

Nationwide House Energy Rating Scheme

NatHERS Certificate No. #000000000-00

Generated on [date] using [software and version]

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Property

Address [00 Long Road,
Big town, Victoria, 3000]
Lot/DP [number]
NCC Class* [number]
Type [new/renovation/existing]

Plans

Main plan [plan number, version & date]
Prepared by [name of preparer of plans; single]

Construction and environment

Assessed floor area (m ²)*	Exposure type
Conditioned* [000.0]	[exposure]
Unconditioned* [000.0]	NatHERS climate zone
Total [000.0]	[number, town/suburb]
Garage [000.0]	



Accredited assessor

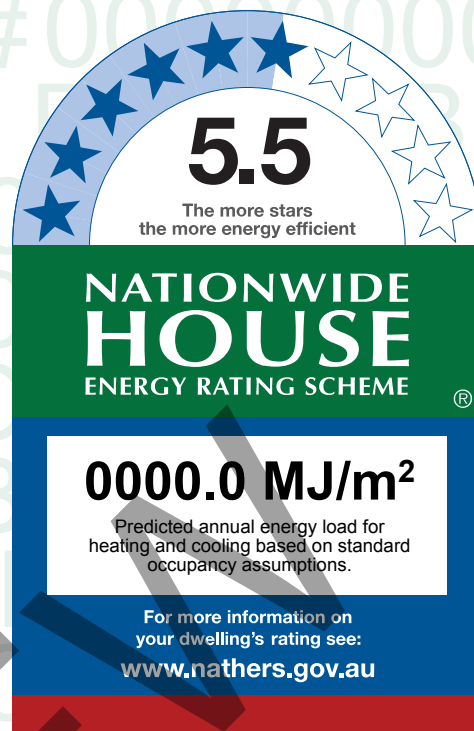
Name [assessor name]
Business name [business name]
Email [email@ email.com]
Phone [0000 000 000]
Accreditation No. [0000 000 000]
Assessor Accrediting Organisation
[Australian Building Australian Building]
Declaration of interest [declaration of interest option]

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated buildings 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
0000.0	0000.0
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 [\[www.address.com/certificatenumber\]](http://www.address.com/certificatenumber).



When using either link, ensure you are visiting www.address.com.au.

* Refer to glossary.



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?

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

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit



Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*

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

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit

Roof window *schedule*

Location	Window ID	Window No.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade

Skylight *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance

Skylight *schedule*

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

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation

* Refer to glossary.



External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)

Internal wall type

Wall ID	Wall type	Area (m²)	Bulk insulation

Floor type

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	Covering

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm²)	Sealed/unsealed

Ceiling fans

Location	Quantity	Diameter (mm)

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade

Explanatory notes

About this report

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

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

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

Accredited assessors

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

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

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

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

Disclaimer

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

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

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

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

Glossary

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

Nationwide House Energy Rating Scheme

NatHERS Certificate No. 0004246757

Generated on 02 Apr 2020 using BERS Pro v4.4.0.1 (3.21)

Property

Address Unit B, 999 Industry Avenue , Canberra , ACT , 2999

Lot/DP NatHERS

NCC Class* 1A

Type New Dwelling

Plans

Main Plan SAP release V1

Prepared by NatHERS Administrator

Construction and environment

Assessed floor area (m²)*	Exposure Type
Conditioned* 205.0	Suburban
Unconditioned* 73.0	NatHERS climate zone
Total 278.0	24
Garage 35.0	



Accredited assessor

Name NatHERS Assessor

Business name Assessor Company

Email assessor@assessorco.com.au

Phone 9999 999 999

Accreditation No. TEST1234

Assessor Accrediting Organisation

ABSA

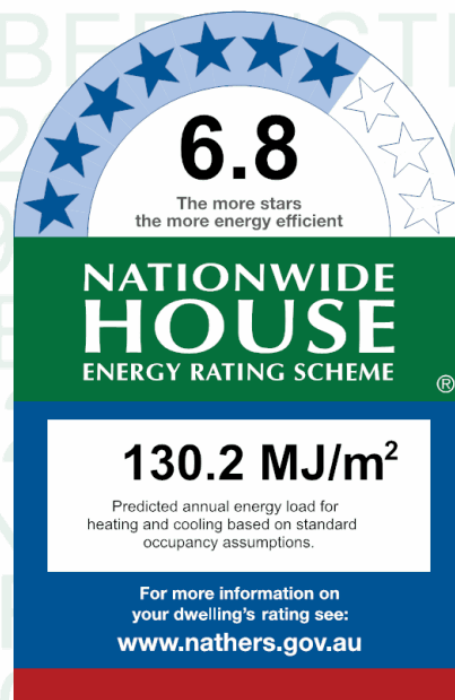
Declaration of interest Declaration not completed

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Heating	Cooling
109.4	20.9
MJ/m²	MJ/m²

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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
TIM-005-01 W	TIM-005-01 W Timber A DG Argon Fill Clear-Clear	2.60	0.50	0.48	0.53
TIM-006-01 W	TIM-006-01 W Timber B DG Argon Fill Clear-Clear	2.60	0.53	0.50	0.56

