

Nationwide House Energy Rating Scheme®

NatHERS® Certificate No. 0011798147-01

Generated on 03 Apr 2025 using AccuRate Home v1.3.3.24

Property

Address 24 Norma Road,
Palm Beach , NSW , 2108

Lot/DP Lot 392 DP 19651

NCC class* 1a

Floor/all Floors 2 of 3 floors

Type New Home

Plans

Main plan 2404 DA.01, DA.09 - DA15, DA17 - DA27
03/04/2025

Prepared by Wooster Architecture and Design

Construction and environment

Assessed floor area [m2]*	Exposure type
Conditioned* 353.8	Open
Unconditioned* 79.7	NatHERS climate zone
Total 433.4	56 Mascot (Sydney Airport)
Garage 68.2	



Accredited assessor

Name Graham Hunt

Business name Delisle Hunt Wood Pty Ltd

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Accreditation No. 20127

Assessor Accrediting Organisation
ABSA

Declaration of interest No

NCC Requirements

NCC provisions Volume Two

Strate/Territory variation Yes

National Construction Code (NCC) requirements

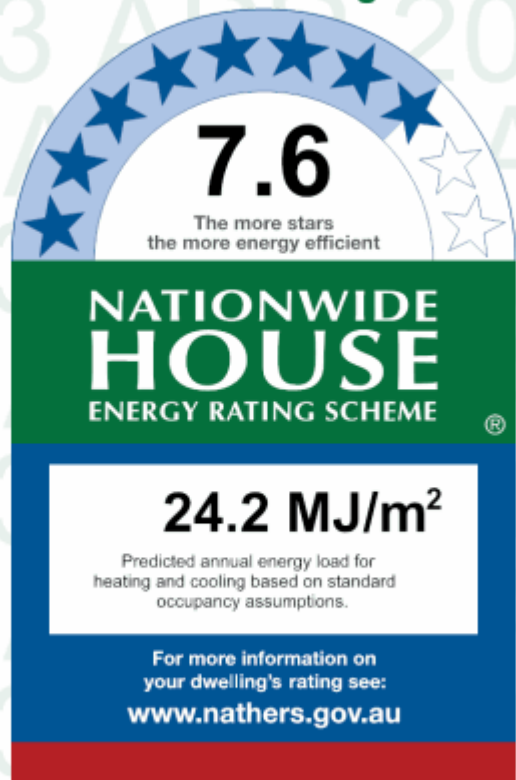
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. 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	12.6	11.6
Load limits	N/A	N/A

Features determining load limits

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

Whole of Home performance rating

No Whole of Home
performance rating
generated for this
certificate.

Verification

To verify this certificate,
scan the QR code or visit
[hstar.com.au/QR/Generate?](http://hstar.com.au/QR/Generate?p=cpEwtffJK)
[p=cpEwtffJK](http://hstar.com.au/QR/Generate?p=cpEwtffJK) .
When using either link,
ensure you are visiting
hstar.com.au



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 *ABC 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

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		Occupancy/Other
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
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".	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Certificate check

Continued

	Approval Stage		Construction Stage		
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	

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?

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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 as 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?

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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?

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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?

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Other NCC requirements

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

Additional notes

Room schedule

Room	Zone Type	Area [m ²]
Dining/Kitchen/Living/Laundry/Powder/Stairwell	Living/Kitchen	127.25
Bed 2	Bedroom	16.37
Bed 2 ensuite/robe	Night time	15.05
Sitting	Living	23.42
Entry Lobby	Day time	30.17
Bed 4 ensuite/robe	Night time	15.73
Bed 4	Bedroom	16.31
Main Bed	Bedroom	19.99
Main Dressing & Ensuite	Night time	31.75
Main Lobby	Day time	12.89
Garage /Store	Garage	39.26
Lift	Day time	2.24
Excavation Offset	Sub-floor	17.03
Bed 3	Bedroom	14.63
Garage subfloor	Garage	28.92
Gym	Day time	27.95
Gym Powder room	Unconditioned	5.74
Sauna	Unconditioned	5.76

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
ALS-032-12 A	92mm Carinya Classic	4.3	0.62	0.59	0.65
	Fixed Window SG				
	638CPClr				
AIR-005-05 A	Aluminium Sliding Door DG 5/6/5	4.3	0.60	0.57	0.63



Custom windows*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
BRD-093-09 A	Signature Casement Window 100 DG 4Clr-12Ar-4Clr	4.2	0.61	0.58	0.64
BRD-080-01 A	Signature Double Hung Window 100 DG 4Clr-10Ar-4Clr	4.2	0.60	0.57	0.63
BRD-020-16 A	Al Sliding Door SG 652BLam	6.1	0.70	0.66	0.73
BRD-020-13 A	Al Sliding Door SG 638CPClr	4.4	0.60	0.57	0.63

