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Energy Efficiency Report

Address:

Unit 2, Lot 1 (#4B) Holloway Place, Curl Curl NSW 2096

GC Consulting Job Number:

ER1-T4057_Unit 2

Client Job Number:

24-1120

Building Type and Function:

Class 1 - New Home

Date:

24/06/2025

Assessment Method and Documentation:

NCC 2022 Volume Two - Amendment One

Compliance with Part H6 Energy Efficiency

Comprehensive Report indicating the final compliance outcome as assessed

Thermal Performance

Achieved Rating

Total (MJ/m ²)	30
Heating (MJ/m ²)	20.7
Cooling (MJ/m ²)	9.2

Target Rating

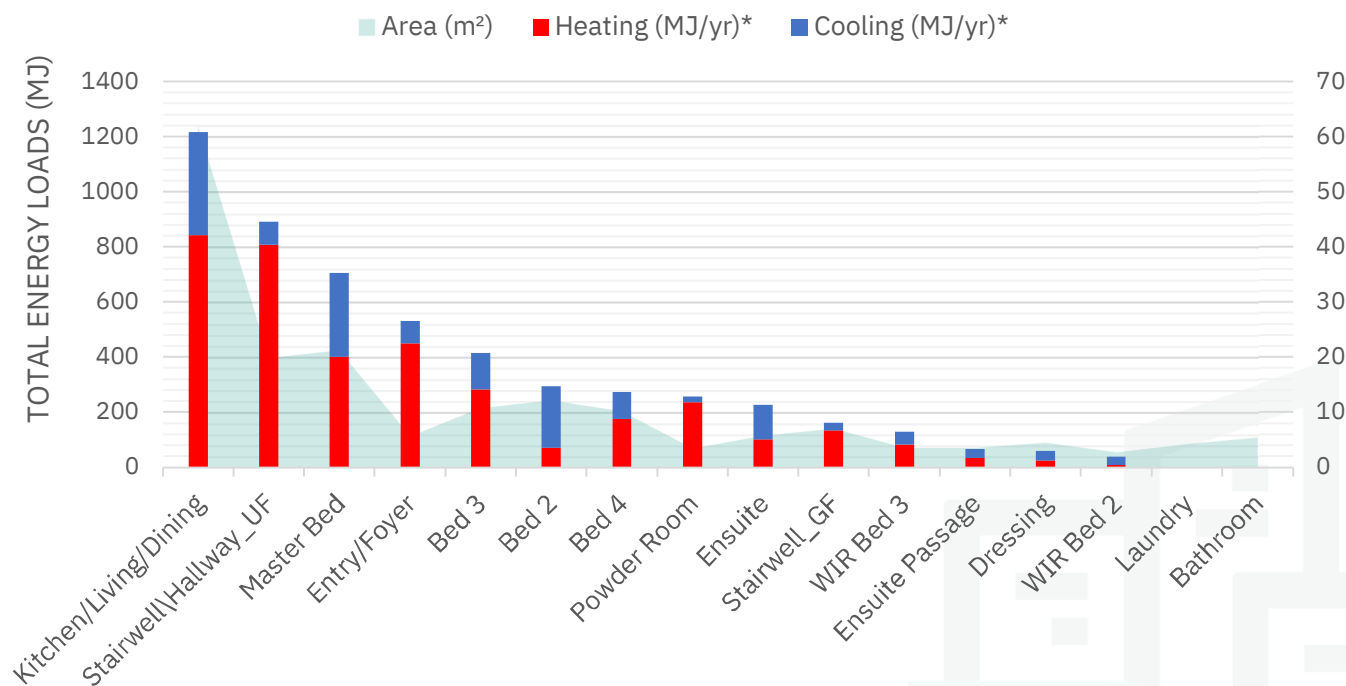
Total (MJ/m ²)	30
Heating (MJ/m ²)	25.0
Cooling (MJ/m ²)	18.0

7.0 Stars

Compliance is achieved when the following conditions are met:

1. The heating load must be equal to or lower than the heating load limit.
2. The cooling load must be equal to or lower than the cooling load limit.
3. The total energy must be equal to or lower than the total energy limit.

