Nationwide House Energy Rating Scheme®
NatHERS® Certificate No. 0011560901

Generated on 15 Nov 2024 using BERS Pro v5.2.3 (3.23)

Property

Address	1164 Barrenjoey Road, PALM BEACH , NSW , 2108
Lot/DP	Lot 1 DP 398353
NCC class*	1a
Floor/all Floors	G of 5 floors
Type	New Home

Plans

Main plan	Job For Johnson & Thomson, Revsion 01, Dated 5/11/2024, Sheets 1-24
Prepared by	Rama Architect

Construction and environment

Assessed floor area [m2]*

Conditioned*	473.4
Unconditioned*	39.2
Total	634.9
Garage	122.3

Exposure type

Suburban

NatHERS climate zone

56 Mascot (Sydney Airport)

Accredited assessor

Name	Scott Douglass
Business name	Efficiency Assessments Pty Ltd
Email	scott@ea1.com.au
Phone	0424630400
Accreditation No.	13/1547

Assessor Accrediting Organisation

Design Matters National

Declaration of interest Declaration completed: no conflicts

NCC Requirements

NCC provisions	Volume Two
Strate/Territory variation	Yes

National Construction Code (NCC) requirements

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

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

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

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

Thermal performance Star rating

Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	12.3	16.4
Load limits	N/A	N/A

Features determining load limits

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

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate.

Verification

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

* Refer to glossary

About the ratings

Thermal performance rating

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

Whole of Home performance rating

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

Heating & Cooling Load Limits

Additional information

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

Setting Options:

Floor Type:

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

NCC Climate Zone 1 or 2:

Yes
No
NA – Not Applicable

Outdoor Living Area:

Yes
No
NA – Not Applicable

Outdoor Living Area Ceiling Fan:

Yes
No
NA – Not Applicable

Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use

No Whole of Home performance assessment conducted for this certificate

Greenhouse gas emissions

No Whole of Home performance assessment conducted for this certificate

Cost

No Whole of Home performance assessment conducted for this certificate

* Refer to glossary.

Certificate check

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

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

	Approval Stage		Construction Stage		
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	☐	☐	☐	☐	☐
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			☐	☐	☐
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	☐	☐	☐	☐	☐
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	☐	☐	☐	☐	☐
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	☐	☐	☐	☐	☐
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	☐	☐	☐	☐	☐
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.	☐	☐		☐	☐
Exposure*					
Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	☐	☐		☐	☐
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown	☐	☐	☐	☐	☐

* Refer to glossary.

Certificate check

Continued

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

Other NCC requirements

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

Additional notes

* Refer to glossary.

Room *schedule*

Room	Zone Type	Area [m^2]
Garage 1	Garage	122.3
Foyer	Daytime	23.2
Plant/Services	Unconditioned	31.39
Foyer 2/Laundry	Daytime	39.03
Gym/wc	Living	29.87
Entry/bath	Daytime	55.5
Ens b2	Nighttime	9.53
Bed 2	Bedroom	24.27
Bed 1	Bedroom	24.09
Rumpus/Media	Living	29.05
Wc	Unconditioned	3.05
Ens Master 2	Nighttime	8.95
Master 2	Bedroom	29.05
Storage	Daytime	2.8
Hall FF	Daytime	40.09
Office/bath	Daytime	18.48
Master 1	Bedroom	29.48
Ens Master 1	Nighttime	10.63
Kitchen/Living1	Kitchen/Living	128.93
Bath	Unconditioned	4.73

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-004-02 A	Aluminium B DG Air Fill Tint-Clear	5.2	0.39	0.37	0.41
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62

* Refer to glossary.

