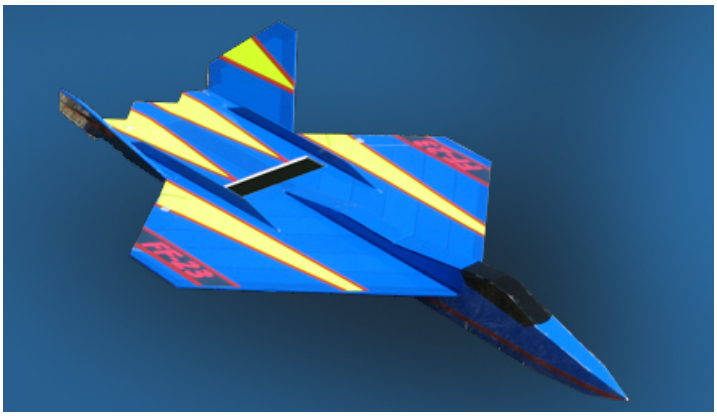
FOAM, GLUE, TAPE AND A LITTLE IMAGINATION....



(Version 1.2 Shown In Picture)

(RC Model Airplane Construction Plans)

rcFoamFighters

FF-23 (Foam Fighter 23)

(Original Design by Paul Petty - Jan-July. 2009)

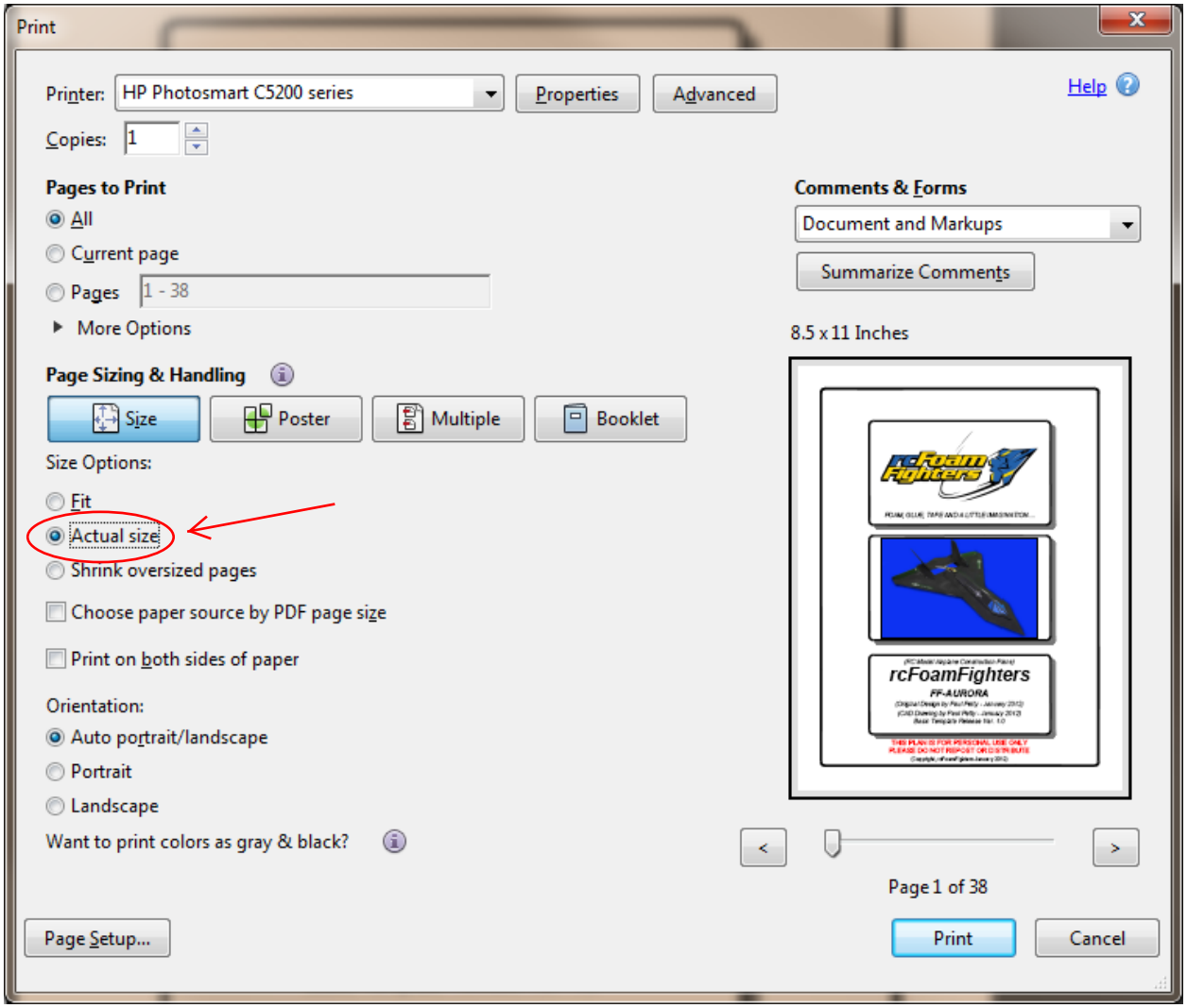
(CAD Drawing by Paul Petty - July 2009)

Basic Template Release Ver. 1.3

FREE PLAN - NOT TO BE SOLD

Very Important Printing Instructions!!!!

Make sure you print to "Actual Size" or your plan may come out the wrong scale. Do not use "Fit" or "Shrink oversized pages". Older Acrobat versions may also list "Fit to Printable Area" or similar as the default. Make sure you Select "Actual Size" or "Scaling to None" or similar setting to print your plans correctly. See example below.

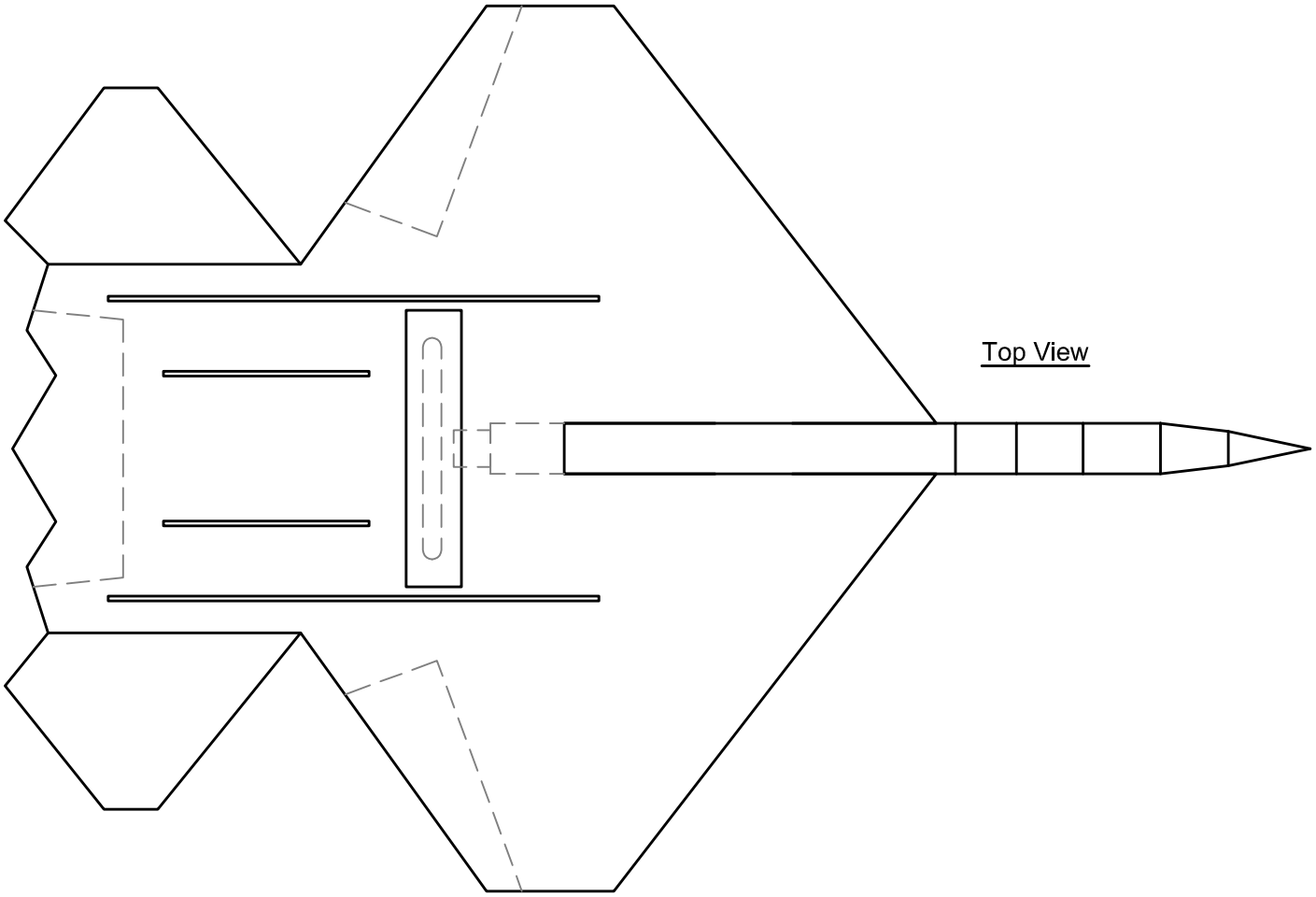


rcFoamFighters

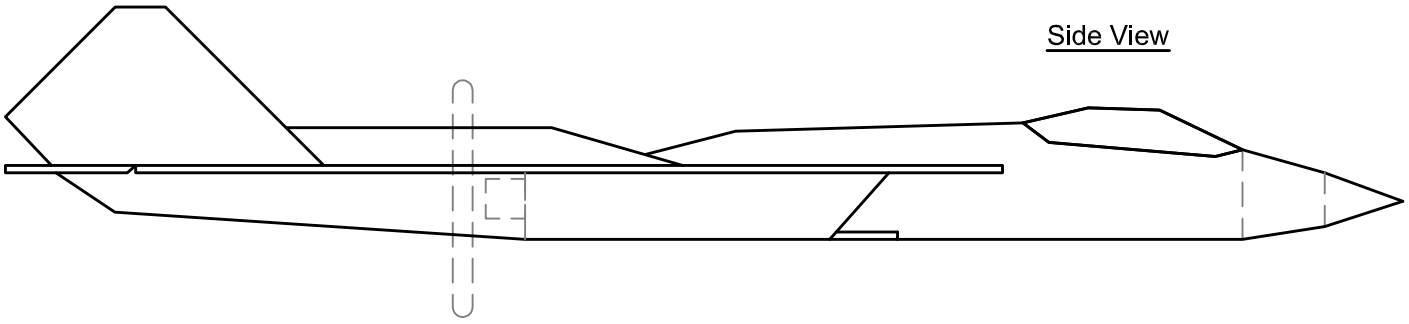
FF-23 (Foam Fighter 23) Basic Template

(Design by Paul Petty - Jan.-July 2009 - Rev 1.3)
(CAD Drawing by Paul Petty - July 2009)

(Contact rcFoamFighters at: admin@rcfoamfighters.com)
(Please Visit Our Blog at: http://rcfoamfighters.com/blog/



Top View



Side View

Recommend Parts:

BASIC SETUP (60+mph)

Motor: Suppo A2212/6 2200kV Brushless Motor
ESC: Suppo 30A Brushless ESC
Prop: APC 6x4
Battery: 2200mA (25C or better recommended)
Servos: 3 Each Micro Metal Gear
Radio & Receiver: Any 6-channel or better (2.4ghz preferred)

