

Nationwide House Energy Rating Scheme

NatHERS Certificate No. 0007098924-01

Generated on 05 Mar 2022 using BERS Pro v4.4.0.6 (3.21)

Property

Address 1744 Pittwater Road , Bayview , NSW , 2104
Lot/DP B/390788
NCC Class* 1A
Type New Dwelling

Plans

Main Plan 1744 Pittwater Road, Bayview, NSW 2104

Prepared by Giles Tribe

Construction and environment

Assessed floor area (m ²)*	Exposure Type
Conditioned* 562.0	Suburban
Unconditioned* 111.0	NatHERS climate zone
Total 673.0	56
Garage 72.0	



Accredited assessor

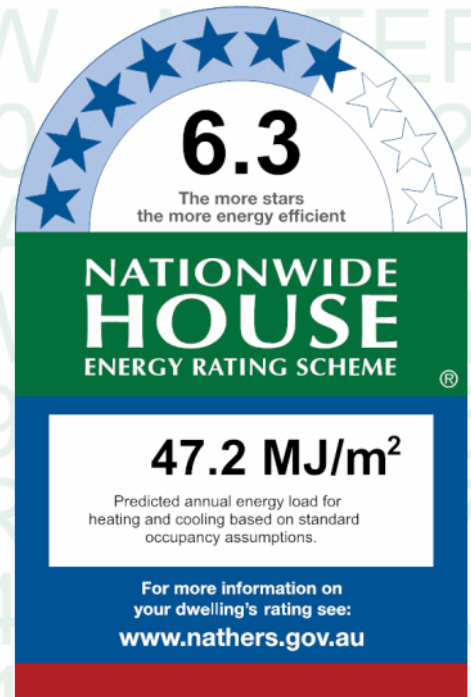
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Assessor Accrediting Organisation Design Matters National
Declaration of interest Declaration completed: no conflicts

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.



Thermal performance

Heating	Cooling
27.0 MJ/m ²	20.2 MJ/m ²

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=bNIRBQbuC. When using either link, ensure you are visiting hstar.com.au



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

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
ATB-003-01 B	ATB-003-01 B AI Thermally Broken A DG Air Fill Clear-Clear	3.6	0.47	0.45	0.49
ALM-004-01 A	ALM-004-01 A Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62
ATB-004-03 B	ATB-004-03 B AI Thermally Broken B DG Air Fill High Solar Gain low-E -Clear	3.1	0.49	0.47	0.51
ALM-001-03 A	ALM-001-03 A Aluminium A SG High Solar Gain Low-E	5.4	0.49	0.47	0.51