ZONED ENERGY LOAD DISTRIBUTION TOTALS (MJ)



1300 864 944

energy@greenchoiceconsulting.com.au

Construction Requirements

External Walls

Construction	Insulation	Frame	Notes
Hebel Panel/AAC	R2.5 Insulation + Wrap	Timber Frame	As per drawings
Framed	R2.5 Insulation + Wrap	Timber Frame	As per drawings
Partiwall	R2.0 Insulation	Timber Frame	As per drawings

Internal Walls

Construction	Insulation	Notes
Partiwall	R2.0 Insulation	As per drawings
Stud Frame	R2.0 Insulation	Laundry & Bath
Stud Frame	None	Remainder

Floor/s

Construction	Underfloor Insulation	Slab Edge Insulation	Notes
Concrete Slab-on-Ground	None	None	Ground Floor
Framed Suspended	None	None	Suspended Floors

Floor coverings as per drawings/client notes (NatHERS Defaults modelled if not specified)

Ceiling/s

Construction	Insulation	Notes
Plasterboard	R4.0 Insulation	Throughout
Plasterboard	R3.0 Insulation	To the ceiling perimeter

Roof/s

Construction	Insulation	Notes	Colour
Metal	R1.3 Anticon	As per drawings	Not nominated

Penetrations

Penetrations
If downlights are installed, they must be IC/IC-F rated
Exhaust fans must be sealed
One ceiling fan to the Kitchen/Living with a minimum diameter of 1200mm

Glazing

Supplier					
Not nominated - NatHERS / WERSLink defaults have been used					

Type	Colour	U-Value	SHGC	Glass	Notes
Sliding Windows	Not nominated	6.45	0.73	Single Glazed	As per documentation
Fixed Windows	Not nominated	6.46	0.78	Single Glazed	As per documentation
Sliding Doors	Not nominated	6.41	0.73	Single Glazed	As per documentation
Louvre Windows	Not nominated	6.19	0.45	Single Glazed	As per documentation
Fixed Windows	Not nominated	4.48	0.46	Low-E	As per documentation
Sliding Doors	Not nominated	4.49	0.46	Low-E	As per documentation

The U-Value of the supplied product must be equal to or lower than the above nominated values.

A 5% tolerance is permitted to the above nominated SHGC values.

Your NatHERS Certificate may show codes for other suppliers. Suppliers may not have all their windows available in the software.

Contact us if your supplier cannot meet the values above.

Additional Notes

Declaration of Compliance

I certify that the details provided within this energy efficiency report are true, correct, and reflective of the plans and specifications of this dwelling. I certify that I am a specialist in the relevant discipline and compliance has been demonstrated with the requirements of the National Construction Code (NCC) as outlined in this report.

Name of assessor: Albert Burton
Qualification: CPP41212 Certificate IV in NatHERS Assessment
Accreditation number: DMN/21/2045
Signature: *Albert Burton*
Company Name: Green Choice Consulting Pty Ltd (ABN 63 658 893 415)

Additional Provisions

This assessment demonstrates compliance with Part H6 of the NCC. Calculations have been done using Hero and the Chenath Engine (v3.22).

- (1) Building must comply with Section 13 of the ABCB Housing Provisions clauses—
 - (a) 13.2.2, for building fabric thermal insulation; and
 - (b) 13.2.3(7) and 13.2.5(5), for thermal breaks; and
 - (c) 13.2.3(5), for compensating for a loss of ceiling insulation, other than where the house energy rating software has compensated for a loss of ceiling insulation; and
 - (d) 13.2.6(4), 13.2.6(5) and 13.2.6(6) for floor edge insulation; and
 - (e) Part 13.4, for building sealing
- (2) To comply with H6P2, in addition to S42C3, a building must comply with Part 13.7 of the ABC Housing Provisions.

Services must be installed as per Part 13.7.

All metal roof framing must have a thermal break, consisting of a material with an R-Value of greater than or equal to 0.2, installed between the metal sheet roofing and its supporting metal purlins, metal rafters or metal battens.

All metal wall framing must have a thermal break, consisting of a material with an R-Value greater than or equal to 0.2, installed between the external cladding and the metal frame.

State-Specific Provisions

QLD only provisions (only applies for projects in QLD)

In accordance with the Queensland Development Code Part 4.1—

For applying S42C2 of Specification 42 of the BCA, a reference to climate zones 1 and 2 is taken to be a reference to climate zones 1, 2, 3 or 5.

Toilet cisterns must have a dual flush function, minimum 4-star WELS rating and be compatible with the size of the toilet bowl to allow for proper functioning of the toilet.

WA only provisions (only applies for projects in WA)

All tap fittings other than bath outlets and garden taps must be a minimum of 4 stars WELS rated.

All showerheads must be a minimum of 3 stars WELS rated.

All sanitary flushing systems must be a minimum of 4 stars WELS rated dual flush.

