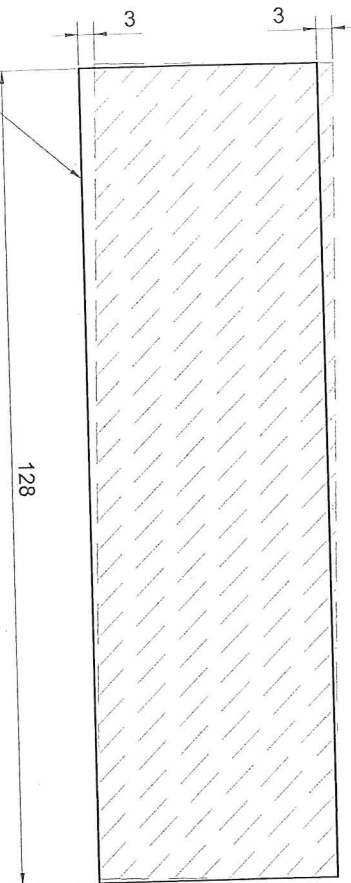
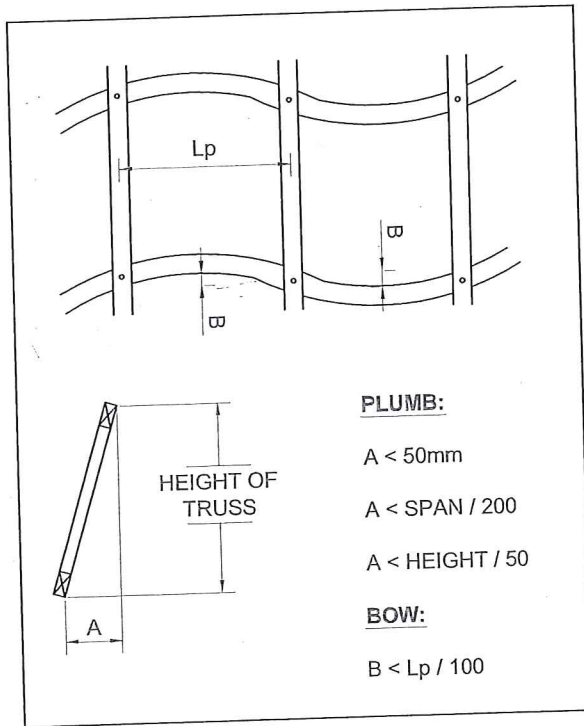


LIFE SIZE (SCALE 1:1) SECTION OF 36x111 RAFTER AT 30 DEGREE SLOPE SHOWING MAXIMUM OUT OF PLUMB TOLERANCE ALLOWED = LESS THAN 3mm OFF CENTRE.



TOLERANCE IS CRITICAL FOR BOTH A GOOD ROOF LINE AND EFFECTIVE BRACING.

A PLUMB LINE OR LEVEL MUST BE USED.

1. TRUSSES TO BE ERECTED WITH OVERALL BOW IN IT'S TOTAL RAFTER LENGTH LESS THAN  $L / 200$  AND LESS THAN 50mm (L = CHORD LENGTH). THE BOW BETWEEN BATTENS OR PURLINS MUST BE LESS THAN  $Lp / 100$  ( $Lp$  = BATTEN / PURLIN SPACING).
2. TRUSSES TO BE ERECTED WITH APEX NOT MORE THAN THE LESSOR OF  $\text{SPAN} / 200$  OR  $\text{HEIGHT} / 50$  FROM A VERTICAL PLANE THROUGH IT'S SUPPORTS.
3. AT ANY SECTION ,THE LOCAL OUT OF PLUMB SHOULD NOT EXCEED  $\text{HEIGHT} / 50$  OR 50mm ,WHICHEVER IS THE LESSOR.

GENERALLY ,IF A BOW OR TILT IS EVIDENT TO THE EYE , THE TRUSS HAS PROBABLY BEEN ERECTED OUTSIDE THE TOLERANCES.

