

Nationwide House Energy Rating Scheme

NatHERS Certificate No. #HR-7H4TN1-01

Generated on 08 Oct 2022 using Hero 3.0.1

Property

Address 88 SAMPLE PLACE, CALWELL, ACT,
2905

Lot/DP

NCC Class* 1a

Type New

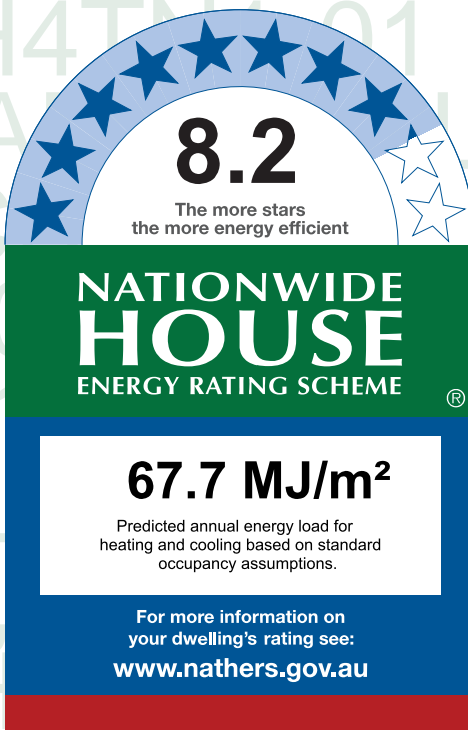
Plans

Main Plan 8/10/2022

Prepared by ACT BUILDING APPROVALS

Construction and environment

Assessed floor area (m ²)*	Exposure Type
Conditioned* 220.2	Suburban
Unconditioned* 16.6	NatHERS climate zone
Total 299.8	24 - Canberra Airport
Garage 63.1	



Thermal Performance

Heating	Cooling
50.0	17.7
MJ/m ²	MJ/m ²



Accredited assessor

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Accreditation No.	10062
Assessor Accrediting Organisation	HERA
Declaration of interest	No Conflict of Interest

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 <http://www.hero-software.com.au/pdf/HR-7H4TN1-01>. When using either link, ensure you are visiting <http://www.hero-software.com.au>



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.

* 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

ACT Building Approvals
Specialist in Residential Building Inspection, Compliance & Sustainability.
National Accreditation with Decades of Experience and Knowledge
Independent, Reputable and Professional Consultancy Service.

Window and glazed door *type and performance*

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ALU-007-01 W	Smart slide W Aluminium Spacer TG LightBridge_ClrS0_6-12-5-12-6	1.05	0.38	0.36	0.40
ALU-009-02 W	Tilt and Turn id4000 TG LightBridge_ClrS0_4-14-4-14-4	1.29	0.26	0.25	0.27
ALU-021-01 W	IDEAL 4000 Door TG LightBridgeNext 688Lam-12-5mm-12mm-5mm	1.00	0.31	0.29	0.33

