Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. #HR-8YDC0M-02

Secondary, 59 Lucas Road, East Hills,

Generated on 26 May 2025 using Hero 4.1 (Chenath v3.23)

Property

Address Lot/DP NCC Class* Floor/all Floors Type

2/23623 1a 1 of 1 floors New

NSW. 2213

Plans

Main Plan Prepared by

Fowler Homes

Construction and environment

Assessed floor a	rea (m²)
Conditioned*	43.1
Unconditioned*	6.5
Total	49.6
Garage	0.0

Suburban
NatHERS climate zone

56 - Mascot AMO

Exposure Type



Accredited assessor

Name Business name Email Phone Accreditation No. Assessor Accrediting Organisation Declaration of interest Andrew Conn Frys Energywise andrew@frysenergywise.com.au +61 9899 2825 DMN/24/2222 DMN

No Conflict of Interest

NCC Requirements

BCA provisions State/Territory variation

Yes

Volume 2

National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J2D2(2)(a) and (3) of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance _____star rating



The more stars the more energy efficient

28.8 MJ/m²

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

For more information on your dwelling's rating see: www.nathers.gov.au

Thermal performance (MJ/m²) Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	11.2	17.6
Load limits	25	18

Features determining load limits

Floor type (lowest conditioned area) CSOG NCC climate zone 1 or 2 N Outdoor living area N Outdoor living area ceiling fan N

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate.

Verification

To verify this certificate, scan the QR code or visit http://www.hero-software.com au/pdf/HR-8YDC0M-02.

When using either link, ensure you are visiting http://www.hero-software. com.au





About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating and Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the *ABCB Standard: NatHERS heating and cooling load limits* for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting options:

Floor type:

CSOG - Concrete Slab on Ground SF - Suspended Floor (or a mixture of CSOG and SF) NA - Not Applicable

NCC climate Zone 1 or 2:

Yes

No

NA - Not Applicable

Outdoor living area:

Yes

No

NA - Not Applicable

Outdoor living area ceiling fan:

Yes

No

NA - Not Applicable

Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar.

Energy use:





Cost:



7.1 Star Rating as of 26 May 2025

NATIONWIDE HOUSE

Certificate check	Approva	l stage	Construc stage	tion	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked. Note: The boxes indicate when and who should check each item.	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
It is not mandatory to complete this checklist.	Ass	Cor	Buil	Cor sur	Ő
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?					
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?					
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS- stamped plans or as installed match what is shown in <i>'Window and glazed door</i> <i>schedule'</i> and <i>'Roof window schedule'</i> tables on this Certificate?					
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?					
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the ' <i>External wall type table</i> ' on this Certificate?					
Does the external wall shade (colour) match what is shown in the ' <i>External wall type</i> ' table on this Certificate?					
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the <i>'Floor type'</i> table on this certificate?					
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?					
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the <i>'Ceiling type'</i> table on this Certifi cate?					
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the ' <i>Roof type</i> ' table on this Certificate?					
Apartment entrance doors (NCC Class 2 assessments only)					
Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.					
Exposure*					
Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".					
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown on the NatHERS-stamped plans?					

7.1 Star Rating as of 26 May 2025



Certificate check	Approval	stage	e Construction stage		
Continued	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other

Additional NCC requirements for thermal performance (not included in the NatHERS assessment)

Thermal bridging					
Does the dwelling meet the NCC requirement for thermal bridging?					
Insulation installation method					
Has the insulation been installed according to the NCC requirements?					
Building sealing					
Does the dwelling meet the NCC requirements for Building Sealing?					
Whole of Home performance check (not applicable if a Whole of Home	e assessr	nent is no	ot conduc	cted)	
Appliances					
Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the ' <i>Appliance schedule</i> ' on this Certificate?					
Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the ' <i>Appliance schedule</i> ' on this Certificate?					
Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the ' <i>Appliance schedule</i> ' on this Certificate?					
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the ' <i>Appliance schedule</i> ' on this Certificate?					
Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?					
Additional NCC Requirements for Services (not included in the NatHE	RS asses	ssment)			
Does the lighting meet the artificial lighting requirements specified in the NCC?					
Does the hot water system meet the additional requirements specified in the NCC?					
Provisional values* check					
Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?					
Other NCC requirements					
Note: This Certificate only covers the energy efficiency requirements in the NCC. A include, but are not limited to: condensation, structural and fire safety requirements					

energy efficiency requirements.



Additional Notes

Where not noted on plans, default selections to floor coverings and external colours have been used in this assessment, as noted in the NatHERS Technical Notes. Alternative selections past this point can be made to floor coverings and external colours, without requiring an amended certificate.

