Part A2 Compliance with the NCC

Introduction to this Part

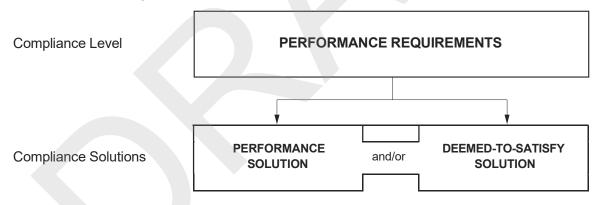
This Part explains the possible methods of demonstrating compliance with the NCC. It explains the various compliance pathways within the NCC and the appropriate steps that must be taken for each of these pathways.

Governing Requirements

A2G1 Compliance

- (1) Compliance with the NCC is achieved by complying with—
 - (a) the Governing Requirements of the NCC; and
 - (b) the Performance Requirements.
- (2) Performance Requirements are satisfied by one of the following, as shown in Figure A2G1:
 - (a) Performance Solution.
 - (b) Deemed-to-Satisfy Solution.
 - (c) A combination of (a) and (b).

Figure A2G1: NCC compliance structure



A2G2 Performance Solution

- (1) A Performance Solution is achieved by demonstrating—
 - (a) compliance with all relevant Performance Requirements; or
 - (b) the solution is at least *equivalent* to the *Deemed-to-Satisfy Provisions*.
- (2) <u>Subject to (5) and (6), aA Performance Solution</u> must be shown to comply with the relevant *Performance Requirements* through one or a combination of the following *Assessment Methods*:
 - (a) Evidence of suitability in accordance with Part A5 that shows the use of a material, product, *plumbing* and *drainage product*, form of construction or design meets the relevant *Performance Requirements*.
 - (b) A Verification Method including the following:
 - (i) The Verification Methods provided in the NCC.
 - (ii) Other *Verification Methods*, accepted by the *appropriate authority* that show compliance with the relevant *Performance Requirements*.

- (c) Expert Judgement.
- (d) Comparison with the Deemed-to-Satisfy Provisions.
- (3) Where a *Performance Requirement* is satisfied entirely by a *Performance Solution*, in order to comply with (1) the following method must be used to determine the *Performance Requirement* or *Performance Requirements* relevant to the *Performance Solution*:
 - (a) Identify the relevant *Performance Requirements* from the Section or Part to which the *Performance Solution* applies.
 - (b) Identify *Performance Requirements* from other Sections or Parts that are relevant to any aspects of the *Performance Solution* proposed or that are affected by the application of the *Performance Solution*.
- (4) Where a *Performance Requirement* is proposed to be satisfied by a *Performance Solution*, the following steps must be undertaken:
 - (a) Prepare a performance-based design brief in consultation with relevant stakeholders.
 - (b) Carry out analysis, as proposed by the *performance-based design brief*.
 - (c) Evaluate results from (4)(b) against the acceptance criteria in the performance-based design brief.
 - (d) Prepare a final report that includes—
 - (i) all *Performance Requirements* and/or *Deemed-to-Satisfy Provisions* identified through A2G2(3) or A2G4(3) as applicable; and
 - (ii) identification of all Assessment Methods used; and
 - (iii) details of steps (4)(a) to (4)(c); and
 - (iv) confirmation that the Performance Requirement has been met; and
 - (v) details of conditions or limitations, if any exist, regarding the *Performance Solution*.

VIC A2G2(5)

- (5) For the purposes of Volume One, where the reliability of components made of materials included in B1D4(a) to (f) is proposed to be determined by a *Performance Solution* for the purposes of B1P1(2), the *Performance Solution* must be shown to comply with the relevant *Performance Requirements* through—
 - (a) comparison with Deemed-to-Satisfy Provisions B1D3 and B1D4; and
 - (b) A2G2(1)(b); and
 - (c) B1V1 as applicable; and
 - (d) demonstrating that the reliability indices β , established through (a) to (c), are not less than those in Tables B1P1a, B1P1b and B1P1c.
- (6) For the purposes of Volume Two, where the reliability of components made of materials included in clauses 2.2.4(d) and 2.2.4(g) to (k) of the ABCB Housing Provisions is proposed to be determined by a *Performance Solution* for the purposes of H1P1(2), the *Performance Solution* must be shown to comply with the relevant *Performance Requirements* through—
 - (a) comparison with *Deemed-to-Satisfy Provisions* clauses 2.2.3 and 2.2.4 of the ABCB Housing Provisions; and
 - (b) A2G2(1)(b); and
 - (c) H1V1 as applicable; and
 - (d) demonstrating that the reliability indices β , established through (a) to (c), are not less than those in Tables H1P1a, H1P1b and H1P1c.

Limitations

- (1) A2G2(2)(c) does not apply to demonstrating compliance with Performance Requirements B1P1(2), C1P1, C1P2, C1P3, C1P4, C1P5, C1P6, C1P7, C1P8, C1P9, D1P1, D1P2, D1P3, D1P4, D1P5, D1P6, D1P7, D1P8, D1P9, D1P10, E1P1, E1P2, E1P3, E1P4, E1P5, E1P6, E1P7, E2P1, E2P2, E3P1, E3P2, E3P3, E3P4, E4P1, E4P2, E4P3, G2P1, G2P2, G5P1, G5P2 and H1P1(2).
- (2) A2G2(5) does not apply where the component falls outside the materials in B1D3 and B1D4 of Volume One, or where the *Performance Solution* is shown to comply with the relevant *Performance Requirements* through A5G3(1)(a).
- (3) A2G2(6) does not apply where the component falls outside the materials in 2.2.4(d) and 2.2.4(g) to (k) of the ABCB Housing Provisions, or where the *Performance Solution* is shown to comply with the relevant Performance Requirements through A5G3(1)(a).

Part A4 Referenced documents

Introduction to this Part

This Part explains how documents referenced in the NCC are adopted and applied. The NCC itself does not contain details of every design and construction requirement for a building or *plumbing* or *drainage* system. As such, the NCC calls upon or "references" other documents with this information. These are called NCC referenced documents. Examples of such documents are Australian Standards, ABCB protocols, ABCB standards and other publications.

There are multiple types of referenced documents. A primary referenced document is one referenced in Schedule 2 of the NCC<u>or included in the register of alternative referenced documents on the ABCB website</u>. A secondary referenced document is one referenced in a primary referenced document. Other referenced documents are referenced by secondary and subsequently referenced documents.

Governing Requirements

A4G1 Referenced documents

- (1) A reference in the NCC to a document refers to the edition or issues and any amendment listed in ___Schedule 2.
 - (a) Schedule 2; or
 - (b) the register of alternative referenced documents.
- (2) A document referenced in the NCC is only applicable in the context in which the document is quoted.

TAS A4G1(3)

- (3) Where a new edition, issue or amendment of a primary referenced document is not listed in Schedule 2 or the register of alternative referenced documents, the new edition, issue or amendment is not referenced for the purposes of the NCC.
- (4) Any document—referenced in a primary referenced document is known as a secondary referenced document.
 - (a) described in A4G1(1) is a primary referenced document; and
 - (b) referenced in a primary referenced document is known as a secondary referenced document.
- (5) A reference in a primary referenced document to a secondary or other referenced document is a reference to the document as it existed at the time of publication of the primary referenced document.

Notes

- (1) The register of alternative referenced documents is maintained by the ABCB and is available on the ABCB website at www.abcb.gov.au.
- (2) A document listed in Schedule 2 cannot be used simultaneously with a different edition, issue or amendment of that same document included in the register of alternative referenced documents for the purposes of a *Deemed-to-Satisfy Provision* or *Verification Method* provided in the NCC.
- (3) For the purposes of a State or Territory variation to the NCC, a document listed in the register of alternative referenced documents cannot be used where an edition, issue or amendment of that document appears in a State or Territory variation to Schedule 2.

Applications

A4G1 applies to documents referenced in the ABCB Housing Provisions in the same way as for documents referenced within any other part of the NCC.

Exemptions

- (1) Where the primary referenced document is listed in Schedule 2, Lift the secondary or other referenced document is also a primary referenced document listed in Schedule 2, A4G1(5) does not apply.
- (2) Where the primary referenced document is listed in the register of alternative referenced documents, if the secondary or other referenced document is listed in Schedule 2, A4G1(5) does not apply unless the register of alternative referenced documents indicates otherwise.

Governing requirements

A4G2 Differences between referenced documents and the NCC

The NCC overrules any difference between the NCC (including the ABCB Housing Provisions) and a primary referenced document, including any secondary referenced document.

Applications

A4G2 applies to documents referenced in the ABCB Housing Provisions in the same way as for other documents referenced by Volumes One, Two or Three of the NCC.

A4G3 Adoption of referenced documents

The NCC does not require compliance with requirements in relation to the following matters where they are prescribed in a referenced document:

- (a) The rights, responsibilities or obligations between the manufacturer, supplier or purchaser.
- (b) The responsibilities of any tradesperson or other building operative, architect, engineer, authority, or other person or body.
- (c) The submission for approval of any material, building component, form or method of construction, to any person, authority or body other than those empowered under State or Territory legislation to give that approval.
- (d) The submission of a material, product, form of construction or design to any person, authority or body for opinion.
- (e) Any departure from the NCC, rule, specification or provision at the sole discretion of the manufacturer or purchaser, or by arrangement or agreement between the manufacturer and purchaser.

Applications

A4G3 applies to documents referenced in the ABCB Housing Provisions in the same way as for documents referenced within Volumes One, Two or Three of the NCC.

Explanatory Information

Schedule 2 and the register of alternative referenced documents is are only mandatory to *Deemed-to-Satisfy Provisions*, Specifications and *Verification Methods*. However, referenced documents are only applicable to the NCC provision that references the document.

A proponent undertaking a *Performance Solution* can use any element or edition of any document, if they help satisfy the *Performance Requirements*. They do not need to use the documents listed in Schedule 2 or the register of alternative referenced documents.

Schedule 2 and the register of alternative referenced documents lists the specific edition (or editions) of the Standard or other document adopted, including any amendments considered appropriate for Schedule 2, the register of alternative referenced documents, the *Deemed-to-Satisfy Provisions*, Specifications or *Verification Methods*. Other editions of (or amendments to) the referenced document are not adopted and have no standing under the NCC.

A primary referenced document may refer to a secondary referenced document. A4G1(5) stipulates that the secondary referenced document is the edition of the document that existed at the time of publication of the primary referenced document. When another edition of (or amendment to) a secondary referenced document is released, subject to the exemption to A4G1, that edition (or amendment) is not adopted for the purposes of the primary referenced document.

A4G3 means that contractual matters or clauses defining responsibilities of various parties and matters not appropriate for adoption in the NCC are not included when a document is called up in the NCC.

Note 2 to A4G1 prevents simultaneous use of various editions of a referenced document for a given project under a <u>Deemed-to-Satisfy Solution</u> or a <u>Performance Solution</u> using a <u>Verification Method</u> found in the NCC. Never-the-less, it is possible to use various editions of a referenced document under a different <u>Performance Solution</u> where it is demonstrated that the relevant <u>Performance Requirements</u> are met.

Note 3 to A4G1 prevents the use of a document included in the register of alternative referenced documents for a State or Territory variation to the NCC.

A5G2 Evidence of suitability — Volumes One, Two and Three

- (1) The form of evidence used must be appropriate to the use of the material, product, *plumbing product*, form of construction or design to which it relates.
- (2) Any copy of documentary evidence submitted must be a complete copy of the original certificate, report or document.

Explanatory Information

For further guidance, refer to the ABCB Handbook for Evidence of Suitability.