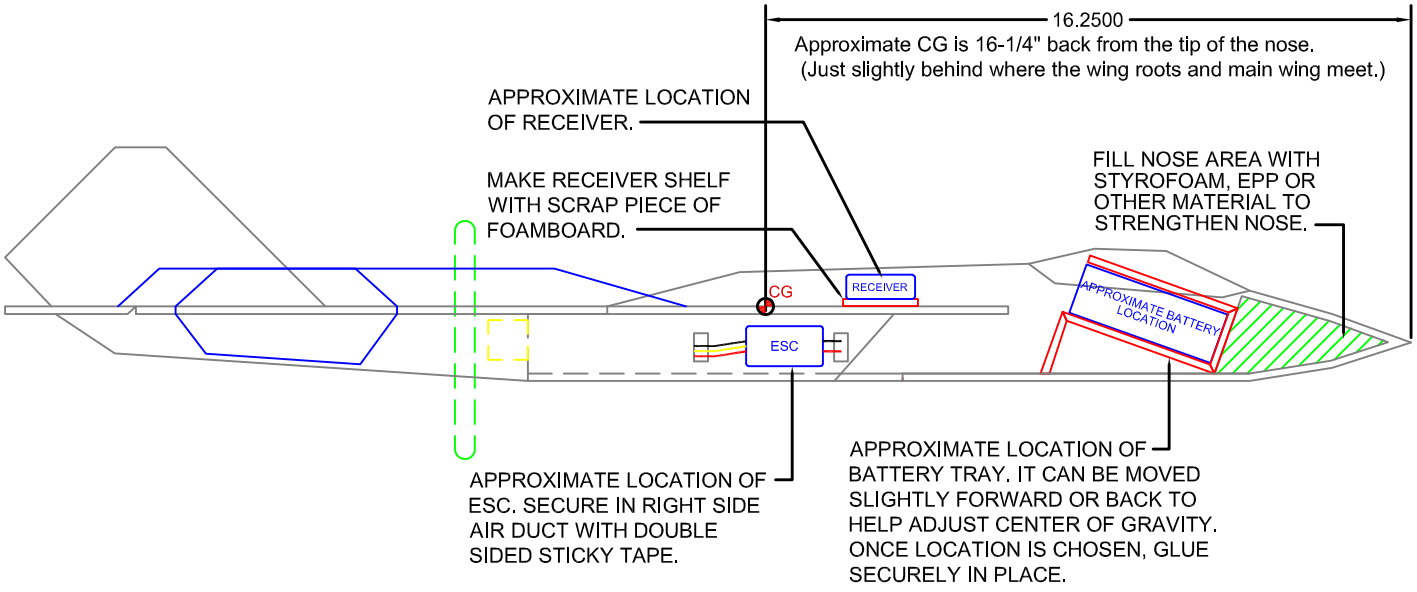
PERFORMANCE SETUP (80+mph)

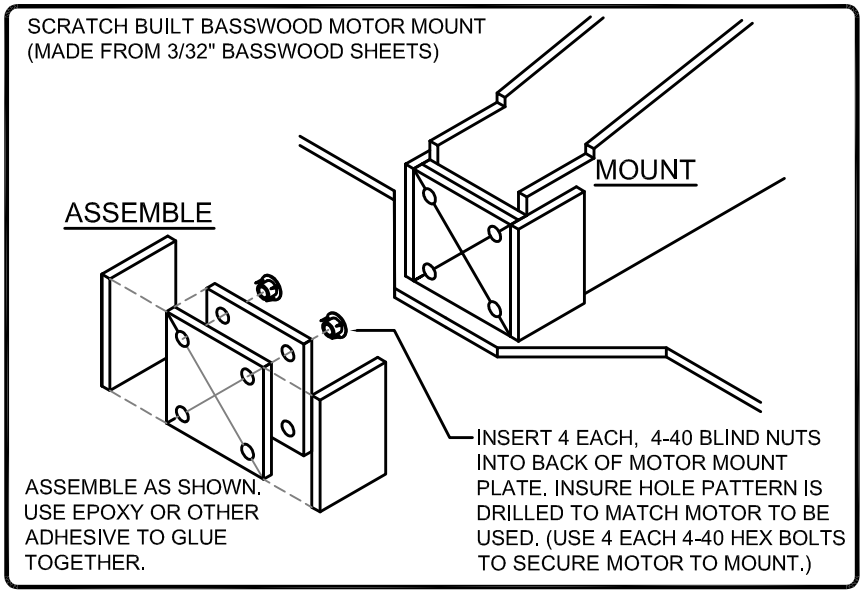
Motor: Grayson Hobbies "Super Mega Jet" 2550kV Motor
ESC: 40A Brushless ESC
Prop: APC 6x5.5
Battery: 2200mA (30C recommended)
Servos: 3 Each Micro Metal Gear
Radio & Receiver: Any 6-channel or better (2.4ghz preferred)

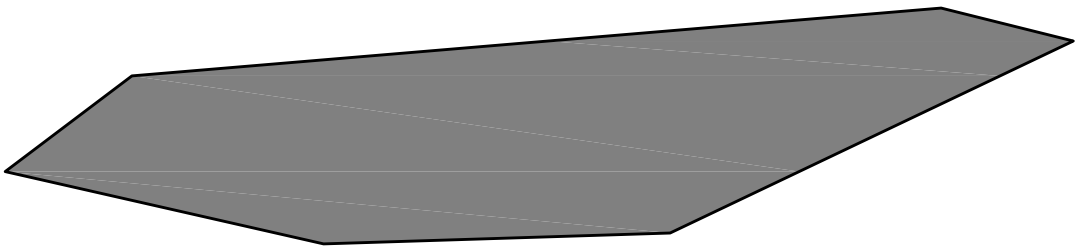
Plane was originally designed to be made from 3 Sheets of 20x30 Foamboard.
Depron or FanFold Foam with Carbon Spars may be used .

Disclaimer (Please Read):

- This is a design template for a high performance, high speed RC aircraft. This plane should only be built and flown by experienced pilots with adequate skill to fly fast, maneuverable planes.
- DO NOT fly this plane where it can endanger people, livestock or property.
- ANY PERSONS DECIDING TO BUILD AND FLY THIS PLANE DOES SO AT HIS/HER OWN RISK. RCFOAMFIGHTERS ASSUMES NO RESPONSIBILITY FOR THE PERFORMANCE OF THIS PLANE.
- This plane should only be launched via the side launch method. Do not attempt to launch from the top or bottom of the fuselage. Doing so can cause bodily harm if any hand or body part comes into contact with the fast spinning propeller.
- All minors should fly under the supervision of an adult or guardian.

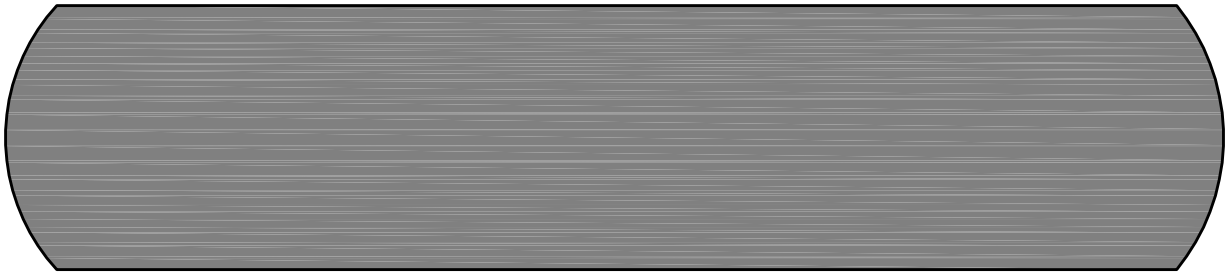


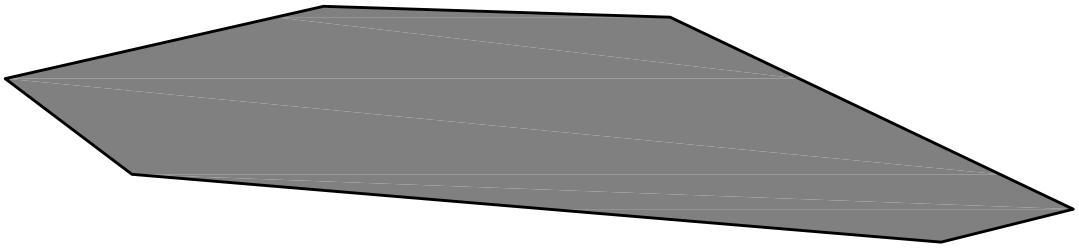




BACK

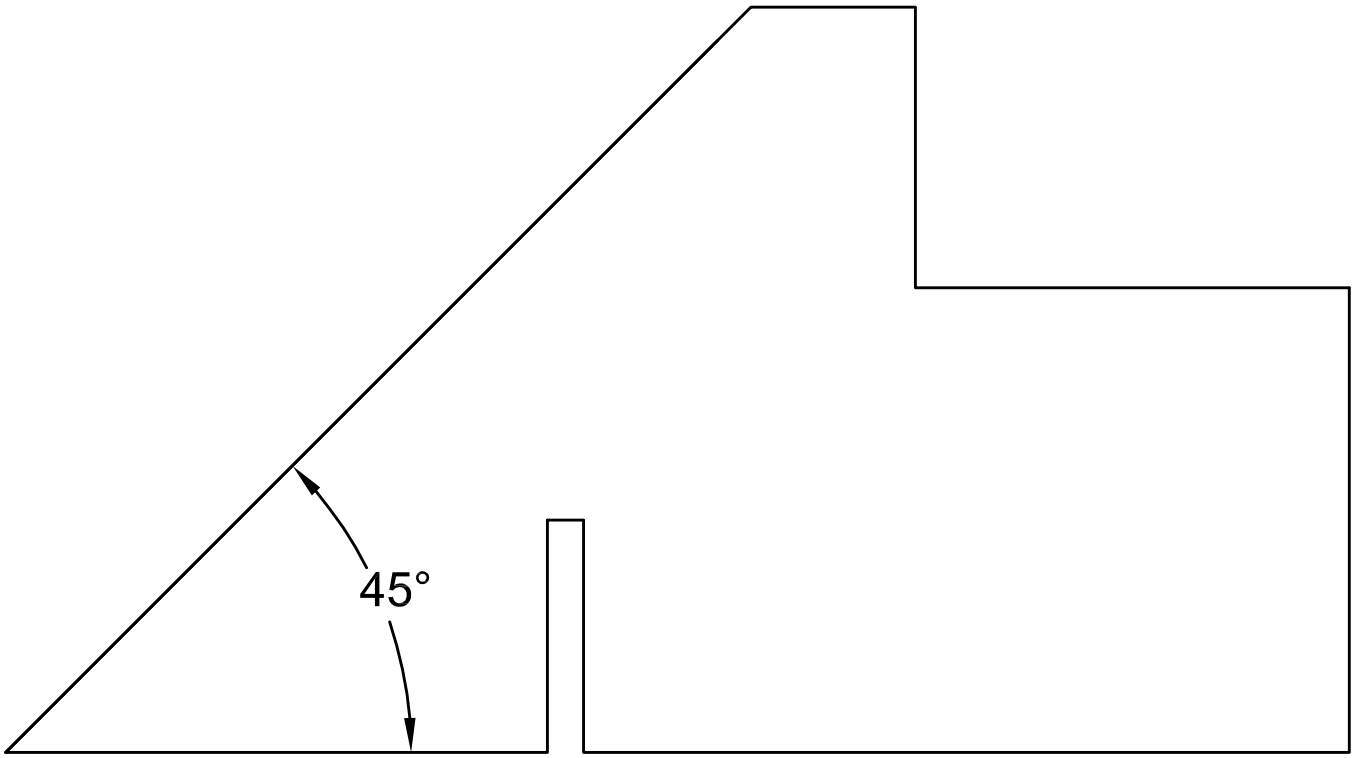
FRONT

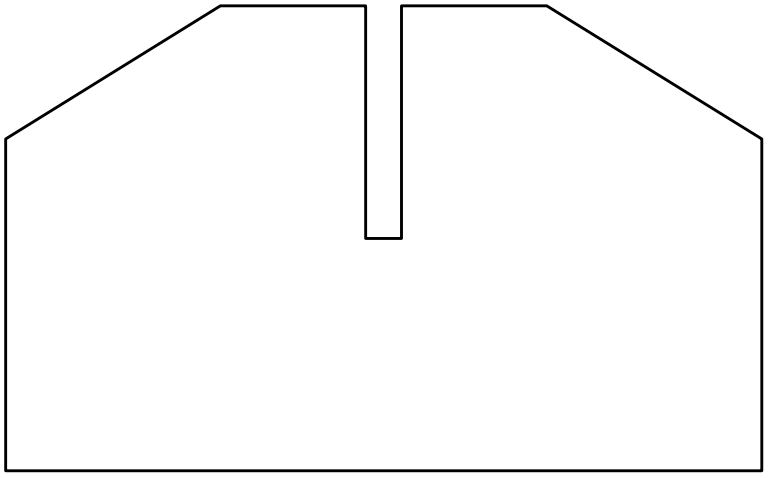


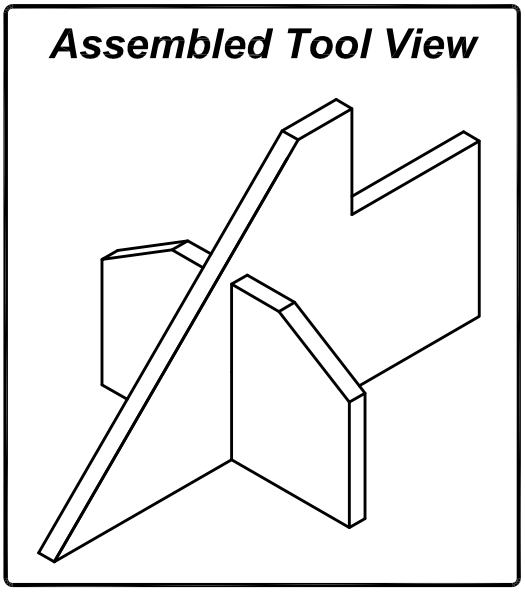


Cockpit Glass Templates

These can be used as patterns to cut the cockpit glass out of black tape or other material.