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BATH	ALU-021-01 W	AW1015-B	1000	750	Fixed	0	SSW	None
BATH	ALU-009-02 W	AW1015-A	1000	750	Tilt & Turn	90	SSW	None
BED 1	ALU-021-01 W	SD2431-L	2400	775	Fixed	0	WNW	None
BED 1	ALU-007-01 W	SD2431-K	2400	775	Sliding	45	WNW	None
BED 1	ALU-021-01 W	SD2431-I	2400	775	Fixed	0	WNW	None
BED 1	ALU-007-01 W	SD2431-J	2400	775	Sliding	45	WNW	None
BED 2	ALU-009-02 W	AW1024-R	1000	800	Tilt & Turn	90	SSW	None
BED 2	ALU-009-02 W	AW1024-P	1000	800	Tilt & Turn	90	SSW	None
BED 2	ALU-021-01 W	AW1024-Q	1000	800	Fixed	0	SSW	None
BED 3	ALU-009-02 W	AW1024-O	1000	800	Tilt & Turn	90	SSW	None
BED 3	ALU-009-02 W	AW1024-M	1000	800	Tilt & Turn	90	SSW	None
BED 3	ALU-021-01 W	AW1024-N	1000	800	Fixed	0	SSW	None
ENTRY	ALU-021-01 W	AW5218 LOWER-1	1300	1800	Fixed	0	WNW	None
ENTRY	ALU-021-01 W	AW5218 LOWER-2	1300	1800	Fixed	0	WNW	None
ENTRY	ALU-021-01 W	AW5218 LOWER-3	1300	1800	Fixed	0	NNE	None
ENTRY	ALU-021-01 W	AW5218 LOWER-5	1300	1800	Fixed	0	NNE	None
ENTRY	ALU-021-01 W	AW5218 LOWER-7	1300	1800	Fixed	0	NNE	None
ENTRY	ALU-021-01 W	AW5218 LOWER-4	1300	1800	Fixed	0	NNE	None
ENTRY	ALU-021-01 W	AW5218 LOWER-6	1300	1800	Fixed	0	NNE	None
ENTRY	ALU-021-01 W	AW5218 LOWER-8	1300	1800	Fixed	0	NNE	None
ENTRY	ALU-021-01 W	SD2442-D	2400	1050	Fixed	0	NNE	None
ENTRY	ALU-007-01 W	SD2442-C	2400	1050	Sliding	90	NNE	None
ENTRY	ALU-021-01 W	SD2442-A	2400	1050	Fixed	0	NNE	None
ENTRY	ALU-007-01 W	SD2442-B	2400	1050	Sliding	90	NNE	None
FAMILY/DINING/KITCHEN	ALU-021-01 W	SD2431-H	2400	775	Fixed	0	NNE	None
FAMILY/DINING/KITCHEN	ALU-021-01 W	AW2106-1	700	600	Fixed	0	NNE	None

* Refer to glossary.



Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
FAMILY/DINING/KITCHEN	ALU-021-01 W	AW2106-4	700	600	Fixed	0	NNE	None
FAMILY/DINING/KITCHEN	ALU-007-01 W	SD2431-G	2400	775	Sliding	90	NNE	None
FAMILY/DINING/KITCHEN	ALU-021-01 W	SD2431-E	2400	775	Fixed	0	NNE	None
FAMILY/DINING/KITCHEN	ALU-007-01 W	SD2431-F	2400	775	Sliding	90	NNE	None
FAMILY/DINING/KITCHEN	ALU-009-02 W	AW2106-2	700	600	Tilt & Turn	90	NNE	None
FAMILY/DINING/KITCHEN	ALU-021-01 W	AW2106-3	700	600	Fixed	0	NNE	None
FAMILY/DINING/KITCHEN	ALU-009-02 W	AW2106-5	700	600	Tilt & Turn	90	NNE	None
FAMILY/DINING/KITCHEN	ALU-021-01 W	AW2106-6	700	600	Fixed	0	NNE	None
FAMILY/DINING/KITCHEN	ALU-021-01 W	FW2132	2100	3200	Fixed	0	ESE	None
FAMILY/DINING/KITCHEN	ALU-021-01 W	SD2431-D	2400	775	Fixed	0	WNW	None
FAMILY/DINING/KITCHEN	ALU-007-01 W	SD2431-C	2400	775	Sliding	90	WNW	None
FAMILY/DINING/KITCHEN	ALU-007-01 W	SD2431-B	2400	775	Sliding	90	WNW	None
GARAGE	ALU-009-02 W	AW0636-H	600	900	Tilt & Turn	90	SSW	None
GARAGE	ALU-009-02 W	AW0636-C	600	900	Tilt & Turn	90	SSW	None
GARAGE	ALU-021-01 W	AW0636-D	600	900	Fixed	0	SSW	None
GARAGE	ALU-021-01 W	AW0636-B	600	900	Fixed	0	SSW	None
GARAGE	ALU-009-02 W	AW0636-A	600	900	Tilt & Turn	90	SSW	None
GARAGE	ALU-021-01 W	AW0636-G	600	900	Fixed	0	SSW	None
GARAGE	ALU-009-02 W	AW0636-E	600	900	Tilt & Turn	90	SSW	None
GARAGE	ALU-021-01 W	AW0636-F	600	900	Fixed	0	SSW	None
GUEST BED	ALU-009-02 W	AW2132-1	700	3200	Tilt & Turn	90	WNW	OP-100%
GUEST BED	ALU-021-01 W	AW2132-2	1400	3200	Fixed	0	WNW	None
LDRY WIL	ALU-021-01 W	SD2415-B	2400	750	Fixed	0	SSW	None
LDRY WIL	ALU-007-01 W	SD2415-A	2400	750	Sliding	45	SSW	None
SITTING/HALL /STAIRWELL	ALU-021-01 W	AW5218	2600	1800	Fixed	0	WNW	None
SITTING/HALL /STAIRWELL	ALU-021-01 W	AW5218	2600	1800	Fixed	0	NNE	None