All copies of documents provided as evidence must be unabridged copies of the originals. No part can be left incomplete.

A5G3 Evidence of suitability — Volumes One and Two (BCA)

- (1) Subject to A5G5, A5G6, A5G7 and A5G9, evidence to support that the use of a material, product, form of construction or design meets a *Performance Requirement* or a *Deemed-to-Satisfy Provision* may be in the form of any one, or any combination of the following:
 - (a) A current CodeMark Australia or CodeMark Certificate of Conformity.
 - (b) A current Certificate of Accreditation.
 - (c) A current certificate, other than a certificate described in (a) and (b), issued by a *certification body* stating that the properties and performance of a material, product, form of construction or design fulfil specific requirements of the BCA.
 - (d) A report issued by an Accredited Testing Laboratory that—
 - (i) demonstrates that a material, product or form of construction fulfils specific requirements of the BCA; and
 - (ii) sets out the tests the material, product or form of construction has been subjected to and the results of those tests and any other relevant information that has been relied upon to demonstrate it fulfils specific requirements of the BCA.
 - (e) A certificate or report from a professional engineer or other appropriately qualified person that—
 - (i) certifies that a material, product, form of construction or design fulfils specific requirements of the BCA; and
 - (ii) sets out the basis on which it is given and the extent to which relevant standards, specifications, rules, codes of practice or other publications have been relied upon to demonstrate it fulfils specific requirements of the BCA.
 - (f) Another form of documentary evidence, such as but not limited to a Product Technical Statement, that—
 - (i) demonstrates that a material, product, form of construction or design fulfils specific requirements of the BCA; and
 - (ii) sets out the basis on which it is given and the extent to which relevant standards, specifications, rules, codes of practice or other publications have been relied upon to demonstrate it fulfils specific requirements of the BCA.
- (2) Evidence to support that a calculation method complies with an ABCB protocol may be in the form of any one, or any combination of the following:
 - (a) A certificate from a professional engineer or other appropriately qualified person that—
 - (i) certifies that the calculation method complies with a relevant ABCB protocol; and
 - (ii) sets out the basis on which it is given and the extent to which relevant standards, specifications, rules, codes of practice and other publications have been relied upon.
 - (b) Another form of documentary evidence that correctly describes how the calculation method complies with a relevant ABCB protocol.

Applications

A5G3 is only applicable to NCC Volumes One and Two (BCA).

Notes

Current documentary evidence, such as a certificate or report, containing references to NCC 2019 provisions remains valid despite amended provision references in NCC 2022, subject to technical requirements remaining the same between editions.

Explanatory Information

A5G3 represents the minimum level of documentary evidence needed to show that a material, product, form of construction or design meets the relevant NCC requirements. The evidence can be required by:

- an appropriate authority;
- a party to a construction contract; or
- a person certifying compliance with the NCC.

If a building proponent does not produce exactly what is required, the evidence may be rejected.

It should be noted that 'design' may refer to engineering design, architectural design as well as product and material design.

A5G3(1)(f) allows for the use of alternative forms of documentary evidence to those included in A5G3(1)(a) to (e), as long as they comply with certain specified conditions.

An example of this arises when an authority carries out an inspection of a building site. The inspection alone would not be acceptable as evidence. However, if the authority compiled a written report detailing findings and conclusions from the inspection, then it may comply with the requirements of A5G3(1)(f).

A *Product Technical Statement* detailing the characteristics and merits of a particular product or system is also an example of another form of documentary evidence.

There is significant reliance by industry on the use of calculation methods, including software programs, for demonstrating compliance with the NCC. While there is no formal recognition of specific methods, A5G3(2) allows suitable evidence to be submitted to demonstrate that a calculation method (including a software program) complies with a relevant ABCB protocol that establishes the characteristics of a suitable calculation method.

If under a *Deemed-to-Satisfy Provision* a building element is *required* to have an FRL, it is necessary that the FRL is determined in accordance with Specifications 1 and 2 as applicable (see A5G5). With the FRL thus determined, then A5G3 may be used for producing to provide evidence to showdocument that the FRL has been determined in accordance with Specifications 1 and 2.

Where the FRL of a building element is determined using S1C2(b) or (c), an applicable form of evidence described by A5G3 is a report from an *Accredited Testing Laboratory* (see A5G3(1)(d)). For this form of evidence, the following applies:

In the case of a test report from an Accredited Testing Laboratory, the report may be either—

- For documenting the result of a test performed under S1C2(b), the report from an Accredited Testing Laboratory may be either—
 - ◆ the test report referred to in clause 2.16.2 of AS 1530.4 (also referred to as a full test report); or
 - the regulatory information report referred to in clause 2.16.3 of AS 1530.4 (also referred to as a short-form report).
- For documenting a FRL determined under S1C2(c), the *Accredited Testing Laboratory* will issue a report (sometimes referred to as an 'assessment report') that certifies the building element achieves the FRL.

Reports are to be unabridged. This is in order to—

- fulfil the description in A5G3(d) (i.e. 'A report issued by an Accredited Testing Laboratory'); and
- comply with A5G2(2).

In both cases the report must be an unabridged copy of the original report. A test certificate referred to in clause 2.16.4 of AS 1530.4 on its own is not suitable for showing compliance with the NCC.

If a proposal uses a *Deemed-to-Satisfy Provision* that requires a building element to have *fire hazard properties*, then A5G3 may be used to provide evidence to support the proposal and show that the *fire hazard properties* have been determined in accordance with A5G6.

In some circumstances, in order to meet the requirements of the NCC, it is necessary for a test to be undertaken by an

Governing requirements

Accredited Testing Laboratory. These circumstances include:

- The Standard Fire Test.
- When determining (by test) if a material is combustible.
- When discovering (by test) a material's fire hazard properties.
- Classification of an external wall system using AS 5113.

In such circumstances a report as specified in A5G3(1)(d) would be suitable evidence. However, A5G3(1) does not require that this form of evidence be used.

Refer to the guidance provided in the Guide to Volume One for further information on *fire hazard properties* which includes—

- Flammability Index; and
- Spread-of-Flame Index; and
- Smoke-Developed Index; and
- a material's group number; and
- smoke growth rate index.

The *Deemed-to-Satisfy Provisions* of the BCA contain a number of provisions requiring a ceiling to have a *resistance* to the incipient spread of fire to the space above itself. A5G7 sets out the method of determining the incipient spread of fire. The method is based on the method of determining the FRL of a building element and use of the *Standard Fire Test*.

with a product specification referenced in the WaterMark Schedule of Excluded Products, where one is available.

A5G4(4) provides that any *product* that is not listed on the *WaterMark Schedule of Products* or the *WaterMark Schedule of Excluded Products* must be subjected to a risk assessment in accordance with the WaterMark Scheme Rules. The risk assessment will determine whether the *product* in question requires certification and authorisation, or if it should be listed as an "excluded product". This in turn will determine the form of evidence of suitability applicable to the *product*.

Explanatory Information: What is WaterMark?

The *WaterMark Certification Scheme* is a mandatory certification scheme for *plumbing* and *drainage products* to ensure that these *products* are fit for purpose and appropriately authorised for use in a *plumbing* or *drainage* system.

The PCA, through Part A5, requires certain *plumbing* and *drainage products* to be certified and authorised for use in a *plumbing* or *drainage* system. These products are certified through the *WaterMark Certification Scheme* and listed on the WaterMark Product Database.

The WaterMark Certification Scheme is governed by the WaterMark Scheme Rules, which are available for download from the ABCB website at: www.abcb.gov.au. These rules set out the requirements for risk assessments, evaluation, certification, and the drafting of WaterMark Technical Specifications.

When a *product* is listed on the *WaterMark Schedule of Products* then, for it to be certified and authorised, the *product* must—

- be tested by an Accredited Testing Laboratory; and
- comply with an approved *product* specification (either a relevant existing *product* Standard or a WaterMark Technical Specification); and
- be manufactured in accordance with an approved Quality Assurance Program; and
- carry a scope of use.

Products that comply fully with the applicable requirements of the WaterMark Certification Scheme are then eligible to be certified by a WaterMark Conformity Assessment Body and listed on the WaterMark Product Database. Certified products are identifiable by the WaterMark certification trade mark, shown in Figure A5G4 below, that must be displayed on the product upon granting of a WaterMark Licence.

Figure A5G4 (explanatory): WaterMark Certification Scheme Trademarks



A5G5 Fire-resistance of building elements

Where a *Deemed-to-Satisfy Provision* requires a building element to have an FRL, it must be determined in accordance with Specifications 1 and 2.

A5G6 Fire hazard properties

- (1) Subject to (2), Wwhere a Deemed-to-Satisfy Provision requires a building material, component, or assembly to have a fire hazard property it must be determined as follows:
- (a) For average specific extinction area, critical radiant flux and smoke development rate, Flammability Index, as defined in Specification 1 in accordance with AS ISO 9239.1.
- (b) For Smoke-Developed Index and Spread-of-Flame Index, in accordance with Specification 3AS/NZS 1530.3.

- (c) For a material's group number, average specific extinction area and or smoke growth rate index (SMOGRA_{RC}), in accordance with \$7C4(2)AS 5637.1.
- (d) For Flammability Index, in accordance with AS 1530.2.
- (e) For combustibility, in accordance with AS 1530.1.
- (2) A building material, component, or assembly is deemed to have a fire hazard property if—
 - (a) it is identical with a prototype that has been tested in accordance with (1) and the fire hazard property achieved by the prototype is confirmed in a report issued from an Accredited Testing Laboratory that—
 - (i) describes the method and conditions of the test and form of construction of the tested prototype in full: and
 - (ii) confirms that the application of restraint to the prototype complies with the test standard; or
 - (b) it differs in only a minor degree to a prototype tested under (a) and a report from an Accredited Testing

 Laboratory—
 - (i) confirms that the building product, component, or assembly can achieve the *fire hazard property* despite the minor departures from the tested prototype; and
 - (ii) describes the materials, construction, conditions of restraint and other limitations which are necessary to achieve the *fire hazard property*.

A5G7 Resistance to the incipient spread of fire

A ceiling is deemed to have a resistance to the incipient spread of fire to the space above itself if—

- (a) it is identical with a prototype that has been submitted to the *Standard Fire Test* and the *resistance to the incipient spread of fire* achieved by the prototype is confirmed in a report from an *Accredited Testing Laboratory* that—
 - (i) describes the method and conditions of the test and form of construction of the tested prototype in full; and
 - (ii) certifies that the application of restraint to the prototype complies with the Standard Fire Test; or
- (b) it differs in only a minor degree from a prototype tested under (a) and the resistance to the incipient spread of fire attributed to the ceiling is confirmed in a report from an Accredited Testing Laboratory that—
 - (i) certifies that the ceiling is capable of achieving the *resistance to the incipient spread of fire* despite the minor departures from the tested prototype; and
 - (ii) describes the materials, construction and conditions of restraint that are necessary to achieve the *resistance* to the incipient spread of fire.

A5G8 Labelling of Aluminium Composite Panels

An Aluminium Composite Panel must be labelled in accordance with SATS 5344.

A5G9 NatHERS

Where *house energy rating software* is *required* to be used, evidence of the *house energy rating software* output must be in the form of a NatHERS certificate issued in accordance with the NatHERS scheme.

A6G11 Class 10 buildings and structures

- (1) A Class 10 building or structure is a non-habitable building or structure.
- (2) Class 10 includes the following sub-classifications:
 - (a) Class 10a is a non-habitable building including a private garage, carport, shed or the like.
 - (b) Class 10b is a structure that is a fence, mast, antenna, retaining wall or free-standing wall or swimming pool or the like.
 - (c) Class 10c is a private bushfire shelter.

