Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0008386955

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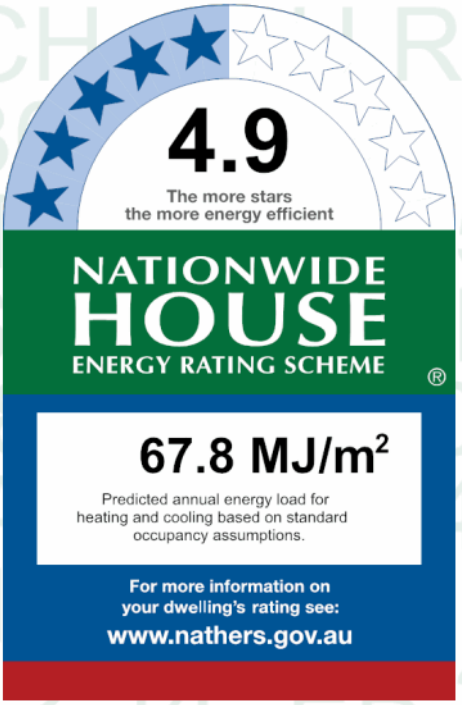

Property

Address	12-14 Rock Bath Road , Palm Beach , NSW , 2108
Lot/DP	Lot 289-290 DP 16362
NCC Class*	1a
Type	New Home

Plans

Main Plan	Jan 2023
Prepared by	Sofair Design

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	600.8	Exposed
Unconditioned*	175.0	**NatHERS climate zone**
Total	775.8	56
Garage	149.0	

Thermal performance

Heating	**Cooling**
41.7 MJ/m^2	**26.1** MJ/m^2

Accredited assessor

Name	Peter Waller
Business name	BASIX Certificate Centre
Email	peter@basixcertificatecentre.com.au
Phone	90292052
Accreditation No.	20322

