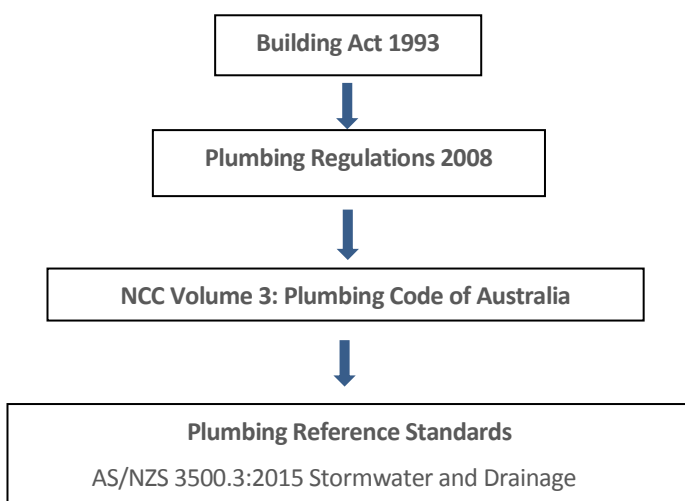


Australian/New Zealand Standard Plumbing and drainage - Part 3: Stormwater Drainage UPDATED AS/NZS 3500.3:2015

What is the scope of this Standard?

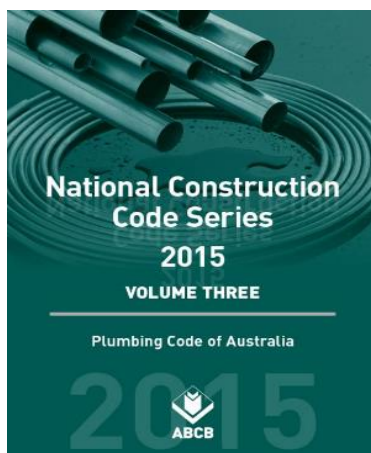
This Standard outlines the requirements for the materials, design, installation and testing of roof, surface and subsoil drainage systems to a point of connection. It forms part of the Victorian plumbing regulatory regime.

Victorian Plumbing Regulatory Framework



Where is AS/NZS 3500.3:2015 called up?

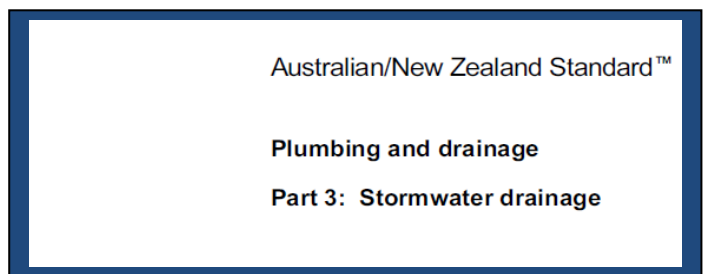
*National Construction Code Series - Volume 3
Plumbing Code of Australia (PCA)*



- *Part A2.1 Suitability of materials and products.*
- *Part A3.1: Schedule of referenced documents. AS/NZS 3500.3:2015 is automatically adopted under Plumbing Regulations 2008, Regulation 9 Modifications to the PCA¹.*
- *Part D1: Roof Drainage Systems – D1.2: General Requirements (incorporating Victorian variation):*

The design, construction, installation, replacement, repair, alteration and maintenance of a roof *drainage* system must be in accordance with **AS/NZS 3500.3** or Section 5 of **AS/NZS 3500.5** as appropriate.

AS/NZS 3500.3:2015 is part of the **AS/NZS 3500 Plumbing and drainage** series.



Publication Date

2 March 2015 (replaces **AS/NZS 3500.3:2003**)

Class of plumbing work affected

- Drainage work, and
- Roofing (stormwater) work

¹ The Victorian Plumbing Regulations 2008 can be found on the VBA website:

<http://www.vba.vic.gov.au/practitioners/legislation>

Changes and Impact

The Standards Australia Committee has updated **AS/NZS 3500.3** to bring it into line with Australian Building Codes Board (ABCB) protocol for referenced documents and to improve the technical content. Major changes from the updated 2015 version include, but are not limited to, the following:

- The removal of references to manufacturer's specifications, qualified or competent people and engineers.
- Deleting and renumbering of Sections and Clauses.

NOTE: To avoid confusion over which Clause is discussed below, the version of AS/NZS 3500.3 that each Clause is taken from is indicated in brackets: (2003) or (2015).

Section 2 Materials and Products

Clause 2.2 Authorisation (2003)

This Note has been deleted.

These requirements are now covered by *Section G: Materials and Products Certification and Authorisation* of the *Plumbing Code of Australia*.