Custom* windows

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

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Entry	TIM-005-01 W	n/a	514	905	n/a	90	E	No
Entry	TIM-005-01 W	n/a	514	905	n/a	90	E	No
Entry	TIM-006-01 W	n/a	514	905	n/a	00	E	No
Entry	TIM-006-01 W	n/a	514	905	n/a	00	E	No
Garage	TIM-005-01 W	n/a	514	1355	n/a	90	S	No
Garage	TIM-006-01 W	n/a	514	1355	n/a	00	S	No
Laundry	TIM-006-01 W	n/a	2100	1450	n/a	45	S	No
Kitchen/Family	TIM-006-01 W	n/a	1200	905	n/a	00	S	No
Kitchen/Family	TIM-006-01 W	n/a	600	1810	n/a	00	S	No
Kitchen/Family	TIM-005-01 W	n/a	1200	905	n/a	90	S	No
Kitchen/Family	TIM-006-01 W	n/a	2100	2410	n/a	45	W	No
Kitchen/Family	TIM-006-01 W	n/a	2100	2410	n/a	45	S	No
Kitchen/Family	TIM-006-01 W	n/a	600	1810	n/a	00	W	No
Kitchen/Family	TIM-006-01 W	n/a	1200	905	n/a	00	W	No
Kitchen/Family	TIM-005-01 W	n/a	1200	905	n/a	90	W	No
Kitchen/Family	TIM-006-01 W	n/a	600	1810	n/a	00	N	No
Kitchen/Family	TIM-006-01 W	n/a	1200	905	n/a	00	N	No
Kitchen/Family	TIM-005-01 W	n/a	1200	905	n/a	90	N	No
Pantry	TIM-006-01 W	n/a	600	1210	n/a	00	N	No
Pantry	TIM-006-01 W	n/a	1200	605	n/a	00	N	No
Pantry	TIM-005-01 W	n/a	1200	605	n/a	90	N	No
Living	TIM-006-01 W	n/a	2100	2410	n/a	45	N	No
Living	TIM-005-01 W	n/a	514	1355	n/a	90	E	No
Living	TIM-005-01 W	n/a	514	1355	n/a	90	E	No
Living	TIM-006-01 W	n/a	514	1355	n/a	00	E	No
Living	TIM-006-01 W	n/a	514	1355	n/a	00	E	No
Bed 1	TIM-005-01 W	n/a	1200	905	n/a	90	S	No
Bed 1	TIM-006-01 W	n/a	1200	905	n/a	00	S	No
WIR 1	TIM-005-01 W	n/a	1200	905	n/a	90	S	No
WIR 1	TIM-006-01 W	n/a	1200	905	n/a	00	S	No
Ensuite	TIM-005-01 W	n/a	900	610	n/a	90	W	No
Bed 2	TIM-005-01 W	n/a	1200	905	n/a	90	W	No
Bed 2	TIM-006-01 W	n/a	1200	905	n/a	00	W	No
Bed 3	TIM-005-01 W	n/a	1200	905	n/a	90	W	No
Bed 3	TIM-006-01 W	n/a	1200	905	n/a	00	W	No
Bath	TIM-005-01 W	n/a	1200	905	n/a	90	N	No
Bath	TIM-006-01 W	n/a	1200	905	n/a	00	N	No

* Refer to glossary.

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bed 4	TIM-005-01 W	n/a	1200	905	n/a	90	N	No
Bed 4	TIM-006-01 W	n/a	1200	905	n/a	00	N	No
Retreat	TIM-005-01 W	n/a	1200	905	n/a	90	N	No
Retreat	TIM-006-01 W	n/a	1200	905	n/a	00	N	No
Retreat	TIM-005-01 W	n/a	514	1355	n/a	90	S	No
Retreat	TIM-006-01 W	n/a	514	1355	n/a	00	S	No
Living Void	TIM-005-01 W	n/a	1200	905	n/a	90	N	No
Living Void	TIM-006-01 W	n/a	1200	905	n/a	00	N	No
Living Void	TIM-006-01 W	n/a	514	1355	n/a	00	E	No
Living Void	TIM-006-01 W	n/a	514	1355	n/a	00	E	No
Living Void	TIM-005-01 W	n/a	514	1355	n/a	90	E	No
Living Void	TIM-005-01 W	n/a	514	1355	n/a	90	E	No
Living Void	TIM-006-01 W	n/a	514	905	n/a	00	E	No
Living Void	TIM-006-01 W	n/a	514	905	n/a	00	E	No
Living Void	TIM-005-01 W	n/a	514	905	n/a	90	E	No
Living Void	TIM-005-01 W	n/a	514	905	n/a	90	E	No

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
DG-Generic-02 A	Glass	0.70	0.75	0.71	0.79

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
Hall 2	DG-Generic-02 A	n/a	0	780	550	W	No	No

Skylight type and performance

Skylight ID	Skylight description
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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
Entry	2040	920	90	N
Garage	2100	4800	90	E
Garage	2040	820	90	W

