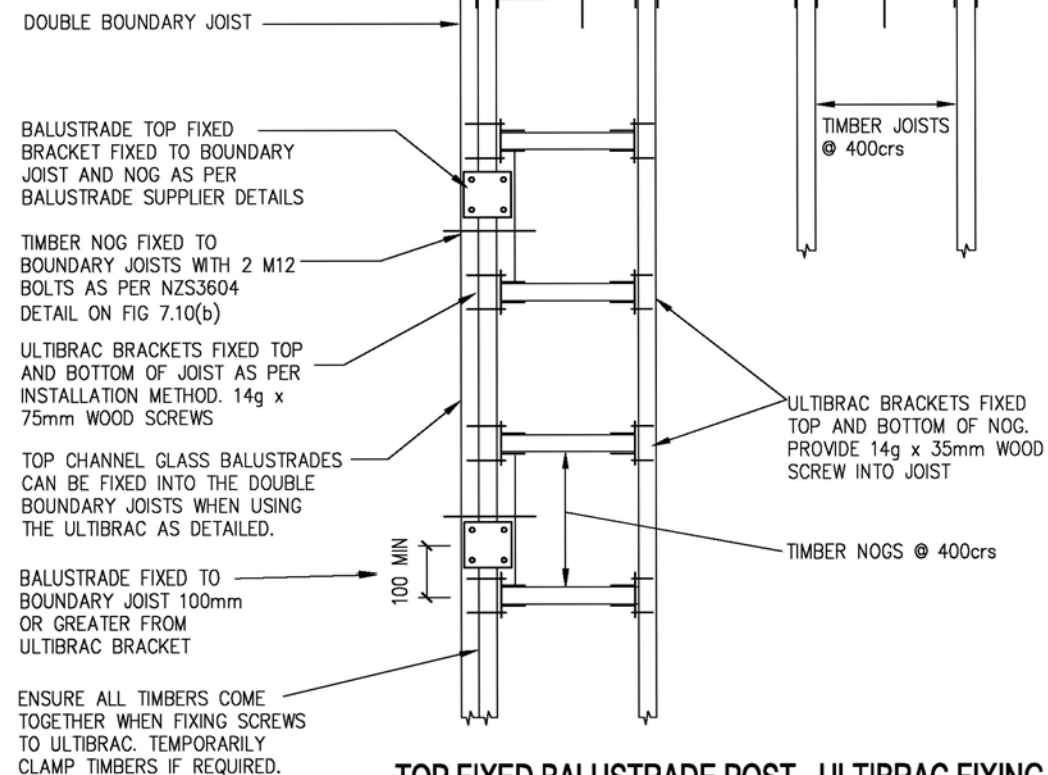


DECK BOUNDARY JOIST INSTALLATION

THE PURPOSE OF ULTIBRAC BRACKET IS TO REPLACE THE M12 COACH SCREWS AND 6KN STRAPS DETAILED IN NZS3604 FIGURE 7.10(b) & 7.10(c).



