

# Nationwide House Energy Rating Scheme

## NatHERS Certificate No. 0005681218-05

Generated on 14 Apr 2021 using BERS Pro v4.4.0.2 (3.21)

### Property

**Address** 30 Beatrice Street , Clontarf , NSW , 2093  
**Lot/DP** 1/345209  
**NCC Class\*** 1A  
**Type** New Dwelling

### Plans

**Main Plan** 1920-071  
**Prepared by** Building Design Drafting Services

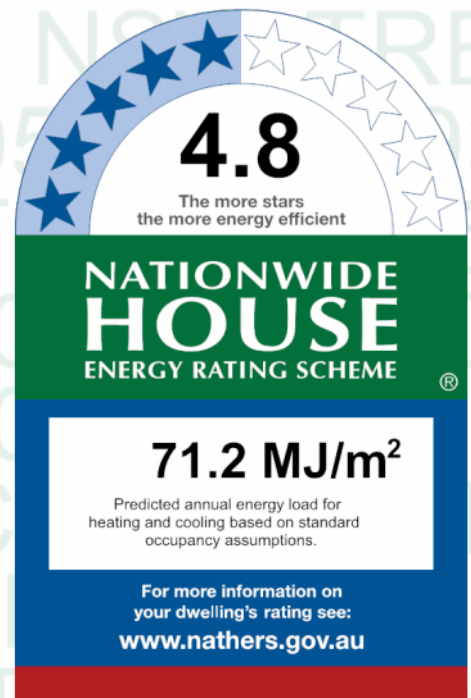
### Construction and environment

<b>Assessed floor area (m<sup>2</sup>*)</b>	<b>Exposure Type</b>
Conditioned* 281.0	Suburban
Unconditioned* 99.0	<b>NatHERS climate zone</b>
Total 381.0	56
Garage 75.0	



### Accredited assessor

**Name** Terry Chapman  
**Business name** CHAPMAN ENVIRONMENTAL SERVICES PTY LTD  
**Email** terry@basixcertificates.com.au  
**Phone** 0414 265 292  
**Accreditation No.** 20920  
**Assessor Accrediting Organisation** ABSA  
**Declaration of interest** Declaration completed: no conflicts



### Thermal performance

<b>Heating</b>	<b>Cooling</b>
<b>45.6</b>	<b>25.6</b>
<b>MJ/m<sup>2</sup></b>	<b>MJ/m<sup>2</sup></b>

### 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=wEqCpbvRQ](http://hstar.com.au/QR/Generate?p=wEqCpbvRQ).

When using either link, ensure you are visiting [hstar.com.au](http://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](http://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?

### 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

## 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
AWS-089-58 A	AWS-089-58 A RES SERIES 704 FLUSH SLIDING DOOR DG LightBridge_ClrSII_65-12-5	2.2	0.52	0.49	0.55
AWS-001-19 A	AWS-001-19 A 502/504 AI Sliding Window SG 638CP	4.5	0.59	0.56	0.62
AWS-018-06 A	AWS-018-06 A 549 ED AI Entry Door SG 6.38CP	4.4	0.35	0.33	0.37
AWS-067-41 A	AWS-067-41 A RES SERIES 516 FIXED WINDOW DG 010_AGG PLUS Clr 6_10_4	2.2	0.54	0.51	0.57
AWS-066-03 A	AWS-066-03 A RES SERIES 516 FIXED WINDOW SG 638ComPlsClr	3.9	0.62	0.59	0.65

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
AWS-011-18 A	AWS-011-18 A 541/542 Al Sliding Door SG 638CP	4.4	0.59	0.56	0.62
VAN-004-08 A	VAN-004-08 A SERIES 525 LOUVRE WINDOW SG 6ET	4.5	0.54	0.51	0.57
AWS-008-59 A	AWS-008-59 A 516 Al Awining Window DG 010_AGG PLUS Clr 6_10_4	3.5	0.44	0.42	0.46

