (TYP)
FIN & RUDDER TIP
5/8" SHEET BALSA
1/8" SHEET BALSA
1/32" PLYWOOD
R-11 3/4" SHEET BALSA
© RCM ALL COMMERCIAL RIGHTS RESERVED
GRUMMAN WIDGEON
A TWIN STRETCHED SPORT SCALE
DESIGNED AND DRAWN BY ERWIN G OHLSSON
PLANS BY Robert C Newberry
SHEET 1 OF 3


STAB AND ELEVATOR PLAN
SECTION A-A
ENGINE NACELLE DETAIL
WING PLAN
FLAP (SOLID OPTION)
FLAP PLAN (BUILT-UP OPTION)
AILERON (SOLID OPTION)
AILERON (BUILT-UP OPTION)
FRONT VIEW
SIDE VIEW
PLAN VIEW
FLOAT DETAIL - 2 REQ'D
WING TIP DETAIL
REAR MOUNT
FRONT MOUNT
FUEL TANK
8-10 OZ SLANT TYPE
PACK FOAM AROUND FUEL TANK
ENGINE
50-60 2 CYCLE
HOLE FOR ACCESS TO GLOW PLUGS
RADIAL MOUNT TO SUIT ENGINE
1-3/4" DIA SPINNER
DRILL AND TAP FOR 3-56 SCREW
HINGE
HINGES TO SUIT
CONTROL HORN LOCATION
1/8" PLYWOOD INSERTS AT ALL CONTROL HORN LOCATIONS
HATCH OUTLINE (SEE SHEET 3 OF 3 FOR DETAIL)
AILERON SERVO
FLAP SERVO
MOTOR SERVO
SPRING STEEL E-2 LINK
3/8 X 5/8" HARD BALSA
STRIP AILERON HORN WIRE
GROOVE OUT FOR FLAP HORN TRAVEL
MATCH DRILL WING BOLTS TO FUSELAGE
HARDWOOD DOWEL INSERTS
13/16" SHEET BALSA (NOTE GRAIN DIRECTION)
1/32" PLYWOOD FACING FLAP AND BLOCK
1/4 X 5/8" HARD BALSA SPAR
1/32" PLYWOOD FACING END OF FLAPS AND AILERONS (SOLID OPTION ONLY)
3/32" SHEET BALSA
3/16" SQ SPRUCE SPARS
3/8 X 7/8" BALSA L E
1/8" SHT BALSA (VERTICAL GRAIN)
1/8" SHEET BALSA (VERTICAL GRAIN)
NYLON BELLCRANK
PUSHROD EXIT
NYLON CONTROL HORN WITH SPRING STEEL E-2 LINK (CARL GOLDBERG)
BEVELED SECTION
FOAM CENTER
BIND WIRE TO CENTER WITH SOFT WIRE AND EPOXY
BALSA BLOCK NOSE
3/4 OZ FIBER-GLASS CLOTH
3/16 X 1/4" BALSA
1/4" SHT HARDWOOD
SMALL WOOD SCREWS
3/8" THICK HARDWOOD
H&S STREAMLINE TUBING (3/8")
1/8" DIA WIRE 2 REQ'D
1/8" DIA HOLE
1/16" THK ALUM
WELD TO OR MACHINE AS PART OF STRUT MOUNT - 4 REQ'D
1/32" SHEET BALSA
5/64" DIA HOLE
3/8" O D ALUM ROD
DRILL AND TAP FOR 4-40 SET SCREW
3/4" SHT BALSA TIP
5/8" SHEET BALSA
3/4" SHT BALSA 2 REQ'D
RIBS A-1, A-3, A-4, A-5, A-6, A-7, A-8, A-9 ARE FROM 1/8" SHEET BALSA 2 REQ'D OF EACH
A-2 FROM 1/8" PLYWOOD - 2 REQ'D
COWL MOUNTS 3/8" PLYWOOD - 8 REQ'D
GRUMMAN WIDGEON
A TWIN STRETCHED SPORT SCALE
DESIGNED AND DRAWN BY EDWIN G. OHLSSON