TOP FIXED BALUSTRADE POST - ULTIBRAC FIXING

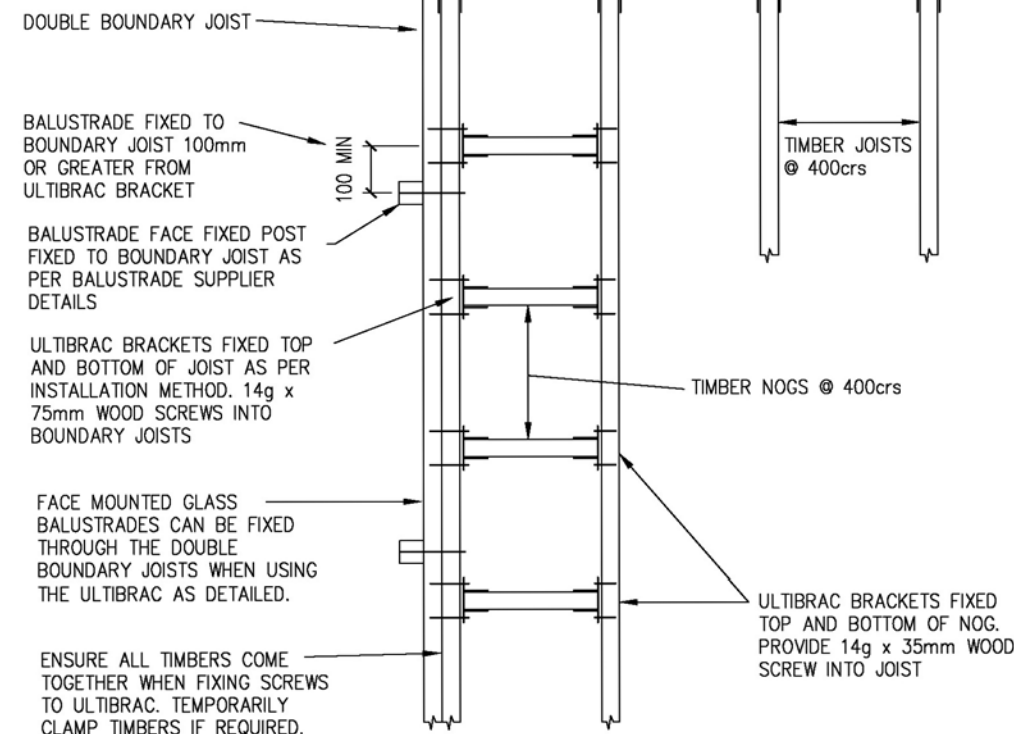
| TABLE 2. | MAX LIVE LOAD (kPa) | MAX JOIST SPAN (m) |
|-------------------|---------------------|--------------------|
| COMMERCIAL FLOOR | 5.0 | 4.0 |
| RESIDENTIAL FLOOR | 2.0 | 9.0 |

MAX JOIST SPAN IS FOR THE ULTIBRAC CAPACITY ONLY. CHECK JOIST SIZE COMPLIES WITH NZS3604 SPAN TABLES.

| TABLE 1. | JOIST SIZE | | |
|---|------------|--------|--------|
| | 190x45 | 240x45 | 290x45 |
| COMMERCIAL BALUSTRADE POST MAX SPACING (m) | 1.10 | 1.20 | 1.20 |
| RESIDENTIAL BALUSTRADE POST MAX SPACING (m) | 1.20 | 1.20 | 1.20 |

MAX BALUSTRADE HEIGHTS: 1.0m RESIDENTIAL, 1.1m COMMERCIAL.

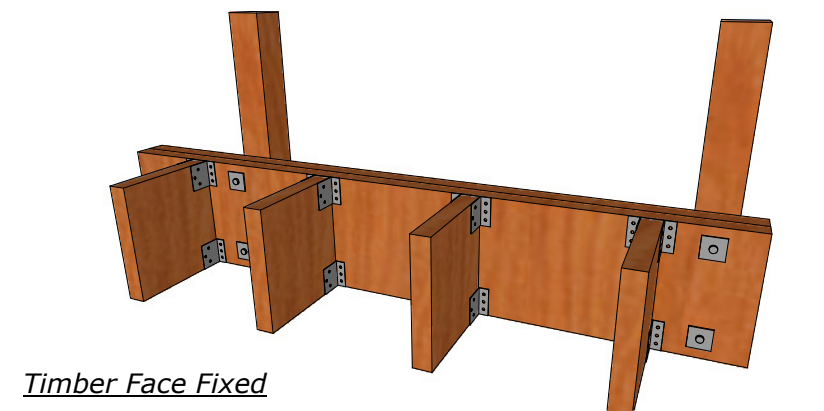
FIXINGS FOR DECK BOUNDARY CONNECTION
EACH BRACKET REQUIRES
6x14gx35mm WOOD SCREWS
6x14gx75mm WOOD SCREWS



