

CARPENTERS MANUAL

"When all else fails read the instructions"

1ST EDITION 2008

SECTION E



SECTION E - CARPENTER

E1 Roof Carpenter

E1.1 Roof framing constructed on ecobricks is generally the same as those constructed on other bricks.

Specific requirements for ecobrick walls.

E1.2 Minimum thickness of top plates is to be 35mm.

Minimum width of top plate to be 70mm.

E1.3 Roof strutting beams are permitted to be placed on ecobricks. However, the maximum beam size is 250 UB25. No two beams are to be closer than 600mm. Any beam is to be at least 300mm away from any edge or opening (i.e. window or door), or central to any panel, between openings.

Minimum length of cavity wall to support up to a 200 UB 18 is 600mm. Minimum length of cavity wall to support up to a 250 UB 25 is 900mm. Minimum panel width of a single leaf wall is to be 900mm.

E1.4 All roof strutting beams are to be positioned on a 70mm x 90mm (consisting of two nail laminated 35 x 90 members) timber packer (positioned on the 70mm face) a minimum of 250mm long. This packer is to be placed on the top plate. The top plate may terminate at the edge of the packer. An alternative packer to timber is a 250mm x 70mm x 10mm steel plate.

Note: Roof strutting beams are to bear on the wall for the full width of the wall below the packer.

Elsewhere normal roof construction guide lines to be applied, such as the location of struts and hangers.

E1.5 Roof tie-down for N1, N2 extend straps down a minimum of 2100. For N3 and N4 regions seek specific Engineering advice.

E1.6 Roof struts are permissible onto walls as per normal construction. Location and angle to comply with good building practice and AS1684. (They are to be located a minimum of 300mm from a corner or wall end).

E1.7 The above requirements are minimum requirements and make no allowance for extreme or cyclonic conditions. An engineer's advice is essential to determine appropriate building methods in cases of non standard building methods or extreme climatic conditions.



E2 Roof Trusses

- E2.1** A continuous top plate is required for trussed roofs. The minimum size is 70mm wide by 35mm deep. The 70mm side to sit on the bricks.
- E2.2** Truss point loads (from girder trusses or similar) should be avoided or, if necessary, an additional steel plate (70 x 10PL) to be added to the top side of the timber plate and extending a minimum of 250mm on each side of the truss.
- E2.3** Where a roof truss supports more than 30 square metres of roof, refer to a suitably qualified engineer for specific advice.

E3 Fixings Carpenter

- E3.1** AAC fixings and the correct methods are outlined in the ecobrick Fixings Manual. Copies are available from the ecobrick office or by download from the ecobrick web site. www.ecobrick.com.au.

References. AS1684-2006 the Residential Timber framed Construction Standard and AS1170.2-2002 Minimum Design Loads on Structures [known as the SAA Loading Code] plus any other relevant codes and standards.

Building Code of Australia – Volume 1 – section B1 – Structural Provisions.

Building Code of Australia – Volume 2 – Part 2.1 – Structure.



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Advanced Concrete Technologies
ABN: 62 005 736 005

Cnr Cook and Bannister Roads
Canning Vale | WA | 6155

PO Box 1408 | Canning Vale | WA | 6155

t 08 9334 4750

f 08 9334 4751

e info@ecobrick.com.au

w ecobrick.com.au