PLANS BY
SHEET 2 OF 3


STEP-1
ASSEMBLE FUSELAGE SIDE FRAMES FROM 5/16" SQ BALSA ADD THE 1/32 PLYWOOD REINFORCEMENTS TO THE INSIDE BEFORE ANY CROSS-MEMBERS ARE IN PLACE
5/16 SQ BALSA
STATION-F
KEEL
STATION-D
KEEL
STATION-C
STATION-B
STATION-A
STEP-2
PULL BOTH SIDES WITH TEMPLATES IN PLACE BUILD FUSELAGE UPSIDE DOWN ADD KEEL TO TEMPLATES AND GLUE CROSS-MEMBERS IN POSITION
STEP-3
REMOVE TEMPLATES AND ADD ANY REMAINING MEMBERS AND FORMERS GLUE TOP FUSELAGE FRAME IN PLACE AS SHOWN
5/16 SQ BALSA
TOP FRAME ASSEMBLY
F-1
1/32" PLYWOOD REIN
REFERENCE LINE (BUILDING SURFACE)
1/32" PLYWOOD REIFORCEMENT ADD DURING STEP 3
5/16" SQ BALSA
5/16" SQ BALSA ADDED AFTER BOTH SIDES ARE BROUGHT TOGETHER
5/16" SQ BALSA (TYP)
FUSELAGE SIDE FRAME - 2 REQ'D.
3-56 X 3/8" SCREWS (4 REQ'D)
3/32" PLYWOOD HATCH
3/8" PLYWOOD OR 3/8" HARDWOOD DRILLED AND TAP FOR 3-56 SCREWS
HATCH DETAIL
TOP FRAME ASSEMBLY
ASSEMBLE TOP FRAME AS SHOWN ADD 5/16" SQ BALSA UPRIGHTS AS REQ'D
5/16 SQ BALSA
1/32 PLYWOOD REIFORCEMENTS
5/16 SQ BALSA
1/32" PLYWOOD REIN (SEE ASSEMBLY VIEW)
TOP FUSELAGE FRAME PLAN
5/16" SQ BALSA
W-17
F-5
F-4
BLOCK BALSA
F-1
UPRIGHTS AND CROSS-MEMBERS NOT SHOWN FOR CLARITY
030 ALUM SPRAYRAIL
1/32" PLYWOOD
5/16" SQ BALSA
FRONT VIEW
SHARP EDGE
MAKE PUNCH FROM DRILL ROD FOR HOLES IN PLYWOOD HEAT TO CHERRY RED COLOR THEN QUENCH IN TRANSMISSON OIL
COLD ROLLED STEEL - MAY BE USED FOR A SMALL NUMBER OF HOLES
HOLE PUNCHES DETAIL
3/16" DIA MAIN GEAR
WASHERS SOLDERED TO WIRE
5/32" DIA FRONT STRUT
1/8" DIA TAILWHEEL GEAR
OPTIONAL LANDING GEAR PATTERNS
BLOCK BALSA
F-7
1/32 PLYWOOD DECK
F-5
F-4
1/32 PLYWOOD SIDES
F-1
3/8 SHEET BALSA
STEP-4
ADD REMAINING FORMERS AND COMPONETS GLUE 1/32" PLYWOOD TOP DECK AND SIDES 3/8" SHEET BALSA NOSE CHEEKS ARE ASSEMBLED IN PLACE NEXT SHEET BOTTOM WITH 1/32" PLY FIT ALL BALSA BLOCKS IN POSITION AND SHAPE AS SHOWN
STATION-A
STATION-B
STATION-C
1/4" OR 3/8" PLYWOOD
STATION-D
STATION-E
STATION-F
FUSELAGE CONSTRUCTION TEMPLATES
© RCM ALL COMMERCIAL RIGHTS RESERVED
GRUMMAN WIDGEON
A TWIN STRETCHED SPORT SCALE
DESIGNED AND DRAWN BY ERWIN G OHLSSON
PLANS BY Robert Schuster
0 1 2 3 4 5 6
SHEET 3 OF 3