Nationwide House Energy Rating Scheme®
NatHERS® Certificate No. 0011989308

Generated on 17 Jun 2025 using BERS Pro v5.2.4 (3.23)

Property

Address	71 Wimbledon Avenue, NORTH NARRABEEN , NSW , 2101
Lot/DP	Lot 18 DP 17768
NCC class*	1a
Floor/all Floors	G of 2 floors
Type	New Home

Plans

Main plan	Wimbledon Avenue
Prepared by	Action Plans

Construction and environment

Assessed floor area [m2]*	
Conditioned*	329.4
Unconditioned*	14.8
Total	389.7
Garage	45.5

Exposure type

Exposed

NatHERS climate zone

56 Mascot (Sydney Airport)

Accredited assessor

Name	Terry Chapman
Business name	CHAPMAN ENVIRONMENTAL SERVICES PTY LTD
Email	terry@cesenergy.com.au
Phone	1300 004 914
Accreditation No.	20920
Assessor Accrediting Organisation	ABSA
Declaration of interest	Declaration completed: no conflicts

NCC Requirements

NCC provisions	Volume Two
Strate/Territory variation	Yes

National Construction Code (NCC) requirements

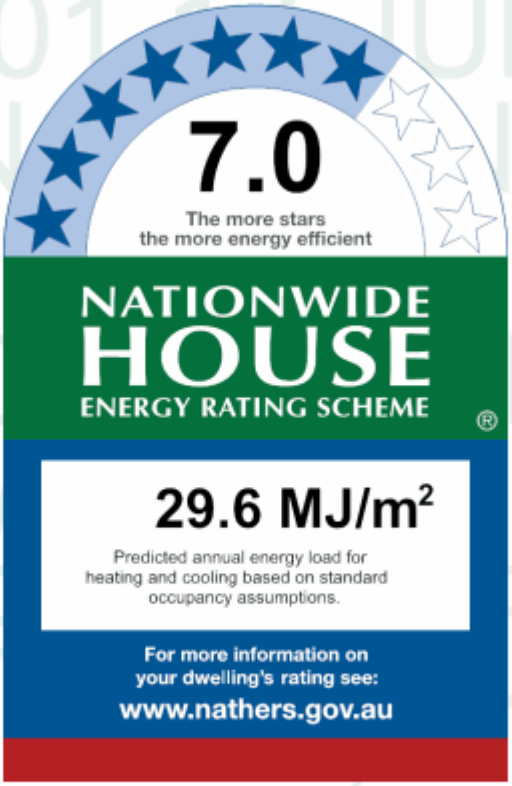
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. 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	19.5	10.1
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=wdMsXOHyW . 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

Greenhouse gas emissions

Cost

* 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

Room *schedule*

Room	Zone Type	Area [m^2]
Garage 1	Garage	45.48
Entry	Daytime	28.87
G.Bedroom-Flex	Bedroom	16.73
G.Bath	Unconditioned	4.57
Cinema	Living	19.47
Laundry	Unconditioned	10.24
Pantry	Daytime	8.92
Kitchen/Living1	Kitchen/Living	72.19
Upper hall	Daytime	23.61
Bedroom 1	Bedroom	17.17
Bed 1 WIR	Nighttime	8.42
Bed 1 Ensuite	Nighttime	9.81
Bedroom 2	Bedroom	18.36
Bed 2 WIR	Nighttime	4.49
Bed 2 Ensuite	Nighttime	5.2
Bedroom 3	Bedroom	22.32
Bed 3 WIR	Nighttime	3.78
Bed 3 Ensuite	Nighttime	5.2
Master Bedroom	Bedroom	38.62
Master WIR	Nighttime	16.89
Master Ensuite	Nighttime	13.84

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
BRD-154-040	Aluminium Sliding Window DG LB Clr 4/10/4	3.0	0.50	0.47	0.52

* Refer to glossary.