TAIL FIN ANGLE TEMPLATE TOOL

These can be used as patterns to cut out the Tail Fin Angle Template Tool out of Foam Board or other material. Use this tool after assembled to hold the Tail Fins at 45°while your adhesive dries.

TEMPLATE ASSEMBLY KEY PLAN

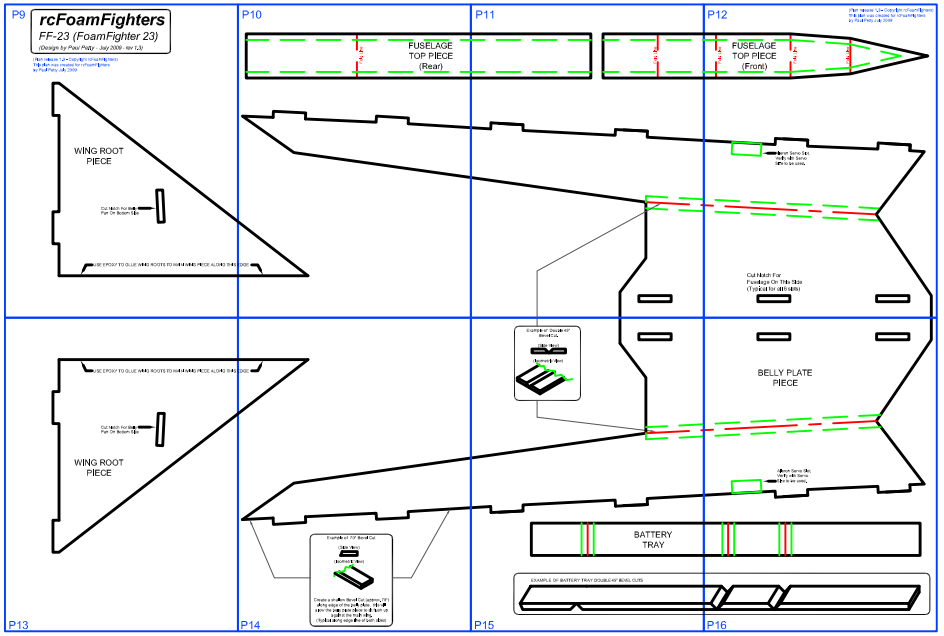
rcFoamFighters

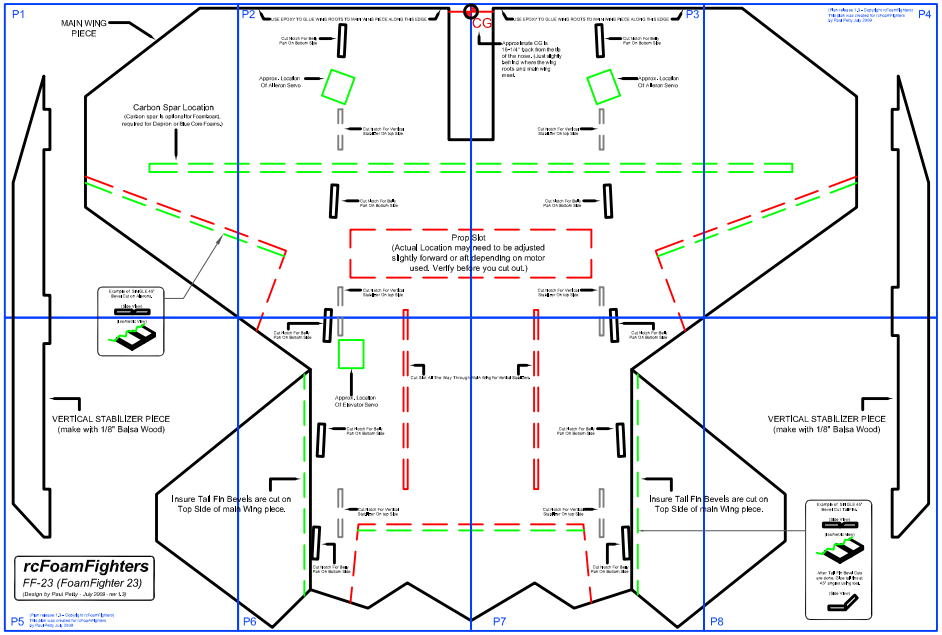
FF-23 (Foam Fighter 23)

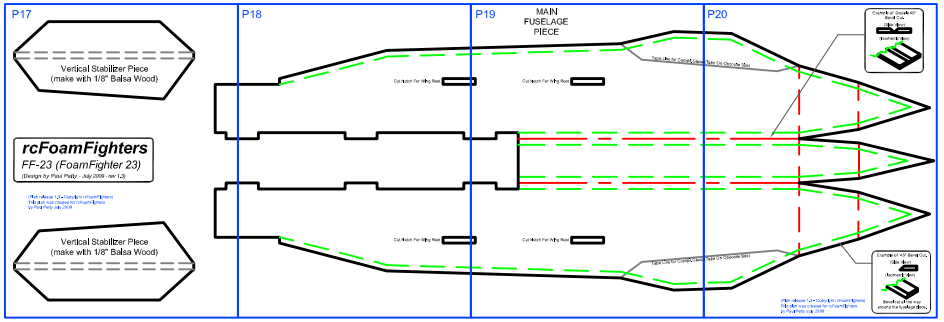
(Design by Paul Petty - Jan.-July 2009 - Rev 1.3)

(CAD Drawing by Paul Petty - July. 2009)

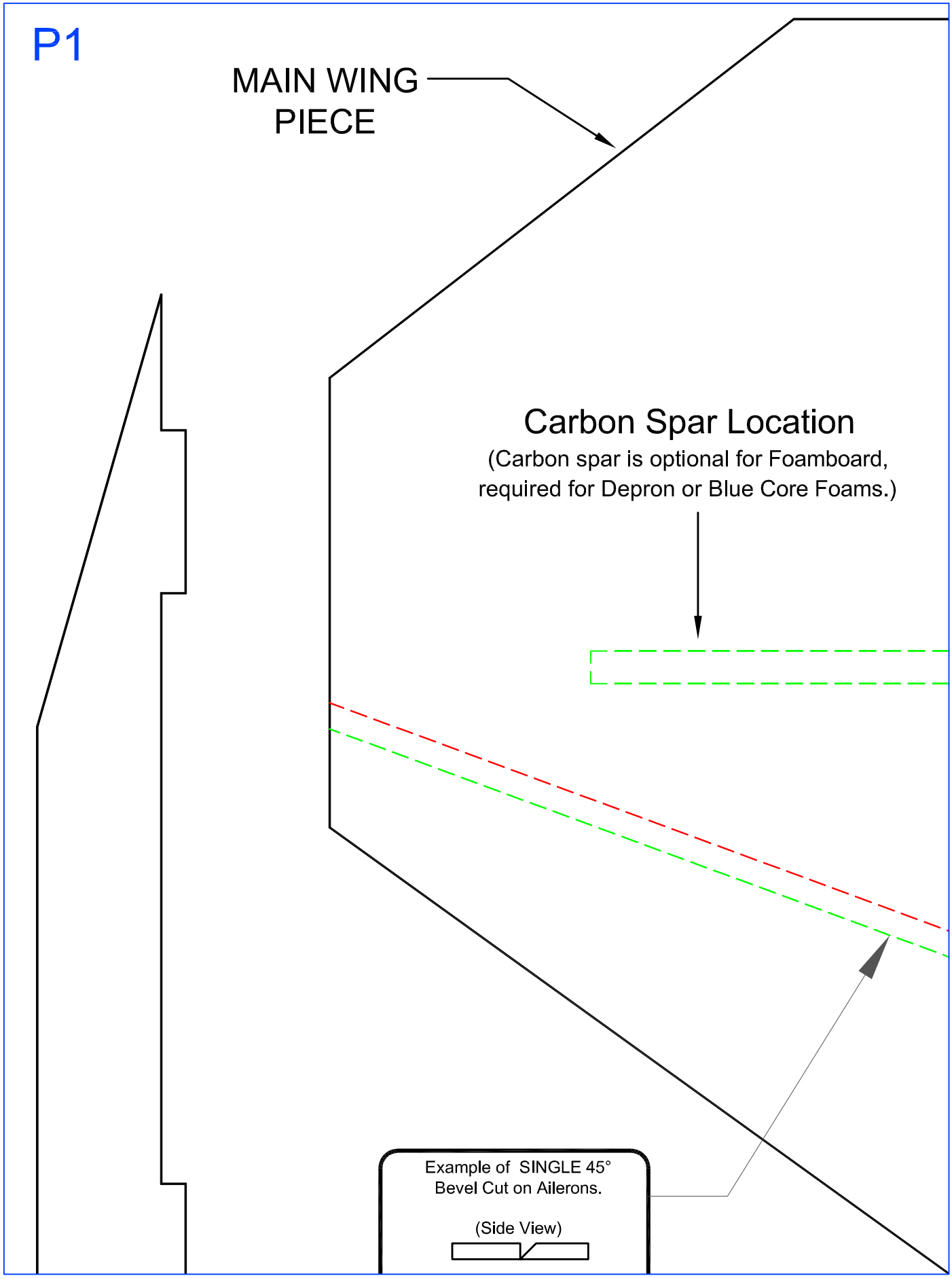
INSTRUCTIONS:
PRINT ALL TEMPLATE SHEETS. CUT AND ASSEMBLE AS SHOWN BELOW. USE SCOTCH TAPE TO SECURE SHEETS TOGETHER.