Custom* windows

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

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	ATB-003-01 B	n/a	2550	4070	n/a	90	NE	No
Bedroom 1	ALM-004-01 A	n/a	2400	600	n/a	90	SE	No
Bedroom 1	ALM-004-01 A	n/a	2400	600	n/a	90	SE	No
Bedroom Gym	ATB-004-03 B	n/a	2550	4880	n/a	45	SE	No
Bedroom Gym	ATB-004-03 B	n/a	2550	3600	n/a	65	NE	No
Living area	ATB-003-01 B	n/a	2550	3700	n/a	90	NE	No
Laundry	ALM-001-03 A	n/a	2400	1200	n/a	90	NW	No
Laundry	ALM-004-01 A	n/a	800	3060	n/a	45	NW	No
Corridor	ATB-004-03 B	n/a	2350	800	n/a	00	SE	No
Corridor	ATB-004-03 B	n/a	2350	800	n/a	00	SE	No
Corridor	ATB-004-03 B	n/a	2350	800	n/a	00	SE	No
Corridor	ATB-003-01 B	n/a	2400	1200	n/a	90	NW	No
Corridor	ATB-004-03 B	n/a	800	3200	n/a	45	NW	No
Living 3	ATB-004-03 B	n/a	1800	1000	n/a	45	SE	No
Living 3	ATB-004-03 B	n/a	1800	1000	n/a	45	SE	No
Living 3	ATB-004-03 B	n/a	2400	600	n/a	00	SE	No
Living 3	ALM-001-03 A	n/a	2700	2599	n/a	70	SW	No
Living 3	ATB-004-03 B	n/a	2400	600	n/a	00	NW	No
Kitchen/Living	ATB-004-03 B	n/a	800	4120	n/a	00	NW	No
Kitchen/Living	ATB-004-03 B	n/a	2700	3325	n/a	90	NE	No
Kitchen/Living	ATB-004-03 B	n/a	2700	3825	n/a	90	NE	Yes
Kitchen/Living	ATB-003-01 B	n/a	2700	3700	n/a	90	NE	Yes
Kitchen/Living	ATB-004-03 B	n/a	1800	1000	n/a	45	SE	No
Kitchen/Living	ATB-004-03 B	n/a	1800	1000	n/a	45	SE	No
Kitchen/Living	ATB-004-03 B	n/a	1800	1000	n/a	45	SE	No
Kitchen/Living	ATB-004-03 B	n/a	1800	1000	n/a	45	SE	No
Kitchen/Living	ATB-004-03 B	n/a	2400	470	n/a	00	SE	No
Kitchen/Living	ATB-004-03 B	n/a	2400	470	n/a	00	SW	No
Kitchen/Living	ATB-004-03 B	n/a	2400	470	n/a	00	SW	No
Kitchen/Living	ATB-004-03 B	n/a	2400	470	n/a	00	NW	No
Landing	ALM-004-01 A	n/a	2800	900	n/a	75	SW	No
Landing	ATB-004-03 B	n/a	3250	1380	n/a	00	SW	No
Landing	ALM-004-01 A	n/a	2800	900	n/a	75	SW	No
Bedroom 3	ATB-004-03 B	n/a	1200	3000	n/a	10	SE	No
Unconditioned 4	ALM-004-01 A	n/a	1000	500	n/a	10	NW	No
Unconditioned 4	ALM-004-01 A	n/a	1000	500	n/a	10	NW	No
Study	ATB-004-03 B	n/a	1000	500	n/a	10	NW	No

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Study	ATB-004-03 B	n/a	1000	500	n/a	10	NW	No
Study	ATB-004-03 B	n/a	1000	500	n/a	10	NE	No
Ensuite	ALM-004-01 A	n/a	2100	800	n/a	90	NW	No
Ensuite	ALM-004-01 A	n/a	1000	500	n/a	90	NW	No
Ensuite	ALM-004-01 A	n/a	1000	500	n/a	90	NE	No
Master Bed	ALM-004-01 A	n/a	2100	800	n/a	90	NW	No
Master Bed	ALM-004-01 A	n/a	2100	800	n/a	90	NW	No
Master Bed	ATB-004-03 B	n/a	2100	800	n/a	00	NW	No
Master Bed	ATB-004-03 B	n/a	2100	800	n/a	00	NW	No
Master Bed	ALM-001-03 A	n/a	2500	600	n/a	75	NE	No
Master Bed	ATB-003-01 B	n/a	3100	1200	n/a	80	NE	No
Master Bed	ALM-001-03 A	n/a	2500	600	n/a	75	NE	No
Unconditioned 5	ALM-001-03 A	n/a	2500	900	n/a	75	NE	No
Unconditioned 5	ATB-004-03 B	n/a	3250	1900	n/a	00	NE	No
Unconditioned 5	ALM-001-03 A	n/a	2500	900	n/a	75	NE	No
Bedroom 1 top	ATB-004-03 B	n/a	1900	430	n/a	00	NW	No
Bedroom 1 top	ATB-004-03 B	n/a	1900	1800	n/a	10	NE	No
Bedroom 1 top	ATB-004-03 B	n/a	1900	430	n/a	00	SE	No
Bedroom 1 top	ATB-004-03 B	n/a	1600	600	n/a	10	SE	No
Bedroom 1 top	ATB-004-03 B	n/a	1600	600	n/a	10	SE	No
Bedroom 2 top	ATB-004-03 B	n/a	1600	600	n/a	10	SE	No
Bedroom 2 top	ATB-004-03 B	n/a	1600	600	n/a	10	SE	No
Bedroom 2 top	ATB-004-03 B	n/a	1400	1800	n/a	10	SW	No
Unconditioned 6	ALM-004-01 A	n/a	1600	600	n/a	10	SE	No
Unconditioned 6	ALM-004-01 A	n/a	1600	600	n/a	10	SE	No
Unconditioned 5	ALM-001-03 A	n/a	600	2300	n/a	90	SE	Yes
	ALM-004-01 A	n/a	1400	440	n/a	90	SE	No
	ATB-004-03 B	n/a	1400	3000	n/a	10	SW	No
	ALM-004-01 A	n/a	1400	440	n/a	90	NW	No
Day Time 10	ATB-004-03 B	n/a	2350	800	n/a	00	SE	No
Day Time 10	ATB-004-03 B	n/a	2350	800	n/a	00	SE	No
Day Time 10	ATB-004-03 B	n/a	2350	800	n/a	00	SE	No
Day Time 10	ATB-004-03 B	n/a	2350	800	n/a	00	NW	No

