## **Nationwide House Energy Rating Scheme** NatHERS Certificate No. 0008634180-03

Generated on 13 Jun 2023 using BERS Pro v4.4.1.5 (3.21)

## **Property**

Address 18 Rock Bath Road, Palm Beach, NSW, 2108

Lot/DP 292/16362

NCC Class\* 1A

**New Dwelling** Type

**Plans** 

Main plan Revision - k Issue Date - 02/06/2023

Prepared by Pegasus

### Construction and environment

Assessed floor area (m2)\* **Exposure type** Conditioned\* 311.0 Exposed

Unconditioned\* 62.0

NatHERS climate zone 373.0 Total

56

48.0 Garage



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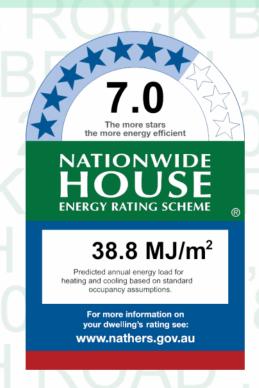
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Accreditation No. 10056

Assessor Accrediting Organisation

**HERA** 

**Declaration of interest** None



## Thermal performance

Heating Cooling

15.8

22.9

 $MJ/m^2$ 

 $MJ/m^2$ 

### About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

## Verification

To verify this certificate, scan the QR code or visit



hstar.com.au/QR/Generate? p=hMWNplbnf.

When using either link, ensure you are visiting hstar.com.au

### National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.



### Certificate check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

#### Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate? Ceiling penetrations\*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

#### Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

#### Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

#### Exposure\*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

#### Provisional\* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

### **Additional notes**

\*The dwelling has been assessed without recessed light fittings as no lighting or electrical plan has been

provided.

\*Obscure glazing has been modelled as clear glass as it has similar thermal properties.

I have modeled the shading in accordance with NatHERS principles

## Window and glazed door type and performance

#### **Default\* windows**

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
Willidow ID	Description	U-value*	энас	SHGC lower limit	SHGC upper limit	
TIM-004-01 W	TIM-004-01 W Timber B DG Air Fill Clear-Clear	3.0	0.56	0.53	0.59	
TIM-003-01 W	TIM-003-01 W Timber A DG Air Fill Clear-Clear	3.0	0.48	0.46	0.50	

#### **Custom\* windows**

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
willdow iD	Description	U-value*		SHGC lower limit	SHGC upper limit	

No Data Available



## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	TIM-004-01 W	n/a	2850	7700	n/a	70	NW	No
Kitchen/Living	TIM-004-01 W	n/a	2850	8500	n/a	35	NW	No
Kitchen/Living	TIM-004-01 W	n/a	2850	3350	n/a	40	NW	No
Kitchen/Living	TIM-004-01 W	n/a	2850	5100	n/a	35	NE	No
Kitchen/Living	TIM-004-01 W	n/a	550	1520	n/a	00	NW	No Shading
Staircase FF	TIM-004-01 W	n/a	500	2700	n/a	50	SE	No
Corridor	TIM-004-01 W	n/a	2900	325	n/a	00	SW	No
Rumpus	TIM-004-01 W	n/a	900	1365	n/a	50	SE	No
Rumpus	TIM-004-01 W	n/a	900	632	n/a	00	Е	No
Rumpus	TIM-004-01 W	n/a	900	565	n/a	00	E	No
Rumpus	TIM-004-01 W	n/a	900	217	n/a	00	NE	No
Rumpus	TIM-003-01 W	n/a	2900	1120	n/a	90	NE	No
Void	TIM-004-01 W	n/a	2900	1520	n/a	00	NW	No
Bedroom 1	TIM-004-01 W	n/a	2900	2630	n/a	45	NW	No
Bedroom 1	TIM-004-01 W	n/a	600	2659	n/a	30	NE	No
Bedroom 2	TIM-004-01 W	n/a	2920	2440	n/a	45	NW	No
Bedroom 2	TIM-004-01 W	n/a	600	825	n/a	00	W	No
Bedroom 3	TIM-004-01 W	n/a	600	955	n/a	00	NW	No
Bedroom 3	TIM-004-01 W	n/a	600	315	n/a	00	NE	No
Bedroom 3	TIM-004-01 W	n/a	2920	2420	n/a	45	NW	No
Bedroom 4	TIM-004-01 W	n/a	2920	2820	n/a	45	NW	No
Bedroom 4	TIM-004-01 W	n/a	600	1800	n/a	00	NE	No
Master Bedroom	TIM-004-01 W	n/a	2900	4558	n/a	60	N	No
Master Bedroom	TIM-004-01 W	n/a	2900	3420	n/a	45	E	No
Master Bedroom	TIM-004-01 W	n/a	600	2445	n/a	30	SE	No
Master ENS	TIM-004-01 W	n/a	2900	2370	n/a	45	N	No
Bath 1	TIM-004-01 W	n/a	1250	1860	n/a	30	W	No
Bath 1	TIM-004-01 W	n/a	2900	750	n/a	00	NW	No