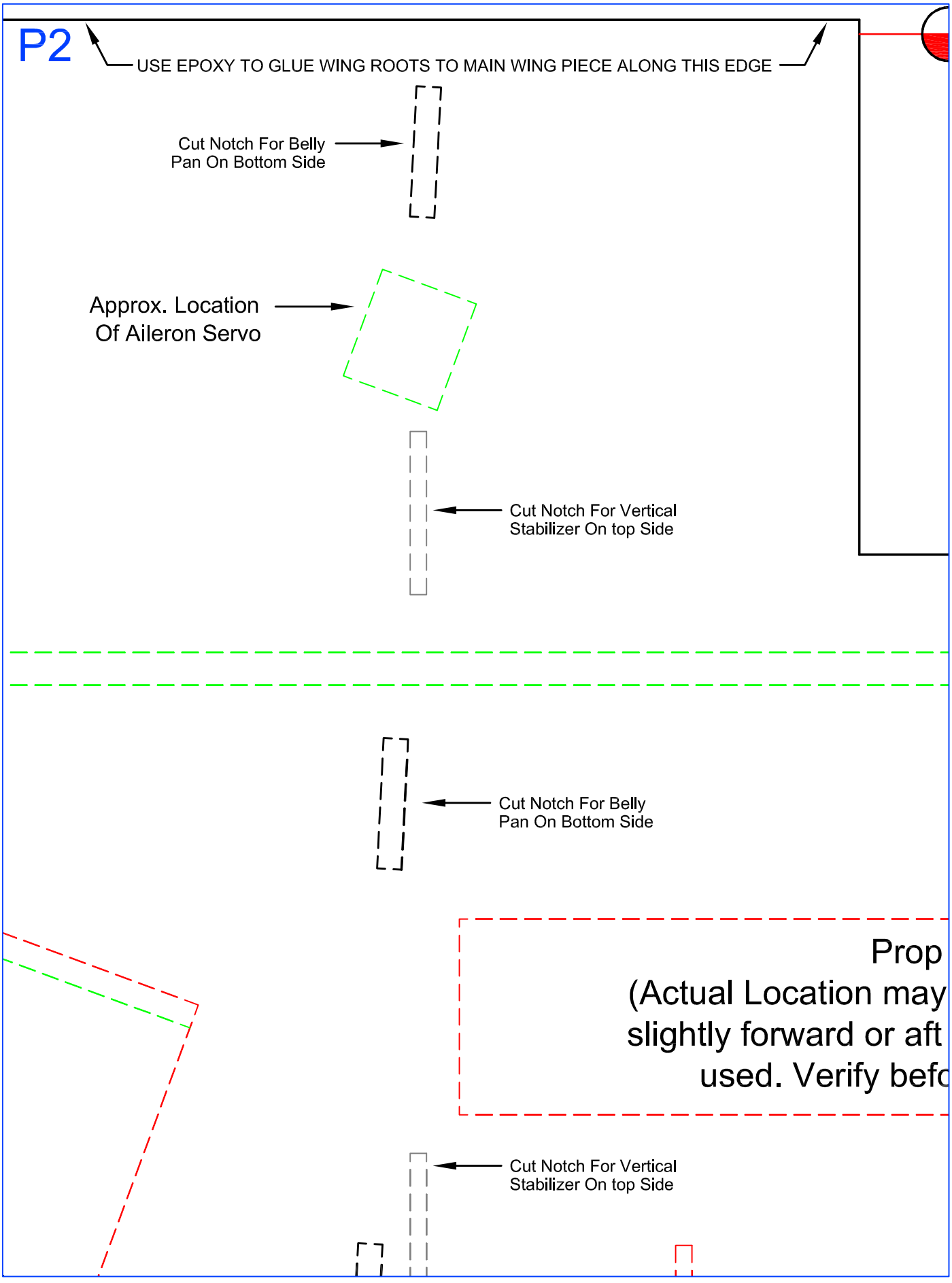


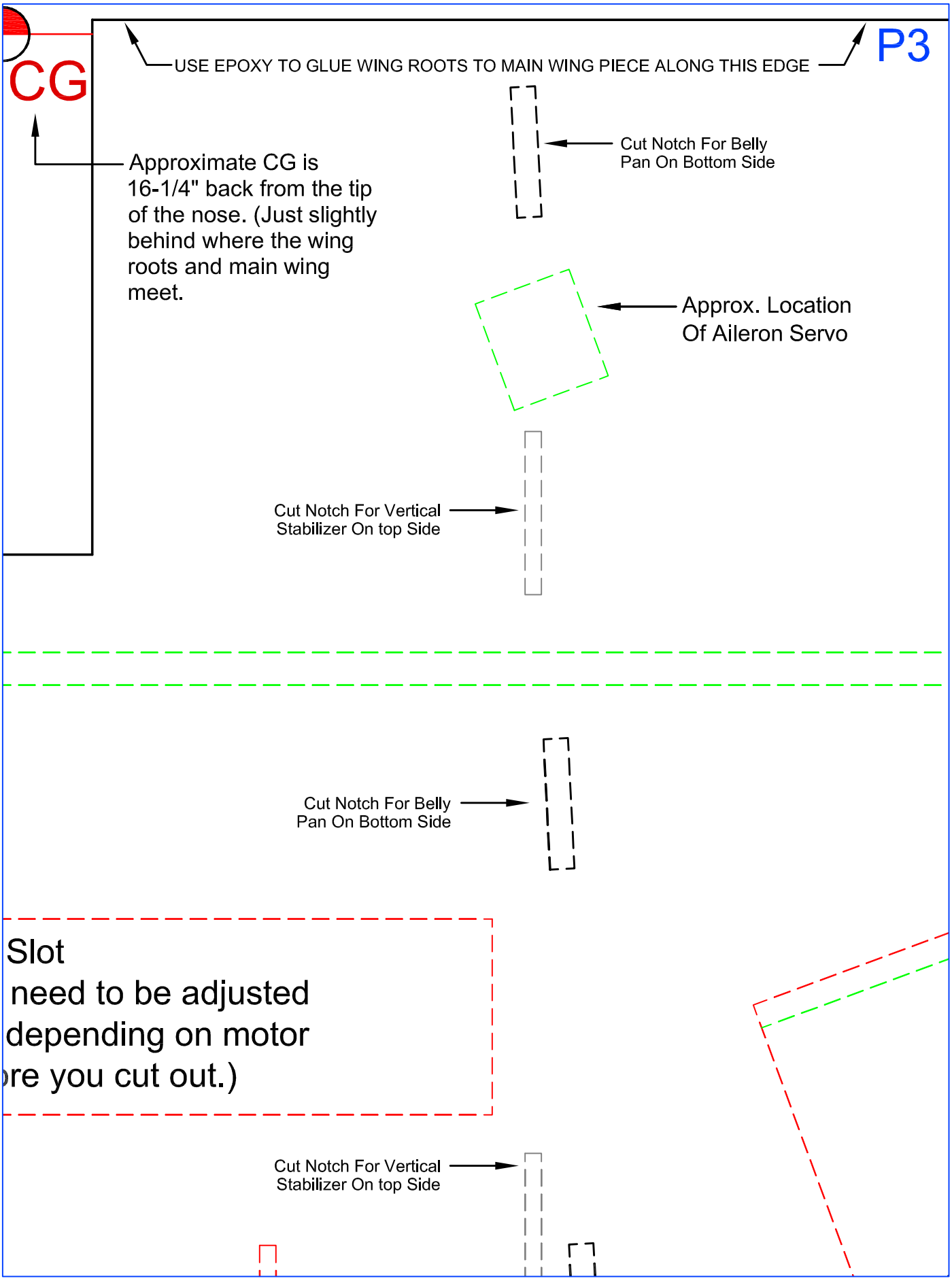




P1

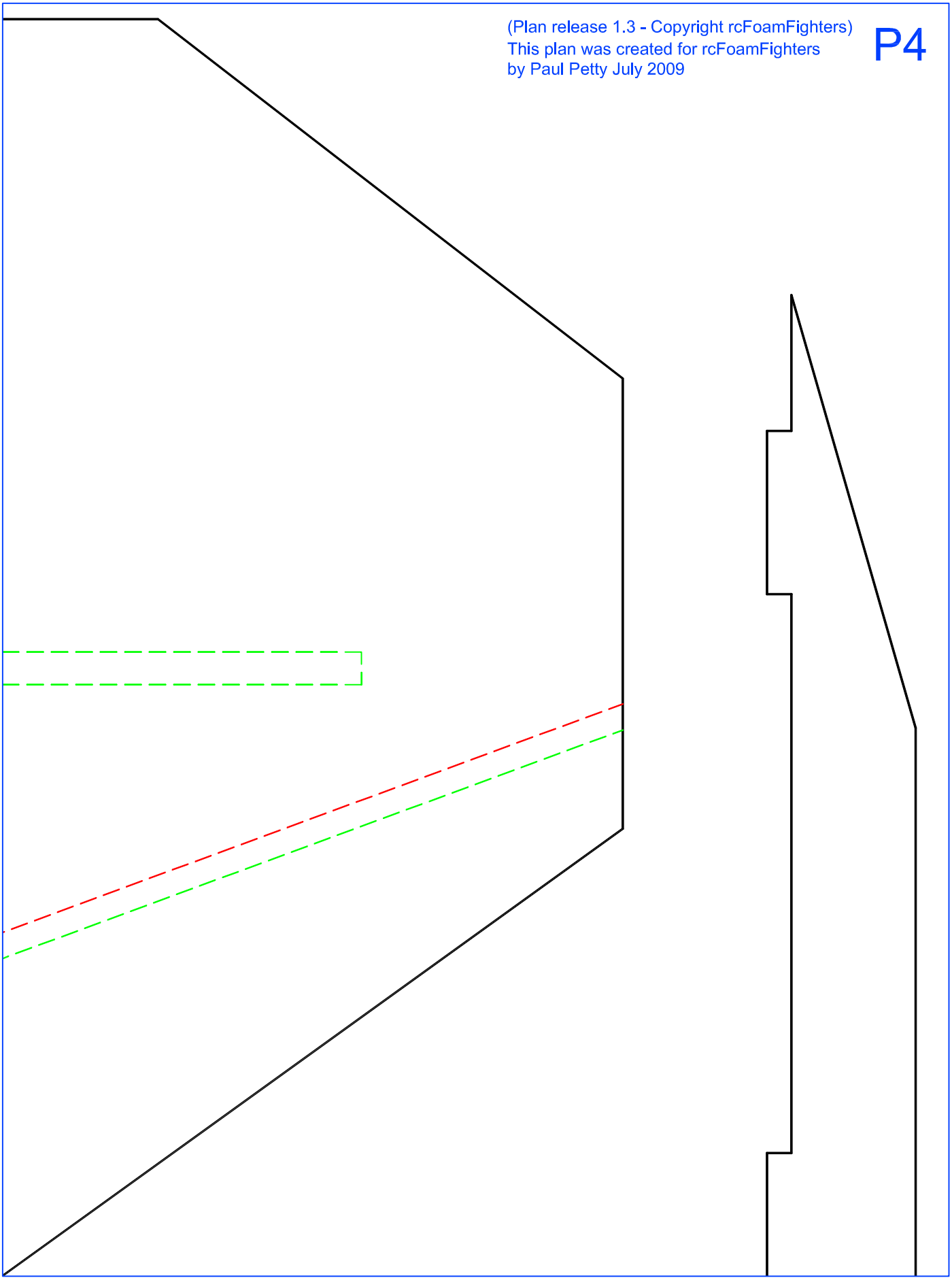

MAIN WING
PIECE
Carbon Spar Location
(Carbon spar is optional for Foamboard,
required for Depron or Blue Core Foams.)
Example of SINGLE 45°
Bevel Cut on Ailerons.
(Side View)


P2
USE EPOXY TO GLUE WING ROOTS TO MAIN WING PIECE ALONG THIS EDGE
Cut Notch For Belly Pan On Bottom Side
Approx. Location Of Aileron Servo
Cut Notch For Vertical Stabilizer On top Side
Cut Notch For Belly Pan On Bottom Side
Prop
(Actual Location may
slightly forward or aft
used. Verify befc
Cut Notch For Vertical Stabilizer On top Side

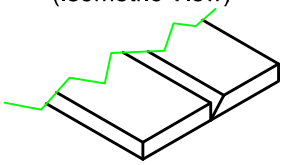

P3
USE EPOXY TO GLUE WING ROOTS TO MAIN WING PIECE ALONG THIS EDGE
CG
Approximate CG is 16-1/4" back from the tip of the nose. (Just slightly behind where the wing roots and main wing meet.
Cut Notch For Belly Pan On Bottom Side
Approx. Location Of Aileron Servo
Cut Notch For Vertical Stabilizer On top Side
Cut Notch For Belly Pan On Bottom Side
Slot
need to be adjusted
depending on motor
re you cut out.)
Cut Notch For Vertical Stabilizer On top Side

(Plan release 1.3 - Copyright rcFoamFighters)
This plan was created for rcFoamFighters
by Paul Petty July 2009

P4



(Isometric View)



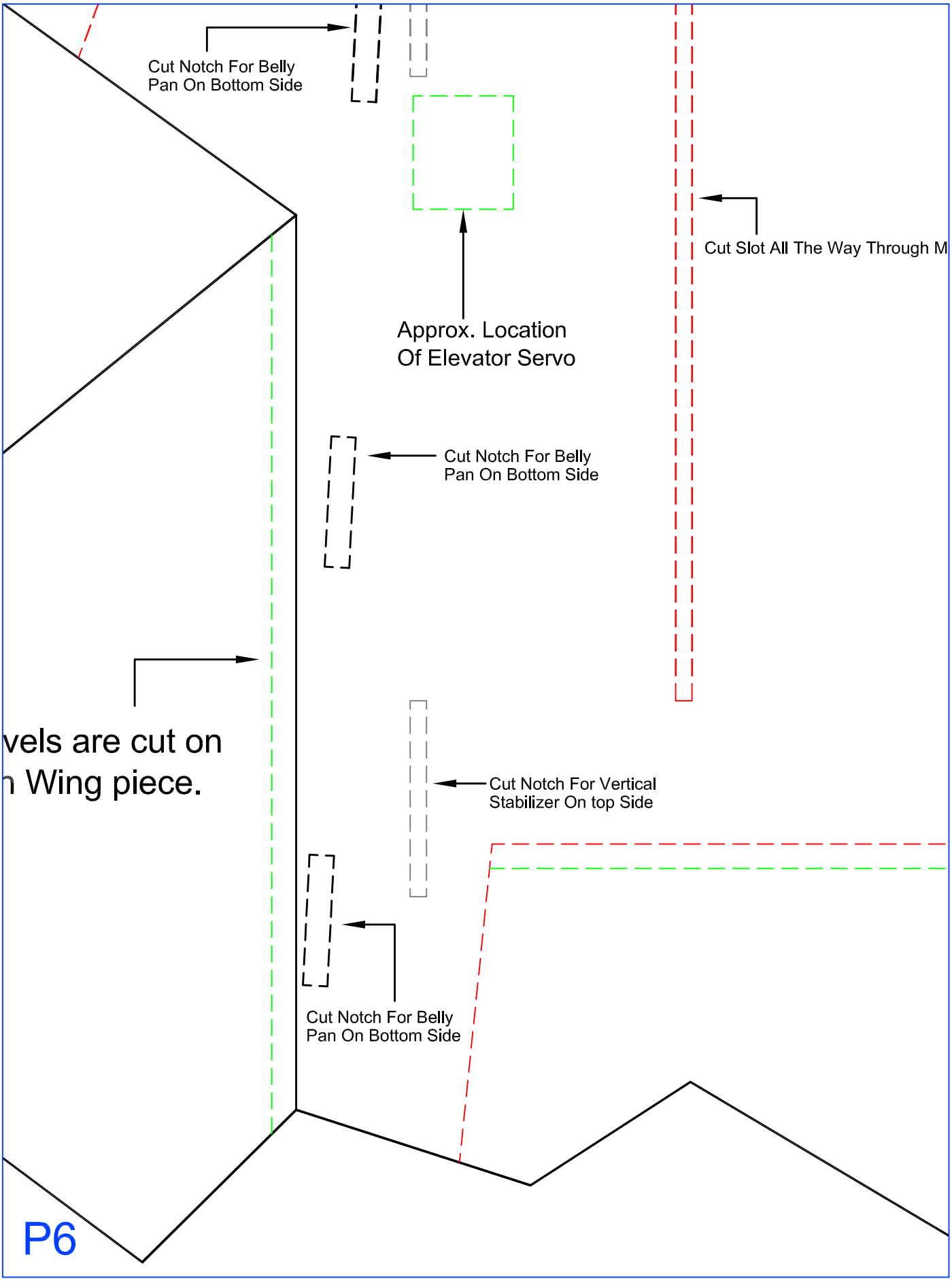
VERTICAL STABILIZER PIECE
(make with 1/8" Balsa Wood)