Roof window type and performance

Default* roof windows

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

Custom* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
VEL-011-02 W	Glass	2.7	0.24	0.23	0.25

Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
Study	VEL-011-02 W	n/a	0	1200	1200	SE	No	No
Bedroom 4	VEL-011-02 W	n/a	0	1200	1200	SE	No	No
Master Bed	VEL-011-02 W	n/a	0	800	1000	NW	No	No

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
Living area	2400	900	90	SE
Garage 1	2400	3100	90	SE
Garage 1	2400	3100	90	SE
Garage 1	2400	3100	90	SE
Kitchen/Living	2400	1600	90	SW

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 R2.5	No
EW-2	Concrete Block	0.50	Medium	No insulation	No
EW-3	Fibro Cavity Panel Direct Fix	0.85	Dark	Bulk Insulation R2.5	No
EW-4	Concrete block, lined	0.50	Medium	Bulk Insulation R2.5	No
EW-5	Concrete block, lined	0.85	Dark	Bulk Insulation R2.5	No
EW-6	Fibro Cavity Panel Direct FixZ:12W2:2	0.85	Dark	Bulk Insulation R2.5	No
EW-7	Fibro Cavity Panel Direct FixZ:13W2:2	0.85	Dark	Bulk Insulation R2.5	No

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-8	Fibro Cavity Panel Direct Fix	0.85	Dark	Bulk Insulation R2.5	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bedroom 1	EW-1	2700	4945	NE	6000	NO
Bedroom 1	EW-1	2700	4000	SE	0	NO
Bedroom 1	EW-1	2700	1800	SW	13775	YES
Bedroom Gym	EW-1	2700	5400	SE	9800	YES
Bedroom Gym	EW-1	2700	600	SW	15225	YES
Bedroom Gym	EW-1	2700	7400	NW	2000	NO
Bedroom Gym	EW-1	2700	3600	NE	600	NO
Living area	EW-1	2700	2200	SE	5000	YES
Living area	EW-1	2700	4545	SW	4700	NO
Living area	EW-1	2700	1090	NW	2525	NO
Living area	EW-1	2700	4690	NE	6000	YES
Living area	EW-1	2700	1690	SE	1800	NO
Airlock	EW-1	2700	3145	SW	7050	YES
Airlock	EW-1	2700	2145	SE	1800	NO
Cellar	EW-1	2700	4490	NW	2600	YES
Store	EW-1	2700	3145	SW	4650	NO
Store	EW-1	2700	4945	NW	2425	NO
Garage 1	EW-2	2400	11200	SE	200	NO
Garage 1	EW-2	2400	1600	SW	0	YES
Garage 1	EW-2	2400	800	SE	0	YES
Garage 1	EW-2	2400	3000	SW	0	NO
Garage 1	EW-2	2400	800	NW	0	YES
Garage 1	EW-2	2400	1600	SW	0	YES
Garage 1	EW-2	2400	11200	NW	0	NO
Garage 1	EW-2	2400	1800	NE	7025	YES
Garage 1	EW-2	2400	2400	NE	8000	YES
Laundry	EW-3	2400	1800	SW	0	YES
Laundry	EW-3	2400	5200	NW	0	NO
Laundry	EW-4	2400	800	NE	13400	YES
Corridor	EW-1	2400	995	SW	7400	YES
Corridor	EW-3	2400	7395	SE	0	YES
Corridor	EW-3	2400	2590	NW	0	YES
Corridor	EW-1	2700	1395	NW	800	YES
Corridor	EW-1	2700	800	SW	2025	YES