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Limestone	0.30	Dark	Bulk Insulation R2	No
EW-2	Single Skin Brick	0.50	Dark	No insulation	No
EW-3	Brick Veneer	0.50	Dark	Foil, Anti-glare one side, Reflective other	Yes
EW-4	Brick Veneer	0.50	Dark	Bulk Insulation R2	No
EW-5	EPS Cavity Panel Direct Fix	0.30	Dark	Bulk Insulation R2	No
EW-6	Brick Veneer	0.30	Dark	Bulk Insulation R2	No
EW-7	Single Skin Panel	0.30	Dark	Bulk Insulation R2	No
EW-8	EPS Cavity Panel Direct Fix	0.50	Dark	Bulk Insulation R2	No
EW-9	Single Skin Panel	0.50	Dark	Bulk Insulation R2	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-1	2430	1945	N	3400	YES
Entry	EW-1	2430	2500	E	0	NO
Entry	EW-1	2430	1945	S	0	NO
Garage	EW-2	2516	5795	E	0	YES
Garage	EW-3	2516	6100	S	0	NO
Garage	EW-3	2516	1700	W	0	YES
Laundry	EW-4	2430	2590	S	0	YES
Kitchen/Family	EW-4	2430	3995	S	0	NO
Kitchen/Family	EW-4	2430	4000	W	3000	YES
Kitchen/Family	EW-4	2430	3000	S	4000	YES
Kitchen/Family	EW-4	2430	6000	W	0	NO
Kitchen/Family	EW-4	2430	6995	N	0	NO

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Pantry	EW-4	2430	2590	N	0	NO
Living	EW-4	2430	3895	N	0	NO
Living	EW-4	2431	3000	N	500	NO
Living	EW-4	2430	3400	E	2000	YES
Living	EW-1	2430	745	S	0	YES
Bed 1	EW-5	2430	4095	E	550	YES
Bed 1	EW-6	614	3595	S	0	NO
Bed 1	EW-5	1816	3595	S	550	NO
WIR 1	EW-6	614	2995	S	0	NO
WIR 1	EW-5	1816	2995	S	550	NO
WIR 1	EW-7	314	1795	W	0	NO
WIR 1	EW-5	2116	1795	W	550	NO
Ensuite	EW-7	884	1190	W	0	YES
Ensuite	EW-5	1546	1190	W	550	YES
Bed 2	EW-9	551	3000	S	0	YES
Bed 2	EW-8	1879	3000	S	550	YES
Bed 2	EW-4	2430	3295	W	550	NO
Bed 3	EW-4	2430	3695	W	550	NO
Bed 3	EW-6	614	3595	N	0	NO
Bed 3	EW-5	1816	3595	N	550	NO
Bath	EW-6	614	2990	N	0	NO
Bath	EW-5	1816	2990	N	550	NO
Bed 4	EW-6	614	2990	N	0	NO
Bed 4	EW-5	1816	2990	N	550	NO
Retreat	EW-6	614	3790	N	0	NO
Retreat	EW-5	1816	3790	N	550	NO
Retreat	EW-5	2430	3790	S	550	YES
Living Void	EW-6	614	3095	N	0	NO
Living Void	EW-5	1816	3095	N	550	NO
Living Void	EW-6	614	5900	E	0	NO
Living Void	EW-5	1816	5900	E	550	NO
Living Void	EW-1	614	800	S	0	NO
Living Void	EW-5	1816	800	S	550	NO
Living Void	EW-5	2430	2295	S	550	NO

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-1 - Brick Veneer		6.00	Foil, Anti-glare one side, Reflective other

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-2 - Cavity wall, direct fix plasterboard, single gap		25.00	Bulk Insulation, No Air Gap R2
IW-3 - Cavity wall, direct fix plasterboard, single gap		193.00	No insulation

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Entry	Waffle pod slab 375 mm 110mm	4.70	None	Waffle Pod 375mm	Cork Tiles or Parquetry 8mm
Garage	Waffle pod slab 375 mm 110mm	34.90	None	Waffle Pod 375mm	Bare
Laundry	Waffle pod slab 375 mm 110mm	10.20	None	Waffle Pod 375mm	Ceramic Tiles 8mm
Kitchen/Family	Waffle pod slab 375 mm 110mm	57.60	None	Waffle Pod 375mm	Cork Tiles or Parquetry 8mm
Pantry	Waffle pod slab 375 mm 110mm	6.40	None	Waffle Pod 375mm	Cork Tiles or Parquetry 8mm
Living	Waffle pod slab 375 mm 110mm	39.90	None	Waffle Pod 375mm	Cork Tiles or Parquetry 8mm
Hall 1	Waffle pod slab 375 mm 110mm	2.80	None	Waffle Pod 375mm	Cork Tiles or Parquetry 8mm
Powder	Waffle pod slab 375 mm 110mm	3.00	None	Waffle Pod 375mm	Ceramic Tiles 8mm
WC 1	Waffle pod slab 375 mm 110mm	1.80	None	Waffle Pod 375mm	Ceramic Tiles 8mm
Bed 1/Laundry	Timber Above Plasterboard 100mm	10.40		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bed 1/Kitchen/Family	Timber Above Plasterboard 100mm	4.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
WIR 1/Kitchen/Family	Timber Above Plasterboard 100mm	5.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Ensuite/Kitchen/Family	Timber Above Plasterboard 100mm	5.80		Bulk Insulation R2	Ceramic Tiles 8mm
Bed 2/Kitchen/Family	Timber Above Plasterboard 19mm	8.60		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bed 2	Suspended Timber Floor 19mm	2.90	Totally Open	Bulk Insulation in Contact with Floor R2	Carpet+Rubber Underlay 18mm
Bed 3/Kitchen/Family	Timber Above Plasterboard 100mm	13.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Family	Timber Above Plasterboard 100mm	8.00		Bulk Insulation R2	Ceramic Tiles 8mm
Bed 4/Kitchen/Family	Timber Above Plasterboard 100mm	1.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bed 4/Pantry	Timber Above Plasterboard 100mm	6.40		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bed 4/Powder	Timber Above Plasterboard 100mm	1.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bed 4/WC 1	Timber Above Plasterboard 100mm	2.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Retreat/Living	Timber Above Plasterboard 100mm	21.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Hall 2/Kitchen/Family	Timber Above Plasterboard 100mm	6.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Hall 2/Hall 1	Timber Above Plasterboard 100mm	2.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
WC 2/Kitchen/Family	Timber Above Plasterboard 100mm	2.70		Bulk Insulation R2	Ceramic Tiles 8mm
WIR 4/Kitchen/Family	Timber Above Plasterboard 100mm	0.50		Bulk Insulation R2	Carpet+Rubber Underlay 18mm