Assessor Accrediting Organisation

ABSA

Declaration of interest Declaration completed: no conflicts

About the rating

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

Verification

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

National Construction Code (NCC) requirements

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

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

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

Certificate check

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

Genuine certificate

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

Ceiling penetrations*

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

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional notes

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
ALM-005-03 A	Aluminium A DG Argon Fill High Solar Gain low-E - Clear	4.1	0.47	0.45	0.49
ALM-006-03 A	Aluminium B DG Argon Fill High Solar Gain low-E - Clear	4.1	0.52	0.49	0.55
ALM-001-01 A	Aluminium A SG Clear	6.7	0.57	0.54	0.60
ALM-002-01 A	Aluminium B SG Clear	6.7	0.70	0.67	0.74
CMP-006-03 I	Composite B DG Argon Fill High Solar Gain low-E - Clear	3.2	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*
H1 Hall	ALM-006-03 A	AFW0796	700	9600	Other	00	SW	None
H1 Hall	ALM-005-03 A	ADR2610	2599	999	Other	90	NW	None
B5 & Ensuite	ALM-006-03 A	AFW2619	2599	1900	Other	00	NW	None
B5 & Ensuite	ALM-006-03 A	ASD2629	2599	2920	Sliding	40	NE	None
B6 & Ensuite	ALM-006-03 A	ASD2625	2599	2520	Sliding	40	NE	None
Change Room	ALM-001-01 A	ADR2609	2599	900	Other	90	NE	None
Gym Games	ALM-006-03 A	ASD2647	2599	4699	Sliding	90	NW	None
Gym Games	ALM-006-03 A	ASD2643	2599	4299	Sliding	40	NE	None
Garage	ALM-002-01 A	AFW07100	700	10899	Other	00	NW	None
Garage	ALM-002-01 A	AFW0711	700	11299	Other	00	SW	None
B1	ALM-006-03 A	ASD2726	2699	2600	Sliding	40	NE	None
E1	ALM-005-03 A	ACW2704	2699	449	Casement	60	E	None
B2 & Ensuite	ALM-006-03 A	ASD2746	2699	4599	Sliding	40	NE	None
B2 & Ensuite	ALM-006-03 A	ASD2718	2699	1800	Sliding	90	SE	None
Rumpus	ALM-006-03 A	AFW2740	2699	4000	Other	00	NE	None
Rumpus	ALM-006-03 A	ASD2766	2699	6600	Sliding	90	NE	None
Rumpus	ALM-006-03 A	AFW2703	2699	300	Other	00	E	None
Rumpus	ALM-006-03 A	AFW2702	2699	230	Other	00	E	None
B3 & Ensuite	ALM-006-03 A	ASD2726	2699	2670	Sliding	40	NE	None
B4 & Ensuite	ALM-006-03 A	ASD2730	2699	3000	Sliding	40	NE	None
Laundry	ALM-001-01 A	AAW1714	1700	1450	Awning	60	NE	None
Bath	ALM-002-01 A	ASW1122	1110	2199	Sliding	45	NW	None
H2 Hall	ALM-005-03 A	ADR2610	2600	999	Other	90	SE	None
H2 Hall	ALM-006-03 A	AFW1524	1510	2449	Other	00	SW	None
Kitchen Living	CMP-006-03 I	ASD2747	2699	4700	Sliding	40	SW	None
Kitchen Living	CMP-006-03 I	ASD27117	2699	11700	Sliding	40	SW	None
Kitchen Living	CMP-006-03 I	ASD2767	2699	6699	Sliding	40	NW	None
Kitchen Living	CMP-006-03 I	ASD2747	2699	4699	Sliding	40	NE	None
Kitchen Living	CMP-006-03 I	ASD2770	2699	7000	Sliding	40	NE	None
Kitchen Living	CMP-006-03 I	ASD2724	2699	2400	Sliding	90	NE	None
Kitchen Living	CMP-006-03 I	ASD2751	2699	5099	Sliding	40	SE	None
Lower Foyer	ALM-006-03 A	AFW2712	2699	1200	Other	00	NE	None
Lower Foyer	ALM-006-03 A	ASD2744	2699	4400	Sliding	40	NE	None

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Lower Foyer	ALM-006-03 A	AFW2115	2110	1549	Other	00	W	None
Lower Foyer	ALM-006-03 A	ASD2742	2699	4199	Sliding	40	NW	None
Guest WC	ALM-006-03 A	AFW1918	1900	1800	Other	00	E	None
Guest WC	ALM-006-03 A	AFW0930	915	3049	Other	00	SW	None
Living	ALM-006-03 A	AFW3520	3584	2049	Other	00	NE	None
Living	ALM-006-03 A	AFW2018	2700	1850	Other	00	NE	None
Living	ALM-006-03 A	AFW2618	2600	1850	Other	00	NE	None
Living	ALM-006-03 A	AFW2709	2699	899	Other	00	NE	None
Living	ALM-006-03 A	AFW1516	1500	1600	Other	00	SE	None
Living	ALM-006-03 A	AFW1416	1480	1600	Other	00	SE	None
Living	ALM-006-03 A	AFW2314	2385	1420	Other	00	SW	None
Ensuite Main	ALM-005-03 A	AAW1408	1400	890	Awning	60	SE	None
Ensuite Main	ALM-005-03 A	AAW1404	1400	485	Awning	60	SE	None
Ensuite Main	ALM-006-03 A	AFW1910	1930	1000	Other	00	SW	None
Ensuite Main	ALM-006-03 A	AFW0806	860	660	Other	00	SW	None
Ensuite Main	ALM-006-03 A	AFW1922	1930	2199	Other	00	W	None
Master & WIR	ALM-006-03 A	ASD2632	2599	3250	Sliding	40	NW	None
Master & WIR	ALM-006-03 A	AFW2671	2599	7180	Other	00	NE	None
Master & WIR	ALM-006-03 A	AFW1615	1650	1549	Other	00	W	None
Upper Foyer	ALM-006-03 A	AFW2630	2599	3059	Other	00	NE	None
Upper Foyer	ALM-006-03 A	AFW2603	2599	300	Other	00	NW	None
Upper Foyer	ALM-006-03 A	AFW2603	2599	299	Other	00	NW	None
Upper Foyer	ALM-006-03 A	AFW0830	799	3049	Other	00	SW	None
Cloak	ALM-006-03 A	AFW1911	1930	1099	Other	00	E	None
Cloak	ALM-006-03 A	AFW1911	1930	1099	Other	00	S	None