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Corridor	EW-1	2700	3195	NW	0	NO
Living 3	EW-5	400	5395	SE	0	NO
Living 3	EW-6	2300	5395	SE	200	NO
Living 3	EW-1	2700	1200	SW	0	YES
Living 3	EW-1	2700	1000	SE	0	YES
Living 3	EW-1	2700	2600	SW	0	NO
Living 3	EW-1	2700	1000	NW	1800	YES
Living 3	EW-1	2700	1100	SW	0	YES
Kitchen/Living	EW-1	2700	8595	NW	0	NO
Kitchen/Living	EW-4	2700	14400	NE	200	NO
Kitchen/Living	EW-5	400	3200	SE	0	NO
Kitchen/Living	EW-7	2300	3200	SE	200	NO
Kitchen/Living	EW-1	2700	400	SW	10025	YES
Kitchen/Living	EW-1	2700	1800	SE	600	YES
Kitchen/Living	EW-1	2700	400	NE	5200	YES
Kitchen/Living	EW-1	2700	3195	SE	200	NO
Kitchen/Living	EW-1	2700	700	SW	0	YES
Kitchen/Living	EW-1	2700	900	SE	200	YES
Kitchen/Living	EW-1	2700	3100	SW	700	NO
Kitchen/Living	EW-1	2700	900	NW	200	YES
Kitchen/Living	EW-1	2700	695	SW	7400	YES
Landing	EW-8	2400	595	SW	2400	NO
Landing	EW-8	2800	900	SW	2400	NO
Landing	EW-8	3300	1400	SW	2400	NO
Landing	EW-8	2800	900	SW	2400	NO
Landing	EW-8	2400	1600	SW	600	YES
Bedroom 3	EW-8	2100	3000	SE	400	NO
Bedroom 3	EW-8	2100	800	SW	4500	YES
Bedroom 3	EW-8	1500	595	SE	1200	YES
Bedroom 3	EW-8	1500	795	SE	600	YES
Bedroom 3	EW-8	2100	800	NE	4200	YES
Unconditioned 4	EW-8	1500	4390	NW	300	NO
Study	EW-8	1500	3195	NW	300	NO
Study	EW-8	2100	1800	NE	300	YES
Study	EW-8	2700	795	NW	0	YES
Study	EW-8	2400	795	SE	0	YES
Study	EW-8	2100	2400	NE	200	YES
Study	EW-8	1500	3195	SE	600	NO
Bedroom 4	EW-8	1500	3595	SE	600	NO

