

# Nationwide House Energy Rating Scheme®

## NatHERS® Certificate No. 0011763711

Generated on 05 Mar 2025 using BERS Pro v5.2.3 (3.23)

### Property

**Address** Unit Residence, 15 Pitt Street,  
MANLY VALE, NSW, 2093

**Lot/DP** Lot 13 DP 24418

**NCC class\*** 1a

**Floor/all Floors** G of 2 floors

**Type** New Home

### Plans

**Main plan** 24130-5

**Prepared by** Accurate Design and Drafting

### Construction and environment

<b>Assessed floor area [m2]*</b>	<b>Exposure type</b>
Conditioned* 301.3	Suburban
Unconditioned* 8.0	<b>NatHERS climate zone</b>
Total 332.1	56 Mascot (Sydney Airport)
Garage 22.8	



### Accredited assessor

**Name** Thomas Ruck

**Business name** Building & Energy Consultants Australia

**Email** thomas@beca.net.au

**Phone** 9533 2388

**Accreditation No.** DMN/20/1999

**Assessor Accrediting Organisation** Design Matters National

**Declaration of interest** Declaration completed: no conflicts

### NCC Requirements

**NCC provisions** Volume Two

**State/Territory variation** Yes

### National Construction Code (NCC) requirements

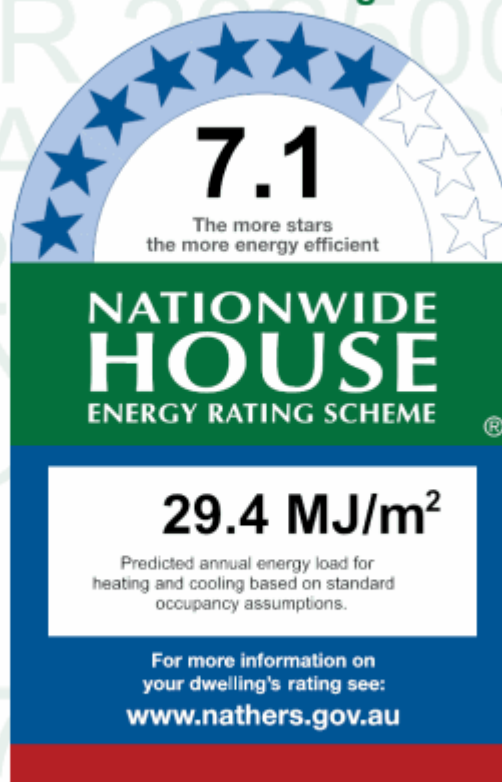
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. 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](http://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
<b>Modelled</b>	13.0	16.4
<b>Load limits</b>	N/A	N/A

### Features determining load limits

Floor Type (lowest conditioned area)	CSOG
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?  
p=DUTmtLwUe](http://hstar.com.au/QR/Generate?p=DUTmtLwUe).  
When using either link,  
ensure you are visiting  
[hstar.com.au](http://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	
<b>Genuine certificate check</b>					
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"/>
<b>Thermal performance check</b>					
<b>Windows and glazed doors</b>					
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"/>
<b>External walls</b>					
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"/>
<b>Floor</b>					
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"/>
<b>Ceiling penetrations*</b>					
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"/>
<b>Ceiling</b>					
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"/>
<b>Roof</b>					
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"/>
<b>Apartment entrance doors (NCC Class 2 assessments only)</b>					
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"/>
<b>Exposure*</b>					
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"/>
<b>Heating and cooling load limits*</b>					
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?

☐ ☐ ☐ ☐

### 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?

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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

Vapour barrier to be added to external wall insulation.