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Dining/Kitchen/Living/Laundry/Powder/Stairwell	BRD-020-16 A	L0.G01	2700	11850	Sliding	60	N	None
Dining/Kitchen/Living/Laundry/Powder/Stairwell	BRD-020-13 A	L0.G02	2700	3000	Sliding	90	E	None
Bed 2	BRD-080-01 A	L1.G03	2400	3850	DoubleHung	45	N	None
Bed 2 ensuite/robe	BRD-020-13 A	L1.G06	2800	3000	Sliding	90	N	None
Sitting	BRD-093-09 A	L1.G10	2800	4800	Casement	90	S	None
Entry Lobby	BRD-093-09 A	L1.G09	2800	1650	Casement	90	S	None
Bed 4 ensuite/robe	BRD-020-13 A	L1.G07	2800	3000	Sliding	90	W	None
Bed 4	BRD-080-01 A	L1.G05	2400	3850	DoubleHung	45	N	None
Main Bed	BRD-020-13 A	L2.G10	2880	5845	Sliding	60	N	None
Main Dressing & Ensuite	BRD-020-13 A	L2.G10	2880	3910	Sliding	60	N	None
Main Dressing & Ensuite	BRD-020-13 A	L2.G11	3100	610	Sliding	90	S	None
Main Dressing & Ensuite	AIR-005-05 A	L2.G12	3100	610	Sliding	90	S	None
Main Lobby	BRD-080-01 A	L2.G13	3100	610	DoubleHung	30	S	None
Garage /Store	BRD-093-09 A	L1.G14	2480	300	Casement	00	W	None
Bed 3	BRD-080-01 A	L1.G04	2400	3850	DoubleHung	45	N	None

* Refer to glossary.



Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Gym	BRD-093-09 A	GL.G01	2700	1200	Casement	90	E	None
Gym	BRD-020-13 A	GL.G03	2700	6150	Sliding	45	N	None
Gym	BRD-093-09 A	GL.G05	2700	1200	Casement	90	W	None
Gym Powder room	BRD-093-09 A	GL.G02	2700	1800	Casement	90	N	None
Sauna	ALS-032-12 A	GL.G04	2700	1800	Other	00	N	None

Roof window* type and performance value

Default roof windows*

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

Custom roof windows*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
VEL-012-01 W	VELUX FCM - Fixed Curb Mount Skylight DG 3mm LoE 366 / 8.5mm Argon Gap / 5.36mm Clear La	4.0	0.27	0.26	0.28
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

Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
Main Dressing & Ensuite	VEL-012-01 W	SK3	0	1315	1315	E	None	None
Main Lobby	VEL-011-02 W	SK2	0	3240	3240	E	None	None
Main Lobby	VEL-011-02 W	SK3	0	806	806	E	None	None
Garage /Store	VEL-012-01 W	SK1	0	1817	1817	S	None	None

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 /Store	2460	5230	0	S

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
EW-002	Retaining	50.00	Medium		No
EW-003	Concrete wall	40.00	Light		No
EW-004	Timber	70.00	Medium		No
EW-005	Concrete wall	40.00	Light		No
EW-006	Timber/Plasterboard	70.00	Medium	Polyester or polyester/wool blanket: R2.5	No
EW-007	Concrete wall/Bituminous roof membrane/Retaining	40.00	Light		No

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Dining/Kitchen/Living/Laundry/Powder/Stairwell	EW-005	3000	11855	N	30	Yes
Dining/Kitchen/Living/Laundry/Powder/Stairwell	EW-006	3000	10100	E	450	Yes
Bed 2	EW-006	2800	4250	E		No
Bed 2	EW-005	2800	3850	N	50	Yes
Bed 2 ensuite/robe	EW-005	2800	3300	N		No