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bedroom 4	EW-8	2100	1600	SW	300	YES
Bedroom 4	EW-8	2100	1600	SW	300	YES
Bedroom 4	EW-8	1500	3595	NW	300	NO
Ensuite	EW-8	2400	1800	SW	400	YES
Ensuite	EW-8	2400	6600	NW	400	NO
Ensuite	EW-8	2400	600	NE	400	YES
Master Bed	EW-3	2100	11995	NW	400	YES
Master Bed	EW-8	2500	1200	NE	600	NO
Master Bed	EW-3	3100	1200	NE	1000	NO
Master Bed	EW-3	2500	1600	NE	1000	NO
Master Bed	EW-8	2700	200	SE	9100	YES
Unconditioned 5	EW-4	2500	1395	NE	1400	YES
Unconditioned 5	EW-8	3250	1900	NE	1400	NO
Unconditioned 5	EW-4	2500	1295	NE	1400	NO
Bedroom 1 top	EW-8	2700	1595	NE	800	YES
Bedroom 1 top	EW-8	2000	800	NW	10600	YES
Bedroom 1 top	EW-8	2000	1800	NE	300	NO
Bedroom 1 top	EW-8	2000	600	SE	1100	YES
Bedroom 1 top	EW-8	2700	600	NE	600	YES
Bedroom 1 top	EW-8	2100	4795	SE	500	NO
Bedroom 2 top	EW-8	2100	4995	SE	500	NO
Bedroom 2 top	EW-8	2100	1000	SW	800	YES
Bedroom 2 top	EW-8	2100	600	SE	1500	YES
Bedroom 2 top	EW-8	2100	1800	SW	200	NO
Bedroom 2 top	EW-8	2100	400	NW	10800	YES
Bedroom 2 top	EW-8	2100	1195	SW	600	YES
Unconditioned 6	EW-8	2100	3790	SE	500	NO
Unconditioned 5	EW-1	2700	2490	SE	1800	YES
	EW-8	2100	795	SE	400	YES
	EW-8	2100	3000	SW	600	NO
	EW-8	2100	795	NW	400	YES
Day Time 10	EW-8	2400	6590	SE	0	YES
Day Time 10	EW-8	2400	1790	NW	0	YES

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-1 - Single Skin Brick		105.00	No insulation
IW-2 - Cavity wall, direct fix plasterboard, single gap		5.00	Bulk Insulation, No Air Gap R2.5

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-3 - Cavity wall, direct fix plasterboard, single gap		313.00	No insulation
IW-4 - Tilt Concrete		21.00	No insulation

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bedroom 1	Concrete Slab on Ground 200mm	19.60	None	Bulk Insulation in Contact with Floor R2.5	Carpet 10mm
Bedroom Gym	Concrete Slab on Ground 200mm	26.40	None	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Living area	Concrete Slab on Ground 200mm	68.90	None	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Airlock	Concrete Slab on Ground 200mm	6.70	None	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Cellar	Concrete Slab on Ground 200mm	12.30	None	Bulk Insulation in Contact with Floor R2.5	Bare
Store	Concrete Slab on Ground 200mm	15.60	None	Bulk Insulation in Contact with Floor R2.5	Bare
Garage 1	Concrete Slab on Ground 200mm	71.80	None	No Insulation	Bare
Laundry	Concrete Slab on Ground 200mm	13.20	None	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Powder/Store	Concrete Above Plasterboard 200mm	3.60		No Insulation	Ceramic Tiles 8mm
Corridor/Store	Concrete Above Plasterboard 200mm	9.20		No Insulation	Cork Tiles or Parquetry 8mm
Corridor	Concrete Slab on Ground 200mm	18.80	None	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Pantry/Living area	Concrete Above Plasterboard 200mm	3.00		No Insulation	Cork Tiles or Parquetry 8mm
Pantry/Cellar	Concrete Above Plasterboard 200mm	0.80		No Insulation	Cork Tiles or Parquetry 8mm
Pantry/Store	Concrete Above Plasterboard 200mm	1.90		No Insulation	Cork Tiles or Parquetry 8mm
Living 3/Living area	Concrete Above Plasterboard 200mm	0.60		No Insulation	Cork Tiles or Parquetry 8mm
Living 3/Airlock	Concrete Above Plasterboard 200mm	6.90		No Insulation	Cork Tiles or Parquetry 8mm
Living 3	Suspended Concrete Slab 200mm	21.40	Totally Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bedroom 1	Concrete Above Plasterboard 200mm	19.50		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bedroom Gym	Concrete Above Plasterboard 200mm	7.10		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Living area	Concrete Above Plasterboard 200mm	66.00		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Cellar	Concrete Above Plasterboard 200mm	11.90		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Unconditioned 5	Concrete Above Plasterboard 200mm	8.20		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living	Suspended Concrete Slab 200mm	25.90	Totally Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
Landing/Corridor	Concrete Above Plasterboard 200mm	3.80		No Insulation	Carpet 10mm
Landing/Kitchen/Living	Concrete Above Plasterboard 200mm	24.80		No Insulation	Carpet 10mm
Bedroom 3/Garage 1	Timber Above Plasterboard 19mm	12.80		Bulk Insulation R2.5	Carpet 10mm