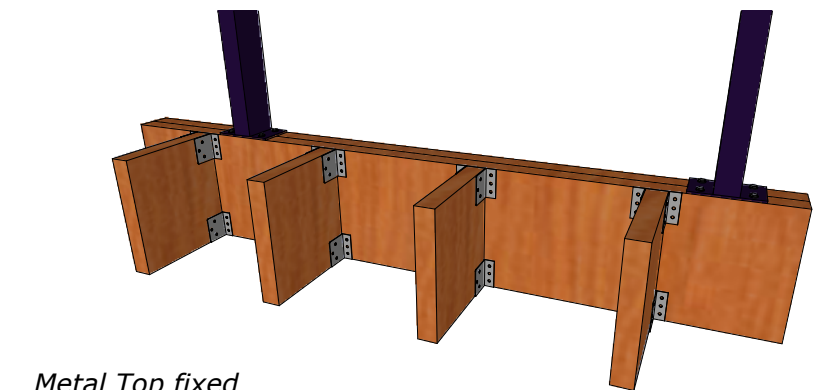
FACE FIXED BALUSTRADE POST - ULTIBRAC FIXING

NOTES:
-WHERE THE ULTIBRAC IS USED AS A JOIST HANGER SEE TABLE 2.
-IN EXTERIOR ENVIRONMENTS THE ULTIBRAC MATERIAL SHALL BE STAINLESS STEEL 304.
-ULTIBRAC INSTALLATION APPLIES TO BALUSTRADE CONSTRUCTION OF DOMESTIC & RESIDENTIAL BUILDINGS INCLUDING EXTERNAL DECKS & INTERNAL AREAS AND TO OFFICES & WORK AREAS NOT SUSCEPTIBLE TO OVERCROWDING. OCCUPANCIES A, B, C3 & E IN NZS1170.1 TABLE 3.3.
-CHECK WITH THE BALUSTRADE SUPPLIER THAT THE CHOSEN JOIST SIZE IS SUITABLE FOR THE BALUSTRADE FIXINGS.