* Refer to glossary.

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
SITTING/HALL /STAIRWELL	ALU-021-01 W	AW5218	2600	1800	Fixed	0	NNE	None
SITTING/HALL /STAIRWELL	ALU-021-01 W	AW5218	2600	1800	Fixed	0	NNE	None
SITTING/HALL /STAIRWELL	ALU-021-01 W	AW0624	600	2400	Fixed	0	NNE	None
SITTING/HALL /STAIRWELL	ALU-009-02 W	AW1024-C	1000	800	Tilt & Turn	90	NNE	None
SITTING/HALL /STAIRWELL	ALU-009-02 W	AW1024-F	1000	800	Tilt & Turn	90	NNE	None
SITTING/HALL /STAIRWELL	ALU-009-02 W	AW1024-A	1000	800	Tilt & Turn	90	NNE	None
SITTING/HALL /STAIRWELL	ALU-021-01 W	AW1024-B	1000	800	Fixed	0	NNE	None
SITTING/HALL /STAIRWELL	ALU-009-02 W	AW1024-D	1000	800	Tilt & Turn	90	NNE	None
SITTING/HALL /STAIRWELL	ALU-021-01 W	AW1024-E	1000	800	Fixed	0	NNE	None
STUDY/THEATRE	ALU-009-02 W	AW1024-L	1000	800	Tilt & Turn	90	SSW	None
STUDY/THEATRE	ALU-009-02 W	AW1024-J	1000	800	Tilt & Turn	90	SSW	None
STUDY/THEATRE	ALU-021-01 W	AW1024-K	1000	800	Fixed	0	SSW	None
STUDY/THEATRE	ALU-009-02 W	AW1024-I	1000	800	Tilt & Turn	90	NNE	None
STUDY/THEATRE	ALU-009-02 W	AW1024-G	1000	800	Tilt & Turn	90	NNE	None
STUDY/THEATRE	ALU-021-01 W	AW1024-H	1000	800	Fixed	0	NNE	None
WC	ALU-009-02 W	AW0606	600	600	Tilt & Turn	90	ESE	None
WC	ALU-009-02 W	AW0606	600	600	Tilt & Turn	90	SSW	None

Roof window *type and performance value*

Default* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

Custom* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
None								

Skylight type and performance

Skylight ID	Skylight description
None	

Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m ²)	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
ENTRY	2400	920	90	SSW
GARAGE	2400	5200	90	WNW

External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
CAV-BRICK-110-110-REN	Cavity Brick Wall - 110mm/110mm Rendered Internally	0.32	Light (Surfmist)	0.71	Yes
FC-REFL-CAV-A	Fibre-Cement Clad Battened (Refl Cavity) Stud Wall	0.73	Dark (Monument)	4.00	Yes
FC-REFL-CAV-B	Fibre-Cement Clad Battened (Refl Cavity) Stud Wall	0.32	Light (Surfmist)	4.00	Yes
REV-VEN-MC-REFLCAV-PB-A	Reverse Brick Veneer - Metal Clad Refl Cavity - PB Internally	0.32	Light (Surfmist)	4.00	Yes
REV-VEN-MC-REFLCAV-PB-B	Reverse Brick Veneer - Metal Clad Refl Cavity - PB Internally	0.73	Dark (Monument)	4.00	Yes