An outdoor private swimming pool or spa associated with a Class 1 building must be supplied with a cover, blanket or the like that is designed to reduce water evaporation and is accredited under the Smart Approved Watermark Scheme governed by the Australian Water Association, the Irrigation Association of Australia, the Nursery and Garden Industry Australia and the Water Services Association of Australia.

All internal heated water outlets (such as taps, showers and washing machine water supply fittings) must be connected to a heated water system or a re-circulating heated water system with pipes installed and insulated in accordance with AS/NZS 3500: Plumbing and Drainage, Part 4 Heated Water Services. The pipe from the heated water system or re-circulating heated water system to the furthest heated water outlet must not be more than 20 m in length or 2 liters of internal volume.

NSW only provisions (only applies for projects in NSW)

All requirements in this report are in accordance with the BASIX requirements.

All insulation must be installed as per NSW H6P1.

Building must be sealed as per NSW H6P2.

Domestic services must be selected and have features as per NSW H6P3.

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Nationwide House Energy Rating Scheme®

NatHERS® Certificate No. #HR-UCEJRX-01

Generated on 24 Jun 2025 using Hero 4.1 (Chenath v3.23)

Property

Address Unit 2, Lot 1 (#4B) Holloway Place, Curl
Curl, NSW, 2096

Lot/DP 1/604615

NCC Class* 1a

Floor/all Floors 1 of 2 floors

Type New

Plans

Main Plan 24-1120

Prepared by Peninsula Homes

Construction and environment

Assessed floor area (m²)*	Exposure Type
Conditioned* 168.9	Suburban
Unconditioned* 9.8	NatHERS climate zone
Total 178.7	56 - Mascot AMO
Garage 0.0	



Accredited assessor

Name Albert Burton

Business name Green Choice Consulting

Email albert@greenchoiceconsulting.com.au

Phone +61 045219132

Accreditation No. DMN/21/2045

Assessor Accrediting Organisation DMN

Declaration of interest No Conflict of Interest

NCC Requirements

BCA provisions Volume 2

State/Territory variation Yes

National Construction Code (NCC) requirements

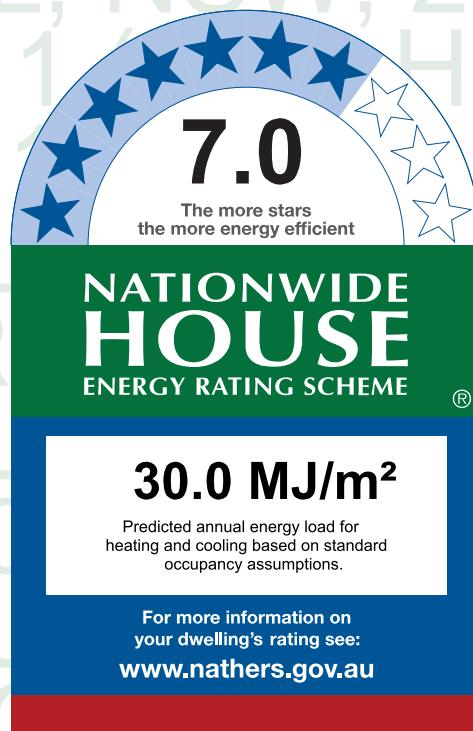
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two.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



Thermal performance (MJ/m²)

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	20.7	9.2
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-UCEJRX-01>

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



* Refer to glossary.

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:

No Whole of Home performance assessment conducted for this certificate.

Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole of Home performance assessment conducted for this certificate.

Certificate check

The checklist covers important items impacting the dwelling's ratings.

It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and who should check each item.

It is not mandatory to complete this checklist.

Approval stage		Construction stage		
Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other

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 'Window and glazed door schedule' and 'Roof window schedule' 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 'External wall type table' on this Certificate?

☐☐☐☐☐

Does the external wall shade (colour) match what is shown in the 'External wall type' 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 'Floor type' 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 'Ceiling type' table on this Certificate?

☐☐☐☐☐

Roof

Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?

☐☐☐☐☐

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?

☐☐☐☐☐

* Refer to glossary.

