



Implementation of NCC 2022 and residential energy efficiency – information webinar

Program

Welcome

Leo Longman

Principal Building Surveyor – Standards Branch

WA State variations

Leo Longman

Principal Building Surveyor – Standards Branch

Residential energy efficiency

Mark Fortey

Senior Technical Officer – Standards Branch

Using the NCC

NCC refresher

Improvements

Volume One

Implementation of Part G5,
G7 and H8 in WA

Volume Two

ABCB Housing Provisions Standard



State variations

The publication of the 2025 edition of the National Construction Code (NCC) has been delayed. In the interim the Australian Building Codes Board (ABCB) has published NCC 2022 Amendment 1 which takes effect on 1 May 2025.

The amendment includes national changes in the form of the correction of minor errors and an update of the copyright and license notice. Importantly it includes new variations and additions for Western Australia that apply to NCC Volumes One and Two and the ABCB Housing Provisions Standard (HP).

They relate to:

- **Gutters and downpipes** – HP Part 7.4 has been varied to allow AS/NZS 3500.3:2021– Plumbing and drainage – Stormwater drainage (AS/NZS:3500.3) to be used in conjunction with HP Part 7.4 when selecting and installing eaves gutters and downpipes. This provides the HP with a solution for eaves gutters with falls less than 1:500 noting that downpipes must be fitted vertically to the sole of the gutter. NCC Schedule 2 varies the application of AS/NZS3500.3 to provide a solution for the use of 95 x 45mm rectangular downpipes.
- **Installation of windows** – HP Part 8.2 includes a new requirement that the required gap between the head of the window and the nearest loadbearing element be at least 10mm. The variation provides that the required gap may be less in masonry construction so long as it is sufficient to prevent the transfer of structural loads.
- **Energy efficiency** – NCC Volume Two Part H6 has been varied to allow the energy efficiency requirements of NCC 2019 Amendment 1 to be applied to alterations and extensions of existing buildings. HP Part 13.2.1 and 13.3.1 have been varied to allow climate zone 6 to be considered as climate zone 5 for the purpose of building fabric and external glazing. HP Part 13.2.7 has been varied to specify the insulation to be added to suspended floors in climate zones 4 and 5 in certain circumstances.
- **Swimming pool cover and blankets** – NCC Volume Two Clause WA H9D3 has been amended to replace the references to Smart Approved WaterMark Scheme with AS 5348:2022–Pool covers.

The variations are intended to offer additional compliance options for users of the NCC that are more readily achievable using WA building practices and products.

Residential energy efficiency

NCC 2022 includes changes to the Performance Requirements and Deemed-to-Satisfy Solutions for residential energy efficiency.

Quantified Performance Requirements

The ABCB have a project to quantify the Performance Requirements of the NCC. This is part of improving the competent use of Performance Solutions. Quantification sets target values for demonstrating compliance.

There are now target values for the estimated:

- amount of heating and cooling the dwelling will require; and
- societal cost, in terms of greenhouse gas emissions (energy value) of its domestic services.

The estimated amount of heating and cooling is in line with a 7 Star Nationwide House Energy Rating Scheme (NatHERS) rating, and the energy value is set at 70 per cent of net zero emissions. Both must be satisfied, and you cannot trade-off between the two beyond the set values. The consideration of both is often referred to as a Whole-of-Home assessment.

Enhanced DTS Solutions for building fabric and services, aligned to the Performance Requirements

- **Building fabric:** homes rated under NatHERS must achieve a minimum rating of 7 Stars. The elemental provisions for building fabric and glazing have been aligned with a 7 Star rating.
- **Services:** the energy value of equipment used for heating and cooling; water heating; lighting; and the operation of swimming pools, must be determined and not exceed set values. The value accounts for any offset by onsite renewables, for example, photovoltaic (PV) panels.

Be aware that there are:

- requirements in Volume One to take steps to ready Class 2–9 buildings for the installation of electric vehicle charging equipment and PV systems;
- new ABCB standards and handbooks for residential energy efficiency; and
- enhanced condensation management provisions.