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	AWS-089-58 A	n/a	2800	5110	n/a	80	NW	No
Kitchen/Living	AWS-089-58 A	n/a	2800	4940	n/a	80	NW	No
Kitchen/Living	AWS-001-19 A	n/a	1700	2430	n/a	35	SE	No
Kitchen/Living	AWS-018-06 A	n/a	2600	1000	n/a	90	SE	No
Kitchen/Living	AWS-067-41 A	n/a	2600	3200	n/a	00	SE	No
Kitchen/Living	AWS-066-03 A	n/a	2600	600	n/a	00	SW	No
Hall 2	AWS-066-03 A	n/a	1800	690	n/a	00	SW	No
B Panty	AWS-001-19 A	n/a	600	2000	n/a	45	SE	No
Guest 1	AWS-011-18 A	n/a	2200	1800	n/a	45	NE	No
Bath	VAN-004-08 A	n/a	2100	700	n/a	00	NE	No
Ldry	AWS-018-06 A	n/a	2600	820	n/a	90	NE	No
Music Room	AWS-008-59 A	n/a	1700	4930	n/a	10	SW	No
Music Room	AWS-008-59 A	n/a	700	4700	n/a	15	NE	No
Bedroom 1	AWS-018-06 A	n/a	2500	1800	n/a	45	SW	No
Bedroom 1	VAN-004-08 A	n/a	2300	4310	n/a	45	NW	No
Bedroom 2	AWS-001-19 A	n/a	700	2000	n/a	15	NE	No
Bedroom 3	AWS-001-19 A	n/a	700	2000	n/a	15	NE	No
Bedroom 3	AWS-001-19 A	n/a	700	1700	n/a	15	SE	No
Bed 1 Ensuite	VAN-004-08 A	n/a	1600	1425	n/a	45	NW	Yes
Bed 1 Ensuite	AWS-066-03 A	n/a	1600	1870	n/a	00	NW	Yes
Bath 2	VAN-004-08 A	n/a	700	700	n/a	90	SE	No
Bath 2	AWS-001-19 A	n/a	2050	1700	n/a	15	SE	No
Stair 1/1	VAN-004-08 A	n/a	2500	3200	n/a	35	SE	No
Living 2	VAN-004-08 A	n/a	700	3000	n/a	66	SW	No
Living 2	VAN-004-08 A	n/a	700	1060	n/a	90	SW	No
Living 2	AWS-089-58 A	n/a	2500	4670	n/a	75	NW	No
Garage 1	AWS-001-19 A	n/a	700	4315	n/a	45	SW	No

## 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
No Data Available					

## Roof window schedule

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

## Skylight type and performance

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

## Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
Bed 1 Ensuite	GEN-04-006a	n/a	50	1.30	NW	None	No	0.50
Bath 2	GEN-04-006a	n/a	50	0.80	SE	None	No	0.50
Hall 3	GEN-04-006a	n/a	50	1.30	SE	None	No	0.50
Hall 3	GEN-04-006a	n/a	50	1.30	SE	None	No	0.50

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Kitchen/Living	2600	1100	90	SW
Bath	400	700	90	NE
Music Room	2600	1100	90	NE
Garage 1	2400	5600	90	NW
Cellar	2040	1000	90	NE

## External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Fibro Cavity Panel Direct Fix	0.30	Light	Foil, Anti-glare one side + Bulk Insulation R2.5	No
EW-2	Reverse Brick Veneer	0.30	Light	Foil, Anti-glare one side + Bulk Insulation R2.5	No
EW-3	Tilt up Concrete	0.50	Medium	No insulation	No
EW-4	AAC Cavity Panel Direct Fix	0.50	Medium	Anti-glare foil with bulk no gap R2.5	No

