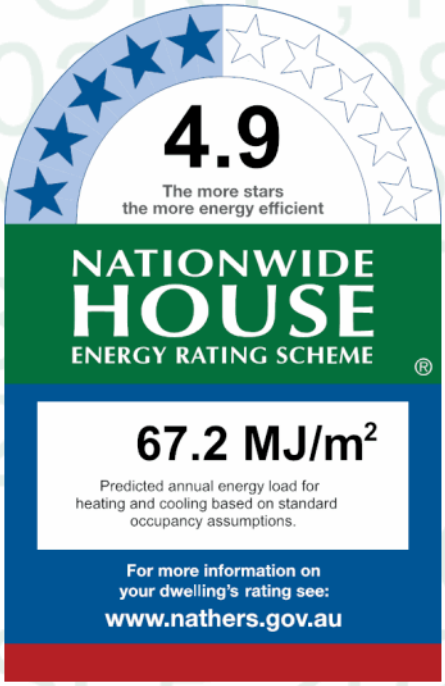
Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0008970931

Generated on 29 Sep 2023 using BERS Pro v4.4.1.5 (3.21)



Property

Address	60 Prince Alfred Parade, Newport , NSW , 2106
Lot/DP	22/527184
NCC Class*	1A
Type	New Dwelling

Plans

Main plan	1156
Prepared by	Design Confidential

Construction and environment

Assessed floor area (m^2)*	
Conditioned*	291.0
Unconditioned*	80.0
Total	371.0
Garage	46.0

Exposure type
Suburban

NatHERS climate zone
56

Thermal performance

Heating	Cooling
41.2	**26.1**
MJ/m^2	MJ/m^2

Accredited assessor

Name	Fadi Sweis
Business name	Energy Ratings Australia Pty Ltd
Email	fsweis@eraservices.com.au
Phone	0410 321 100
Accreditation No.	20390
Assessor Accrediting Organisation	ABSA
Declaration of interest	Declaration completed: no conflicts

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 www.hstar.com.au/QR/Generate?p=yUbncbFps.
When using either link, ensure you are visiting www.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

I have modeled the shading in accordance with NatHERS principles

Window and glazed door *type and performance*

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
CVW-004-01 A	CVW-004-01 A Aluminium Fixed Window DG 4-8-4	3.6	0.67	0.64	0.70
RYL-302-013 A	RYL-302-013 A AA Series Fixed Lite Window DG 4-12Ar-4ET	2.3	0.61	0.58	0.64

* Refer to glossary.

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
LD	CVW-004-01 A	n/a	1050	2000	n/a	90	W	No
Bath	CVW-004-01 A	n/a	1300	1810	n/a	90	W	No
Bedroom 4	CVW-004-01 A	n/a	1300	1000	n/a	90	W	No
Bedroom 4	CVW-004-01 A	n/a	1300	1000	n/a	90	W	No
Bedroom 4	CVW-004-01 A	n/a	1300	1000	n/a	00	W	No
Bedroom 3	CVW-004-01 A	n/a	1300	1000	n/a	90	W	No
Bedroom 3	CVW-004-01 A	n/a	1300	1000	n/a	90	W	No
Bedroom 3	CVW-004-01 A	n/a	1300	1000	n/a	00	W	No
ENS (B2)	CVW-004-01 A	n/a	450	800	n/a	90	W	No
Bedroom 2	CVW-004-01 A	n/a	1300	1000	n/a	90	W	No
Bedroom 2	CVW-004-01 A	n/a	1300	1000	n/a	90	W	No
Bedroom 2	CVW-004-01 A	n/a	1300	1000	n/a	00	W	No
Hallway	CVW-004-01 A	n/a	2100	900	n/a	90	S	No
Bedroom 1	CVW-004-01 A	n/a	2400	3120	n/a	60	S	No
Bedroom 1	CVW-004-01 A	n/a	2400	520	n/a	90	S	No
Bedroom 1	CVW-004-01 A	n/a	2400	3120	n/a	60	W	No
Bedroom 1	CVW-004-01 A	n/a	2400	520	n/a	90	W	No
ENS	CVW-004-01 A	n/a	1300	1810	n/a	00	N	No
PD	CVW-004-01 A	n/a	1500	605	n/a	90	E	No
PD	CVW-004-01 A	n/a	1500	605	n/a	00	E	No
Study	CVW-004-01 A	n/a	2400	1820	n/a	45	W	No
Kitchen/Living	RYL-302-013 A	n/a	1500	1500	n/a	00	E	No
Kitchen/Living	RYL-302-013 A	n/a	1500	1500	n/a	00	E	No
Kitchen/Living	RYL-302-013 A	n/a	1500	1500	n/a	00	E	No
Kitchen/Living	RYL-302-013 A	n/a	1500	1500	n/a	00	E	No
Kitchen/Living	CVW-004-01 A	n/a	1500	750	n/a	90	E	No
Kitchen/Living	CVW-004-01 A	n/a	1500	750	n/a	90	E	No
Kitchen/Living	CVW-004-01 A	n/a	1500	750	n/a	90	E	No
Kitchen/Living	CVW-004-01 A	n/a	1500	750	n/a	90	E	No