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BATH	FC-REFL-CAV-A	2000	1781	SSW	404	Yes
BED 1	FC-REFL-CAV-B	2700	4730	WNW	1539	Yes
BED 1	FC-REFL-CAV-B	2700	1377	SSW	2559	Yes
BED 2	FC-REFL-CAV-A	2000	3495	SSW	404	Yes
BED 3	FC-REFL-CAV-A	2000	3514	SSW	404	Yes

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
ENS	FC-REFL-CAV-A	2400	3199	SSW		No
ENS	FC-REFL-CAV-B	2700	2482	WNW	2916	Yes
ENS	FC-REFL-CAV-A	2200	2482	ESE		Yes
ENTRY	REV-VEN-MC-REFLCAV-PB-A	2700	2423	WNW		No
ENTRY	REV-VEN-MC-REFLCAV-PB-B	2700	7442	NNE		No
ENTRY	REV-VEN-MC-REFLCAV-PB-A	2700	5820	ESE	14170	Yes
ENTRY	REV-VEN-MC-REFLCAV-PB-A	2700	6498	NNE	5675	Yes
ENTRY	REV-VEN-MC-REFLCAV-PB-A	2700	1576	SSW	7262	Yes
FAMILY/DINING /KITCHEN	REV-VEN-MC-REFLCAV-PB-A	2700	7670	NNE	1878	Yes
FAMILY/DINING /KITCHEN	REV-VEN-MC-REFLCAV-PB-A	2700	4979	ESE		No
FAMILY/DINING /KITCHEN	REV-VEN-MC-REFLCAV-PB-A	2700	868	ESE		No
FAMILY/DINING /KITCHEN	REV-VEN-MC-REFLCAV-PB-A	2700	3797	WNW	5984	Yes
GARAGE	REV-VEN-MC-REFLCAV-PB-A	2850	10987	SSW		No
GARAGE	CAV-BRICK-110-110-REN	2850	5739	WNW	2843	Yes
GARAGE	REV-VEN-MC-REFLCAV-PB-A	2850	1400	ESE		Yes
GUEST BED	REV-VEN-MC-REFLCAV-PB-A	2700	4730	WNW	1379	Yes
GUEST BED	REV-VEN-MC-REFLCAV-PB-A	2700	1377	SSW	2423	Yes
LDRY WIL	REV-VEN-MC-REFLCAV-PB-A	2700	3356	SSW		Yes
LDRY WIL	REV-VEN-MC-REFLCAV-PB-A	2700	2609	ESE		No
SHOE ROOM	FC-REFL-CAV-A	2000	1601	SSW	404	Yes
SITTING/HALL /STAIRWELL	FC-REFL-CAV-B	2700	2423	WNW		No
SITTING/HALL /STAIRWELL	FC-REFL-CAV-A	2700	11446	NNE		No
SITTING/HALL /STAIRWELL	FC-REFL-CAV-A	2700	2532	ESE		Yes
SITTING/HALL /STAIRWELL	FC-REFL-CAV-A	2700	7260	NNE	531	Yes
SITTING/HALL /STAIRWELL	FC-REFL-CAV-B	2700	1576	SSW	7398	Yes
STUDY/THEATRE	FC-REFL-CAV-A	2000	2914	SSW	404	Yes

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
STUDY/THEATRE	FC-REFL-CAV-A	2700	2914	NNE	531	Yes
STUDY/THEATRE	FC-REFL-CAV-A	2700	4730	ESE	61	No
WC	REV-VEN-MC-REFLCAV-PB-A	2700	149	ESE		No
WC	REV-VEN-MC-REFLCAV-PB-A	2700	738	ESE		No
WC	FC-REFL-CAV-A	2000	871	SSW	404	Yes
WIP	REV-VEN-MC-REFLCAV-PB-A	2700	4199	SSW		Yes
WIR	FC-REFL-CAV-A	2000	790	SSW	404	Yes

Internal wall *type*

Wall ID	Wall Type	Area (m ²)	Bulk insulation
INT-PB	Internal Plasterboard Stud Wall	122.1	2.70
INT-PB	Internal Plasterboard Stud Wall	114.5	0.00

