Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0004939740-03

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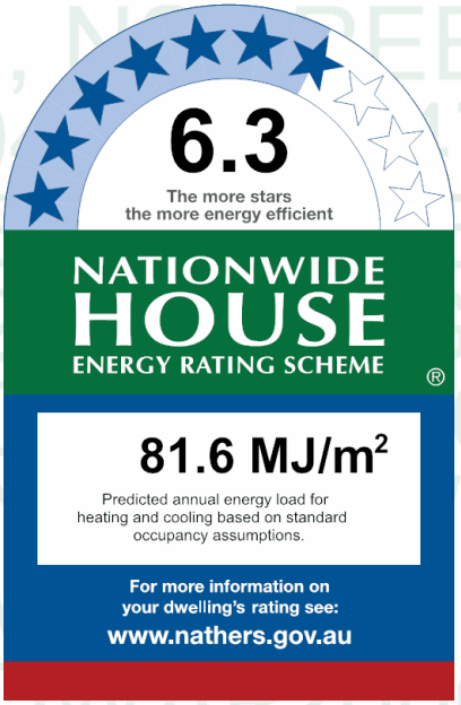

Property

Address	3 Edward Street , Kingswood , NSW , 2747
Lot/DP	36/237831
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	Signature Projects Pty Ltd 2020 09
Prepared by	RK AD

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	372.0	Suburban
Unconditioned*	0.0	**NatHERS climate zone**
Total	372.0	28
Garage	0.0	

Thermal performance

Heating	Cooling
37.9 MJ/m^2	**43.7** MJ/m^2

Accredited assessor

Name	Ian Fry
Business name	Frys Energywise
Email	comply@frysenergywise.com.au
Phone	02 9899 2825
Accreditation No.	DMN/12/1441

Assessor Accrediting Organisation

Design Matters National

Declaration of interest Declaration completed: no conflicts

About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Verification

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

National Construction Code (NCC) requirements

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

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

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

* Refer to glossary.

Certificate check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

Ceiling penetrations*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate?

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
No Data Available					

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
AWS-011-01 A	AWS-011-01 A 541/542 Al Sliding Door SG 5Clr	6.2	0.72	0.72	0.72
AWS-001-01 A	AWS-001-01 A 502/504 Al Sliding Window SG 3Clr	6.4	0.73	0.73	0.73
AWS-066-07 A	AWS-066-07 A RES SERIES 516 FIXED WINDOW SG 5mmClr	5.9	0.75	0.75	0.75
AWS-007-01 A	AWS-007-01 A 516 Al Awining Window SG 3Clr	6.5	0.66	0.66	0.66

* Refer to glossary.

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	AWS-011-01 A	n/a	2040	3000	n/a	45	W	No
Kitchen/Living	AWS-001-01 A	n/a	2100	750	n/a	30	N	No
Kitchen/Living	AWS-001-01 A	n/a	1200	1200	n/a	45	W	No
Kitchen/Living	AWS-066-07 A	n/a	2100	450	n/a	00	N	No
Ensuite 6	AWS-007-01 A	n/a	600	600	n/a	90	N	No
Room 6	AWS-001-01 A	n/a	1200	1500	n/a	45	N	No
Room 5	AWS-001-01 A	n/a	1200	1500	n/a	45	E	No
Ensuite 5	AWS-007-01 A	n/a	600	600	n/a	90	E	No
Room 4	AWS-001-01 A	n/a	1200	1500	n/a	45	E	No
Ensuite 4	AWS-007-01 A	n/a	750	750	n/a	90	S	No
Hallway	AWS-066-07 A	n/a	2100	600	n/a	00	S	No
Room 3	AWS-011-01 A	n/a	2040	1800	n/a	45	S	No
Ensuite 3	AWS-007-01 A	n/a	750	750	n/a	90	S	No
Room 2	AWS-011-01 A	n/a	2040	1800	n/a	45	S	No
Room 1	AWS-011-01 A	n/a	1200	1200	n/a	20	S	No
Room 1	AWS-011-01 A	n/a	1200	1200	n/a	20	S	No
Passage	AWS-001-01 A	n/a	1000	1500	n/a	20	N	No
Passage	AWS-001-01 A	n/a	1200	1500	n/a	20	N	No
Passage	AWS-001-01 A	n/a	1500	900	n/a	25	W	No
Room 12	AWS-001-01 A	n/a	1000	1500	n/a	20	N	No
Room 12	AWS-001-01 A	n/a	900	1200	n/a	25	E	No
Ensuite 12	AWS-007-01 A	n/a	600	600	n/a	90	E	No
Room 11	AWS-001-01 A	n/a	1200	1500	n/a	25	E	No
Room 10	AWS-001-01 A	n/a	1200	1500	n/a	25	E	No
Room 10	AWS-001-01 A	n/a	1500	1100	n/a	25	S	No
Ensuite 10	AWS-007-01 A	n/a	750	750	n/a	90	S	No
Room 9	AWS-001-01 A	n/a	1500	1500	n/a	25	S	No
Ensuite 9	AWS-007-01 A	n/a	750	750	n/a	90	S	No
Room 8	AWS-001-01 A	n/a	1500	1500	n/a	25	S	No
Room 8	AWS-001-01 A	n/a	750	750	n/a	45	S	No
Ensuite 7	AWS-001-01 A	n/a	750	750	n/a	45	S	No
Room 7	AWS-001-01 A	n/a	1200	1200	n/a	25	S	No
Room 7	AWS-001-01 A	n/a	1200	1200	n/a	25	W	No
Room 7	AWS-001-01 A	n/a	1200	1200	n/a	25	NW	No
Room 14	AWS-001-01 A	n/a	1200	1500	n/a	25	NW	No
Room 13	AWS-001-01 A	n/a	1500	1200	n/a	25	NW	No
Ensuite 13	AWS-001-01 A	n/a	600	600	n/a	45	NW	No