Additional useful information

Using the NCC

Transitional arrangements allowing for the continued use of NCC 2019 Amendment 1 in Western Australia (WA), end on 30 April 2025.

From 1 May 2025 building permit applications will need to nominate a later edition of the NCC – either NCC 2022 or NCC 2022 Amendment 1 – which uses a consistent volume structure. The referencing used in this edition refers to the relevant section, part, type, and number of the clause (SPTC referencing), for example A2G2 which refers to Section A, Part 2, Governing Requirement (Type-G), Clause 2 (see table below).

Achieving a consistent volume structure has meant that many of the Deemed-to-Satisfy Solutions for Volume Two have been relocated to a new NCC reference document, ABCB Housing Provisions Standard.

The NCC has also been published as an online document which is freely available and designed to be easily navigated on any device.

Reference		Description
Section	Volume 1	Volume 2
	A – Governing requirements B – Structure C – Fire resistance D – Access and egress E – Services and equipment F – Health and amenity G – Ancillary provision I – Special uses buildings J – Energy efficiency S – Specifications	A – Governing requirements H – Housing S – Specifications
Part	Part number within the Section	
Type	<ul style="list-style-type: none"> • Governing requirements • Performance requirements • Objective • Functional statement • Verification method • Deemed to satisfy • Clause (for specifications) 	
Clause	Clause number within the Type	

NCC 2022 refresher

The NCC 2022 represents the most change to the Building Code since it was first published. In addition to formatting and reference changes, the major technical changes include:

NCC 2022 – Key areas of improvement	Volume One	Volume Two	ABCB Housing Provisions Standard
Quantification of Performance Requirements	Parts G5, F7	Parts H3, H4, H7	N/A
Clarification amendments for fire resistant external walls	Part C2	N/A	N/A
Clarification amendments for egress	Parts D2	N/A	N/A
DTS Solutions for Early Childhood Centres in high-rise buildings	Part A6, C3, D2, D3, E1, E2	N/A	N/A
DTS Solutions for egress from primary schools	Part D2	N/A	N/A
DTS Solutions for the weatherproofing of external walls	Part F3	N/A	N/A
Required falls to floor wastes	Part F2	Part H4	Part 10.2
Requirements for vulnerable use buildings in bushfire prone areas	Part G5	N/A	N/A
Amendments to the Housing Provisions reflecting the Acceptable Construction Practice Review	N/A	Part H1	Sections 4, 5, 6, 8 Part 12.3
New DTS Solutions for waterproofing of wet areas	N/A	Part H4	Part 10.2
Improvements to condensation mitigation	Part F8	Part H4	Part 10.8
Increases to residential Energy Efficiency	Parts J2, J3	Part H6	Section 13
Requirements to take steps to ready Class 2–9 buildings for the installation of EV charging and PV panels.	Parts B1, J9	N/A	N/A
Introduction of Livable Housing	Parts G7	Part H8	N/A

Improvements

Volume One

Part A

- Clarification that the 10 per cent concession to building classifications does not apply to a Class 9b early childcare centre part, [A6G1](#).

Part B

- Requirement for Class 7b buildings to make allowances for supporting solar photovoltaic panels, [B1P1](#) and [B1D3](#).

Part C

- Reducing the need for Performance Solutions by:
 - Clarifying requirements for non-combustible walls by:
 - > improving the list of permitted combustible components, [C2D10](#);
 - > making clear that [C2D14](#) does not apply to fixtures such as cupboard or blinds; and
 - > providing a solution for fixing of bonded laminate cladding panels to non-combustible external walls, [C2D15](#).
- Providing a solution for the fire compartmentation of Class 9b early childhood centres in high rise buildings, [C3D6](#).

Part D

- Reducing the need for Performance Solutions by:
 - clarifying that a single exit may be permitted where it provides direct access to a road or open space, even if the building has an effective height of more than 25 m, [D2D3](#);
 - providing a solution for fire-isolated stairways servicing early childhood centres in high rise buildings, [D2D4](#);

- clarifying that the minimum width of exits does not apply to ladders, [D2D8](#); and
- providing a solution for egress from mid-rise buildings serving as a primary school [D2D23](#) and [D3D22](#).