Certificate check

Continued

Approval stage		Construction stage		
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?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Insulation installation method

Has the insulation been installed according to the NCC requirements?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Whole of Home performance check (not applicable if a Whole of Home assessment is not conducted)

Appliances

Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional NCC Requirements for Services (not included in the NatHERS assessment)

Does the lighting meet the artificial lighting requirements specified in the NCC?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the hot water system meet the additional requirements specified in the NCC?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Provisional values* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	<input type="checkbox"/>	<input type="checkbox"/>			
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Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Room schedule

Room	Zone Type	Area (m ²)
Kitchen/Living/Dining	Kitchen/Living	61.92
Powder Room	Day Time	3.46
Laundry	Unconditioned	4.30
Bed 4	Bedroom	10.29
Stairwell_GF	Day Time	7.13
Entry/Foyer	Day Time	5.68
Master Bed	Bedroom	21.31
Ensuite Passage	Night Time	3.58
Dressing	Night Time	4.63
Ensuite	Night Time	5.76
WIR Bed 2	Night Time	2.79
Bed 2	Bedroom	12.24
Stairwell\Hallway_UF	Day Time	19.91
Bathroom	Unconditioned	5.47
Bed 3	Bedroom	10.92
WIR Bed 3	Night Time	3.73

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
HAFWS-045-045	Housing Aluminium Fixed Window Single Glazed	4.5	0.46	0.44	0.48
HAFWS-065-077	Housing Aluminium Fixed Window Single Glazed	6.5	0.78	0.74	0.82
HALWS-065-045	Housing Aluminium louvre Window Single Glazed	6.2	0.45	0.43	0.47
HASDS-045-045	Housing Aluminium Sliding Door Single Glazed	4.5	0.46	0.44	0.48

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
HASDS-065-077	Housing Aluminium Sliding Door Single Glazed	6.4	0.73	0.70	0.77
HASWS-065-077	Housing Aluminium Sliding Window Single Glazed	6.5	0.73	0.70	0.77

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit

None

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
Bathroom	HASWS-065-077	W15	600	2410	Sliding	10	SSE	None
Bed 2	HASWS-065-077	W11	1200	1570	Sliding	10	WSW	None
Bed 3	HAFWS-065-077	W14	1200	1970	Fixed	0	SSE	None
Bed 3	HALWS-065-045	W13	1200	610	Louvre	90	SSE	None
Bed 4	HAFWS-065-077	W03	1200	1970	Fixed	0	SSE	None
Bed 4	HALWS-065-045	W04	1200	610	Louvre	90	SSE	None
Ensuite	HASWS-065-077	W10	450	2350	Sliding	10	WSW	None
Entry/Foyer	HAFWS-065-077	W01	2200	325	Fixed	0	SSE	None
Entry/Foyer	HAFWS-065-077	W02	2200	325	Fixed	0	SSE	None
Kitchen/Living/Dining	HASDS-045-045	W06	2100	2170	Sliding Door	45	WSW	None
Kitchen/Living/Dining	HAFWS-045-045	W07	300	1800	Fixed	0	WSW	None
Kitchen/Living/Dining	HASDS-045-045	W08	2250	3790	Sliding Door	45	NNW	None
Laundry	HALWS-065-045	W05	1200	610	Louvre	90	NNW	None
Master Bed	HASDS-065-077	W09	2250	3750	Sliding Door	45	NNW	None
WIR Bed 3	HALWS-065-045	W12	1200	610	Louvre	90	NNW	None

* Refer to glossary.



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)	Orient-ation	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 (m²)	Orient-ation	Outdoor shade	Diffuser	Shaft Reflectance
None								

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Entry/Foyer	2200	820	90	SSE

External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
AAC-50-REFL-CAV	AAC (50mm) Clad (Refl Cavity) Stud Wall	0.50	Medium	2.50	Yes
FC-REFL-CAV	Fibre-Cement Clad Battened (Refl Cavity) Stud Wall	0.50	Medium	2.50	Yes
P-PARTI	Partiwall	0.50	Medium	4.00	No

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orient-ation	Horizontal shading feature* projection (mm)	Vertical shading feature
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* Refer to glossary.