* Refer to glossary.

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
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
GEN-04-006a	Single-glazed clear, Timber and Aluminium Frame

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
Passage	GEN-04-006a	n/a	1300	0.60	N	None	No	0.50
Passage	GEN-04-006a	n/a	1300	0.40	W	None	No	0.50

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Kitchen/Living	2040	920	90	N
Room 6	2040	820	90	N
Hallway	2040	920	90	S

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Brick Veneer	0.85	Dark	Bulk Insulation R2	No
EW-2	Brick Veneer	0.85	Dark	Bulk Insulation R2	No
EW-3	Fibro Cavity Panel Direct Fix	0.50	Medium	Bulk Insulation R2	No
EW-4	Fibro Cavity Panel Direct Fix	0.50	Medium	Bulk Insulation R2	No

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Kitchen/Living	EW-1	2450	2495	W	850	NO
Kitchen/Living	EW-1	2450	3100	N	2100	YES
Kitchen/Living	EW-1	2450	3300	W	1950	YES
Kitchen/Living	EW-1	2450	1300	N	1300	YES
Kitchen/Living	EW-2	2450	1700	W	1025	YES
Kitchen/Living	EW-1	2450	1700	N	1300	YES
Kitchen/Living	EW-1	2450	1700	W	1250	YES
Kitchen/Living	EW-1	2450	1800	N	100	YES
Ensuite 6	EW-1	2450	1995	W	100	YES
Ensuite 6	EW-1	2450	1995	N	100	NO
Room 6	EW-1	2450	3695	N	100	NO
Room 6	EW-1	2450	3695	E	100	NO
Room 5	EW-1	2450	4090	E	100	NO
Ensuite 5	EW-1	2450	2490	E	100	NO
Room 4	EW-1	2450	4090	E	100	NO
Ensuite 4	EW-1	2450	2395	E	100	NO
Ensuite 4	EW-1	2450	2795	S	100	NO
Hallway	EW-1	2450	1890	S	1100	NO
Room 3	EW-1	2450	795	S	1100	NO
Room 3	EW-1	2450	2395	S	100	NO
Ensuite 3	EW-1	2450	1390	S	100	NO
Room 2	EW-1	2450	3195	S	100	NO
Room 2	EW-1	2450	300	W	4800	YES
Room 1	EW-1	2450	4695	S	400	YES
Room 1	EW-1	2450	2795	W	100	NO
Room 1	EW-1	2450	1195	N	2600	YES
Room 1	EW-1	2450	1095	W	2650	YES
Ensuite 1	EW-1	2450	895	W	100	NO
Ensuite 1	EW-1	2450	707	NW	71	NO
Ensuite 1	EW-1	2450	1895	N	1050	NO
Passage	EW-3	2450	3790	N	600	NO
Passage	EW-3	2450	1100	W	1450	YES
Passage	EW-3	2450	600	N	1450	YES
Room 12	EW-3	2450	3695	N	600	NO
Room 12	EW-3	2450	4095	E	600	NO
Ensuite 12	EW-3	2450	1890	E	600	NO
Room 11	EW-3	2450	4290	E	600	NO