Location	Construction	Area (m ²)	Sub-floor ventilation (R-value)	Added insulation (R-value)	Covering
WIR 4/Powder	Timber Above Plasterboard 100mm	1.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Living Void/Living	Timber Above Plasterboard 100mm	18.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Entry	Plasterboard	Bulk Insulation R3	No
Garage	Plasterboard	No insulation	No
Laundry	Plasterboard	No insulation	No
Laundry	Timber Above Plasterboard	Bulk Insulation R2	No
Kitchen/Family	Plasterboard	No insulation	No
Kitchen/Family	Timber Above Plasterboard	Bulk Insulation R2	No
Pantry	Plasterboard	No insulation	No
Pantry	Timber Above Plasterboard	Bulk Insulation R2	No
Living	Plasterboard	No insulation	No
Living	Timber Above Plasterboard	Bulk Insulation R2	No
Hall 1	Plasterboard	No insulation	No
Hall 1	Timber Above Plasterboard	Bulk Insulation R2	No
Powder	Plasterboard	No insulation	No
Powder	Timber Above Plasterboard	Bulk Insulation R2	No
WC 1	Plasterboard	No insulation	No
WC 1	Timber Above Plasterboard	Bulk Insulation R2	No
Bed 1	Plasterboard	Bulk Insulation R3	No
WIR 1	Plasterboard	Bulk Insulation R3	No
Ensuite	Plasterboard	Bulk Insulation R3	No
Bed 2	Plasterboard	Bulk Insulation R3	No
Bed 3	Plasterboard	Bulk Insulation R3	No
Bath	Plasterboard	Bulk Insulation R3	No
Bed 4	Plasterboard	Bulk Insulation R3	No
Retreat	Plasterboard	Bulk Insulation R3	No
Hall 2	Plasterboard	Bulk Insulation R3	No
WC 2	Plasterboard	Bulk Insulation R3	No
WIR 4	Plasterboard	Bulk Insulation R3	No
Living Void	Plasterboard	Bulk Insulation R3	No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm ²)	Sealed/unsealed
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Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Entry	1	Downlights - LED	190	Sealed
Laundry	1	Downlights - LED	190	Sealed
Kitchen/Family	8	Downlights - LED	190	Sealed
Kitchen/Family	1	Exhaust Fans	160	Sealed
Pantry	2	Downlights - LED	190	Sealed
Living	2	Downlights - LED	190	Sealed
Hall 1	1	Downlights - LED	190	Sealed
Powder	1	Downlights - LED	190	Sealed
WC 1	1	Downlights - LED	190	Sealed
WC 1	1	Exhaust Fans	350	Sealed
Bed 1	2	Downlights - LED	190	Sealed
WIR 1	1	Downlights - LED	190	Sealed
Ensuite	1	Downlights - LED	190	Sealed
Ensuite	1	Exhaust Fans	420	Sealed
Bed 2	2	Downlights - LED	190	Sealed
Bed 3	2	Downlights - LED	190	Sealed
Bath	1	Downlights - LED	190	Sealed
Bath	1	Exhaust Fans	420	Sealed
Bed 4	2	Downlights - LED	190	Sealed
Retreat	3	Downlights - LED	190	Sealed
WC 2	1	Downlights - LED	190	Sealed
WC 2	1	Exhaust Fans	350	Sealed
WIR 4	1	Downlights - LED	190	Sealed
Living Void	2	Downlights - LED	190	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
No Data Available		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.50	Dark
Roof Tiles	No Insulation, Only an Air Gap	0.50	Dark

Explanatory notes

About this report

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

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

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

Accredited assessors

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

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

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

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

Disclaimer

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

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

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

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

Glossary

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

Nationwide House Energy Rating Scheme — Class 2 summary

NatHERS Certificate No. 0004246810

Generated on 2020-04-02 using BERS Pro v4.4.0.1 (3.21)

Property

Address 999 Industry Avenue , Canberra ,
ACT , 2999

Lot/DP NatHERS

NatHERS climate zone 68

Accredited assessor 

NatHERS Assessor

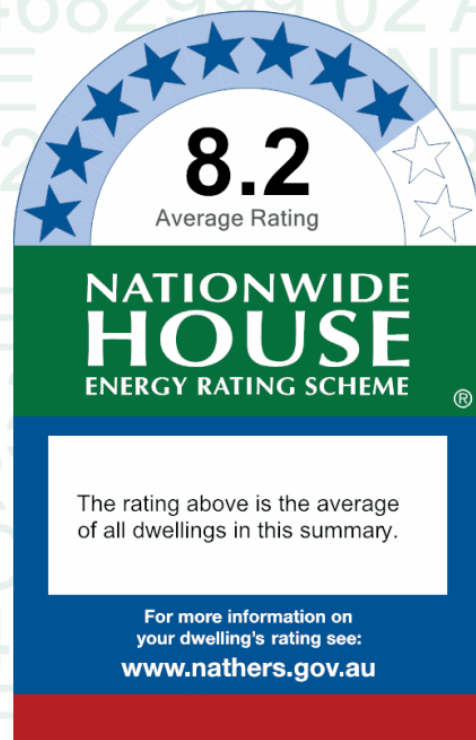
Assessor Company

assessor@assessorco.com.au

9999 999 999

Accreditation No. TEST1234

Assessor Accrediting Organisation ABSA



Verification

To verify this certificate, scan the QR code or visit hstar-dev.azurewebsites.net/QR/Generate?p=dwcobMBDm. When using either link, ensure you are visiting hstar-dev.azurewebsites.net