# Roof window type and performance



### **Default\* roof windows**

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
willdow ib	Description	U-value*		SHGC lower limit	SHGC upper limit	

No Data Available

### **Custom\* roof windows**

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
willdow ib	Description	U-value*	SHGC	SHGC lower limit	SHGC upper limit	

No Data Available

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
No Data Ava	ailable							

## Skylight type and performance

GEN-04-006a Single-glazed clear, Timber and Aluminium Frame

# Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m²)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
Staircase FF	GEN-04-006a	n/a	50	2.00	SE	None	No	0.50
Bath	GEN-04-006a	n/a	50	0.60	NW	None	No	0.50
Bath 4	GEN-04-006a	n/a	50	0.60	NW	None	No	0.50
Bath 4	GEN-04-006a	n/a	50	0.60	NW	None	No	0.50

### External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Laundry	2040	820	90	SW
Corridor	2040	900	90	SW



Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2900	4800	90	SW

# External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Cavity Brick	0.50	Medium	Foil reflective both sides of the Bulk Insulation R1.3	Yes
EW-2	Cavity Brick	0.50	Medium	Foil reflective both sides of the Bulk Insulation R1.3	Yes

## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Kitchen/Living	EW-1	2850	3845	SW	0	NO
Kitchen/Living	EW-1	2850	20100	NW	0	NO
Kitchen/Living	EW-2	2850	5400	NE	11350	NO
Kitchen/Living	EW-2	2850	1300	SE	0	YES
Kitchen/Living	EW-2	2850	539	Е	0	YES
Kitchen/Living	EW-2	2850	566	Е	0	YES
Kitchen/Living	EW-2	2850	539	NE	0	YES
Kitchen/Living	EW-2	2850	900	NE	0	YES
Kitchen/Living	EW-2	2850	316	NE	56	NO
Kitchen/Living	EW-2	2850	224	E	56	NO
Kitchen/Living	EW-2	2850	7445	SE	0	NO
Lift GF	EW-2	2850	1590	SE	0	NO
Bath	EW-2	2850	2490	SE	0	NO
Pantry	EW-2	2850	3290	SE	0	NO
Laundry	EW-2	2850	2145	SE	0	NO
Laundry	EW-2	2850	3845	SW	0	NO
Staircase FF	EW-2	2920	2590	SE	0	NO
Lift FF	EW-2	2920	1590	SE	0	NO
Corridor	EW-2	2920	1290	SW	2075	YES



Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Corridor	EW-2	2920	245	NW	0	YES
Rumpus	EW-2	2920	1445	SE	0	YES
Rumpus	EW-2	2920	632	E	0	YES
Rumpus	EW-2	2920	566	Е	0	YES
Rumpus	EW-2	2920	632	NE	0	YES
Rumpus	EW-2	2920	1200	NE	0	YES
Rumpus	EW-2	2920	5045	SE	0	NO
Void	EW-2	2920	1690	NW	0	YES
Bedroom 1	EW-2	2920	2945	NW	600	YES
Bedroom 1	EW-2	2920	849	W	424	YES
Bedroom 1	EW-2	2920	300	NW	0	NO
Bedroom 1	EW-2	2920	4845	NE	2100	YES
Bedroom 2	EW-2	2920	2900	SW	2100	YES
Bedroom 2	EW-2	2920	2500	NW	900	YES
Bedroom 2	EW-2	2920	1273	W	636	YES
Bedroom 2	EW-2	2920	245	NW	0	NO
Bedroom 3	EW-2	2920	945	NW	0	NO
Bedroom 3	EW-2	2920	900	NE	4625	YES
Bedroom 3	EW-2	2920	2800	NW	900	YES
Bedroom 3	EW-2	2920	1000	NE	3525	YES
Bedroom 4	EW-2	2920	3645	NW	1425	YES
Bedroom 4	EW-2	2920	2500	NE	1725	YES
Master Bedroom	EW-2	2920	4559	N	1030	YES
Master Bedroom	EW-2	2920	3362	E	716	NO
Master Bedroom	EW-2	2920	3499	S	25	YES
Master Bedroom	EW-2	2920	447	SE	1230	YES
Master Bedroom	EW-2	2920	600	NE	5225	YES
Master Bedroom	EW-2	2920	781	N	5326	YES
Master Bedroom	EW-2	2920	5445	SE	0	NO
Master ENS	EW-2	2920	645	NW	0	YES



Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
EW-2	2920	447	W	2012	YES
EW-2	2920	806	W	1501	YES
EW-2	2920	2415	N	1034	YES
EW-2	2920	5345	SE	0	NO
EW-2	2920	400	SW	1800	YES
EW-2	2920	1800	SE	400	YES
EW-2	2920	5000	SW	0	NO
EW-2	2920	1389	W	0	NO
EW-2	2920	806	W	0	NO
EW-2	2920	2500	NW	2100	YES
EW-2	2920	800	SE	8700	YES
EW-2	2920	316	SE	8380	NO
EW-2	2920	283	S	1202	NO
EW-2	2920	300	SW	100	NO
EW-2	2920	3225	W	0	NO
EW-2	2920	745	NW	500	NO
	EW-2 EW-2 EW-2 EW-2 EW-2 EW-2 EW-2 EW-2	ID       (mm)         EW-2       2920         EW-2       2920	ID       (mm)       (mm)         EW-2       2920       447         EW-2       2920       806         EW-2       2920       2415         EW-2       2920       5345         EW-2       2920       400         EW-2       2920       1800         EW-2       2920       5000         EW-2       2920       1389         EW-2       2920       806         EW-2       2920       800         EW-2       2920       316         EW-2       2920       283         EW-2       2920       300         EW-2       2920       300         EW-2       2920       3025	ID         (mm)         (mm)         Orientation           EW-2         2920         447         W           EW-2         2920         806         W           EW-2         2920         2415         N           EW-2         2920         5345         SE           EW-2         2920         400         SW           EW-2         2920         1800         SE           EW-2         2920         5000         SW           EW-2         2920         1389         W           EW-2         2920         806         W           EW-2         2920         800         SE           EW-2         2920         316         SE           EW-2         2920         283         S           EW-2         2920         300         SW           EW-2         2920         300         SW	Wall ID         Height (mm)         Width (mm)         Orientation         feature* maximum projection (mm)           EW-2         2920         447         W         2012           EW-2         2920         806         W         1501           EW-2         2920         2415         N         1034           EW-2         2920         5345         SE         0           EW-2         2920         400         SW         1800           EW-2         2920         1800         SE         400           EW-2         2920         5000         SW         0           EW-2         2920         1389         W         0           EW-2         2920         806         W         0           EW-2         2920         800         SE         8700           EW-2         2920         316         SE         8380           EW-2         2920         283         S         1202           EW-2         2920         300         SW         100           EW-2         2920         3225         W         0

# Internal wall type

Wall ID	Wall type	Area (m²)	Bulk insulation
IW-1 - Single Skin Brick		319.00	No insulation

# Floor type

Location	Construction	Area Sub-floor (m <sup>2</sup> ) ventilation	Added insulation n(R-value)	Covering
Kitchen/Living	Concrete Slab on Ground 200mm	119.60 None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Lift GF	Concrete Slab on Ground 200mm	2.60 None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Bath	Concrete Slab on Ground 200mm	7.60 None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Pantry	Concrete Slab on Ground 200mm	10.80 None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm



Location	Construction	_	Sub-floor ventilation	Added insulation (R-value)	Covering
Laundry	Concrete Slab on Ground 200mm	8.30	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Staircase FF/Kitchen/Living	Concrete Above Plasterboard 475mm	8.80		No Insulation	Ceramic Tiles 8mm
Lift FF/Lift GF	Concrete Above Plasterboard 475mm	2.60		No Insulation	Ceramic Tiles 8mm
Corridor/Kitchen/Living	Concrete Above Plasterboard 475mm	27.80		No Insulation	Ceramic Tiles 8mm
Corridor	Suspended Concrete Slab 475mm	2.40	Totally Open	No Insulation	Ceramic Tiles 8mm
Rumpus/Kitchen/Living	Concrete Above Plasterboard 475mm	20.20		No Insulation	Ceramic Tiles 8mm
Bath/Kitchen/Living	Concrete Above Plasterboard 475mm	5.70		No Insulation	Ceramic Tiles 8mm
Void/Kitchen/Living	Concrete Above Plasterboard 475mm	5.10		No Insulation	Ceramic Tiles 8mm
Bedroom 1	Suspended Concrete Slab 475mm	15.40	Totally Open	No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Concrete Above Plasterboard 475mm	3.40		No Insulation	Ceramic Tiles 8mm
Bedroom 2	Suspended Concrete Slab 475mm	11.00	Totally Open	No Insulation	Ceramic Tiles 8mm
Bedroom 3/Kitchen/Living	Concrete Above Plasterboard 475mm	3.50		No Insulation	Ceramic Tiles 8mm
Bedroom 3	Suspended Concrete Slab 475mm	11.40	Totally Open	No Insulation	Ceramic Tiles 8mm
Bedroom 4/Kitchen/Living	Concrete Above Plasterboard 475mm	2.70		No Insulation	Ceramic Tiles 8mm
Bedroom 4	Suspended Concrete Slab 475mm	13.70	Totally Open	No Insulation	Ceramic Tiles 8mm
Master Bedroom	Suspended Concrete Slab 475mm	27.50	Totally Open	No Insulation	Ceramic Tiles 8mm
Bath 4/Kitchen/Living	Concrete Above Plasterboard 475mm	5.90		No Insulation	Ceramic Tiles 8mm
Master ENS	Suspended Concrete Slab 475mm	8.10	Totally Open	No Insulation	Ceramic Tiles 8mm
Garage/Kitchen/Living	Concrete Above Plasterboard 475mm	24.90		No Insulation	Bare
Garage/Bath	Concrete Above Plasterboard 475mm	8.00		No Insulation	Bare
Garage/Pantry	Concrete Above Plasterboard 475mm	11.10		No Insulation	Bare
Garage/Laundry	Concrete Above Plasterboard 475mm	4.20		No Insulation	Bare
Bath 1	Suspended Concrete Slab 475mm	5.60	Totally Open	No Insulation	Ceramic Tiles 8mm



# Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Kitchen/Living	Concrete, Plasterboard	Bulk Insulation R2	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Lift GF	Concrete Above Plasterboard	No Insulation	No
Bath	Concrete Above Plasterboard	No Insulation	No
Pantry	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Staircase FF	Concrete, Plasterboard	Bulk Insulation R1.1	No
Lift FF	Concrete, Plasterboard	Bulk Insulation R1.1	No
Corridor	Concrete, Plasterboard	Bulk Insulation R1.1	No
Rumpus	Concrete, Plasterboard	Bulk Insulation R1.1	No
Bath	Concrete, Plasterboard	Bulk Insulation R1.1	No
Void	Concrete, Plasterboard	Bulk Insulation R1.1	No
Bedroom 1	Concrete, Plasterboard	Bulk Insulation R1.1	No
Bedroom 2	Concrete, Plasterboard	Bulk Insulation R1.1	No
Bedroom 3	Concrete, Plasterboard	Bulk Insulation R1.1	No
Bedroom 4	Concrete, Plasterboard	Bulk Insulation R1.1	No
Master Bedroom	Concrete, Plasterboard	Bulk Insulation R1.1	No
Bath 4	Concrete, Plasterboard	Bulk Insulation R1.1	No
Master ENS	Concrete, Plasterboard	Bulk Insulation R1.1	No
Garage	Concrete, Plasterboard	Bulk Insulation R1.1	No
Bath 1	Concrete, Plasterboard	Bulk Insulation R1.1	No

# Ceiling penetrations\*

Location	Quantity	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed



Location	Quantity	Туре	Diameter (mm)	Sealed/unsealed
Bath	1	Exhaust Fans	300	Sealed
Bath 4	1	Exhaust Fans	300	Sealed

# Ceiling fans

Location	Quantity	Diameter (mm)
Bedroom 1	1	1200
Bedroom 2	1	1200
Bedroom 3	1	1200
Bedroom 4	1	1200
Master Bedroom	1	1200

# Roof type

Construction Added insulation (R-value)		Solar absorptance	Roof shade
Waterproofing Membrane	No Insulation, Only an Air Gap	0.50	Medium
Waterproofing Membrane	Bulk Insulation, No Air Gap Above R2.6	0.50	Medium



### **Explanatory notes**

#### About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

#### Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

#### Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

### **Glossary**

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).