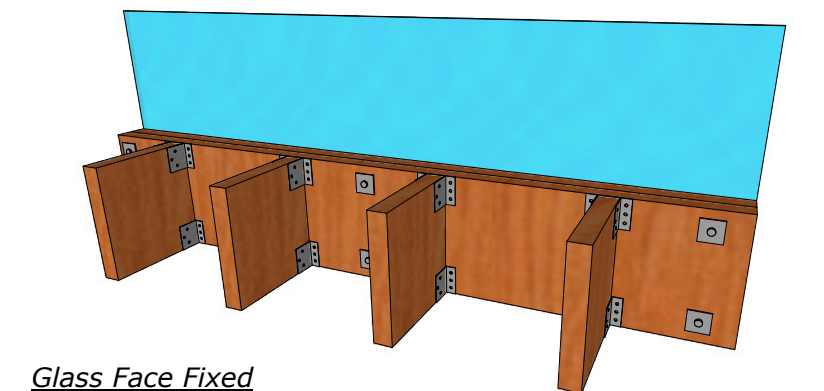
SUITABLE FOR ALL BALUSTRADE TYPES



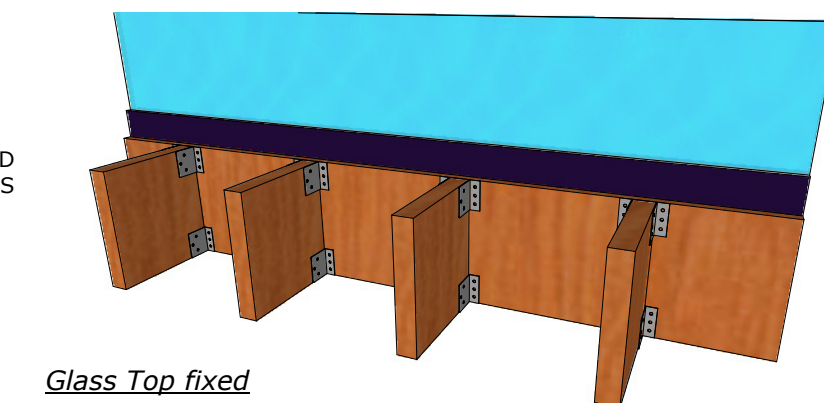
Timber Face Fixed



Metal Top fixed



Glass Face Fixed

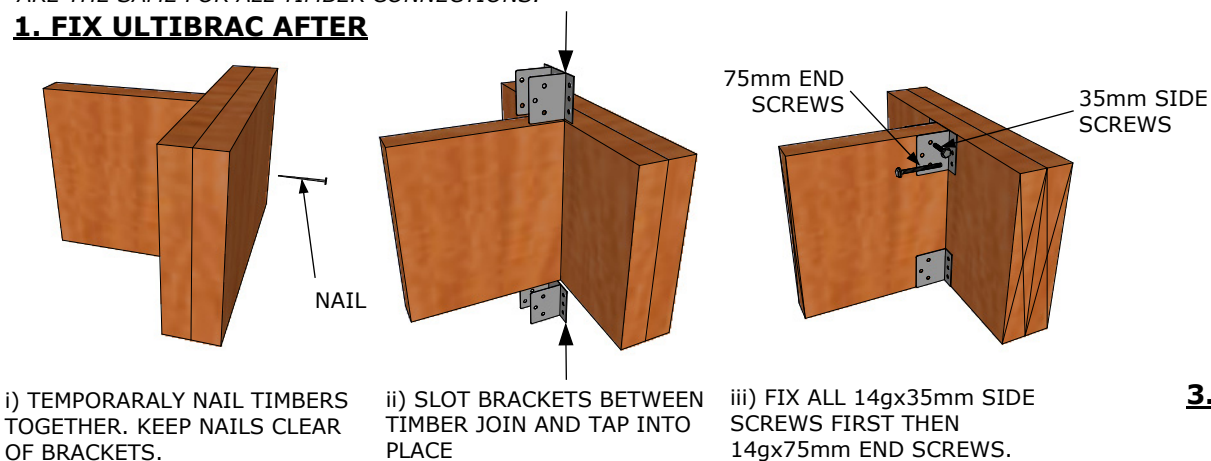


Glass Top fixed

INSTALLATION METHODS

THERE ARE 3 WAYS TO INSTALL THE ULTIBRAC DEPENDING ON THE TIMBER JOINT. CONNECTIONS BELOW ARE FOR A DECK BOUNDARY JOIST. THE METHODS ARE THE SAME FOR ALL TIMBER CONNECTIONS.

1. FIX ULTIBRAC AFTER



i) TEMPORARILY NAIL TIMBERS TOGETHER. KEEP NAILS CLEAR OF BRACKETS.