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	VELUX FS - Fixed Skylight DG 3mm LoE 366 / 10.5mm Argon Gap / 3mm Clear	2.7	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
Gym Games	VEL-011-02 W	SL02	0	1342	1342	NE	None	None
Kitchen Living	VEL-011-02 W	SL01	0	1342	1342	NE	None	None

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
Garage	2699	2899	100	SE
Garage	2699	2599	100	SE
Upper Foyer	2530	1580	100	SW

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-001	Concrete wall/Plasterboard	85	Dark	Rockwool batt: R2.5	No
EW-002	Copper/Linoleum/Concrete wall/Plasterboard	85	Dark	Polyurethane rigid foamed aged: R2.5	No
EW-003	Retaining Concrete wall/Plasterboard	50	Medium	Polystyrene expanded (k = 0.039): R1.6	No
EW-004	Sandstone/Concrete wall/Plasterboard	50	Medium	Polystyrene extruded: R2.5	No
EW-005	Sandstone/Concrete wall/Plasterboard	50	Medium		No
EW-006	Concrete wall/Plasterboard	50	Medium	Polystyrene extruded: R2.5	No
EW-007	Retaining Concrete wall	50	Medium	Polystyrene expanded (k = 0.039): R1.6	No
EW-008	Concrete wall	50	Medium		No
EW-009	Concrete wall	85	Dark	Polystyrene extruded: 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)
H1 Hall	EW-003	2600	1300	S		No
H1 Hall	EW-003	2600	3000	SE		No

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
H1 Hall	EW-003	2600	600	S		No
H1 Hall	EW-003	1000	10500	SW		Yes
H1 Hall	EW-004	1600	10500	SW	1150	No
H1 Hall	EW-004	2600	1000	NW	5500	Yes
B5 & Ensuite	EW-004	2600	400	SW	2400	Yes
B5 & Ensuite	EW-004	2600	4600	NW	4800	Yes
B5 & Ensuite	EW-004	2600	4150	NE	9800	Yes
B6 & Ensuite	EW-004	2600	3600	NE	9800	Yes
Change Room	EW-004	2600	2000	NE	9800	Yes
Gym Games	EW-004	2600	4700	NW	15000	Yes
Gym Games	EW-004	2600	4300	NE	5000	Yes
Gym Games	EW-003	2600	9000	NE		No
Gym Games	EW-003	2600	3500	SE		No
Gym Games	EW-003	2600	3000	SW		No
Gym Games	EW-003	2600	6000	SW		No
Lift	EW-007	2600	1850	SE		No
Lift	EW-007	2600	1700	SW		No
Lift	EW-007	2600	1850	NW		No
Lift	EW-008	2700	1700	SW		No
Lift	EW-009	5300	1100	NW		Yes
Lift	EW-009	5300	1700	SW		Yes
Garage	EW-005	2700	10900	NW	400	Yes
Garage	EW-005	2700	11300	SW	400	Yes
Garage	EW-008	1200	3000	NE	7000	No
Garage	EW-005	1500	3000	NE		Yes
Garage	EW-005	2700	2900	SE	1200	Yes
Garage	EW-005	2700	2600	SE	2400	Yes
Garage	EW-005	2700	4000	W	3000	Yes
Garage	EW-005	2700	5000	SW		Yes
Garage	EW-008	1200	3000	SW		Yes
Garage	EW-005	1500	3000	SW		No
B1	EW-001	1200	4100	NW		Yes
B1	EW-006	1500	4100	NW	7000	No
B1	EW-001	2700	4200	NE	450	Yes
E1	EW-001	2700	1500	NE	300	Yes
E1	EW-001	2700	450	E	700	Yes
B2 & Ensuite	EW-001	2700	4600	NE	450	Yes
B2 & Ensuite	EW-001	2700	3900	SE	12300	Yes

