Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0008622672

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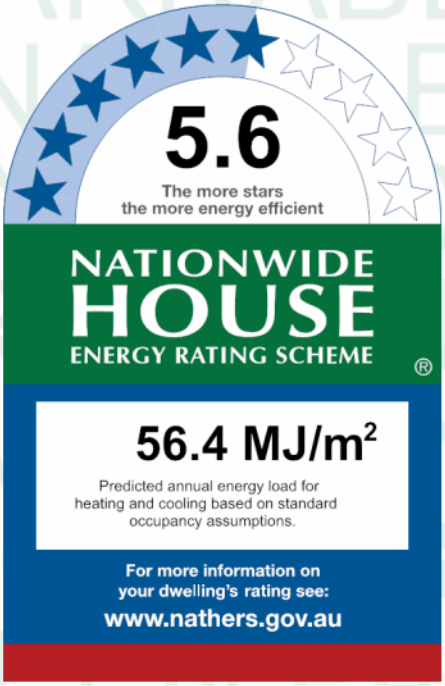

Property

Address	121 Narrabeen Park Pde , Mona Vale , NSW , 2103
Lot/DP	22672
NCC Class*	1A
Type	New Dwelling

Plans

Main plan	121 Narrabeen Park Pde DA
Prepared by	House Architects

Construction and environment

Assessed floor area (m^2)*	
Conditioned*	300.0
Unconditioned*	69.0
Total	369.0
Garage	46.0

Exposure type
Open

NatHERS climate zone
56

Thermal performance

Heating	Cooling
33.5 MJ/m^2	22.8 MJ/m^2

Accredited assessor

Name	David Howard
Business name	Partners Energy Management
Email	david@partnersenergy.com.au
Phone	0421381005
Accreditation No.	20039
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 hstar.com.au/QR/Generate?p=hEEYkKyAr.
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

Downlights must not penetrate ceiling insulation.
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
GJA-011-37 A	GJA-011-37 A Type 130 Series Fixed Window SG 638CPClr	3.9	0.64	0.61	0.67
GJA-070-43 A	GJA-070-43 A Type 245 Aluminium Sliding Door SG 638CPClr	4.4	0.59	0.56	0.62
GJA-082-37 A	GJA-082-37 A Type 472 Aluminium Hinged Door SG 638CPClr	4.6	0.51	0.48	0.54

* Refer to glossary.

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
GJA-013-42 A	GJA-013-42 A Type 131 Aluminium Sliding Window SG 638CPClr	4.4	0.61	0.58	0.64
GJA-001-35 A	GJA-001-35 A Type 048 Series Awning Window SG 638CPClr	4.8	0.50	0.48	0.53

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Ldry	GJA-011-37 A	n/a	800	300	n/a	00	S	No
Ldry	GJA-011-37 A	n/a	800	300	n/a	00	S	No
Ldry	GJA-011-37 A	n/a	800	300	n/a	00	S	No
Ldry	GJA-011-37 A	n/a	800	300	n/a	00	S	No
Pantry	GJA-011-37 A	n/a	800	300	n/a	00	S	No
Pantry	GJA-011-37 A	n/a	800	300	n/a	00	S	No
Pantry	GJA-011-37 A	n/a	800	300	n/a	00	S	No
TV Room	GJA-070-43 A	n/a	2100	4900	n/a	75	N	No
Kitchen/Living	GJA-011-37 A	n/a	2100	1500	n/a	90	W	No
Kitchen/Living	GJA-011-37 A	n/a	2600	1500	n/a	00	N	No
Kitchen/Living	GJA-082-37 A	n/a	2600	1500	n/a	90	N	No
Kitchen/Living	GJA-070-43 A	n/a	2600	9570	n/a	75	E	No
Entry/Family/Ha	GJA-082-37 A	n/a	2400	900	n/a	90	W	No
Entry/Family/Ha	GJA-070-43 A	n/a	2400	4900	n/a	15	N	No
Entry/Family/Ha	GJA-011-37 A	n/a	2400	4180	n/a	00	S	No
Main Bed	GJA-070-43 A	n/a	2400	2000	n/a	45	N	No
Main Bed	GJA-011-37 A	n/a	2400	4950	n/a	00	E	No
Main Bed	GJA-011-37 A	n/a	1400	600	n/a	00	S	No
Main Robe	GJA-011-37 A	n/a	1400	600	n/a	00	S	No
Bed 02	GJA-082-37 A	n/a	2400	1200	n/a	90	N	No
Bed 02	GJA-011-37 A	n/a	2400	800	n/a	00	N	No
Bed 02	GJA-011-37 A	n/a	2400	800	n/a	00	N	No