ii) SLOT BRACKETS BETWEEN TIMBER JOIN AND TAP INTO PLACE

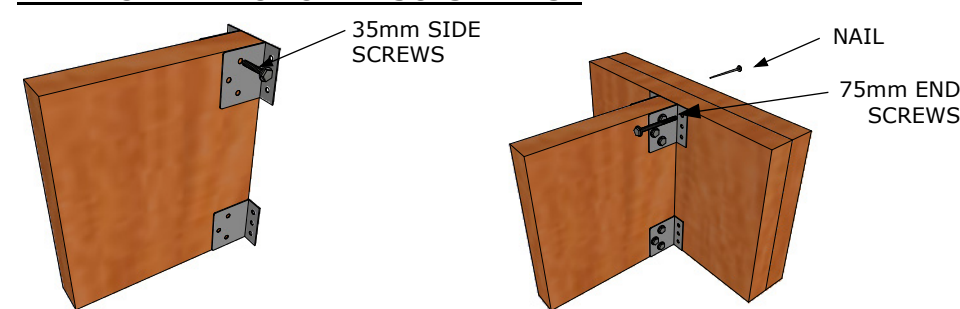
iii) FIX ALL 14gx35mm SIDE SCREWS FIRST THEN 14gx75mm END SCREWS.



ULTIBRAC IS THE NEW VERSION OF THE JOIST GRIPPA BRACKET. IT PROVIDES THE SAME FIXING AS THE JOIST GRIPPA BUT IS MUCH EASIER TO INSTALL WITH NO NAILS OR TOP FLANGE OVER THE JOISTS. THE ULTIBRAC CAN ALSO BE USED AS A GENERAL PURPOSE FIXING BRACKET FOR BEAMS, JOISTS, TRUSS'S, RAFTERS, STUDS AND MORE.