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*
Entry/bath	ALM-004-02 A	Entry Glass brick 1	2100	500	Fixed	00	N	No
Entry/bath	ALM-004-02 A	Entry Glass brick 2	2100	500	Fixed	00	N	No
Entry/bath	ALM-004-02 A	Entry Glass brick 3	600	1800	Fixed	00	N	No
Entry/bath	ALM-004-01 A	W04	900	900	Fixed	00	E	No
Bed 2	ALM-004-01 A	D02	2400	2700	Casement	90	N	No
Bed 1	ALM-004-01 A	D03	2400	4400	Sliding	60	N	No
Rumpus/Media	ALM-004-01 A	D05	2700	4400	Sliding	60	N	No
Rumpus/Media	ALM-004-01 A	W01	1500	1500	Fixed	00	E	No
Rumpus/Media	ALM-004-01 A	W02	1500	1500	Fixed	00	E	No
Wc	ALM-004-01 A	W03	900	900	Awning	90	E	No
Ens Master 2	ALM-004-01 A	W12	600	1200	Sliding	10	N	No
Ens Master 2	ALM-004-02 A	Ens M2 Glas bricks	2700	1535	Fixed	00	N	No
Master 2	ALM-004-01 A	D07	2700	4400	Sliding	60	N	No
Master 2	ALM-004-01 A	W05	2400	1500	Fixed	00	E	No
Master 2	ALM-004-01 A	W07	900	900	Awning	90	E	No
Master 2	ALM-004-01 A	W06	2400	1500	Fixed	00	E	No
Storage	ALM-004-01 A	W08	900	900	Awning	90	E	No
Hall FF	ALM-004-01 A	W09	900	900	Awning	90	E	No
Hall FF	ALM-004-01 A	W10	900	900	Awning	90	E	No
Master 1	ALM-004-01 A	D06	2700	4400	Sliding	60	N	No
Ens Master 1	ALM-004-01 A	W11	1000	2100	Awning	90	N	No
Kitchen/Living1	ALM-004-01 A	W13	900	900	Awning	90	E	No
Kitchen/Living1	ALM-004-01 A	W15	2700	1200	Fixed	00	W	No
Kitchen/Living1	ALM-004-01 A	D09	2700	7100	Sliding	60	W	No
Kitchen/Living1	ALM-004-01 A	D10	2700	7400	Sliding	60	N	No

* Refer to glossary.

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bath	ALM-004-01 A	W14	900	900	Awning	90	E	No

Roof window* *type and performance value*

Default roof windows*

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

Custom roof windows*

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

Roof window* *schedule*

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

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

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Garage 1	2500	4400	90	N
Entry/bath	2100	820	90	N

* Refer to glossary.

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
EW-1	Concrete Block	0.50		No insulation	No
EW-2	Concrete Block, Lined Timber Stud Frame	0.50		No insulation	No
EW-3	Concrete Block, Lined Timber Stud Frame	0.85		Bulk Insulation R2	No
EW-4	Concrete Block, Lined Timber Stud Frame	0.85		No insulation	No

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Garage 1	EW-1	3500	5400	N	0	No
Garage 1	EW-1	3501	6000	N	5100	No
Garage 1	EW-1	3500	13300	E	0	No
Garage 1	EW-1	3500	1500	S	0	No
Garage 1	EW-1	3500	1105	E	0	No
Garage 1	EW-1	3500	6655	W	0	No
Garage 1	EW-1	3500	4800	S	0	No
Garage 1	EW-1	3500	6600	W	0	No
Foyer	EW-2	3500	2505	E	0	No
Foyer	EW-2	3500	1000	S	0	No
Foyer	EW-2	3500	2000	E	0	No
Foyer	EW-2	3500	4100	S	0	No
Foyer	EW-2	3500	5755	W	0	No
Plant/Services	EW-2	3000	4705	N	0	No
Plant/Services	EW-2	3000	4705	S	0	No
Plant/Services	EW-2	3000	6700	W	0	No
Foyer 2/Laundry	EW-2	3000	2510	N	0	No
Foyer 2/Laundry	EW-2	3000	2595	E	0	No
Foyer 2/Laundry	EW-2	3000	1000	S	0	No
Foyer 2/Laundry	EW-2	3000	2000	E	0	No
Foyer 2/Laundry	EW-2	3000	4100	S	0	No
Foyer 2/Laundry	EW-2	3000	5800	W	0	No

* Refer to glossary.

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Gym/wc	EW-2	3000	3805	N	0	No
Gym/wc	EW-2	3000	6700	E	0	No
Gym/wc	EW-2	3000	1500	S	0	No
Gym/wc	EW-2	3000	1195	E	0	No
Entry/bath	EW-3	2700	1910	N	2000	No
Entry/bath	EW-4	1200	2595	E	0	No
Entry/bath	EW-3	1500	2595	E	0	No
Entry/bath	EW-4	2700	1000	S	0	No
Entry/bath	EW-4	2700	2000	E	0	No
Entry/bath	EW-2	2700	4100	S	0	No
Entry/bath	EW-2	2700	3100	W	0	No
Entry/bath	EW-2	2700	4705	S	0	No
Ens b2	EW-2	2700	3705	S	0	No
Ens b2	EW-2	2700	2605	W	0	No
Bed 2	EW-4	1600	6605	W	0	No
Bed 2	EW-3	1100	6605	W	0	No
Bed 2	EW-3	2700	3705	N	0	No
Bed 1	EW-3	2700	4610	N	2000	No
Rumpus/Media	EW-3	2700	4405	N	2000	No
Rumpus/Media	EW-4	600	6700	E	0	No
Rumpus/Media	EW-3	2100	6700	E	0	No
Rumpus/Media	EW-4	800	1500	S	0	No
Rumpus/Media	EW-3	1900	1500	S	0	No
Wc	EW-4	1000	1100	E	0	No
Wc	EW-3	1700	1100	E	0	No
Ens Master 2	EW-3	2700	1910	N	1000	No
Master 2	EW-3	2700	4405	N	1000	No
Master 2	EW-3	2700	6700	E	0	No
Master 2	EW-3	2700	1500	S	0	No
Storage	EW-3	2700	1010	E	0	No
Hall FF	EW-3	2700	2505	E	0	Yes

* Refer to glossary.