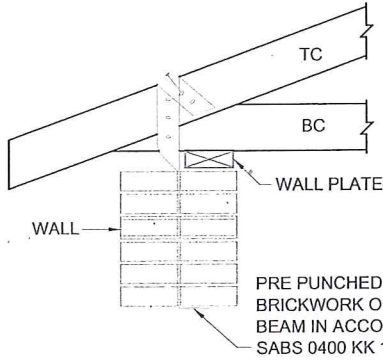
**ERECTION TOLERANCES:**

TRUSSES MUST BE ERECTED PLUMB ,LEVEL AND ALL CHORDS MUST BE STRAIGHT.



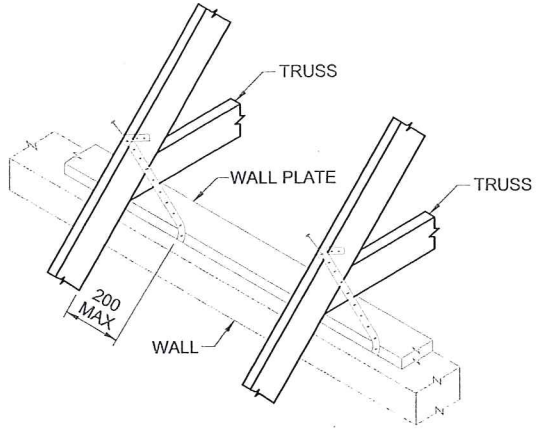
**TILED ROOFS:**

4 OFF 32mm CLOUT NAILS INTO TOP AND OPPOSITE SIDE.

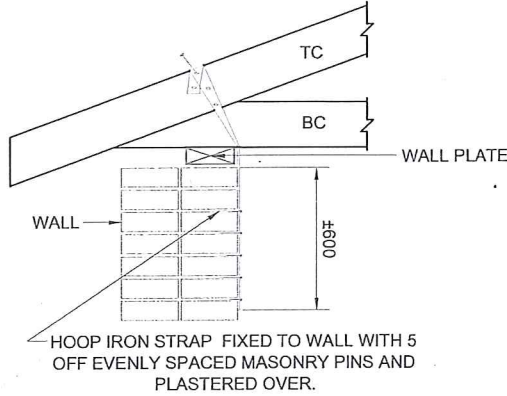


**SHEETED ROOFS:**

8 OFF 32mm CLOUT NAILS INTO TOP AND OPPOSITE SIDE.

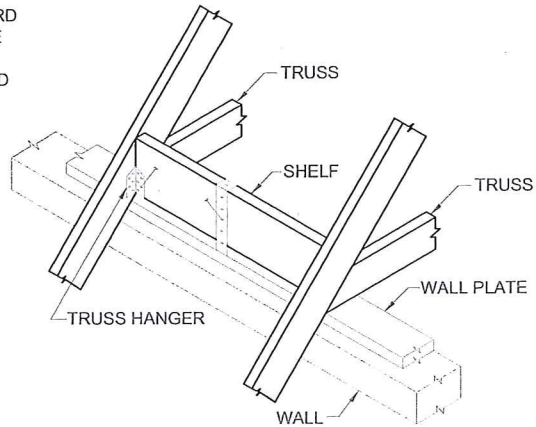
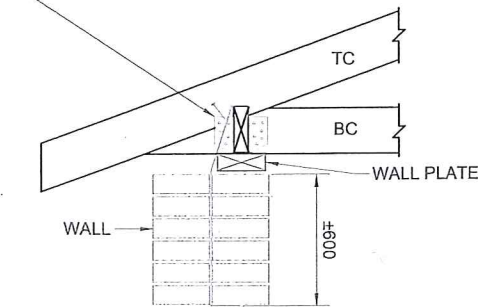


**NOTE:** 25mm x 1mm PRE-PUNCHED STRAP MAY BE USED FOR HEAVY TILE ROOFS OR LIGHT ROOFS UP TO 8m SPAN IN LOW WIND RISK BUILT UP AREAS.



**NOTE:** THIS DETAIL IS ONLY TO BE USED WHEN THE HOOP IRON IS FURTHER THAN 200mm FROM THE TRUSS.

VERTICAL SHELF TO BE SAME SIZE AS TRUSS TOP CHORD SIZE. SHELF TO BE FIXED BETWEEN TRUSSES WITH ONE 90° TRUSS HANGER AT EACH END. PRE PUNCHED STRAP WRAPPED OVER SHELF AND FIXED WITH 8 OFF CLOUT NAILS.