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bedroom 3	Suspended Timber Floor 19mm	2.30	Totally Open	Bulk Insulation in Contact with Floor R2.5	Carpet 10mm
Unconditioned 4/Garage 1	Timber Above Plasterboard 200mm	8.40		Bulk Insulation R2.5	Ceramic Tiles 8mm
Study/Garage 1	Timber Above Plasterboard 200mm	23.70		Bulk Insulation R2.5	Carpet 10mm
Study/Corridor	Concrete Above Plasterboard 200mm	1.60		No Insulation	Carpet 10mm
Bedroom 4/Garage 1	Timber Above Plasterboard 200mm	22.60		Bulk Insulation R2.5	Carpet 10mm
Ensuite/Laundry	Concrete Above Plasterboard 19mm	13.20		No Insulation	Ceramic Tiles 8mm
Ensuite/Corridor	Concrete Above Plasterboard 19mm	2.50		No Insulation	Ceramic Tiles 8mm
Ensuite	Suspended Timber Floor 19mm	1.10	Totally Open	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Master Bed/Powder	Concrete Above Plasterboard 19mm	3.90		No Insulation	Carpet 10mm
Master Bed/Corridor	Concrete Above Plasterboard 19mm	9.30		No Insulation	Carpet 10mm
Master Bed/Pantry	Concrete Above Plasterboard 19mm	4.40		No Insulation	Carpet 10mm
Master Bed/Kitchen/Living	Concrete Above Plasterboard 19mm	28.10		No Insulation	Carpet 10mm
Master Bed	Suspended Timber Floor 19mm	0.80	Totally Open	Bulk Insulation in Contact with Floor R2.5	Carpet 10mm
Unconditioned 5/Kitchen/Living	Concrete Above Plasterboard 200mm	27.70		No Insulation	Carpet 10mm
Bedroom 1 top/Kitchen/Living	Concrete Above Plasterboard 19mm	18.00		No Insulation	Carpet 10mm
Bedroom 1 top	Suspended Timber Floor 19mm	1.50	Totally Open	Bulk Insulation in Contact with Floor R2.5	Carpet 10mm
Bedroom 2 top/Living 3	Concrete Above Plasterboard 200mm	19.80		No Insulation	Carpet 10mm
Bedroom 2 top/Kitchen/Living	Concrete Above Plasterboard 200mm	1.00		No Insulation	Carpet 10mm
Unconditioned 6/Living 3	Concrete Above Plasterboard 200mm	0.50		No Insulation	Ceramic Tiles 8mm
Unconditioned 6/Kitchen/Living	Concrete Above Plasterboard 200mm	9.00		No Insulation	Ceramic Tiles 8mm
Unconditioned 5	Concrete Slab on Ground 200mm	7.80	None	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
/Garage 1	Timber Above Plasterboard 100mm	2.30		Bulk Insulation R2.5	Carpet 10mm
Day Time 9/Pantry	Concrete Above Plasterboard 100mm	1.60		No Insulation	Carpet 10mm
Day Time 9/Kitchen/Living	Concrete Above Plasterboard 100mm	11.10		No Insulation	Carpet 10mm
Day Time 10/Corridor	Concrete Above Plasterboard 100mm	9.00		No Insulation	Carpet 10mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bedroom 1	Plasterboard	Bulk Insulation R4	No
Bedroom 1	Concrete Above Plasterboard	No Insulation	No
Bedroom Gym	Plasterboard	Bulk Insulation R4	No