External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
Bathroom	AAC-50-REFL-CAV	2450	3671	SSE	1266	Yes
Bed 2	AAC-50-REFL-CAV	2450	3490	WSW	1541	Yes
Bed 3	FC-REFL-CAV	2450	1978	SSE	580	Yes
Bed 3	FC-REFL-CAV	2450	758	WSW	1557	Yes
Bed 3	AAC-50-REFL-CAV	2450	913	SSE	1275	Yes
Bed 3	AAC-50-REFL-CAV	2450	3261	WSW	580	Yes
Bed 3	FC-REFL-CAV	2450	750	ENE	580	Yes
Bed 4	FC-REFL-CAV	2950	1973	SSE		Yes
Bed 4	FC-REFL-CAV	2950	762	WSW		Yes
Bed 4	AAC-50-REFL-CAV	2950	919	SSE		Yes
Bed 4	AAC-50-REFL-CAV	2950	3041	WSW		Yes
Bed 4	FC-REFL-CAV	2950	760	ENE		Yes
Ensuite	AAC-50-REFL-CAV	2450	3361	WSW	1541	Yes
Entry/Foyer	AAC-50-REFL-CAV	2950	3676	SSE		Yes
Kitchen/Living/Dining	P-PARTI	2950	3714	ENE		Yes
Kitchen/Living/Dining	AAC-50-REFL-CAV	2950	10822	WSW		Yes
Kitchen/Living/Dining	AAC-50-REFL-CAV	2950	5722	NNW	2133	Yes
Laundry	AAC-50-REFL-CAV	2950	1489	WSW		Yes
Laundry	AAC-50-REFL-CAV	2950	960	NNW		Yes
Master Bed	AAC-50-REFL-CAV	2450	3731	WSW	1541	Yes
Master Bed	AAC-50-REFL-CAV	2450	5711	NNW	3341	Yes
Master Bed	P-PARTI	2450	3731	ENE	601	Yes
WIR Bed 3	AAC-50-REFL-CAV	2450	1290	WSW	582	Yes
WIR Bed 3	AAC-50-REFL-CAV	2450	959	NNW	14254	Yes

* Refer to glossary.

Internal wall type

Wall ID	Wall Type	Area (m ²)	Bulk insulation
INT-PB	Internal Plasterboard Stud Wall	27.9	2.00
INT-PB	Internal Plasterboard Stud Wall	103.1	0.00
P-PARTI	Partiwall	62.6	4.00

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bathroom	TIMB-001: Suspended Timber Floor	5.4	N/A	0.15	Tile (8mm)
Bed 2	TIMB-001: Suspended Timber Floor	12.2	N/A	0.15	Timber (12mm)
Bed 3	TIMB-001: Suspended Timber Floor	10.9	N/A	0.15	Timber (12mm)
Bed 4	CSOG-100: Concrete Slab on Ground (100mm)	10.3	N/A	0.15	Carpet
Dressing	TIMB-001: Suspended Timber Floor	4.6	N/A	0.15	Timber (12mm)
Ensuite	TIMB-001: Suspended Timber Floor	5.8	N/A	0.15	Tile (8mm)
Ensuite Passage	TIMB-001: Suspended Timber Floor	3.6	N/A	0.15	Timber (12mm)
Entry/Foyer	CSOG-100: Concrete Slab on Ground (100mm)	5.7	N/A	0.15	Carpet
Kitchen/Living/Dining	CSOG-100: Concrete Slab on Ground (100mm)	61.9	N/A	0.15	Tile (8mm)
Laundry	CSOG-100: Concrete Slab on Ground (100mm)	4.3	N/A	0.15	Tile (8mm)
Master Bed	TIMB-001: Suspended Timber Floor	21.3	N/A	0.15	Timber (12mm)
Powder Room	CSOG-100: Concrete Slab on Ground (100mm)	3.5	N/A	0.15	Tile (8mm)
Stairwell\Hallway_UF	TIMB-001: Suspended Timber Floor	19.9	N/A	0.15	Timber (12mm)
Stairwell_GF	CSOG-100: Concrete Slab on Ground (100mm)	7.1	N/A	0.15	Carpet
WIR Bed 2	TIMB-001: Suspended Timber Floor	2.8	N/A	0.15	Timber (12mm)
WIR Bed 3	TIMB-001: Suspended Timber Floor	3.7	N/A	0.15	Timber (12mm)

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
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Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
Bathroom	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	4.00	Yes
Bathroom	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	3.00	Yes
Bed 2	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	4.00	Yes
Bed 2	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	3.00	Yes
Bed 3	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	4.00	Yes
Bed 3	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	3.00	Yes
Dressing	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	4.00	Yes
Ensuite	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	4.00	Yes
Ensuite	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	3.00	Yes
Ensuite Passage	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	4.00	Yes
Master Bed	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	3.00	Yes
Master Bed	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	4.00	Yes
Stairwell\Hallway_UF	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	4.00	Yes
WIR Bed 2	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	4.00	Yes
WIR Bed 3	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	4.00	Yes
WIR Bed 3	ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	3.00	Yes

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
Bathroom	2	Downlight	100	Sealed
Bathroom	1	Exhaust Fan	350	Sealed
Bed 2	3	Downlight	100	Sealed
Bed 3	3	Downlight	100	Sealed
Bed 4	3	Downlight	100	Sealed
Dressing	1	Downlight	100	Sealed

* Refer to glossary.