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Rumpus	EW-001	1500	900	NW		Yes
Rumpus	EW-006	1200	900	NW	7000	No
Rumpus	EW-004	2700	11000	NE	4600	Yes
Rumpus	EW-004	2700	1800	SE	2000	Yes
Rumpus	EW-004	2700	2300	E	1100	Yes
Rumpus	EW-006	1500	1000	SW		Yes
Rumpus	EW-004	1200	1000	SW		No
B3 & Ensuite	EW-004	2700	1500	NW	2000	Yes
B3 & Ensuite	EW-004	2700	3670	NE		Yes
B4 & Ensuite	EW-004	2700	3550	NE		Yes
B4 & Ensuite	EW-001	2700	6700	SE		Yes
B4 & Ensuite	EW-001	2700	2400	SW	1000	Yes
Laundry	EW-001	2700	2400	NE	1000	Yes
Laundry	EW-003	2700	2200	SE		No
Laundry	EW-003	2700	3500	SW		No
Airlock	EW-003	2700	1600	SW		No
Bath	EW-003	2700	2000	SW		No
Bath	EW-001	2700	2200	NW	2450	Yes
H2 Hall	EW-001	2700	1000	SE	2600	Yes
H2 Hall	EW-001	2700	2450	SW	3900	Yes
Kitchen Living	EW-001	2700	18800	SW	6200	Yes
Kitchen Living	EW-001	2700	6700	NW	3000	Yes
Kitchen Living	EW-001	2700	4700	NE	700	Yes
Kitchen Living	EW-001	2700	9400	NE	700	Yes
Kitchen Living	EW-001	2700	4700	NE	700	Yes
Kitchen Living	EW-001	2700	5100	SE	4400	Yes
Lower Foyer	EW-001	2700	5900	NE	6100	Yes
Lower Foyer	EW-001	2700	1550	W		Yes
Lower Foyer	EW-001	2700	4200	NW	5000	Yes
Guest WC	EW-001	2700	2100	E		Yes
Guest WC	EW-001	1800	3500	SW	2000	Yes
Guest WC	EW-001	900	3500	SW	4000	Yes
Guest WC	EW-001	2700	3050	SW	4000	Yes
Living	EW-001	3585	2050	NE		Yes
Living	EW-004	5800	3000	NE	6100	Yes
Living	EW-004	2700	900	NE	6100	Yes
Living	EW-001	3585	5900	SE		Yes
Living	EW-001	2215	5900	SE		Yes
Living	EW-001	3585	2200	SW		Yes

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Living	EW-001	5800	700	SW		Yes
Ensuite Main	EW-001	2930	1880	SE		Yes
Ensuite Main	EW-001	2930	4600	SW		Yes
Ensuite Main	EW-001	2930	2200	W		Yes
Master & WIR	EW-001	2600	2200	N	4300	Yes
Master & WIR	EW-001	2600	4000	NW	2500	Yes
Master & WIR	EW-001	2600	7200	NE	700	Yes
Master & WIR	EW-001	2930	1550	W		Yes
Upper Foyer	EW-001	2600	3060	NE	700	Yes
Upper Foyer	EW-001	800	3050	NE		No
Upper Foyer	EW-001	800	2200	SE		No
Upper Foyer	EW-001	800	2200	NW		No
Upper Foyer	EW-002	2600	2300	NW		Yes
Upper Foyer	EW-002	2600	2300	NW		Yes
Upper Foyer	EW-002	2600	2300	S		No
Upper Foyer	EW-002	2600	1900	SW	500	Yes
Upper Foyer	EW-001	800	3050	SW	4000	No
Cloak	EW-001	2600	2400	SW		Yes
Cloak	EW-001	2600	500	SE		Yes
Cloak	EW-001	2930	1100	E		Yes
Cloak	EW-001	2930	1100	S		Yes