Explanatory Information

Class 10a buildings are non-habitable buildings. See Explanatory Figure A6G11 for an indication of some Class 10 building configurations.

Class 10b structures are non-habitable structures. There is no requirement for Class 10 buildings to be appurtenant to a building of any other Class, for example, a small shed standing on its own on an allotment and a toilet block in a park.

A habitable 'outbuilding' which is appurtenant to another building is generally part of that building. Again, habitable 'outbuildings' cannot be classified as Class 10 buildings.

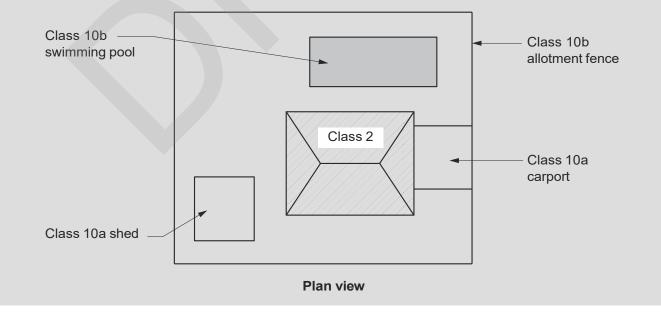
Typical outbuilding classifications include the following:

- A sleepout on the same allotment as a Class 1 building is part of the Class 1 building.
- A detached entertainment room on the same allotment as a Class 1 building, perhaps associated with a *swimming pool*, is part of the Class 1 building.
- A small toolshed, used for trade-related hobbies for non-commercial purposes or home repairs, on the same allotment as a Class 1 building, would be classified as a Class 10 building.

Provisions relating to Class 10c structures are only intended to address *private bushfire shelters* associated with a single Class 1a dwelling. These provisions are contained in Volume Two of the NCC.

Some States or Territories may exempt some Class 10 buildings or structures (often on the basis of height or size) from the need to have a building permit. Queries on this matter should be referred to the State or Territory body responsible for regulatory matters.

Figure A6G11 (explanatory): Examples of Class 10 buildings and structures



Abbreviations

| Abbreviation | Definitions | |
|-------------------|---|--|
| ABCB | Australian Building Codes Board | |
| AC | Alternating Current | |
| ACC | Acrylic conformal coating | |
| ACL | Acrylic latex | |
| ACP | Aluminium Composite Panel | |
| AIRAH | Australian Institute of Refrigeration, Air conditioning and Heating | |
| ANSI | American National Standards Institute | |
| AS | Australian Standard | |
| ASET | Available Safe Egress Time | |
| ASHRAE | American Society of Heating, Refrigerating and Air Conditioning Engineers | |
| ASTM | American Society for Testing and Materials | |
| BAL | Bushfire Attack Level | |
| BCA | Building Code of Australia | |
| BE | Fire blocks evacuation route | |
| CAN | National Standard of Canada | |
| ССТ | Correlated Colour Temperature12 | |
| CF | Challenging fire | |
| <u>CF</u> | Cold formed | |
| CHF | Critical Heat Flux | |
| CIBSE | Chartered Institution of Building Services Engineers | |
| CRF | Critical Radiant Flux | |
| CRI | Colour Rendering Index | |
| CS | Fire starts in a concealed space | |
| C _{SHGC} | Constant for solar heat gain | |
| CSIRO | Commonwealth Scientific and Industrial Research Organisation | |
| C _U | Constant for conductance | |
| DC | Direct Current | |
| DN | Diameter Nominal | |
| FED | Fractional Effective Dose | |
| FI | Fire brigade intervention | |
| FRL | Fire Resistance Level | |
| FZ | Flame Zone | |
| GEMS | Greenhouse and Energy Minimum Standards | |
| GRP | Glass fibre reinforced polyester | |
| HDG | Hot dip galvanising | |
| <u>HR</u> | Hot rolled | |
| HRR | Heat Release Rate | |
| HS | Horizontal fire spread | |
| IS | Rapid fire spread involving internal surface linings | |
| ISO | International Organisation for Standardisation | |
| IZS | Inorganic zinc silicate | |

| LED | Light-Emitting Diode |
|------|--------------------------------------|
| MEPS | Minimum Energy Performance Standards |



| Abbreviation | Definitions | |
|----------------|---|--|
| NABERS | National Australian Built Environment Rating System | |
| NASH | National Association of Steel-Framed Housing | |
| NATA | National Association of Testing Authorities Australia | |
| NatHERS | Nationwide House Energy Rating Scheme | |
| NCC | National Construction Code | |
| NSF | National Sanitation Foundation | |
| PBDB | Performance-based design brief | |
| PCA | Plumbing Code of Australia | |
| PMV | Predicted Mean Vote | |
| ppm | parts per million | |
| PUR | Polyurethane | |
| PVC | Polyvinyl chloride | |
| RC | Robustness check | |
| RSET | Required Safe Egress Time | |
| R _w | Weighted sound reduction index | |
| SF | Smouldering fire | |
| SHGC | Solar Heat Gain Coefficient | |
| SL | Square mesh | |
| SS | Structural stability and other property | |
| STC | Sound Transmission Class | |
| ТМ | Trench mesh | |
| UF | Unexpected catastrophic failure | |
| UPVC | Unplasticized polyvinyl chloride | |
| UT | Fire in normally unoccupied room threatening occupants of other rooms | |
| U-Value | Thermal transmittance | |
| vs | Vertical fire spread involving external cladding or external openings | |
| WC | Water closet | |

Symbols

| Symbols | Definitions | |
|---------------------------------------|--|--|
| 0 | degree(s) | |
| °C | degree(s) Celsius | |
| °CDB | degree(s) Celsius Dry Bulb | |
| °CWB | degree(s) Celsius Wet Bulb | |
| -e/MJ | equivalent per Megajoule(s) | |
| μm | micrometre | |
| μg/N.s | Micrograms per newton-second | |
| CO ₂ -e/m ² .hr | Carbon dioxide equivalent per square metre hour | |
| dB(A) | decibels "A" scale weighting network | |
| f'c | Characteristic compressive strength of concrete at 28 days | |
| f'y | Yield stress used in design | |
| G | Permanent load | |
| J | Joule(s) | |
| J/kg.K | Joules per kilogram degree Kelvin | |
| J/s.m ² | Joules per second square metre | |
| K | Lelvin(s) | |
| kg | kilogram(s) | |
| kg/m | kilogram(s) per metre | |
| kg/m ² | kilogram(s) per square metre | |
| kg/m ³ | kilogram(s) per cubic metre | |
| kJ/m². <u>hr</u> hour | kilojoules per square metre hour | |
| km | i kilometre(s) | |
| kPa | ¦ kilopascal(s) | |
| kW/m ² | kilowatt(s) per square metre | |
| kW _{heating} | kilowatt(s) of heating | |
| kWr | kilowatt(s) of refrigeration | |
| L | litre(s) | |
| L/min | litre(s) per minute | |
| L/s | litre(s) per second | |
| L/s.m ² | litre(s) per second square metre | |
| Lumens/W | Lumens per Watt | |
| lx | lux | |
| m | metre(s) | |
| m/s | metre(s) per second | |
| m ² | square metre(s) | |
| m ² .K/W | square metre Kelvin(s) per Watt | |
| m ³ | cubic metre(s) | |
| m ³ /hour | cubic metre(s) per hour | |
| m ³ /s | cubic metre(s) per second | |
| mcd/m ² | millicandelas per square metre | |
| min | minute(s) | |

| Symbols | Definitions | |
|----------------------------------|--|--|
| MJ/hour | Megajoules per hour | |
| MJ/m ² .annum | Megajoules per square metre annum | |
| mm | millimetre(s) | |
| mm ² | square millimetre(s) | |
| MW | megawatt(s) | |
| N | newton(s) | |
| N/m | Newton(s) per metre | |
| Pa | pascal(s) | |
| Pa/m | pascal(s) per metre | |
| Q | Imposed load | |
| s | second(s) | |
| ULS | Ultimate limit state | |
| V | Volt(s) | |
| W | ¦ Watt(s) | |
| Wp/m ² | Watt peak per metre squared output of a solar photovoltaic panel | |
| W _{input power} | Watts of input power | |
| Wr/W _{input power} | Watts of thermal refrigeration per watt of input power | |
| W/kW _{rej} | Watts per kilowatt of heat rejected | |
| Wm ⁻¹ K ⁻¹ | Watts per metre degree Kelvin | |
| W/m ² | Watts per square metre | |
| °south | degree south | |
| % | percent | |
| > | greater than | |
| < | less than | |
| ≤ | less than or equal to | |
| 2 | equal to or more than | |

Glossary

Above ground rainwater tank: A rainwater tank that is not in any way set into the ground.

Accessible: Having features to enable use by people with a disability.

Accessway: A continuous accessible path of travel (as defined in AS 1428.1) to, into or within a building.

Accredited Testing Laboratory: One of the following:

- (a) An organisation accredited by the National Association of Testing Authorities Australia (NATA) to undertake the relevant tests.
- (b) An organisation outside Australia accredited to undertake the relevant tests by an authority recognised by NATA through a mutual recognition agreement.
- (c) An organisation recognised as being an Accredited Testing Laboratory under legislation at the time the test was undertaken.

Activity support level: The degree to which occupants can undertake activities with respect to the likely *activity traits* and *occupant traits*.

Explanatory Information

This term is used to articulate whether the height of a room or space is sufficient and by what degree. This is achieved by having regard to the room or space's intended use by occupants, through consideration of the defined terms 'activity traits' and 'occupant traits'.

Activity traits: For the purposes of-

- (a) Volume One, the features of the activities that will be undertaken in a habitable room or space; or
- (b) Volume Two, the features of the activities that will be undertaken in a room or space.

Explanatory Information

This term is used to describe the characteristics of the activities that will be undertaken in a room or space.

For example, the activities likely to be undertaken in a bedroom, and the associated features are—

- sleeping a person laying horizontally; and
- resting a person laying horizontally or sitting upright on the bed; and
- leisure activities, such as reading a book a person sitting upright on the bed, with enough space to stretch
 their arms vertically; and
- dressing/changing clothes a person standing with enough space to stretch their arms vertically.

Administering body: The body responsible for administering the *WaterMark Certification Scheme*.

Aged care building: A Class 9c building for residential accommodation of aged persons who, due to varying degrees of incapacity associated with the ageing process, are provided with *personal care services* and 24 hour staff assistance to evacuate the building during an emergency.

NSW Aisle

SA Agriculture

Air-conditioning: For the purposes of Section J of Volume One, a *service* that actively cools or heats the air within a space, but does not include a *service* that directly—

- (a) cools or heats cold or hot rooms; or
- (b) maintains specialised conditions for equipment or processes, where this is the main purpose of the service.

Alarm zone: For the purposes of Specification 23, an area of a building protected by one or more smoke alarms connected to one alarm circuit.

Allotment: An area of land shown on an approved plan of subdivision for which a separate title is held or issued.

Alpine area: An area given in Figure 1 and in Table 1 for specific locations, and is-

the ground of 175 mm or greater). Regions in New South Wales, the Australian Capital Territory and Victoria between 600 – 1200 m AHD are considered to be sub-alpine areas and may receive significant snowfalls, however unlike alpine areas the snow is unlikely to accumulate.

It is recommended that the *appropriate authority* be consulted to determine whether the building is located in an alpine area. AS/NZS 1170.3 also contains further detail in the identification of alpine areas and the altitude of the alpine regions of Australia.

In the Australian Capital Territory, Canberra is not designated as an alpine area as snow loads are not considered significant.

Alteration: In relation to a building, includes an addition or extension to a building.