* Refer to glossary.

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	CVW-004-01 A	n/a	2400	4810	n/a	60	W	No
Stairs	CVW-004-01 A	n/a	1500	1530	n/a	00	E	No
Stairs	CVW-004-01 A	n/a	2400	720	n/a	90	E	No
Lounge/Entry	CVW-004-01 A	n/a	2600	585	n/a	00	E	No
Lounge/Entry	CVW-004-01 A	n/a	2600	585	n/a	00	E	No
Lounge/Entry	CVW-004-01 A	n/a	2250	2410	n/a	45	E	No
Lounge/Entry	CVW-004-01 A	n/a	2400	520	n/a	90	S	No
Lounge/Entry	CVW-004-01 A	n/a	2400	3180	n/a	60	W	No
Lounge/Entry	CVW-004-01 A	n/a	2400	3180	n/a	60	W	No
Lounge/Entry	CVW-004-01 A	n/a	2400	850	n/a	90	N	No
Lounge/Entry	CVW-004-01 A	n/a	2400	3400	n/a	60	N	No
Lounge/Entry	CVW-004-01 A	n/a	400	1160	n/a	00	N	No Shading
Lounge/Entry	CVW-004-01 A	n/a	700	2290	n/a	00	N	No Shading

Roof window *type and performance*

Default* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
VEL-011-01 W	Glass	2.6	0.24	0.23	0.25

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
WIR	VEL-011-01 W	n/a	0	700	500	W	No	No
ENS	VEL-011-01 W	n/a	0	780	780	E	No	No
Scullery	VEL-011-01 W	n/a	0	1400	550	E	No	No
Kitchen/Living	VEL-011-01 W	n/a	0	1400	550	E	No	No

* Refer to glossary.

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
Kitchen/Living	VEL-011-01 W	n/a	0	1400	550	E	No	No
Stairs	VEL-011-01 W	n/a	0	1400	550	E	No	No
Lounge/Entry	VEL-011-01 W	n/a	0	1400	550	E	No	No

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Lounge/Entry	2400	1640	90	E

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Insulated Concrete Formwork	0.30	Light	No insulation	No
EW-2	Fibro Cavity Panel on Battens	0.30	Light	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2.5	Yes
EW-3	Weatherboard Cavity Panel Direct Fix	0.50	Medium	Bulk Insulation R2	No
EW-4	Fibro Cavity Panel on Battens	0.30	Light	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2.5	Yes