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-001	Glass	71.50	
IW-002	Plasterboard/Concrete wall	223.74	
IW-004	Plasterboard/Concrete wall	37.40	Polyurethane rigid foamed aged: R2.0
IW-005	Plasterboard/Concrete wall	12.15	
IW-006	Plasterboard/Concrete wall	85.32	Polyurethane rigid foamed aged: R2.0
IW-007	Plasterboard/Concrete wall	42.49	
IW-008	Plasterboard/Concrete wall	30.96	

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
H1 Hall/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Polished floor (R1.0 insul underl)	16.70		R1.0	
B5 & Ensuite/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Ceramic tile floor (R1.0 insul underl)	3.70		R1.0	Ceramic tile

* Refer to glossary.

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
B5 & Ensuite/Ground	as_FLOR-B001 #2031 © 100mm Concrete Floor slab with timber on Battens (R1.0 insul under)	15.30		R1.0	
B6 & Ensuite/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Ceramic tile floor (R1.0 insul underl)	3.70		R1.0	Ceramic tile
B6 & Ensuite/Ground	as_FLOR-B001 #2031 © 100mm Concrete Floor slab with timber on Battens (R1.0 insul under)	16.90		R1.0	
Change Room/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Ceramic tile floor (R1.0 insul underl)	3.80		R1.0	Ceramic tile
Gym Games/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Polished floor (R1.0 insul underl)	77.10		R1.0	
Lift/Ground	as_FLOR-B001 #2031 © 100mm Concrete Floor slab with timber on Battens (R1.0 insul under)	3.00		R1.0	
Garage/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Trowel Finish (R0.0 insul underl)	12.60			
Garage/H1 Hall	200mm Concrete Floor slab Trowel Finish + R2.0 insul + Plasterboard under	10.80		R2.0	
Garage/B5 & Ensuite	200mm Concrete Floor slab Trowel Finish + R2.0 insul + Plasterboard under	19.00		R2.0	
Garage/B6 & Ensuite	200mm Concrete Floor slab Trowel Finish + R2.0 insul + Plasterboard under	16.10		R2.0	
Garage/Change Room	200mm Concrete Floor slab Trowel Finish + R2.0 insul + Plasterboard under	3.50		R2.0	
Garage/Outdoor Air	200mm Concrete Floor slab Trowel Finish (no insul) No ceiling	87.00			
B1/Outdoor Air	200mm Concrete Floor slab with Timber on Battens + R2.0 insul - No ceiling	17.00		R2.0	
E1/Outdoor Air	200mm Concrete Floor slab with ceramic tiles (+R2.0) No ceiling	3.10		R2.0	Ceramic tile
B2 & Ensuite/Outdoor Air	200mm Concrete Floor slab with ceramic tiles (+R2.0) No ceiling	3.50		R2.0	Ceramic tile
B2 & Ensuite/Outdoor Air	200mm Concrete Floor slab with Timber on Battens + R2.0 insul - No ceiling	17.90		R2.0	
Rumpus/Outdoor Air	200mm Concrete Floor slab with Polished + R2.0 insul - No lining under	17.30		R2.0	
Rumpus/Gym Games	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	71.10			
Rumpus/Change Room	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	0.30			
Rumpus/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Polished floor (R1.0 insul underl)	10.00		R1.0	
B3 & Ensuite/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Ceramic tile floor (R1.0 insul underl)	4.20		R1.0	Ceramic tile
B3 & Ensuite/Ground	as_FLOR-B001 #2031 © 100mm Concrete Floor slab with timber on Battens (R1.0 insul under)	17.90		R1.0	
B3 & Ensuite/Outdoor Air	200mm Concrete Floor slab with Timber on Battens + R2.0 insul - No ceiling	1.40		R2.0	
B4 & Ensuite/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Ceramic tile floor (R1.0 insul underl)	4.20		R1.0	Ceramic tile
B4 & Ensuite/Ground	as_FLOR-B001 #2031 © 100mm Concrete Floor slab with timber on Battens (R1.0 insul under)	16.40		R1.0	
B4 & Ensuite/Outdoor Air	200mm Concrete Floor slab with Timber on Battens + R2.0 insul - No ceiling	2.90		R2.0	
Laundry/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Ceramic tile floor (R1.0 insul underl)	7.80		R1.0	Ceramic tile
Airlock/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Polished floor (R1.0 insul underl)	3.40		R1.0	
Bath/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Ceramic tile floor (R1.0 insul underl)	4.40		R1.0	Ceramic tile
H2 Hall/Ground	as_FLOR-B001 #2051 © 100mm Concrete Floor slab with Polished floor (R1.0 insul underl)	9.30		R1.0	
Kitchen Living/Garage	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	10.70			

