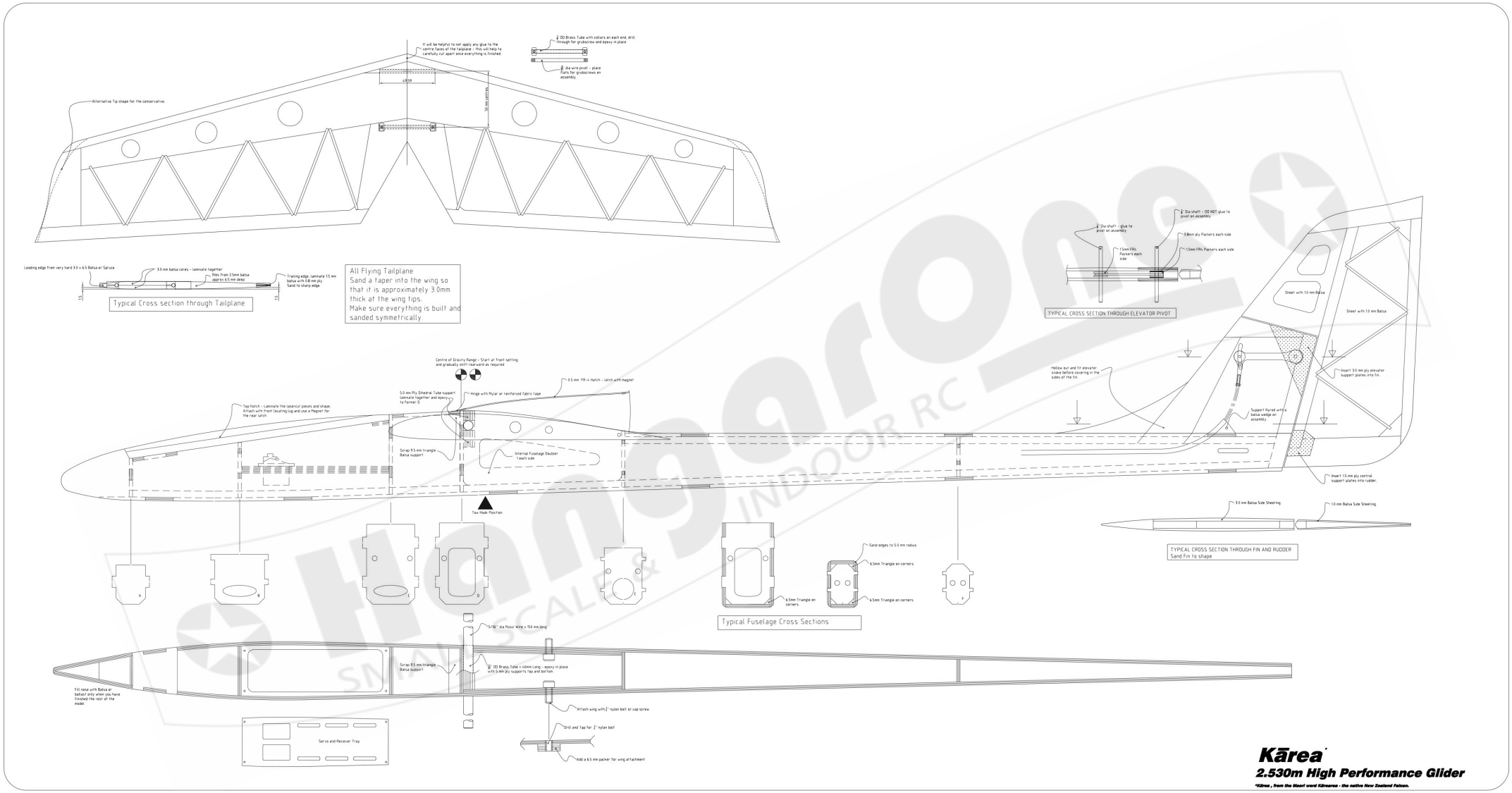
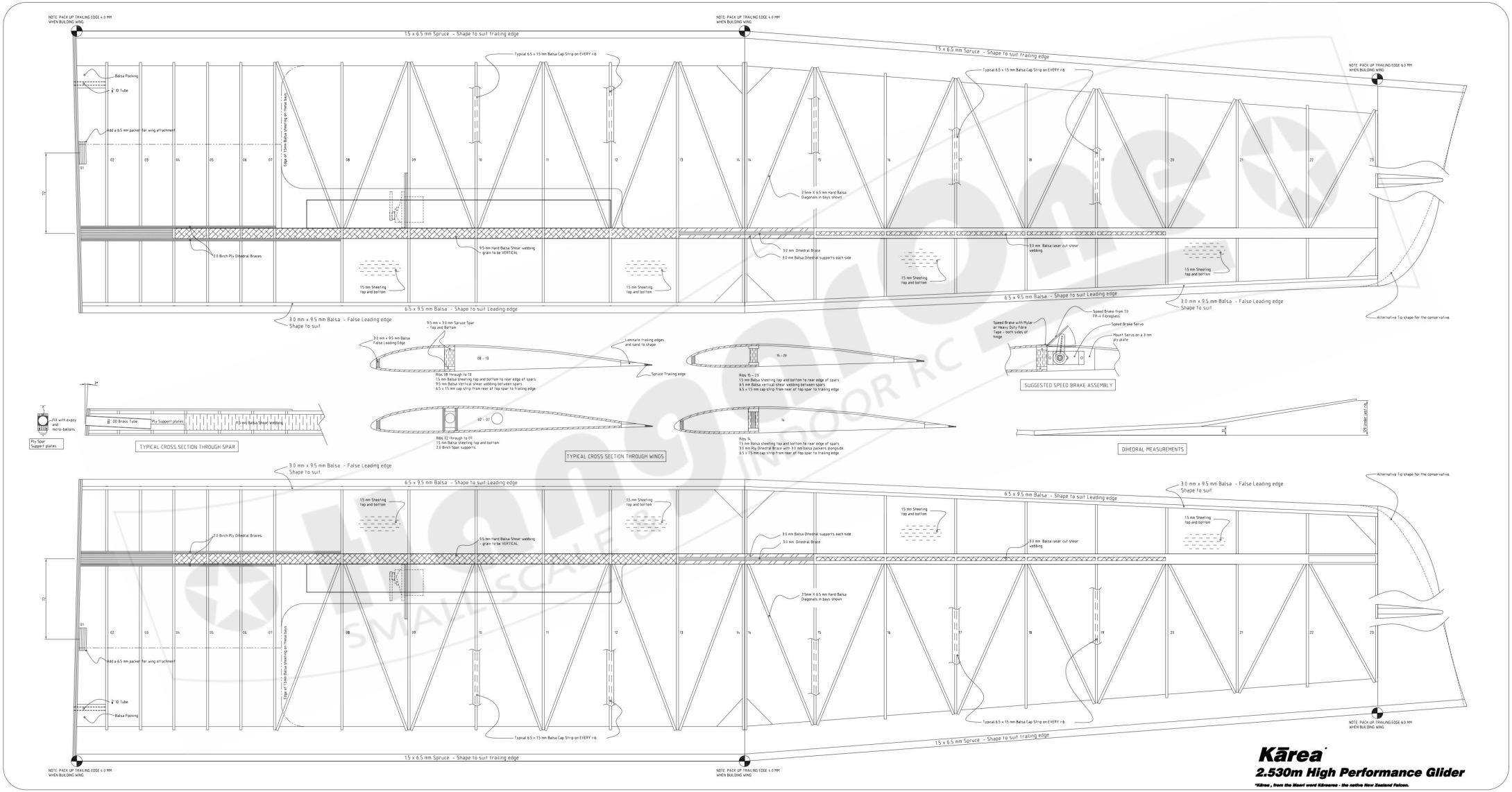