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (MJ/m ² /p.a.)	Cooling load (MJ/m ² /p.a.)	Total load (MJ/m ² /p.a.)	Star rating
0004246765	A1	75.3	1	76.3	8.2
0004246773	A2	75.3	1	76.3	8.2
Average		75.3	1	76.3	8.2

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated buildings 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.

Explanatory Notes

About this report

This summary rating is the average rating of all NCC Class 2 dwellings in a development. The individual dwellings' ratings are a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate the 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. For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

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). 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.

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

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Residential Energy Rating — Non-Accredited 0004246740

This rating report has been completed by a **rater (non-accredited assessor)***. For more details see the NatHERS House Energy Rating Scheme (NatHERS) website www.nathers.gov.au.

About the rating NatHERS software models expected thermal energy loads using information on 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.

Star rating 6.8

Annual thermal performance

Total 130.2 MJ/m², **Heating** 109.4 MJ/m², **Cooling** 20.9 MJ/m²

Property

Address

Unit A, 999 Industry Avenue , Canberra , ACT , 2999

Lot/DP NatHERS

NCC Class* 1A

Type New Dwelling

Plans

Main Plan SAP release V1

Prepared by NatHERS Administrator

Construction and environment

Assessed floor area (m²)*

Conditioned* 205.0

Unconditioned* 73.0

Total 278.0

Garage 35.0

Exposure Type

Suburban

NatHERS climate zone

24

Rater*

Name NatHERS Assessor

Business name Assessor Company

Email assessor@assessorco.com.au

Phone 9999 999 999

Declaration of interest Declaration not completed

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated buildings 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.

*Raters (non-accredited assessors) are not required to have any formal qualifications, insurance, ongoing professional development or quality assurance checks on their ratings. This is distinct from NatHERS accredited assessors who are required to have qualifications, ongoing professional development and have quality assurance checks on their ratings.

Verification

To verify this rating report, scan the QR code or visit hstar-dev.azurewebsites.net/QR/Generate?p=mhqlraEWWj.

When using either link, ensure you are visiting hstar-dev.azurewebsites.net



Rating report check

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

Genuine rating report

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

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 rating report?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this rating report?

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 rating report.

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
TIM-005-01 W	TIM-005-01 W Timber A DG Argon Fill Clear-Clear	2.60	0.50	0.48	0.53
TIM-006-01 W	TIM-006-01 W Timber B DG Argon Fill Clear-Clear	2.60	0.53	0.50	0.56

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

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Entry	TIM-005-01 W	n/a	514	905	n/a	90	E	No
Entry	TIM-005-01 W	n/a	514	905	n/a	90	E	No
Entry	TIM-006-01 W	n/a	514	905	n/a	00	E	No
Entry	TIM-006-01 W	n/a	514	905	n/a	00	E	No
Garage	TIM-005-01 W	n/a	514	1355	n/a	90	S	No
Garage	TIM-006-01 W	n/a	514	1355	n/a	00	S	No
Laundry	TIM-006-01 W	n/a	2100	1450	n/a	45	S	No
Kitchen/Family	TIM-006-01 W	n/a	1200	905	n/a	00	S	No
Kitchen/Family	TIM-006-01 W	n/a	600	1810	n/a	00	S	No
Kitchen/Family	TIM-005-01 W	n/a	1200	905	n/a	90	S	No
Kitchen/Family	TIM-006-01 W	n/a	2100	2410	n/a	45	W	No
Kitchen/Family	TIM-006-01 W	n/a	2100	2410	n/a	45	S	No
Kitchen/Family	TIM-006-01 W	n/a	600	1810	n/a	00	W	No
Kitchen/Family	TIM-006-01 W	n/a	1200	905	n/a	00	W	No
Kitchen/Family	TIM-005-01 W	n/a	1200	905	n/a	90	W	No
Kitchen/Family	TIM-006-01 W	n/a	600	1810	n/a	00	N	No
Kitchen/Family	TIM-006-01 W	n/a	1200	905	n/a	00	N	No
Kitchen/Family	TIM-005-01 W	n/a	1200	905	n/a	90	N	No
Pantry	TIM-006-01 W	n/a	600	1210	n/a	00	N	No
Pantry	TIM-006-01 W	n/a	1200	605	n/a	00	N	No
Pantry	TIM-005-01 W	n/a	1200	605	n/a	90	N	No
Living	TIM-006-01 W	n/a	2100	2410	n/a	45	N	No
Living	TIM-005-01 W	n/a	514	1355	n/a	90	E	No
Living	TIM-005-01 W	n/a	514	1355	n/a	90	E	No
Living	TIM-006-01 W	n/a	514	1355	n/a	00	E	No
Living	TIM-006-01 W	n/a	514	1355	n/a	00	E	No
Bed 1	TIM-005-01 W	n/a	1200	905	n/a	90	S	No
Bed 1	TIM-006-01 W	n/a	1200	905	n/a	00	S	No
WIR 1	TIM-005-01 W	n/a	1200	905	n/a	90	S	No
WIR 1	TIM-006-01 W	n/a	1200	905	n/a	00	S	No
Ensuite	TIM-005-01 W	n/a	900	610	n/a	90	W	No
Bed 2	TIM-005-01 W	n/a	1200	905	n/a	90	W	No

* Refer to glossary.