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen Living/B1	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	15.50			
Kitchen Living/E1	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	2.10			
Kitchen Living/B2 & Ensuite	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	19.90			
Kitchen Living/Rumpus	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	33.90			
Kitchen Living/Outdoor Air	200mm Concrete Floor slab with Polished + R2.0 insul - No lining under	39.30		R2.0	
Lower Foyer/Outdoor Air	200mm Concrete Floor slab with Polished + R2.0 insul - No lining under	2.60		R2.0	
Lower Foyer/Rumpus	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	24.40			
Guest WC/B3 & Ensuite	200mm Concrete Floor slab with ceramic tiles (+R0.0) + Plasterboard under	2.20			Ceramic tile
Guest WC/H2 Hall	200mm Concrete Floor slab with ceramic tiles (+R0.0) + Plasterboard under	7.80			Ceramic tile
Living/B3 & Ensuite	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	21.10			
Living/B4 & Ensuite	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	13.90			
Ensuite Main/Outdoor Air	200mm Concrete Floor slab with ceramic tiles (+R2.0) No ceiling	8.70		R2.0	Ceramic tile
Master & WIR/Kitchen Living	200mm Concrete Floor slab with Timber on Battens + R0.0 insul + Plasterboard under	5.90			
Master & WIR/Lower Foyer	200mm Concrete Floor slab with Timber on Battens + R0.0 insul + Plasterboard under	11.70			
Master & WIR/Outdoor Air	200mm Concrete Floor slab with Timber on Battens + R2.0 insul - No ceiling	19.90		R2.0	
Upper Foyer/Lower Foyer	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	15.30			
Upper Foyer/Guest WC	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	5.30			
Upper Foyer/Living	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	3.40			
Upper Foyer/Outdoor Air	200mm Concrete Floor slab with Polished + R2.0 insul - No lining under	5.90		R2.0	
Cloak/Outdoor Air	200mm Concrete Floor slab with Polished + R2.0 insul - No lining under	0.30		R2.0	
Cloak/Guest WC	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under	4.70			