Aluminium Composite Panel (ACP): Flat or profiled aluminium sheet material in composite with any type of materials.

Amenity: An attribute which contributes to the health, physical independence, comfort and well-being of people.

Ancillary components: A component of the building that is not required to ensure the stability of the building or structure as a whole (that is, not part of the primary structure), but which must still withstand all actions.

Ancillary element: An element that is secondary to and not an integral part of another element to which it is attached.

Annual exceedance probability: The probability that a given rainfall total accumulated over a given duration will be exceeded in any one year.

Annual greenhouse gas emissions: The theoretical amount of greenhouse gas emissions attributable to the energy used annually by a building's *services*, excluding kitchen exhaust and the like.

Appropriate authority: For the purposes of the Fire Safety Verification Method, means the relevant authority with the statutory responsibility to determine the particular matter satisfies the relevant *Performance Requirement*.

Explanatory Information

The *Appropriate Authority* is typically the building surveyor or building certifier charged with the statutory responsibility to determine building compliance and issue the building permit / approval and occupancy certificate / approval.

NSW Appropriate authority

Appropriate authority: The relevant authority with the statutory responsibility to determine the particular matter.

Appropriately qualified person: A person recognised by the *appropriate authority* as having qualifications and/or experience in the relevant discipline in question.

Approved disposal system: A system for the disposal of sewage, sullage or stormwater approved by an authority having jurisdiction.

Articulated masonry: Masonry construction in which special provisions have been made for movement by articulation.

NSW Assembly building

SA Assembly building

Assembly building: A building where people may assemble for-

- (a) civic, theatrical, social, political or religious purposes including a library, theatre, public hall or place of worship;or
- (b) educational purposes in a school, early childhood centre, preschool, or the like; or
- (c) entertainment, recreational or sporting purposes including—
 - (i) a discotheque, nightclub or a bar area of a hotel or motel providing live entertainment or containing a dance floor; or
 - (ii) a cinema; or
 - (iii) a sports stadium, sporting or other club; or
- (d) transit purposes including a bus station, railway station, airport or ferry terminal.

Assessment Method: A method that can be used for determining that a *Performance Solution* or *Deemed-to-Satisfy Solution* complies with the *Performance Requirements*.

Assumed cooling thermostat set point: The cooling thermostat set point used to calculate *cooling degree hours*, and equal to $17.8 + 0.31T_m$, where T_m is the mean January outdoor air temperature measured in degrees Celsius.

certification that has been accredited by the Joint Accreditation System of Australia and New Zealand (JAS-ANZ), and is accredited for a purpose other than as part of the CodeMark Australia Certification Scheme or *WaterMark Certification Scheme*.

Characteristic: The occupant data to be used in the modelling of access solutions which define how an occupant interacts with a building, i.e. occupant movement speeds, turning ability, reach capability, perception of luminance contrast and hearing threshold.

VIC Children's service

Clad frame: Timber or metal frame construction with exterior timber or sheet wall cladding that is not sensitive to minor movement and includes substructure masonry walls up to 1.5 m high.

<u>Climate specific part load value:</u> A metric for the efficiency of a connected group of chillers that accounts for the <u>Energy Efficiency Ratio of the chillers operating to meet the design load and specified part-load ratios.</u>

Climate zone: An area defined in Figure 2 and in Table 3 for specific locations, having energy efficiency provisions based on a range of similar climatic characteristics.

Table 3: Climate zones for thermal design

| State | Location | Climate zone |
|-------|-------------------------------------|--------------|
| ACT | Canberra | 7 |
| NSW | Albury | 4 |
| NSW | ¦ Armidale | ¦ 7 |
| NSW | Batemans Bay | 6 |
| NSW | Bathurst | 7 |
| NSW | Bega | 6 |
| NSW | Bellingen Shire - Dorrigo Plateau | 7 |
| NSW | Bellingen Shire - Valley & seaboard | 2 |
| NSW | Bourke | 4 |
| NSW | Broken Hill | 4 |
| NSW | ¦ Byron Bay | 2 |
| NSW | Cobar | ¦ 4 |
| NSW | Coffs Harbour | 2 |
| NSW | Dubbo | 4 |
| NSW | Goulburn | 7 |
| NSW | Grafton | 2 |
| NSW | Griffith | 4 |
| NSW | Ivanhoe | . 4 |
| NSW | Lismore | 2 |
| NSW | Lord Howe Island | 2 |
| NSW | Moree | 4 |
| NSW | Newcastle | 5 |
| NSW | Nowra | 6 |
| NSW | Orange | 7 |
| NSW | Perisher - Smiggins | . 8 |
| NSW | Port Macquarie | 5 |
| NSW | ¦ Sydney East | ¦ 5 |
| NSW | Sydney West | 6 |
| NSW | Tamworth | 4 |
| NSW | Thredbo | 8 |
| NSW | Wagga Wagga | 14 |

Australian Height Datum is to be considered as Zone 5.

- (3) The areas referred to in (2) have been defined in an enlarged format on the following maps produced by the Department of Planning, Transport and Infrastructure (these maps can be viewed on the Government of South Australia website at www.sa.gov.au):
 - (a) Adelaide Hills Climate Zone Map.
 - (b) Barossa Council Climate Zone Map.
 - (c) Regional Council of Goyder Climate Zone Map.
- (4) Locations in climate zone 8 are in alpine areas.

Collected: For the purposes of Section F, the interception of *water*—

- (a) on the surface or sub-surface of a building element; or
- (b) on an allotment; or
- (c) on a site; or
- (d) resulting from sitework,
- -that is required to be redirected to a drainage system.

Combustible: Applied to—

- (a) a material means combustible as determined by <u>an Accredited Testing Laboratory</u> in accordance with AS 1530.1; and
- (b) construction or part of a building means constructed wholly or in part of combustible materials.

Note

Until the adoption of NCC 2028 determination need not be undertaken by an Accredited Testing Laboratory.

VIC Combustible cladding product

Common wall: For the purposes of—

- (a) Volume One, a wall that is common to adjoining buildings.
- (b) Volume Two and the ABCB Housing Provisions, a wall that is common to adjoining buildings other than Class 1 buildings.

Condensation: The formation of moisture liquid water on the surface of a building element or material as a result of moist air coming into contact with a surface which is at a lower temperature.

Conditioned space: For the purposes of—

- (a) Volume One, a space within a building, including a ceiling or under-floor supply air plenum or return air plenum, where the environment is likely, by the intended use of the space, to have its temperature controlled by *air-conditioning*; or
- (b) Volume Two, a space within a building that is heated or cooled by the building's *domestic services*, excluding a non-*habitable room* in which a heater with a capacity of not more than 1.2 kW or 4.3 MJ/hour is installed.

Construction activity actions: Actions due to stacking of building materials or the use of equipment, including cranes and trucks, during construction or actions which may be induced by floor to floor propping.

Containment protection: The installation of a *backflow prevention device* at the *point of connection* of a *Network Utility Operator's* water supply to a site.

Contaminant: Any substance (including gases, liquids, solids or micro-organisms), energy (excluding noise) or heat, that either by itself or in combination with the same, similar or other substances, energy or heat, changes or is likely to change the physical, chemical or biological condition of water.

NSW Continental seating

Controlled fill: Material that has been placed and compacted in layers with compaction equipment (such as a vibrating plate) within a defined moisture range to a defined density requirement.

Cooling degree hours: For any one hour when the mean outdoor air temperature is above the *assumed cooling thermostat set point*, the degree Celsius air temperature difference between the mean outdoor air temperature and the *assumed cooling thermostat set point*.

Cooling load: The calculated amount of energy removed from the cooled spaces of the building annually by artificial means to maintain the desired temperatures in those spaces.

Critical radiant flux (CRF): The critical heat flux at extinguishment (CHF in kW/m²) as determined by an Accredited Testing Laboratory in accordance with AS ISO 9239.1.

Note

Until the adoption of NCC 2028 determination need not be undertaken by an Accredited Testing Laboratory.

Cross-connection: Any actual or potential connection between a water supply and any contaminant.

NSW Cross-over

Curtain wall: A non-loadbearing external wall that is not a panel wall.

Daily outdoor temperature range: The difference between the maximum and minimum temperatures that occur in a day.

Damp-proof course (DPC): A continuous layer of impervious material placed in a masonry wall or pier, or between a wall or pier and a floor, to prevent the upward or downward migration of water.

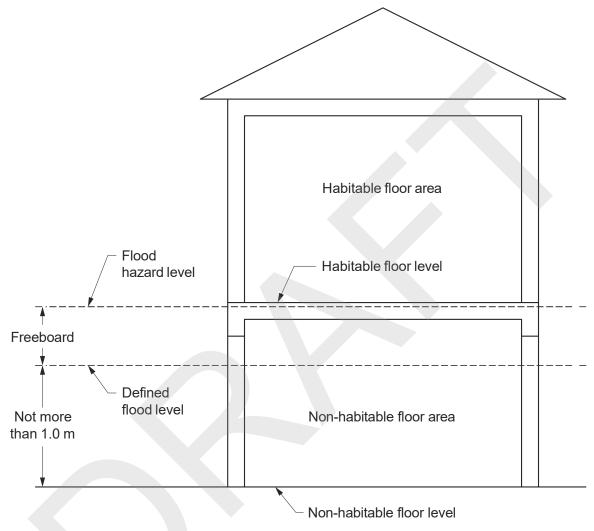
Deemed-to-Satisfy Provisions: Provisions which are deemed to satisfy the *Performance Requirements*.

Deemed-to-Satisfy Solution: A method of satisfying the Deemed-to-Satisfy Provisions.

Defined flood event (DFE): The flood event selected for the management of flood hazard for the location of specific development as determined by the *appropriate authority*.

Defined flood level (DFL): The flood level associated with a *defined flood event* relative to a specified datum (see Figure 3).

Figure 3: Identification of defined flood level, flood hazard level and freeboard



Dehumidification gram hours: For any one hour when the mean humidity is more than 15.7g/kg, the grams per kilogram of absolute humidity difference between the mean outdoor absolute humidity and 15.7g/kg.

NSW Designated bushfire prone area

Designated bushfire prone area: Land which has been designated under a power of legislation as being subject, or likely to be subject, to bushfires.

Design bushfire: The characteristics of a bushfire, its initiation, spread and development, which arises from weather conditions, topography and fuel (vegetation) in a given setting, used to determine *fire actions*.

Design fire: The quantitative description of a representation of a fire within the design scenario.

Design scenario: The specific scenario of which the sequence of events is quantified and a *fire safety engineering* analysis is conducted against.

WA Design wind speed

Design wind speed: The design gust wind speed for the area where the building is located, calculated in accordance with AS/NZS 1170.2 or AS 4055 (see Table 4 for wind classes).

Table 4: Wind classes

| Non-cyclonic Region A and B1 | Cyclonic Region B2. C and D | |
|--|--|--|
| N1, N2, N3 | C1 | |
| N4, N5, N6 (these wind classes are covered in the ABCB Housing Provisions Part 2.2). | C2, C3, C4 (these wind classes are covered in the ABCB Housing Provisions Part 2.2). | |

Table Notes

- (1) Wind classification map identifying wind regions is contained in ABCB Housing Provisions Part 2.2 (see Figure 2.2.3).
- (2) Information on wind classes for particular areas may be available from the appropriate authority.
- (3) "N" = non-cyclonic winds and "C" = cyclonic winds.

Detention centre: A building in which persons are securely detained by means of the built structure including a prison, remand centre, juvenile detention centre, holding cells or psychiatric detention centre.

NSW Development consent

Direct fix cladding wall: For the purposes of F3V1 and H2V1, means a wall with cladding attached directly to the wall framing without the use of a drained cavity.