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bed 2	TIM-006-01 W	n/a	1200	905	n/a	00	W	No
Bed 3	TIM-005-01 W	n/a	1200	905	n/a	90	W	No
Bed 3	TIM-006-01 W	n/a	1200	905	n/a	00	W	No
Bath	TIM-005-01 W	n/a	1200	905	n/a	90	N	No
Bath	TIM-006-01 W	n/a	1200	905	n/a	00	N	No
Bed 4	TIM-005-01 W	n/a	1200	905	n/a	90	N	No
Bed 4	TIM-006-01 W	n/a	1200	905	n/a	00	N	No
Retreat	TIM-005-01 W	n/a	1200	905	n/a	90	N	No
Retreat	TIM-006-01 W	n/a	1200	905	n/a	00	N	No
Retreat	TIM-005-01 W	n/a	514	1355	n/a	90	S	No
Retreat	TIM-006-01 W	n/a	514	1355	n/a	00	S	No
Living Void	TIM-005-01 W	n/a	1200	905	n/a	90	N	No
Living Void	TIM-006-01 W	n/a	1200	905	n/a	00	N	No
Living Void	TIM-006-01 W	n/a	514	1355	n/a	00	E	No
Living Void	TIM-006-01 W	n/a	514	1355	n/a	00	E	No
Living Void	TIM-005-01 W	n/a	514	1355	n/a	90	E	No
Living Void	TIM-005-01 W	n/a	514	1355	n/a	90	E	No
Living Void	TIM-006-01 W	n/a	514	905	n/a	00	E	No
Living Void	TIM-006-01 W	n/a	514	905	n/a	00	E	No
Living Void	TIM-005-01 W	n/a	514	905	n/a	90	E	No
Living Void	TIM-005-01 W	n/a	514	905	n/a	90	E	No

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
DG-Generic-02 A	Glass	0.70	0.75	0.71	0.79

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

* Refer to glossary.

Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
Hall 2	DG-Generic-02 A	n/a	0	780	550	W	No	No

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
Entry	2040	920	90	N
Garage	2100	4800	90	E
Garage	2040	820	90	W

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Limestone	0.30	Dark	Bulk Insulation R2	No
EW-2	Single Skin Brick	0.50	Dark	No insulation	No
EW-3	Brick Veneer	0.50	Dark	Foil, Anti-glare one side, Reflective other	Yes
EW-4	Brick Veneer	0.50	Dark	Bulk Insulation R2	No
EW-5	EPS Cavity Panel Direct Fix	0.30	Dark	Bulk Insulation R2	No
EW-6	Brick Veneer	0.30	Dark	Bulk Insulation R2	No
EW-7	Single Skin Panel	0.30	Dark	Bulk Insulation R2	No
EW-8	EPS Cavity Panel Direct Fix	0.50	Dark	Bulk Insulation R2	No
EW-9	Single Skin Panel	0.50	Dark	Bulk Insulation R2	No

* Refer to glossary.

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Entry	EW-1	2430	1945	N	3400	YES
Entry	EW-1	2430	2500	E	0	NO
Entry	EW-1	2430	1945	S	0	NO
Garage	EW-2	2516	5795	E	0	YES
Garage	EW-3	2516	6100	S	0	NO
Garage	EW-3	2516	1700	W	0	YES
Laundry	EW-4	2430	2590	S	0	YES
Kitchen/Family	EW-4	2430	3995	S	0	NO
Kitchen/Family	EW-4	2430	4000	W	3000	YES
Kitchen/Family	EW-4	2430	3000	S	4000	YES
Kitchen/Family	EW-4	2430	6000	W	0	NO
Kitchen/Family	EW-4	2430	6995	N	0	NO
Pantry	EW-4	2430	2590	N	0	NO
Living	EW-4	2430	3895	N	0	NO
Living	EW-4	2431	3000	N	500	NO
Living	EW-4	2430	3400	E	2000	YES
Living	EW-1	2430	745	S	0	YES
Bed 1	EW-5	2430	4095	E	550	YES
Bed 1	EW-6	614	3595	S	0	NO
Bed 1	EW-5	1816	3595	S	550	NO
WIR 1	EW-6	614	2995	S	0	NO
WIR 1	EW-5	1816	2995	S	550	NO
WIR 1	EW-7	314	1795	W	0	NO
WIR 1	EW-5	2116	1795	W	550	NO
Ensuite	EW-7	884	1190	W	0	YES
Ensuite	EW-5	1546	1190	W	550	YES
Bed 2	EW-9	551	3000	S	0	YES
Bed 2	EW-8	1879	3000	S	550	YES
Bed 2	EW-4	2430	3295	W	550	NO
Bed 3	EW-4	2430	3695	W	550	NO
Bed 3	EW-6	614	3595	N	0	NO
Bed 3	EW-5	1816	3595	N	550	NO