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Garage/H1 Hall	200mm Concrete Floor slab Trowel Finish + R2.0 insul + Plasterboard under	R2.0	No
Garage/B5 & Ensuite	200mm Concrete Floor slab Trowel Finish + R2.0 insul + Plasterboard under	R2.0	No
Garage/B6 & Ensuite	200mm Concrete Floor slab Trowel Finish + R2.0 insul + Plasterboard under	R2.0	No
Garage/Change Room	200mm Concrete Floor slab Trowel Finish + R2.0 insul + Plasterboard under	R2.0	No
Rumpus/Change Room	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Rumpus/Gym Games	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Kitchen Living/Garage	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Kitchen Living/B1	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Kitchen Living/E1	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Kitchen Living/B2 & Ensuite	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Kitchen Living/Rumpus	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Lower Foyer/Rumpus	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Guest WC/B3 & Ensuite	200mm Concrete Floor slab with ceramic tiles (+R0.0) + Plasterboard under		No
Living/B3 & Ensuite	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Living/B4 & Ensuite	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Guest WC/H2 Hall	200mm Concrete Floor slab with ceramic tiles (+R0.0) + Plasterboard under		No
Master & WIR/Kitchen Living	200mm Concrete Floor slab with Timber on Battens + R0.0 insul + Plasterboard under		No
Master & WIR/Lower Foyer	200mm Concrete Floor slab with Timber on Battens + R0.0 insul + Plasterboard under		No
Upper Foyer/Lower Foyer	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Upper Foyer/Guest WC	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Cloak/Guest WC	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No
Upper Foyer/Living	200mm Concrete Floor slab with Polished + R0.0 insul + Plasterboard under		No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
H1 Hall	7	Downlight	0	Sealed
B5 & Ensuite	8	Downlight	0	Sealed
B5 & Ensuite	1	Ceiling exhaust fan	200	Sealed
B6 & Ensuite	8	Downlight	0	Sealed
B6 & Ensuite	1	Ceiling exhaust fan	200	Sealed
Change Room	2	Downlight	0	Sealed
Gym Games	31	Downlight	0	Sealed
B1	7	Downlight	0	Sealed
E1	2	Downlight	0	Sealed
B2 & Ensuite	9	Downlight	0	Sealed
B2 & Ensuite	1	Ceiling exhaust fan	200	Sealed
Rumpus	39	Downlight	0	Sealed
B3 & Ensuite	9	Downlight	0	Sealed
B3 & Ensuite	1	Ceiling exhaust fan	200	Sealed

* Refer to glossary.

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
B4 & Ensuite	9	Downlight	0	Sealed
B4 & Ensuite	1	Ceiling exhaust fan	200	Sealed
Laundry	3	Downlight	0	Sealed
Airlock	1	Downlight	0	Sealed
Bath	2	Downlight	0	Sealed
H2 Hall	4	Downlight	0	Sealed
Kitchen Living	49	Downlight	0	Sealed
Kitchen Living	1	Ceiling exhaust fan	200	Sealed
Lower Foyer	11	Downlight	0	Sealed
Guest WC	4	Downlight	0	Sealed
Living	14	Downlight	0	Sealed
Living	1	Ceiling exhaust fan	300	Sealed
Ensuite Main	3	Downlight	0	Sealed
Master & WIR	15	Downlight	0	Sealed
Upper Foyer	10	Downlight	0	Sealed
Cloak	2	Downlight	0	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
300mm Soil over 200mm concrete slab roof + plasterb'd ceiling under + R4.0	R4.0	50	Medium
300mm Soil over 200mm concrete slab roof + No Ceiling - No Insulation		50	Medium
as_ROOF-B013.rof #2046 © Concrete slab 200mm - WP Membrane surface - R4.0 insulation under slab - Susp. Ceiling under	R4.0	50	Medium
Pebbles + Concrete slab 200mm - WP Membrane surface - R4.0 insulation under slab - Susp. Ceiling under	R4.0	50	Medium
Pool or Water Roof - No Ceiling		50	Medium
as_ROOF-B013.rof #2016 © Concrete slab 200mm - Drained Tile walking surface - R4.0 insulation under slab - Susp. Ceiling under	R4.0	50	Medium
as_ROOF-B013.rof #2016 © Concrete slab 200mm - Drained Tile walking surface - R0.0 insulation under slab - No Ceiling under		50	Medium
Feature SS Wall/Roof Capping	R1.5	50	Medium
Feature Copper Outrigger Sections	R1.5	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 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).