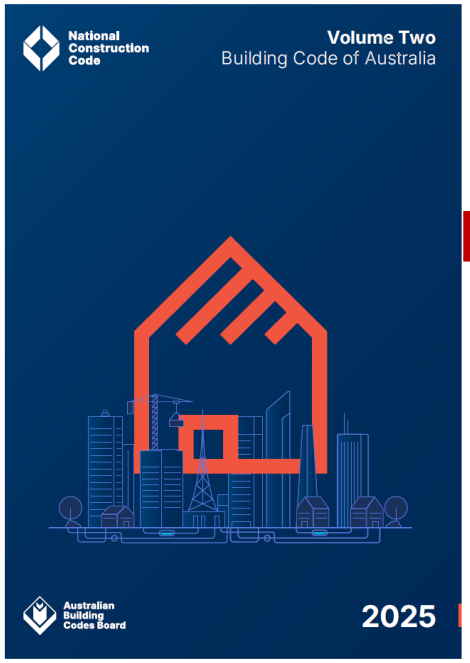


Key changes for Waterproofing

Class 1 and 10 buildings

Part H2	Damp and weatherproofing

Introduction to this Part

This Part focuses on reducing the risk of illness or injury as a result of the effects of moisture on a building, including *surface water*, weather and waste water discharge. It also includes requirements to prevent waste water discharge from damaging *other property* adjoining the *site*.

No change between NCC 2022 and NCC 2025 for both H2 and H4 Health and Amenity

Health and amenity

Part F1	Water management

2022

Health and amenity

Part F1	Surface water management, rising damp and external waterproofing

2025 version combines F1P1, F1P2, F1P3, F1P4 from 2022, via new definition of “water” . With changes to the D-t-S provisions F1D3, F1D4, F1D5, F1D6, F1D7 and F1D10

Part F2	Wet areas and overflow protection

No change between NCC 2025 & 2022 for F2

Part F1 Water management

F1O1 Objective

The Objective of this Part is to—

(a) safeguard occupants from illness or injury and protect the building from damage caused by the entry of water; and

(b) protect other property from damage caused by redirected water.

Performance Requirements

F1P1 Managing rainwater impact on the building and adjoining properties

(1) *Water*, including *water* on the surface of the *allotment* that is *collected* by a building or associated *sitework*, must be *redirected* to a *drainage system* to prevent—

(a) unhealthy or unsafe conditions, or loss of amenity for occupants within the building; and

(b) undue damage to internal surfaces and other building elements; and

(c) undue damage or nuisance to other buildings and any *other property*.

(2) *Water*, *required* to be drained and resulting from a rain event with an *annual exceedance probability*, with a five-minute duration period, of 5% satisfies (1) if it is—

(a) disposed of in a way that avoids the likelihood of damage to the building; and

(b) conveyed through a *drainage system* to an appropriate *outfall*.

(3) *Water* resulting from a rain event with an *annual exceedance probability*, with a five-minute duration period, of 1% collected or concentrated by building elements satisfies (1) if it is disposed of in a way that prevents—

(a) unhealthy or unsafe conditions, or loss of amenity for occupants within the building; and

(b) undue damage to internal surfaces and other building elements.

(4) *Water* resulting from a rain event in (2) and (3), subject to wind action with an *annual exceedance probability* of 4%, collected or concentrated by a building satisfies (1) if it is disposed of in a way that prevents—

(a) unhealthy or unsafe conditions, or loss of amenity for occupants within the building; and

(b) undue damage to internal surfaces and other building elements.

Introduction of the Defined Term "Water"

This is a pivotal change. NCC 2025 introduces a new defined term in Schedule 1:

Water: *For the purposes of Section F of Volume One, includes—*

(a) surface water; and

(b) sub-surface water; and

(c) rainwater; and

(d) stormwater; and

(e) rising damp; and

(f) water services overflow; and

(g) surface water seepage.

Every italicised instance of Water in F1P1 links to this definition, noting the liquid runoff from condensation is excluded.

So, what practical difference does this make for designers, building surveyors, builders and waterproofing contractors?

