



GUIDELINE

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DRAINED AND VENTED CAVITIES

While the Third Edition of E2/AS1 does not become operative until 1 July this year, many designers and Territorial Authorities are already using the published document to provide guidance to ensure compliance with Clause E2 performance requirements. One of the main changes in the new document is a requirement for some designs to the Acceptable Solution to have drained and vented cavities installed behind the cladding. This is to provide secondary drainage and some drying should water get past the primary defence.

While the use of drained and vented cavities behind a range of cladding materials is already widespread, many are not providing the requisite drainage and drying. What is happening in these instances is that the cladding is simply being battened or spaced off the framing. Drainage and venting is being prevented for two main reasons:

1. full width horizontal battens are being installed between the vertical battens at the dwang locations
2. no or insufficient drainage or venting is being provided along the base of the cavity or where a cavity terminates above windows and doors or horizontal flashings.

To meet the requirements of E2/AS1 Third Edition:

- provide at least 1000 mm² of opening per metre length of wall wherever a cavity terminates, such as the base of a wall, above a horizontal inter-storey flashing, or over a window opening (3 mm diameter holes at 7 mm centres achieves the required minimum opening). Also a 5 mm drainage gap must also be allowed between the bottom of the cladding and any horizontal flashing
- where intermediate cladding fixings are required (between vertical battens) fix 100 mm long inclined (5° or 9 mm off horizontal) blocks with a 50 mm minimum gap between each block
- construct cavities so that air from the drained and vented cavity cannot migrate into roof, upper floor and wall framing spaces (at the top of the cavity this is usually achieved with a continuous horizontal batten).

MORE ON CAVITIES – STUCCO

From February 2004, E2/AS1 Second Edition required drained and vented cavities behind all stucco cladding – both rigid and non-rigid backed installations. The practice of using diagonal boarding with a 40–50 mm gap between each board does not, in our view, constitute a drained and vented cavity in accordance with E2/AS1. While drainage and some venting can be provided along the base of the wall, examples seen under construction have no provision

for draining or venting where the diagonals slope towards an internal corner or down the side of an opening because the boards are tight butted into the corner or side of the opening. Construction using diagonal boarding will be discussed in future editions of *BUILD* magazine.

THERE IS ALWAYS AN ANGLE

Multiple claddings are a common feature of current building design – examples of three and four different claddings on one building have been observed. Data from leaky building investigations have highlighted junctions between materials or cladding types as being higher risk in terms of water entry. Detailing of vertical junctions can be effectively carried out using a range of flashings. However, it is much more difficult to ensure the junction is weathertight where it is raked or inclined. The presence of the angle means that, when compared to a vertical joint, much more water will impact on the upper side of the junction. Details must demonstrate how this collected water is dealt with, bearing in mind that the volume of water to be disposed of increases down the length of the junction.

NEW YEAR'S RESOLUTIONS

A comment from a designer was passed onto BRANZ and the tenor of it raises concern: in effect they said 'I really don't have to keep up-to-date, my engineer will tell me what I need to comply with'.

Continuing professional development (CPD) is important for all participants in the building industry, particularly as there will be significant developments during 2005 as a result of the revisions to the Building Act. This will mean that time will need to be set aside in your busy schedule to ensure you are up-to-date with the changes. You do need to know what the effect of the changes will be on you. For example – the Construction Contracts Act has now been in force for over a year, but there are still significant numbers of contractors not using its provisions for obtaining payment. While they may not have yet had a problem in obtaining payment, unless they use the systems set out in the Act for progress payment claims, they might in the future.

For NZIA members, obtaining set minimum CPD points is mandatory. However, for other registered architects, building designers and a number of others within the building industry the requirement for CPD is not yet clearly defined. Check with your Institute or professional body about the requirements for obtaining and recording CPD.

It is expected that proof of CPD undertaken each year will become part of the regime when certification or licensing of building practitioners is in place.