## Room schedule

Room	Zone Type	Area [m <sup>2</sup> ]
Garage	Garage	22.77
Garage	Unconditioned	10.57
Mud	Daytime	5.83
WC	Daytime	2.29
Butlers	Daytime	5
WIP	Daytime	4.05
Kitchen/Family	Kitchen/Living	64.2
Study	Daytime	10.71
Guest	Bedroom	15.23
Guest Ens	Nighttime	6.18
Media	Living	18.77
Entry Foyer	Daytime	27.04
Bedroom 4	Bedroom	18.77
Rumpus/Stair	Living	53.24
Bed 4 Hall	Daytime	3.52
Bed 4 Dress	Nighttime	4.54
Bed 4 Ens	Nighttime	5.65
Bedroom 3	Bedroom	18.01
Bath	Unconditioned	8.02
Hall	Daytime	5.22
Bedroom 2	Bedroom	16.83
Bed 1 Ens	Nighttime	5.67
Bed 1 Dress	Nighttime	4.77
Bedroom 1	Bedroom	19.82
Void	Unconditioned	32.66

## 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
TIM-001-01 W	Timber A SG Clear	5.4	0.56	0.53	0.59

\* Refer to glossary.



## Custom windows\*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
WID-124-026	Aluminium Stacking Door DG 6SolTnTl/12Ar/6Clr	3.4	0.35	0.33	0.37
WID-121-024	Aluminium Double Hung Window DG 6SolTnTl/8Ar/6Clr	3.8	0.32	0.31	0.34
WID-003-014	Aluminium Double Hung Window SG 6SolTnTl	4.8	0.46	0.43	0.48
WID-012-004	Aluminium Awning Window SG 4Clr	6.3	0.65	0.61	0.68
WID-006-014	Aluminium Sliding Window SG 6SolTnTl	4.9	0.47	0.44	0.49
WID-004-014	Aluminium Hinged Door SG 6SolTnTl	4.7	0.38	0.36	0.40
WID-106-018	Aluminium Fixed Window DG 4SolTnTl/12Ar/4Clr	2.3	0.42	0.40	0.44
WID-102-001	Aluminium Sliding Window SG 4Clr	6.3	0.76	0.72	0.79

## Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Garage	TIM-001-01 W	W7	1200	820	Casement	90	S	No
Kitchen/Family	WID-124-026-002	Family SD	2400	4000	Sliding	66	W	No
Kitchen/Family	WID-124-026-002	Meals/Family SD	2400	4000	Sliding	66	W	No
Kitchen/Family	WID-121-024-002	Meals/Family	2100	800	Double Hung	45	N	No
Kitchen/Family	WID-121-024-002	Meals/Family	2100	800	Double Hung	45	N	No
Study	WID-121-024-002	Study	2100	1500	Double Hung	45	N	No
Guest	WID-003-014-001	Guest	2100	800	Double Hung	45	N	No
Guest	WID-003-014-001	Guest	2100	800	Double Hung	45	N	No
Guest Ens	WID-012-004-001	Ens	600	800	Awning	90	N	No
Media	WID-006-014-001	Media	600	3000	Sliding	45	N	No
Media	WID-003-014-001	Media	2100	900	Double Hung	45	E	No
Media	WID-003-014-001	Media	2100	900	Double Hung	45	E	No
Entry Foyer	WID-004-014-001	Entry door	2400	1840	Sliding	45	E	No
Bedroom 4	WID-006-014-001	Bed	600	3000	Sliding	10	N	No
Bedroom 4	WID-003-014-001	Bed 4	1500	2400	Double Hung	10	E	No
Rumpus/Stair	WID-106-018-002	Stair void	1800	1900	Fixed	00	E	No

\* Refer to glossary.





Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Rumpus/Stair	WID-003-014-001	Rumpus	1500	1500	Double Hung	10	N	No
Rumpus/Stair	WID-003-014-001	Rumpus	1500	800	Double Hung	10	N	No
Bed 4 Ens	WID-003-014-001	Ens	1500	800	Double Hung	10	N	No
Bedroom 3	WID-003-014-001	Bed 3	1500	2400	Double Hung	10	E	No
Bath	WID-102-001-003	Bath	1000	1500	Sliding	10	S	No
Bedroom 2	WID-006-014-001	Bed 2	1000	2000	Sliding	10	S	No
Bed 1 Ens	WID-102-001-003	Ens	1000	1000	Double Hung	10	S	No
Bedroom 1	WID-006-014-001	Bed 1	1200	2700	Sliding	10	W	No
Void	WID-106-018-002	W10	1200	4000	Fixed	00	W	No
Void	WID-106-018-002	Void	2100	800	Fixed	00	N	No
Void	WID-106-018-002	Void	2100	800	Fixed	00	N	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 <sup>2</sup> ]	Orientation	Outdoor shade	Diffuser
No Data Available							