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bath	EW-6	614	2990	N	0	NO
Bath	EW-5	1816	2990	N	550	NO
Bed 4	EW-6	614	2990	N	0	NO
Bed 4	EW-5	1816	2990	N	550	NO
Retreat	EW-6	614	3790	N	0	NO
Retreat	EW-5	1816	3790	N	550	NO
Retreat	EW-5	2430	3790	S	550	YES
Living Void	EW-6	614	3095	N	0	NO
Living Void	EW-5	1816	3095	N	550	NO
Living Void	EW-6	614	5900	E	0	NO
Living Void	EW-5	1816	5900	E	550	NO
Living Void	EW-1	614	800	S	0	NO
Living Void	EW-5	1816	800	S	550	NO
Living Void	EW-5	2430	2295	S	550	NO

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-1 - Brick Veneer		6.00	Foil, Anti-glare one side, Reflective other
IW-2 - Cavity wall, direct fix plasterboard, single gap		25.00	Bulk Insulation, No Air Gap R2
IW-3 - Cavity wall, direct fix plasterboard, single gap		193.00	No insulation

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Entry	Waffle pod slab 375 mm 110mm	4.70	None	Waffle Pod 375mm	Cork Tiles or Parquetry 8mm
Garage	Waffle pod slab 375 mm 110mm	34.90	None	Waffle Pod 375mm	Bare
Laundry	Waffle pod slab 375 mm 110mm	10.20	None	Waffle Pod 375mm	Ceramic Tiles 8mm
Kitchen/Family	Waffle pod slab 375 mm 110mm	57.60	None	Waffle Pod 375mm	Cork Tiles or Parquetry 8mm
Pantry	Waffle pod slab 375 mm 110mm	6.40	None	Waffle Pod 375mm	Cork Tiles or Parquetry 8mm
Living	Waffle pod slab 375 mm 110mm	39.90	None	Waffle Pod 375mm	Cork Tiles or Parquetry 8mm
Hall 1	Waffle pod slab 375 mm 110mm	2.80	None	Waffle Pod 375mm	Cork Tiles or Parquetry 8mm

* Refer to glossary.

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Powder	Waffle pod slab 375 mm 110mm	3.00	None	Waffle Pod 375mm	Ceramic Tiles 8mm
WC 1	Waffle pod slab 375 mm 110mm	1.80	None	Waffle Pod 375mm	Ceramic Tiles 8mm
Bed 1/Laundry	Timber Above Plasterboard 100mm	10.40		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bed 1/Kitchen/Family	Timber Above Plasterboard 100mm	4.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
WIR 1/Kitchen/Family	Timber Above Plasterboard 100mm	5.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Ensuite/Kitchen/Family	Timber Above Plasterboard 100mm	5.80		Bulk Insulation R2	Ceramic Tiles 8mm
Bed 2/Kitchen/Family	Timber Above Plasterboard 19mm	8.60		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bed 2	Suspended Timber Floor 19mm	2.90	Totally Open	Bulk Insulation in Contact with Floor R2	Carpet+Rubber Underlay 18mm
Bed 3/Kitchen/Family	Timber Above Plasterboard 100mm	13.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bath/Kitchen/Family	Timber Above Plasterboard 100mm	8.00		Bulk Insulation R2	Ceramic Tiles 8mm
Bed 4/Kitchen/Family	Timber Above Plasterboard 100mm	1.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bed 4/Pantry	Timber Above Plasterboard 100mm	6.40		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bed 4/Powder	Timber Above Plasterboard 100mm	1.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Bed 4/WC 1	Timber Above Plasterboard 100mm	2.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Retreat/Living	Timber Above Plasterboard 100mm	21.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Hall 2/Kitchen/Family	Timber Above Plasterboard 100mm	6.20		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Hall 2/Hall 1	Timber Above Plasterboard 100mm	2.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
WC 2/Kitchen/Family	Timber Above Plasterboard 100mm	2.70		Bulk Insulation R2	Ceramic Tiles 8mm
WIR 4/Kitchen/Family	Timber Above Plasterboard 100mm	0.50		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
WIR 4/Powder	Timber Above Plasterboard 100mm	1.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
Living Void/Living	Timber Above Plasterboard 100mm	18.00		Bulk Insulation R2	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Entry	Plasterboard	Bulk Insulation R3	No
Garage	Plasterboard	No insulation	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Laundry	Plasterboard	No insulation	No
Laundry	Timber Above Plasterboard	Bulk Insulation R2	No
Kitchen/Family	Plasterboard	No insulation	No
Kitchen/Family	Timber Above Plasterboard	Bulk Insulation R2	No
Pantry	Plasterboard	No insulation	No
Pantry	Timber Above Plasterboard	Bulk Insulation R2	No
Living	Plasterboard	No insulation	No
Living	Timber Above Plasterboard	Bulk Insulation R2	No
Hall 1	Plasterboard	No insulation	No
Hall 1	Timber Above Plasterboard	Bulk Insulation R2	No
Powder	Plasterboard	No insulation	No
Powder	Timber Above Plasterboard	Bulk Insulation R2	No
WC 1	Plasterboard	No insulation	No
WC 1	Timber Above Plasterboard	Bulk Insulation R2	No
Bed 1	Plasterboard	Bulk Insulation R3	No
WIR 1	Plasterboard	Bulk Insulation R3	No
Ensuite	Plasterboard	Bulk Insulation R3	No
Bed 2	Plasterboard	Bulk Insulation R3	No
Bed 3	Plasterboard	Bulk Insulation R3	No
Bath	Plasterboard	Bulk Insulation R3	No
Bed 4	Plasterboard	Bulk Insulation R3	No
Retreat	Plasterboard	Bulk Insulation R3	No
Hall 2	Plasterboard	Bulk Insulation R3	No
WC 2	Plasterboard	Bulk Insulation R3	No
WIR 4	Plasterboard	Bulk Insulation R3	No
Living Void	Plasterboard	Bulk Insulation R3	No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm ²)	Sealed/unsealed
Entry	1	Downlights - LED	190	Sealed
Laundry	1	Downlights - LED	190	Sealed
Kitchen/Family	8	Downlights - LED	190	Sealed
Kitchen/Family	1	Exhaust Fans	160	Sealed

