Nationwide House Energy Rating Scheme NatHERS Certificate No. 0008344921

Generated on 09 Jan 2023 using BERS Pro v4.4.1.5d (3.21)

Property

Address 19 Moresby Place, Allambie Heights,

NSW, 2100

Lot/DP 19/28394

NCC Class*

Type **New Dwelling**

Plans

Main Plan 19 Moresby Place

Prepared by

Construction and environn

Assessed floor are	Exposure Type	
Conditioned*	211.0	Suburban
Unconditioned*	62.0	NatHERS climate zone
Total	273.0	56
Garage	44.0	



Name lan Fry

Business name Frys Energywise

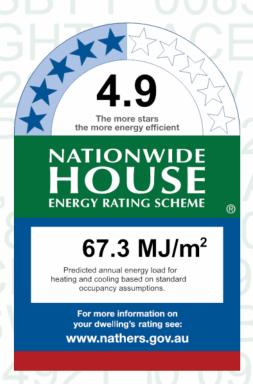
Email comply@frysenergywise.com.au

Phone 02 9899 2825 Accreditation No. DMN/12/1441

Assessor Accrediting Organisation

Design Matters National

Declaration of interest Declaration completed: no conflicts



Thermal performance

Heating Cooling 43.1 MJ/m

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=ANwKdquvz.

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

Where not noted on plans, default selections to floor coverings and external colours have been

used in this assessment, as noted in the NatHERS Technical Notes. Alternative selections

past this point can be made to floor coverings and external colours, without requiring an

amended certificate

I have modeled the shading in accordance with NatHERS principles

Window and glazed door type and performance

Default* windows

Window ID	Window ID Window Maximum SHGC*	Substitution tolerance ranges			
WITIGOW ID	Description	U-value*	31100	SHGC lower limit	SHGC upper limit
No Data Availal	ole				

Custom* windows

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
WITIGOW ID	Description	U-value*	SHGC lower limit	SHGC upper limit		
AWS-001-19 A	AWS-001-19 A 502/504 Al Sliding Window SG 638CP	4.5	0.59	0.56	0.62	
AWS-005-19 A	AWS-005-19 A 514 Al Double Hung Window SG 638CP	4.3	0.59	0.56	0.62	
AWS-018-18 A	AWS-018-18 A 549 ED Al Entry Door SG 638CP	4.4	0.46	0.44	0.48	

* Refer to glossary.

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Custom* windows

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
WITIGOW ID	Description U-value*	SHGC lower limit	SHGC upper limit			
AWS-068-03 A	AWS-068-03 A RES SERIES 517 FIXED WINDOW SG 638ComPlsCIr	4.4	0.62	0.59	0.65	
AWS-011-18 A	AWS-011-18 A 541/542 Al Sliding Door SG 638CP	4.4	0.59	0.56	0.62	

Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Garage	AWS-001-19 A	n/a	600	1200	n/a	45	Е	No
Office	AWS-001-19 A	n/a	1000	1800	n/a	45	W	No
Office	AWS-001-19 A	n/a	1200	1800	n/a	45	S	No
PWDR	AWS-005-19 A	n/a	1100	800	n/a	45	W	No
LDRY	AWS-018-18 A	n/a	2107	906	n/a	90	W	No
LDRY	AWS-005-19 A	n/a	1000	600	n/a	45	W	No
Rumpus	AWS-001-19 A	n/a	1330	2695	n/a	45	N	No
Bedroom 5	AWS-001-19 A	n/a	1200	1800	n/a	45	S	No
Entry/Stairs	AWS-068-03 A	n/a	2107	432	n/a	00	N	No
Kitchen/Lounge	AWS-011-18 A	n/a	2100	4000	n/a	45	N	No
Kitchen/Lounge	AWS-068-03 A	n/a	550	1900	n/a	00	N	No
Kitchen/Lounge	AWS-068-03 A	n/a	550	1900	n/a	00	N	No
Kitchen/Lounge	AWS-005-19 A	n/a	1800	600	n/a	45	Е	No
Kitchen/Lounge	AWS-005-19 A	n/a	1100	800	n/a	45	Е	No
Kitchen/Lounge	AWS-068-03 A	n/a	600	1200	n/a	00	Е	No
Kitchen/Lounge	AWS-068-03 A	n/a	600	1200	n/a	00	Е	No
Kitchen/Lounge	AWS-001-19 A	n/a	1200	1800	n/a	90	S	No
Kitchen/Lounge	AWS-011-18 A	n/a	2100	2700	n/a	60	S	No
Kitchen/Lounge	AWS-005-19 A	n/a	1200	600	n/a	45	S	No
Kitchen/Lounge	AWS-068-03 A	n/a	550	1900	n/a	00	N	No Shading
Kitchen/Lounge	AWS-068-03 A	n/a	550	1900	n/a	00	N	No Shading
Kitchen/Lounge	AWS-068-03 A	n/a	600	1200	n/a	00	Е	No Shading
Kitchen/Lounge	AWS-068-03 A	n/a	600	1200	n/a	00	Е	No Shading
Pantry	AWS-005-19 A	n/a	1000	600	n/a	45	N	No
Bedroom 2	AWS-001-19 A	n/a	1000	1800	n/a	10	S	No
Bedroom 2	AWS-005-19 A	n/a	1800	600	n/a	10	W	No
Bedroom 3	AWS-001-19 A	n/a	600	1500	n/a	10	E	No
Bedroom 3	AWS-001-19 A	n/a	1000	1800	n/a	10	S	No
Bath	AWS-001-19 A	n/a	400	1500	n/a	45	W	No
Ensuite 1	AWS-005-19 A	n/a	1350	400	n/a	45	N	No
Bedroom 1	AWS-005-19 A	n/a	1100	800	n/a	10	N	No



Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	AWS-005-19 A	n/a	1000	600	n/a	10	W	No
Bedroom 1	AWS-001-19 A	n/a	1330	2600	n/a	10	N	No
Bedroom 1	AWS-005-19 A	n/a	1350	600	n/a	10	Е	No

Roof window type and performance

Default* roof windows

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
WITIGOW ID	Description	U-value*	эпос	SHGC lower limit	SHGC upper limit	
No Data Availah	ole					

Custom* roof windows

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

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

Skylight ID	Skylight description
GEN-04-008a	Double-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
Upper Hall	GEN-04-008a	n/a	50	0.70	E	None	No	0.50

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2200	4800	90	N
Entry/Stairs	2107	868	90	N

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective wall wrap*
ID	type	absorptance	(colour)	(R-value)	
		•	` ,	•	•



Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Fibro Cavity Panel Direct Fix	0.50	Medium	No insulation	No
EW-2	Fibro Cavity Panel Direct Fix	0.50	Medium	Anti-glare foil with bulk no gap R2	No

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Garage	EW-1	2500	3995	S	0	NO
Garage	EW-1	2500	6795	W	0	YES
Garage	EW-1	2500	5900	N	100	NO
Garage	EW-1	2500	7900	E	0	NO
Stairs to GF	EW-2	2500	2695	S	0	NO
Stairs to GF	EW-2	2500	1100	W	0	NO
Stairs to GF	EW-2	2500	800	N	0	YES
Office	EW-2	2450	4395	W	100	NO
Office	EW-2	2450	3195	S	100	NO
PWDR	EW-2	2450	2890	W	100	NO
LDRY	EW-2	2450	2390	W	100	NO
Rumpus	EW-2	2450	3895	W	100	NO
Rumpus	EW-2	2450	4800	N	1400	NO
Rumpus	EW-2	2450	2200	E	7900	YES
Bedroom 5	EW-2	2450	1800	E	100	YES
Bedroom 5	EW-2	2450	3195	S	100	NO
Entry/Stairs	EW-2	2450	2090	N	3600	YES
Kitchen/Lounge	EW-2	3000	5495	N	2400	NO
Kitchen/Lounge	EW-2	2450	2795	E	300	YES
Kitchen/Lounge	EW-2	3000	4695	E	300	NO
Kitchen/Lounge	EW-2	3000	7195	S	1800	YES
Pantry	EW-2	2450	1200	N	300	YES
Pantry	EW-2	2450	2095	E	300	NO
Bedroom 2	EW-2	2400	3195	S	450	NO
Bedroom 2	EW-2	2400	5495	W	450	NO
Bedroom 3	EW-2	2400	5495	E	450	NO
Bedroom 3	EW-2	2400	3195	S	450	NO
Bath	EW-2	2400	2690	W	450	NO
WIR 1.1	EW-2	2400	1590	W	450	NO
WIR 1.2	EW-2	2400	2090	Е	450	NO
Ensuite 1	EW-2	2400	1895	N	100	YES
Ensuite 1	EW-2	2400	3695	E	450	NO
Bedroom 1	EW-2	2400	3795	W	450	NO



Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bedroom 1	EW-2	2400	1900	N	100	YES
Bedroom 1	EW-2	2400	600	W	300	YES
Bedroom 1	EW-2	2400	2600	N	300	NO
Bedroom 1	EW-2	2400	600	E	300	YES
Upper Hall	EW-2	2400	2290	E	450	NO

Internal wall type

Wall ID	Wall type	Area (m²)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		8.00	Bulk Insulation, No Air Gap R2
IW-2 - Cavity wall, direct fix plasterboard, single gap		190.00	No insulation