## External door schedule

Location	Height [mm]	Width [mm]	Opening %	Orientation
Garage	2400	3340	90	E
Garage	1200	820	90	S

## External wall type

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
EW-1	Timber Stud Frame Brick Veneer	0.30		No insulation	No
EW-2	Single Skin Brick	0.30		No insulation	No
EW-3	Timber Stud Frame Brick Veneer	0.30		Bulk Insulation R2.5	No
EW-4	EPS Direct Fix Timber Stud Frame	0.30		Bulk Insulation R2.5	No

## External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Garage	EW-1	2836	200	N	6500	No
Garage	EW-2	2836	3900	E	1800	No
Garage	EW-1	2836	5995	S	0	No
Garage	EW-3	2750	4290	S	0	No
Butlers	EW-3	2750	2390	S	0	No
Kitchen/Family	EW-3	2750	5995	S	0	No
Kitchen/Family	EW-3	2750	10400	W	3150	No
Kitchen/Family	EW-3	2750	5995	N	0	Yes
Study	EW-3	2750	2890	N	0	Yes
Guest	EW-3	2750	4090	N	0	Yes
Guest Ens	EW-3	2750	1690	N	0	Yes
Media	EW-3	2750	4995	N	0	Yes
Media	EW-3	2750	3800	E	800	Yes





Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Media	EW-3	2750	1200	S	6600	No
Entry Foyer	EW-3	2750	2690	E	1000	Yes
Bedroom 4	EW-4	2650	4995	N	550	Yes
Bedroom 4	EW-4	2650	3800	E	550	No
Bedroom 4	EW-4	2650	1200	S	550	No
Rumpus/Stair	EW-4	2650	2690	E	550	No
Rumpus/Stair	EW-4	2650	2495	N	550	Yes
Rumpus/Stair	EW-4	2651	2395	N	1200	Yes
Bed 4 Dress	EW-4	2651	595	N	1200	No
Bed 4 Dress	EW-4	2650	1095	N	550	No
Bed 4 Ens	EW-4	2650	2090	N	1200	Yes
Bedroom 3	EW-4	2650	1200	N	550	No
Bedroom 3	EW-4	2650	3900	E	550	No
Bedroom 3	EW-4	2650	4695	S	550	No
Bath	EW-4	2650	3490	S	550	No
Bedroom 2	EW-4	2650	4590	S	550	No
Bed 1 Ens	EW-4	2650	2790	S	550	No
Bedroom 1	EW-4	2650	4095	S	550	No
Bedroom 1	EW-4	2650	4895	W	550	No
Void	EW-4	2650	5495	W	550	No
Void	EW-4	2650	5995	N	550	Yes

## Internal wall type

Wall ID	Wall type	Area [m <sup>2</sup> ]	Bulk insulation
IW-001	Timber Stud Frame, Direct Fix Plasterboard	53.82	Bulk Insulation, No Air Gap R2.5
IW-002	Timber Stud Frame, Direct Fix Plasterboard	297.33	No insulation

## Floor type

Location	Construction	Area [m <sup>2</sup> ]	Sub-floor ventilation	Added insulation [R-value]	Covering
Garage	Waffle pod slab 225 mm 100mm	22.66	None	Waffle Pod 225mm	Bare



