



# FLASHING BRICK VENEER INFILL PANELS

**An infill panel is often used with masonry veneer cladding above a window or door opening. This avoids the need to support the weight of the masonry veneer but creates a weathertightness issue.**

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Using an infill panel above a window or door in masonry veneer cladding creates an additional junction between two different claddings. The use of an infill panel above an opening requires consideration of:

- the different cavity width requirements behind the infill panel (20 mm or no cavity) and the masonry veneer (40–75 mm)
- the vertical junction between the masonry veneer and the infill material
- the jamb flashing intersecting with the head flashing.

## Direct-fix or cavity?

As the infill panel above a window or door opening is used to simplify construction, the most likely choices of material for the infill will be a sheet cladding (plywood or fibre-cement board), or weatherboard cladding (rusticated or bevelback), all of which may be either direct-fixed or over a cavity. Stucco, EIFS or profiled metal cladding are less likely to be used but, if they are, the flashing detail issues remain much the same.

The first step is to do a risk matrix to determine whether a cavity is needed for the infill panel. Alternatively, always using a cavity reduces the cavity width difference and therefore somewhat simplifies the detail at the vertical junction between the two cladding materials. The next step is to look at the details required.

Table 1: Window head detail requirements from E2/AS1.	
E2/AS1 clause	Requirement
9.1.5(a)	the building wrap must be cut and dressed into all sides of the opening
9.1.5(b)	a flexible flashing tape, which must be compatible with the building wrap, must be applied to the head framing
9.1.6	air seals must be applied to openings to reduce airflow carrying water into the building wall
9.1.10.3 and 9.1.10.4	when a cavity is used a head flashing must be installed across the top of the opening (see Table 7 for slopes and covers of the flashing) with 10 mm turned-up stopends at both ends
9.1.7 and 9.1.10.4(c)	a second layer of building wrap or flexible flashing tape must be lapped over the head flashing upstand

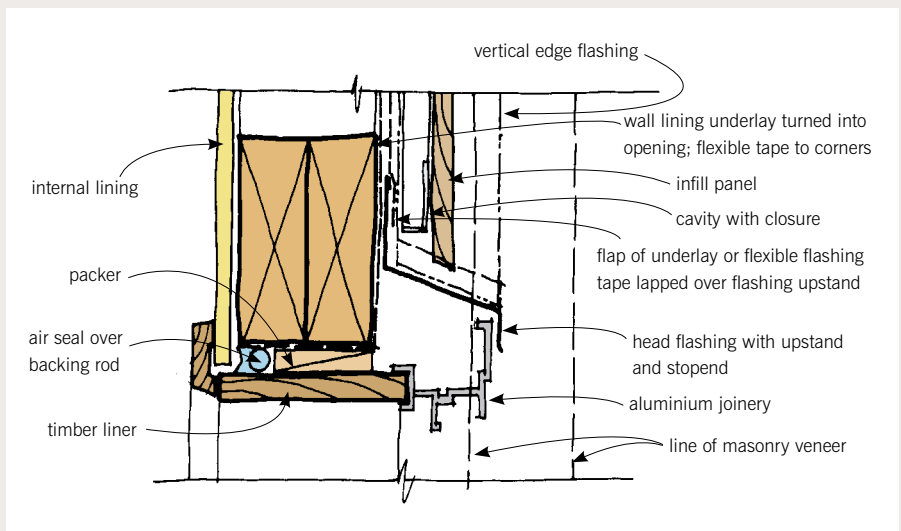


Figure 1: Window head detail.

### Detailing the window head

The window head detail may simply be from E2/AS1 for the particular cladding. Detail requirements are shown in Table 1.

The stopended head flashing can be fitted between the end faces of the masonry veneer on either side of the opening (see Figures 1 and 2).

So far, so good – this is all very straightforward. But at this point we need to consider what happens at the ends of the window flashing.

### Detailing the vertical junction

For vertical junctions between masonry veneer and other claddings, BRANZ *Weathertight solutions, Volume 4: Masonry Part 1* details an angled flashing behind the cladding with 65 mm minimum cladding cover and 30 mm minimum masonry veneer cover (where the flashing runs behind the masonry veneer) (see Figure 3).

A similar flashing detail can be used in the vertical junction above the opening but, instead of being run behind the masonry veneer, it should butt to the end faces of the masonry veneer and be fitted inside the stopends of the head flashing. This way, any water that may get behind the infill panel will run down the inside face of the panel or the vertical flashing, and simply be drained to the exterior over the head flashing.

### Detailing the jamb flashing

Both John Oliver's *Brick book* and the BRANZ *Good practice guide – Masonry veneer* recommend that masonry veneer cladding jamb details are flashed using a 200 mm wide flexible flashing curled into the window or door joinery and stapled over the building wrap, but allowed to hang free in the middle of the cavity (see Figure 4). Any water that gets past the vertical edge flashing above the opening will be channelled down to the bottom of the masonry veneer cavity by the flexible jamb flashing.

