

Bubble Dancer

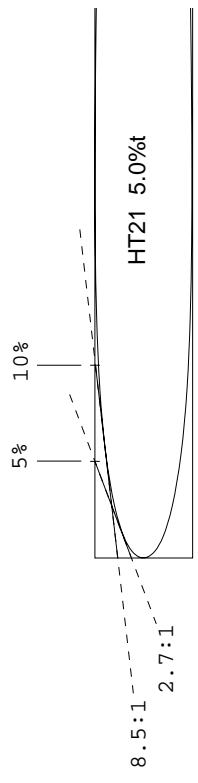
Horizontal Tail

MD 24 Nov 01

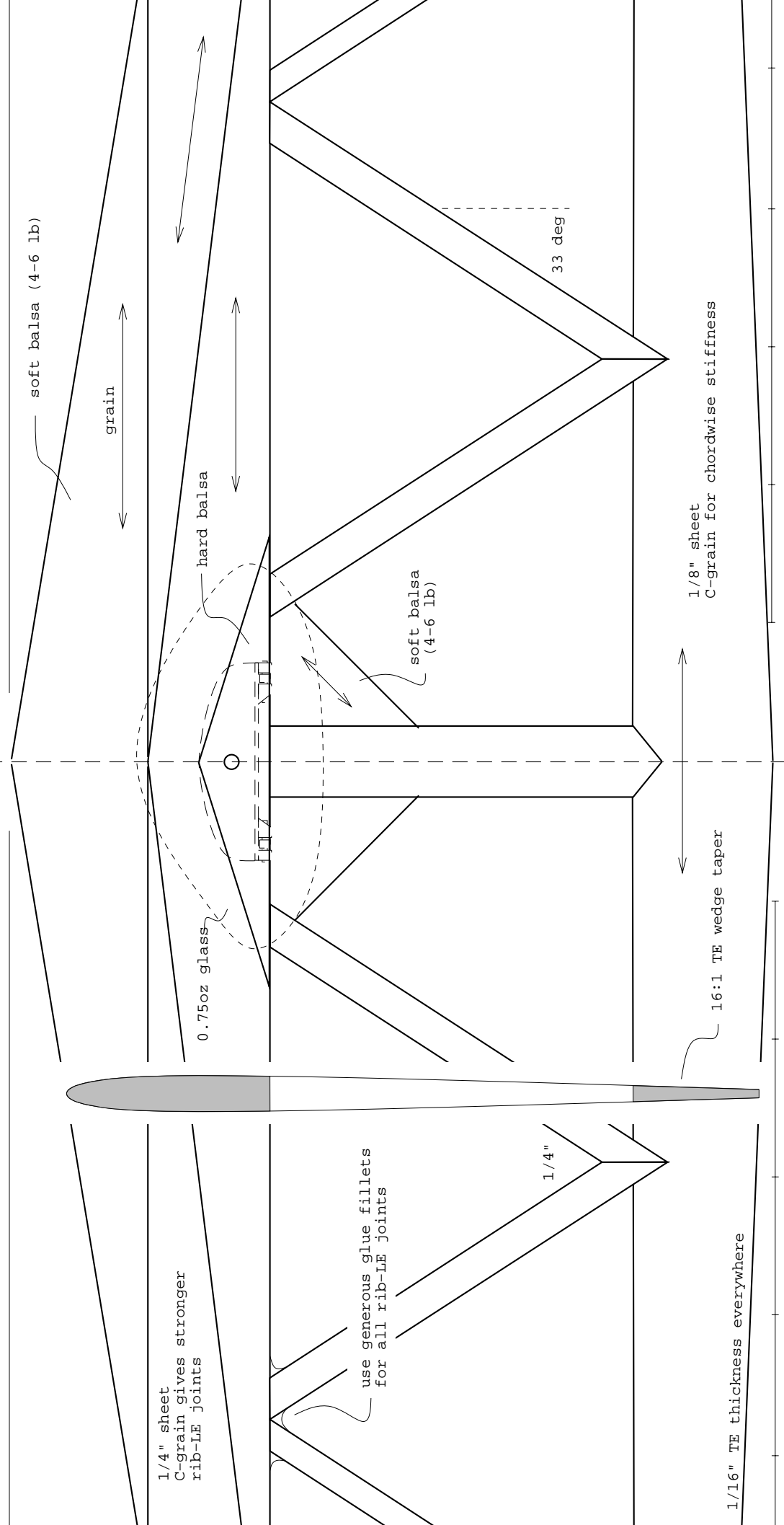
Design (never-exceed) Loads

stab load	7 lb @ 90 mph, CL=0.5
root bend.mom.	19 lb-in
root bend.Ixx	2.15e-3 in^4
root stress	1100 psi