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
Ensuite	2	Downlight	100	Sealed
Ensuite	1	Exhaust Fan	350	Sealed
Ensuite Passage	1	Downlight	100	Sealed
Entry/Foyer	2	Downlight	100	Sealed
Kitchen/Living/Dining	1	Exhaust Fan	350	Sealed
Kitchen/Living/Dining	13	Downlight	100	Sealed
Laundry	1	Downlight	100	Sealed
Master Bed	3	Downlight	100	Sealed
Powder Room	1	Downlight	100	Sealed
Powder Room	1	Exhaust Fan	350	Sealed
Stairwell\Hallway_UF	4	Downlight	100	Sealed
Stairwell_GF	2	Downlight	100	Sealed
WIR Bed 2	1	Downlight	100	Sealed
WIR Bed 3	1	Downlight	100	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
Kitchen/Living/Dining	1	1200

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
ATTIC-METAL-01: Pitched / Attic Metal Roof (Roofspace) & Flat PB Ceiling	1.30	0.50	Medium

Thermal bridging *schedule for steel frame elements*

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

Appliance *schedule*

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



Cooling system

Type	Location	Fuel Type	Minimum efficiency / performance	Recommended capacity
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No Whole of Home Data

Heating system

Type	Location	Fuel Type	Minimum efficiency / performance	Recommended capacity
------	----------	-----------	----------------------------------	----------------------

No Whole of Home Data

Hot water system

Type	Fuel type	Hot Water CER Zone	Minimum efficiency / STC	Assessed daily load [litres]
------	-----------	--------------------	--------------------------	------------------------------

No Whole of Home Data

Pool / spa equipment

Type	Fuel type	Minimum efficiency / performance	Recommended capacity
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No Whole of Home Data

Onsite Renewable Energy *schedule*

Type	Orientatation	Generation Capacity [kW]
------	---------------	--------------------------

No Whole of Home Data

Battery *schedule*

Type	Storage Capacity [kWh]
------	------------------------

No Whole of Home Data

* Refer to glossary.

Explanatory Notes

About this report

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

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

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

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

Accredited assessors

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

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

are not quality assured.

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

Disclaimer

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

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

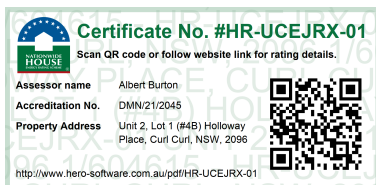
Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

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

Glossary

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.
COP	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 home's 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 qualified 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 Small-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 such 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)