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Room 10	EW-3	2450	3390	E	600	NO
Room 10	EW-3	2450	2390	S	600	NO
Ensuite 10	EW-3	2450	1095	E	600	NO
Ensuite 10	EW-3	2450	2295	S	600	NO
Room 9	EW-3	2450	4090	S	600	NO
Ensuite 9	EW-3	2450	1390	S	600	NO
Room 8	EW-3	2450	2295	S	600	NO
Room 8	EW-3	2450	316	W	2372	YES
Room 8	EW-3	2450	1495	S	900	YES
Ensuite 7	EW-3	2450	1890	S	900	NO
Room 7	EW-3	2450	1200	S	900	NO
Room 7	EW-3	2450	3700	W	600	NO
Room 7	EW-3	2450	4243	NW	849	NO
Room 7	EW-3	2450	595	N	1875	YES
Room 14	EW-3	2450	895	W	1175	YES
Room 14	EW-3	2450	3043	NW	586	NO
Room 13	EW-3	2450	2257	NW	602	NO
Ensuite 13	EW-4	2450	2403	NW	602	NO
Ensuite 13	EW-3	2450	395	N	600	NO

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		423.00	No insulation

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living	Waffle pod slab 225 mm 100mm	64.60	None	Waffle Pod 225mm	80/20 Carpet 10mm/Ceramic
Ensuite 6	Waffle pod slab 225 mm 100mm	3.80	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Room 6	Waffle pod slab 225 mm 100mm	13.40	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Room 5	Waffle pod slab 225 mm 100mm	13.90	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Ensuite 5	Waffle pod slab 225 mm 100mm	6.60	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Room 4	Waffle pod slab 225 mm 100mm	13.50	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Ensuite 4	Waffle pod slab 225 mm 100mm	6.50	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Hallway	Waffle pod slab 225 mm 100mm	10.20	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Room 3	Waffle pod slab 225 mm 100mm	13.90	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Ensuite 3	Waffle pod slab 225 mm 100mm	2.80	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Room 2	Waffle pod slab 225 mm 100mm	13.90	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm

* Refer to glossary.

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
Room 1	Waffle pod slab 225 mm 100mm	17.60	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Ensuite 1	Waffle pod slab 225 mm 100mm	3.10	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Ensuite 2	Waffle pod slab 225 mm 100mm	2.90	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Laundry/WC	Waffle pod slab 225 mm 100mm	5.90	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Passage/Kitchen/Living	Timber Above Plasterboard 19mm	31.10		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Passage/Hallway	Timber Above Plasterboard 19mm	2.60		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Passage/Room 1	Timber Above Plasterboard 19mm	0.60		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Passage/Laundry/WC	Timber Above Plasterboard 19mm	2.50		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 12/Room 6	Timber Above Plasterboard 19mm	6.10		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 12/Room 5	Timber Above Plasterboard 19mm	8.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Ensuite 12/Room 5	Timber Above Plasterboard 19mm	2.70		Bulk Insulation R2	Ceramic Tiles 8mm
Room 11/Kitchen/Living	Timber Above Plasterboard 19mm	2.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 11/Ensuite 5	Timber Above Plasterboard 19mm	6.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 11/Room 4	Timber Above Plasterboard 19mm	6.60		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 11/Hallway	Timber Above Plasterboard 19mm	0.60		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 10/Room 4	Timber Above Plasterboard 19mm	6.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 10/Ensuite 4	Timber Above Plasterboard 19mm	4.10		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 10/Hallway	Timber Above Plasterboard 19mm	7.10		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Ensuite 10/Ensuite 4	Timber Above Plasterboard 19mm	2.40		Bulk Insulation R2	Ceramic Tiles 8mm
Room 9/Room 3	Timber Above Plasterboard 19mm	13.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 9/Ensuite 3	Timber Above Plasterboard 19mm	1.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 9/Ensuite 2	Timber Above Plasterboard 19mm	2.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Ensuite 9/Ensuite 3	Timber Above Plasterboard 19mm	1.00		Bulk Insulation R2	Ceramic Tiles 8mm
Ensuite 9/Room 2	Timber Above Plasterboard 19mm	1.80		Bulk Insulation R2	Ceramic Tiles 8mm
Room 8/Room 2	Timber Above Plasterboard 19mm	10.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 8/Room 1	Timber Above Plasterboard 19mm	6.50		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Ensuite 7/Room 1	Timber Above Plasterboard 19mm	2.30		Bulk Insulation R2	Ceramic Tiles 8mm
Room 7/Room 1	Timber Above Plasterboard 19mm	8.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 7/Ensuite 1	Timber Above Plasterboard 19mm	3.10		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 7	Suspended Timber Floor 19mm	4.50	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
Room 14/Kitchen/Living	Timber Above Plasterboard 19mm	10.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 14/Laundry/WC	Timber Above Plasterboard 19mm	0.50		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 14	Suspended Timber Floor 19mm	5.40	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
Room 13/Kitchen/Living	Timber Above Plasterboard 19mm	16.60		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Room 13	Suspended Timber Floor 19mm	1.70	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 13/Kitchen/Living	Timber Above Plasterboard 19mm	1.60		Bulk Insulation R2	Ceramic Tiles 8mm
Ensuite 13	Suspended Timber Floor 19mm	1.90	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 11/Kitchen/Living	Timber Above Plasterboard 19mm	0.50		Bulk Insulation R2	Ceramic Tiles 8mm
Ensuite 11/Room 5	Timber Above Plasterboard 19mm	2.80		Bulk Insulation R2	Ceramic Tiles 8mm

* Refer to glossary.

