



INFORMATION SHEET

BUILDING SERVICES

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Current at: December 2019

Changes to AS/NZS 3500.2:2018 – Junctions in Graded Drains

As part of the National Construction Code (NCC) 2019 changes it included amendments to the Plumbing Code of Australia (PCA) Volume Three and this included adoption of the 2018 version of AS/NZS 3500.2 sanitary plumbing and drainage.

One of the relevant changes to AS/NZS 3500.2 has been a restriction on the use of 88° sweep junctions.

The changes in more detail

Essentially, the use of an 88° sweep junction (or 'curved square' junction) is no longer permitted for use in any position along a graded drain as a Deemed-to-Satisfy Solution under the new edition of AS/NZS 3500.2.

Under the new edition of AS/NZS 3500.2 the only acceptable method of construction to connect a graded branch drain to a graded main drain is to use a 45° junction, a maintenance shaft or an inspection chamber. The projected areas of the graded branch drain and the opening to the graded main drain must not overlap.

This requirement extends to unequal junction sizes as well (for example, where a DN 50 meets a DN 90) and must continue to provide for the main drain soffit 10 mm lower than the invert of the branch drain.

What about stack connections?

Should a branch, discharge or fixture pipe connect to a stack, the use of a square, sweep, 45°, aerator, ball or double 45° / sweep is still permitted. However, the restricted zones per AS/NZS 3500.2:2018 (Fig / Table 6.7.3.2) still apply unless a lower pipe adjoins the stack under an opposing pipe at 45°.

Additional considerations

It is important to note that:

- using square junctions in a drain must still meet AS/NZS 3500.2:2018 (4.9.3); and
- a concrete support base (min. 100 mm thick) is still required under all risers brought to the surface, underneath square junctions and under any 45° junction; rising to the additional 45° junction; and
- Double junctions (either 45° or sweep) can't be used to connect drains on-grade for a Deemed-to-Satisfy Solution.

Can an 88° sweep junction still be used?

A sweep junction may still be used to connect a graded drain to a vertical riser and as the base of a raised inspection opening.

Further, given the changes are to AS/NZS 3500.2 which is referenced as a Deemed-to-Satisfy means of meeting the NCC, the use of an 88° sweep junction could potentially still be considered as part of Performance Solution to demonstrate compliance with the NCC Performance Requirements, but this would need to be subject to acceptance by the approval authority on an individual case by case basis.

DISCLAIMER - The above is intended to provide general information in summary form. The contents do not constitute specific advice and should not be relied upon as such. Formal specific advice should be sought by members with respect to particular matters before taking action.

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State and Territory variations

It is also important to check with your local authority or administration for any specific State or Territory provisions that may override the PCA or AS/NZS 3500.2 provisions.

You should also check with your local authority or administration regarding transitional arrangements and to what version of the NCC, PCA and in turn AS/NZS 3500.2 applies to your project.

Further information

Given the nature of these changes, it is recommended that builders discuss these changes with their relevant plumber and/or those preparing your sanitary plumbing designs.

The Western Australian Department of Mines, Industry, Regulation and Safety has produced a useful technical note outlining the changes in more detail and can be accessed [here](#)

You can access further information on the changes to the Plumbing Code of Australia (PCA) 2019 from the ABCB www.abcb.gov.au

For further information on changes to NCC, Plumbing Code of Australia or relevant Australian Standards, HIA members can contact HIA's Building Services team on 1300 650 620 or email hia_technical@hia.com