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bedroom Gym	Concrete Above Plasterboard	No Insulation	No
Living area	Plasterboard	Bulk Insulation R4	No
Living area	Concrete Above Plasterboard	No Insulation	No
Airlock	Plasterboard	Bulk Insulation R4	No
Airlock	Concrete Above Plasterboard	No Insulation	No
Cellar	Plasterboard	Bulk Insulation R4	No
Cellar	Concrete Above Plasterboard	No Insulation	No
Store	Plasterboard	Bulk Insulation R4	No
Store	Concrete Above Plasterboard	No Insulation	No
Garage 1	Plasterboard	Bulk Insulation R4	No
Garage 1	Timber Above Plasterboard	Bulk Insulation R2.5	No
Laundry	Plasterboard	Bulk Insulation R4	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Powder	Plasterboard	Bulk Insulation R4	No
Powder	Concrete Above Plasterboard	No Insulation	No
Corridor	Plasterboard	Bulk Insulation R4	No
Corridor	Concrete Above Plasterboard	No Insulation	No
Pantry	Plasterboard	Bulk Insulation R4	No
Pantry	Concrete Above Plasterboard	No Insulation	No
Living 3	Plasterboard	Bulk Insulation R4	No
Living 3	Concrete Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R4	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Landing	Plasterboard	Bulk Insulation R4	No
Bedroom 3	Plasterboard	Bulk Insulation R4	No
Unconditioned 4	Plasterboard	Bulk Insulation R4	No
Study	Plasterboard	Bulk Insulation R4	No
Bedroom 4	Plasterboard	Bulk Insulation R4	No
Ensuite	Plasterboard	Bulk Insulation R4	No
Master Bed	Plasterboard	Bulk Insulation R4	No
Unconditioned 5	Plasterboard	Bulk Insulation R4	No
Bedroom 1 top	Plasterboard	Bulk Insulation R4	No
Bedroom 2 top	Plasterboard	Bulk Insulation R4	No
Unconditioned 6	Plasterboard	Bulk Insulation R4	No
Unconditioned 5	Plasterboard	Bulk Insulation R4	No
Unconditioned 5	Concrete Above Plasterboard	No Insulation	No
	Plasterboard	Bulk Insulation R4	No
Day Time 9	Plasterboard	Bulk Insulation R4	No
Day Time 10	Plasterboard	Bulk Insulation R4	No

* Refer to glossary.

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm ²)	Sealed/unsealed
Bedroom 1	8	Downlights - LED	150	Sealed
Bedroom Gym	10	Downlights - LED	150	Sealed
Living area	28	Downlights - LED	150	Sealed
Airlock	2	Downlights - LED	150	Sealed
Airlock	1	Exhaust Fans	300	Sealed
Cellar	5	Downlights - LED	150	Sealed
Store	6	Downlights - LED	150	Sealed
Garage 1	29	Downlights - LED	150	Sealed
Laundry	5	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Powder	1	Downlights - LED	150	Sealed
Powder	1	Exhaust Fans	300	Sealed
Corridor	11	Downlights - LED	150	Sealed
Pantry	2	Downlights - LED	150	Sealed
Living 3	12	Downlights - LED	150	Sealed
Kitchen/Living	41	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Landing	12	Downlights - LED	150	Sealed
Bedroom 3	6	Downlights - LED	150	Sealed
Unconditioned 4	2	Downlights - LED	150	Sealed
Unconditioned 4	1	Exhaust Fans	300	Sealed
Study	10	Downlights - LED	150	Sealed
Bedroom 4	9	Downlights - LED	150	Sealed
Ensuite	7	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Master Bed	19	Downlights - LED	150	Sealed
Unconditioned 5	11	Downlights - LED	150	Sealed
Bedroom 1 top	8	Downlights - LED	150	Sealed
Bedroom 2 top	9	Downlights - LED	150	Sealed
Unconditioned 6	2	Downlights - LED	150	Sealed
Unconditioned 6	1	Exhaust Fans	300	Sealed
Unconditioned 5	2	Downlights - LED	150	Sealed
Unconditioned 5	1	Exhaust Fans	300	Sealed
	1	Downlights - LED	150	Sealed
Day Time 9	5	Downlights - LED	150	Sealed
Day Time 10	2	Downlights - LED	150	Sealed

* Refer to glossary.

Ceiling fans

Location	Quantity	Diameter (mm)
No Data Available		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Concrete	No Insulation, Only an Air Gap	0.50	Medium
Concrete	No Insulation, Only an Air Gap	0.50	Medium
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.5	0.85	Dark

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 10m 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).