**TRUSS HOLDING DOWN DETAILS**



ROOF ERECTORS  
HANDBOOK VOLUME TWO

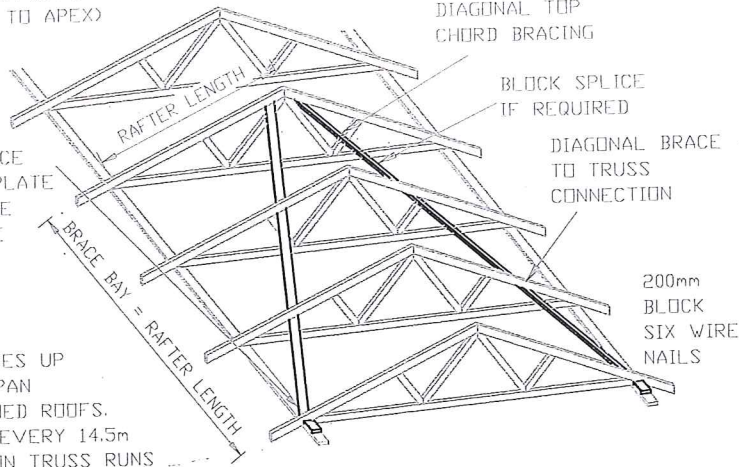
DETAIL REF: WALL TIE  
Page 6

REV: 1  
26 - 04 - 2006

N.B.: SPLICE (WHEN NECESSARY)  
TO OCCUR IN UPPER HALF OF BRACE  
(I.e. CLOSER TO APEX)

38x76 (GRADE 5)  
DIAGONAL TOP  
CHORD BRACING

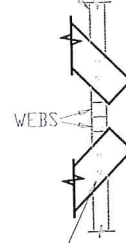
FIX TOP  
CHORD BRACE  
TO WALL PLATE  
WITH THREE  
100mm WIRE  
NAILS



RULES:  
FOR TRUSSES UP  
TO 6.6m SPAN  
- BATTENED ROOFS.  
REQUIRED EVERY 14.5m  
OR LESS ON TRUSS RUNS  
WITH THE SAME SPAN.

ISOMETRIC VIEW

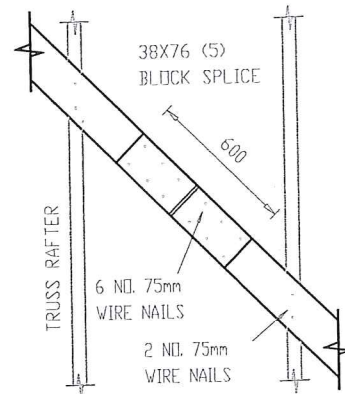
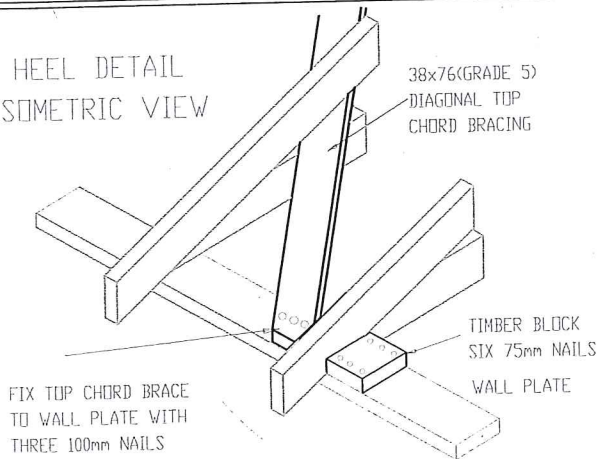
TRUSS RAFTER