Location	Construction	Area [m <sup>2</sup> ]	Sub-floor ventilation	Added insulation [R-value]	Covering
Garage	Waffle pod slab 225 mm 100mm	10.57	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Mud	Waffle pod slab 225 mm 100mm	5.83	None	Waffle Pod 225mm	Ceramic Tiles 8mm
WC	Waffle pod slab 225 mm 100mm	2.29	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Butlers	Waffle pod slab 225 mm 100mm	5.00	None	Waffle Pod 225mm	Ceramic Tiles 8mm
WIP	Waffle pod slab 225 mm 100mm	4.05	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Kitchen/Family	Waffle pod slab 225 mm 100mm	64.20	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Study	Waffle pod slab 225 mm 100mm	10.71	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Guest	Waffle pod slab 225 mm 100mm	15.23	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Guest Ens	Waffle pod slab 225 mm 100mm	6.18	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Media	Waffle pod slab 225 mm 100mm	18.77	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Entry Foyer	Waffle pod slab 225 mm 100mm	27.04	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Bedroom 4 / Media	Timber Framed Timber Above Plasterboard 19mm	18.77		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Stair / Mud	Timber Framed Timber Above Plasterboard 19mm	0.00		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Stair / WC	Timber Framed Timber Above Plasterboard 19mm	0.00		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Stair / WIP	Timber Framed Timber Above Plasterboard 19mm	0.00		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Stair / Kitchen/Family	Timber Framed Timber Above Plasterboard 19mm	0.00		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Stair / Study	Timber Framed Timber Above Plasterboard 19mm	0.00		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Stair / Guest	Timber Framed Timber Above Plasterboard 19mm	0.00		No Insulation	Carpet+Rubber Underlay 18mm
Rumpus/Stair / Entry Foyer	Timber Framed Timber Above Plasterboard 19mm	12.98		No Insulation	Carpet+Rubber Underlay 18mm
Bed 4 Hall / Guest	Timber Framed Timber Above Plasterboard 19mm	1.81		No Insulation	Carpet+Rubber Underlay 18mm
Bed 4 Hall / Guest Ens	Timber Framed Timber Above Plasterboard 19mm	1.42		No Insulation	Carpet+Rubber Underlay 18mm
Bed 4 Dress / Guest Ens	Timber Framed Timber Above Plasterboard 19mm	4.54		No Insulation	Carpet+Rubber Underlay 18mm
Bed 4 Ens / Guest	Timber Framed Timber Above Plasterboard 19mm	5.65		No Insulation	Ceramic Tiles 8mm



Location	Construction	Area [m <sup>2</sup> ]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 3 / Garage	Timber Framed Timber Above Plasterboard 19mm	14.10		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Floor Timber Frame 19mm	3.59	Totally Open	Bulk Insulation in Contact with Floor R2.5	Carpet+Rubber Underlay 18mm
Bath / Garage	Timber Framed Timber Above Plasterboard 19mm	5.37		Bulk Insulation R2.5	Ceramic Tiles 8mm
Bath / Garage	Timber Framed Timber Above Plasterboard 19mm	2.05		No Insulation	Ceramic Tiles 8mm
Hall / Garage	Timber Framed Timber Above Plasterboard 19mm	2.53		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
Hall / Mud	Timber Framed Timber Above Plasterboard 19mm	1.74		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2 / Garage	Timber Framed Timber Above Plasterboard 19mm	7.61		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2 / Mud	Timber Framed Timber Above Plasterboard 19mm	1.49		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2 / WC	Timber Framed Timber Above Plasterboard 19mm	0.99		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2 / Butlers	Timber Framed Timber Above Plasterboard 19mm	2.85		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2 / WIP	Timber Framed Timber Above Plasterboard 19mm	2.11		No Insulation	Carpet+Rubber Underlay 18mm
Bed 1 Ens / Butlers	Timber Framed Timber Above Plasterboard 19mm	1.68		No Insulation	Ceramic Tiles 8mm
Bed 1 Ens / Kitchen/Family	Timber Framed Timber Above Plasterboard 19mm	3.78		No Insulation	Ceramic Tiles 8mm
Bed 1 Dress / Kitchen/Family	Timber Framed Timber Above Plasterboard 19mm	4.51		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1 / Kitchen/Family	Timber Framed Timber Above Plasterboard 19mm	19.82		No Insulation	Carpet+Rubber Underlay 18mm
Void / Kitchen/Family	Timber Framed Timber Above Plasterboard 19mm	29.78		No Insulation	Carpet+Rubber Underlay 18mm