* Refer to glossary.

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Pantry	2	Downlights - LED	190	Sealed
Living	2	Downlights - LED	190	Sealed
Hall 1	1	Downlights - LED	190	Sealed
Powder	1	Downlights - LED	190	Sealed
WC 1	1	Downlights - LED	190	Sealed
WC 1	1	Exhaust Fans	350	Sealed
Bed 1	2	Downlights - LED	190	Sealed
WIR 1	1	Downlights - LED	190	Sealed
Ensuite	1	Downlights - LED	190	Sealed
Ensuite	1	Exhaust Fans	420	Sealed
Bed 2	2	Downlights - LED	190	Sealed
Bed 3	2	Downlights - LED	190	Sealed
Bath	1	Downlights - LED	190	Sealed
Bath	1	Exhaust Fans	420	Sealed
Bed 4	2	Downlights - LED	190	Sealed
Retreat	3	Downlights - LED	190	Sealed
WC 2	1	Downlights - LED	190	Sealed
WC 2	1	Exhaust Fans	350	Sealed
WIR 4	1	Downlights - LED	190	Sealed
Living Void	2	Downlights - LED	190	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
No Data Available		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.50	Dark
Roof Tiles	No Insulation, Only an Air Gap	0.50	Dark

Explanatory notes

About this report

This summary rating is the average rating of all NCC Class 2a dwellings in a development. The individual dwellings' ratings are a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate the 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. For more details about an individual dwelling's assessment, refer to the individual rating report (accessible via the link in the table above).

Raters

Raters (non-accredited assessors) may not have completed a recognised software training course, do not have quality assurance checks conducted through NatHERS processes, do not have any ongoing training requirements and **are not supported or recognised under NatHERS**.

Any questions or concerns about this report should be directed to the rater in the first instance. If the rater is unable to address these questions or concerns, the state or territory building code authority should be contacted.

Disclaimer

The format of the energy rating report was developed by the NatHERS Administrator. However the content of each individual rating report is entered and created by the rater. It is the responsibility of the rater who prepared this rating report to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce the rating report.

Glossary

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

* Refer to glossary.

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).

Residential Class 2 Energy Rating Summary – Non-Accredited 0004246800

Generated on 2020-04-02 using BERS Pro v4.4.0.1 (3.21)

This rating report has been completed by a **rater (non-accredited assessor)***. For more details see the NatHERS House Energy Rating Schema (NatHERS) website www.nathers.gov.au

Average star rating [0.0]

Property

999 Industry Avenue ,
Canberra , ACT , 2999

Lot/DP NatHERS

NatHERS climate zone 2

Completed by*

NatHERS Assessor

Assessor Company

assessor@assessorco.com.au

9999 999 999

Verification

To verify this rating report,
scan the QR code or visit



hstar-

dev.azurewebsites.net/QR/Generate?

p=VsOcggygq . When

using either link, ensure

you are visiting hstar-dev.azurewebsites.net

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (MJ/m ² /p.a.)	Cooling load (MJ/m ² /p.a.)	Total load (MJ/m ² /p.a.)	Star rating
0004246781	A3	75.3	1	76.3	8.2
0004246799	A4	75.3	1	76.3	8.2
Average		75.3	1	76.3	8.2

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.

*Raters (non-accredited assessors) are not required to have any formal qualifications, ongoing professional development or quality assurance checks on their ratings. This is distinct from NatHERS accredited assessors who are required to have qualifications, ongoing professional development and have quality assurance checks on their ratings.

Explanatory Notes

About this report

This summary rating is the average rating of all NCC Class 2 dwellings in a development. The individual dwellings' ratings are a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate the 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. For more details about an individual dwelling's assessment, refer to the individual rating report (accessible via the link in the table above).

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0004246810 2020-04-02

Assessor

NatHERS Assessor

Accreditation No.

TEST1234

Address

999 Industry Avenue
, Canberra , ACT ,
2999



hstar-dev.azurewebsites.net



0004246757 2019-04-08

Assessor

NathERS Assessor

Accreditation No.

TEST1234

Address

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Avenue , Canberra ,
ACT , 2999



hstar-dev.azurewebsites.net

6.8
STARS

This rating is
prepared by a
non-accredited
assessor.

0004246740 2019-04-08

Prepared By

NatHERS
Assessor

Unit A, 999
Industry Avenue ,
Canberra , ACT ,
2999



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AVERAGE
8.2
STARS

This rating is
prepared by a
non-accredited
assessor.

0004246800 2020-04-02

Prepared By

NatHERS
Assessor

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2999



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