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Store	EW-1	2750	2895	E	50	NO
Store	EW-1	2750	3795	N	50	NO
LD	EW-2	2750	2895	W	0	NO
LD	EW-1	2750	2545	N	2150	NO
Bath	EW-2	2750	750	S	50	YES
Bath	EW-2	2750	2745	W	1163	YES
Bedroom 4	EW-2	2750	4790	W	50	YES
Bedroom 3	EW-2	2750	4790	W	1800	NO
ENS (B2)	EW-2	2750	1090	W	1800	NO
Bedroom 2	EW-1	2750	5345	E	3000	NO
Bedroom 2	EW-2	2750	5050	S	50	NO
Bedroom 2	EW-2	2750	4245	W	1800	NO
Cellar	EW-1	2750	2700	S	50	NO
Cellar	EW-1	2750	2949	S	6950	YES
Cellar	EW-1	2750	2545	E	50	NO
Store 2	EW-1	2750	6590	E	50	NO
Hallway	EW-3	2750	1250	S	2800	YES
Hallway	EW-3	2750	1145	W	0	NO
Hallway	EW-3	2750	395	E	50	YES
Hallway	EW-3	2750	6400	N	50	YES
Hallway	EW-3	2750	2395	E	50	NO
Hallway	EW-1	2750	1545	E	3000	YES
Bedroom 1	EW-4	2670	5195	S	17400	YES
Bedroom 1	EW-4	2670	4495	W	2400	NO
WIR	EW-4	2670	2445	W	2400	NO
WIR	EW-4	2670	5200	N	450	NO
WIR	EW-4	2670	850	E	4500	YES
ENS	EW-4	2670	1595	E	500	YES
ENS	EW-4	2670	3995	N	450	YES

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
PD	EW-4	2670	1650	N	500	YES
PD	EW-4	2670	1845	E	600	NO
Study	EW-4	2670	2595	W	7600	YES
Scullery	EW-4	2670	2340	W	3450	NO
Kitchen/Living	EW-4	2670	10440	E	600	NO
Kitchen/Living	EW-4	2670	5040	W	3450	YES
Stairs	EW-4	2670	2190	E	600	NO
Lounge/Entry	EW-4	2670	6895	E	1850	NO
Lounge/Entry	EW-2	3500	10750	S	500	NO
Lounge/Entry	EW-4	2670	6900	W	2500	NO
Lounge/Entry	EW-4	2670	5100	N	17400	YES

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		269.00	No insulation
IW-2 - Insulated Concreate Formwork		25.00	No insulation

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Store	Concrete Slab on Ground 100mm	9.70	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
LD	Concrete Slab on Ground 100mm	7.20	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Bath	Concrete Slab on Ground 100mm	10.60	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Bedroom 4	Concrete Slab on Ground 100mm	15.10	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab on Ground 100mm	15.10	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
ENS (B2)	Concrete Slab on Ground 100mm	3.20	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab on Ground 100mm	23.20	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm

* Refer to glossary.
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Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Cellar	Concrete Slab on Ground 100mm	14.00	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Store 2	Concrete Slab on Ground 100mm	36.30	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Hallway	Concrete Slab on Ground 100mm	42.30	None	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Bedroom 1/Store	Timber Above Plasterboard 100mm	8.50		Bulk Insulation R4	Carpet 10mm
Bedroom 1/LD	Timber Above Plasterboard 100mm	1.60		Bulk Insulation R4	Carpet 10mm
Bedroom 1/Bath	Timber Above Plasterboard 100mm	2.60		Bulk Insulation R4	Carpet 10mm
Bedroom 1/Hallway	Timber Above Plasterboard 100mm	8.00		Bulk Insulation R4	Carpet 10mm
Bedroom 1	Suspended Timber Floor 100mm	2.20	Open	Bulk Insulation in Contact with Floor R4	Carpet 10mm
WIR/Store	Timber Above Plasterboard 19mm	1.30		Bulk Insulation R4	Carpet 10mm
WIR	Suspended Timber Floor 19mm	10.90	Open	Bulk Insulation in Contact with Floor R4	Carpet 10mm
ENS	Suspended Timber Floor 19mm	11.30	Open	Bulk Insulation in Contact with Floor R4	Ceramic Tiles 8mm
PD	Suspended Timber Floor 19mm	4.80	Open	Bulk Insulation in Contact with Floor R4	Ceramic Tiles 8mm
Study/Store 2	Timber Above Plasterboard 19mm	7.40		Bulk Insulation R4	Carpet 10mm
Study/Hallway	Timber Above Plasterboard 19mm	5.50		Bulk Insulation R4	Carpet 10mm
Scullery/Store 2	Timber Above Plasterboard 19mm	9.80		Bulk Insulation R4	Ceramic Tiles 8mm
Kitchen/Living /Cellar	Timber Above Plasterboard 19mm	14.10		Bulk Insulation R4	Ceramic Tiles 8mm
Kitchen/Living /Store 2	Timber Above Plasterboard 19mm	18.80		Bulk Insulation R4	Ceramic Tiles 8mm
Kitchen/Living /Hallway	Timber Above Plasterboard 19mm	1.60		Bulk Insulation R4	Ceramic Tiles 8mm
Stairs/Hallway	Timber Above Plasterboard 19mm	5.90		Bulk Insulation R4	Ceramic Tiles 8mm
Stairs	Suspended Timber Floor 19mm	5.90	Open	Bulk Insulation in Contact with Floor R4	Ceramic Tiles 8mm
Lounge/Entry/Bedroom 3	Timber Above Plasterboard 19mm	5.00		Bulk Insulation R4	Ceramic Tiles 8mm
Lounge/Entry/ENS (B2)	Timber Above Plasterboard 19mm	3.60		Bulk Insulation R4	Ceramic Tiles 8mm
Lounge/Entry/Bedroom 2	Timber Above Plasterboard 19mm	23.40		Bulk Insulation R4	Ceramic Tiles 8mm

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Lounge/Entry/Hallway	Timber Above Plasterboard 19mm	2.80		Bulk Insulation R4	Ceramic Tiles 8mm
Lounge/Entry	Suspended Timber Floor 19mm	39.20	Totally Open	Bulk Insulation in Contact with Floor R4	Ceramic Tiles 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Store	Plasterboard	Bulk Insulation R2.5	No
Store	Timber Above Plasterboard	Bulk Insulation R4	No
LD	Plasterboard	Bulk Insulation R4	No
LD	Timber Above Plasterboard	Bulk Insulation R4	No
Bath	Plasterboard	Bulk Insulation R4	No
Bath	Timber Above Plasterboard	Bulk Insulation R4	No
Bedroom 4	Plasterboard	Bulk Insulation R4	No
Bedroom 3	Plasterboard	Bulk Insulation R4	No
Bedroom 3	Timber Above Plasterboard	Bulk Insulation R4	No
ENS (B2)	Plasterboard	Bulk Insulation R2.5	No
ENS (B2)	Timber Above Plasterboard	Bulk Insulation R4	No
Bedroom 2	Plasterboard	Bulk Insulation R2.5	No
Bedroom 2	Timber Above Plasterboard	Bulk Insulation R4	No
Cellar	Plasterboard	Bulk Insulation R2.5	No
Cellar	Timber Above Plasterboard	Bulk Insulation R4	No
Store 2	Plasterboard	Bulk Insulation R2.5	No
Store 2	Timber Above Plasterboard	Bulk Insulation R4	No
Hallway	Plasterboard	Bulk Insulation R4	No
Hallway	Timber Above Plasterboard	Bulk Insulation R4	No
Bedroom 1	Plasterboard	Bulk Insulation R7	No
WIR	Plasterboard	Bulk Insulation R7	No
ENS	Plasterboard	Bulk Insulation R7	No
PD	Plasterboard	Bulk Insulation R7	No
Study	Plasterboard	Bulk Insulation R7	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Scullery	Plasterboard	Bulk Insulation R5	No
Kitchen/Living	Plasterboard	Bulk Insulation R7	No
Stairs	Plasterboard	Bulk Insulation R7	No
Lounge/Entry	Plasterboard	Bulk Insulation R7	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
No Data Available				

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Waterproofing Membrane	No Insulation, Only an Air Gap	0.50	Medium
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.50	Medium
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.5	0.50	Medium

* Refer to glossary.

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).