## Ceiling type

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



Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
WC	Timber Framed Timber Above Plasterboard	No Insulation	
Butlers	Timber Framed Timber Above Plasterboard	No Insulation	
WIP	Timber Framed Timber Above Plasterboard	No Insulation	
Kitchen/Family	Timber Framed Timber Above Plasterboard	No Insulation	
Study	Timber Framed Timber Above Plasterboard	No Insulation	
Guest	Timber Framed Timber Above Plasterboard	No Insulation	
Guest Ens	Timber Framed Timber Above Plasterboard	No Insulation	
Media	Timber Framed Timber Above Plasterboard	No Insulation	
Entry Foyer	Timber Framed Timber Above Plasterboard	No Insulation	
Bedroom 4	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 4	Plasterboard on Timber	Bulk Insulation R3	
Rumpus/Stair	Plasterboard on Timber	Bulk Insulation R6	
Rumpus/Stair	Plasterboard on Timber	Bulk Insulation R3	
Rumpus/Stair	Plasterboard on Timber	Bulk Insulation R3	
Bed 4 Hall	Plasterboard on Timber	Bulk Insulation R6	
Bed 4 Dress	Plasterboard on Timber	Bulk Insulation R6	
Bed 4 Dress	Plasterboard on Timber	Bulk Insulation R3	
Bed 4 Ens	Plasterboard on Timber	Bulk Insulation R6	
Bed 4 Ens	Plasterboard on Timber	Bulk Insulation R3	
Bedroom 3	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 3	Plasterboard on Timber	Bulk Insulation R3	
Bath	Plasterboard on Timber	Bulk Insulation R6	
Bath	Plasterboard on Timber	Bulk Insulation R3	
Hall	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 2	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 2	Plasterboard on Timber	Bulk Insulation R3	
Bed 1 Ens	Plasterboard on Timber	Bulk Insulation R6	
Bed 1 Ens	Plasterboard on Timber	Bulk Insulation R3	
Bed 1 Dress	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 1	Plasterboard on Timber	Bulk Insulation R6	
Bedroom 1	Plasterboard on Timber	Bulk Insulation R3	
Void	Plasterboard on Timber	Bulk Insulation R6	

\* Refer to glossary.



Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Void	Plasterboard on Timber	Bulk Insulation R3	

### Ceiling penetrations\*

Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Garage	3	Downlights - LED	100	Sealed
Garage	1	Exhaust Fans	300	Sealed
Mud	2	Downlights - LED	100	Sealed
WC	1	Downlights - LED	100	Sealed
WC	1	Exhaust Fans	300	Sealed
Butlers	1	Downlights - LED	100	Sealed
WIP	1	Downlights - LED	100	Sealed
Kitchen/Family	7	Downlights - LED	100	Sealed
Kitchen/Family	1	Exhaust Fans	300	Sealed
Study	3	Downlights - LED	100	Sealed
Guest	3	Downlights - LED	100	Sealed
Guest Ens	2	Downlights - LED	100	Sealed
Guest Ens	1	Exhaust Fans	300	Sealed
Media	4	Downlights - LED	100	Sealed
Entry Foyer	3	Downlights - LED	100	Sealed
Bedroom 4	4	Downlights - LED	100	Sealed
Rumpus/Stair	11	Downlights - LED	100	Sealed
Bed 4 Hall	1	Downlights - LED	100	Sealed
Bed 4 Dress	1	Downlights - LED	100	Sealed
Bed 4 Ens	2	Downlights - LED	100	Sealed
Bed 4 Ens	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	100	Sealed
Bath	2	Downlights - LED	100	Sealed
Bath	1	Exhaust Fans	300	Sealed
Hall	1	Downlights - LED	100	Sealed
Bedroom 2	4	Downlights - LED	100	Sealed
Bed 1 Ens	2	Downlights - LED	100	Sealed
Bed 1 Ens	1	Exhaust Fans	300	Sealed

\* Refer to glossary.



Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Bed 1 Dress	1	Downlights - LED	100	Sealed
Bedroom 1	4	Downlights - LED	100	Sealed
Void	7	Downlights - LED	100	Sealed

## Ceiling fans

Location	Quantity	Diameter [mm]
Study	1	1200
Guest	1	1400
Media	1	1400
Bedroom 4	1	1400
Rumpus/Stair	1	1400
Bedroom 3	1	1400
Bedroom 2	1	1400
Bedroom 1	1	1400

## Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Roof Tiles Timber Frame	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.85	Dark

## 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<sup>2</sup> 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

<b>AFRC</b>	Australian Fenestration Rating Council
<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	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.
<b>Ceiling penetrations</b>	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.
<b>COP</b>	Coefficient of performance
<b>Conditioned</b>	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.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>EER</b>	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
<b>Energy use</b>	This is your home's rating without solar or batteries.
<b>Energy value</b>	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).
<b>Entrance door</b>	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.
<b>Exposure</b>	see exposure categories below.
<b>Exposure category – exposed</b>	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category – open</b>	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).
<b>Exposure category – protected</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category – suburban</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	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 <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Net zero home</b>	a home that achieves a net zero energy value*.
<b>Opening percentage</b>	the operability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	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 <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Recommended capacity</b>	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.
<b>Reflective wrap</b> (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.
<b>Roof window</b>	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.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Skylight</b> (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.
<b>Solar heat gain coefficient (SHGC)</b>	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.
<b>STCs</b>	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)
<b>Thermal breaks</b>	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
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
<b>Vertical shading features</b>	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).
<b>Window shading device</b>	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.

# NatHERS - THERMAL COMFORT SUMMARY

**Address: Residence, 15 Pitt Street MANLY VALE NSW 2093** **Date: 05/03/2025**

**Software: BERS v5** **Certificate number: 0011763711** **Star rating: 7.1**

Building Elements	Material	Detail
External walls	Brick Veneer	R2.5 bulk insulation (Except Garage)
	75mm Masterwall cladding	R2.5 bulk insulation
Internal walls	Plasterboard on studs	R2.5 bulk insulation internal walls Garage, Laundry and Bath
Ceilings	Plasterboard	R6.0 bulk insulation all ceilings adjacent to roof space – R3.0 eave batts R2.5 bulk insulation Garage ceiling to floor above
Floors	225mm waffle pod	-
	Timber	R2.5 bulk insulation under suspended floor to outside
Roof	Roof Tiles (Dark)	Permeable antiglare foil

## Window/doors

Windows	Glass & frame type	U and SHGC values	Details
TIM-001-01	Timber framed single clear	U value: 5.40 and SHGC 0.56	Laundry door
WID-012-004	Aluminium framed single clear	U value: 6.35 and SHGC 0.65	Awning windows - Guest Ens
WID-102-001	Aluminium framed single clear	U value: 6.31 and SHGC 0.76	Sliding windows – Bath, Bed 1 Ensuite
WID-003-014	Aluminium framed single low e SolTNTl	U value: 4.79 and SHGC 0.46	Double hung windows – Media, Guest Bed, Study, Bed 4, Bed 3, Rumpus, Bed 4 Ensuite
WID-006-014	Aluminium framed single low e SolTNTl	U-value: 4.94 and SHGC 0.47	Sliding windows – Media, Bed 4, Bed 2, Bed 1
WID-004-014	Aluminium framed single low e SolTNTl	U-value: 4.66 and SHGC 0.38	Entry doors - Entry
WID-124-026	Aluminium framed double low e SolTNTl	U-value: 3.43 and SHGC 0.35	Stacker doors – Kitchen, Family,
WID-121-024	Aluminium framed double low e SolTNTl	U-value: 3.83 and SHGC 0.32	Double hung windows - Family
WID-106-018	Aluminium framed double low e SolTNTl	U-value: 2.32 and SHGC 0.42	Fixed windows - Voids

U and SHGC values are according to NFRC. Alternate products may be used if the U value is the same or lower and the SHGC is within 5% of the above figures. This also applies to changes to the type and thickness of glass required to meet Bushfire and acoustic regulations.

## Ceiling fans

1200mm ceiling fan to Study

1400mm ceiling fans to Media, Guest Bed, Bed 1, Bed 2, Bed 3, Bed 4 and Sitting

**Lighting:** This dwelling has been rated with non-ventilated LED downlights as per NatHERS certificate.

**Note:** Insulation specified must be installed in accordance with BCA Volume Two.

**Note:** If metal frames are used, a revised assessment is required

**Note:** In some climate zones, insulation should be installed with due consideration of condensation and associated interaction with adjoining building materials.

**Note:** Self-closing damper to bath, ensuite and laundry exhaust fans.