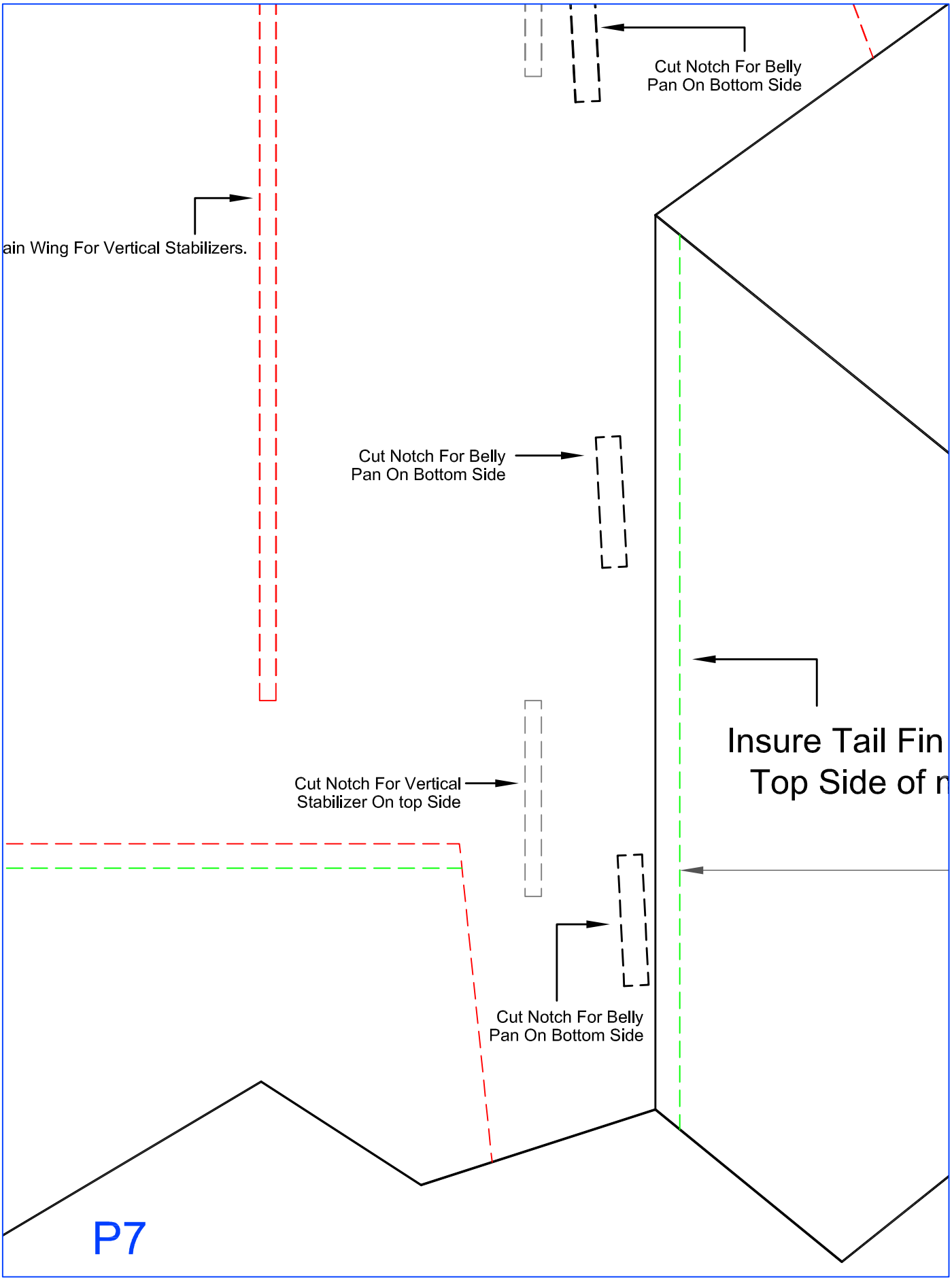
Insure Tail Fin Be
Top Side of mai

rcFoamFighters

FF-23 (FoamFighter 23)

(Design by Paul Petty - July 2009 - rev 1.3)


Cut Notch For Belly
Pan On Bottom Side
Approx. Location
Of Elevator Servo
Cut Slot All The Way Through M
Cut Notch For Belly
Pan On Bottom Side
vels are cut on
n Wing piece.
Cut Notch For Vertical
Stabilizer On top Side
Cut Notch For Belly
Pan On Bottom Side

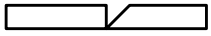

Cut Notch For Belly
Pan On Bottom Side
ain Wing For Vertical Stabilizers.
Cut Notch For Belly
Pan On Bottom Side
Insure Tail Fin
Top Side of m
Cut Notch For Vertical
Stabilizer On top Side
Cut Notch For Belly
Pan On Bottom Side
P7

VERTICAL STABILIZER PIECE
(make with 1/8" Balsa Wood)

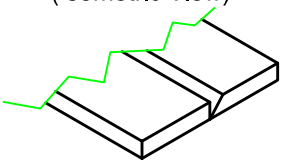
Bevels are cut on
hain Wing piece.

Example of SINGLE 45°
Bevel Cut Tail Fins.

(Side View)

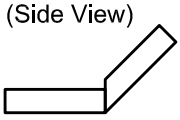


(Isometric View)



After Tail Fin Bevel Cuts
are done, Glue tail fins at
45° angles using tool.

(Side View)

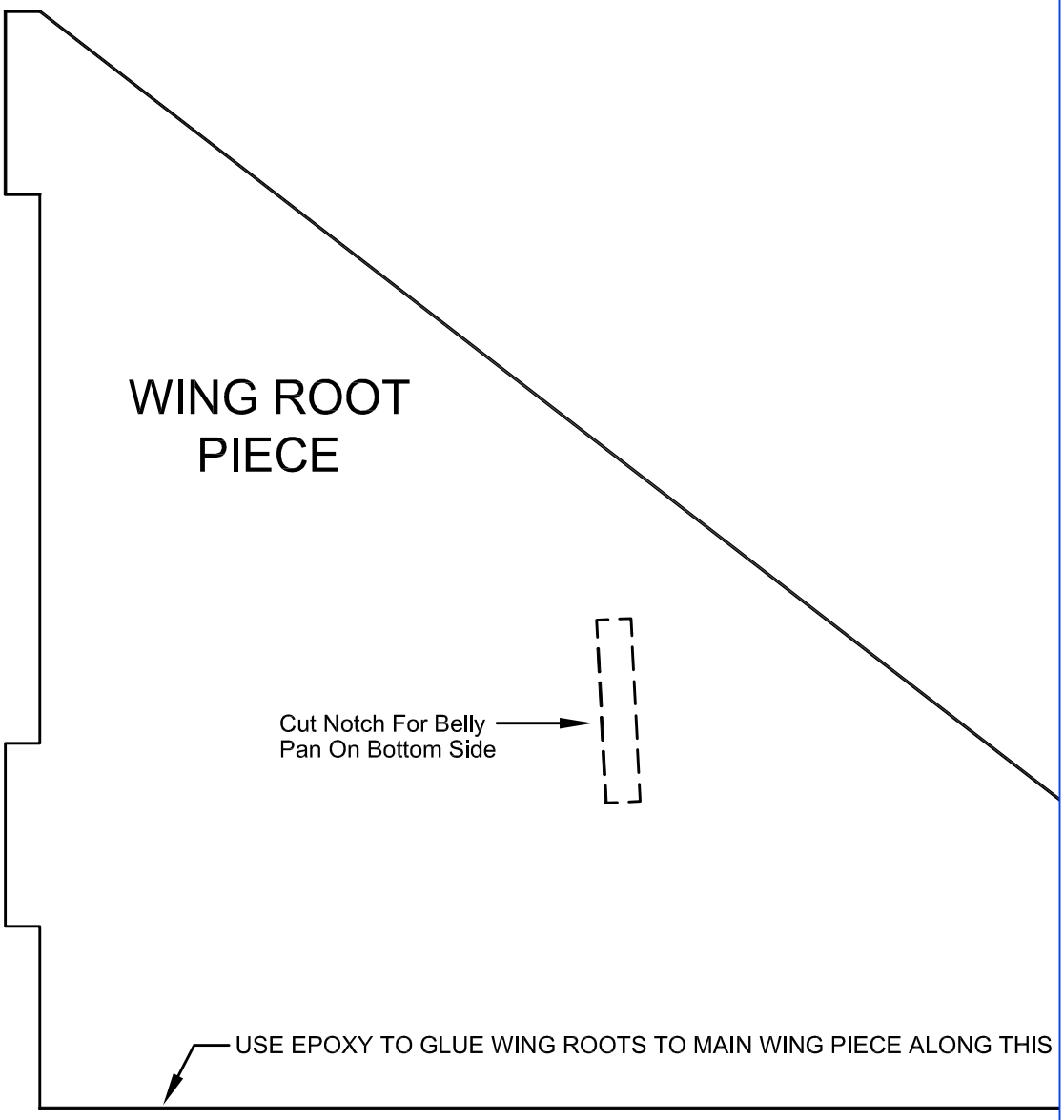


rcFoamFighters

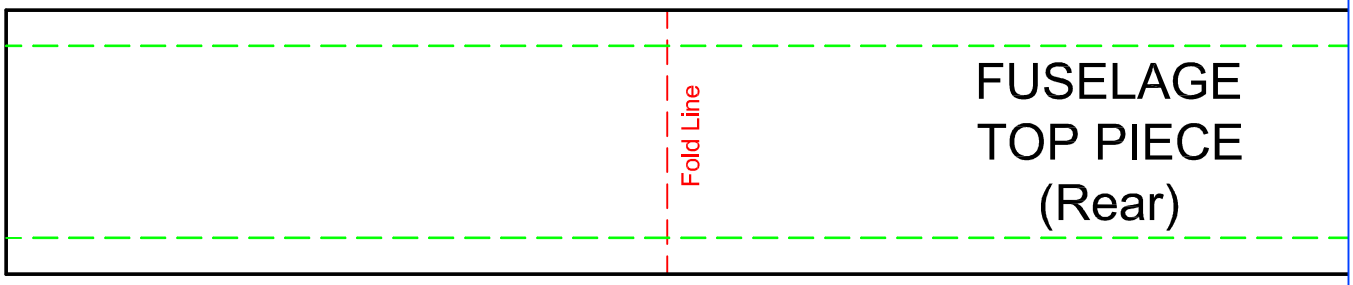
FF-23 (FoamFighter 23)

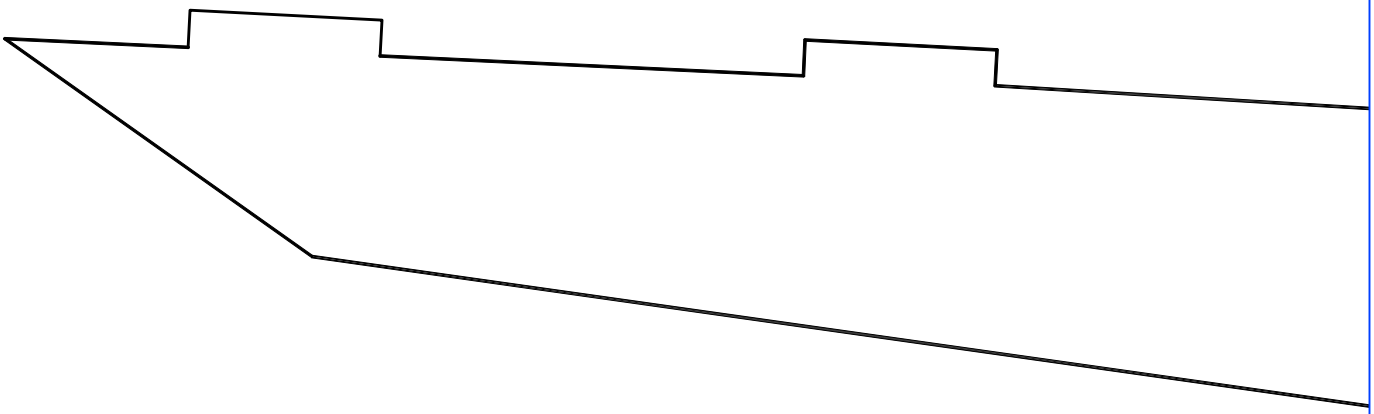
(Design by Paul Petty - July 2009 - rev 1.3)

