Nationwide House Energy Rating Scheme®
NatHERS® Certificate No. 0009381005-07

Generated on 23 Jul 2024 using BERS Pro v5.2.2 (3.23)

Property

Address	14 Bellevue Parade, NORTH CURL CURL , NSW , 2099
Lot/DP	Lot 26 DP 10571
NCC class*	1a
Floor/all Floors	G of 4 floors
Type	New Home

Plans

Main plan	Rev C - Issue for BASIX - 11/06/2024
Prepared by	Watershed Architects

Construction and environment

Assessed floor area [m2]*

Conditioned*	274.5
Unconditioned*	15.2
Total	345.9
Garage	56.2

Exposure type

Suburban

NatHERS climate zone

56 Mascot (Sydney Airport)

Accredited assessor

Name	Jamie Bonnefin
Business name	Certified Energy
Email	jobs@certifiedenergy.com.au
Phone	1300 443 674
Accreditation No.	10056
Assessor Accrediting Organisation	HERA
Declaration of interest	Declaration completed: no conflicts

NCC Requirements

NCC provisions	Volume Two
Strate/Territory variation	Yes

National Construction Code (NCC) requirements

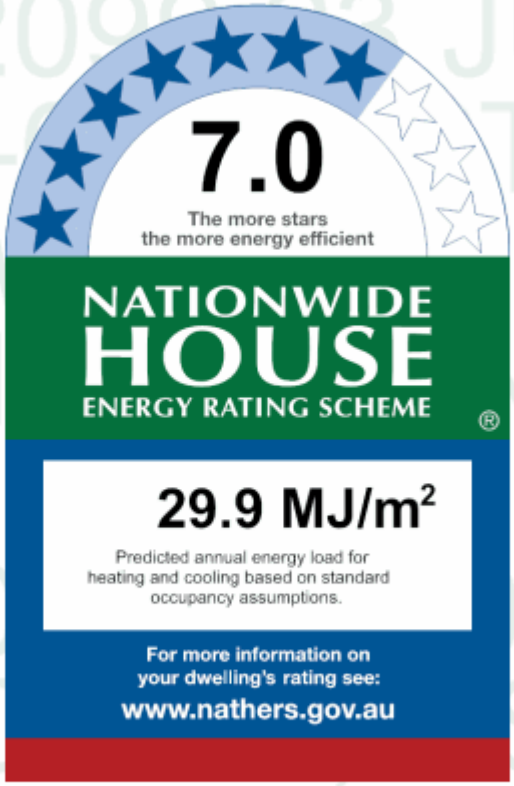
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance Star rating



Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	18.3	11.6
Load limits	N/A	N/A

Features determining load limits

Floor Type (lowest conditioned area)	CSOG
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate.

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=OAAjnWCOi . When using either link, ensure you are visiting hstar.com.au

* Refer to glossary

About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating & Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the *ABCB Standard 2022: NatHERS heating and cooling load limits* for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting Options:

Floor Type:

CSOG – Concrete Slab on Ground
SF – Suspended Floor (or a mixture of CSOG and SF)
NA – Not Applicable

NCC Climate Zone 1 or 2:

Yes
No
NA – Not Applicable

Outdoor Living Area:

Yes
No
NA – Not Applicable

Outdoor Living Area Ceiling Fan:

Yes
No
NA – Not Applicable

Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use

No Whole of Home performance assessment conducted for this certificate

Greenhouse gas emissions

No Whole of Home performance assessment conducted for this certificate

Cost

No Whole of Home performance assessment conducted for this certificate

* Refer to glossary.

Certificate check

The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.

	Approval Stage		Construction Stage		
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	☐	☐	☐	☐	☐
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			☐	☐	☐
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	☐	☐	☐	☐	☐
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	☐	☐	☐	☐	☐
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	☐	☐	☐	☐	☐
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	☐	☐	☐	☐	☐
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
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 type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	☐	☐		☐	☐
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown	☐	☐	☐	☐	☐

* Refer to glossary.