Discontinuous construction: Means—

- (a) a wall having a minimum 20 mm cavity between 2 separate leaves, and—
 - (i) for masonry, where wall ties are used to connect leaves, the ties are of the resilient type; and
 - (ii) for other than masonry, there is no mechanical linkage between the leaves, except at the periphery; and
- (b) a staggered stud wall is not deemed to be discontinuous construction.

Display glazing: *Glazing* used to display retail goods in a shop or showroom directly adjacent to a walkway or footpath, but not including that used in a café or restaurant.

Domestic services: The basic engineering systems that use energy or control the use of energy; and—

- (a) includes—
 - (i) heating, air-conditioning, mechanical ventilation and artificial lighting; and
 - (ii) pumps and heaters for swimming pools and spa pools; and
 - (iii) heated water systems; and
 - (iv) on-site renewable energy equipment; but
- (b) excludes cooking facilities and portable appliances.

Drainage: Any part of—

- (a) a sanitary drainage system, including any liquid trade waste drainage; or
- (b) a stormwater drainage system.

Drainage flange: A flange connected to a waste pipe, at the point at which it passes through the floor substrate, to prevent leakage and which enables tile bed drainage into the waste pipe.

Drainage riser: A waste pipe between the floor waste and the drainage system.

Drainage system: A system that—

- (a) conveys water by gravity, mechanical means, or evaporation to a point of discharge or evaporative surface; or
- (b) channels water by pipes, overflows, and overland flow paths to a point of discharge.

Drained: For the purposes of Section F, the removal to a drainage system, water that has been collected and redirected.

Drinking water: Water intended primarily for human consumption but which has other domestic uses.

Explanatory Information

See also the Australian Drinking Water Guidelines produced by the National Health and Medical Research Council.

TAS Early childhood centre

hours settings.

- **Effective height:** The vertical distance between the floor of the lowest *storey* included in the calculation of *rise in storeys* and the floor of the topmost *storey* (excluding the topmost *storey* if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units).
- **Efficacy:** The degree to which a system achieves a design objective given that it performs to a level consistent with the system specification during the relevant fire scenario.
- **Electricity network substation:** A building in which high voltage supply is converted or transformed and which is controlled by a licensed network service provider designated under a power of legislation.
- **Electric passenger lift:** A power-operated lift for raising or lowering people in a car in which the motion of the car is obtained from an electric motor mechanically coupled to the hoisting mechanism.
- **Electrohydraulic passenger lift:** A power-operated lift for raising or lowering people in a car in which the motion of the car is obtained from the action of liquid under pressure acting on a piston or ram, the pressure being generated by a pump driven by an individual electric motor.
- **Energy value:** The net cost to society including, but not limited to, costs to the building user, the environment and energy networks.

Engaged pier: A pier bonded to a masonry wall by course bonding of masonry units or by masonry ties.

NSW Entertainment venue

Envelope: For the purposes of-

- (a) Sections J and Part F8 in NCC Volume One, the parts of a building's fabric that separate a conditioned space or habitable room from—
 - (i) the exterior of the building; or
 - (ii) an internal non-conditioned space where the temperature is primarily determined by external ambient conditions and thermal loads are not addressed by the air conditioning and ventilation services.

 including
 - (A) the floor of a rooftop plant room, lift-machine room or the like; and
 - (B) the floor above a carpark or warehouse; and
 - (C) the common wall with a carpark, warehouse or the like; or
- (b) Part H6 in NCC Volume Two and <u>Section 10 and Section 13</u> of the ABCB Housing Provisions, the parts of a building's *fabric*

that separate artificially heated or cooled spaces from—

- (i) the exterior of the building; or
- (ii) other spaces that are not artificially heated or cooled.

Equivalent: Equivalent to the level of health, safety and amenity provided by the Deemed-to-Satisfy Provisions.

Evacuation route: The continuous path of travel (including *exits*, *public corridors* and the like) from any part of a building, including within a *sole-occupancy unit* in a Class 2 or 3 building or Class 4 part, to a *safe place*.

Evacuation time: The time calculated from when the emergency starts for the occupants of the building to evacuate to a *safe place*.

Exit: Means—

- (a) Any, or any combination of the following if they provide egress to a road or open space:
 - (i) An internal or external stairway.
 - (ii) A ramp.
 - (iii) A fire-isolated passageway.
 - (iv) A doorway opening to a road or open space; or
- (b) A horizontal exit or a fire-isolated passageway leading to a horizontal exit.

TAS Expert judgement

Expert judgement: The judgement of an expert who has the qualifications and experience to determine whether a *Performance Solution* or *Deemed-to-Satisfy Solution* complies with the *Performance Requirements*.

- (f) the period of time post fire front subject to collapsing vegetation due to persistent combustion.
- **Fire brigade:** A statutory authority constituted under an Act of Parliament having as one of its functions, the protection of life and property from fire and other emergencies.

Fire brigade station: For the purposes of E1D2(1)(b) and I3D9, means a state or territory government operated premises which is a station for a *fire brigade*.

Fire compartment: Either-

- (a) the total space of a building; or
- (b) when referred to in-
 - (i) the *Performance Requirements* any part of a building separated from the remainder by barriers to fire such as walls and/or floors having an appropriate resistance to the spread of fire with any openings adequately protected; or
 - (ii) the *Deemed-to-Satisfy Provisions* any part of a building separated from the remainder by walls and/or floors each having an FRL not less than that *required* for a *fire wall* for that type of construction and where all openings in the separating construction are protected in accordance with the *Deemed-to-Satisfy Provisions* of the relevant Part.

Fire growth: The stage of fire development during which the *heat release rate* and the temperature of the fire are generally increasing.

Fire hazard: The danger in terms of potential harm and degree of exposure arising from the start and spread of fire and the smoke and gases that are thereby generated.

Fire hazard properties: The following properties of a material or assembly that indicate how they behave under specific fire test conditions:

- (a) Average specific extinction area, cCritical radiant flux and smoke development rate-Flammability Index, determined in accordance with AS ISO 9239.1as defined in Schedule 1.
- (b) Smoke-Developed Index, smoke development rate and Spread-of-Flame Index, determined in accordance with Specification 3AS/NZS 1530.3.
- (c) Group number, average specific extinction area and <u>sS</u>moke growth rate index (SMOGRA_{RC}), determined in accordance with <u>Specification 7AS 5637.1</u>.

Fire intensity: The rate of release of calorific energy in watts, determined either theoretically or empirically, as applicable.

Fire-isolated passageway: A corridor, hallway or the like, of *fire-resisting construction*, which provides egress to or from a *fire-isolated stairway* or *fire-isolated ramp* or to a road or *open space*.

Fire-isolated ramp: A ramp within a fire-resisting enclosure which provides egress from a storey.

Fire-isolated stairway: A stairway within a *fire-resisting shaft* and includes the floor and roof or top enclosing structure.

Fire load: The sum of the net calorific values of the *combustible* contents which can reasonably be expected to burn within a *fire compartment*, including furnishings, built-in and removable materials, and building elements.

Notes

The calorific values must be determined at the ambient moisture content or humidity (the unit of measurement is MJ).

Fire-protected timber: Fire-resisting timber building elements that comply with Specification 10.

Fire-protective covering: Any one or more of the following:

- (a) 13 mm fire-protective grade plasterboard.
- (b) 12 mm cellulose cement flat sheeting complying with AS/NZS 2908.2 or ISO 8336.
- (c) 12 mm fibrous plaster reinforced with 13 mm x 13 mm x 0.7 mm galvanised steel wire mesh located not more than 6 mm from the exposed face.
- (d) Other material not less fire-protective than 13 mm fire-protective grade plasterboard, fixed in accordance with the normal trade practice for a fire-protective covering.

Fire-protected steel: Wall construction comprising steel members (hot rolled (HR) and cold-formed (CF)) which—

- (a) utilises a *non-combustible* fire protective covering fixed in accordance with the system requirements to achieve an FRL not less than that *required* for the building element; and
- (b) consists of not less than 2 layers of 13 mm thick, fire protective grade plasterboard; and

(c) where the faces of the walls (including any exposed edges, or framing exposed prior to the installation of service penetrations, doorways or any other opening), is protected by a *non-combustible* fire-protective covering to achieve the *required* FRL.

Fire-resistance level (FRL): The grading periods in minutes determined in accordance with Specifications 1 and 2, for the following criteria—

- (a) structural adequacy; and
- (b) integrity; and



(c) insulation,

and expressed in that order.

Notes

A dash means there is no requirement for that criterion. For example, 90/–/– means there is no requirement for an FRL for *integrity* and *insulation*, and -/–/– means there is no requirement for an FRL.

Fire-resisting construction: For the purposes of Volume One, means one of the Types of construction referred to in Part C2 of Volume One.

Fire-resisting: For the purposes of-

- (a) Volume One, applied to a building element, having an FRL appropriate for that element; or
- (b) Volume Two, applied to a *structural member* or other part of a building, having the FRL *required* for that *structural member* or other part.

Fire safety engineering: Application of engineering principles, rules and *expert judgement* based on a scientific appreciation of the fire phenomenon, often using specific *design scenario*, of the effects of fire and of the reaction and behaviour of people in order to—

- (a) save life, protect property and preserve the environment and heritage from destructive fire; and
- (b) quantify the hazards and risk of fire and its effects; and
- (c) mitigate fire damage by proper design, construction, arrangement and use of buildings, materials, structures, industrial processes and transportation systems; and
- (d) evaluate analytically the optimum protective and preventive measures, including design, installation and maintenance of active and passive fire and life safety systems, necessary to limit, within prescribed levels, the consequences of fire.

Fire safety system: One or any combination of the methods used in a building to-

- (a) warn people of an emergency; or
- (b) provide for safe evacuation; or
- (c) restrict the spread of fire; or
- (d) extinguish a fire,

and includes both active and passive systems.

Fire-source feature: Any one or more of the following:

- (a) The far boundary of a road, river, lake or the like adjoining the allotment.
- (b) A side or rear boundary of the allotment.
- (c) An external wall of another building on the allotment which is not a Class 10 building.
- (c)(d) The construction edge or perimeter of another building on the allotment which is not a Class 10 building and which has a use that constitutes a *fire load*.

Fire wall: A wall with an appropriate resistance to the spread of fire that divides a *storey* or building into *fire compartments*.

Fixed wired: For the purposes of Specification 23, a system of electrical wiring (either AC or DC), in which cables are fixed or supported in position.

Flammability Index: The index number as determined by <u>an Accredited Testing Laboratory in accordance with AS 1530.2.</u>

Note

Until the adoption of NCC 2028 determination need not be undertaken by an Accredited Testing Laboratory.

VIC Flashing

Flashing: A strip or sleeve of impervious material dressed, fitted or built-in to provide a barrier to water movement, or to divert the travel of water, or to cover a joint where water would otherwise penetrate to the interior of a building, and includes the following:

- (a) Perimeter flashing: a flashing used at the floor-wall junction.
- (b) Vertical flashing: a flashing used at wall junctions within *shower areas*.

- (i) a translucent element and its supporting frame located in the external fabric of the building; and
- (ii) includes a window other than a roof light; or
- (c) Part H6 of NCC Volume Two and Section 13 of the ABCB Housing Provisions—
 - a transparent or translucent element and its supporting frame located in the external fabric of the building; and
 - (ii) includes a window other than a roof light.

Going: The horizontal dimension from the front to the back of a tread less any overhang from the next tread or *landing* above (see Figure 11.2.2f in the ABCB Housing Provisions).

Green Star: The building sustainability rating scheme managed by the Green Building Council of Australia.