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bed 01	GJA-082-37 A	n/a	2400	1200	n/a	90	N	No
Bed 01	GJA-011-37 A	n/a	2400	800	n/a	00	N	No
Bed 01	GJA-011-37 A	n/a	2400	800	n/a	00	N	No
L2 Ensuite	GJA-013-42 A	n/a	500	2200	n/a	10	S	No
Guest Bed	GJA-001-35 A	n/a	1900	3300	n/a	90	N	Yes
Guest Bed	GJA-082-37 A	n/a	2400	900	n/a	90	E	No
Guest Ens	GJA-001-35 A	n/a	2100	750	n/a	90	E	No
Garage	GJA-001-35 A	n/a	1800	750	n/a	90	N	No
Garage	GJA-001-35 A	n/a	1800	750	n/a	90	N	No
L3 Stairs	GJA-082-37 A	n/a	2400	1500	n/a	90	E	No
L3 Stairs	GJA-001-35 A	n/a	2400	5100	n/a	90	S	Yes
L3 Ensuite	GJA-001-35 A	n/a	1800	750	n/a	90	N	Yes
L3 Study	GJA-013-42 A	n/a	1800	2400	n/a	10	N	Yes
L3 Study	GJA-001-35 A	n/a	1800	700	n/a	90	N	Yes
L3 Study	GJA-082-37 A	n/a	2400	1500	n/a	90	E	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
SG-Generic-01 A	Glass	7.3	0.79	0.75	0.83

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
Kitchen/Living	SG-Generic-01 A	n/a	0	750	6400	S	Yes	No
Kitchen/Living	SG-Generic-01 A	n/a	0	2500	1800	N	Yes	No

* Refer to glossary.

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
Entry/Family/Ha	2700	1000	90	S
Guest Bed	2150	900	90	S
Garage	2400	5200	90	W

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Concrete block, lined	0.50	Medium	Bulk Insulation R1.5	No
EW-2	Concrete Block	0.50	Medium	No insulation	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
L1 Lift	EW-1	3000	1395	S	1100	YES
L1 Lift	EW-1	3000	1400	W	600	NO
L1 Lift	EW-1	3000	1395	N	6400	NO
Ldry	EW-1	3000	295	N	6400	YES
Ldry	EW-1	3000	2795	S	0	NO

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Ldry	EW-1	3000	1100	S	0	NO
Ldry	EW-1	3000	1100	W	2000	YES
Pantry	EW-1	3000	2990	S	0	NO
TV Room WC	EW-1	3000	2290	W	2300	YES
TV Room	EW-1	3000	4095	W	2300	NO
TV Room	EW-1	3000	6595	N	0	YES
Kitchen/Living	EW-1	3000	2600	W	0	YES
Kitchen/Living	EW-1	3000	6400	N	0	NO
Kitchen/Living	EW-1	3000	11500	E	1300	NO
Kitchen/Living	EW-1	3000	6395	S	0	NO
L2 Lift	EW-1	3000	1395	S	0	NO
L2 Lift	EW-1	3000	1395	E	900	NO
Entry/Family/Ha	EW-1	3000	1300	W	14300	YES
Entry/Family/Ha	EW-1	3000	6495	N	1000	NO
Entry/Family/Ha	EW-1	3000	6795	S	1100	YES
Entry/Family/Ha	EW-1	3000	295	E	900	YES
Main Bed	EW-1	3000	7495	N	0	NO
Main Bed	EW-1	3000	6100	E	0	NO
Main Bed	EW-1	3000	3895	S	0	NO
Main Robe	EW-1	3000	3590	S	0	NO
Bed 02	EW-1	3000	3290	N	1300	YES
Bed 01	EW-1	3000	3290	N	1300	YES
L2 Ensuite	EW-1	3000	3295	S	0	NO
L2 Ensuite	EW-1	3000	1600	W	7700	YES
L2 Linen	EW-1	3000	1590	S	0	NO
Guest Bed	EW-1	3000	1695	S	1600	YES
Guest Bed	EW-1	3000	6195	W	2000	NO
Guest Bed	EW-1	3000	5700	N	0	NO
Guest Bed	EW-1	3000	1300	E	0	YES
Guest Ens	EW-1	3000	1595	E	8000	YES

