

Nationwide House Energy Rating Scheme

NatHERS Certificate No. #HR-A36U6L-01

Generated on 28 Sep 2023 using Hero 3.0.1

Property

Address 1 Harewood Place, Warriewood, NSW, 2102
Lot/DP 40/26441
NCC Class* 1a
Type New

Plans

Main Plan 20140912
Prepared by Hot House Architects

Construction and environment

Assessed floor area (m²)*		Exposure Type
Conditioned*	346.2	Suburban
Unconditioned*	21.4	NatHERS climate zone
Total	419.5	56 - Mascot AMO
Garage	52.0	



Accredited assessor

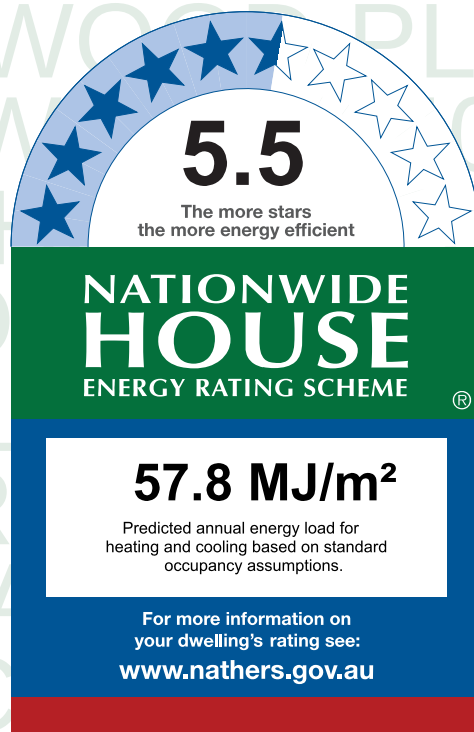
Name Paul Gradwell
Business name House Energy Certified
Email paul@houseenergycertified.com
Phone +61 410315381
Accreditation No. DMN/18/4423
Assessor Accrediting Organisation DMN
Declaration of interest No Conflict of Interest

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.



Thermal Performance

Heating	Cooling
33.4	24.4
MJ/m²	MJ/m²

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 <http://www.hero-software.com.au/pdf/HR-A36U6L-01>. When using either link, ensure you are visiting <http://www.hero-software.com.au>



* Refer to glossary.

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?

Window and glazed door *type and performance*

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ALM-003-03 A	Aluminium A DG Air Fill High Solar Gain low-E -Clear	4.30	0.47	0.45	0.49
ALM-004-03 A	Aluminium B DG Air Fill High Solar Gain low-E -Clear	4.30	0.53	0.50	0.56

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ALS-009-21 A	Commercial Sliding Door SG AGG 6EA	4.97	0.53	0.50	0.56

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BATH	ALM-003-03 A	w005	2400	550	Awning	60	NNW	None



Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BATHROOM L2	ALM-003-03 A	w103	2700	550	Awning	10	NNW	None
BED 2	ALM-004-03 A	w102	2700	2200	Sliding	10	WSW	None
BED 4	ALM-003-03 A	w002	2400	550	Awning	60	SW	None
BED 4	ALM-003-03 A	w003	550	2700	Awning	60	NNW	None
BED 4	ALM-004-03 A	w004	2600	550	Fixed	0	NNW	None
ENSUITE	ALM-003-03 A	w106	2700	550	Awning	10	NNW	None
FOYER	ALM-004-03 A	w001	2600	1010	Fixed	0	WSW	None
GARAGE	ALM-004-03 A	w008	2600	600	Fixed	0	SSE	None
GUIAR	ALM-003-03 A	w006	550	2700	Awning	60	NNW	None
HALL	ALS-009-21 A	w205	1000	8082	Louvre	60	NNW	None
HALL	ALM-004-03 A	w204	550	1000	Fixed	0	WSW	OP-100%
KITCHEN/LIVING	ALM-004-03 A	d103	2700	7100	Sliding	60	ENE	None
KITCHEN/LIVING	ALM-004-03 A	w110	2700	750	Fixed	0	ENE	OP-100%
KITCHEN/LIVING	ALM-003-03 A	w112	2700	550	Awning	10	SSE	None
KITCHEN/LIVING	ALM-004-03 A	w111	2700	550	Fixed	0	SSE	None
KITCHEN/LIVING	ALM-004-03 A	w113	2700	550	Fixed	0	SSE	None
KITCHEN/LIVING	ALM-004-03 A	d101	2700	6300	Sliding	60	WSW	OP-100%
KITCHEN/LIVING	ALS-009-21 A	w202	1600	10497	Louvre	54	NNW	None
KITCHEN/LIVING	ALM-004-03 A	w203	900	3728	Fixed	0	ENE	OP-100%
KITCHEN/LIVING	ALM-004-03 A	w201	900	3780	Fixed	0	WSW	OP-100%
MASTER BED	ALM-003-03 A	w107	2700	550	Awning	10	NNW	None
MASTER BED	ALM-004-03 A	d102	2700	4130	Sliding	60	ENE	None
MASTER BED	ALM-004-03 A	w206	550	1000	Fixed	0	ENE	OP-100%
MASTER BED	ALM-003-03 A	w109	2700	550	Awning	10	NNW	None
MASTER BED	ALM-004-03 A	w108	2700	550	Fixed	0	NNW	None
PLAY/BED	ALM-004-03 A	w104	2700	600	Fixed	0	NNW	None

* Refer to glossary.

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
PLAY/BED	ALM-003-03 A	w105	2700	550	Awning	10	NNW	None
RUMPUS	ALM-003-03 A	w007	550	2700	Awning	60	SSE	None
FOYER	ALM-004-03 A	w101	2700	1941	Fixed	0	WSW	OP-100%

Roof window *type and performance value*

Default* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

Custom* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
VEL-010-01 W	Velux VS - Ventilating Skylight DG 3mm LoE 366 / 8.5mm Argon Gap / 5.36mm Clear La	2.53	0.21	0.20	0.22

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
ENSUITE	VEL-010-01 W	SKYRW 05	0	2803	898	S	None	None
PANTRY	VEL-010-01 W	SKYRW 04	0	661	1880	SSE	None	None
SK WELL	VEL-010-01 W	SKYRW 03	0	388	3216	ENE	None	None

Skylight *type and performance*

Skylight ID	Skylight description
None	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m ²)	Orient-ation	Outdoor shade	Diffuser	Shaft Reflectance
None								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
FOYER	2400	1000	90	WSW

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
GARAGE	2400	5700	90	WSW
LDRY	2400	820	90	NNW

External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
CONC-100-PB-A	Precast 100mm Concrete - Plasterboard Internally	0.50	Medium	2.50	No
CONC-100-PB-B	Precast 100mm Concrete - Plasterboard Internally	0.85	Dark	2.50	No
MC-NOCAV	Metal Clad Direct-Fix (No Cavity) Stud Wall	0.85	Dark	2.50	No

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BATH	CONC-100-PB-A	2600	1774	NNW		Yes
BATHROOM L2	CONC-100-PB-A	2700	1612	NNW		Yes
BATHROOM L2	CONC-100-PB-A	2700	400	ENE		Yes
BED 2	CONC-100-PB-A	2700	5298	NNW		Yes
BED 2	CONC-100-PB-A	2700	2659	WSW	1493	Yes
BED 2	CONC-100-PB-A	2700	1755	SSE		Yes
BED 2	CONC-100-PB-A	2700	2151	SSW		Yes
BED 4	CONC-100-PB-A	2600	3780	SW	3896	Yes
BED 4	CONC-100-PB-A	2600	6489	NNW	543	Yes
ENSUITE	CONC-100-PB-B	2700	2512	NNW		Yes
FOYER	CONC-100-PB-A	2600	2049	WSW	3250	Yes
GARAGE	CONC-100-PB-A	2600	5879	WSW	3251	Yes
GARAGE	CONC-100-PB-A	2600	8478	SSE	593	Yes
GUITAR	CONC-100-PB-A	1300	5683	NNW	546	Yes
GUITAR	CONC-100-PB-A	2600	3828	ENE		No
GUITAR	CONC-100-PB-A	1300	5003	NNW		No