NSW Grid

Groundwater: Water underground in saturated zones beneath the land surface.

Group number: The number of one of 4 groups of materials used in the regulation of *fire hazard properties* and applied to materials used as a finish, surface, lining, or attachment to a wall or ceiling.

Habitable room: A room used for normal domestic activities, and-

- (a) includes a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, playroom, family room, home theatre and sunroom; but
- (b) excludes a bathroom, laundry, water closet, pantry, walk-in wardrobe, corridor, hallway, lobby, photographic darkroom, clothes-drying room, and other spaces of a specialised nature occupied neither frequently nor for extended periods.

Hazard Rating: A level of potential toxicity that may cause contamination in a *drinking water* system, having a rating of *Low Hazard*, *Medium Hazard* or *High Hazard*, determined in accordance with NCC Volume Three.

Health-care building: A building whose occupants or patients undergoing medical treatment generally need physical assistance to evacuate the building during an emergency and includes—

- (a) a public or private hospital; or
- (b) a nursing home or similar facility for sick or disabled persons needing full-time care; or
- (c) a clinic, day surgery or procedure unit where the effects of the predominant treatment administered involve patients becoming non-ambulatory and requiring supervised medical care on the premises for some time after the treatment.

Heated water: Water that has been intentionally heated; normally referred to as hot water or warm water.

Heating degree hours: For any one hour when the mean outdoor air temperature is less than 15°C, the degrees Celsius temperature difference between the mean outdoor air temperature and 15°C.

Heating load: The calculated amount of energy delivered to the heated spaces of the building annually by artificial means to maintain the desired temperatures in those spaces.

Heat release: The thermal energy produced by combustion (measured in kJ).

Heat release rate (HRR): The rate of thermal energy production generated by combustion, measured in kW (preferred) or MW.

High Hazard: Any condition, device or practice which, in connection with a water supply, has the potential to cause death.

High wind area: A region that is subject to design wind speed more than N3 or C1 (see Table 4).

Hob: The upstand at the perimeter of a *shower area*.

Horizontal exit: A required doorway between 2 parts of a building separated from each other by a fire wall.

VIC Hotel offering shared accommodation

Hours of operation: The number of hours when the occupancy of the building is greater than at least 20% of the peak occupancy.

House energy rating software: For the purposes of-

- (a) Volume One—,
 - (i) applied to JIV5—software accredited under the Nationwide House Energy Rating Scheme (NatHERS) and the additional functionality provided in non-regulatory mode; and; or
 - (a)(ii) applied to J3D3 or J3D15—software accredited under the Nationwide House Energy Rating

Scheme (NatHERS); or

- (b) Volume Two-
 - (i) applied to H6V2—software accredited or previously accredited under the Nationwide House Energy Rating Scheme (NatHERS) and the additional functionality provided in non-regulatory mode; and
 - (ii) applied to Specification 42—software accredited under the Nationwide House Energy Rating Scheme (NatHERS).



Explanatory Information

The Nationwide House Energy Rating Scheme (NatHERS) refers to the Australian Governments' scheme that facilitates consistent energy ratings from software tools which are used to assess the potential thermal efficiency of dwelling envelopes.

Illuminance: The luminous flux falling onto a unit area of surface.

Illumination power density: The total of the power that will be consumed by the lights in a space, including any lamps, ballasts, current regulators and control devices other than those that are plugged into socket outlets for intermittent use such as floor standing lamps, desk lamps or work station lamps, divided by the area of the space, and expressed in W/m².

Explanatory Information

Illumination power density relates to the power consumed by the lighting system and includes the light source or luminaire and any control device. The power for the lighting system is the illumination power load. This approach is more complicated than the *lamp power density* approach but provides more flexibility for a dwelling with sophisticated control systems.

The area of the space refers to the area the lights serve. This could be considered a single room, open plan space, verandah, balcony or the like, or the total area of all these spaces.

Inclined lift: A power-operated device for raising or lowering people within a carriage that has one or more rigid guides on an inclined plane.

Individual protection: The installation of a *backflow prevention device* at the point where a water service connects to a single fixture or appliance.

NSW Information and education facility

Insulation: In relation to an FRL, the ability to maintain a temperature on the surface not exposed to the furnace below the limits specified in AS 1530.4.

Integrity: In relation to an FRL, the ability to resist the passage of flames and hot gases specified in AS 1530.4.

Internal wall: For the purposes of-

- (a) Volume One, excludes a common wall or a party wall; or
- (b) Volume Two, excludes a separating wall, common wall or party wall.

Interstitial condensation: The *condensation* of moisture on surfaces between material layers inside the building component.

Irrigation system: An irrigation system of the following types:

- (a) Type A— all permanently open outlets and piping more than 150 mm above finished surface level, not subject to ponding or *backpressure* and not involving injection systems.
- (b) Type B— irrigation systems in domestic or residential buildings with piping or outlets installed less than 150 mm above finished surface level and not involving injection systems.
- (c) Type C— irrigation systems in other than domestic or residential buildings with piping outlets less than 150 mm above finished surface level and not involving injection systems.
- (d) Type D— irrigation systems where fertilizers, herbicides, nematicides or the like are injected or siphoned into the system.

Irrigation water: Water distributed in controlled amounts for the maintenance of vegetation.

JAS-ANZ: The Joint Accreditation System of Australia and New Zealand.

Kerb ramp: Means a A ramp incorporated in a kerb.

Lamp power density: The total of the maximum power rating of the lamps in a space, other than those that are plugged into socket outlets for intermittent use such as floor standing lamps, desk lamps or work station lamps, divided by the area of the space, and expressed in W/m².

Explanatory Information

The purpose of defining for main space conditioning is to provide criteria upon which the heating or cooling equipment should be selected when showing compliance with J3D14(1)(a) of NCC Volume One and 13.6.2(1)(a) of the ABCB Housing Provisions when more than one type and efficiency of equipment is present. In J3D14(1)(a) the formula that determines E_R allows the selection of only one heating or cooling system. This definition requires that if any one system serves at least 70% of the *floor area* that is heated or cooled it should be used as the basis of determining E_R . If, however, no one system serves at least 70% of the *floor area*, then the appliance that results in the highest net equivalent energy usage, when calculated in accordance with J3D14(1)(a)/13.6.2(1)(a), should be selected.

Massive timber: An element not less than 75 mm thick as measured in each direction formed from solid and laminated timber.

Maximum retained water level: The point where surface water will start to overflow out of the shower area.

Medium Hazard: Any condition, device or practice which, in connection with a water supply, has the potential to injure or endanger health.

Membrane: A barrier impervious to moisture.

Explanatory Information

A barrier may be a single or multi-part system.

Mezzanine: An intermediate floor within a room, that is not separated from that room by walls.

Explanatory Information

For the purposes of this provision, a solid balustrade does not constitute a wall.

Minimum Energy Performance Standards (MEPS): The Minimum Energy Performance Standards for equipment and appliances established through the Greenhouse and Energy Minimum Standards Act 2012.

NSW Minimum lateral clearance

Mixed construction: A building consisting of more than one form of construction, particularly in double-storey buildings.

Mould: A fungal growth that can be produced from conditions such as dampness, darkness, or poor ventilation.

NABERS Energy: The National Australian Built Environment Rating Systems for energy efficiency, which is managed by the New South Wales Government.

Network Utility Operator: A person who-

- (a) undertakes the piped distribution of drinking water or non-drinking water for supply; or
- (b) is the operator of a sewerage system or a stormwater *drainage* system.

Explanatory Information

A Network Utility Operator in most States and Territories is the water and sewerage authority licensed to supply water and receive sewage and/or stormwater. The authority operates or proposes to operate a network that undertakes the distribution of water for supply and undertakes to receive sewage and/or stormwater drainage. This authority may be a licensed utility, local government body or council.

Non-combustible: Applied to-

- (a) a material means not deemed *combustible* as determined by <u>an Accredited Testing Laboratory in accordance with AS 1530.1 Combustibility Tests for Materials; or</u>
- (b) construction or part of a building means constructed wholly of materials that are not deemed combustible.

Note

Until the adoption of NCC 2028 determination need not be undertaken by an Accredited Testing Laboratory.

Non-drinking water: Water which is not intended primarily for human consumption.

Occupant traits: For the purposes of-

(a) Volume One, the features, needs and profile of the occupants in a habitable room or space; or

considered:

- Characteristics: height, mobility and how often the space will be used.
- Requirements: a sleeping space and a space to undertake leisure activities.

Occupiable outdoor area: A space on a roof, balcony or similar part of a building—

- (a) that is open to the sky; and
- (b) to which access is provided, other than access only for maintenance; and
- (c) that is not open space or directly connected with open space.

Explanatory Information

A minor, open roof covering, such as an awning provided at a doorway, does not prevent an area from being considered 'open to the sky'.

VIC On-site wastewater management system

On-site wastewater management system: A system that receives and/or treats wastewater generated and discharges the resulting effluent to an *approved disposal system* or re-use system.

Open-deck carpark: A carpark in which all parts of the parking *storeys* are cross-ventilated by permanent unobstructed openings in not fewer than 2 opposite or approximately opposite sides, and—

- (a) each side that provides ventilation is not less than ¹/₆ of the area of any other side; and
- (b) the openings are not less than $\frac{1}{2}$ of the wall area of the side concerned.

Open space: A space on the allotment, or a roof or similar part of a building adequately protected from fire, open to the sky and connected directly with a public road.

Open spectator stand: A tiered stand substantially open at the front.

Other property: All or any of the following—

- (a) any building on the same or an adjoining allotment; and
- (b) any adjoining allotment; and
- (c) a road.

Outdoor air: Air outside the building.

Outdoor air economy cycle: A mode of operation of an *air-conditioning* system that, when the *outdoor air* thermodynamic properties are favourable, increases the quantity of *outdoor air* used to condition the space.

Outfall: That part of the disposal system receiving *surface water* from the *drainage* system and may include a natural water course, kerb and channel, or soakage system.

Overflow device: A device that provides relief to a water service, sanitary *plumbing* and *drainage* system, *rainwater* service or stormwater system to avoid the likelihood of *uncontrolled discharge*.

Panel wall: A non-loadbearing external wall, in frame or similar construction, that is wholly supported at each storey.

Partially buried rainwater tank: A rainwater tank that is not completely covered by earth but is partially set into the ground.

Patient care area: A part of a *health-care building* normally used for the treatment, care, accommodation, recreation, dining and holding of patients including a *ward area* and *treatment area*.

Performance-based design brief (PBDB): The report that defines the scope of work for the performance-based analysis, the technical basis for analysis, and the criteria for acceptance of any relevant *Performance Solution* as agreed by stakeholders.

Performance Requirement: A requirement which states the level of performance which a *Performance Solution* or *Deemed-to-Satisfy Solution* must meet.

Performance Solution: A method of complying with the *Performance Requirements* other than by a *Deemed-to-Satisfy Solution*.

Perimeter of building: For the purposes of Section 8 of the Housing Provisions, means the external envelope of a building.

TAS Permit Authority

Personal care services: Any of the following:

- (ii) toileting or continence management; or
- (iii) dressing or undressing; or
- (iv) consuming food.
- (c) The provision of direct physical assistance to a person with mobility problems.
- (d) The management of medication.
- (e) The provision of substantial rehabilitative or development assistance.

Piping: For the purposes of Section J in Volume One or Part H6 in Volume Two, and Section 13 of the Housing Provisions, means an assembly of pipes, with or without valves or other fittings, connected together for the conveyance of liquids and gases.

NSW Planning for Bush Fire Protection

Pliable building membrane: A water barrier as classified by AS 4200.1.