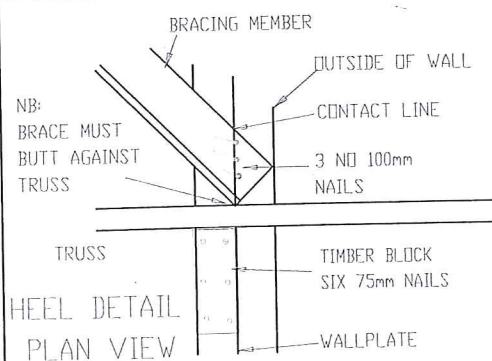
2 No. 75mm  
WIRE NAILS

APEX DETAIL

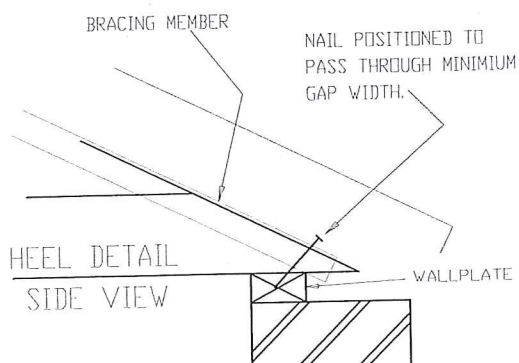
HEEL DETAIL  
ISOMETRIC VIEW



BLOCK SPLICE DETAIL



HEEL DETAIL  
PLAN VIEW



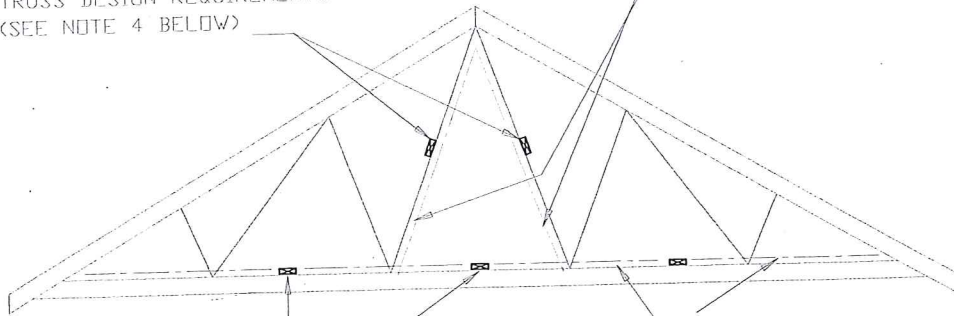
HEEL DETAIL  
SIDE VIEW

STABILITY BRACING & TOP CHORD STIFFENER - TILED ROOFS  
TRUSS SPANS UP TO 6.6m - MAXIMUM SPACING = 14.5 m



CONTINUOUS WEB RUNNERS AS PER TRUSS DESIGN REQUIREMENTS (SEE NOTE 4 BELOW)

WEB DIAGONAL BRACING AT BRACED BAY ONLY



RUNNERS/BINDERS ARE ESSENTIAL IN THE FOLLOWING CASES.

RUNNERS ARE ALSO REFERED TO AS BINDERS.

- 1) ON BOTTOM CHORDS OF CANTILEVER TRUSSES OVER CANTILEVER SECTION AND ADJACENT BAY. HERE THE BOTTOM CHORD IS IN COMPRESSION THEREFORE RUNNERS MUST BE AT 1800mm MAX. CENTRES.
- 2) ON BOTTOM CHORDS OF TRUSSES WITH LIGHT-WEIGHT ROOF COVERING BEFORE PERMANENT CEILINGS ARE INSTALLED DIRECTLY TO UNDERSIDE OF TIE BEAM. THE BOTTOM CHORD IS IN TENSION THEREFOR RUNNERS MUST BE AT 2600mm MAX. CENTRES.
- 3) ON BOTTOM CHORDS OF ROOFS WITH SUSPENDED CEILINGS OR WITHOUT CEILINGS. THE BOTTOM CHORD IS IN-TENSION THEREFOR RUNNERS MUST BE AT 2600mm MAX. CENTRES.
- 4) ON TENSION WEBS LONGER THAN 2600 mm AND COMPRESSION WEBS LONGER THAN 1800 mm U.O.S.

UNLESS OTHERWISE SHOWN :-

- 1) MAXIMUM SPACING OF RUNNERS FOR 38 mm TIE-BEAM = 2600 mm
- 2) MAXIMUM SPACING OF RUNNERS FOR 50 mm TIE-BEAM = 3450 mm

### GENERAL RULES FOR BOTTOM CHORD RUNNER/BINDER AND WEB RUNNER/BINDER REQUIREMENTS



ROOF ERECTORS  
HANDBOOK VOLUME TWO

DETAIL REF.: RUNNER1  
PAGE 52

REV.: 0  
01-07-2001