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Guest Ens	EW-1	3000	4000	S	0	NO
Guest Ens	EW-1	3000	1595	W	2000	NO
L3 Lift	EW-1	3000	1395	S	0	NO
L3 Lift	EW-1	3000	1395	E	0	YES
Garage	EW-2	3000	4595	S	0	NO
Garage	EW-2	3000	7800	W	300	NO
Garage	EW-2	3000	6255	N	0	NO
Garage	EW-1	3000	300	E	0	YES
Garage	EW-1	3000	300	S	0	YES
L3 Stairs	EW-1	3000	2895	E	0	NO
L3 Stairs	EW-1	3000	6455	S	0	YES
L3 Ensuite	EW-1	3000	1850	N	0	NO
L3 Study	EW-1	3000	4595	N	0	NO
L3 Study	EW-1	3000	3195	E	0	NO

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		256.00	No insulation
IW-2 - Concrete Block		18.00	Bulk Insulation, No Air Gap R1.5

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
L1 Lift	Concrete Slab on Ground 100mm	1.90	None	Bulk Insulation in Contact with Floor R1.5	Bare
Ldry	Concrete Slab on Ground 100mm	9.40	None	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Pantry	Concrete Slab on Ground 100mm	7.10	None	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
TV Room WC	Concrete Slab on Ground 100mm	3.20	None	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
TV Room	Concrete Slab on Ground 100mm	38.10	None	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm

* Refer to glossary.

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living	Concrete Slab on Ground 100mm	73.20	None	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
L2 Lift/L1 Lift	Concrete Above Plasterboard 100mm	1.80		No Insulation	Bare
Entry/Family/Ha/TV Room WC	Concrete Above Plasterboard 100mm	2.90		No Insulation	Ceramic Tiles 8mm
Entry/Family/Ha/TV Room	Concrete Above Plasterboard 100mm	35.90		No Insulation	Ceramic Tiles 8mm
Entry/Family/Ha	Concrete Slab on Ground 100mm	4.70	None	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Main Bed/Kitchen/Living	Concrete Above Plasterboard 100mm	21.90		No Insulation	Cork Tiles or Parquetry 8mm
Main Bed	Concrete Slab on Ground 100mm	6.00	None	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Main Ens/Kitchen/Living	Concrete Above Plasterboard 100mm	8.20		No Insulation	Ceramic Tiles 8mm
Main Robe/Kitchen/Living	Concrete Above Plasterboard 100mm	7.70		No Insulation	Cork Tiles or Parquetry 8mm
Bed 02	Concrete Slab on Ground 100mm	12.00	None	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Bed 01	Concrete Slab on Ground 100mm	12.10	None	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
L2 Ensuite	Concrete Slab on Ground 100mm	7.50	None	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
L2 Linen	Concrete Slab on Ground 100mm	2.50	None	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Guest Bed	Concrete Slab on Ground 100mm	34.90	None	Bulk Insulation in Contact with Floor R1.5	Cork Tiles or Parquetry 8mm
Guest Ens	Concrete Slab on Ground 100mm	6.20	None	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
L3 Lift/L2 Lift	Concrete Above Plasterboard 100mm	1.80		No Insulation	Bare
Garage/Entry/Family/Ha	Concrete Above Plasterboard 100mm	4.80		Bulk Insulation R2	Bare
Garage/Bed 02	Concrete Above Plasterboard 100mm	12.40		Bulk Insulation R2	Bare
Garage/Bed 01	Concrete Above Plasterboard 100mm	11.30		Bulk Insulation R2	Bare
Garage/L2 Ensuite	Concrete Above Plasterboard 100mm	6.90		Bulk Insulation R2	Bare
Garage/L2 Linen	Concrete Above Plasterboard 100mm	2.70		Bulk Insulation R2	Bare
Garage	Concrete Slab on Ground 100mm	8.20	None	No Insulation	Bare
L3 Stairs/Entry/Family/Ha	Concrete Above Plasterboard 100mm	18.40		Bulk Insulation R2	Ceramic Tiles 8mm

* Refer to glossary.