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
HALL	MC-NOCAV	1200	8082	NNW	558	Yes
HALL	MC-NOCAV	900	8048	SSE	205	Yes
HALL	MC-NOCAV	1000	93	WSW	457	Yes
HALL	MC-NOCAV	1000	1124	WSW	454	Yes
KITCHEN/LIVING	CONC-100-PB-A	2700	772	N		Yes
KITCHEN/LIVING	CONC-100-PB-A	2700	9762	ENE	5800	Yes
KITCHEN/LIVING	CONC-100-PB-B	2700	12817	SSE		Yes
KITCHEN/LIVING	CONC-100-PB-A	2700	353	WSW		Yes
KITCHEN/LIVING	CONC-100-PB-A	2700	758	SSE		Yes
KITCHEN/LIVING	CONC-100-PB-A	2700	450	ENE		Yes
KITCHEN/LIVING	CONC-100-PB-A	2700	3016	SSE		Yes
KITCHEN/LIVING	CONC-100-PB-A	2700	6546	WSW	4100	Yes
KITCHEN/LIVING	CONC-100-PB-A	2700	117	ENE		Yes
KITCHEN/LIVING	CONC-100-PB-A	2700	127	NNW		Yes
KITCHEN/LIVING	MC-NOCAV	1600	10497	NNW	418	Yes
KITCHEN/LIVING	MC-NOCAV	1300	3799	ENE	455	Yes
KITCHEN/LIVING	MC-NOCAV	1300	3780	WSW	454	Yes
KITCHEN/LIVING	MC-NOCAV	1100	10568	SSE	205	Yes
KITCHEN/LIVING	MC-NOCAV	1600	36	NNW	415	Yes
KITCHEN/LIVING	MC-NOCAV	1300	58	WSW	466	Yes
KITCHEN/LIVING	MC-NOCAV	1600	53	NNW	415	Yes
KITCHEN/LIVING	MC-NOCAV	1100	54	SSE	204	Yes
LDRY	CONC-100-PB-A	2600	2444	NNW	602	Yes
MASTER BED	CONC-100-PB-B	2700	2003	NNW		Yes
MASTER BED	CONC-100-PB-A	2700	4666	ENE	1506	Yes

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
MASTER BED	MC-NOCAV	1000	1098	ENE	456	Yes
MASTER BED	CONC-100-PB-A	2700	4052	NNW		Yes
PLAY/BED	CONC-100-PB-A	2700	669	NNW		Yes
PLAY/BED	CONC-100-PB-A	2700	400	WSW		Yes
PLAY/BED	CONC-100-PB-B	2700	3127	NNW		Yes
RUMPUS	CONC-100-PB-A	800	5027	SSE	550	Yes
RUMPUS	CONC-100-PB-A	1400	5027	SSE		No
STORE	CONC-100-PB-A	2600	9260	ENE		No
STORE	CONC-100-PB-A	2600	3549	SSE		No
STORE	CONC-100-PB-A	2600	1849	NNW		No
FOYER	CONC-100-PB-A	2700	1941	WSW	3361	Yes
FOYER	CONC-100-PB-A	2700	739	SSE		Yes

Internal wall *type*

Wall ID	Wall Type	Area (m ²)	Bulk insulation
INT-PB	Internal Plasterboard Stud Wall	233.6	0.00
INT-PB	Internal Plasterboard Stud Wall	36.8	2.50

Floor *type*

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	6.2	N/A	0.00	Carpet
BATHROOM L2	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	4.1	N/A	0.00	Tile
BATHROOM L2	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	0.8	N/A	1.10	Tile
BED 2	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	10.1	N/A	0.00	Carpet
BED 2	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	7.1	N/A	1.10	Carpet
BED 4	CSOG-100: Concrete Slab on Ground (100mm)	20.5	N/A	0.00	Carpet

