

# 25 CHANGES IN E2/AS1 YOU NEED TO KNOW

E2/AS1 was updated last year – do you know what changed? This guide has 25 key changes to the design of a building structure and envelope.

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## Claddings and underlays

- 1 All EIFS and flush-finished fibre-cement sheet claddings must be fixed over a cavity regardless of the risk matrix score (see Figure 1).
- 2 Buildings in the extra high wind zone require wall claddings to be installed on drained cavities, a rigid wall underlay with an overlay of flexible wall underlay and an additional 25 mm height to flashing upstands, with hooks or hems.
- 3 The term 'wall underlay' replaces the previously used term 'building paper' and covers kraft building paper, synthetic wall wraps and non-proprietary rigid sheathing.
- 4 Masonry veneer information is now in E2/AS1 (not NZS 3604:2011) and has changed from what was in NZS 3604:1999.
- 5 Decorative elements applied to flush-finished cladding systems must be provided with a 10° slope to the top surface and a drip edge. The cladding must be sealed before decorative elements are attached.

- 6 Sheet plywood and fibre-cement claddings can only be direct-fixed – up to weathertightness risk score 6 – if horizontal joints are flashed and vertical joints have a cover batten or H jointer.

- 7 Sill trays in direct-fix claddings can have a flat base but require an 8 mm minimum upstand at the back. The detail at the trimming stud is also modified to incorporate additional vertical packers.

## Roofs and eave flashings

- 8 The minimum pitch of membrane roofs is increased to 2° (1:30). However, BRANZ still recommends a minimum pitch of 3° to ensure positive drainage over the life of the building.
- 9 Roof underlay is required for masonry tiles in very high and extra high wind zones.
- 10 Roof underlay must now be run horizontally on roof slopes below 10°.
- 11 Minimum roof valley widths must be designed to take account of valley slope and catchment area.

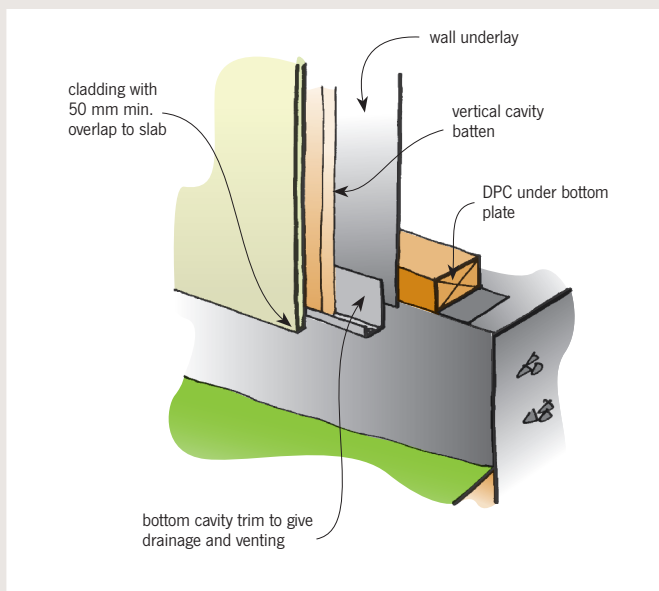


Figure 1: Flush-finished cladding must be fixed on a drained cavity.

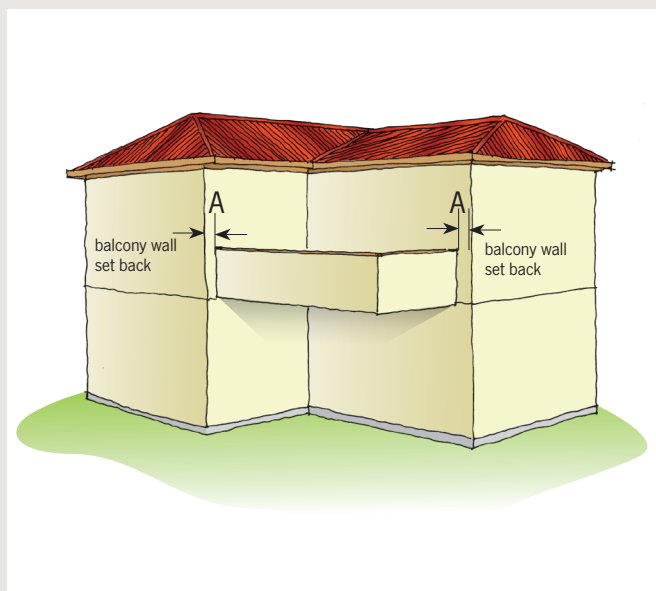


Figure 2: E2/AS1 requires enclosed framed balcony walls to be out of plane.

- 12\*** Eaves flashings are required for all metal roofs that:
- are under 10°, and
  - have a soffit width of 100 mm or less, and
  - are located in very high and extra high wind zones.

### **Gutters**

- 13** Hidden gutters must have a minimum slope of 8°.
- 14** Membrane gutters must be laid without cross seams, and metal gutters must have welded joints.
- 15** The metal tile gutter overhang is reduced to 40 mm. For masonry tiles, a 50 mm minimum overhang is specified.

### **Windows and doors**

- 16** For all cavity claddings, a sill support bar must be installed on all doors and windows wider than 600 mm.
- 17** The fixing of windows into the opening is now specified – number, spacing and type of fixing.
- 18** A seal is required between the top window flange and the underside of the head flashings in very high and extra high wind zones.
- 19** A factory-installed corner soaker is required at the jamb/sill junction or all aluminium windows and doors.
- 20** E2/AS1 now requires a minimum threshold height of 100 mm rather than requiring a step-down onto a membrane deck at doorways.
- 21** Bifolding and sliding doors are now included.

### **Parapets, balconies and decks**

- 22** The minimum pitch of membrane decks is increased to 1.5° (1:40).
- 23** Claddings to parapet and enclosed balcony walls must be installed over a drained and vented cavity.
- 24** The Acceptable Solution no longer covers the saddle flashing detail for parapets and enclosed balcony walls in the same plane as the adjacent walls – an offset is now required (see Figure 2).

### **NZS 3604:2011 alignment**

- 25** The Acceptable Solution aligns with NZS 3604:2011 for building height, exposure zone definitions and wind zones.

*A current copy of E2/AS1 can be downloaded for free from [www.dbh.govt.nz/compliance-documents](http://www.dbh.govt.nz/compliance-documents). ◀*

\* corrected from printed version.