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Hall FF	EW-2	2700	1000	S	2000	No
Hall FF	EW-2	2700	2000	E	0	No
Hall FF	EW-2	2700	1000	N	2000	No
Hall FF	EW-2	2700	2700	E	0	No
Hall FF	EW-2	2700	5100	S	0	No
Hall FF	EW-2	2700	5800	W	0	No
Office/bath	EW-2	2700	5805	S	0	No
Office/bath	EW-3	2700	3300	W	0	No
Office/bath	EW-3	2700	500	N	3200	No
Master 1	EW-3	2700	3010	W	0	No
Master 1	EW-3	2700	4610	N	1000	No
Ens Master 1	EW-3	2700	3200	S	0	No
Ens Master 1	EW-3	2700	2900	W	0	No
Ens Master 1	EW-3	2700	3705	N	0	No
Kitchen/Living1	EW-3	2700	3900	E	1500	No
Kitchen/Living1	EW-3	2701	3800	E	0	No
Kitchen/Living1	EW-3	2700	1000	S	2000	No
Kitchen/Living1	EW-3	2700	2000	E	0	No
Kitchen/Living1	EW-3	2700	1000	N	2000	No
Kitchen/Living1	EW-3	2700	2695	E	0	No
Kitchen/Living1	EW-3	2700	1895	E	0	No
Kitchen/Living1	EW-3	2700	8400	S	0	No
Kitchen/Living1	EW-3	2701	7300	W	0	No
Kitchen/Living1	EW-3	2700	8900	W	1500	No
Kitchen/Living1	EW-3	2700	8400	N	2600	No
Bath	EW-3	2700	1890	E	0	No

Internal wall *type*

Wall ID	Wall type	Area [m^2]	Bulk insulation
IW-001	Concrete Block	11.55	Bulk Insulation, No Air Gap R2
IW-002	Concrete Block	197.49	No insulation

* Refer to glossary.

Wall ID	Wall type	Area [m^2]	Bulk insulation
IW-003	Timber Stud Frame, Direct Fix Plasterboard	40.23	No insulation

Floor *type*

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Garage 1	Waffle pod slab 175 mm 100mm	122.24	None	Waffle Pod 175mm	Bare
Foyer	Waffle pod slab 175 mm 100mm	23.20	None	Waffle Pod 175mm	Ceramic Tiles 8mm
Plant/Services	Waffle pod slab 175 mm 100mm	31.39	None	Waffle Pod 175mm	Bare
Foyer 2/Laundry / Garage 1	Concrete Timber Framed Above Plasterboard 100mm	7.37		Bulk Insulation R2.5	Ceramic Tiles 8mm
Foyer 2/Laundry / Foyer	Concrete Timber Framed Above Plasterboard 100mm	14.45		No Insulation	Ceramic Tiles 8mm
Gym/wc / Garage 1	Concrete Timber Framed Above Plasterboard 100mm	29.87		Bulk Insulation R2.5	80/20 Carpet 10mm/Ceramic
Entry/bath / Plant/Services	Concrete Timber Framed Above Plasterboard 100mm	0.00		No Insulation	Ceramic Tiles 8mm
Entry/bath / Foyer 2/Laundry	Concrete Timber Framed Above Plasterboard 100mm	28.14		No Insulation	Ceramic Tiles 8mm
Entry/bath	Waffle pod slab 175 mm 100mm	10.73	None	Waffle Pod 175mm	Ceramic Tiles 8mm
Ens b2	Waffle pod slab 175 mm 100mm	9.53	None	Waffle Pod 175mm	Ceramic Tiles 8mm
Bed 2	Waffle pod slab 175 mm 100mm	24.27	None	Waffle Pod 175mm	Carpet+Rubber Underlay 18mm
Bed 1 / Plant/Services	Concrete Timber Framed Above Plasterboard 100mm	24.09		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Media / Foyer 2/Laundry	Concrete Timber Framed Above Plasterboard 100mm	1.72		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Media / Gym/wc	Concrete Timber Framed Above Plasterboard 100mm	26.23		No Insulation	Carpet+Rubber Underlay 18mm
Wc / Gym/wc	Concrete Timber Framed Above Plasterboard 100mm	3.05		No Insulation	Ceramic Tiles 8mm
Ens Master 2 / Entry/bath	Concrete Timber Framed Above Plasterboard 100mm	8.95		No Insulation	Ceramic Tiles 8mm
Master 2 / Rumpus/Media	Concrete Timber Framed Above Plasterboard 100mm	29.05		No Insulation	Carpet+Rubber Underlay 18mm
Storage / Wc	Concrete Timber Framed Above Plasterboard 100mm	2.80		No Insulation	Ceramic Tiles 8mm
Hall FF / Entry/bath	Concrete Timber Framed Above Plasterboard 100mm	18.64		No Insulation	Ceramic Tiles 8mm