Certificate check

Continued

	Approval Stage		Construction Stage		
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not included in the NatHERS assessment)					
Thermal bridging					
Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
Insulation installation method					
Has the insulation been installed according to the NCC requirements?			☐	☐	☐
Building sealing					
Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)					
Appliances					
Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the Appliance schedule on this Certificate?	☐	☐	☐	☐	☐
Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	☐	☐	☐	☐	☐
Additional NCC Requirements for Services (not included in the NatHERS assessment)					
Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
Provisional values* check					
Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐			

Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Additional notes

*The dwelling has been assessed without recessed light fittings as no lighting or electrical plan has been provided.

*Obscure glazing has been modelled as clear glass as it has similar thermal properties.

* Refer to glossary.

Room *schedule*

Room	Zone Type	Area [m^2]
Garage	Garage	56.2
Entry	Daytime	16.25
Mud Room	Daytime	13.53
Storage Basement	Daytime	5.43
Lift Basement	Daytime	2.44
Lift LGF	Daytime	2.44
Stairs LGF	Daytime	9.8
Stairs LGF 2	Daytime	4.03
Hall LGF	Daytime	15.91
Bath LGF	Daytime	6.14
Guest Bedroom	Bedroom	14.15
Games Room	Living	32.23
Lift GF	Daytime	2.22
Stairs GF	Daytime	9.19
Dining/Living	Living	27.8
Kitchen	Kitchen/Living	29.73
Pantry	Daytime	5.83
Laundry	Unconditioned	6.03
Powder GF	Unconditioned	2.55
Stairs GF 2	Daytime	4.8
Living	Daytime	20.85
Stairs FF	Daytime	5.75
Corridor FF	Daytime	9.54
Bedroom 2	Bedroom	13.9
Bedroom 3	Bedroom	14.87
Bath FF	Unconditioned	6.64
WIR 1	Nighttime	6.36
Bedroom 1	Bedroom	17.48
ENS 1	Nighttime	8.45

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
CTD-004-017	uPVC Fixed Window DG 4S500/14Ar/4Clr	1.7	0.55	0.52	0.58
CTD-006-029	uPVC Double Hung Window DG 5SB60/14/5SB60	1.7	0.28	0.27	0.29
ALU-005-031	uPVC Sliding Door DG AGG PRIME Clr lam 4/18/6.38	1.9	0.41	0.39	0.43
ROP-006-006	uPVC Bifold Door DG 8.76ClrLam/16Ar/6LE	1.7	0.37	0.35	0.39
CTD-005-017	uPVC Awning Window DG 4S500/14Ar/4Clr	1.7	0.44	0.42	0.46
DEC-003-032	uPVC Sliding Window DG SOLOS OE+ SV 7.52/12Ar/4	1.8	0.37	0.35	0.38

Window and glazed door *schedule*

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Entry	CTD-004-017-001	W0.1	2600	560	Fixed	00	S	No
Stairs LGF	CTD-006-029-001	W1.2	1900	900	Double Hung	45	E	No
Stairs LGF	CTD-004-017-001	W1.1	1900	1975	Fixed	00	S	No
Guest Bedroom	ALU-005-031-001	D1.2	2700	2950	Sliding	45	S	No
Games Room	ALU-005-031-001	D1.1	2700	2950	Sliding	45	S	No
Games Room	CTD-006-029-001	W1.3	1900	900	Double Hung	45	W	No
Stairs GF	CTD-004-017-001	W2.1	2200	1900	Fixed	00	S	No
Dining/Living	ALU-005-031-001	D2.1	2900	4400	Sliding	60	S	No
Dining/Living	CTD-006-029-001	W2.9	2900	494	Double Hung	90	W	No
Kitchen	CTD-004-017-001	W2.9	2900	3990	Fixed	00	W	No
Kitchen	CTD-006-029-001	W2.9	2900	494	Double Hung	90	W	No
Kitchen	CTD-004-017-001	W2.8	2900	900	Fixed	00	W	No
Kitchen	ROP-006-006-001	D2.6	2900	3235	Bifold	60	N	No

* Refer to glossary.