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Sitting	EW-006	2800	5046	E		No
Sitting	EW-005	2800	4800	S		No
Entry Lobby	EW-005	2800	1660	S		No
Entry Lobby	EW-005	2800	2120	E		No
Bed 4 ensuite/robe	EW-006	2800	7649	W		No
Bed 4	EW-005	2800	3850	N	50	Yes
Bed 4	EW-006	2800	4230	W		No
Main Bed	EW-005	3100	5845	N	50	Yes
Main Bed	EW-006	3100	4550	W		No
Main Dressing & Ensuite	EW-005	3100	3910	N	50	Yes
Main Dressing & Ensuite	EW-006	3100	8545	E		No
Main Dressing & Ensuite	EW-005	3100	3907	S		No
Main Lobby	EW-005	3100	620	S		No
Garage /Store	EW-003	3100	1150	E		No
Garage /Store	EW-003	2600	4700	E		No
Garage /Store	EW-003	2600	6000	S		No
Garage /Store	EW-003	2600	9230	W		No
Garage /Store	EW-005	800	4680	S		No
Garage /Store	EW-005	800	1600	W		No
Excavation Offset	EW-002	3300	2400	E		No
Excavation Offset	EW-002	3300	13050	S		No
Excavation Offset	EW-002	3300	13650	W		No
Bed 3	EW-005	2800	3850	N	50	Yes
Garage subfloor	EW-003	2400	6620	W		No
Garage subfloor	EW-002	900	6000	S		No
Garage subfloor	EW-005	2800	3025	E		No
Gym	EW-006	2700	1200	E	1200	Yes
Gym	EW-006	2700	6150	N	700	Yes
Gym	EW-006	2700	1200	W	1200	Yes
Gym	EW-007	2700	12050	S		No
Gym Powder room	EW-006	2700	2050	E	1200	Yes

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Gym Powder room	EW-006	2700	2805	N	700	Yes
Sauna	EW-006	2700	2800	N	700	Yes
Sauna	EW-006	2700	2060	W	1200	Yes

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Plasterboard	3.26	Polyester or polyester/wool blanket: R2.0
IW-002	Plasterboard/Fibre-cement sheet/Ceramic tile	45.35	Polyester or polyester/wool blanket: R2.0
IW-003	Concrete block	127.79	
IW-004	Concrete wall	125.44	
IW-006	Concrete block	101.15	
IW-007	Concrete block	36.47	Polystyrene extruded (k = 0.028): R1.5
IW-008	Concrete block	1.89	Polystyrene extruded (k = 0.028): R1.5

Floor type

Location	Construction	Area [m ²]	Sub-floor ventilation	Added insulation Covering [R-value]
Dining/Kitchen/Living/Laundry/Powder/Stairwell/Ground	150 concrete slab on ground	127.25		
Bed 2/Dining/Kitchen/Living/Laundry/Powder/Stairwell	200 Concrete slab/90 mm air gap/timber ceiling lining	16.37		
Bed 2 ensuite/robe/Dining/Kitchen/Living/Laundry/Powder/Stairwell	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining	15.05		
Sitting/Dining/Kitchen/Living/Laundry/Powder/Stairwell	200 Concrete slab/90 mm air gap/timber ceiling lining	16.30		
Sitting/Ground	150 concrete slab on ground	4.20		
Sitting/Excavation Offset	200 concrete slab R1.5 ext. poly above subfloor	2.92		R1.5
Entry Lobby/Ground	150 concrete slab on ground	4.33		

Location	Construction	Area [m ²]	Sub-floor ventilation	Added insulation Covering [R-value]
Entry Lobby/Dining/Kitchen/Living/Laundry/Powder/Stairwell	200 Concrete slab/90 mm air gap/timber ceiling lining	31.51		
Entry Lobby/Excavation Offset	200 concrete slab R1.5 ext. poly above subfloor	2.03		R1.5
Bed 4 ensuite/robe/Dining/Kitchen/Living/Laundry/Powder/Stairwell	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining	9.07		
Bed 4 ensuite/robe/Ground	Stone tile on 150 concrete slab on ground	3.60		
Bed 4 ensuite/robe/Excavation Offset	Stone tile on 200 concrete slab R1.5 ext. poly above subfloor	3.06		R1.5
Bed 4/Dining/Kitchen/Living/Laundry/Powder/Stairwell	200 Concrete slab/90 mm air gap/timber ceiling lining	16.31		
Main Bed/Bed 3	200 Concrete slab/90 mm air gap/timber ceiling lining	2.60		
Main Bed/Bed 4	200 Concrete slab/90 mm air gap/timber ceiling lining	0.79		
Main Bed/Bed 4 ensuite/robe	200 Concrete slab/90 mm air gap/timber ceiling lining	6.16		
Main Bed/Entry Lobby	200 Concrete slab/90 mm air gap/timber ceiling lining	10.44		
Main Dressing & Ensuite/Bed 2	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining	0.84		
Main Dressing & Ensuite/Bed 2 ensuite/robe	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining	11.46		