Custom windows*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
BRD-160-145	Aluminium Hinged Door DG 4Clr-16Ar90%-4LB#3	3.2	0.41	0.39	0.43
BRD-115-058	Aluminium Awning Window DG LB Clr 5/12/5	3.3	0.42	0.40	0.44
BRZ-006-009	Aluminium Louvre Window SG 6Sn	4.9	0.46	0.44	0.48
BRD-080-021	Aluminium Double Hung Window DG LB Clr 4/10/4	3.5	0.44	0.42	0.46
BRD-101-011	Thermally Broken Aluminium Sliding Door DG LB Clr 5/12/5	2.2	0.45	0.43	0.47
BRD-141-014	Aluminium Sliding Door DG LB Clr 5/8/5	3.0	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*
Garage 1	BRD-154-040-001	W7	600	2150	Sliding	45	S	No
Garage 1	BRD-154-040-001	W8	600	2150	Sliding	45	S	No
Entry	BRD-160-145-001	W1	2400	1100	Casement	90	E	No
Entry	BRD-154-040-001	W2	2400	400	Fixed	00	E	No
G.Bedroom-Flex	BRD-154-040-001	W4	1500	600	Fixed	00	NE	No
G.Bedroom-Flex	BRD-154-040-001	W5	1100	1300	Fixed	00	E	No
G.Bedroom-Flex	BRD-115-058-002	W6	400	1300	Awning	90	E	No
G.Bedroom-Flex	BRD-154-040-001	W3	1500	600	Fixed	00	SE	No
G.Bath	BRD-154-040-001	W16	800	1500	Sliding	10	N	No
Cinema	BRZ-006-009-001	W9	600	4550	Louvre	90	S	No
Laundry	BRZ-006-009-001	W15	1700	1800	Louvre	90	N	No
Pantry	BRD-154-040-001	W14	600	2150	Sliding	45	N	No
Kitchen/Living1	BRD-080-021-001	W10	1500	1500	Double Hung	10	S	No
Kitchen/Living1	BRD-080-021-001	W11	1500	1500	Double Hung	10	S	No
Kitchen/Living1	BRD-101-011-002	W12	2400	7264	Sliding	60	W	No
Kitchen/Living1	BRD-115-058-002	W13	1500	2646	Awning	90	W	No
Bedroom 1	BRD-154-040-001	W21	1300	450	Fixed	00	NE	No
Bedroom 1	BRD-115-058-002	W23	865	1600	Awning	10	E	No

* Refer to glossary.

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	BRD-154-040-001	W24	435	1600	Fixed	00	E	No
Bedroom 1	BRD-154-040-001	W22	1300	450	Fixed	00	SE	No
Bedroom 1	BRD-154-040-001	W25	750	2800	Sliding	10	S	No
Bed 1 Ensuite	BRD-080-021-001	W26	1550	1650	Double Hung	10	S	No
Bedroom 2	BRD-080-021-001	W33	1550	2650	Double Hung	10	N	No
Bed 2 Ensuite	BRD-154-040-001	W34	750	1650	Sliding	10	N	No
Bedroom 3	BRD-154-040-001	W36	750	2800	Sliding	10	N	No
Bedroom 3	BRD-154-040-001	W17	1300	450	Fixed	00	NE	No
Bedroom 3	BRD-115-058-002	W19	865	1600	Awning	10	E	No
Bedroom 3	BRD-154-040-001	W20	435	1600	Fixed	00	E	No
Bedroom 3	BRD-154-040-001	W18	1300	450	Fixed	00	SE	No
Bed 3 Ensuite	BRD-154-040-001	W35	750	1650	Sliding	10	N	No
Master Bedroom	BRD-080-021-001	W27	1550	2650	Double Hung	10	S	No
Master Bedroom	BRD-141-014-001	W28	2400	4250	Sliding	60	W	No
Master Bedroom	BRD-154-040-001	W29	300	4250	Fixed	00	W	No
Master WIR	BRD-080-021-001	W32	1550	1000	Double Hung	10	N	No
Master Ensuite	BRD-154-040-001	W30	1650	2480	Fixed	00	W	No
Master Ensuite	BRD-080-021-001	W31	1550	1000	Double Hung	10	N	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					

Custom roof windows*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
VEL-011-01 W	VEL-011-01 W VELUX FS - Fixed Skylight DG 3mm LoE 366 / 8.5mm Argon Gap / 5.36mm Clear La	2.6	0.24	0.23	0.25

* Refer to glossary.

Roof window* *schedule*

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
Upper hall	VEL-011-01 W	S1	0	1400	780	S	Yes	Yes
Upper hall	VEL-011-01 W	S5	0	1400	780	S	Yes	Yes
Upper hall	VEL-011-01 W	S6	0	1400	780	S	Yes	Yes
Bed 1 WIR	VEL-011-01 W	S4	0	1100	1100	S	Yes	Yes

Skylight* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m^2]	Orientation	Outdoor shade	Diffuser
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Garage 1	2960	5000	90	E

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
EW-1	Fibro Timber Stud Frame Panel Direct Fix	0.30		Foil, Anti-glare one side, Reflective other	Yes
EW-2	Fibro Timber Stud Frame Panel on Battens	0.30		Foil, Anti-glare one side + Bulk Insulation R2.7	No

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Garage 1	EW-1	3380	2600	N	6300	No
Garage 1	EW-1	3380	6000	E	700	No
Garage 1	EW-1	3380	7695	S	600	No

* Refer to glossary.