Room schedule

Room	Zone Type	Area (m²)
BED 1	Bedroom	10.10
BATH	Unconditioned	6.54
BED 2	Bedroom	10.39
KITCHEN/LIVING	Kitchen/Living	22.56

Window and glazed door type and performance

Default* windows

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

Custom* windows

Window ID Window Des	Window Description	Maximum	SHGC*	SHGC sub tolerance	
		U-value*		lower limit	upper limit
TND-001-001	Trend AI Sliding Window	6.5	0.73	0.70	0.77
TND-017-001	Aluminium Sliding Door	6.4	0.73	0.70	0.77
TND-017-021	Aluminium Sliding Door	4.7	0.52	0.49	0.54

Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient- ation	Shading device*
BATH	TND-001-001	W45	1030	850	Sliding	45	S	None
BED 1	TND-001-001	W27	1200	1810	Sliding	45	Ν	None
BED 2	TND-001-001	W46	1200	1810	Sliding	45	E	None
KITCHEN/LIVING	TND-001-001	W43	1200	1810	Sliding	45	Ν	None
KITCHEN/LIVING	TND-017-001	SD44	2400	1810	Sliding Door	45	E	None
KITCHEN/LIVING	TND-017-021	SD47	2400	2170	Sliding Door	45	W	None



Roof window type and performance value

Default* roof windows

Default [*] roof								SHGC sub	
Window ID	Winde	ow Descriptio	n			Maximun U-value*	SHGC	tolerance r	
								lower limit	upper limit
lone									
Custom* roo	of windows								
						Maximun	n	SHGC subs tolerance r	
Window ID	Wind	ow Description	n			U-value*	SHGC*	lower limit	
None									
Roof win	ndow sch	nedule							
Location	Wind	dow	Window no.	Opening %	Height (mm)	Width (mm)	Orient- ation	Outdoor shade	Indoor shade
None			110.	70	(1111)	()	ution	Shuue	Shade
Skylight ID	type and	i periorne	Skylight de	scription					
Skylight ID None Skylight	schedule Skylight	e Skylight	Skylight de Skylight shaft	Area C	Prient-	Outdoor	Diffuse	Shaft Reflec	fance
Skylight ID None Skylight Location	schedule	9	Skylight de	Area C		Outdoor shade	Diffuse	r Shaft r Reflec	tance
Skylight ID None Skylight Location None	<i>schedule</i> Skylight ID	e Skylight No.	Skylight de Skylight shaft	Area C			Diffuse	r	tance
Skylight ID None Skylight Location None External	<i>schedule</i> Skylight ID	e Skylight No.	Skylight de Skylight shaft	Area C (m²) a		shade	Diffuse Diffuse	r	
Skylight ID None Skylight Location None External Location	<i>schedule</i> Skylight ID	e Skylight No.	Skylight de Skylight shaft length (mm)	Area C (m²) a	tion	shade		r Reflec	
Skylight ID Skylight ID None Skylight Location None External Location None External	schedule Skylight ID door sc	e Skylight No.	Skylight de Skylight shaft length (mm)	Area C (m²) a	tion	shade		r Reflec	
Skylight ID None Skylight Location None External Location None	schedule Skylight ID door sc	e Skylight No.	Skylight de Skylight shaft length (mm)	Area C (m²) a	tion Width (mi Solar	shade m) C V		r Reflec	tation
Skylight ID None Skylight Location None External Location None External Wall ID	schedule Skylight ID door sca wall type	e Skylight No. hedule e Wall Type	Skylight de Skylight shaft length (mm)	Area C (m²) a	tion Width (mr Solar absor	shade m) C v rptance C	Opening %	r Reflec Orient Bulk insulation	tation Reflectiv wall
Skylight ID None Skylight Location None External Location None External Wall ID BV-NONREF	schedule Skylight ID door sca wall type	e Skylight No. hedule e Wall Type Brick Veneer Sarking	Skylight shaft Iength (mm) Height	Area C (m²) a	tion Width (mi Solar absor	shade m) C v rptance C	Opening % Vall Colour	r Reflec Orient Bulk insulation (R-value)	tation Reflectiv wall wrap*

2740

2592

S

583

* Refer to glossary. Generated on 26 May 2025 using Hero 4.1 for Secondary, 59 Lucas Road, East Hills, NSW, 2213