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Pantry	CTD-005-017-001	W2.3	650	700	Awning	90	E	No
Pantry	CTD-004-017-001	W2.2	650	1150	Fixed	00	E	No
Laundry	CTD-005-017-001	W2.5	650	700	Awning	90	E	No
Laundry	CTD-004-017-001	W2.4	650	1150	Fixed	00	E	No
Powder GF	CTD-005-017-001	W2.7	650	710	Awning	90	E	No
Powder GF	CTD-004-017-001	W2.6	650	1000	Fixed	00	E	No
Living	ALU-005-031-001	D2.1	2900	3214	Sliding	90	S	No
Living	CTD-004-017-001	W2.10	2900	3080	Fixed	00	N	No
Stairs FF	CTD-005-017-001	W3.4	600	2035	Awning	90	N	No
Stairs FF	CTD-004-017-001	W1	1865	2035	Fixed	00	N	No
Corridor FF	CTD-005-017-001	W3.3	1950	720	Awning	10	E	No
Bedroom 2	CTD-004-017-001	W3.5	1700	1700	Fixed	00	N	No
Bedroom 2	CTD-006-029-001	W3.4	1700	800	Double Hung	10	N	No
Bedroom 3	CTD-006-029-001	W3.7	1700	800	Double Hung	10	N	No
Bedroom 3	CTD-004-017-001	W3.6	1700	2100	Fixed	00	N	No
Bath FF	CTD-005-017-001	W3.9	1545	900	Awning	10	S	No
Bath FF	CTD-004-017-001	W3.10	1545	900	Fixed	00	S	No
Bath FF	CTD-005-017-001	W3.8	1527	900	Awning	10	W	No
Bedroom 1	ALU-005-031-001	D3.1	2445	3580	Sliding	60	S	No
Bedroom 1	DEC-003-032-001	W3.11	1897	2100	Sliding	10	W	Yes
Bedroom 1	CTD-005-017-001	W4.1	917	3915	Awning	90	N	No
ENS 1	CTD-004-017-001	W3.2	1710	900	Fixed	00	S	No
ENS 1	CTD-005-017-001	W3.1	1710	900	Awning	10	S	No

Roof window* *type and performance value*

Default roof windows*

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

* Refer to glossary.

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	Skylight shaft reflectance
GEN-04-008a	Double-glazed clear, Timber and Aluminium Frame	0.5

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m^2]	Orientation	Outdoor shade	Diffuser
Bath FF	GEN-04-008a	SK1	300	0.64	N	None	No
WIR 1	GEN-04-008a	SK2	300	0.64	N	None	No
ENS 1	GEN-04-008a	SK3	300	0.64	N	None	No

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Garage	2400	4800	90	S
Entry	2700	1200	90	S
Kitchen	2040	820	90	E
Stairs GF 2	2270	2075	90	N

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
EW-1	Cavity Brick	0.50		Foil reflective both sides of the Bulk Insulation R4	Yes
EW-2	Concrete Block, Lined Timber Stud Frame	0.50		Foil Anti-glare one side and Reflective other of the Bulk Insulation R4	Yes
EW-3	Concrete Block, Lined Timber Stud Frame	0.50		Foil reflective both sides of the Bulk Insulation R4	Yes

* Refer to glossary.

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
EW-4	Weatherboard Timber Stud Frame Panel Direct Fix	0.50		Foil reflective both sides of the Bulk Insulation R4	Yes