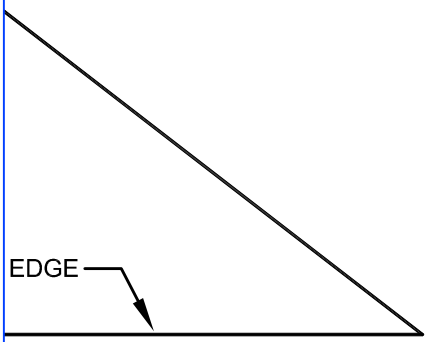
This plan was created for rcFoamFighters
by Paul Petty July 2009



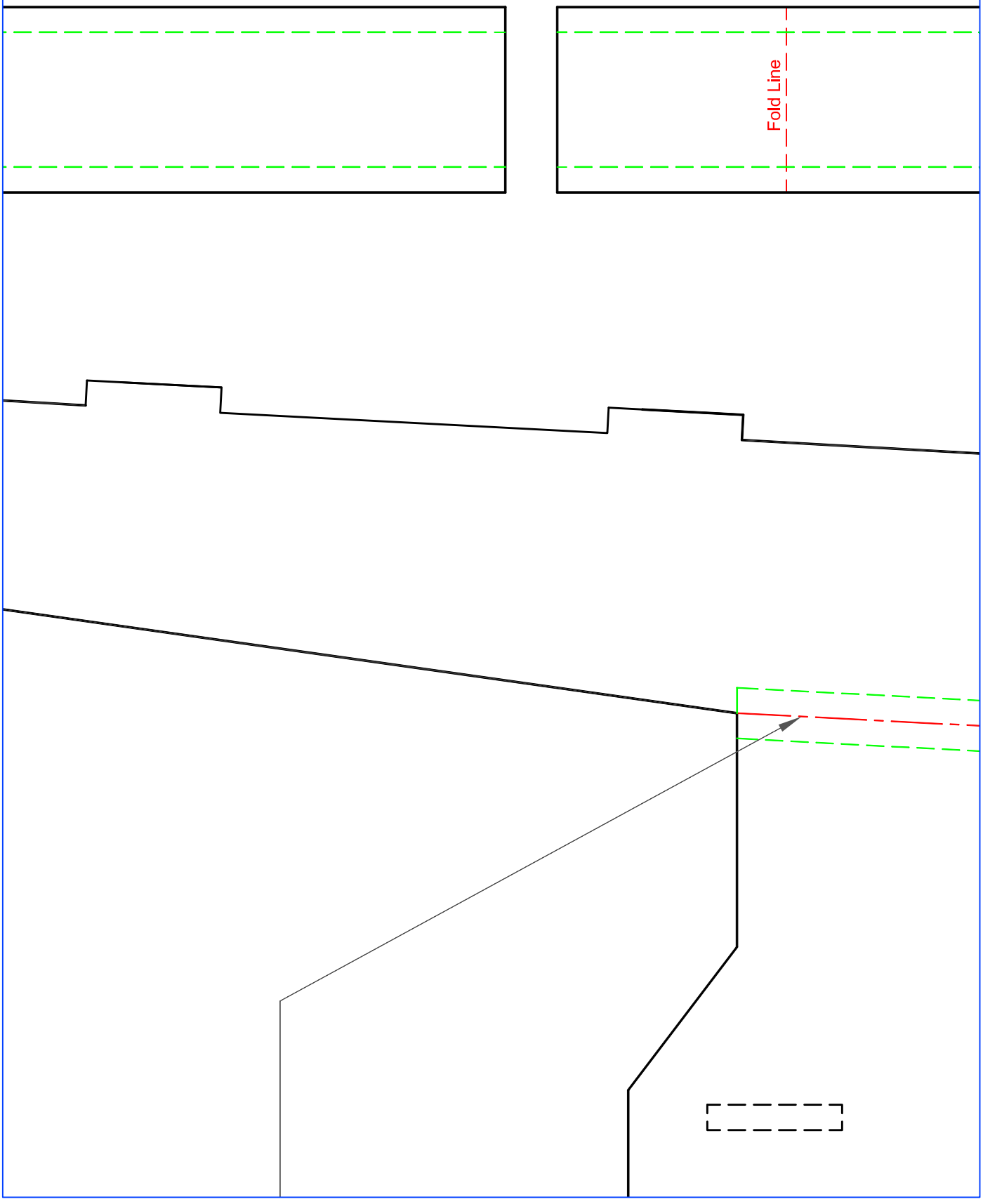
P10





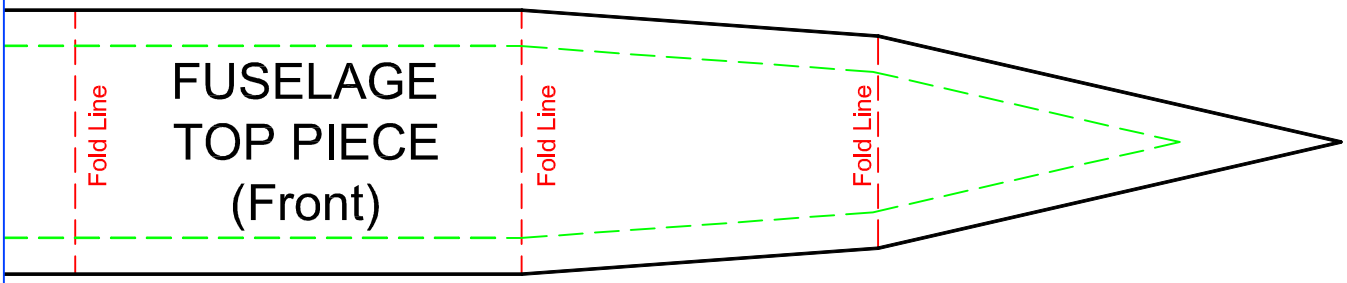


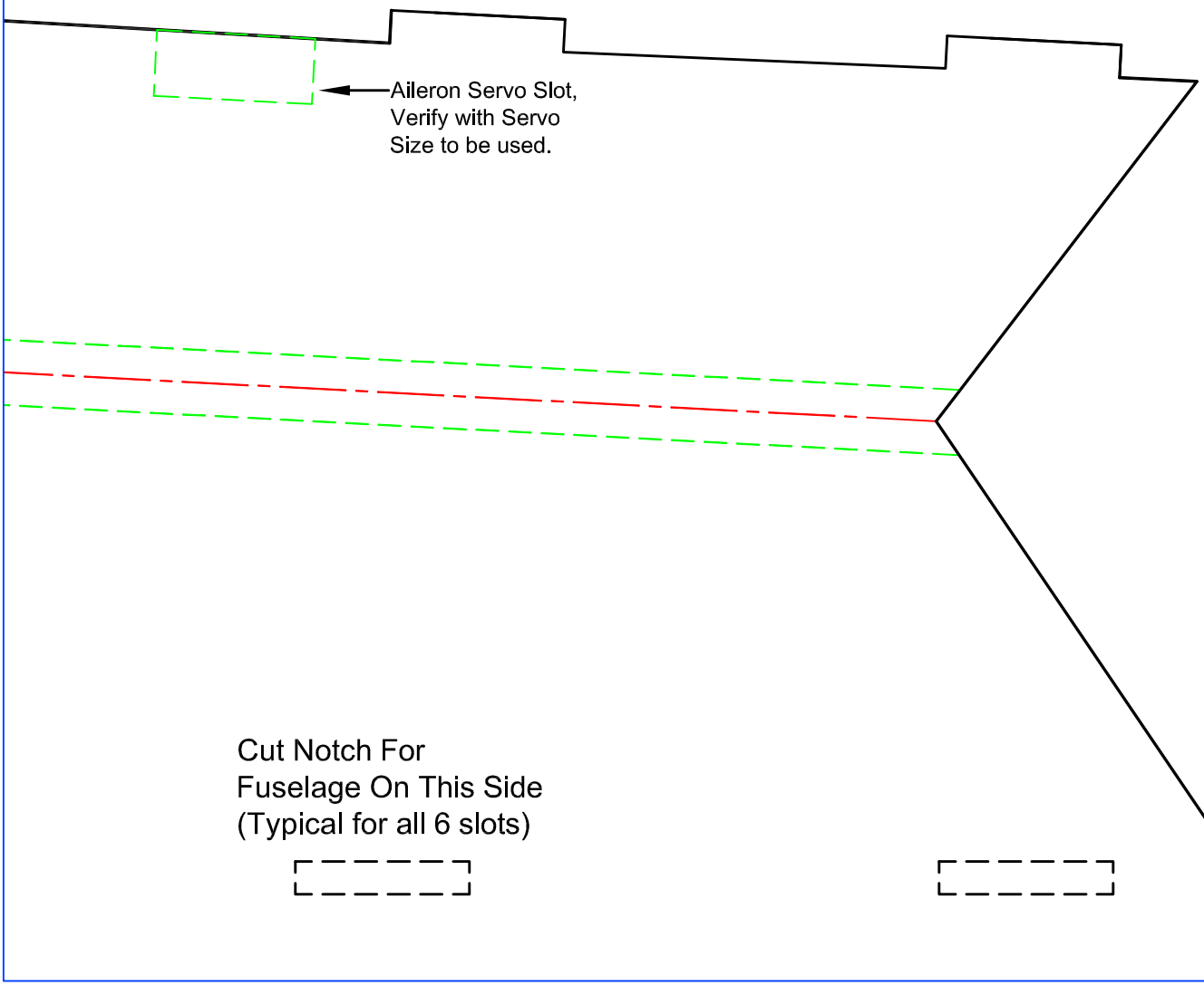
P11

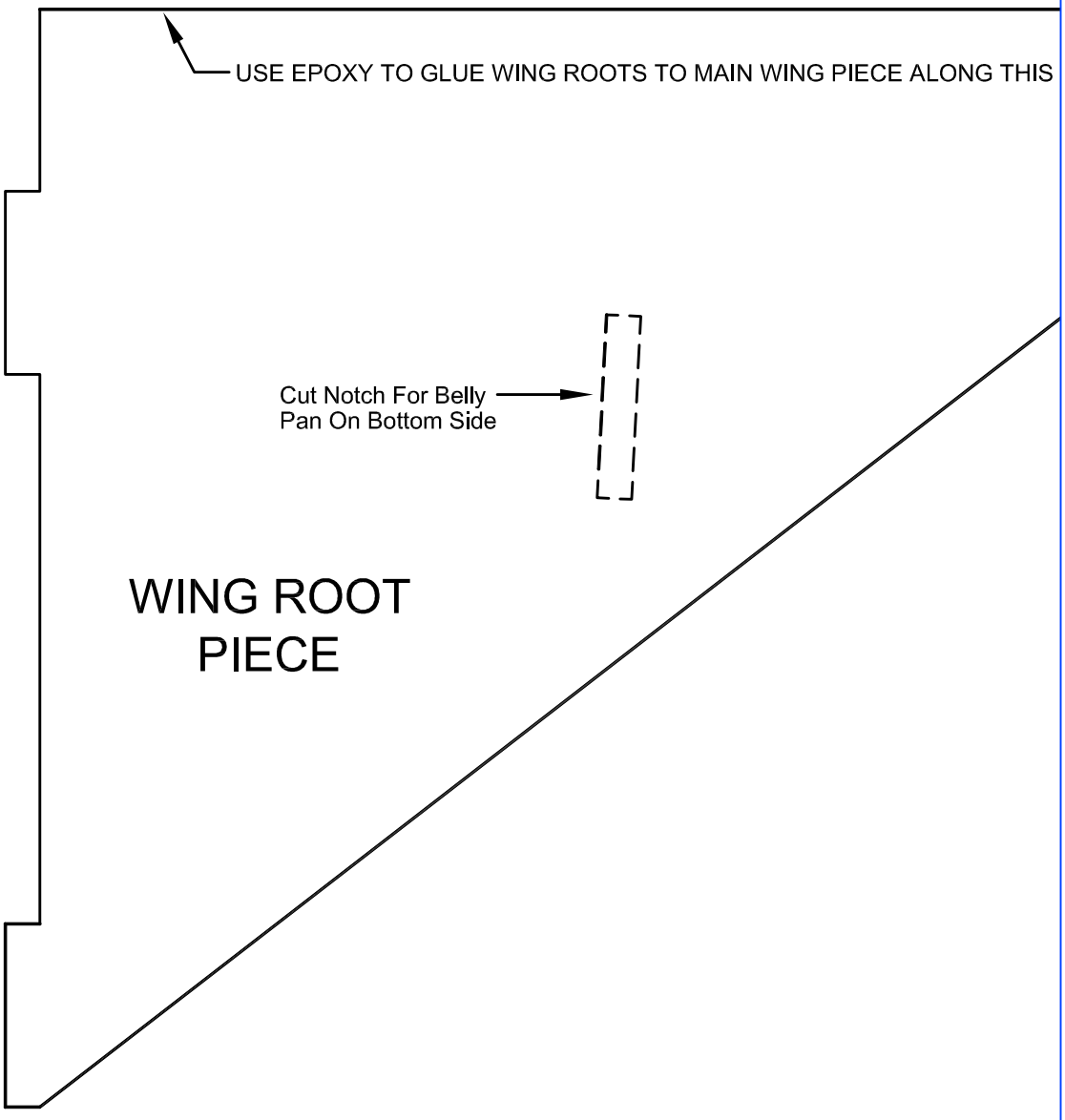


P12

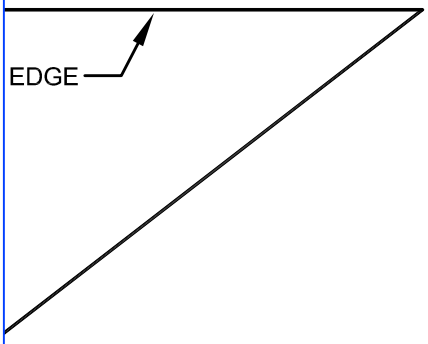
This plan was created for rcFoamFighters
by Paul Petty July 2009