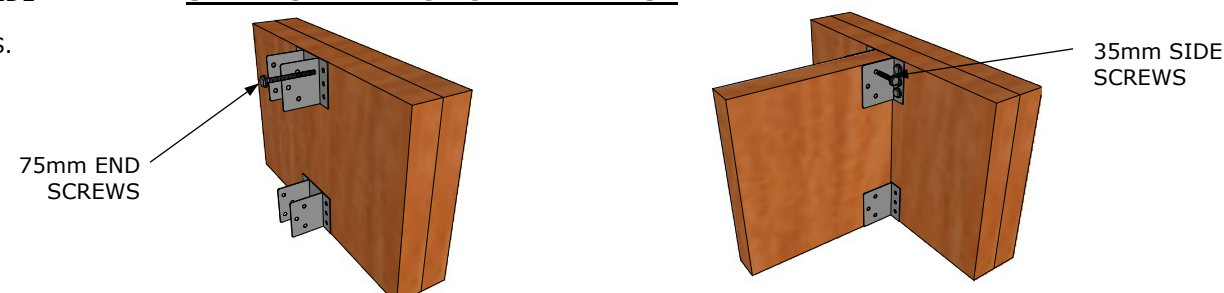
2. FIX ULTIBRAC TO THE JOIST FIRST



i) FIX BRACKETS TO THE JOIST WITH ALL 14gx35mm SCREWS

ii) NAIL BOUNDARY JOIST TIMBER TO JOIST, FIX ALL 14gx75mm SCREWS INTO BOUNDARY JOIST

3. FIX ULTIBRAC TO BEAM FIRST



i) FIX BRACKETS TO THE BEAM WITH ALL 14gx75mm SCREWS

ii) FIX JOIST TO BRACKET WITH ALL 14gx35mm SIDE SCREWS

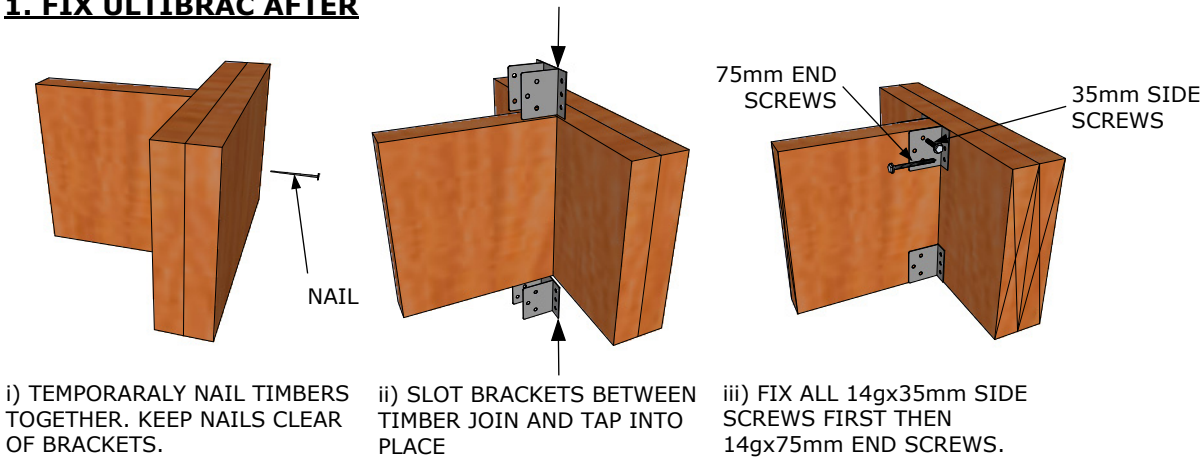
ULTIBRAC®
ONE BRACKET, MULTI PURPOSE
DECK JOIST INSTALLATION SPECIFICATION
AUGUST 2020 - VERSION 1.0

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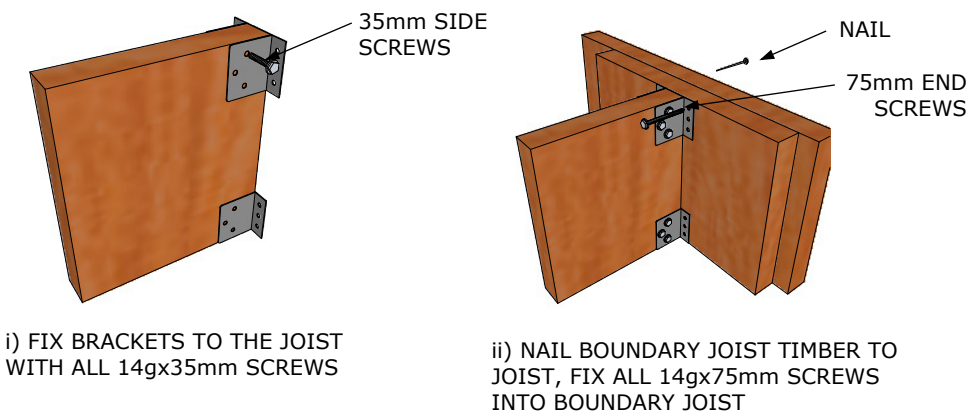
INSTALLATION METHODS