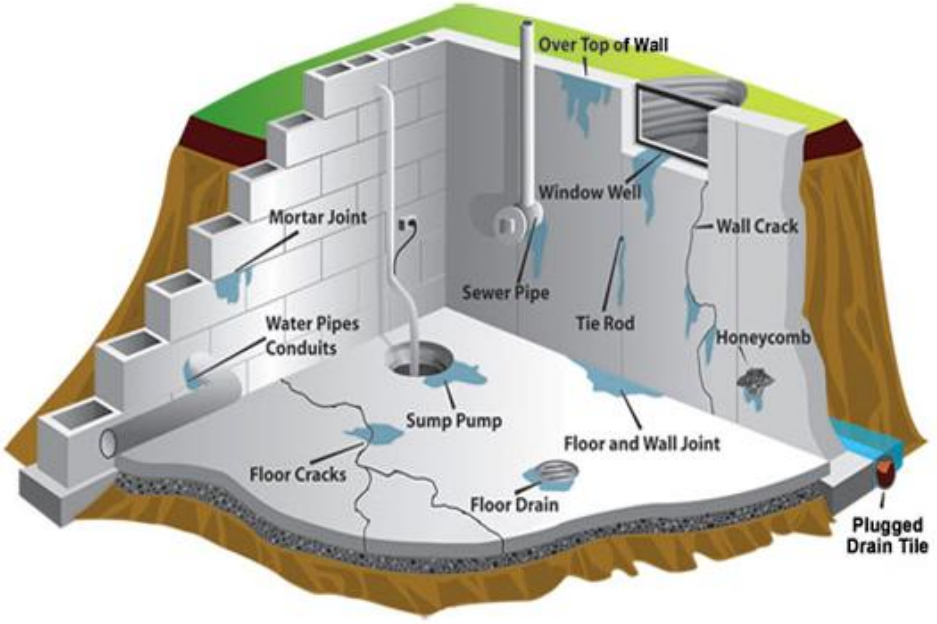
5 key changes

1. Designers and Building Surveyors must now recognize that for any part of a build below ground, no D-t-S solution is applicable, a Performance Solution documentation is required prior to building permit. Compliance can not be met without a Performance Solution.
2. Exposed external structures must have a 1:80 fall to drain to meet D-t-S
3. A minimum upturn (hob or step) of 70mm must exist at the perimeter of external wet areas.
4. Waterproofing must be applied to a structural substrate.
5. The floor finish must be directly bonded to the waterproofing membrane

Below Ground construction requires a Performance Solution

Key Changes:

- NCC 2025 Vol 1 covers building classes 2 to 9. Previous editions excepted Classes 7 & 8 – car parks, warehouses and factories.
- **Building Certifiers** must be satisfied that PS is verified via A2G2 methods
- **Designers and Consultants** could use BS 8102 as a credible framework, with evidence of materials and systems under A5G3
- **Builders & Subcontractors** must install as PS, quality assurance and inspection critical
- **Material Suppliers** must provide evidence of suitability. As no Australian Standard is available, products may require other technical references.



External Waterproofing changes in the NCC 2025, but not in AS4654.2 :2012

F1D3 Stormwater drainage: remains the same referring to AS3500.3

F1D4 Provision of drainage and grading to external areas: (NEW)

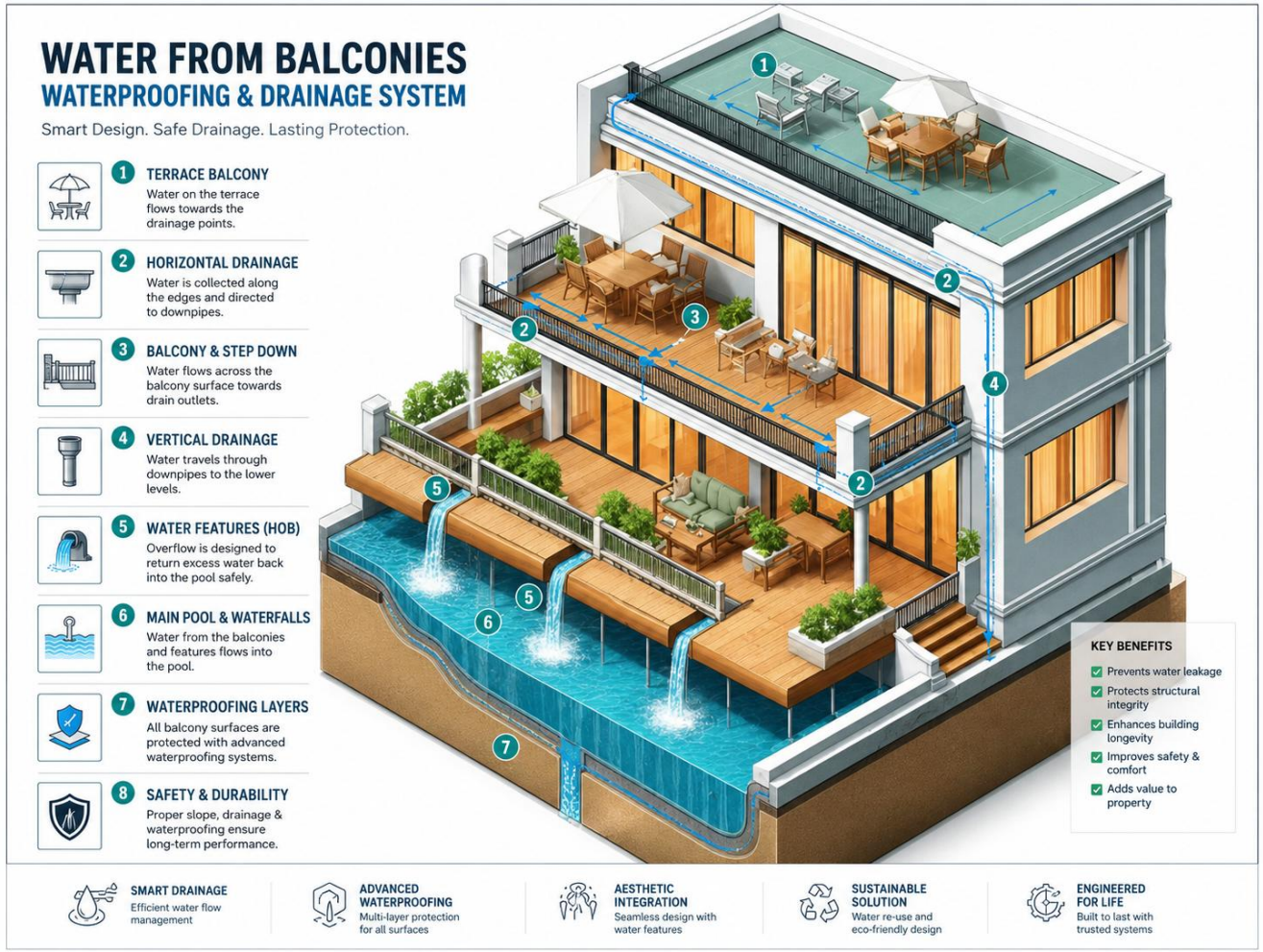
A concrete roof, balcony, podium or similar part of a building must have—