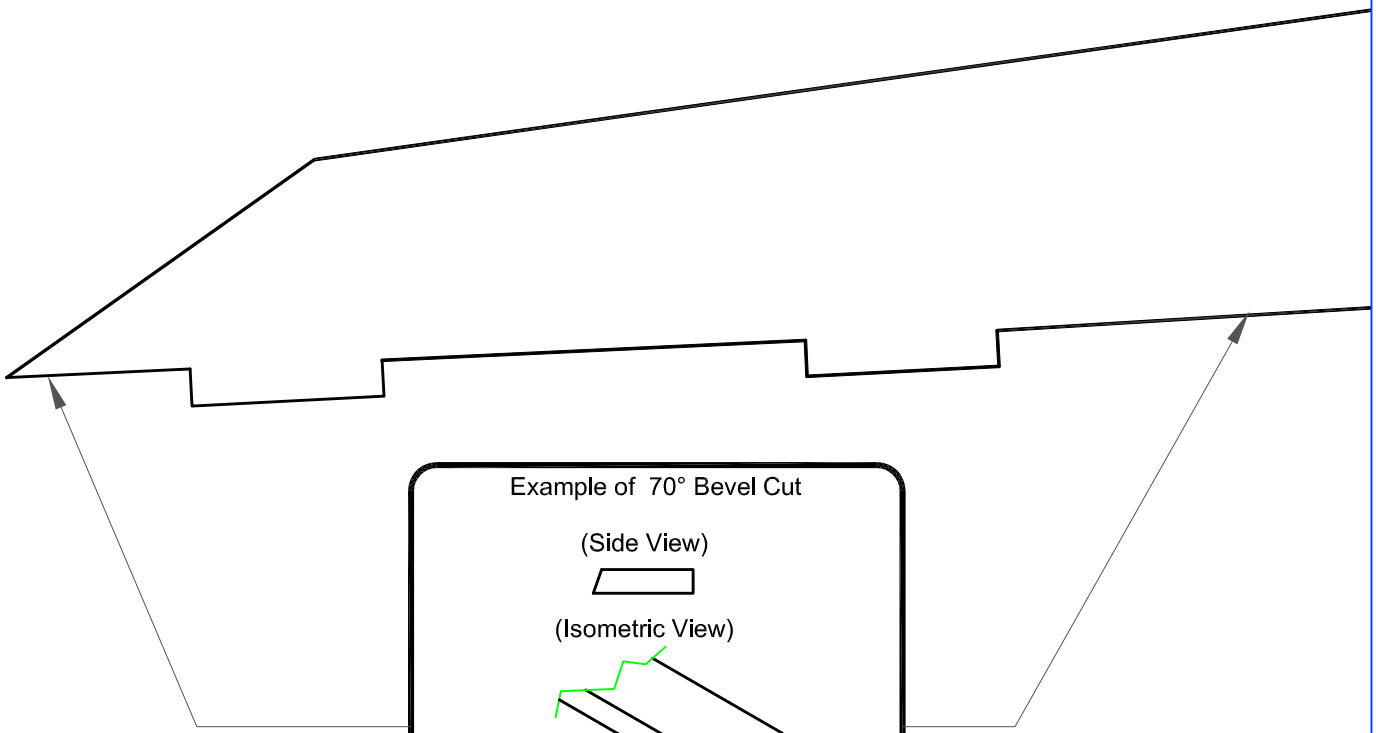





USE EPOXY TO GLUE WING ROOTS TO MAIN WING PIECE ALONG THIS
Cut Notch For Belly
Pan On Bottom Side
WING ROOT
PIECE

P13

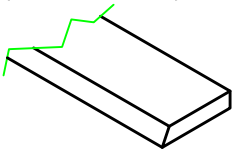




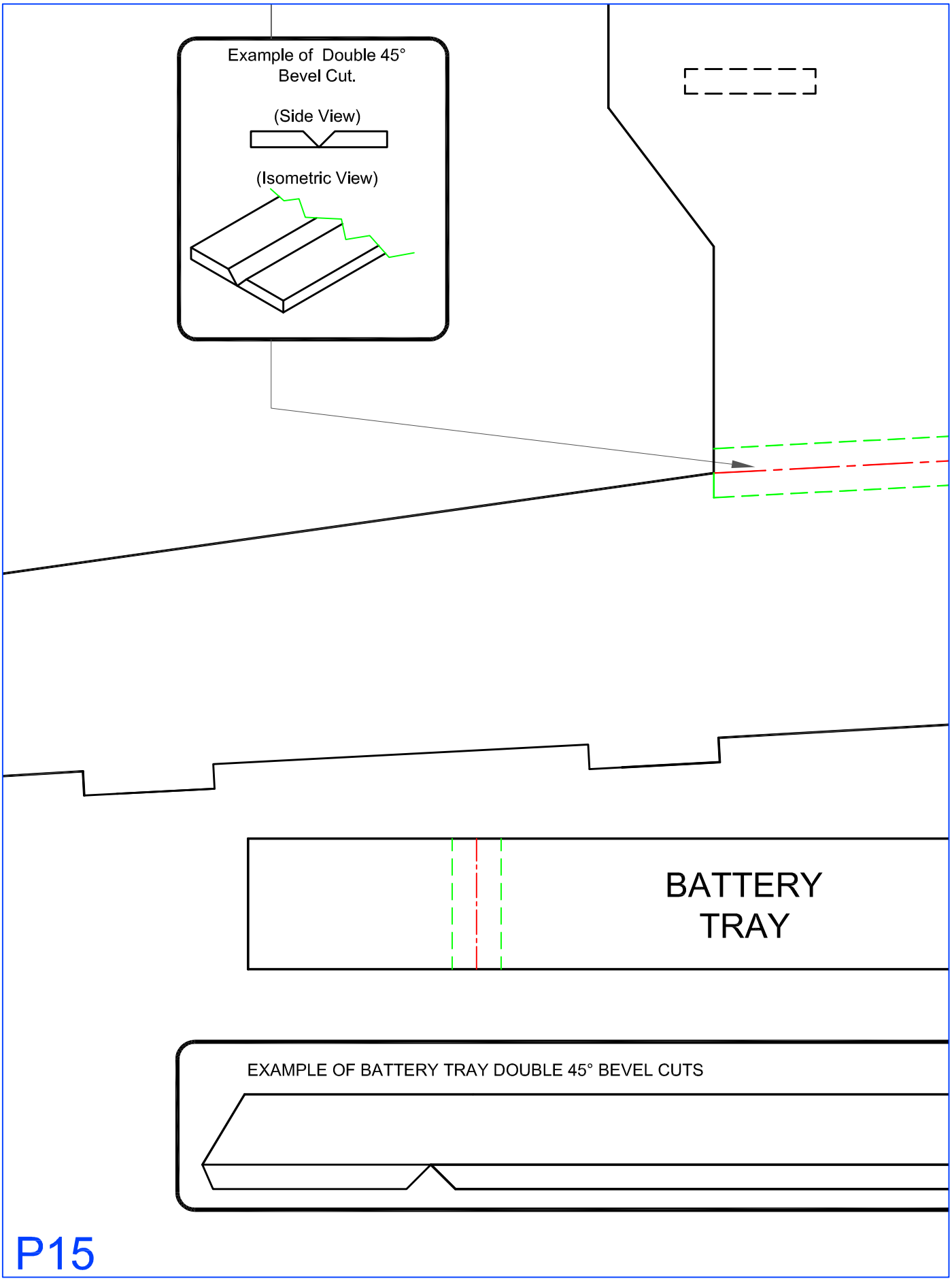
Example of 70° Bevel Cut

(Side View)

(Isometric View)

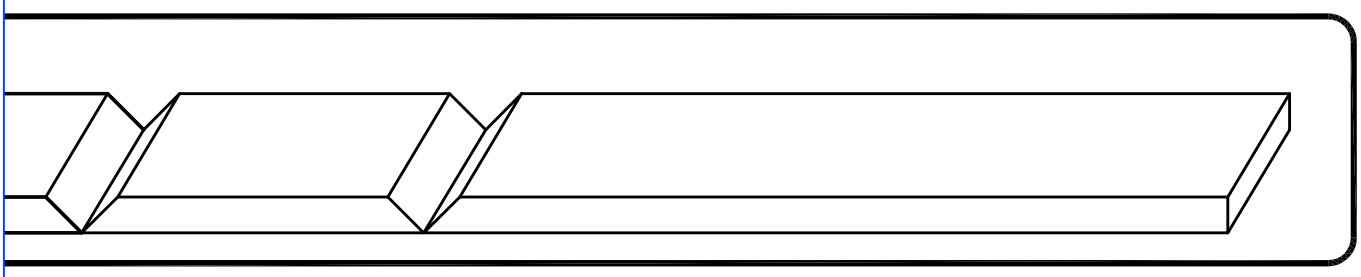


Create a shallow Bevel Cut (approx. 70°) along edge of the belly plate, this will allow the belly plate piece to sit flush up against the main wing.
(Typical along edge line of both sides)


Example of Double 45°
Bevel Cut.
(Side View)
(Isometric View)
BATTERY
TRAY
EXAMPLE OF BATTERY TRAY DOUBLE 45° BEVEL CUTS

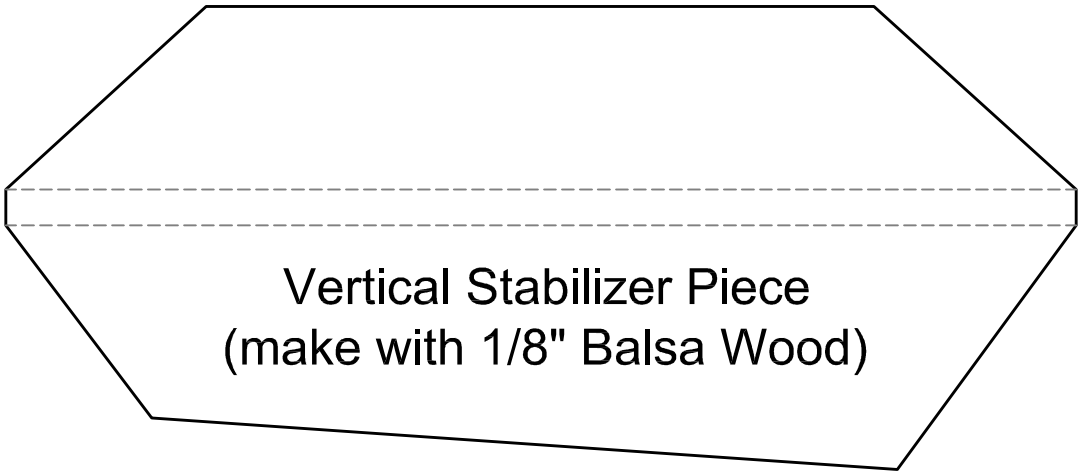
BELLY PLATE
PIECE

Aileron Servo Slot,
Verify with Servo
Size to be used.



