Roof-to-wall junction

BRANZ is sometimes asked how to detail roof-to-wall junctions. The detailing can be tricky, but following the Acceptable Solution and these step-by-step illustrations will help.

NEW ZEALAND BUILDING CODE clause E2 External moisture requires that roofs and external walls must prevent the penetration of water that could cause undue dampness, damage to building elements or both.

The roof/wall junction where a roof finishes within the length of an adjacent wall, combines different planes, angles and building materials, requiring careful detailing to ensure water cannot enter the building structure.

Apron flashing requirements

Figure 8B in Acceptable Solution E2/AS1 shows a roof/wall junction detail using an apron flashing and refers to paragraphs 5.1 and 5.2. These describe the requirements for apron flashings at roof-to-wall junctions, including that there must be:

- a 75 mm minimum wall cladding cover over the upstand
- a 35 mm minimum gap between the wall cladding and the roofing
- cover over the roofing as per E2/AS1 Table 7 depending on wind zone and roof pitch

Note: Eave flashing required for long-run profiled metal in very high or extra high wind zones for roofs under 10° pitch and where the fascia is 100 mm or less from cladding.

Figure 1 Step 1 – roof/wall junction construction sequence.
Steps 2–5 – roof/wall junction construction sequence (note that Step 3 is omitted for clarity).

- a kick-out or tapered stop-end to the apron flashing – Figure 8B of E2/AS1 gives one option for folding a metal flashing to direct water to the spouting
- a cross-fall (shown in E2/AS1 figures but angle not specified) to drain water off the apron flashing – 5° is considered prudent.

Construction sequence

Figures 1–3 illustrate the construction sequence for the detail with bevel-back weatherboards over a drained and vented cavity.

Step 1 – Install roof underlay and cladding, turning the roof underlay up the adjacent wall.
Step 2 – Fit the apron flashing with a fall towards the roof and a tapered stop-end – folded on site or proprietary insert – to direct water into the gutter. Ensure it has the required minimum upstand height, roof cover and crossfall (5°).
Step 3 – Clad wall up to fascia (weatherboard A in Figure 3).
Step 4 – Cover apron flashing upstand with additional wall underlay or flexible flashing tape extending beyond bottom end of apron.
Step 3 – Bevel-back weatherboard wall cladding

Note: An alternative is to use a proprietary stop-end that is fitted to the end of the underflashing.

**Figure 3** Steps 6–9 – roof/wall junction construction sequence.

Step 5 – Install cavity battens and a cavity closure maintaining the minimum required gap – generally 35 mm (Figure 2).

Step 6 – Install the fascia board.

Step 7 – Fit a transition corner flashing either under or over the fascia board to protect the soffit framing by bridging the gap at the end of the fascia board. Extend the transition corner flashing up to the underside of the roofing (Figure 3) and over weatherboard A.

Step 8 – Fit weatherboard B over the cavity battens, cutting board to fit around the apron flashing stop-end as required.

Step 9 – Fit the gutter to fascia board, maintaining a minimum 10 mm gap between the end of the gutter and the weatherboard cladding.

Step 10 – Continue fitting weatherboards to wall maintaining 35 mm clearance to apron flashing.