Location	Construction	Area [m ²]	Sub-floor ventilation	Added insulation Covering [R-value]
Main Dressing & Ensuite/Sitting	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining	18.60		
Main Dressing & Ensuite/Bed 3	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining	0.85		
Main Lobby/Entry Lobby	200 Concrete slab/90 mm air gap/timber ceiling lining	20.59		
Garage /Store/Entry Lobby	200 Concrete slab/90 mm air gap/timber ceiling lining	6.04		
Garage /Store/Bed 4 ensuite/robe	200 Concrete slab/90 mm air gap/timber ceiling lining	4.42		
Garage /Store/Garage subfloor	200 concrete slab R1.5 ext. poly above subfloor	28.80		R1.5
Lift/Ground	150 concrete slab on ground	2.24		
Excavation Offset/Ground	Bare ground	17.03	Enclosed	
Bed 3/Dining/Kitchen/Living/Laundry/Powder/Stairwell	200 Concrete slab/90 mm air gap/timber ceiling lining	14.63		
Garage subfloor/Ground	Bare ground	28.92		
Gym/Ground	150 concrete slab on ground	27.95		
Gym Powder room/Ground	Stone tile on 150 concrete slab on ground	5.74		
Sauna/Ground	Stone tile on 150 concrete slab on ground	5.76		

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Bed 2/Dining/Kitchen/Living/Laundry/Powder/Stairwell	200 Concrete slab/90 mm air gap/timber ceiling lining		No



Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Bed 2 ensuite/robe/Dining/Kitchen/Living/Laundry/Powder/Stairwell	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining		No
Sitting/Dining/Kitchen/Living/Laundry/Powder/Stairwell	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Entry Lobby/Dining/Kitchen/Living/Laundry/Powder/Stairwell	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Bed 4 ensuite/robe/Dining/Kitchen/Living/Laundry/Powder/Stairwell	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining		No
Bed 4/Dining/Kitchen/Living/Laundry/Powder/Stairwell	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Bed 3/Dining/Kitchen/Living/Laundry/Powder/Stairwell	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Main Dressing & Ensuite/Bed 2	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining		No
Main Dressing & Ensuite/Bed 2 ensuite/robe	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining		No
Main Dressing & Ensuite/Sitting	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining		No
Main Bed/Entry Lobby	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Main Lobby/Entry Lobby	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Garage /Store/Entry Lobby	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Main Bed/Bed 4 ensuite/robe	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Garage /Store/Bed 4 ensuite/robe	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Main Bed/Bed 4	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Bed 4 ensuite/robe/Excavation Offset	Stone tile on 200 concrete slab R1.5 ext. poly above subfloor	R1.5	No
Entry Lobby/Excavation Offset	200 concrete slab R1.5 ext. poly above subfloor	R1.5	No
Sitting/Excavation Offset	200 concrete slab R1.5 ext. poly above subfloor	R1.5	No
Main Bed/Bed 3	200 Concrete slab/90 mm air gap/timber ceiling lining		No
Main Dressing & Ensuite/Bed 3	stone tile on 200 Concrete slab/90 mm air gap/timber ceiling lining		No



Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Garage /Store/Garage subfloor	200 concrete slab R1.5 ext. poly above subfloor	R1.5	No

Ceiling penetrations*

Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Dining/Kitchen/Living/Laundry/Powder/Stairwell	27	Downlight	0	Sealed
Dining/Kitchen/Living/Laundry/Powder/Stairwell	3	Ceiling exhaust fan	200	Sealed
Bed 2	3	Downlight	0	Sealed
Bed 2 ensuite/robe	3	Downlight	200	Sealed
Bed 2 ensuite/robe	1	Ceiling exhaust fan	250	Sealed
Sitting	4	Downlight	0	Sealed
Entry Lobby	5	Downlight	0	Sealed
Bed 4 ensuite/robe	2	Downlight	0	Sealed
Bed 4 ensuite/robe	1	Ceiling exhaust fan	200	Sealed
Bed 4	3	Downlight	0	Sealed
Main Bed	4	Downlight	0	Sealed
Main Dressing & Ensuite	6	Downlight	0	Sealed
Main Dressing & Ensuite	1	Ceiling exhaust fan	200	Sealed
Main Lobby	4	Downlight	0	Sealed
Bed 3	3	Downlight	0	Sealed
Gym	5	Downlight	0	Sealed
Gym Powder room	1	Downlight	0	Sealed
Sauna	1	Downlight	0	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
No Data Available		



Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Geotextile fabric/Drainage cell/ WPM/R3 ext. poly insulation/200 th. concrete/ 90 mm air gap/timber lining	R3.0	35.00	Light
Pool/Screes/ WPM/200 th. concrete/ 90 mm air gap/plasterbd lining		50.00	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/m² 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 home's 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 home's 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 sheathing 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.