Part E

- Reducing the need for Performance Solutions by providing a solution for fire-safety systems (sprinklers and smoke detection) in early childhood centres that are multi-storey or in high-rise buildings, [E1D11](#) and [E2D20](#).

Part F

- Quantification of Performance Requirements for sound transition through floors and walls, [F7P1-F7P3](#) and [H4P6](#) of Volume Two.
- Reducing the need for Performance Solutions by providing a solution for weatherproofing of external walls with masonry, autoclaved aerated concrete, or metal wall cladding, [F3D5](#).
- Requirement for falls in floors to all floor wastes, [F2D4](#) and [10.2.12](#) of the ABCB Housing Provisions Standard.
- Fine tuning of condensation mitigation requirements that relate to the construction of:
 - external walls ([F8D3](#) and [10.8.1](#) of the ABCB Housing Provisions Standard);
 - roofs ([F8D5](#) and [10.8.3](#)); and
 - exhaust systems servicing sanitary compartments, kitchens, and laundries ([F8D4](#) and [10.8.2](#)).

Part G

- Quantification of the bushfire event applicable to the Performance Requirements for bushfire resistance, [G5P1](#) and [H7P5](#) of Volume Two.

- Improving the bushfire resistance of vulnerable use Class 9 buildings in bushfire prone areas by:
 - capturing these buildings for the purpose of **G5P1**;
 - establishing a new specific Performance Requirement **G5P2**; and
 - providing a solution where the bushfire attack level (BAL) does not exceed BAL-12.5 **Specification 43**.
- Introducing the requirements for Livable Housing Design to enable housing to better meet the needs of the community, **G7** and **H8**.

Implementation of Part G5, G7 and H8 in WA

Building and Energy recently informed industry that from 1 May 2025, Part G5 of NCC 2022 will be mandatory for Class 9a health care buildings and Class 9c residential care buildings. A transitional period is being introduced to the Building Regulations 2012 which will mean that its application will be voluntary for Class 9b primary and secondary schools and early childhood centres until 30 April 2028.

The Building Regulations 2012 was previously amended to make modifications to the NCC that disapply Part G7 and H8, Livable Housing Design. The modifications remain ongoing.

Volume Two

- Quantification of Performance Requirements for spread of fire and automatic warning for occupants to Class 1 buildings, **H3P1** and **H3P2**.
- Improvements to the residential energy efficiency requirements as previously outlined.

ABCB Housing Provisions Standard

- ABCB Housing Provisions Standard have been improved by including a solution for the installation of waterproofing systems, **10.2**.
- Improvements to the waterproofing of shower walls, **10.2.2**.
- Fine tuning to the Sections of the ABCB Housing Provisions Standard that apply to the construction or installation of:
 - concrete footings and slabs;
 - masonry, framing and glazing elements; and
 - decks and balconies attached to external walls.

The fine tuning of these Sections (Sections 4, 5, 6, 8 and 12) was based on the findings of the Acceptable Construction Practice Review commissioned by the ABCB. These Parts provide conservative solutions to a limited range of housing designs subject to their size, configuration, and location.

WA State variation - buildings in wind Regions B and D

Schedule 11 of NCC 2022 Volume One, Volume Two and the ABCB Housing Provisions Standard 2022 include new State variations relating to buildings located in wind Regions B and D in WA.

Government of Western Australia

**Department of Energy, Mines,
Industry Regulation and Safety**

Building and Energy

1300 489 099

8.30am – 4.30pm

Level 1 Mason Bird Building

303 Sevenoaks Street

(entrance Grose Avenue)

Cannington Western Australia 6107

Online

Website: demirs.wa.gov.au/building-and-energy

Email: be.info@demirs.wa.gov.au

Mailing address

Locked Bag 100

East Perth WA 6892

Regional offices

Goldfields/Esperance (08) 9021 9494

Great Southern (08) 9842 8366

Kimberley (08) 9191 8400

Mid West (08) 9920 9800

North West (08) 9185 0900

South West (08) 9722 2888

National Relay Service: 13 36 77

Translating and Interpreting Service (TIS) 13 14 50

This publication is available on request in other formats.