Floor type

Location	Construction			Added insulation (R-value)	Covering
Garage	Concrete Slab on Ground 100mm	44.40 No	one	No Insulation	Ceramic Tiles 8mm
Stairs to GF	Concrete Slab on Ground 100mm	2.80 No	one	No Insulation	Ceramic Tiles 8mm
Office	Suspended Timber Floor 19mm	15.10 Er	വറമേവ	Bulk Insulation in Contact with Floor R2	Carpet+Rubber Underlay 18mm
PWDR	Suspended Timber Floor 19mm	5.20 Er		Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
LDRY	Suspended Timber Floor 19mm	6.60 Er		Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Rumpus	Suspended Timber Floor 19mm	20.40 Er	വറമേവ	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Bedroom 5	Suspended Timber Floor 19mm	17.00 Er	വറാട്ടേ	Bulk Insulation in Contact with Floor R2	Carpet+Rubber Underlay 18mm
Entry/Stairs/Garage	Timber Above Plasterboard 19mm	1.00		No Insulation	Carpet+Rubber Underlay 18mm
Entry/Stairs/Stairs to GF	Timber Above Plasterboard 19mm	1.40		No Insulation	Carpet+Rubber Underlay 18mm
Entry/Stairs	Suspended Timber Floor 19mm	15.70 Er		Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Kitchen/Lounge/Garage	Timber Above Plasterboard 19mm	30.30		No Insulation	Ceramic Tiles 8mm
Kitchen/Lounge/Stairs to GF	Timber Above Plasterboard 19mm	1.50		No Insulation	Ceramic Tiles 8mm
Kitchen/Lounge	Suspended Timber Floor 19mm	27.70 Er	iciosea	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Pantry/Garage	Timber Above Plasterboard 19mm	1.00		No Insulation	Ceramic Tiles 8mm
Pantry	Suspended Timber Floor 19mm	2.40 Er	חבפחוחו	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Bedroom 2/Office	Timber Above Plasterboard 19mm	14.40		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/PWDR	Timber Above Plasterboard 19mm	2.00		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Bedroom 5	Timber Above Plasterboard 19mm	16.40		No Insulation	Carpet+Rubber Underlay 18mm
Bath/PWDR	Timber Above Plasterboard 19mm	3.20		No Insulation	Ceramic Tiles 8mm



Location	Construction	Area Sub-floor (m) ventilation	Added insulation n (R-value)	Covering
Bath/LDRY	Timber Above Plasterboard 19mm	1.70	No Insulation	Ceramic Tiles 8mm
WIR 1.1/LDRY	Timber Above Plasterboard 19mm	2.90	No Insulation	Carpet+Rubber Underlay 18mm
WIR 1.2/Rumpus	Timber Above Plasterboard 19mm	2.30	No Insulation	Carpet+Rubber Underlay 18mm
WIR 1.2/Entry/Stairs	Timber Above Plasterboard 19mm	4.10	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Rumpus	Timber Above Plasterboard 19mm	1.10	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Entry/Stairs	Timber Above Plasterboard 19mm	2.30	No Insulation	Ceramic Tiles 8mm
Ensuite 1	Suspended Timber Floor 19mm	3.40 Very Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Bedroom 1/LDRY	Timber Above Plasterboard 19mm	1.80	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Rumpus	Timber Above Plasterboard 19mm	16.60	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1	Suspended Timber Floor 19mm	1.50 Very Open	Bulk Insulation in Contact with Floor R2	Carpet+Rubber Underlay 18mm
Upper Hall/Office	Timber Above Plasterboard 19mm	0.70	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Bedroom 5	Timber Above Plasterboard 19mm	0.80	No Insulation	Carpet+Rubber Underlay 18mm
Upper Hall/Entry/Stairs	Timber Above Plasterboard 19mm	9.40	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Garage	Plasterboard	Bulk Insulation R3.5	No
Garage	Timber Above Plasterboard	No Insulation	No
Stairs to GF	Timber Above Plasterboard	No Insulation	No
Office	Timber Above Plasterboard	No Insulation	No
PWDR	Timber Above Plasterboard	No Insulation	No
LDRY	Timber Above Plasterboard	No Insulation	No
Rumpus	Timber Above Plasterboard	No Insulation	No
Bedroom 5	Timber Above Plasterboard	No Insulation	No
Entry/Stairs	Plasterboard	Bulk Insulation R3.5	No
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Kitchen/Lounge	Plasterboard	Bulk Insulation R3.5	No
Pantry	Plasterboard	Bulk Insulation R3.5	No
Bedroom 2	Plasterboard	Bulk Insulation R3.5	No
Bedroom 3	Plasterboard	Bulk Insulation R3.5	No
Bath	Plasterboard	Bulk Insulation R3.5	No
WIR 1.1	Plasterboard	Bulk Insulation R3.5	No
WIR 1.2	Plasterboard	Bulk Insulation R3.5	No
Ensuite 1	Plasterboard	Bulk Insulation R3.5	No



Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bedroom 1	Plasterboard	Bulk Insulation R3.5	No
Upper Hall	Plasterboard	Bulk Insulation R3.5	No

Ceiling penetrations*

Location	Quantity	Туре	Diameter (mm²)	Sealed/unsealed
PWDR	1	Exhaust Fans	300	Sealed
Bath	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
No Data Available		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.50	Medium
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.85	Dark



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 Nath—RS 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 10me.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 me.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	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4
(NOC) Class	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 Nath-BS 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 Nath-BS 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).
	Colorie, Gran Walle in the Senioring (William Walley), 10 1000, Other Senioring, Vogetation (protected or index indirect teas).