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
ENSUITE	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	6.7	N/A	0.00	Tile
ENSUITE	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	1.6	N/A	1.10	Tile
FOYER	CSOG-100: Concrete Slab on Ground (100mm)	10.7	N/A	0.00	Carpet
GARAGE	CSOG-100: Concrete Slab on Ground (100mm)	52.0	N/A	0.00	Exposed
GUITAR	CSOG-100: Concrete Slab on Ground (100mm)	21.3	N/A	0.00	Carpet
HALL	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	13.3	N/A	0.00	Carpet
KITCHEN/LIVING	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	63.8	N/A	0.00	Carpet
KITCHEN/LIVING	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	47.1	N/A	2.50	Carpet
KITCHEN/LIVING	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	8.2	N/A	1.10	Carpet
LDRY	CSOG-100: Concrete Slab on Ground (100mm)	8.9	N/A	0.00	Tile
MASTER BED	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	26.5	N/A	0.00	Carpet
MASTER BED	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	8.8	N/A	1.10	Carpet
MUDROOM	CSOG-100: Concrete Slab on Ground (100mm)	7.8	N/A	0.00	Carpet
PANTRY	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	6.2	N/A	0.00	Carpet
PLAY/BED	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	10.0	N/A	0.00	Carpet
PLAY/BED	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	1.7	N/A	1.10	Carpet
POWDER	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	2.7	N/A	0.00	Tile
RUMPUS	CSOG-100: Concrete Slab on Ground (100mm)	42.1	N/A	0.00	Carpet
SK WELL	SUSP-CONC-150: Suspended Concrete Slab Floor (150mm)	1.3	N/A	0.00	Carpet
STORE	CSOG-100: Concrete Slab on Ground (100mm)	32.0	N/A	0.00	Exposed

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BATH	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
BATHROOM L2	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 2	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
ENSUITE	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
GARAGE	SLAB-100-CEIL-01: Concrete Slab (100mm) with Suspended PB Ceiling	0.00	No
HALL	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
HALL	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	2.50	Yes
KITCHEN/LIVING	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	2.50	Yes
KITCHEN/LIVING	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
MASTER BED	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	2.50	Yes
MASTER BED	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
PANTRY	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
PLAY/BED	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
POWDER	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
SK WELL	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes
FOYER	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	4.00	Yes

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	2	Downlight	150	Sealed
BATH	1	Exhaust Fan	250	Sealed
BATHROOM L2	2	Downlight	150	Sealed
BATHROOM L2	1	Exhaust Fan	250	Sealed
BED 2	7	Downlight	150	Sealed
BED 4	7	Downlight	150	Sealed
ENSUITE	4	Downlight	150	Sealed
ENSUITE	1	Exhaust Fan	250	Sealed
FOYER	1	Downlight	150	Sealed

* Refer to glossary.

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
GARAGE	21	Downlight	150	Sealed
GUITAR	8	Downlight	150	Sealed
HALL	6	Downlight	150	Sealed
KITCHEN/LIVING	49	Downlight	150	Sealed
KITCHEN/LIVING	1	Exhaust Fan	250	Sealed
LDRY	4	Downlight	150	Sealed
LDRY	1	Exhaust Fan	250	Sealed
MASTER BED	15	Downlight	150	Sealed
MUDROOM	4	Downlight	150	Sealed
PANTRY	3	Downlight	150	Sealed
PLAY/BED	6	Downlight	150	Sealed
POWDER	1	Exhaust Fan	250	Sealed
POWDER	2	Downlight	150	Sealed
RUMPUS	18	Downlight	150	Sealed
STORE	12	Downlight	150	Sealed
Void	3	Downlight	150	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
BED 2	1	1200
BED 4	1	1200
KITCHEN/LIVING	1	1200
MASTER BED	1	1200
PLAY/BED	1	1200

Roof type

Construction	Added insulation (R-value)	Solar absorbptance	Roof Colour
--------------	----------------------------	--------------------	-------------

* Refer to glossary.



Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	1.30	0.50	Medium
SLAB-100-CEIL-01: Concrete Slab (100mm) with Suspended PB Ceiling	0.00	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).