BV-NONREFL-CAV

BATH

Yes



External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orient- ation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED 1	BV-NONREFL-CAV	2740	3666	S	583	Yes
BED 1	BV-NONREFL-CAV	2740	2991	W	603	Yes
BED 1	BV-NONREFL-CAV	2740	3012	Ν	3210	Yes
BED 2	BV-NONREFL-CAV	2740	3741	S	583	Yes
BED 2	BV-NONREFL-CAV	2740	2778	E	1381	Yes
KITCHEN/LIVING	BV-NONREFL-CAV	2740	7853	Ν	589	Yes
KITCHEN/LIVING	BV-NONREFL-CAV	2740	2724	E	556	Yes
KITCHEN/LIVING	BV-NONREFL-CAV	2740	825	S	3471	Yes
KITCHEN/LIVING	BV-NONREFL-CAV	2740	2621	W	3746	Yes

Internal wall type

Wall ID	Wall Type	Area (m²)	Bulk insulation
INT-PB	Internal Plasterboard Stud Wall	31.8	0.00

Floor type

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	WAFFLE-85: Concrete Waffle Pod Slab on Ground (85mm)	6.5	N/A	0.59	Tile (8mm)
BED 1	WAFFLE-85: Concrete Waffle Pod Slab on Ground (85mm)	10.1	N/A	0.59	Carpet
BED 2	WAFFLE-85: Concrete Waffle Pod Slab on Ground (85mm)	10.4	N/A	0.59	Carpet
KITCHEN/LIVING	WAFFLE-85: Concrete Waffle Pod Slab on Ground (85mm)	22.6	N/A	0.59	Tile (8mm)

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BATH	ATTIC-CONCTILE-01: Pitched / Attic Conc Tiled Roof (Roofspace) & Flat PB Ceiling	2.50	Yes
BATH	ATTIC-CONCTILE-01: Pitched / Attic Conc Tiled Roof (Roofspace) & Flat PB Ceiling	6.00	Yes
BED 1	ATTIC-CONCTILE-01: Pitched / Attic Conc Tiled Roof (Roofspace) & Flat PB Ceiling	2.50	Yes



Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 1	ATTIC-CONCTILE-01: Pitched / Attic Conc Tiled Roof (Roofspace) & Flat PB Ceiling	6.00	Yes
BED 2	ATTIC-CONCTILE-01: Pitched / Attic Conc Tiled Roof (Roofspace) & Flat PB Ceiling	2.50	Yes
BED 2	ATTIC-CONCTILE-01: Pitched / Attic Conc Tiled Roof (Roofspace) & Flat PB Ceiling	6.00	Yes
KITCHEN/LIVING	ATTIC-CONCTILE-01: Pitched / Attic Conc Tiled Roof (Roofspace) & Flat PB Ceiling	2.50	Yes
KITCHEN/LIVING	ATTIC-CONCTILE-01: Pitched / Attic Conc Tiled Roof (Roofspace) & Flat PB Ceiling	6.00	Yes

Ceiling penetrations*

Location	Quantity	Туре	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
KITCHEN/LIVING	1	Exhaust Fan	350	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
KITCHEN/LIVING	1	1200

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
ATTIC-CONCTILE-01: Pitched / Attic Conc Tiled Roof (Roofspace) & Flat PB Ceiling	0.00	0.50	Medium

Thermal bridging schedule for steel frame elements

Building element	Steel section dimensions	Frame spacing	Steel thickness	Thermal Break
	(height x width, mm)	(mm)	(BMT mm)	(R-value)
None				

Appliance schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Cooling system

Туре	Location	Minim Fuel Type efficie perfor	Recommended	
No Whole of Hor	ne Data			

No Whole of Home Data



Assessed

Heating system

Туре	Location	Fuel Type	Minimum efficiency / performance	Recommended capacity
No Whole of Home Data				
Hot water system				

Type	Fuel type

Туре	Fuel type	Water CER Zone	efficiency / STC	daily load [litres]
No Whole of Home Data				

Hot

Minimum

Pool / spa equipment

Туре	Fuel type	Minimum efficiency / performance	Recommended capacity

No Whole of Home Data

Onsite Renewable Energy schedule

Туре	Orientatation	Generation Capacity [kW]
No Whole of Home Data		

Storage Capacity [kWh]

Battery schedule

Туре	
No Whole of Home Data	



Explanatory Notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary.

Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and

Glossary

are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

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

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

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.	
AFRC	Australian Fenestration Rating Council	
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.	
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.	
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.	
СОР	Coefficient of performance	
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.	
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.	
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input	
Energy use	This is your homes rating without solar or batteries.	
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).	
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.	
Exposure	see exposure categories below	
Exposure category - exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).	
Exposure category - open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).	
Exposure category - 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.	
Net zero home	a home that achieves a net zero energy value*.	
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.	
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au	
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably gualified person.	
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.	
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.	
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.	
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.	
STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Sma scale Renewable Energy Scheme operated by the Clean Energy Regulatory	
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials su as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.	
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.	
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions	
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).	
Window shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)	

* Refer to glossary.