Kārea*

2.530m High Performance Glider

*Kārea , from the Maori word Kāreareo - the native New Zealand Falcon.


NOTE: PACK UP TRAILING EDGE 4.0 MM WHEN BUILDING WING
1.5 x 6.5 mm Spruce - Shape to suit trailing edge
Typical 6.5 x 1.5 mm Balsa Cap Strip on EVERY rib
Balsa Packing
Ø 10 Tube
Add a 6.5 mm packer for wing attachment
Edge of 1.5mm Balsa sheeting on these bays
2.5mm X 6.5 mm Hard Balsa Diagonals in bays shown
2.0 Birch Ply Dihedral Braces
9.5 mm Hard Balsa Shear webbing - grain to be VERTICAL
3.0 mm Dihedral Brace
3.0 mm Balsa Dihedral supports each side
3.0 mm Balsa laser cut shear webbing
1.5 mm Sheeting top and bottom
6.5 x 9.5 mm Balsa - Shape to suit Leading edge
3.0 mm x 9.5 mm Balsa - False Leading edge Shape To suit
Alternative Tip shape for the conservative.
Speed Brake from 1.0 FR-4 Fibreglass
Speed Brake with Mylar or Heavy Duty Fibre Tape - both sides of hinge
Speed Brake Servo
Mount Servo on a 3 mm ply plate
SUGGESTED SPEED BRAKE ASSEMBLY
3.0 mm x 9.5 mm Balsa False Leading Edge
9.5 mm x 3.0 mm Spruce Spar - Top and Bottom
Laminate trailing edges and sand to shape
Spruce Trailing edge
Ribs 08 through to 13
1.5 mm Balsa sheeting top and bottom to rear edge of spars
9.5 mm Balsa vertical shear webbing between spars
6.5 x 1.5 mm cap strip from rear of top spar to trailing edge
Ribs 15 - 23
1.5 mm Balsa sheeting top and bottom to rear edge of spars
9.5 mm Balsa vertical shear webbing between spars
6.5 x 1.5 mm cap strip from rear of top spar to trailing edge
Ø 2.0 with epoxy and micro-ballons
Ø 10 Brass Tube
Ply Support plates
1.5 mm Balsa Shear webbing
Ply Spar Support plates
TYPICAL CROSS SECTION THROUGH SPAR
Ribs 02 through to 07
1.5 mm Balsa sheeting top and bottom
2.0 Birch Spar supports
TYPICAL CROSS SECTION THROUGH WINGS
Ribs 14
1.5 mm Balsa sheeting top and bottom to rear edge of spars
3.0 mm Ply Dihedral Brace with 3.0 mm balsa packers alongside
6.5 x 1.5 mm cap strip from rear of top spar to trailing edge
DIHEDRAL MEASUREMENTS
Kārea
2.530m High Performance Glider
*Kārea , from the Maori word Kāreareа - the native New Zealand Falcon.