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	2700	9100	W	0	No
Garage	EW-2	2700	6295	N	0	No
Garage	EW-1	2700	6295	S	3000	No
Entry	EW-2	2700	3495	E	0	No
Entry	EW-1	2700	1300	E	0	No
Entry	EW-1	2700	3595	S	2200	No
Mud Room	EW-2	2700	2500	W	0	No
Mud Room	EW-3	2700	1695	N	0	No
Storage Basement	EW-2	2700	5290	E	0	No
Lift Basement	EW-2	2700	1895	N	0	No
Lift Basement	EW-2	2700	1495	E	0	No
Lift LGF	EW-1	2700	1895	N	0	No
Lift LGF	EW-1	2700	1495	E	0	No
Stairs LGF	EW-1	2700	800	W	7700	No
Stairs LGF	EW-1	2700	4795	E	0	No
Stairs LGF	EW-1	2700	2200	S	0	Yes
Stairs LGF 2	EW-1	2700	3990	E	0	No
Hall LGF	EW-1	2700	2495	W	6300	No
Hall LGF	EW-1	2700	1695	N	0	No
Hall LGF	EW-1	2700	1290	E	0	No
Bath LGF	EW-1	2700	1895	N	2500	No
Guest Bedroom	EW-1	2700	3890	S	800	No
Games Room	EW-1	2700	3795	S	800	Yes
Games Room	EW-1	2700	8300	W	0	No
Games Room	EW-1	2700	4395	N	1700	No
Lift GF	EW-1	2900	1490	E	200	No

* Refer to glossary.

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Stairs GF	EW-1	2900	5295	E	200	No
Stairs GF	EW-1	2900	1895	S	3500	Yes
Dining/Living	EW-1	2900	4390	S	3500	No
Dining/Living	EW-1	2900	795	W	3600	No
Kitchen	EW-1	2900	7195	W	0	No
Kitchen	EW-4	2900	4000	N	3800	No
Kitchen	EW-1	2900	990	E	200	No
Pantry	EW-1	2900	2890	E	200	No
Laundry	EW-1	2900	3290	E	200	No
Powder GF	EW-1	2900	200	N	200	No
Powder GF	EW-1	2900	2595	E	200	No
Stairs GF 2	EW-4	2900	3795	W	7300	No
Stairs GF 2	EW-1	2900	2100	N	0	No
Stairs GF 2	EW-1	2900	1195	E	0	No
Living	EW-1	2900	3595	S	3500	Yes
Living	EW-1	2900	6000	W	0	No
Living	EW-1	2900	3595	N	1000	Yes
Stairs FF	EW-4	2750	2095	N	800	Yes
Stairs FF	EW-4	2750	1995	E	0	No
Corridor FF	EW-4	2750	4190	E	0	No
Bedroom 2	EW-4	2750	3490	N	800	No
Bedroom 3	EW-4	2750	4095	W	0	No
Bedroom 3	EW-4	2750	3795	N	800	Yes
Bath FF	EW-4	2750	3295	S	0	No
Bath FF	EW-4	2750	2495	W	0	Yes
WIR 1	EW-4	2750	1495	W	0	No
Bedroom 1	EW-4	2750	1600	E	0	No
Bedroom 1	EW-4	2750	4000	S	600	Yes
Bedroom 1	EW-4	2750	4095	W	0	Yes
ENS 1	EW-4	2750	4395	E	0	No
ENS 1	EW-4	2750	2095	S	400	No

* Refer to glossary.

Internal wall *type*

Wall ID	Wall type	Area [m^2]	Bulk insulation
IW-001	Timber Stud Frame, Direct Fix Plasterboard	357.65	Bulk Insulation, No Air Gap R5.2

Floor *type*

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Garage	Concrete Slab on Ground 200mm	56.11	None	Bulk Insulation in Contact with Floor R2.6	Bare
Entry	Concrete Slab on Ground 200mm	16.25	None	Bulk Insulation in Contact with Floor R2.6	Ceramic Tiles 8mm
Mud Room	Concrete Slab on Ground 200mm	13.53	None	Bulk Insulation in Contact with Floor R2.6	Ceramic Tiles 8mm
Storage Basement	Concrete Slab on Ground 200mm	5.43	None	Bulk Insulation in Contact with Floor R2.6	Bare
Lift Basement	Concrete Slab on Ground 200mm	2.44	None	Bulk Insulation in Contact with Floor R2.6	Ceramic Tiles 8mm
Lift LGF / Lift Basement	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Ceramic Tiles 8mm
Stairs LGF / Entry	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Cork Tiles or Parquetry 8mm
Stairs LGF 2 / Storage Basement	Concrete Timber Framed Above Plasterboard 400mm	4.03		Bulk Insulation R2.5	Cork Tiles or Parquetry 8mm
Hall LGF / Garage	Concrete Timber Framed Above Plasterboard 400mm	0.59		Bulk Insulation R2.5	Ceramic Tiles 8mm
Hall LGF / Mud Room	Concrete Timber Framed Above Plasterboard 400mm	11.10		Bulk Insulation R2.5	Ceramic Tiles 8mm