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Entry	EW-2	3000	1790	E	3600	No
G.Bedroom-Flex	EW-2	3000	4095	N	625	No
G.Bedroom-Flex	EW-2	3000	600	E	1200	No
G.Bedroom-Flex	EW-2	3000	707	NE	1344	No
G.Bedroom-Flex	EW-2	3000	1600	E	700	No
G.Bedroom-Flex	EW-2	3000	707	SE	3323	No
G.Bedroom-Flex	EW-2	3000	700	E	2600	No
G.Bedroom-Flex	EW-2	3000	1000	S	8400	No
G.Bath	EW-2	3000	1790	N	625	No
Cinema	EW-2	3000	4990	S	600	No
Laundry	EW-2	3000	2790	N	650	No
Pantry	EW-2	3000	2390	N	650	No
Kitchen/Living1	EW-2	3000	6195	S	600	No
Kitchen/Living1	EW-2	3000	11700	W	4100	No
Kitchen/Living1	EW-2	3000	6195	N	675	No
Bedroom 1	EW-2	2600	702	NE	495	No
Bedroom 1	EW-2	2600	1700	E	300	No
Bedroom 1	EW-2	2600	640	SE	570	No
Bedroom 1	EW-2	2600	1200	E	600	No
Bedroom 1	EW-2	2600	4295	S	600	No
Bed 1 WIR	EW-2	2600	3090	S	600	No
Bed 1 Ensuite	EW-2	2600	3590	S	600	No
Bedroom 2	EW-2	2600	4190	N	600	No
Bed 2 Ensuite	EW-2	2600	1690	N	600	No
Bedroom 3	EW-2	2600	4095	N	600	No
Bedroom 3	EW-2	2600	1000	E	600	No
Bedroom 3	EW-2	2600	781	NE	461	No
Bedroom 3	EW-2	2600	1800	E	300	No
Bedroom 3	EW-2	2600	640	SE	391	No
Bedroom 3	EW-2	2600	1200	E	500	No
Bedroom 3	EW-2	2600	800	S	6200	No

* Refer to glossary.

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bed 3 WIR	EW-2	2600	1790	E	600	No
Bed 3 Ensuite	EW-2	2600	1690	N	600	No
Master Bedroom	EW-2	2600	6395	S	600	No
Master Bedroom	EW-2	2865	5995	W	2700	No
Master WIR	EW-2	2600	3890	N	600	No
Master Ensuite	EW-2	2600	700	S	6600	No
Master Ensuite	EW-2	2600	4500	W	600	No
Master Ensuite	EW-2	2600	3195	N	600	No

Internal wall *type*

Wall ID	Wall type	Area [m^2]	Bulk insulation
IW-001	Timber Stud Frame, Direct Fix Plasterboard	65.88	Bulk Insulation, No Air Gap R2.5
IW-002	Timber Stud Frame, Direct Fix Plasterboard	244.64	No insulation

Floor *type*

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Garage 1	Suspended Concrete Slab 150mm	45.38	Open	No Insulation	Bare
Entry	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	28.87	Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
G.Bedroom-Flex	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	16.73	Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
G.Bath	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	4.57	Open	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Cinema	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	19.47	Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm

* Refer to glossary.

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Laundry	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	10.24	Open	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Pantry	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	8.92	Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Kitchen/Living1	Suspended 35mm Fibre-Reinforced Concrete Floor Timber Frame 42mm	72.19	Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Upper hall / Garage 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	0.13		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Upper hall / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	13.52		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bedroom 1 / Garage 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	17.18		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bed 1 WIR / Garage 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	4.22		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bed 1 WIR / Cinema	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	3.94		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bed 1 Ensuite / Cinema	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	9.53		Bulk Insulation R6	Ceramic Tiles 8mm
Bedroom 2 / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	1.94		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bedroom 2 / Laundry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	6.21		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bedroom 2 / Pantry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	8.94		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bed 2 WIR / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	3.72		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bed 2 WIR / Laundry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	0.50		Bulk Insulation R6	Cork Tiles or Parquetry 8mm