VIC Plumbing

Plumbing: Any water service plumbing or sanitary plumbing system.

Plumbing or Drainage Solution: A solution which complies with the Performance Requirement and is a-

- (a) Performance Solution; or
- (b) Deemed-to-Satisfy Solution; or
- (c) combination of (a) and (b).

Point of connection: Any of the following:

- (a) For a cold water service, means the point where the cold water service connects to-
 - (i) the Network Utility Operator's water supply system; or
 - (ii) the point of isolation to an alternative water source where there is no *Network Utility Operator's* water supply available or is not utilised.
- (b) For a *heated water* service, means the point where the water heater connects to the cold water service downstream of the isolation valve.
- (c) For sanitary drainage, means the point where the on-site sanitary drainage system connects to—
 - (i) the Network Utility Operator's sewerage system; or
 - (ii) an on-site wastewater management system.
- (d) For sanitary *plumbing*, means the point where the sanitary *plumbing* system connects to the sanitary *drainage* system.
- (e) For a rainwater service, means the point where the rainwater service—
 - (i) connects to the point of isolation for the rainwater storage; or
 - (ii) draws water from the rainwater storage.
- (f) For stormwater disposal, means the point where the on-site stormwater drainage system connects to—
 - (i) the Network Utility Operator's stormwater system; or
 - (ii) an approved on-site disposal system.
- (g) For a fire-fighting water service, means the point where the service connects to—
 - (i) a cold water service, downstream of a backflow prevention device; or
 - (ii) the Network Utility Operator's water supply system; or
 - (iii) the point of isolation to an alternative water source.
- (iii)(h) For rainwater storage, means the point of rainwater entry to the rainwater storage.

Notes

A domestic fire sprinkler service conforming to FPAA101D is considered part of the cold water service.

Explanatory Information

Acts, Regulations and codes that apply within the Network Utility Operator's licensed area and/or jurisdiction.

WA Potable water

Predicted Mean Vote (PMV): The Predicted Mean Vote of the thermal perception of building occupants determined in accordance with ANSI/ASHRAE Standard 55.

Preformed shower base: A preformed, prefinished *vessel* installed as the finished floor of a shower compartment, and which is provided with a connection point to a sanitary *drainage* system.

Explanatory Information

Preformed shower bases are commonly made of plastics, composite materials, vitreous enamelled pressed steel, or stainless steel.

Pressure vessel: A vessel subject to internal or external pressure, including interconnected parts and components, valves, gauges and other fittings up to the first point of connection to connecting piping, and—

- (a) includes fire heaters and gas cylinders; but
- (b) excludes-
 - (i) any vessel that falls within the definition of a boiler; and
 - (ii) storage tanks and equipment tanks intended for storing liquids where the pressure at the top of the tank is not exceeding 1.4 kPa above or 0.06 kPa below atmospheric pressure; and
 - (iii) domestic-type hot water supply heaters and tanks; and
 - (iv) pressure vessels installed for the purposes of fire suppression or which serve a fire suppression system.

QLD Primary building element

Primary building element: For the purposes of-

- (a) Volume One, a member of a building designed specifically to take part of the loads specified in B1D3 and includes roof, ceiling, floor, stairway or ramp and wall framing members including bracing members designed for the specific purpose of acting as a brace to those members; or
- (b) Part 3.4 of the ABCB Housing Provisions, a member of a building designed specifically to take part of the building loads and includes roof, ceiling, floor, stairway or ramp and wall framing members including bracing members designed for the specific purpose of acting as a brace to those members.

Explanatory Information

The loads to which a building may be subjected are dead, live, wind, snow and earthquake loads. Further information on building loads can be found in the AS 1170 series of Standards.

Primary insulation layer: The most interior predominant insulation layer of a wall or roof construction.

Private bushfire shelter: A structure associated with, but not attached to, or part of a Class 1a dwelling that may, as a last resort, provide shelter for occupants from immediate life threatening effects of a bushfire.

Private garage: For the purposes of—

- (a) Volume One-
 - (i) any garage associated with a Class 1 building; or
 - (ii) any single *storey* of a building of another Class containing not more than 3 vehicle spaces, if there is only one such *storey* in the building; or
 - (iii) any separate single *storey* garage associated with another building where such garage contains not more than 3 vehicle spaces; or
- (b) Volume Two-
 - (i) any garage associated with a Class 1 building; or
 - (ii) any separate single *storey* garage associated with another building where such garage contains not more than 3 vehicle spaces.

Product: Plumbing and drainage items within the scope of Volume Three including but not limited to—

- (a) materials, fixtures and components used in a plumbing or drainage installation; and
- (b) appliances and equipment connected to a *plumbing* or *drainage* system.

Product Technical Statement: A form of documentary evidence stating that the properties and performance of a building material, product or form of construction fulfil specific requirements of the NCC, and describes—

- (a) the application and intended use of the building material, product or form of construction; and
- (b) how the use of the building material, product or form of construction complies with the requirements of the NCC Volume One and Volume Two; and
- (c) any limitations and conditions of the use of the building material, product or form of construction relevant to (b).

Professional engineer: A person who is—

- (a) if legislation is applicable a registered professional engineer in the relevant discipline who has appropriate experience and competence in the relevant field; or
- (b) if legislation is not applicable—
 - (i) registered in the relevant discipline on the National Engineering Register (NER) of the Institution of Engineers Australia (which trades as 'Engineers Australia'); or
 - (ii) eligible to become registered on the Institution of Engineers Australia's NER and has appropriate experience and competence in the relevant field.

NSW Projection suite

TAS Public

WA Public building

Public corridor: An enclosed corridor, hallway or the like which—

- (a) serves as a means of egress from 2 or more *sole-occupancy units* to a *required exit* from the *storey* concerned; or
- (b) is required to be provided as a means of egress from any part of a storey to a required exit.

Rainwater: Naturally occurring water generated by a rain or storm event.

Rainwater service: A water service which distributes water from the isolation valve of the rainwater storage to the rainwater points of discharge for purposes such as for clothes washing, urinal and water closet flushing and external hose cocks.

Rainwater storage: Any storage of rainwater collected from a roof catchment area which is used to supply water for the primary purposes of drinking, personal hygiene or other uses.

Explanatory Information

Generally this applies to alternative water sources not supplied by a *Network Utility Operator*. This does not include *rainwater storage* for non-drinking purposes.

SA Rainwater tank

Rapid roller door: A door that opens and closes at a speed of not less than 0.5 m/s.

Recognised expert: A person with qualifications and experience in the area of *plumbing* or *drainage* in question recognised by the authority having jurisdiction.

Explanatory Information

A *recognised expert* is a person recognised by the authority having jurisdiction as qualified to provide evidence under A5G4(5). Generally, this means a hydraulic consultant or engineer, however the specific requirements are determined by the authority having jurisdiction.

Under A5G4(5), a report from a *recognised expert* may be used as evidence of suitability that a *product* listed on the *WaterMark Schedule of Excluded Products*, or a *plumbing* or *drainage* system, complies with a *Performance Requirement* or *Deemed-to-Satisfy Provisions*.

Redirected: For the purposes of Section F, the changing of direction of collected water to a drainage system.

Reference building: For the purposes of—

Riser: The height between consecutive treads and between each landing and continuous tread.

VIC Restricted children's service

Rising damp: Water absorbed from the ground into a building element.

Rolled fill: Material placed in layers and compacted by repeated rolling by an excavator.

SA Roof catchment area

Roof light: For the purposes of Section J and Part F6 in NCC Volume One, Part H6 in NCC Volume Two, and Part 10.5 and Section 13 of the ABCB Housing Provisions, a skylight, *window* or the like installed in a roof—

- (a) to permit natural light to enter the room below; and
- (b) at an angle between 0 and 70 degrees measured from the horizontal plane.

NSW Row

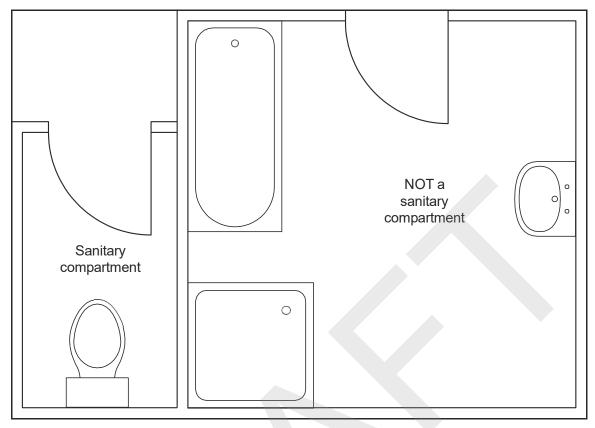
R-Value: The thermal resistance of a component calculated by dividing its thickness by its thermal conductivity, expressed in m².K/W.

Safe place: Either-

- (a) a place of safety within a building—
 - (i) which is not under threat from a fire; and
 - (ii) from which people must be able to safely disperse after escaping the effects of an emergency to a road or open space; or
- (b) a road or open space.

Sanitary compartment: A room or space containing a closet pan or urinal (see Figures 6a and 6b).

Figure 6b: Identification of a sanitary compartment (diagram b)



Sarking-type material: A material such as a *reflective insulation* or other flexible membrane of a type normally used for a purpose such as waterproofing, vapour management or thermal reflectance.

School: Includes a primary or secondary school, college, university or similar educational establishment.

TAS School age care facility

Screed: A layer of material (usually cement based) which sets in situ between a structural base and the finished floor material.

Self-closing: For the purposes of—

- (a) Volume One, applied to a door, means equipped with a device which returns the door to the fully closed position immediately after each opening; or
- (b) Volume Two, applied to a door or *window*, means equipped with a device which returns the door or *window* to the fully closed and latched position immediately after each manual opening.

Self-draining: A *surface finish* allowing *water* to be conveyed by gravity from the finished surface level to the membrane on the top surface of the *structural substrate*.

Sensible heat gain: The heat gained which causes a change in temperature.

Separating element: A barrier that exhibits fire *integrity*, *structural adequacy*, *insulation*, or a combination of these for a period of time under specified conditions (often in accordance with AS 1530.4).

Separating wall: A wall that is common to adjoining Class 1 buildings (see Figure 7).

Figure 7: Separating wall

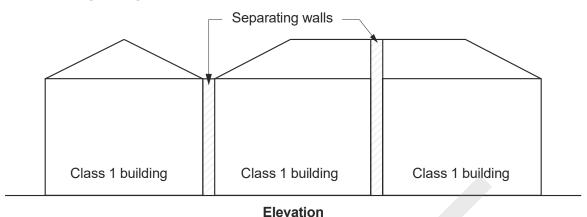


Figure Notes

In Volume Two a separating wall may also be known as a party wall and typically is *required* to be *fire-resisting* construction (see ABCB Housing Provisions Parts 9.2 and 9.3).

Service: For the purposes of Section J in Volume One, means a mechanical or electrical system that uses energy to provide *air-conditioning*, mechanical ventilation, heated water supply, artificial lighting, vertical transport and the like within a building, but which does not include—

- (a) systems used solely for emergency purposes; and
- (b) cooking facilities; and
- (c) portable appliances.

Service station: A garage which is not a *private garage* and is for the servicing of vehicles, other than only washing, cleaning or polishing.

Shaft: The walls and other parts of a building bounding—

- (a) a well, other than an atrium well; or
- (b) a vertical chute, duct or similar passage, but not a chimney or flue.

VIC Shared accommodation building

Shower area: The area affected by water from a shower, including a shower over a bath and for a shower area that is—

- (a) Enclosed the area enclosed by walls or screens including hinged or sliding doors that contain the spread of water to within that space; or
- (b) Unenclosed the area where, under normal use, water from the shower rose is not contained within the shower area.