THERE ARE 3 WAYS TO INSTALL THE ULTIBRAC DEPENDING ON THE TIMBER JOINT. CONNECTIONS BELOW ARE FOR A DECK BOUNDARY JOIST. THE METHODS ARE THE SAME FOR ALL TIMBER CONNECTIONS.

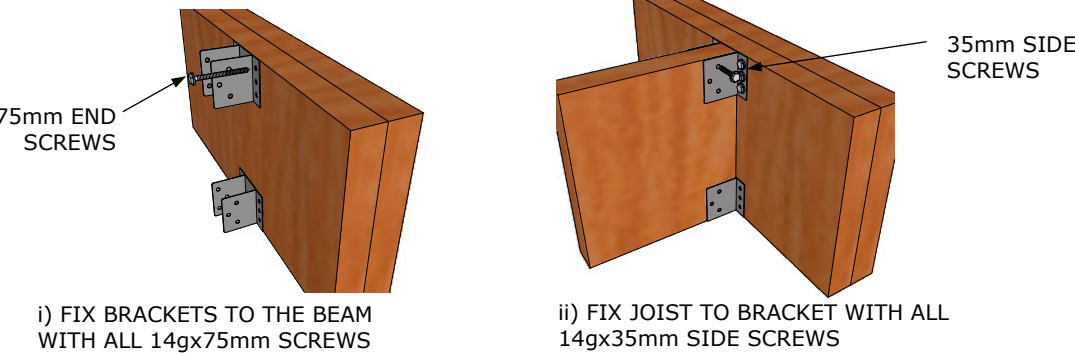
1. FIX ULTIBRAC AFTER



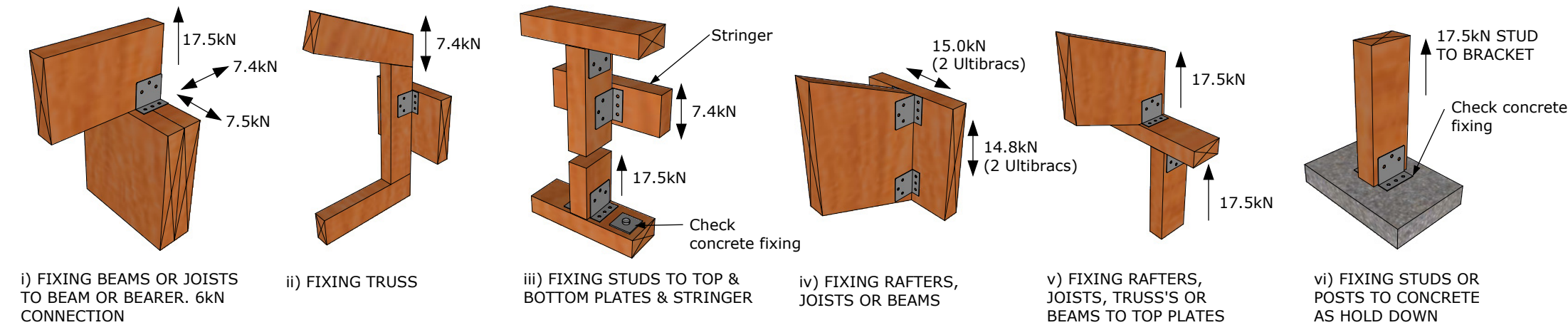
2. FIX ULTIBRAC TO THE JOIST FIRST



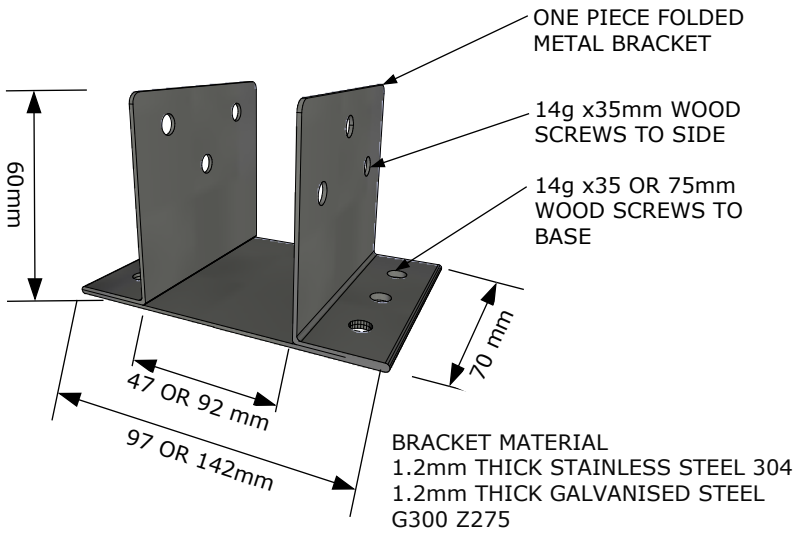
3. FIX ULTIBRAC TO BEAM FIRST



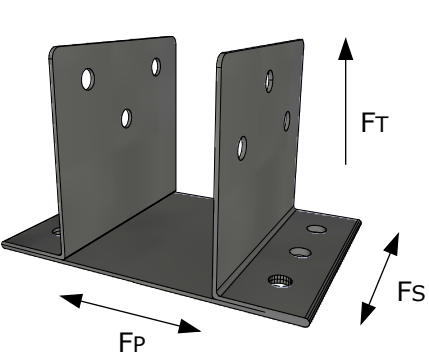
ULTIBRAC CONNECTION TYPES FIXINGS AS PER 1, 2 & 3 ABOVE. ALL HOLES FILLED WITH 14g x 35mm WOOD SCREWS



