

Nationwide House Energy Rating Scheme

NatHERS Certificate No. 0008915852-01

Generated on 23 May 2024 using AccuRate Sustainability V2.4.3.21 SP1

Property

Address Unit 1, 13 Lodge Lane,
Freshwater, NSW, 2096

Lot/DP Lot 1 DP 307134

NCC Class* 2

Type New Home

Plans

Main plan 2213, 19.04.24

Prepared by Antoine Portier

Construction and environment

Assessed floor area (m²)*	Exposure type
Conditioned* 204.2	Suburban
Unconditioned* 0.0	NatHERS climate zone
Total 204.2	56
Garage	



Accredited assessor

Name Raymond Sleiman

Business name Taylor Smith Consulting

Email rsleiman@taylorsmith.com.au

Phone 02 9890 8002

Accreditation No. DMN/12/1472

Assessor Accrediting Organisation Design Matters National

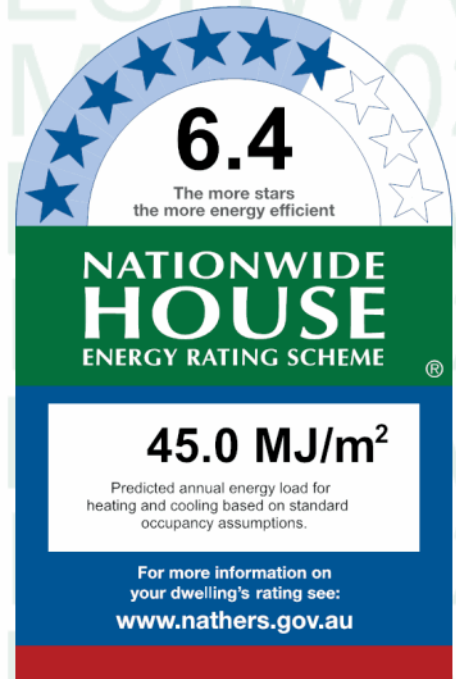
Declaration of interest Declaration completed: no conflicts

National Construction Code (NCC) requirements

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

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

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



Thermal performance

Heating	Cooling
38.8	6.2
MJ/m ²	MJ/m ²

About the rating

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

Verification

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



Certificate check

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

Genuine certificate

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

Ceiling penetrations*

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

Windows

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

Apartment entrance doors

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

Exposure*

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

Provisional* values

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

Additional notes

Window and glazed door type and performance

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALM-002-01 A	Aluminium B SG Clear	6.7	0.70	0.67	0.74

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*
MASTER	ALM-002-01 A	GL.1.1	2900	2183	Sliding	45	NE	None
LIVING/KITCHEN	ALM-002-01 A	GL.1.12	2900	2900	Sliding	45	E	None
LIVING/KITCHEN	ALM-002-01 A	GL.1.3A	2900	727	Other	00	E	None
LIVING/KITCHEN	ALM-002-01 A	GL.1.3B	2115	954	Other	00	N	None
LIVING/KITCHEN	ALM-002-01 A	GL.1.4	2115	2590	Sliding	45	N	None
LIVING/KITCHEN	ALM-002-01 A	GL.1.5	2000	600	Double Hung	45	W	None
LIVING/KITCHEN	ALM-002-01 A	GL.1.6	2000	600	Double Hung	45	W	None
LIVING/KITCHEN	ALM-002-01 A	GL.1.7	2000	600	Double Hung	45	W	None
BED 1	ALM-002-01 A	GL.1.9	2900	1725	Sliding	45	N	None
BED 2	ALM-002-01 A	GL.1.8	2000	600	Double Hung	45	W	None
BED 2	ALM-002-01 A	GL.1.8	2000	1147	Double Hung	24	N	None

Roof window *type and performance*

Default* roof windows

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

Custom* roof windows

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

Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m ²)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
BASEMENT	2400	5650	100	N

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-001	Retaining Bituminous roof membrane/Concrete block	50	Medium		No
EW-002	Sandstone/Concrete block	50	Medium		No
EW-003	Sandstone/Concrete block/Plasterboard	50	Medium	Polystyrene extruded: R2.0	No
EW-004	Retaining Concrete block/Plasterboard	50	Medium	Polystyrene extruded: R2.0	No
EW-007	Retaining Sandstone	50	Medium		No

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
ENTRY	EW-004	2950	3100	E		No
MASTER	EW-003	2950	2200	NE	2800	Yes
MASTER	EW-004	2950	1600	E		No

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
MASTER	EW-004	2950	1300	SE		No
MASTER	EW-003	2950	2250	N	3900	No
LIVING/KITCHEN	EW-003	2950	3630	E	5000	Yes
LIVING/KITCHEN	EW-003	2950	4200	N		No
LIVING/KITCHEN	EW-003	2950	1250	NW		No
LIVING/KITCHEN	EW-003	2950	5800	W		Yes
LIVING/KITCHEN	EW-003	2950	2900	W		Yes
ENS	EW-004	2950	3700	E		No
BED 1	EW-003	2950	1725	N	600	Yes
BED 1	EW-004	2950	4800	W		No
BED 2	EW-003	2950	1800	W		Yes
BED 2	EW-003	2950	1150	N		Yes
LDY	EW-004	2950	2900	E		No
BASEMENT	EW-001	2860	24200	E		No
BASEMENT	EW-001	2860	12400	S		No
BASEMENT	EW-002	2860	10200	N	1500	Yes
BASEMENT	EW-007	2860	10300	W		No
BASEMENT	EW-001	2860	200	N		No
BASEMENT	EW-001	2860	12600	W		No
WIR	EW-004	2950	2300	E		No
WIP	EW-004	2950	3300	E		No
ENS 1	EW-004	2950	2500	W		No
SURF	EW-004	2950	2000	E		No
SURF	EW-004	2950	5750	S		No