6-8 lb balsa throughout, except where noted



LE tangent-slope shaping data



1/4" sheet C-grain gives stronger rib-LE joints

use generous glue fillets for all rib-LE joints

1/4"

1/16" TE thickness everywhere

16:1 TE wedge taper

1/8" sheet C-grain for chordwise stiffness

soft balsa (4-6 lb)

hard balsa

0.75oz glass

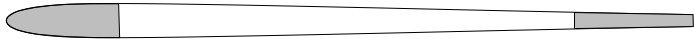
soft balsa (4-6 lb)

grain

33 deg

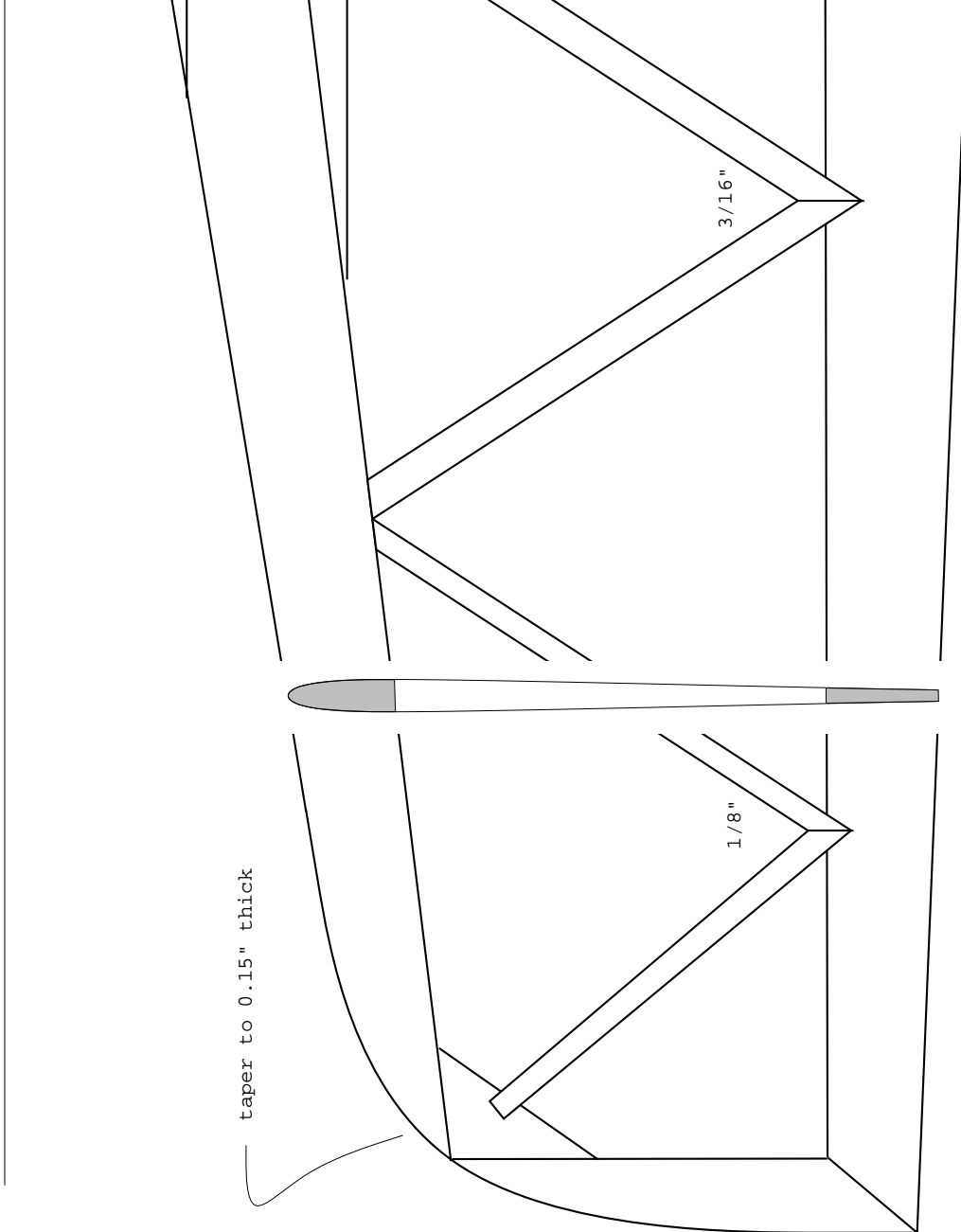


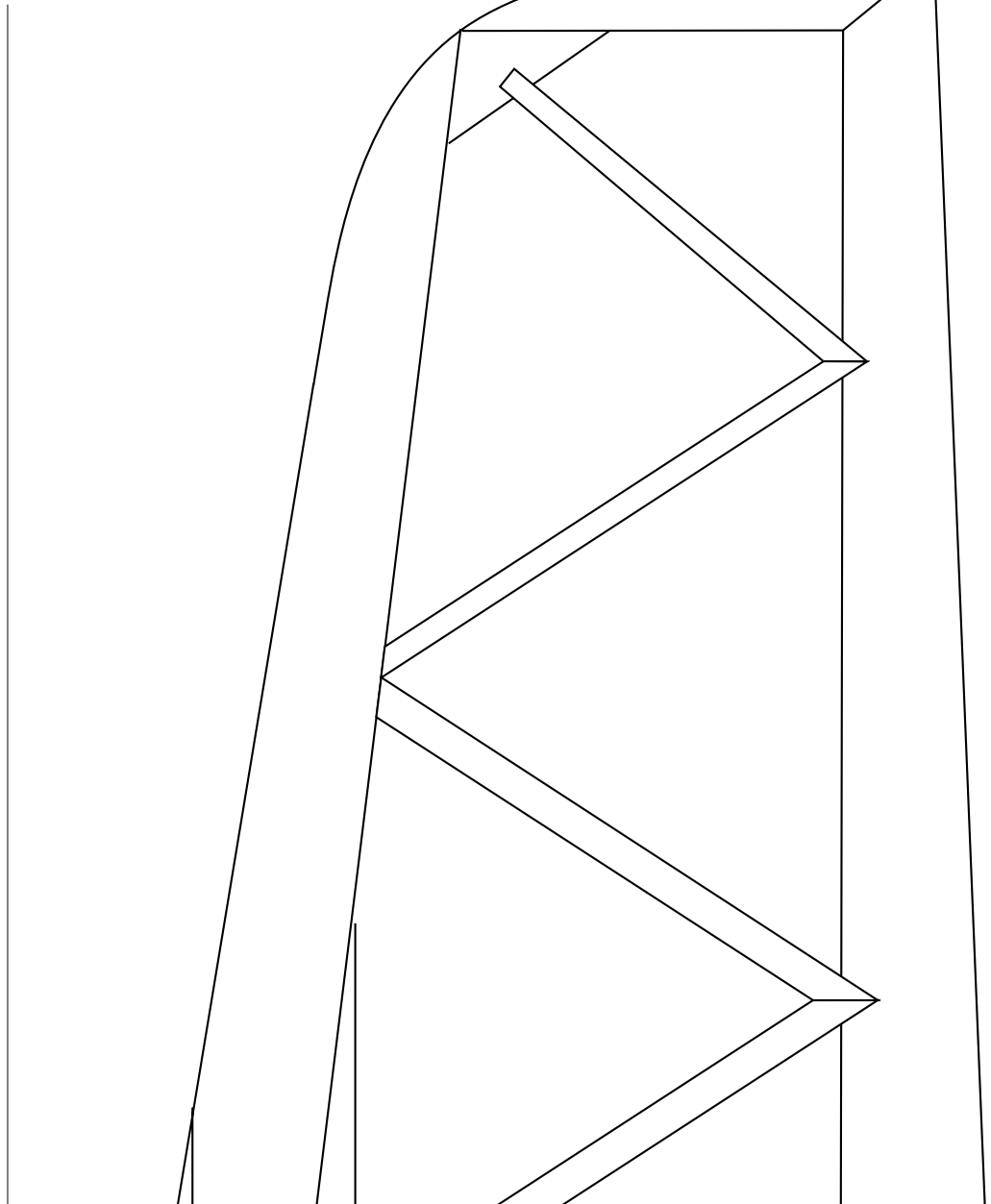
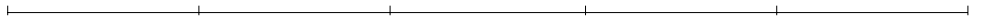
taper to 0.15" thick



3/16"

1/8"





inches