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Hall LGF / Storage Basement	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Ceramic Tiles 8mm
Bath LGF / Garage	Concrete Timber Framed Above Plasterboard 400mm	4.64		Bulk Insulation R2.5	Ceramic Tiles 8mm
Bath LGF / Mud Room	Concrete Timber Framed Above Plasterboard 400mm	0.44		Bulk Insulation R2.5	Ceramic Tiles 8mm
Guest Bedroom / Garage	Concrete Timber Framed Above Plasterboard 400mm	8.55		Bulk Insulation R2.5	Carpet 10mm
Guest Bedroom / Entry	Concrete Timber Framed Above Plasterboard 400mm	4.15		Bulk Insulation R2.5	Carpet 10mm
Games Room / Garage	Concrete Timber Framed Above Plasterboard 400mm	32.23		Bulk Insulation R2.5	Ceramic Tiles 8mm
Lift GF / Lift LGF	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Ceramic Tiles 8mm
Stairs GF / Stairs LGF 2	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Cork Tiles or Parquetry 8mm
Stairs GF / Hall LGF	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Cork Tiles or Parquetry 8mm
Dining/Living / Hall LGF	Concrete Timber Framed Above Plasterboard 400mm	11.18		Bulk Insulation R2.5	Ceramic Tiles 8mm
Dining/Living / Bath LGF	Concrete Timber Framed Above Plasterboard 400mm	5.08		Bulk Insulation R2.5	Ceramic Tiles 8mm
Dining/Living / Games Room	Concrete Timber Framed Above Plasterboard 400mm	0.54		Bulk Insulation R2.5	Ceramic Tiles 8mm
Dining/Living	Suspended Concrete Slab 400mm	4.62	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Kitchen	Suspended Concrete Slab 400mm	29.73	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Pantry	Suspended Concrete Slab 400mm	5.83	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Laundry	Suspended Concrete Slab 400mm	6.03	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Powder GF	Suspended Concrete Slab 400mm	2.55	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Stairs GF 2	Suspended Concrete Slab 400mm	4.80	Totally Open	Bulk Insulation in Contact with Floor R4.5	Cork Tiles or Parquetry 8mm
Living / Games Room	Concrete Timber Framed Above Plasterboard 400mm	14.73		Bulk Insulation R2.5	Ceramic Tiles 8mm
Living	Suspended Concrete Slab 400mm	5.38	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Stairs FF / Kitchen	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Cork Tiles or Parquetry 8mm
Stairs FF / Powder GF	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Cork Tiles or Parquetry 8mm
Stairs FF / Stairs GF 2	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Cork Tiles or Parquetry 8mm
Corridor FF / Kitchen	Concrete Timber Framed Above Plasterboard 400mm	4.36		Bulk Insulation R2.5	Carpet 10mm
Corridor FF / Laundry	Concrete Timber Framed Above Plasterboard 400mm	0.50		Bulk Insulation R2.5	Carpet 10mm
Corridor FF / Powder GF	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Carpet 10mm