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-001	Plasterboard/Concrete block/Brick wall	30.68	
IW-002	Plasterboard/Concrete block	30.98	

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-003	Plasterboard/Concrete block	37.47	
IW-004	Plasterboard/Brick wall	14.16	
IW-005	Plasterboard/Brick wall	231.58	

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
ENTRY/BASEMENT	BM Concrete Slab 200 mm: timber/bare	44.00			
ENTRY/Neighbour	Concrete Slab 200 mm: timber/bare	3.20			
BATH/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare	4.00			Ceramic tile
MASTER/BASEMENT	BM Concrete Slab 200 mm: carpet/bare	17.70			Carpet 10 + felt underlay 10
LIVING/KITCHEN/BASEMENT	BM Concrete Slab 200 mm: timber/bare	47.70			
LIVING/KITCHEN/Outdoor Air	Concrete Slab 200 mm: timber/bare	0.60			
ENS/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare	9.70			Ceramic tile
BED 1/BASEMENT	BM Concrete Slab 200 mm: carpet/bare	12.10			Carpet 10 + felt underlay 10
BED 1/Ground	Concrete Slab 200 mm: carpet/bare	3.80			Carpet 10 + felt underlay 10
BED 2/BASEMENT	BM Concrete Slab 200 mm: carpet/bare	11.90			Carpet 10 + felt underlay 10
WC/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare	3.40			Ceramic tile
LDY/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare	4.60			Ceramic tile
BASEMENT/Ground	Concrete Slab 200 mm: bare/bare	296.00			
WIR/BASEMENT	BM Concrete Slab 200 mm: carpet/bare	6.20			Carpet 10 + felt underlay 10
WIP/BASEMENT	BM Concrete Slab 200 mm: carpet/bare	12.00			Carpet 10 + felt underlay 10
ENS 1/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare	2.00			Ceramic tile
ENS 1/Ground	Concrete Slab 200 mm: ceramic tiles/bare	2.00			Ceramic tile
ENS 1/Neighbour	Concrete Slab 200 mm: ceramic tiles/bare	4.00			Ceramic tile

Location	Construction	Area Sub-floor ventilation (m ²)	Added insulation (R-value)	Covering
WIR 2/BASEMENT	BM Concrete Slab 200 mm: carpet/bare	3.80		Carpet 10 + felt underlay 10
SURF/BASEMENT	BM Concrete Slab 200 mm: timber/bare	9.50		
SURF/Neighbour	Concrete Slab 200 mm: timber/bare	2.00		

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Neighbour/ENTRY	Concrete Slab 200 mm: timber/plasterboard		No
Neighbour/BATH	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Neighbour/MASTER	Concrete Slab 200 mm: carpet/plasterboard		No
Neighbour/LIVING/KITCHEN	Concrete Slab 200 mm: timber/plasterboard		No
Neighbour/ENS	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Neighbour/BED 1	Concrete Slab 200 mm: carpet/plasterboard		No
Neighbour/BED 2	Concrete Slab 200 mm: carpet/plasterboard		No
Neighbour/WC	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Neighbour/LDY	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
BATH/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare		No
LIVING/KITCHEN/BASEMENT	BM Concrete Slab 200 mm: timber/bare		No
BED 1/BASEMENT	BM Concrete Slab 200 mm: carpet/bare		No
ENTRY/BASEMENT	BM Concrete Slab 200 mm: timber/bare		No
ENS/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare		No
MASTER/BASEMENT	BM Concrete Slab 200 mm: carpet/bare		No
WC/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare		No
LDY/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare		No
WIR/BASEMENT	BM Concrete Slab 200 mm: carpet/bare		No
BED 2/BASEMENT	BM Concrete Slab 200 mm: carpet/bare		No
WIP/BASEMENT	BM Concrete Slab 200 mm: carpet/bare		No
ENS 1/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare		No

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
WIR 2/BASEMENT	BM Concrete Slab 200 mm: carpet/bare		No
Neighbour/BASEMENT	BM Concrete Slab 200 mm: ceramic tiles/bare		No
SURF/BASEMENT	BM Concrete Slab 200 mm: timber/bare		No
Neighbour/WIR	Concrete Slab 200 mm: carpet/plasterboard		No
Neighbour/WIP	Concrete Slab 200 mm: carpet/plasterboard		No
Neighbour/ENS 1	Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Neighbour/WIR 2	Concrete Slab 200 mm: carpet/plasterboard		No
Neighbour/SURF	Concrete Slab 200 mm: timber/plasterboard		No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
BATH	1	Ceiling exhaust fan	200	Sealed
LIVING/KITCHEN	1	Ceiling exhaust fan	200	Sealed
ENS	1	Ceiling exhaust fan	200	Sealed
WC	1	Ceiling exhaust fan	200	Sealed
LDY	1	Ceiling exhaust fan	200	Sealed
ENS 1	1	Ceiling exhaust fan	200	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
No Data Available		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
GAR_BALC-B013.rof #1003 © Concrete slab 200mm - Tile walking surface - no insulation - Susp. Ceiling under		50	Medium
GAR_SOIL_ROOF-B013.rof #1004 © Concrete slab 200mm - WP Membrane surface - no insulation - Susp. Ceiling under		50	Medium

Explanatory notes

About this report

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

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

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

Accredited assessors

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

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

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

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

Disclaimer

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

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

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

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

Glossary

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