(a) a drainage system complying with F1D3 that incorporates sufficient overflow provision: and

(b) its structural substrate graded with a minimum fall of 1:80 in the plane of the substrate to suit the drainage system required by (a); and

(c) a minimum 70 mm step down from the surface level of the internal floor structural substrate to the adjacent surface level of the external structural substrate, where applicable; and

(d) a monolithic hob that is integral with the structural substrate, at least 70 mm high, installed at the outer perimeter, except where the perimeter of the roof, balcony, podium or similar part of the building drains directly to a gutter.



NCC takes precedence over AS4654.2

F1D5 Substrate materials:

(1) In a building or part of a building, where a roof, balcony, podium, or similar part of a building is constructed of concrete, it must comply with AS 3600.

(2) The surface of structural substrates in (1) must be prepared in accordance with F1D7(1)(b) to be suitable for application of a membrane.

F1D6 Exposed joints:

Exposed joints in the drainage surface on a roof, balcony, podium or similar horizontal surface part of a building must—
(a) be located on the ridge line or high point of the structural substrate; and
(b) be protected in accordance with Section 2.9 of AS 4654.2; and
(c) not be located beneath or run through a planter box, water feature or similar part of the building.

2.9 Movement and Control Joints: (AS4654.2)
Where a building or structure has construction joints, movement joints or control joints, the membrane shall be either discontinuous or continuous over the joint, to allow for the anticipated movement. Where continuous, the membrane shall be unbonded for the first 100mm.

The real shift

Waterproofing can no longer be treated as something the builder "sorts out on site."

NCC 2025 is pushing waterproofing decisions upstream into **design and approval**.

For example, F1D4 now requires a concrete roof, balcony, podium or similar part of a building to have:

- compliant drainage and overflow;
- structural substrate graded at minimum **1:80**;
- minimum **70 mm step-down** from internal structural substrate to adjacent external structural substrate, where applicable;
- a **70 mm monolithic hob integral with the structural substrate**, except where draining directly to a gutter.

The killer point is the note:

A tile bed, screed, topping or similar component is not considered a structural substrate, except within planter boxes where it can be used to achieve the 1:80 fall.

That is a direct hit on a lot of common balcony/podium construction practice.

Why this matters

You can't design a flat slab and then pretend the screed solves the fall problem.

The fall has to be in the structural substrate.

That shifts responsibility to:

architects, structural engineers, hydraulic designers, builders, RBS/building surveyors, and waterproofing consultants.

Waterproofers will still get blamed when it leaks, but the failure may now be traceable back to non-compliant design before they even arrived on site.

Balconies become a major compliance battleground

NCC 2025 even treats exposed and cantilevered balconies as high/very-high weatherproofing risk factors in the F1V1 weatherproofing context.

That matters because balcony failures are one of the classic waterproofing disaster zones:

- poor falls,
- blocked outlets,
- insufficient overflows,
- membrane terminations too low,
- screed saturation,
- door threshold failures,
- non-integral hobs,
- incompatible toppings,
- tiles debonding,
- water trapped between layers.

NCC 2025 is effectively saying: these are not minor detailing preferences. **They are compliance issues.**

The direct-bond issue

Floor finishes being directly bonded to waterproofing is important because it attacks the old layered-risk model:

structural slab → membrane → screed → adhesive → tile

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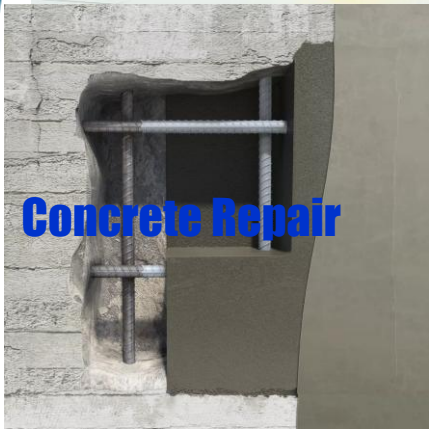

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