P16

P17

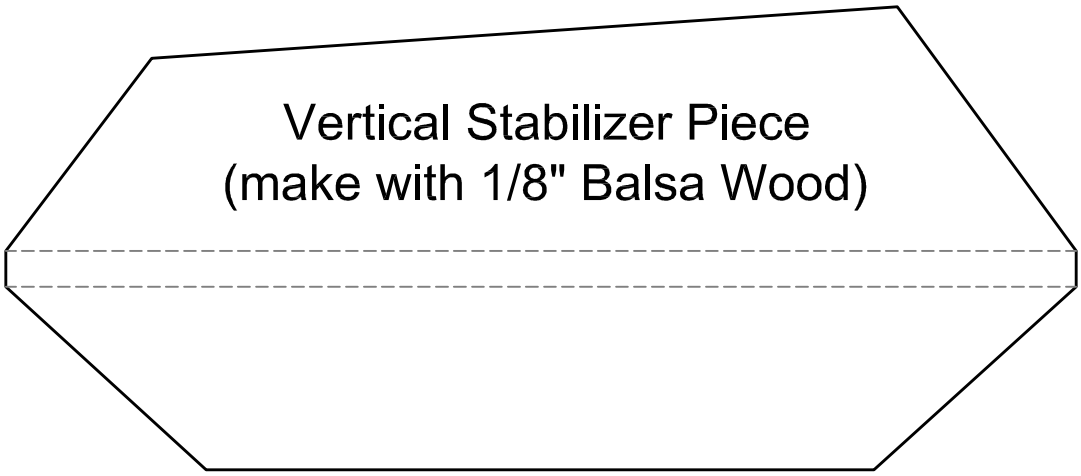


rcFoamFighters

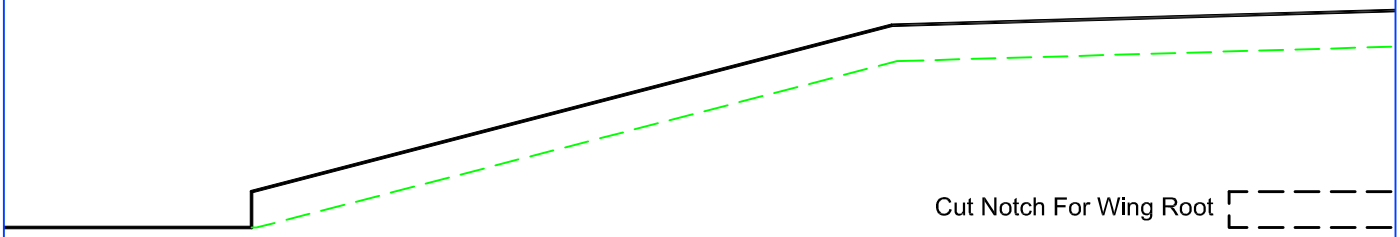
FF-23 (FoamFighter 23)

(Design by Paul Petty - July 2009 - rev 1.3)

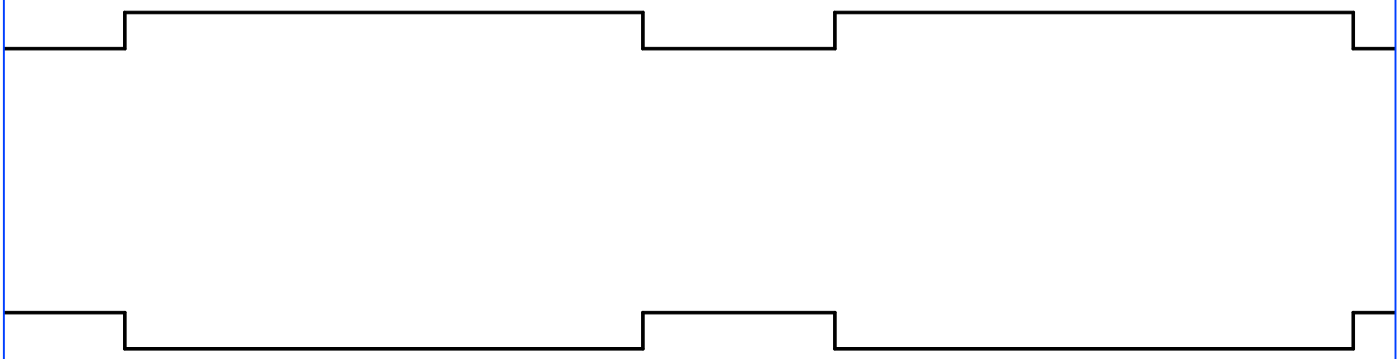
This plan was created for rcFoamFighters
by Paul Petty July 2009

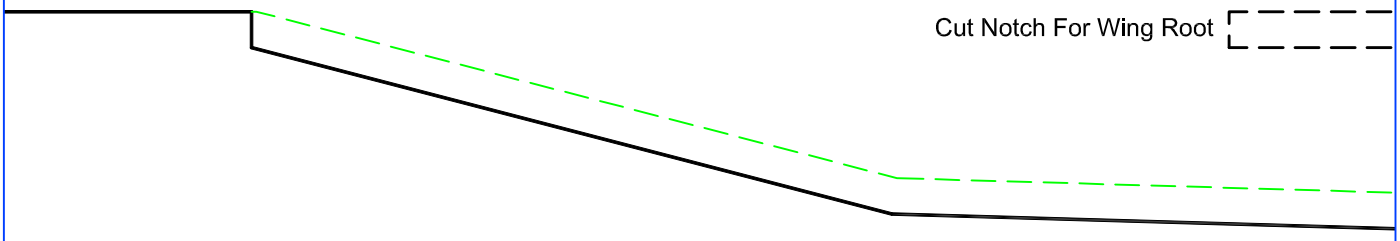


P18



Cut Notch For Wing Root

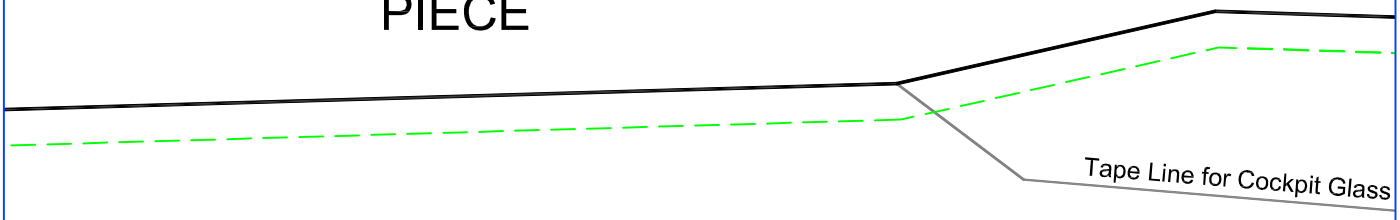




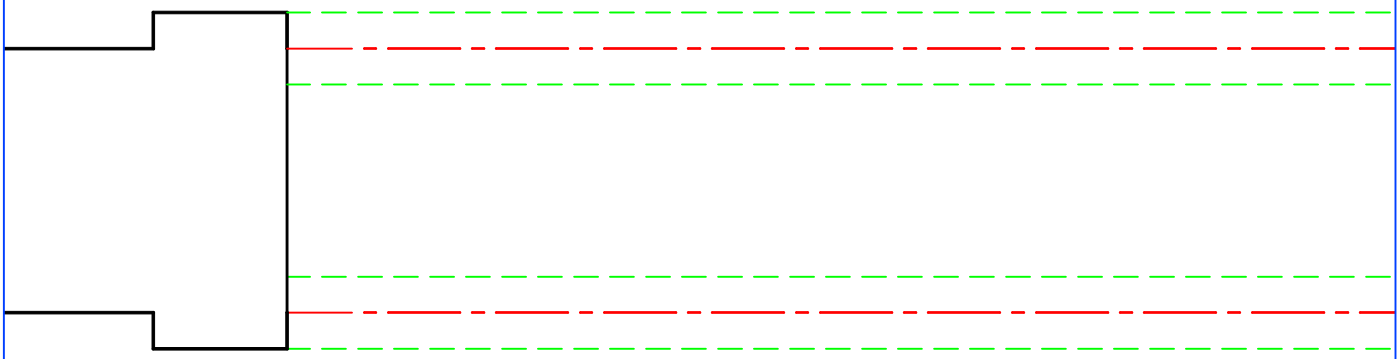
Cut Notch For Wing Root

P19

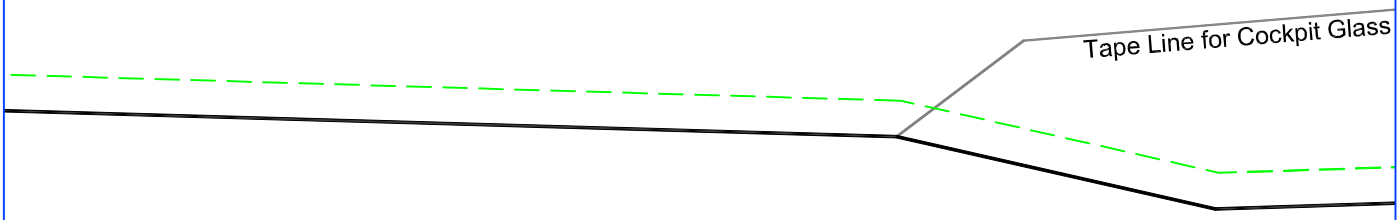
MAIN FUSELAGE PIECE



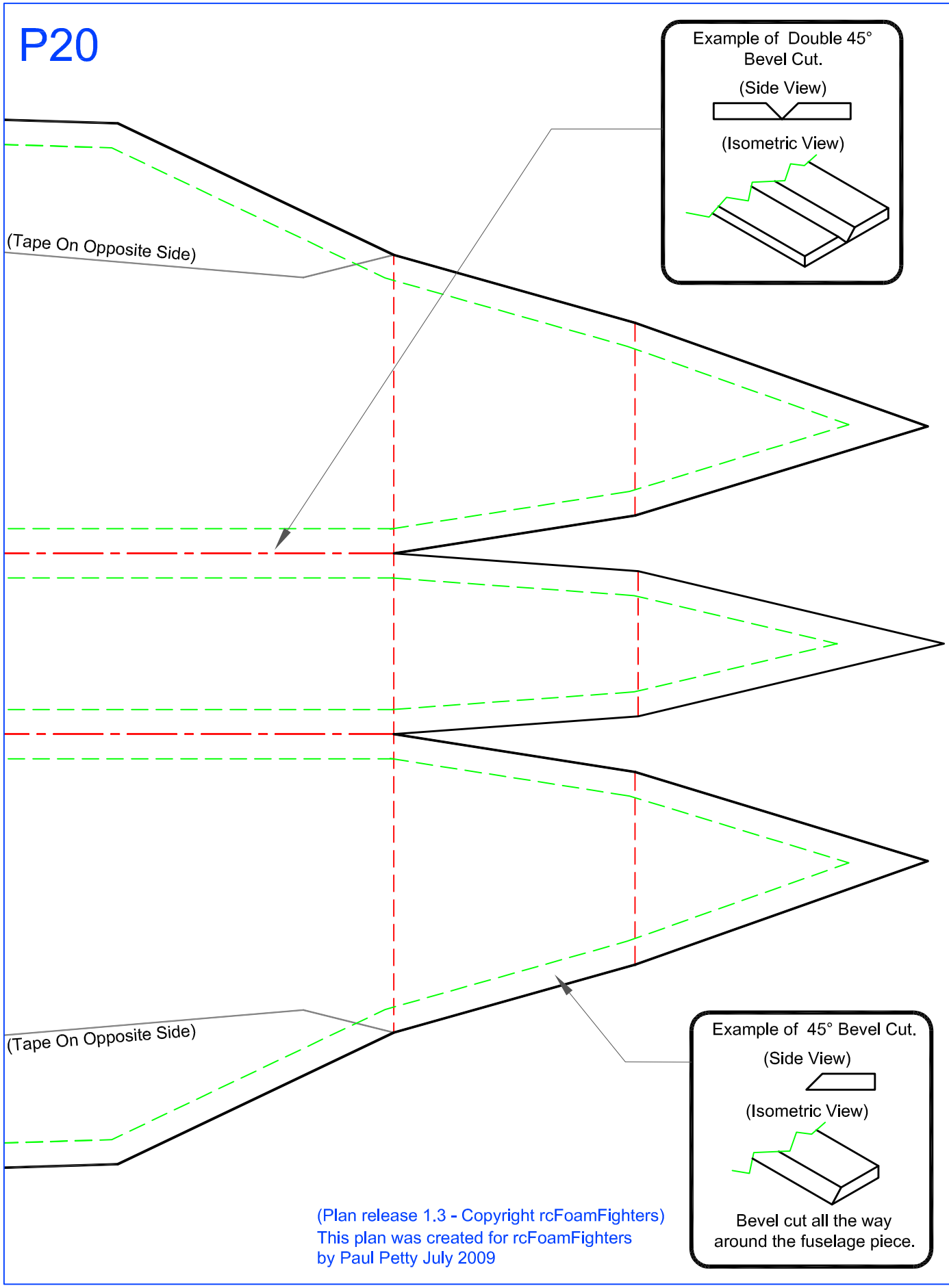
Cut Notch For Wing Root



Cut Notch For Wing Root



P20



This plan was created for rcFoamFighters
by Paul Petty July 2009