ULTIBRAC DETAILS



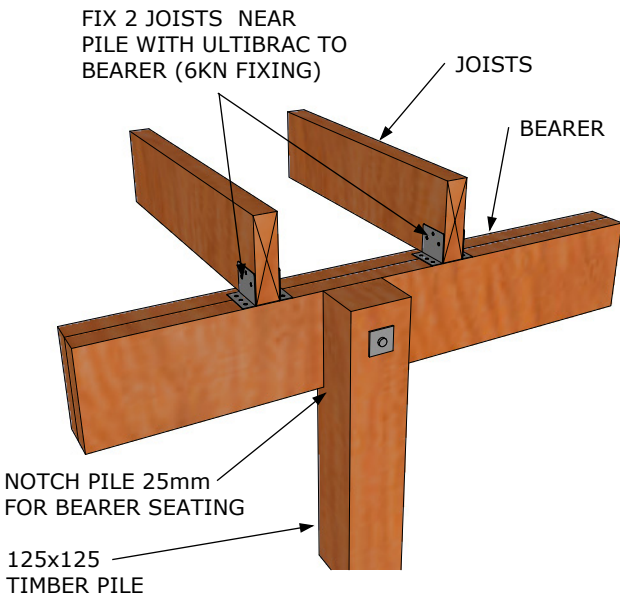
ULTIBRAC LOAD DATA



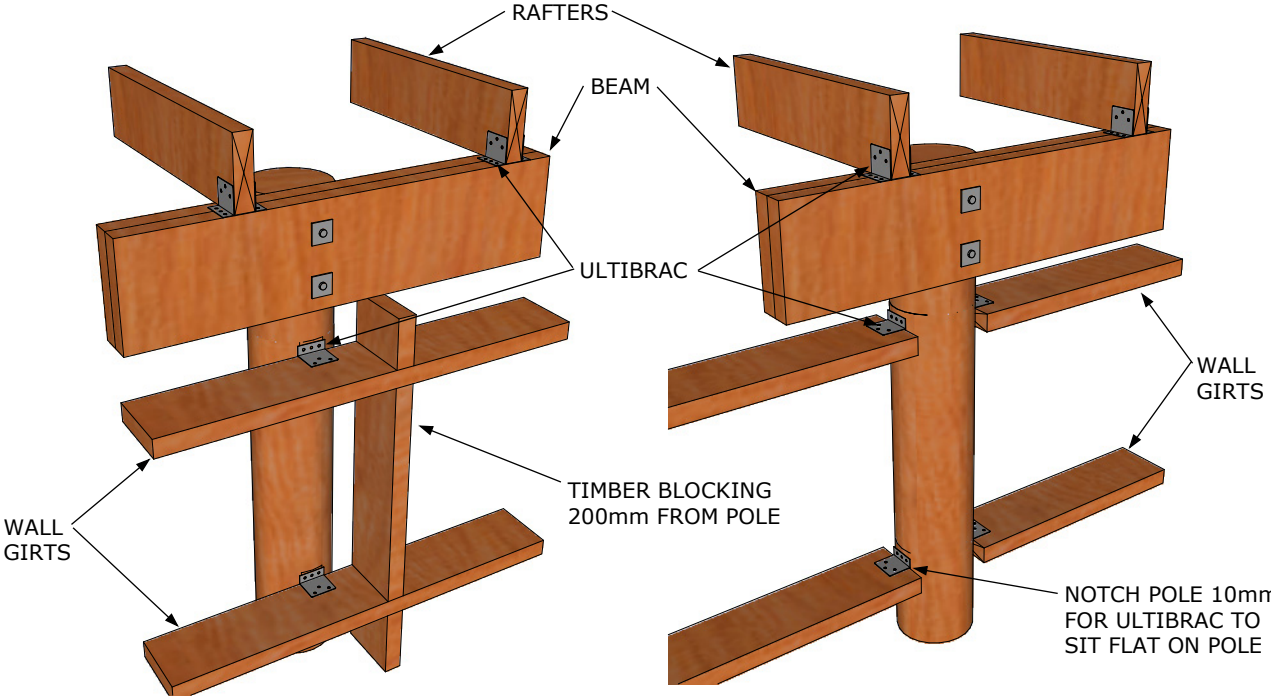
FOR DESIGNERS AND ARCHITECTS. THESE VALUES ARE DESIGN CAPACITIES THAT CAN BE USED AS AN 'ALTERNATIVE FIXINGS' UNDER NZS3604. SHEAR Fs = 7.4kN SHEAR Fp = 7.5kN TENSION Ft = 17.5kN

FOR ENGINEERS. THESE VALUES ARE CHARACTERISTIC LOAD VALUES THAT CAN BE USED IN CONJUNCTION WITH NZS3603 TO CALCULATE DESIGN CAPACITIES. SHEAR Fs = 8.8kN SHEAR Fp = 8.9kN TENSION Ft = 18.6kN

NOTE: TENSION AND SHEAR TEST RESULTS ARE FOR ALL HOLES FILLED WITH 14g x 35mm LONG SELF DRILLING WOOD SCREWS. TESTING COMPLETED BY SGS AND BRANZ



NZS3604 12kN PILE CONNECTION ANCHOR PILE OR BRACED PILE AS PER NZS3604 FIG 6.6 AND 6.10. ULTIBRAC PROVIDES 6kN FIXING BETWEEN JOISTS AND BEARER. ALL DETAILS AS PER NZS3604. ULTIBRAC 12kN FIXING PACK CONTENTS: - ALL STAINLESS STEEL 304 GRADE - 2xULTIBRAC - 24x14g x 35mm TYPE 17 WOOD SCREWS - M12x260mm LONG THREADED ROD, 2x50x50x3mm WASHERS, 2 NUTS



GIRTS OUTSIDE POLE

GIRTS IN BETWEEN POLE

TIMBER POLE SHED CONSTRUCTION

- WALL GIRTS FIXED TO THE TIMBER POLES USING ULTIBRAC
- RAFTERS FIXED TO ROOF BEAM WITH ULTIBRAC

ULTIBRAC® ONE BRACKET, MULTI PURPOSE GENERAL PURPOSE INSTALLATION SPECIFICATION AUGUST 2020 - VERSION 1.0

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