* Refer to glossary.

Location	Construction	Area [m^2]	Sub-floor ventilation	Added insulation [R-value]	Covering
Hall FF	Waffle pod slab 175 mm 100mm	12.34	None	Waffle Pod 175mm	Ceramic Tiles 8mm
Office/bath / Entry/bath	Concrete Timber Framed Above Plasterboard 100mm	14.85		No Insulation	60/40 Carpet 10mm/Ceramic
Office/bath / Ens b2	Concrete Timber Framed Above Plasterboard 100mm	1.98		No Insulation	60/40 Carpet 10mm/Ceramic
Office/bath / Bed 2	Concrete Timber Framed Above Plasterboard 100mm	0.00		No Insulation	60/40 Carpet 10mm/Ceramic
Master 1 / Entry/bath	Concrete Timber Framed Above Plasterboard 100mm	2.12		No Insulation	Carpet+Rubber Underlay 18mm
Master 1 / Bed 2	Concrete Timber Framed Above Plasterboard 100mm	0.20		No Insulation	Carpet+Rubber Underlay 18mm
Master 1 / Bed 1	Concrete Timber Framed Above Plasterboard 100mm	23.71		No Insulation	Carpet+Rubber Underlay 18mm
Ens Master 1 / Bed 2	Concrete Timber Framed Above Plasterboard 100mm	10.63		No Insulation	Ceramic Tiles 8mm
Kitchen/Living1 / Ens Master 2	Concrete Timber Framed Above Plasterboard 100mm	0.00		No Insulation	60/40 Carpet 10mm/Ceramic
Kitchen/Living1 / Master 2	Concrete Timber Framed Above Plasterboard 100mm	5.01		No Insulation	60/40 Carpet 10mm/Ceramic
Kitchen/Living1 / Storage	Concrete Timber Framed Above Plasterboard 100mm	0.00		No Insulation	60/40 Carpet 10mm/Ceramic
Kitchen/Living1 / Hall FF	Concrete Timber Framed Above Plasterboard 100mm	34.83		No Insulation	60/40 Carpet 10mm/Ceramic
Kitchen/Living1 / Office/bath	Concrete Timber Framed Above Plasterboard 100mm	4.19		No Insulation	60/40 Carpet 10mm/Ceramic
Kitchen/Living1 / Master 1	Concrete Timber Framed Above Plasterboard 100mm	4.19		No Insulation	60/40 Carpet 10mm/Ceramic
Kitchen/Living1	Waffle pod slab 175 mm 100mm	45.91	None	Waffle Pod 175mm	Carpet+Rubber Underlay 18mm
Bath	Waffle pod slab 175 mm 100mm	4.73	None	Waffle Pod 175mm	Ceramic Tiles 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Garage 1	Plasterboard on Timber	No insulation	
Garage 1	Concrete Timber Framed Above Plasterboard	Bulk Insulation R2.5	
Foyer	Plasterboard on Timber	Bulk Insulation R5	
Foyer	Concrete Timber Framed Above Plasterboard	No Insulation	
Plant/Services	Plasterboard on Timber	Bulk Insulation R5	
Plant/Services	Concrete Timber Framed Above Plasterboard	No Insulation	