Shower screen: The panels, doors or windows enclosing or partially enclosing a shower area.

Single leaf masonry: Outer walls constructed with a single thickness of masonry unit.

Site: The part of the allotment of land on which a building stands or is to be erected.

Sitework: Work on or around a *site*, including earthworks, preparatory to or associated with the construction, *alteration*, demolition or removal of a building.

NSW Small live music or arts venue

SA Small arts venue

Small-scale Technology Certificate: A certificate issued under the Commonwealth Government's Small-scale Renewable Energy Scheme.

Small-sized, low-speed automatic lift: A restricted use power-operated device for the infrequent raising or lowering of people with limited mobility on a platform that is controlled automatically but has the capability of being electrically isolated by a key-lockable control.

Smoke-and-heat vent: A vent, located in or near the roof for smoke and hot gases to escape if there is a fire in the building.

Smoke-Developed Index: The index number for smoke as determined by an *Accredited Testing Laboratory* in accordance with AS/NZS 1530.3.

Note

Until the adoption of NCC 2028 determination need not be undertaken by an Accredited Testing Laboratory.

Smoke development rate: The development rate for smoke as determined by an *Accredited Testing Laboratory* testing flooring materials in accordance with AS ISO 9239.1.

Note

Until the adoption of NCC 2028 determination need not be undertaken by an Accredited Testing Laboratory.

Smoke growth rate index (SMOGRA_{RC}): The index number for smoke used in the regulation of *fire hazard properties* and applied to materials used as a finish, surface, lining or attachment to a wall or ceiling.

Solar admittance: The fraction of incident irradiance on a wall-glazing construction that adds heat to a building's space.

Solar Reflectance Index: The solar reflectance index calculated in accordance with ASTM E1980-11(2019).

Sole-occupancy unit: A room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes—

- (a) a dwelling; or
- (b) a room or suite of rooms in a Class 3 building which includes sleeping facilities; or
- (c) a room or suite of associated rooms in a Class 5, 6, 7, 8 or 9 building; or
- (d) a room or suite of associated rooms in a Class 9c building, which includes sleeping facilities and any area for the exclusive use of a resident.

NSW Spa pool

Spandrel panel: For the purposes of Section J, means the opaque part of a façade in curtain wall construction which is commonly adjacent to, and integrated with, *glazing*.

NSW Special fire protection purpose

Spiral stairway: A stairway with a circular plan, winding around a central post with steps that radiate from a common centre or several radii (see Figures 11.2.2d and 11.2.2e in the ABCB Housing Provisions).

Spread-of-Flame Index: The index number for spread of flame as determined by an *Accredited Testing Laboratory* in accordance with AS/NZS 1530.3.

Note

Until the adoption of NCC 2028 determination need not be undertaken by an Accredited Testing Laboratory.

Sprinkler alarm switch: For the purposes of Specification 23, a device capable of sending an electrical signal to activate an alarm when a residential sprinkler head is activated (e.g. a flow switch).

Stack bonded pier: A pier where the overlap of a masonry unit is not more than 25% of the length of the masonry unit below.

Stage: A floor or platform in a Class 9b building on which performances are presented before an audience.

Stairway platform lift: A power-operated device for raising or lowering people with limited mobility on a platform (with or without a chair) in the direction of a stairway.

Standard Fire Test: The Fire-resistance Tests of Elements of Building Construction as described in AS 1530.4.

SA Storage shed

Step ramp: A ramp, other than a *kerb ramp*, not exceeding 190 mm in height.

Stormwater: Water accumulated or discharged as a result of a rain event.

Storey: A space within a building which is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but not—

- (a) a space that contains only-
 - (i) a lift shaft, stairway or meter room; or
 - (ii) a bathroom, shower room, laundry, water closet, or other sanitary compartment; or
 - (iii) accommodation intended for not more than 3 vehicles; or
 - (iv) a combination of the above; or
- (b) a mezzanine.

Structural adequacy: In relation to an FRL, means the ability to maintain stability and adequate *loadbearing* capacity as determined by AS 1530.4.

Structural member: A component or part of an assembly which provides vertical or lateral support to a building or structure.

Structural substrate: The surface of a structural member to be waterproofed as required by Part F1 or F2D2(2)(a).

Sub-surface water: Includes—

- (a) all naturally occurring *water*, other than *surface water*, which is either *groundwater* or *water* which results from rainfall infiltration on the *site* or other infiltration from another *water* source; or
- (b) water beneath the surface of a building element, other structure, or the ground.

Surface finish: For the purposes of Section F, is a material or flooring system directly fixed to or supported above a *structural substrate*.

Surface water: All naturally occurring water, other than sub-surface water, which results from rainfall on or around the *site* or water flowing onto the *site*-, including *water* that results from rainfall on the external *fabric* of the building, including any other water that falls or flows onto the *fabric* from other sources.

<u>Surface water seepage</u>: *Water* escaping through the surface of the ground or a building element.

Swimming pool: Any excavation or structure containing water and principally used, or that is designed, manufactured or adapted to be principally used for swimming, wading, paddling, or the like, including a bathing or wading pool, or spa.

Tapered tread: A stair tread with a walking area that grows smaller towards one end.

NSW Temporary structure

TAS Temporary structure

Thermal comfort level: The level of thermal comfort in a building expressed as a PMV sensation scale.

Thermal energy load: The sum of the *heating load* and the *cooling load*.

Threshold ramp: A ramp incorporated within a threshold.

Total R-Value: The sum of the *R-Values* of the individual component layers in a composite element including any building material, insulating material, airspace, thermal bridging and associated surface resistances, expressed in m².K/W.

Total Solar Reflectance (TSR): The complement of the solar absorptance.

Total System Solar Heat Gain Coefficient (SHGC): For the purposes of—

- (a) Volume One, the fraction of incident irradiance on a *wall-glazing construction* or a *roof light* that adds heat to a building's space; or
- (b) Volume Two, the fraction of incident irradiance on *glazing* or a roof light that adds heat to a building's space.
- **Total System U-Value:** The thermal transmittance of the composite element allowing for the effect of any airspaces, thermal bridging and associated surface resistances, expressed in Wm⁻²K⁻¹.
- **Treatment area:** An area within a *patient care area* such as an operating theatre and rooms used for recovery, minor procedures, resuscitation, intensive care and coronary care from which a patient may not be readily moved.
- **Uncontrolled discharge:** Any unintentional release of fluid from a *plumbing* and *drainage* system and includes leakage and seepage.
- **Unique wall:** For the purposes of F3V1 in Volume One and H2V1 in Volume Two, a wall which is neither a *cavity wall* nor a *direct fix cladding wall*.
- **Unobstructed opening:** For the purposes of Section 8 of the ABCB Housing Provisions, a glazed area that a person could mistake for an open doorway or clearway and walk into the glazed panel.
- **Unprotected water service:** Unprotected water service means that the water service may be contaminated from a surrounding hazard.

Unreinforced masonry: Masonry that is not reinforced.

Vapour permeance: The degree that water vapour is able to diffuse through a material, measured in μg/N.s and tested in accordance with the ASTM-E96 Procedure B – Water Method at 23°C 50% relative humidity.

Vapour pressure: The pressure at which water vapour is in thermodynamic equilibrium with its condensed state.

- **Ventilation opening:** An opening in the *external wall*, floor or roof of a building designed to allow air movement into or out of the building by natural means including a permanent opening, an openable part of a *window*, a door or other device which can be held open.
- **Verification Method:** A test, inspection, calculation or other method that determines whether a *Performance Solution* complies with the relevant *Performance Requirements*.
- **Vessel:** For the purposes of Volume One and Part 10.2 of the ABCB Housing Provisions, an open, pre-formed, pre-finished concave receptacle capable of holding water, usually for the purpose of washing, including a basin, sink, bath, laundry tub and the like.

Visibility: The maximum distance at which an object of defined size, brightness and contrast can be seen and recognised.

Voltage: A difference of potential, measured in Volts (V) and includes extra-low voltage and low voltage.

Volume: In relation to-

- (a) a building the volume of the total space of the building measured above the lowest floor (including, for a suspended floor, any subfloor space), over the enclosing walls, and to the underside of the roof covering; or
- (b) a *fire compartment* the volume of the total space of the *fire compartment* measured within the inner finished surfaces of the enclosing *fire-resisting* walls and/or floors, and—
 - (i) if there is no *fire-resisting* floor at the base of the *fire compartment*, measured above the finished surface of the lowest floor in the *fire compartment*; and
 - (ii) if there is no *fire-resisting* floor at the top of the *fire compartment*, measured to the underside of the roof covering of the *fire compartment*; and
 - (iii) if there is no *fire-resisting* wall, measured over the enclosing wall and if there is no enclosing wall, includes any space within the *fire compartment* that has a use which contributes to the *fire load*; or
- (c) an *atrium* the volume of the total space of the *atrium* measured within the finished surfaces of the bounding construction and if there is no bounding construction, within the *external walls*.

Wall-glazing construction: For the purposes of Section J in Volume One, the combination of wall and *glazing* components comprising the *envelope* of a building, excluding—

- (a) display glazing; and
- (b) opaque non-glazed openings such as doors, vents, penetrations and shutters.

Ward area: That part of a *patient care area* for resident patients and may contain areas for accommodation, sleeping, associated living and nursing facilities.

Water: For the purposes of Section F, 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) irrigation water; and
- (h) groundwater; and
- (i) surface water seepage.

Water control layer: A pliable building membrane or the exterior cladding when no pliable building membrane is present.

<u>Water services overflow: Water discharged from water service referred to in the Plumbing Code of Australia not primarily drained by a sanitary drainage system or sanitary plumbing system.</u>

WaterMark Certification Scheme: The ABCB scheme for certifying and authorising plumbing and drainage products.

WaterMark Conformity Assessment Body (WMCAB): A conformity assessment body registered with and accredited by the *JAS-ANZ* to conduct evaluations leading to *product* certification and contracted with the *administering body* to issue the *WaterMark Licence*.

WaterMark Licence: A licence issued by a WaterMark Conformity Assessment Body.

WaterMark Schedule of Excluded Products: The list maintained by the *administering body* of *products* excluded from the *WaterMark Certification Scheme*.

WaterMark Schedule of Products: The list maintained by the *administering body* of *products* included in the *WaterMark Certification Scheme*, and the specifications to which the *products* can be certified.

Explanatory Information

The WaterMark Schedule of Products and the WaterMark Schedule of Excluded Products can be viewed on the ABCB website at www.abcb.gov.au.

Waterproof: The property of a material that does not allow water to penetrate through it.

Waterproofing system: A combination of elements that are *required* to achieve a *waterproof* barrier as *required* by H4D2 and H4D3 including substrate, *membrane*, bond breakers, sealants, finishes and the like.

Water resistant: The property of a system or material that restricts water movement and will not degrade under conditions of water.

Water sensitive materials: Materials that have an inherent capacity to absorb water vapour and include timber, plasterboard, plywood, oriented strand board and the like.

Waterstop: A vertical extension of the *waterproofing system* forming a barrier to prevent the passage of water in a floor or other horizontal surfaces.

Watertight: Will not allow water to pass from the inside to the outside of the component or joint and vice versa.

Weighted average: Is calculated across the wetted surface area of a pipe, pipe fitting or plumbing fixture.

WA WELS

Wet area: An area within a building supplied with water from a water supply system, which includes bathrooms, showers, laundries and *sanitary compartments* and excludes kitchens, bar areas, kitchenettes or domestic food and beverage preparation areas.

Wetted surface area: Is calculated by the total sum of diameter (D) in contact with drinking water.