Floor *type*

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	TIMB-002: Suspended Timber Floor - Lined Below	4.8	N/A	0.15	Tile
BATH	TIMB-002: Suspended Timber Floor - Lined Below	1.7	N/A	5.00	Tile
BED 1	TIMB-002: Suspended Timber Floor - Lined Below	18.3	N/A	0.15	Carpet
BED 1	TIMB-002: Suspended Timber Floor - Lined Below	0.7	N/A	0.00	Timber
BED 2	TIMB-002: Suspended Timber Floor - Lined Below	5.0	N/A	0.15	Carpet
BED 2	TIMB-002: Suspended Timber Floor - Lined Below	7.7	N/A	5.00	Carpet
BED 3	TIMB-002: Suspended Timber Floor - Lined Below	12.8	N/A	0.15	Carpet
ENS	TIMB-002: Suspended Timber Floor - Lined Below	7.9	N/A	5.00	Tile
ENS GUEST	CSOG-125: Concrete Slab on Ground (125mm)	4.5	N/A	3.50	Tile
ENTRY	CSOG-125: Concrete Slab on Ground (125mm)	33.2	N/A	3.50	Tile
FAMILY/DINING/KITCHEN	CSOG-125: Concrete Slab on Ground (125mm)	57.7	N/A	3.50	Tile
GARAGE	CSOG-125: Concrete Slab on Ground (125mm)	63.1	N/A	3.50	Exposed

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
GUEST BED	CSOG-125: Concrete Slab on Ground (125mm)	13.6	N/A	3.50	Carpet
LDRY WIL	CSOG-125: Concrete Slab on Ground (125mm)	7.0	N/A	3.50	Tile
SHOE ROOM	TIMB-002: Suspended Timber Floor - Lined Below	3.2	N/A	0.15	Carpet
SHOE ROOM	TIMB-002: Suspended Timber Floor - Lined Below	2.7	N/A	5.00	Carpet
SITTING/HALL /STAIRWELL	TIMB-002: Suspended Timber Floor - Lined Below	23.1	N/A	0.15	Tile
SITTING/HALL /STAIRWELL	TIMB-002: Suspended Timber Floor - Lined Below	18.0	N/A	5.00	Tile
STUDY/THEATRE	TIMB-002: Suspended Timber Floor - Lined Below	0.2	N/A	0.15	Timber
STUDY/THEATRE	TIMB-002: Suspended Timber Floor - Lined Below	13.3	N/A	0.15	Carpet
STUDY/THEATRE	TIMB-001: Suspended Timber Floor	0.2	N/A	0.00	Timber
WC	CSOG-125: Concrete Slab on Ground (125mm)	1.4	N/A	3.50	Tile
WC	TIMB-002: Suspended Timber Floor - Lined Below	1.3	N/A	0.15	Tile
WC	TIMB-002: Suspended Timber Floor - Lined Below	0.5	N/A	5.00	Tile
WIP	CSOG-125: Concrete Slab on Ground (125mm)	6.7	N/A	3.50	Carpet
WIR	CSOG-125: Concrete Slab on Ground (125mm)	2.8	N/A	3.50	Carpet
WIR	TIMB-002: Suspended Timber Floor - Lined Below	5.3	N/A	0.15	Carpet
WIR	TIMB-002: Suspended Timber Floor - Lined Below	0.4	N/A	0.00	Timber

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BATH	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
BED 1	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
BED 2	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
BED 3	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
ENS	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
FAMILY/DINING/KITCHEN	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
GARAGE	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes

* Refer to glossary.

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
LDRY WIL	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
SHOE ROOM	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
SITTING/HALL/STAIRWELL	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
STUDY/THEATRE	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
WC	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
WIP	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes
WIR	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	5.00	Yes

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	150	Sealed
ENS	1	Exhaust Fan	150	Sealed
ENS GUEST	1	Exhaust Fan	150	Sealed
FAMILY/DINING/KITCHEN	1	Exhaust Fan	150	Sealed
WC	2	Exhaust Fan	150	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
None		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	1.30	0.73	Dark (Monument)

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).