## 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	2800	11795	NW	3800	YES
Kitchen/Living	EW-1	2800	10395	SE	2000	NO
Kitchen/Living	EW-1	2800	4200	SW	2200	YES
Kitchen/Living	EW-1	2800	1000	SE	6200	YES
Kitchen/Living	EW-1	2800	4500	SW	1200	NO
Hall 2	EW-1	2800	1945	SW	13000	YES
B Panty	EW-1	2800	1895	NE	0	NO
B Panty	EW-1	2800	3895	SE	0	NO
Guest 1	EW-1	2800	4290	NE	700	YES
Bath	EW-1	2800	1995	NE	100	NO
Bath	EW-1	2800	600	SE	800	YES
Ldry	EW-1	2800	2440	NE	100	NO
Music Room	EW-2	2800	7200	SW	400	NO
Music Room	EW-2	2800	4100	NW	500	NO
Music Room	EW-2	2800	7145	NE	700	NO
Bedroom 1	EW-1	2700	2000	SW	5300	YES
Bedroom 1	EW-1	2700	5495	NW	600	NO
Bedroom 2	EW-1	2700	4290	NE	500	NO
Bedroom 3	EW-1	2700	3095	NE	500	NO
Bedroom 3	EW-1	2700	4595	SE	600	NO
Bed 1 Ensuite	EW-1	2700	3495	NW	600	NO
Bed 1 Ensuite	EW-1	2700	3295	NE	0	NO
Bath 2	EW-1	2700	4390	SE	600	NO
Stair 1/1	EW-1	2700	5295	SE	0	NO
Stair 1/1	EW-1	2700	1995	SW	0	NO
Living 2	EW-1	2700	6695	SW	0	NO
Living 2	EW-1	2700	5295	NW	3700	YES
Garage 1	EW-3	2650	700	SE	0	YES
Garage 1	EW-3	2650	4105	SW	0	NO

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Garage 1	EW-3	2650	8500	SW	0	NO
Garage 1	EW-3	2650	6200	NW	2000	NO
Garage 1	EW-3	2650	12100	NE	0	NO
Cellar	EW-4	2650	1605	NE	0	YES
Cellar	EW-4	2650	700	SE	0	YES
Cellar	EW-4	2650	3100	NE	0	YES
Cellar	EW-4	2650	4800	SE	0	NO
Cellar	EW-4	2650	4105	SW	0	NO

## Internal wall type

Wall ID	Wall type	Area (m <sup>2</sup> )	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		125.00	No insulation
IW-2 - Reverse Brick Veneer		11.00	Bulk Insulation, No Air Gap R2.5
IW-3 - Cavity wall, direct fix plasterboard, single gap		67.00	Bulk Insulation, No Air Gap R2.5
IW-4 - Tilt Concrete		16.00	Bulk Insulation, No Air Gap R2.5

## Floor type

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living /Garage 1	Concrete Above Plasterboard 100mm	23.40		Bulk Insulation R2.5	Cork Tiles or Parquetry 8mm
Kitchen/Living /Cellar	Concrete Above Plasterboard 100mm	19.50		Bulk Insulation R2.5	Cork Tiles or Parquetry 8mm
Kitchen/Living	Suspended Concrete Slab 100mm	55.90	Enclosed	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Hall 2	Suspended Concrete Slab 100mm	5.40	Enclosed	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
B Panty	Suspended Concrete Slab 150mm	8.30	Enclosed	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Guest 1	Suspended Concrete Slab 150mm	12.10	Enclosed	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Bath	Suspended Concrete Slab 150mm	6.00	Enclosed	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Ldry	Suspended Concrete Slab 150mm	5.20	Enclosed	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Music Room	Suspended Concrete Slab 150mm	29.00	Enclosed	Bulk Insulation in Contact with Floor R2.5	Carpet+Rubber Underlay 18mm
Bedroom 1/Kitchen/Living	Timber Above Plasterboard 150mm	23.10		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1	Suspended Timber Floor 150mm	10.80	Totally Open	Bulk Insulation in Contact with Floor R2.5	Carpet+Rubber Underlay 18mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 150mm	1.20		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/Hall 2	Timber Above Plasterboard 150mm	1.30		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/Guest 1	Timber Above Plasterboard 150mm	9.60		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/Bath	Timber Above Plasterboard 150mm	2.40		No Insulation	Carpet+Rubber Underlay 18mm



Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 150mm	2.90		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/B Panty	Timber Above Plasterboard 150mm	8.40		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Guest 1	Timber Above Plasterboard 150mm	2.60		No Insulation	Carpet+Rubber Underlay 18mm
Bed 1 Ensuite/Hall 2	Timber Above Plasterboard 150mm	4.50		No Insulation	Ceramic Tiles 8mm
Bed 1 Ensuite/Bath	Timber Above Plasterboard 150mm	2.60		No Insulation	Ceramic Tiles 8mm
Bed 1 Ensuite/Ldry	Timber Above Plasterboard 150mm	4.20		No Insulation	Ceramic Tiles 8mm
Bath 2/Kitchen/Living	Timber Above Plasterboard 19mm	13.20		No Insulation	Ceramic Tiles 8mm
Stair 1/1/Kitchen/Living	Timber Above Plasterboard 19mm	10.30		No Insulation	Cork Tiles or Parquetry 8mm
Living 2/Kitchen/Living	Timber Above Plasterboard 19mm	36.40		No Insulation	Carpet+Rubber Underlay 18mm
Hall 3/Kitchen/Living	Timber Above Plasterboard 19mm	5.00		No Insulation	Carpet+Rubber Underlay 18mm
Garage 1	Concrete Slab on Ground 19mm	75.00	None	Bulk Insulation in Contact with Floor R2.5	Bare
Cellar	Concrete Slab on Ground 19mm	23.10	None	Bulk Insulation in Contact with Floor R2.5	Bare

## Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Kitchen/Living	Plasterboard	Bulk Insulation R4	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Hall 2	Timber Above Plasterboard	No Insulation	No
B Panty	Timber Above Plasterboard	No Insulation	No
Guest 1	Timber Above Plasterboard	No Insulation	No
Bath	Plasterboard	Bulk Insulation R4	No
Bath	Timber Above Plasterboard	No Insulation	No
Ldry	Plasterboard	Bulk Insulation R4	No
Ldry	Timber Above Plasterboard	No Insulation	No
Music Room	Plasterboard	Bulk Insulation R6	No
Bedroom 1	Plasterboard	Bulk Insulation R6	No
Bedroom 2	Plasterboard	Bulk Insulation R6	No
Bedroom 3	Plasterboard	Bulk Insulation R6	No
Bed 1 Ensuite	Plasterboard	Bulk Insulation R6	No
Bath 2	Plasterboard	Bulk Insulation R6	No
Stair 1/1	Plasterboard	Bulk Insulation R6	No
Living 2	Plasterboard	Bulk Insulation R6	No
Hall 3	Plasterboard	Bulk Insulation R6	No
Garage 1	Concrete	No insulation	No

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Garage 1	Concrete Above Plasterboard	Bulk Insulation R2.5	No
Cellar	Concrete	No insulation	No
Cellar	Concrete Above Plasterboard	Bulk Insulation R2.5	No

## Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm <sup>2</sup> )	Sealed/unsealed
Kitchen/Living	24	Downlights - LED	450	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
B Panty	2	Downlights - LED	450	Sealed
Guest 1	2	Downlights - LED	450	Sealed
Bath	2	Downlights - LED	450	Sealed
Bath	1	Exhaust Fans	300	Sealed
Ldry	1	Downlights - LED	450	Sealed
Music Room	6	Downlights - LED	450	Sealed
Bedroom 1	5	Downlights - LED	450	Sealed
Bedroom 2	2	Downlights - LED	450	Sealed
Bedroom 3	2	Downlights - LED	450	Sealed
Bed 1 Ensuite	3	Downlights - LED	450	Sealed
Bed 1 Ensuite	1	Exhaust Fans	300	Sealed
Bath 2	3	Downlights - LED	450	Sealed
Bath 2	1	Exhaust Fans	300	Sealed
Stair 1/1	2	Downlights - LED	450	Sealed
Living 2	9	Downlights - LED	450	Sealed
Cellar	4	Downlights - LED	450	Sealed

## Ceiling fans

Location	Quantity	Diameter (mm)
Kitchen/Living	3	1200
Bedroom 1	1	1200
Bedroom 2	1	1200
Bedroom 3	1	1200
Living 2	1	1200

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.50	Medium



Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Waterproofing Membrane	No Added Insulation, No air Gap	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

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	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.
<b>Ceiling penetrations</b>	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.
<b>Conditioned</b>	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.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>Entrance door</b>	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.
<b>Exposure category – exposed</b>	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category – open</b>	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).
<b>Exposure category – suburban</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category – protected</b>	terrain with numerous, closely spaced obstructions over 10m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	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 <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	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 <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Reflective wrap</b> (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.
<b>Roof window</b>	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.
<b>Shading device</b>	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Solar heat gain coefficient (SHGC)</b>	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.
<b>Skylight</b> (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.
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
<b>Vertical shading features</b>	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).