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Corridor FF	Suspended Concrete Slab 400mm	0.00	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Bedroom 2 / Kitchen	Concrete Timber Framed Above Plasterboard 400mm	0.60		Bulk Insulation R2.5	Carpet 10mm
Bedroom 2	Suspended Concrete Slab 400mm	11.80	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Bedroom 3	Suspended Concrete Slab 400mm	14.57	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
Bath FF	Suspended Concrete Slab 400mm	6.64	Totally Open	Bulk Insulation in Contact with Floor R4.5	Ceramic Tiles 8mm
WIR 1 / Kitchen	Concrete Timber Framed Above Plasterboard 400mm	6.36		Bulk Insulation R2.5	Carpet 10mm
Bedroom 1 / Dining/Living	Concrete Timber Framed Above Plasterboard 400mm	3.38		Bulk Insulation R2.5	Carpet 10mm
Bedroom 1 / Kitchen	Concrete Timber Framed Above Plasterboard 400mm	12.14		Bulk Insulation R2.5	Carpet 10mm
Bedroom 1 / Pantry	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Carpet 10mm
ENS 1 / Kitchen	Concrete Timber Framed Above Plasterboard 400mm	0.00		Bulk Insulation R2.5	Ceramic Tiles 8mm
ENS 1 / Pantry	Concrete Timber Framed Above Plasterboard 400mm	4.09		Bulk Insulation R2.5	Ceramic Tiles 8mm
ENS 1 / Laundry	Concrete Timber Framed Above Plasterboard 400mm	2.82		Bulk Insulation R2.5	Ceramic Tiles 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Garage	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Garage	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Entry	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Entry	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Mud Room	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Storage Basement	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Lift Basement	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Lift LGF	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Stairs LGF	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Stairs LGF 2	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Hall LGF	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Bath LGF	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Guest Bedroom	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Games Room	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Games Room	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Lift GF	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Stairs GF	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Dining/Living	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Dining/Living	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Kitchen	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Pantry	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Pantry	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Laundry	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Laundry	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Powder GF	Concrete, Plasterboard with Timber Frame	Bulk Insulation R7	
Powder GF	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Stairs GF 2	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Living	Plasterboard on Timber	Bulk Insulation R7	
Stairs FF	Plasterboard on Timber	Bulk Insulation R7	
Corridor FF	Plasterboard on Timber	Bulk Insulation R7	

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Bedroom 2	Plasterboard on Timber	Bulk Insulation R7	
Bedroom 3	Plasterboard on Timber	Bulk Insulation R7	
Bath FF	Plasterboard on Timber	Bulk Insulation R7	
WIR 1	Plasterboard on Timber	Bulk Insulation R7	
Bedroom 1	Plasterboard on Timber	Bulk Insulation R7	
ENS 1	Plasterboard on Timber	Bulk Insulation R7	

Ceiling *penetrations**

Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Bath LGF	1	Exhaust Fans	300	Sealed
Kitchen	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Powder GF	1	Exhaust Fans	300	Sealed
Bath FF	1	Exhaust Fans	300	Sealed
ENS 1	1	Exhaust Fans	300	Sealed

Ceiling *fans*

Location	Quantity	Diameter [mm]
Bedroom 2	1	1200
Bedroom 3	1	1200
Bedroom 1	1	1200

Roof *type*

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Waterproofing Membrane	No Insulation, Only an Air Gap	0.85	Dark
Waterproofing Membrane	Bulk, Reflective Side Down, Air Gap Above R3.3	0.85	Dark
Corrugated Iron Timber Frame	Bulk, Reflective Both Sides R1.8	0.85	Dark

Thermal bridging *schedule for steel frame elements*

Building element	Steel section dimensions [height x width, mm]	Frame spacing [mm]	Steel thickness [BMT,mm]	Thermal break [R-value]
No Data Available				

* Refer to glossary.

Appliance *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m^2 is used for lighting, therefore lighting is not included in the appliance schedule.

Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available				

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available				

Hot water system

Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC	Zone 3 Substitution tolerance ranges		Assessed daily load [litres]
					lower limit	upper limit	
No Data Available							

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available			

Onsite Renewable Energy *Schedule*

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery *Schedule*

System Type	Size [Battery Storage Capacity]
No Data Available	

* Refer to glossary.

Explanatory notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary.

Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings 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, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the assessor using the NatHERS accredited software tool are presented in this report and further details or data files may be obtained from the assessor.

Glossary

AFRC	Australian Fenestration Rating Council
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, range hoods, 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.
COP	Coefficient of performance
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.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
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	see exposure categories below.
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 – protected	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – suburban	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.
Net zero home	a home that achieves a net zero energy value*.
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
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
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 features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
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.
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.
STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips
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).
Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)