This is an example of a situation where a combination of both Acceptable and Alternative Solutions may be used to effectively resolve a detailing problem. ♦

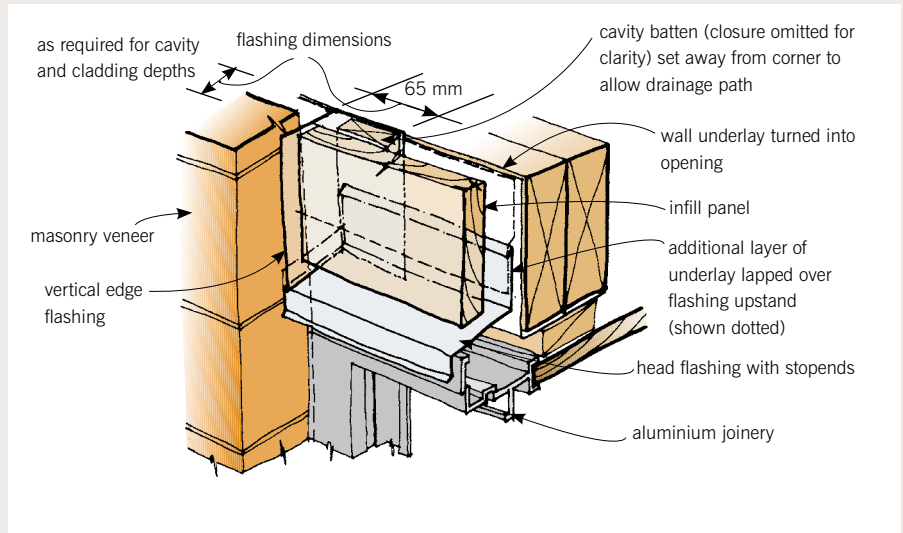


Figure 2: Brick veneer with infill panel above opening.

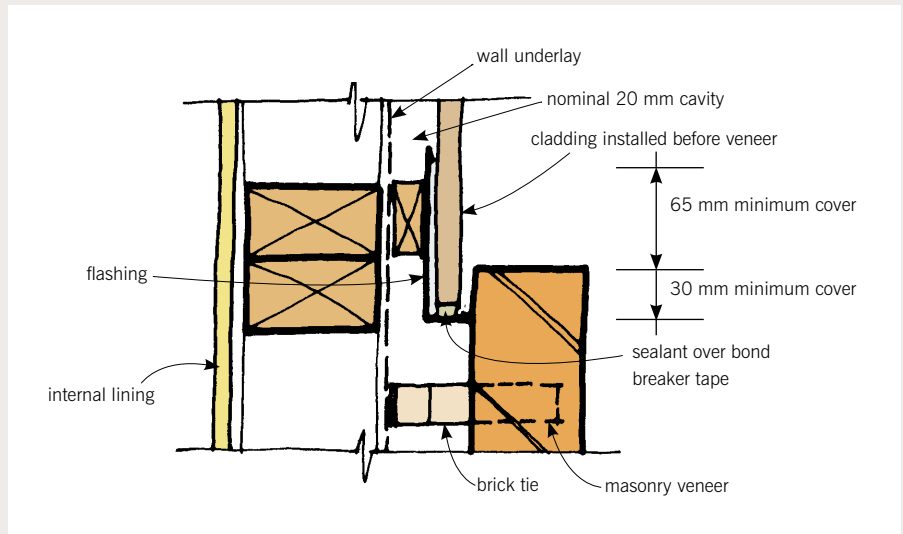


Figure 3: Plan section of typical vertical junction between masonry veneer and other cladding.

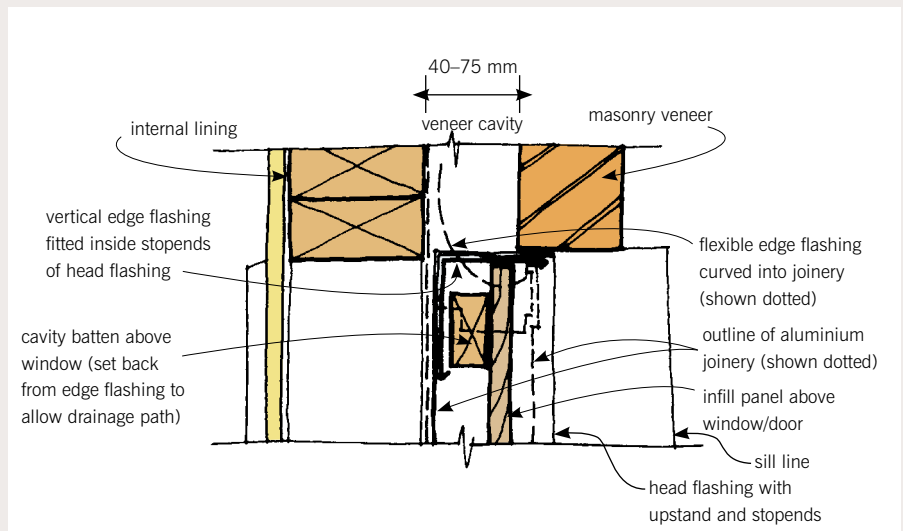


Figure 4: Detail at infill panel/masonry veneer junction above opening.