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bed 2 Ensuite / G.Bath	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	1.44		Bulk Insulation R6	Ceramic Tiles 8mm
Bed 2 Ensuite / Laundry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	3.28		Bulk Insulation R6	Ceramic Tiles 8mm
Bedroom 3 / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	2.99		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bedroom 3 / G.Bedroom-Flex	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	15.17		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bedroom 3	Suspended Floor Timber Frame 19mm	3.60	Totally Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Bed 3 WIR / Garage 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	2.02		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bed 3 WIR / Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	0.94		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Bed 3 WIR	Suspended Floor Timber Frame 19mm	0.46	Totally Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Bed 3 Ensuite / G.Bedroom-Flex	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	1.36		Bulk Insulation R6	Ceramic Tiles 8mm
Bed 3 Ensuite / G.Bath	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	3.12		Bulk Insulation R6	Ceramic Tiles 8mm
Master Bedroom / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	36.82		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Master Bedroom	Suspended Floor Timber Frame 19mm	1.40	Totally Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Master WIR / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	16.89		Bulk Insulation R6	Cork Tiles or Parquetry 8mm
Master Ensuite / Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard 19mm	9.35		Bulk Insulation R6	Ceramic Tiles 8mm

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Master Ensuite	Suspended Floor Timber Frame 19mm	4.29	Totally Open	Bulk Insulation in Contact with Floor 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 1	Plasterboard on Timber	Bulk Insulation R6	
Garage 1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R6	
Entry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R6	
G.Bedroom-Flex	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R6	
G.Bath	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R6	
Cinema	Plasterboard on Timber	Bulk Insulation R6	
Cinema	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R6	
Laundry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R6	
Pantry	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R6	
Kitchen/Living1	Plasterboard on Timber	Bulk Insulation R6	
Kitchen/Living1	35mm Fibre-Reinforced Concrete Timber Frame Above Plasterboard	Bulk Insulation R6	
Upper hall	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 1	Plasterboard on Timber	Bulk Insulation R6	
Bed 1 WIR	Plasterboard on Timber	Bulk Insulation R6	
Bed 1 Ensuite	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 2	Plasterboard on Timber	Bulk Insulation R6	
Bed 2 WIR	Plasterboard on Timber	Bulk Insulation R6	
Bed 2 Ensuite	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 3	Plasterboard on Timber	Bulk Insulation R6	
Bed 3 WIR	Plasterboard on Timber	Bulk Insulation R6	
Bed 3 Ensuite	Plasterboard on Timber	Bulk Insulation R6	

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Master Bedroom	Plasterboard on Timber	Bulk Insulation R6	
Master WIR	Plasterboard on Timber	Bulk Insulation R6	
Master Ensuite	Plasterboard on Timber	Bulk Insulation R6	

Ceiling *penetrations**

Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Entry	4	Downlights - LED	150	Sealed
G.Bedroom-Flex	2	Downlights - LED	150	Sealed
G.Bath	1	Downlights - LED	150	Sealed
Cinema	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Pantry	1	Downlights - LED	150	Sealed
Kitchen/Living1	10	Downlights - LED	150	Sealed
Kitchen/Living1	1	Exhaust Fans	300	Sealed
Upper hall	3	Downlights - LED	150	Sealed
Bedroom 1	2	Downlights - LED	150	Sealed
Bed 1 WIR	1	Downlights - LED	150	Sealed
Bed 1 Ensuite	1	Downlights - LED	150	Sealed
Bedroom 2	2	Downlights - LED	150	Sealed
Bed 2 WIR	1	Downlights - LED	150	Sealed
Bed 2 Ensuite	1	Downlights - LED	150	Sealed
Bedroom 3	2	Downlights - LED	150	Sealed
Bed 3 WIR	1	Downlights - LED	150	Sealed
Bed 3 Ensuite	1	Downlights - LED	150	Sealed
Master Bedroom	3	Downlights - LED	150	Sealed
Master WIR	2	Downlights - LED	150	Sealed
Master Ensuite	1	Downlights - LED	150	Sealed

Ceiling *fans*

Location	Quantity	Diameter [mm]
G.Bedroom-Flex	1	1400

* Refer to glossary.

Location	Quantity	Diameter [mm]
Kitchen/Living1	2	1400
Bedroom 1	1	1400
Bedroom 2	1	1400
Bedroom 3	1	1400
Master Bedroom	1	1400
Master WIR	1	1400

Roof *type*

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Corrugated Iron Timber Frame	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.30	Light

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				

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							

* Refer to glossary.

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	

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)