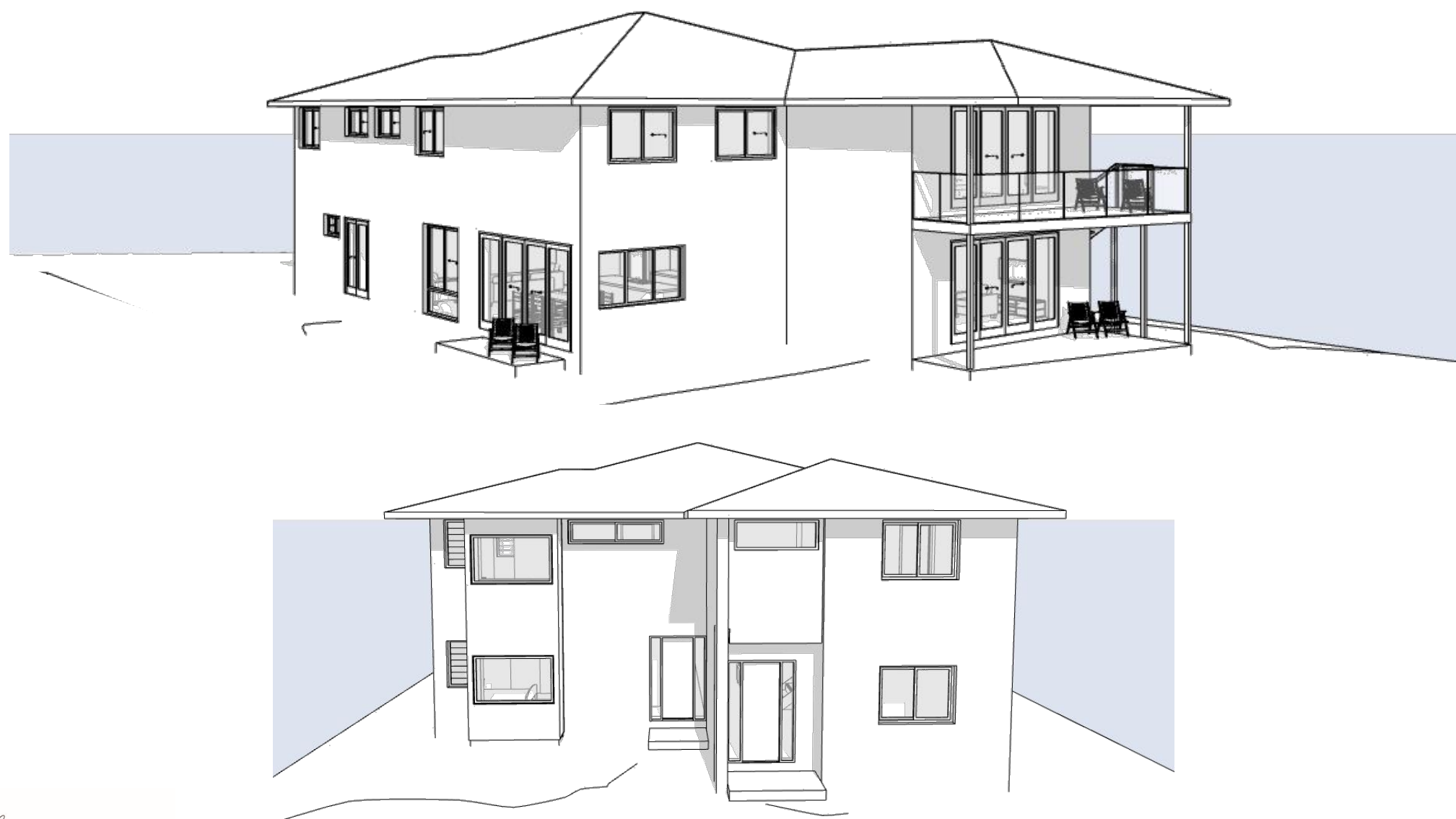
* Refer to glossary.



PROPOSED RESIDENCES

Michelle + Shaun Walsh

4B Holloway Place CURL CURL NSW 2096



Northern Beaches

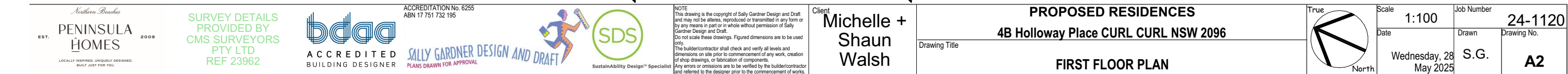
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SALLY GARDNER DESIGN AND DRAFT
PLANS DRAWN FOR APPROVAL







Certificate No. #HR-UCEJRX-01

Scan QR code or follow website link for rating details.

Assessor name

Albert Burton


Accreditation No.