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
L3 Ensuite/Entry/Family/Ha	Concrete Above Plasterboard 100mm	5.70		Bulk Insulation R2	Ceramic Tiles 8mm
L3 Study/Entry/Family/Ha	Concrete Above Plasterboard 100mm	14.40		Bulk Insulation R2	Cork Tiles or Parquetry 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
L1 Lift	Concrete Above Plasterboard	No Insulation	No
Ldry	Concrete, Plasterboard	Bulk Insulation R2	No
Pantry	Concrete, Plasterboard	Bulk Insulation R2	No
TV Room WC	Concrete Above Plasterboard	No Insulation	No
TV Room	Concrete, Plasterboard	Bulk Insulation R2	No
TV Room	Concrete Above Plasterboard	No Insulation	No
Kitchen/Living	Concrete, Plasterboard	Bulk Insulation R2	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
L2 Lift	Concrete, Plasterboard	Bulk Insulation R2	No
L2 Lift	Concrete Above Plasterboard	No Insulation	No
Entry/Family/Ha	Concrete, Plasterboard	Bulk Insulation R2	No
Entry/Family/Ha	Concrete Above Plasterboard	Bulk Insulation R2	No
Main Bed	Concrete, Plasterboard	Bulk Insulation R2	No
Main Ens	Concrete, Plasterboard	Bulk Insulation R2	No
Main Robe	Concrete, Plasterboard	Bulk Insulation R2	No
Bed 02	Concrete, Plasterboard	Bulk Insulation R2	No
Bed 02	Concrete Above Plasterboard	Bulk Insulation R2	No
Bed 01	Concrete, Plasterboard	Bulk Insulation R2	No
Bed 01	Concrete Above Plasterboard	Bulk Insulation R2	No
L2 Ensuite	Concrete, Plasterboard	Bulk Insulation R2	No
L2 Ensuite	Concrete Above Plasterboard	Bulk Insulation R2	No
L2 Linen	Concrete, Plasterboard	Bulk Insulation R2	No
L2 Linen	Concrete Above Plasterboard	Bulk Insulation R2	No
Guest Bed	Concrete, Plasterboard	Bulk Insulation R2	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Guest Ens	Concrete, Plasterboard	Bulk Insulation R2	No
L3 Lift	Concrete, Plasterboard	Bulk Insulation R2	No
Garage	Concrete	No insulation	No
L3 Stairs	Concrete, Plasterboard	Bulk Insulation R2	No
L3 Ensuite	Concrete, Plasterboard	Bulk Insulation R2	No
L3 Study	Concrete, Plasterboard	Bulk Insulation R2	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Ldry	2	Downlights - LED	0	Sealed
Pantry	2	Downlights - LED	0	Sealed
TV Room WC	1	Downlights - LED	0	Sealed
TV Room	8	Downlights - LED	0	Sealed
Kitchen/Living	12	Downlights - LED	0	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry/Family/Ha	12	Downlights - LED	0	Sealed
Main Bed	6	Downlights - LED	0	Sealed
Main Ens	3	Downlights - LED	0	Sealed
Main Robe	2	Downlights - LED	0	Sealed
Bed 02	3	Downlights - LED	0	Sealed
Bed 01	3	Downlights - LED	0	Sealed
L2 Ensuite	2	Downlights - LED	0	Sealed
L2 Linen	1	Downlights - LED	0	Sealed
Guest Bed	5	Downlights - LED	0	Sealed
Guest Ens	2	Downlights - LED	0	Sealed
L3 Stairs	4	Downlights - LED	0	Sealed
L3 Ensuite	1	Downlights - LED	0	Sealed
L3 Study	4	Downlights - LED	0	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
TV Room	1	1200
Kitchen/Living	1	1400
Entry/Family/Ha	1	1400
Main Bed	1	900
Bed 02	1	900
Bed 01	1	900
Guest Bed	1	900
L3 Study	1	900

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Waterproofing Membrane	Bulk Insulation, No Air Gap Above R0.5	0.50	Medium
Waterproofing Membrane	No Insulation, Only an 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

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).