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
Ensuite 14/Laundry/WC	Timber Above Plasterboard 19mm	2.90		Bulk Insulation R2	Ceramic Tiles 8mm
Ensuite 8/Room 2	Timber Above Plasterboard 19mm	1.90		Bulk Insulation R2	Ceramic Tiles 8mm
Ensuite 8/Ensuite 2	Timber Above Plasterboard 19mm	1.00		Bulk Insulation R2	Ceramic Tiles 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Kitchen/Living	Timber Above Plasterboard	Bulk Insulation R2	No
Ensuite 6	Plasterboard	Bulk Insulation R3.5	No
Room 6	Plasterboard	Bulk Insulation R3.5	No
Room 6	Timber Above Plasterboard	Bulk Insulation R2	No
Room 5	Timber Above Plasterboard	Bulk Insulation R2	No
Ensuite 5	Timber Above Plasterboard	Bulk Insulation R2	No
Room 4	Timber Above Plasterboard	Bulk Insulation R2	No
Ensuite 4	Timber Above Plasterboard	Bulk Insulation R2	No
Hallway	Timber Above Plasterboard	Bulk Insulation R2	No
Room 3	Timber Above Plasterboard	Bulk Insulation R2	No
Ensuite 3	Timber Above Plasterboard	Bulk Insulation R2	No
Room 2	Timber Above Plasterboard	Bulk Insulation R2	No
Room 1	Timber Above Plasterboard	Bulk Insulation R2	No
Ensuite 1	Timber Above Plasterboard	Bulk Insulation R2	No
Ensuite 2	Timber Above Plasterboard	Bulk Insulation R2	No
Laundry/WC	Timber Above Plasterboard	Bulk Insulation R2	No
Passage	Plasterboard	Bulk Insulation R3.5	No
Room 12	Plasterboard	Bulk Insulation R3.5	No
Ensuite 12	Plasterboard	Bulk Insulation R3.5	No
Room 11	Plasterboard	Bulk Insulation R3.5	No
Room 10	Plasterboard	Bulk Insulation R3.5	No
Ensuite 10	Plasterboard	Bulk Insulation R3.5	No
Room 9	Plasterboard	Bulk Insulation R3.5	No
Ensuite 9	Plasterboard	Bulk Insulation R3.5	No
Room 8	Plasterboard	Bulk Insulation R3.5	No
Ensuite 7	Plasterboard	Bulk Insulation R3.5	No
Room 7	Plasterboard	Bulk Insulation R3.5	No
Room 14	Plasterboard	Bulk Insulation R3.5	No
Room 13	Plasterboard	Bulk Insulation R3.5	No
Ensuite 13	Plasterboard	Bulk Insulation R3.5	No
Ensuite 11	Plasterboard	Bulk Insulation R3.5	No
Ensuite 14	Plasterboard	Bulk Insulation R3.5	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Ensuite 8	Plasterboard	Bulk Insulation R3.5	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Ensuite 6	1	Exhaust Fans	300	Sealed
Ensuite 5	1	Exhaust Fans	0	Sealed
Ensuite 4	1	Exhaust Fans	0	Sealed
Ensuite 3	1	Exhaust Fans	0	Sealed
Ensuite 1	1	Exhaust Fans	0	Sealed
Ensuite 2	1	Exhaust Fans	0	Sealed
Laundry/WC	1	Exhaust Fans	0	Sealed
Ensuite 12	1	Exhaust Fans	300	Sealed
Ensuite 10	1	Exhaust Fans	300	Sealed
Ensuite 9	1	Exhaust Fans	300	Sealed
Ensuite 7	1	Exhaust Fans	300	Sealed
Ensuite 13	1	Exhaust Fans	300	Sealed
Ensuite 11	1	Exhaust Fans	300	Sealed
Ensuite 14	1	Exhaust Fans	300	Sealed
Ensuite 8	1	Exhaust Fans	300	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.85	Dark
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.85	Dark

* Refer to glossary.

Explanatory notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

* Refer to glossary.