DMNZ1/2045

Property Address

Unit 2, Lot 1 (#4B) Holloway Place, Curl Curl, NSW, 2096

http://www.hero-software.com.au/pdf/HR-UCEJRX-01

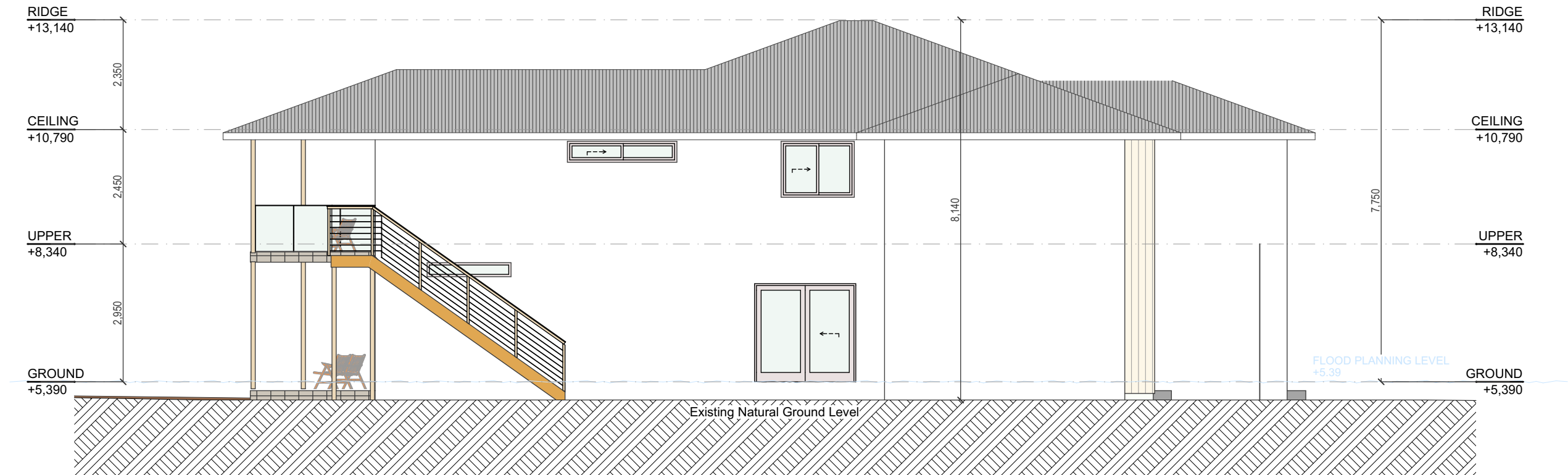




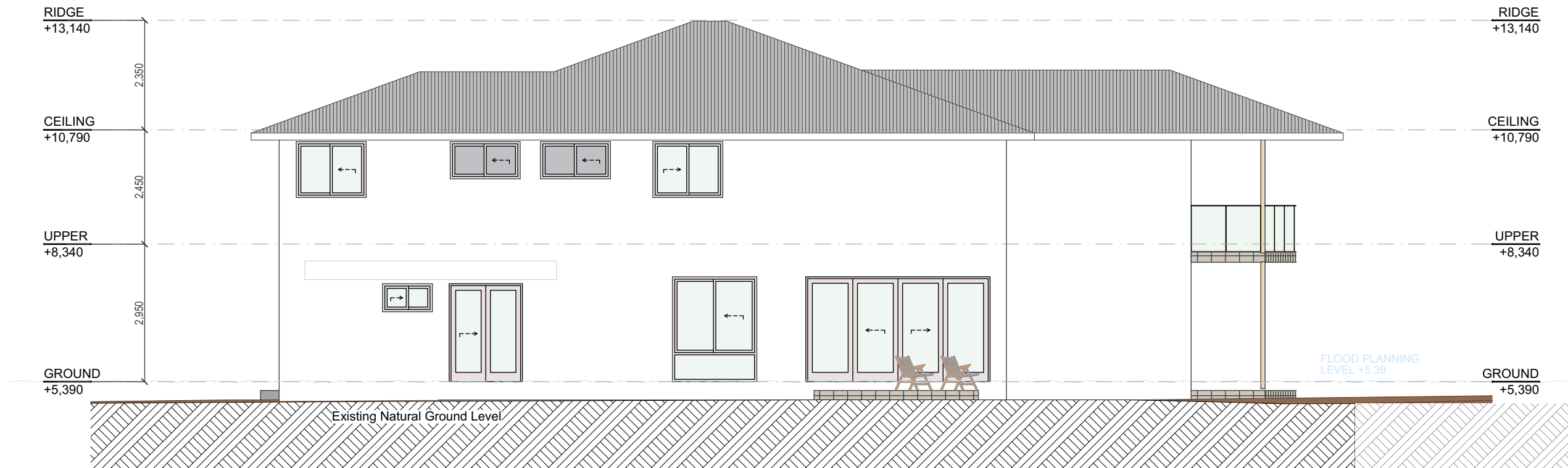
SOUTHERN ELEVATION



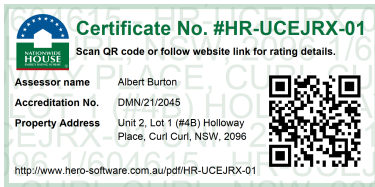
NORTHERN ELEVATION



WESTERN ELEVATION




EASTERN ELEVATION



SITE CALCULATIONS

Site Area		1029 m2 Gross Site Area	
783.16 m2 Nett Site Area		245.84 m2	Access Handle
Residence			CONTROL
Driveway			
pool water	32.2 m2		
included in Landscaping			
Pervious			
Landscaping (of Nett Site Area)	314.63	40.17%	313.264 m2 40%



Certificate No. #HR-UCEJRX-01

Scan QR code or follow website link for rating details.

Assessor name Albert Burton

Accreditation No. DMN/21/2045

Property Address Unit 2, Lot 1 (#4B) Holloway Place, Curl Curl, NSW, 2096

<http://www.hero-software.com.au/pdf/HR-UCEJRX-01>