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Foyer 2/Laundry	Plasterboard on Timber	Bulk Insulation R5	
Foyer 2/Laundry	Concrete Timber Framed Above Plasterboard	No Insulation	
Gym/wc	Plasterboard on Timber	Bulk Insulation R5	
Gym/wc	Concrete Timber Framed Above Plasterboard	No Insulation	
Entry/bath	Plasterboard on Timber	Bulk Insulation R5	
Entry/bath	Concrete Timber Framed Above Plasterboard	No Insulation	
Ens b2	Plasterboard on Timber	Bulk Insulation R2.5	
Ens b2	Concrete Timber Framed Above Plasterboard	No Insulation	
Bed 2	Plasterboard on Timber	Bulk Insulation R2.5	
Bed 2	Concrete Timber Framed Above Plasterboard	No Insulation	
Bed 1	Plasterboard on Timber	Bulk Insulation R5	
Bed 1	Concrete Timber Framed Above Plasterboard	No Insulation	
Rumpus/Media	Plasterboard on Timber	Bulk Insulation R5	
Rumpus/Media	Concrete Timber Framed Above Plasterboard	No Insulation	
Wc	Plasterboard on Timber	Bulk Insulation R5	
Wc	Concrete Timber Framed Above Plasterboard	No Insulation	
Ens Master 2	Plasterboard on Timber	Bulk Insulation R2.5	
Ens Master 2	Concrete Timber Framed Above Plasterboard	No Insulation	
Master 2	Plasterboard on Timber	Bulk Insulation R2.5	
Master 2	Concrete Timber Framed Above Plasterboard	No Insulation	
Storage	Plasterboard on Timber	Bulk Insulation R5	
Storage	Concrete Timber Framed Above Plasterboard	No Insulation	
Hall FF	Plasterboard on Timber	Bulk Insulation R5	
Hall FF	Concrete Timber Framed Above Plasterboard	No Insulation	
Office/bath	Plasterboard on Timber	Bulk Insulation R2.5	
Office/bath	Concrete Timber Framed Above Plasterboard	No Insulation	
Master 1	Plasterboard on Timber	Bulk Insulation R2.5	
Master 1	Concrete Timber Framed Above Plasterboard	No Insulation	
Ens Master 1	Plasterboard on Timber	Bulk Insulation R2.5	
Kitchen/Living1	Plasterboard on Timber	Bulk Insulation R2.5	
Bath	Plasterboard on Timber	Bulk Insulation R2.5	

* Refer to glossary.

Ceiling *penetrations**

Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Foyer	6	Downlights - LED	0	Sealed
Plant/Services	12	Downlights - LED	0	Sealed
Foyer 2/Laundry	16	Downlights - LED	0	Sealed
Foyer 2/Laundry	1	Exhaust Fans	300	Sealed
Gym/wc	12	Downlights - LED	0	Sealed
Gym/wc	1	Exhaust Fans	200	Sealed
Entry/bath	23	Downlights - LED	0	Sealed
Entry/bath	1	Exhaust Fans	300	Sealed
Ens b2	4	Downlights - LED	0	Sealed
Ens b2	1	Exhaust Fans	300	Sealed
Bed 2	10	Downlights - LED	0	Sealed
Bed 1	10	Downlights - LED	0	Sealed
Rumpus/Media	12	Downlights - LED	0	Sealed
Wc	1	Downlights - LED	0	Sealed
Ens Master 2	4	Downlights - LED	0	Sealed
Ens Master 2	1	Exhaust Fans	300	Sealed
Master 2	12	Downlights - LED	0	Sealed
Storage	1	Downlights - LED	0	Sealed
Hall FF	17	Downlights - LED	0	Sealed
Office/bath	8	Downlights - LED	0	Sealed
Office/bath	1	Exhaust Fans	300	Sealed
Master 1	12	Downlights - LED	0	Sealed
Ens Master 1	4	Downlights - LED	0	Sealed
Ens Master 1	1	Exhaust Fans	300	Sealed
Kitchen/Living1	52	Downlights - LED	0	Sealed
Kitchen/Living1	1	Exhaust Fans	160	Sealed
Bath	1	Downlights - LED	0	Sealed
Bath	1	Exhaust Fans	300	Sealed

* Refer to glossary.

Ceiling *fans*

Location	Quantity	Diameter [mm]
No Data Available		

Roof *type*

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Concrete	Bulk Insulation, No Air Gap Above R2.5	0.50	Medium
Concrete	No Added Insulation, No air Gap	0.50	Medium

Thermal bridging *schedule for steel frame elements*

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

Appliance *schedule*

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

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

Cooling system

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

Heating system

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

Hot water system

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

Pool/spa equipment

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

Onsite Renewable Energy *Schedule*

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery *Schedule*

System Type	Size [Battery Storage Capacity]
No Data Available	

Explanatory notes

About this report

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

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

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

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

Accredited assessors

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

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

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

Disclaimer

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

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

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

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

Glossary

AFRC	Australian Fenestration Rating Council
Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
COP	Coefficient of performance
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure	see exposure categories below.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – protected	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – suburban	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).
Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

* Refer to glossary.