Clause 2.8.2.4 Epoxy Resin (2003)

This Clause has been simplified. The requirement to comply with any "manufacturer's recommendations" has been deleted and the requirement that epoxy only be used when "the joint is designed" for it is now only advisory.

Clause 2.8.2.5 Fusion Welded (2003)

This Clause has been simplified, with reference to "suitable consumables", "manufacturer's recommendations" and "suitably qualified person" deleted.

Section 3 Roof Drainage Systems – Design

Clause 3.3.1 Meteorological Criteria – General (2003)

This Clause has been rewritten to be mandatory, "Roof drainage systems shall be designed for the appropriate average recurrence interval (ARI)".

All installations must comply with the new *Table 3.3.4: Average recurrence interval (ARI)*.

Section 4 Roof Drainage Systems Installation

Clause 4.11 Downpipes – Concealment and limited access (2003)

Clause 4.11 (b) (ii) has been deleted. Practitioners no longer have to meet the "manufacturer's recommended installation and maintenance procedures".

In *Clause 4.11 (b) (iv)* All downpipe installations must now avoid any "structural member" as well as any "wall construction...that could interfere with the structural integrity of the wall".

The option to use an "engineer's" recommendation as an alternative has been removed.

Administrative changes have rearranged the placement of clauses, with *Sections 4.8 Eaves Gutters, 4.9 Box Gutters, 4.10 Valley Gutters* and *4.11 Downpipes* being renumbered.

Section 5 Surface Drainage System – Design

Clause 5.3.3.5 Containment of harmful substances (2003)

This Clause has been re-written to make compliance with the requirements of the "network utility operator regarding

Plumbing and drainage - Part 3: Stormwater Drainage

containment of polluting substances” advisory only.

Practitioners must still ensure that they have complied with all other mandatory requirements laid out by the network utility operator and local authorities.

Clause 5.4.10.1 (b) Design of inlets – Sag pits (2003)

This Clause has been amended to read that regardless of what information is provided by the “network utility operator”, practitioners must ensure that the maximum depth of “ponding” water will not exceed 300 mm below “floor or damp level” of the building.

Clause 5.4.10.2 On-grade pits (2003)

Reference to “network utility operators” has been deleted. Practitioners should now use “a value of 0.8” for on-grade pits regardless of the information provided by the network utility operator.

Clause 5.4.12.1 Design of surcharge outlets-General (2003)

Reference to “authorized network operators” has been deleted. Practitioners are now required to design surcharge outlets with the grate level “not less than 300 mm below the lowest floor level”.

Practitioners must still ensure that they have complied with all other mandatory requirements laid out by the network utility operator and local authorities.

Section 6 Subsoil Drainage Systems - Design

Appearing in **AS/NZS 3500.3:2003** *Section 6 Subsoil Drainage Systems - Design* has been deleted. The Technical Committee believes that the information is already adequately covered in **Appendix M** (2015).

Section 7 Surface and Subsoil Drainage

Clause 7.9 Anchor Blocks (ii) (2015)

The Clause (ii) (b) appearing in **AS/NZS 3500.3:2003** requiring that drains of a nominal size greater than DN 150 be designed by “a suitably qualified competent person” has been deleted from this standard.

Drains of this type are no longer within the scope of this Standard.

Section 8 Pumped Systems

8.3.6: Combined Effective Storage (2015)

Clause 8.3.6 has been modified so that the combined effective storage must equal at least the volume of run off expected from a storm of ARI = 10 years lasting for 120 min., regardless of what directions might be given be a local authority.

The *Note* recommending that pumps should have a minimum capacity of 10 L/s has also been deleted.

Appendix N

A new Appendix where some Informative clauses from throughout **AS/NZS 3500.3:2003** have been collected.

N2.2 Surface drainage and subsoil drainage systems (2015)

This Clause has been moved from **Section 1 Scope and General** and re-written “Whenever the ground is opened, measures should to be taken to protect the...drainage systems from damage” and made advisory.

N8.1 Concentrated discharges to streets (2015)

This Clause suggesting how to comply with a utility operator that restricts discharges to a

Plumbing and drainage - Part 3: Stormwater Drainage

single point on a street gutter has been moved from **Section 5**, and converted to an advisory Note.

N11 Other than Stable Ground (2015)

The clause no longer refers to the “authorised network utility operator”; all drains laid in areas of excessive soil movement should be laid “in accordance with the plans and specifications based on a geotechnical report and calculations.”

The VBA strongly encourages practitioners to consult the complete standard in order to ensure they comply with all Deemed-to-Satisfy requirements.

The full text of AS/NZS 3500.3:2015 can be found at the SAI Global website:

<http://www.saiglobal.com/>